ATTACHMENT D2

ARI JOB TX57

SLIP 4 PACKAGE

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Client: Integral Consulting, Inc. Project: A0006-14L Slip 4 Early Action Area

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Signature

December-02-2011
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

December 12, 2011

Kimberly Magruder-Carlton
Integral Consulting
411 1st Avenue S, Suite 550
Seattle, WA 98104

RE: A0006-14L, Slip 4 Early Action Area
ARI Job: TX57

Dear Kim;

Please find enclosed the original Chain-of-Custody (COC) records, sample receipt documentation, and the final data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
-For-
Susan D. Dunnihoo
Director, Client Services
sue@arilabs.com
206-695-6207

Enclosures

cc: eFile TX57

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

Chain of Custody Documentation

ARI Job ID: TX57

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: TX57	Turn-around Requested: STANDARD	Page: 1 of 2	
ARI Client Company: INTEGRAL	Phone:	Date: 11/16/11	Ice Present? Y
Client Contact: KIM MAGRUDER CARLTON		No. of Coolers: 2	Cooler Temps: ~~4.5~~, 3.8, 4.3
Client Project Name: SLIP 4 EARLY ACTION AREA			
Client Project #: A0006-14L	Samplers: B. LAWRENCE, J. SEXTON		

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	Tag #	Date	Time	Matrix	No. Containers	Analysis Requested: TOC	Metals	PCB Aroclors	SVOCs					Notes/Comments
SD0012	1103-1106	11/14/11	1725	SD	4	X	X	X	X					
SD0013	1111-1114		1735		4									
SD0014	1099-1102		1654		4									
SD0015	1095-1098, 1107-1110		1640		8									Add'l Vol Lab QA/QC
SD0016	1083-1086		1330		4									
SD0017	1091-1094		1610		4									
SD0018	1055-1058		1130		4									
SD0019	1047-1050		1037		4									
SD0020	1051-1054		1057		4									
SD0021	1079-1082		1319		4									

Comments/Special Instructions	Relinquished by (Signature)	Received by (Signature)	Relinquished by (Signature)	Received by (Signature)
Analyze per work order #A0006-14L-ARI-01	Printed Name: Bill Lawrence	Printed Name: Jennifer Millsap	Printed Name	Printed Name
	Company: Integral	Company: ARI	Company	Company
	Date & Time: 11/16/11 1350	Date & Time: 11/16/11 1350	Date & Time	Date & Time:

TX57

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.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: TX57	Turn-around Requested:	Page: 2 of 2	
ARI Client Company: INTEGRAL	Phone:	Date: 11/16/11	Ice Present? Y
Client Contact: KIM MAGRUDER CARLTON		No. of Coolers: 2	Cooler Temps: 4.3, 3.8
Client Project Name: SLIP 4 EARLY ACTION AREA			
Client Project #: A0006-14L	Samplers: B. LAWRENCE, J. SEXTON		

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	Tag #	Date	Time	Matrix	No Containers	TOC	Metals	PCB Aroclors	SVOCs					Notes/Comments
SD0022	1087-1090	11/14/11	1339	SD	4	X	X	X	X					
SD0023	1059-1062	↓	1209	↓	4	↓	↓	↓	↓					
SD0024	1075-1078	↓	1251	↓	4	↓	↓	↓	↓					
RB0003	1069-1074	↓	1240	WA	6	↓	↓	↓	↓					TOC = H2SO4 Metals = HNO3
WB0002	1063-1068	↓	1212	↓	6	↓	↓	↓	↓					TOC = H2SO4 Metals = HNO3
SD0011	1115-1118	11/16/11	1122	SD	4	↓	↓	↓	↓					
SD0010	1119-1122	↓	1211	↓	4	↓	↓	↓	↓					

J. Sexton 11/16/11

Comments/Special Instructions	Relinquished by:	Received by:	Relinquished by:	Received by:
Analyze per work order #A0006-14L-ARI-01	(Signature) Bill Lawrence	(Signature) [signature]	(Signature)	(Signature)
	Printed Name: Bill Lawrence	Printed Name: Jennifer Millsap	Printed Name:	Printed Name:
	Company: Integral	Company: ARI	Company:	Company:
	Date & Time: 11/16/11 1350	Date & Time: 11/16/11 1350	Date & Time:	Date & Time:

TX57 : 00004

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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: Integral Project Name: Slip 4 Early Action Area

COC No(s) _____ (NA) Delivered by: Fed-Ex UPS Courier (Hand Delivered) Other: _____

Assigned ARI Job No. TX57 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)	3.8 4.3	
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID#:	90877952

Cooler Accepted by: JM Date: 11/16/11 Time: 1350

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used?	Bubble Wrap (Wet Ice) Gel Packs (Baggies) Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		(YES)	NO
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI..	(NA)		

Was Sample Split by ARI: (NA) YES Date/Time _____ Equipment: _____ Split by: _____

Samples Logged by: JM Date: 11/17/11 Time: 915

***** 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:

For sample RB0003 -4- 1 Liter Ambers were sent.
For sample WB0002 4- 500 mL Ambers were sent.

By JM Date 11/17/11

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm
• • •	• • •	● ● ●

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

PRESERVATION VERIFICATION 11/17/11
Page 1 of 1

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **TX57**

Inquiry Number: NONE
Analysis Requested: 11/16/11
Contact: Magruder-Carlton, Kim
Client: Integral Consulting, Inc.
Logged by: JM
Sample Set Used: Yes-491
Validatable Package: Yes
Deliverables:

PC: Sue D.
VTSR: 11/16/11

Project #: A0006-14L
Project: Slip 4 Early Action Area
Sample Site:
SDG No:
Analytical Protocol: PSDDA

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
11-26634 **TX57P**	RB0003						TOT pad					pad										
11-26635 **TX57Q**	WB0002						TOT J					J										

TX57 09005

Checked By JM Date 11/17/11

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: TX57

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: Integral Consulting
Project: A0006-14-L, Slip 4 Early Action Area
ARI Job No.: TX57

Sample receipt

Fifteen sediment samples and two water samples were received on November 16, 2011. The cooler temperatures measured by IR thermometer following ARI SOP were 3.78 and 4.3°C, which is within the recommended range. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

Semivolatile Organics by SW8270

The sediment samples were initially screened to determine if there was any response that would affect extraction. No modifications were required. All samples and associated QC were extracted and analyzed within the recommended holding times.

Note only 1L amber glass jars were provided for sample **RB0003**. The extraction recommended bottle rinse was not performed on this sample.

Initial and continuing calibrations were within method requirements. Internal standard areas were within limits.

The surrogate percent recoveries of 2-Fluorophenol and 2,4,6-Tribromophenol fell outside the control limits low for sample **SD0018**. All other percent recoveries were within control limits. No corrective action was taken.

Bis(2-Ethylhexyl)phthalate was present in **MB-112611** at a level that was greater than ½ the reporting limit. All detected results for this compound have been flagged with a "B" qualifier. No further corrective action was taken.

Benzoic Acid had a wide RPD for **LCS-111811**. All LCS and LCSD percent recoveries were within control limits. No corrective action was taken.

Several matrix spike and matrix spike duplicate percent recoveries were outside advisory control limits for sample **SD0015**. No corrective action is required for matrix QC.

Aroclor PCBs by SW8082

The sediment samples were initially screened to determine if there was any response that would affect extraction. Based on the screens, sample volume was reduced for **SD0013**, **SD0011**, and **SD0010**. All samples and associated QC were extracted and analyzed within recommended holding times for both matrices.

Initial and continuing calibrations were within method requirements. Internal standard areas were within limits.

The surrogate percent recoveries of Tetrachlorometaxylene were outside the control limits high for samples **SD0019** and **SD0023**. All other percent recoveries were within control limits. No corrective action was taken.

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

The matrix spike and matrix spike duplicate percent recoveries of Aroclor 1016 and Aroclor 1260 were outside advisory control limits high for sample **SD0015**. No corrective action is required for matrix QC.

The undetected results for several analytes were raised and "Y"-flagged due to interference from the matrix.

Metals by SW6010/7470/7471

All samples were digested and analyzed within recommended holding times.

The sixth continuing calibration verification (CCV) on 11/29/11 was outside the control limits high for silver. No sample results were associated with this CCV. No corrective action was taken.

The method blanks were 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.

Conventional Analyses (TOC and Total Solids)

All samples were prepared and analyzed within the required holding times.

The method blanks were clean at the reporting limits. The LCS percent recovery was within control limits.

The SRM percent recoveries were within limits.

The matrix spike percent recovery of Total Organic Carbon was outside the control limits high for sample **SD0015**. All other quality control parameters were met for this analysis. No corrective action was taken.

The replicate RPD/RSDs were within limits.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: TX57
Client: Integral Consulting, Inc.
Project Event: A0006-14L
Project Name: Slip 4 Early Action Area

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	SD0012	TX57A	11-26619	Sediment	11/14/11 17:25	11/16/11 13:50
2.	SD0013	TX57B	11-26620	Sediment	11/14/11 17:35	11/16/11 13:50
3.	SD0014	TX57C	11-26621	Sediment	11/14/11 16:54	11/16/11 13:50
4.	SD0015	TX57D	11-26622	Sediment	11/14/11 16:40	11/16/11 13:50
5.	SD0016	TX57E	11-26623	Sediment	11/14/11 13:30	11/16/11 13:50
6.	SD0017	TX57F	11-26624	Sediment	11/14/11 16:10	11/16/11 13:50
7.	SD0018	TX57G	11-26625	Sediment	11/14/11 11:30	11/16/11 13:50
8.	SD0019	TX57H	11-26626	Sediment	11/14/11 10:37	11/16/11 13:50
9.	SD0020	TX57I	11-26627	Sediment	11/14/11 10:57	11/16/11 13:50
10.	SD0021	TX57J	11-26628	Sediment	11/14/11 13:19	11/16/11 13:50
11.	SD0022	TX57K	11-26629	Sediment	11/14/11 13:39	11/16/11 13:50
12.	SD0023	TX57L	11-26630	Sediment	11/14/11 12:09	11/16/11 13:50
13.	SD0024	TX57M	11-26631	Sediment	11/14/11 12:51	11/16/11 13:50
14.	SD0011	TX57N	11-26632	Sediment	11/16/11 11:22	11/16/11 13:50
15.	SD0010	TX57O	11-26633	Sediment	11/16/11 12:11	11/16/11 13:50
16.	RB0003	TX57P	11-26634	Water	11/14/11 12:40	11/16/11 13:50
17.	WB0002	TX57Q	11-26635	Water	11/14/11 12:12	11/16/11 13:50

Printed 11/17/11

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

TX57 00011

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.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

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

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

LCS SOLUTIONS

LABL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
1	1907-1	PCB 1660	20	ACETONE	11/01/12
2#		BCOC PEST	10	ACETONE	NA
3	1885-1	PEST	01/02/10	ACETONE	12/15/11
4	1885-2	LOW PEST	.1/.2/1	ACETONE	12/15/11
5	1902-4	EPH	1500	MECL2	10/04/12
6	1919-2	PCP	12.5/125	ACETONE	10/15/12
7	1888-1	ABN	100	MEOH	08/30/12
8	1916-2	TBT	2.5	MECL2	11/23/12
9	1918-2	PORE TBT	.125/.25	MECL2	11/23/12
10					
11	1860-4	TPHD	15000	ACETONE	05/12/12
12					
13	1838-4	LOW PCB	2	ACETONE	01/31/12
14					
15	1814-2	SIM PNA	15/75	MEOH	01/04/12
16	1906-4	1,4-DIOXANE	100	MEOH	04/30/12
17	1869-4	1248 PCB	10	ACETONE	06/14/12
18	1814-3	LOW SIM PNA	1.5	ACETONE	01/04/12
19	1873-2	AK103	7500	ACETONE	01/02/12
20	1886-4	PNA	100	ACETONE	01/07/12
21	1874-3	SKY/BHT	100	MEOH	01/14/12
22	1864-3	HERB	02 to 2500	MEOH	12/03/11
23	1887-2	EXTRA PNA	15	ACETONE	08/25/12
24					
25#		DIPHENYL	100	MEOH	NA
26	1904-2	OP-PEST	25	MEOH	02/10/12
27		STEROLS	200	MEOH	NA
28#		ADD. PEST	2	ACETONE	NA
29#		DECANES	100	MEOH	NA

TX57 - 00014

LCS SOLUTIONS

30		EDB/DBCP	0.2	MEOH	NA
31	1909-2	TERPINEOL	100	MEOH	02/14/12
32	1876-1	GUAIACOL	50-200	ACETONE	01/05/12
33		RETENE	100	MEOH	NA
34	1867-3	CONGENERS	0.5	ACETONE	03/14/12
35	1875-3	ALKYL PNA A	10	MEOH	07/18/12
36		ALKYL PNA B	10	MEOH	NA
37		CAR/PERY	100	ACETONE	NA
38	1904-1	ABN ACID	200-450	MEOH	04/21/12
39	1853-4	BENZIDINE	500	MEOH	04/30/12
40	1851-3	PBDE	0.5	MEOH	04/22/12
50	1900-1	FULL RESIN	250	ACETONE	08/12/12
51		DDTS	0.01	ACETONE	NA
52		1232 PCB	20	ACETONE	NA
53	1919-1	DALAPON	50	MEOH	08/22/12
54		T-CHLORDANE	10	ACETONE	NA
55		TOXAPHENE	50	ACETONE	NA
56	1917-1	ABN BASE	50-200	MEOH	05/31/12
#=PROJECT SPECIFIC SOLUTION					
*=REVERIFIED SOLUTION					

TX57:00015

SURR SOLUTIONS

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1906-5	ABN	100/150	MEOH	04/30/12
B	1917-2	SIM PNA	15/75	ACETONE	05/30/12
C	NA	SIM ABN	25/37.5	MEOH	NA
D	1907-4	LOW PCB	0.2	ACETONE	12/16/11
E	1900-2	HERB	62.5	MEOH	10/06/12
F	1896-2	PCP	12.5	ACETONE	12/09/11
G	1906-3	d8-DIOXANE	100	MEOH	04/30/12
H	1847-2	OP-PEST	25	ACETONE	03/23/12
I	1896-3	LOW S. PNA	1.5	ACETONE	09/22/12
J	1915-4	TBT-PORE	0.125	MECL2	11/23/12
K	1795-2	MED PCB	20	ACETONE	12/16/11
L	1915-3	TBT	2.5	MECL2	11/23/12
M	1888-4	EPH	1500	MECL2	04/04/12
N	1914-2	PCB	2	ACETONE	05/28/12
O	1914-4	TPH	450	MECL2	02/04/12
P	1895-4	HCID	2250	MECL2	02/04/12
Q	NA	EDB	1	MEOH	NA
R	1886-3	RESIN ACID	250	ACETONE	02/19/12
S	1864-1	PBDE	.5	MEOH	05/21/12
T	1884-2	ALKYL PNA	10	MEOH	07/15/12
U	NA	CONGENER	2.5	ACETONE	NA
V	1791-4	LOW PCP	1.25	ACETONE	12/09/11

TX57 00016

LOD[1], LOQ[2] and Control Limits Summary
GC - MS – SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM
ARI Analysis: BANDMP

Microwave Extraction (EPA Method 3546) using 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

	Full Scan Analysis		SIM Analysis		LCS, MS Control Limits	Replicate RPD[2]
Analyte	**LOD[1] µg/kg**	**LOQ[1] µg/kg**	**LOD[1] µg/kg**	**LOQ[1] µg/kg**	**% Recovery**	
Phenol	8.65	20	2.56	5	30 – 160	≤ 40
bis-(2-Chloroethyl)ether	3.35	20	--	--	30 – 160	≤ 40
2-Chlorophenol	2.39	20	--	--	30 – 160	≤ 40
1,3-Dichlorobenzene	2.63	20	1.31	5	30 – 160	≤ 40
1,4-Dichlorobenzene	2.86	20	1.19	5	30 – 160	≤ 40
1,2-Dichlorobenzene	2.50	20	1.10	5	30 – 160	≤ 40
Benzyl alcohol	6.09	20	7.04	20[3]	30 – 160	≤ 40
2,2'-oxy-*bis*-(1-Chloropropane)	3.76	20	--	--	30 – 160	≤ 40
2-Methylphenol	5.25	20	1.81	5	30 – 160	≤ 40
Hexachloroethane	2.94	20	--	--	30 – 160	≤ 40
N-Nitroso-di-n-propylamine	3.36	20	9.48	12[3]	30 – 160	≤ 40
4-Methylphenol[6]	6.63	40	2.52	10	30 – 160	≤ 40
Nitrobenzene	4.06	20	--	--	30 – 160	≤ 40
Isophorone	2.86	20	--	--	30 – 160	≤ 40
2-Nitrophenol	38.7	100	--	--	30 – 160	≤ 40
2,4-Dimethylphenol	3.46	40	2.89	20	30 – 160	≤ 40
bis-(2-Chloroethoxy)methane	2.00	20	--	--	30 – 160	≤ 40
2,4-Dichlorophenol	21.5	200	--	--	30 – 160	≤ 40
1,2,4-Trichlorobenzene	3.48	20	1.86	5	30 – 160	≤ 40
Naphthalene	2.76	20	--	--	30 – 160	≤ 40
Benzoic acid	101	400[5]	--	--	30 – 160	≤ 40
4-Chloroaniline	22.3	270[4]	--	--	30 – 160	≤ 40
Hexachlorobutadiene	4.57	100	0.96	5	30 – 160	≤ 40
4-Chloro-3-methylphenol	15.1	100	--	--	30 – 160	≤ 40
2-Methylnaphthalene	3.06	20	--	--	30 – 160	≤ 40
Hexachlorocyclopentadiene	66.4	400[4]	--	--	30 – 160	≤ 40
2,4,6-Trichlorophenol	22.4	100	--	--	30 – 160	≤ 40
2,4,5-Trichlorophenol	21.4	100	--	--	30 – 160	≤ 40
2-Chloronaphthalene	2.64	20	--	--	30 – 160	≤ 40
2-Nitroaniline	18.4	100	--	--	30 – 160	≤ 40
Acenaphthylene	5.71	20	--	--	30 – 160	≤ 40
Dimethylphthalate	2.90	20	1.34	5	30 – 160	≤ 40
2,6-Dinitrotoluene	30.6	100	--	--	30 – 160	≤ 40

TX57 00017

LOD[1], LOQ[2] and Control Limits Summary
GC - MS – SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM
ARI Analysis: BANDMP

Microwave Extraction (EPA Method 3546) using 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

	Full Scan Analysis		SIM Analysis		LCS, MS Control Limits	Replicate RPD[2]
Analyte	**LOD[1] µg/kg**	**LOQ[1] µg/kg**	**LOD[1] µg/kg**	**LOQ[1] µg/kg**	**% Recovery**	
Acenaphthene	3.28	20	--	--	30 – 160	≤ 40
3-Nitroaniline	22.5	100	--	--	30 – 160	≤ 40
2,4-Dinitrophenol	111	850[4]	--	--	30 – 160	≤ 40
Dibenzofuran	4.10	20	--	--	30 – 160	≤ 40
4-Nitrophenol	34.7	100	--	--	30 – 160	≤ 40
2,4-Dinitrotoluene	19.5	100	--	--	30 – 160	≤ 40
Fluorene	4.35	20	--	--	30 – 160	≤ 40
4-Chlorophenyl-phenylether	5.29	20	--	--	30 – 160	≤ 40
Diethylphthalate	36.6	50[3]	3.26	5.0	30 – 160	≤ 40
4-Nitroaniline	37.9	100	--	--	30 – 160	≤ 40
4,6-Dinitro-2-methylphenol	21.2	200	--	--	30 – 160	≤ 40
N-Nitrosodiphenylamine	5.39	20	1.38	20	30 – 160	≤ 40
4-Bromophenyl-phenylether	5.03	20	--	--	30 – 160	≤ 40
Hexachlorobenzene	4.29	20	1.26	5	30 – 160	≤ 40
Pentachlorophenol	48.5	200[4]	14.3	50	30 – 160	≤ 40
Phenanthrene	3.64	20	--	--	30 – 160	≤ 40
Anthracene	4.50	20	--	--	30 – 160	≤ 40
Carbazole	2.69	20	--	--	30 – 160	≤ 40
Di-n-butylphthalate	8.16	20	--	--	30 – 160	≤ 40
Fluoranthene	2.91	20	--	--	30 – 160	≤ 40
Pyrene	1.94	20	--	--	30 – 160	≤ 40
Butylbenzylphthalate	6.14	20	2.89	5	30 – 160	≤ 40
Benzo(a)anthracene	3.29	20	--	--	30 – 160	≤ 40
3,3'-Dichlorobenzidine	17.8	150[4]	--	--	30 – 160	≤ 40
Chrysene	3.75	20	--	--	30 – 160	≤ 40
bis-(2-Ethylhexyl)phthalate	14.6	25[3]	--	--	30 – 160	≤ 40
Di-n-octylphthalate	5.84	20	--	--	30 – 160	≤ 40
Benzo(b)fluoranthene[7]	3.47	20			30 – 160	≤ 40
Benzo(k)fluoranthene[7]	4.18	20			30 – 160	≤ 40
Benzofluoranthene-Total[8]	6.67	40	--	--	30 – 160	≤ 40
Benzo(a)pyrene	5.45	20	--	--	30 – 160	≤ 40
Indeno(1,2,3-cd)pyrene	4.68	20	--	--	30 – 160	≤ 40
Dibenzo(a,h)anthracene	4.31	20	2.02	5	30 – 160	≤ 40
Benzo(g,h,i)perylene	4.40	20	--	--	30 – 160	≤ 40

TXST : 00018

LOD[1], LOQ[2] and Control Limits Summary
GC - MS – SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM
ARI Analysis: BANDMP

Microwave Extraction (EPA Method 3546) using 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

	Full Scan Analysis		SIM Analysis		LCS, MS Control Limits	Replicate RPD[2]
Analyte	**LOD[1] µg/kg**	**LOQ[1] µg/kg**	**LOD[1] µg/kg**	**LOQ[1] µg/kg**	**% Recovery**	
N-Nitrosodimethylamine	14.1	100	3.15	25	30 – 160	≤ 40
Aniline	40.0	540[4]	--	--	30 – 160	≤ 40
Pyridine	32.7	150[4]	--	--	30 – 160	≤ 40
1-Methylnaphthalene	2.68	20	--	--	30 – 160	≤ 40
Azobenzene (1,2-DP-Hydrazine)	2.98	20	--	--	30 – 160	≤ 40
Surrogate Standards				**MB / LCS**	**Samples**	**RPD**
2-Fluorophenol				30 – 160	30 – 160	≤ 40
Phenol-d_5				30 – 160	30 – 160	≤ 40
2-Chlorophenol-d_4				30 – 160	30 – 160	≤ 40
1,2-Dichlorobenzene-d_4				30 – 160	30 – 160	≤ 40
Nitrobenzene-d_5				30 – 160	30 – 160	≤ 40
2-Fluorobiphenyl				30 – 160	30 – 160	≤ 40
2,4,6-Tribromophenol				30 – 160	30 – 160	≤ 40
p-Terphenyl-d_{14}				30 – 160	30 – 160	≤ 40

(1) Limit of Detection (LOD), Limit of Quantitation (LOQ) are defined in ARI SOP 1018S
(2) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(3) Spiked at 5 ppb
(4) Spiked at 100 ppb
(5) Spiked at 200 ppb
(6) 3-Methylphenol (not calibrated) co-elutes with 4-Methylphennol (calibrated)
(7) Benzo(b)fluoranthene and Benzo(k)fluoranthene are reported as separate analytes only when the height of the valley between the isomer peaks is less than than 50% of the average of the two peak heights, otherwise total Benzofluoranthenes are reported.
(8) Benzo(b)fluoranthene + Benzo(j)fluoranthene + Benzo(k)fluoranthene (only the b & k isomers are calibrated)

TX57 : 00015

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Spike Recovery Control Limits for Analysis of Aqueous Samples Semi-Volatile Organic Compounds (SVOA) EPA SW-846 Methods 8270D [9]

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

Extraction Method:	Liquid-Liquid Extract [1]	Liquid-Liquid ME[1,2]	Separatory Funnel [1]	Separatory Funnel - ME[1,2]
Sample Weight / Final Volume:	500 to 0.5 mL	500 to 0.5 mL	500 to 0.5 mL	500 to 0.5 mL
LCS Spike Recovery [8]				
Phenol [3]	50 - **100**	43 - 103	16 - **100**	6 - **100**
Bis-(2-chloroethyl) ether	52 - **100**	45 - 105	41 - 112	29 - 124
2-Chlorophenol	56 - **100**	49 - 103	43 - 111	32 - 122
1,3-Dichlorobenzene	23 - **100**	15 - **100**	32 - **100**	22 - 103
1,4-Dichlorobenzene	25 - **100**	17 - **100**	32 - **100**	22 - 103
Benzyl Alcohol	19 - 100	**10** - 114	22 - 100	9 - 113
1,2-Dichlorobenzene	30 - **100**	22 - **100**	34 - **100**	24 - 104
2-Methylphenol	52 - **100**	44 - 106	36 - 110	24 - 122
2,2'-oxybis(1-chloropropane)	32 - 111	19 - 124	29 - 118	14 - 133
4-Methylphenol	53 - 102	45 - 110	38 - 104	27 - 115
N-Nitroso-di-n-propylamine	43 - 104	33 - 114	38 - 115	25 - 128
Hexachloroethane	12 - **100**	**10** - **100**	24 - **100**	13 - 100
Nitrobenzene	33 - 125	18 - 140	45 - 106	35 - 116
Isophorone	57 - 115	47 - 125	55 - 119	44 - 130
2-Nitrophenol	56 - 102	48 - 110	46 - 118	34 - 130
2,4-Dimethyphenol	29 - **100**	20 - **100**	28 - 105	15 - 118
Bis-(2-chloroethoxy) methane	54 - 101	46 - 109	44 - 118	32 - 130
Benzoic Acid [3]	**10** - 131	**10** - 151	11 - **100**	**10** - **100**
2,4-Dichlorophenol	56 - 104	48 - 112	43 - 121	30 - 134
1,2,4-Trichlorobenzene	27 - **100**	18 - **100**	35 - **100**	25 - 107
Naphthalene	45 - **100**	38 - **100**	36 - 111	24 - 124
4-Chloroaniline [3]	**10** - 139	**10** - 161	10 - 174	**10** - 201
2-Chloronaphthalene	45 - **100**	37 - 105	39 - 118	26 - 131
Hexachlorobutadiene	**10** - **100**	**10** - **100**	24 - **100**	12 - 108
4-Chloro-3-methylphenol	53 - 109	44 - 118	45 - 122	32 - 135
2-Methylnaphthalene	46 - **100**	38 - 100	45 - 103	35 - 113
Hexachlorocyclopentadiene	**10** - **100**	**10** - **100**	23 - 108	**10** - 122
2,4,6-Trichlorophenol	58 - 108	50 - 116	48 - 122	36 - 134
2,4,5-Trichlorophenol	58 - 107	50 - 115	48 - 122	36 - 134
2-Nitroaniline	50 - 107	41 - 117	48 - 118	36 - 130
Dimethylphthalate	58 - 107	50 - 115	50 - 120	38 - 132
Acenaphthylene	57 - 100	50 - 107	50 - 119	39 - 131
2,6-Dinitrotoluene	58 - 112	49 - 121	48 - 133	34 - 147
3-Nitroaniline [3]	21 - 150	**10** - 172	54 - 140	40 - 154
Acenaphthene	51 - **100**	43 - 106	41 - 120	28 - 133
2,4-Dinitrophenol	12 - 169	**10** - 195	23 - 176	**10** - 202

TX57 : 00620

Spike Recovery Control Limits for Analysis of Aqueous Samples Semi-Volatile Organic Compounds (SVOA) EPA SW-846 Methods 8270D [9]

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

Extraction Method:	Liquid-Liquid Extract [1]	Liquid-Liquid ME[1,2]	Separatory Funnel [1]	Separatory Funnel - ME[1,2]
Sample Weight / Final Volume:	500 to 0.5 mL	500 to 0.5 mL	500 to 0.5 mL	500 to 0.5 mL
Dibenzofuran	57 - 100	50 - 107	51 - 114	41 - 125
4-Nitrophenol [3]	35 - 119	21 - 133	13 - **100**	**10** - **100**
2,4-Dinitrotoluene	58 - 117	48 - 127	51 - 134	37 - 148
Fluorene	56 - 104	48 - 112	50 - 120	38 - 132
Diethylphthlalate	52 - 111	42 - 121	48 - 122	36 - 134
4-Chlorophenyl-phenyl ether	55 - 104	47 - 112	50 - 118	39 - 129
4-Nitroaniline	49 - 112	39 - 123	42 - 136	26 - 152
4,6-Dinitro-2-Methylphenol	13 - 139	**10** - 160	32 - 121	17 - 136
N-Nitrosodiphenylamine	60 - 136	47 - 149	58 - 141	44 - 155
4-Bromophenyl-phenyl ether	55 - 103	47 - 111	50 - 122	38 - 134
Hexachlorobenzene	54 - 106	45 - 115	47 - 125	34 - 138
Pentachlorophenol	46 - 114	35 - 125	35 - 130	19 - 146
Phenanthrene	56 - 102	48 - 110	49 - 120	37 - 132
Anthracene	56 - 101	49 - 109	53 - 116	43 - 127
Carbazole	60 - 108	52 - 116	57 - 122	46 - 133
Di-n-butylphthalate	56 - 112	47 - 121	57 - 121	46 - 132
Fluoranthene	57 - 110	48 - 119	56 - 119	46 - 130
Pyrene	48 - 119	36 - 131	37 - 143	19 - 161
Butylbenzylphthalate	51 - 114	41 - 125	34 - 152	14 - 172
Benzo(a)Anthracene	55 - 105	47 - 113	49 - 129	36 - 142
3,3'-Dichlorbenzidine [3]	**10** - 128	**10** - 148	50 - 128	37 - 141
Chrysene	55 - 104	47 - 112	45 - 128	31 - 142
bis(2-Ethylhexyl) phthalate	28 - 164	**10** - 187	57 - 133	44 - 146
Di-n-octylphthalate	57 - 107	49 - 115	52 - 120	41 - 131
Benzofluoranthene(s) (Total)	30 - 160[10]	30 - 160[10]	30 - 160[10]	30 - 160[10]
Benzo(a)Pyrene	45 - 103	35 - 113	46 - 109	36 - 120
Indeno(1,2,3-cd)Pyrene	35 - 118	21 - 132	34 - 136	17 - 153
Dibenz(a,h)anthracene	42 - 119	29 - 132	41 - 134	26 - 150
Benzo(g,h,i)Perylene	39 - 123	25 - 137	41 - 133	26 - 148
Aniline [3]	**10** - **100**	**10** - **100**	28 - 126	12 - 142
1,2-Diphenylhydrazine /Azobenzene	57 - 109	48 - 118	55 - 119	44 - 130
N-Nitrosodimethylamine	49 - **100**	41 - 104	31 - **100**	21 - 105
1-Methylnaphthalene	46 - **100**	37 - 107	43 - 115	31 - 127
1,4-Dioxane	40 - **100**	30 - 108	30 - 160 [4]	30 - 160 [4]
Pyridine	-	-	25 - **100**	15 - **100**
Tributyl Phosphate	30 - 160 [4]	30 - 160 [4]	30 - 160 [4]	30 - 160 [4]
Dibutyl Phenyl Phosphate	30 - 160 [4]	30 - 160 [4]	30 - 160 [4]	30 - 160 [4]

TX57.00021

Spike Recovery Control Limits for Analysis of Aqueous Samples Semi-Volatile Organic Compounds (SVOA) EPA SW-846 Methods 8270D [9]

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

Extraction Method:	Liquid-Liquid Extract [1]	Liquid-Liquid ME [1,2]	Separatory Funnel [1]	Separatory Funnel - ME [1,2]
Sample Weight / Final Volume:	500 to 0.5 mL	500 to 0.5 mL	500 to 0.5 mL	500 to 0.5 mL
Butyl Diphenyl Phosphate	30 - 160 [4]	30 - 160 [4]	30 - 160 [4]	30 - 160 [4]
Triphenyl Phosphate	30 - 160 [4]	30 - 160 [4]	30 - 160 [4]	30 - 160 [4]
Butylated Hydroxytoluene (BHT)	30 - 160 [4]	30 - 160 [4]	30 - 160 [4]	30 - 160 [4]
MB / LCS Surrogate Recovery				
d4-2-Chlorophenol	53 - 100	(5)	49 - 101	(5)
d4-1,2-Dichlorobenzene	38 - **100**	(5)	40 - **100**	(5)
2,4,6-Tribromophenol	52 - 123	(5)	51 - 122	(5)
2-Fluorophenol	46 - **100**	(5)	31 - **100**	(5)
d5-Phenol [3]	50 - 100	52 - 108	19 - **100**	12 - **100**
d5-Nitrobenzene	46 - 100	(5)	46 - 101	(5)
2-Fluorobiphenyl	49 - **100**	(5)	49 - 103	(5)
d14-p-Terphenyl	53 - 119	(5)	49 - 130	(5)
d8-1,4-Dioxane	45 - **100**	(5)	30 - 160 [4]	(5)
Sample Surrogate Recovery				
d4-2-Chlorophenol	44 - **100**	(5)	23 - 104	(5)
d4-1,2-Dichlorobenzene	32 - **100**	(5)	22 - **100**	(5)
2,4,6-Tribromophenol	48 - 118	(5)	22 - 125	(5)
2-Fluorophenol	38 - **100**	(5)	18 - **100**	(5)
d5-Phenol	41 - **100**	32 - 104	**10** - **100**	17 - **100**
d5-Nitrobenzene	39 - **100**	(5)	21 - 106	(5)
2-Fluorobiphenyl	42 - **100**	(5)	26 - 104	(5)
d14-p-Terphenyl	26 - 114	(5)	11 - 132	(5)
d8-1,4-Dioxane	32 - **100**	(5)	30 - 160 [4]	(5)

(1) Control Limits calculated using all data generated 1/1/07 through 12/1/07.
(2) **ME** = A **marginal exceedance** defined in the NELAC Standard [6] as beyond the CL but still within the ME limits. ARI defines ME limits as between 3 and 4 standard deviations around the mean with upper limit ≥ 100%. A maximum of four marginal exceedances are acceptable. Five or more marginal exceedances in an analysis require corrective action.
(3) These are "**poor performers**" defined in the DoD QSM[7] as compounds that "produce low mean recoveries and high standard deviations, resulting in wide LCS control limits with particularly low lower control limits (sometimes-negative values). ARI does not control batch acceptance based on these compounds since there is a high level of uncertainty in their recovery."
(4) 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.
(5) Marginal Exceedances not allowed for surrogate unless it is a "poor performer".
(6) **2003 NELAC Standard (EPA/600/R-04/003), July 2003**, Chapter 5, pages 251-252.
(7) Page 182 of: **Department of Defense Quality Systems Manual for Environmental Laboratories, Version 3 Final, March 2005** Prepared By Environmental Data Quality Workgroup, Department of Navy, Lead Service (Based On National Environmental Laboratory Accreditation Conference (NELAC) Chapter 5 (Quality Systems) NELAC Voted Version – 5 June 2003
(8) 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.
(9) 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.
(10) Default limits pending generation of historic limits for total benzofluoranthrenes (7/29/10)

TXST : 00022

Analytical Resources,Incorporated
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Quality Control Criteria for Analysis of Solid Matrix Samples for Aroclors (Polychlorinated Biphenyls – PCB) EPA Method 8082B

Analysis Code	Extraction	DL[1] (ppb)	LOD[1] (ppb)	LOQ[1] (ppb)	Analyte	Spike Recovery Control Limits (%)[2,3]			RPD[4]
						LCS	MB/LCS Surrogate	Sample Surrogate	
Soil / Sediment Samples (Microwave Extraction – EPA Method 3546)									
PCBSMI 15-3067F	12g to 4 mL	9.83	17	33	Aroclor 1016	48 – 106	--	--	≤ 40
		7.06	17	33	Aroclor 1260	50 – 121	--	--	
PCBSCI 08-3025F		--	--	--	TCMX	--	46 – 111	50 – 114	
		--	--	--	DCBP	--	51 – 112	42 – 127	
PCBDMP20 05-3017F	12.5 g to 2.5 mL[6]	9.33	10	20[6]	Aroclor 1016	52 – 101	--	--	≤ 40
		10.82	15	20[6]	Aroclor 1260	52 – 126	--	--	
PCBDCP20 06-3026F		--	--	--	TCMX	--	47 – 110	46 – 113	
		--	--	--	DCBP	--	48 – 119	40 – 130	
PCBDMP10 05-3017F	12.5 g to 2.5 mL[6]	0.759	5	10[6]	Aroclor 1016	53 – **100**	--	--	≤ 40
		1.066	5	10[6]	Aroclor 1260	58 – 112	--	--	
PCBDCP10 06-3026F		--	--	--	TCMX	--	43 – 108	35 – 119	
		--	--	--	DCBP	--	48 – 118	33 – 143	
PCBDMP4 05-3017F	12.5 g to 2.5 mL[6]	0.577	2	4[6]	Aroclor 1016	37 – 106	--	--	≤ 40
		0.610	2	4[6]	Aroclor 1260	50 – 116	--	--	
PCBDCP4 06-3026F		--	--	--	TCMX	--	35 – 100	38 – 102	
		--	--	--	DCBP	--	40 – 109	34 – 141	
Soil / Sediment Samples Medium Level (Vortex Extraction – EPA Method 3546)									
PCBSVX 12-3019F	5 g to 40 mL	109[7]	400	800	Aroclor 1016	30 – 160	--	--	≤ 40
		192[7]	400	800	Aroclor 1260	30 – 160	--	--	
		--	--	--	TCMX	--	30 – 160	30 – 160	
		--	--	--	DCBP	--	30 – 160	30 – 160	

(1) Detection Limit (DL), Limit of Detection (LOD) & Limit of Quantitation (LOQ) are defined in ARI SOP 1018S.
(2) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(3) 30 – 160 are default limits used when there is insufficient data to calculate historic control limits
(4) Acceptance criteria for the relative percent difference (RPD) between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$
(6) LOQ determined by lowest concentration used to calibrate the GC-ECD instrument.
(7) MDL Study PC66 6/24/09

TX57 00023

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Quality Control Criteria for Analysis of Aqueous and Tissue Samples for Aroclors (Polychlorinated Biphenyls – PCB) EPA Method 8082B

Analysis Code	Extraction	DL[1]	LOD[1]	LOQ[1]	Analyte	Spike Recovery Control Limits (%)[2,3]			RPD[4]
						LCS	MB/LCS Surrogate	Sample Surrogate	
Aqueous Samples (Separatory Funnel Extraction – EPA Method 3510C)									
PCBWSI 01-3018F	500 to 5 mL	0.130 µg/L	0.5 µg/L	1 µg/L	Aroclor 1016	45 – 121	--	--	≤ 40
		0.147 µg/L	0.5 µg/L	1 µg/L	Aroclor 1260	54 – 129	--	--	
		--	--	--	TCMX	--	40 – 118	38 – 118	
		--	--	--	DCBP	--	41 – 111	29 – 118	
PCBWSM 02-3021F	500 to 1 mL	0.0175 µg/L	0.05 µg/L	0.1 µg/L	Aroclor 1016	36 – **100**	--	--	≤ 40
		0.0174 µg/L	0.05 µg/L	0.1 µg/L	Aroclor 1260	41 – 113	--	--	
		--	--	--	TCMX	--	29 – **100**	25 – **100**	
		--	--	--	DCBP	--	39 – 116	**10** – 128	
PCBWLS	1000 to 0.5 mL[5]	0.00248 µg/L	0.005 µg/L	0.01 µg/L	Aroclor 1016	44 – 117	--	--	≤ 40
		0.00276 µg/L	0.005 µg/L	0.01 µg/L	Aroclor 1260	46 – 131	--	--	
		--	--	--	TCMX	--	31 – **100**	21 – **100**	
		--	--	--	DCBP	--	32 – 108	19 – 111	
TCLP Extract (Separatory Funnel Extraction – EPA Method 3510C)									
PCBWST	100 to 10 mL	0.130 µg/L[8]	5 µg/L	10 µg/L	Aroclor 1016	30 – 160	--	--	≤ 40
		0.147 µg/L[8]	5 µg/L	10 µg/L	Aroclor 1260	30 – 160	--	--	
		--	--	--	TCMX	--	30 – 160	30 – 160	
		--	--	--	DCBP	--	30 – 160	30 – 160	
Tissue Samples (Tissuemizer / Blender Extraction – EPA Method 3550C Modified) – Concentrations in µg/kg as received (wet weight)									
PCBUZI 09-3029F	10 g to 5 mL	2.92 µg/kg[6]	25 µg/kg	50 µg/kg	Aroclor 1016	30 – 160			≤ 40
		3.91 µg/kg[6]	25 µg/kg	50 µg/kg	Aroclor 1260	30 – 160			
		--	--	--	TCMX		30 – 160	30 – 160	
		--	--	--	DCBP		30 – 160	30 – 160	
PCBUZM 10-3027F	25 g to 5 mL	2.37 µg/kg[7]	10 µg/kg	20 µg/kg	Aroclor 1016	30 – 160			≤ 40
		1.06 µg/kg[7]	10 µg/kg	20 µg/kg	Aroclor 1260	30 – 160			
		--	--	--	TCMX		30 – 160	30 – 160	
		--	--	--	DCBP		30 – 160	30 – 160	
PCBUZL 11-3030F	25 g to 1 mL	2.37[7] µg/kg	2 µg/kg	4 µg/kg	Aroclor 1016	30 – 160			≤ 40
		1.06[7] µg/kg	2 µg/kg	4 µg/kg	Aroclor 1260	30 – 160			
		--	--	--	TCMX		30 – 160	30 – 160	
		--	--	--	DCBP		30 – 160	30 – 160	

(1) Detection Limit (DL), Limit of Detection (LOD) & Limit of Quantitation (LOQ) are defined in ARI SOP 1018S.
(2) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(3) 30 – 160 are default limits used when there is insufficient data to calculate historic control limits
(4) Acceptance criteria for the relative percent difference (RPD) between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$
(5) Low level extraction solvent is hexane instead of Methylene Chloride.
(6) LOD Study SM10
(7) MDL Study QZ25
(8) Based on PCBWSI until sufficient TCLP data is collected to calculate LOD.

TXST : 00024

Quality Control Parameters for Metals Analysis using ICP-OES

	Aqueous Samples[2]			Spike Recovery		RPD[5]	Solids[3]	Tissue[4]
Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Antimony	6.28	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Arsenic	3.33	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Barium	1.33	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Beryllium	0.16	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Boron	7.39	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Cadmium	0.18	0.5	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Calcium	11.27	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Chromium	1.24	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Cobalt	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Copper	0.92	1.0	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Iron	7.50	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Lead	1.55	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Magnesium	9.61	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Manganese	0.28	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Molybdenum	0.79	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Nickel	3.86	5.0	**10**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Potassium	65.70	250	**500**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Selenium	4.99	25	**50**	75 – 125	80 – 120	≤ 20	**0.5**	**0.01**
Silicon	8.17	30	**60**	75 – 125	80 – 120	≤ 20	**(6)**	**(6)**
Silver	0.43	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Sodium	11.35	250	**500**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Strontium	0.09	1.0	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Thallium	3.10	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Tin	1.41	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Titanium	2.11	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.01**
Vanadium	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Zinc	1.45	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(6) ARI does not analyze for Silicon in solids or tissue samples

TX57 00025

Quality Control Parameters for Metals Analysis using ICP-MS

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[4]	Solids[3]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

TX57 00026

Quality Control Parameters for Mercury Analysis using CVAA

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[3]	75 – 125	80 – 120	≤ 20
	Soil / Sediment / Tissue[4] Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	LOD[1] mg/kg	LOQ[1] mg/kg	Matrix Spike	LCS	
Mercury	0.0021	0.0125	**0.025**[3,4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

TX57 00027

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%

TX57 · 00028

Semivolatile Analysis
Report and Summary QC Forms

ARI Job ID: TX57

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 1 of 1

Sample ID: RB0003
SAMPLE

Lab Sample ID: TX57P
LIMS ID: 11-26634
Matrix: Water
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/18/11
Date Analyzed: 11/29/11 16:21
Instrument/Analyst: NT6/JZ

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**1.0**	**1.5**
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U
TOTBFA	Total Benzofluoranthenes	1.0	< 1.0 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	58.8%	2-Fluorobiphenyl	58.0%
d14-p-Terphenyl	78.8%	d4-1,2-Dichlorobenzene	53.2%
d5-Phenol	58.7%	2-Fluorophenol	54.4%
2,4,6-Tribromophenol	69.1%	d4-2-Chlorophenol	59.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 1 of 1

Sample ID: WB0002
SAMPLE

Lab Sample ID: TX57Q
LIMS ID: 11-26635
Matrix: Water
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/18/11
Date Analyzed: 11/29/11 16:54
Instrument/Analyst: NT6/JZ

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U
TOTBFA	Total Benzofluoranthenes	1.0	< 1.0 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	73.6%	2-Fluorobiphenyl	69.6%
d14-p-Terphenyl	82.0%	d4-1,2-Dichlorobenzene	65.2%
d5-Phenol	74.1%	2-Fluorophenol	67.5%
2,4,6-Tribromophenol	77.6%	d4-2-Chlorophenol	72.5%

ANALYTICAL RESOURCES INCORPORATED

SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT OUT
MB-111811	77.6%	73.6%	72.0%	67.2%	75.2%	70.7%	69.1%	76.8%	0
LCS-111811	73.6%	74.8%	79.6%	64.4%	76.8%	72.5%	89.1%	76.3%	0
LCSD-111811	70.0%	72.8%	76.8%	58.4%	72.5%	67.2%	89.1%	71.2%	0
RB0003	58.8%	58.0%	78.8%	53.2%	58.7%	54.4%	69.1%	59.5%	0
WB0002	73.6%	69.6%	82.0%	65.2%	74.1%	67.5%	77.6%	72.5%	0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(46-100)	(39-100)
(FBP) = 2-Fluorobiphenyl	(49-100)	(42-100)
(TPH) = d14-p-Terphenyl	(53-119)	(26-114)
(DCB) = d4-1,2-Dichlorobenzene	(38-100)	(32-100)
(PHL) = d5-Phenol	(50-100)	(41-100)
(2FP) = 2-Fluorophenol	(46-100)	(38-100)
(TBP) = 2,4,6-Tribromophenol	(52-123)	(48-118)
(2CP) = d4-2-Chlorophenol	(53-100)	(44-100)

Prep Method: SW3520C
Log Number Range: 11-26634 to 11-26635

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS

Sample ID: LCS-111811
LCS/LCSD

Lab Sample ID: LCS-111811
LIMS ID: 11-26634
Matrix: Water
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted LCS/LCSD: 11/18/11

Date Analyzed LCS: 11/29/11 13:04
LCSD: 11/29/11 13:37
Instrument/Analyst LCS: NT6/JZ
LCSD: NT6/JZ

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

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	23.2	25.0	92.8%	21.5	25.0	86.0%	7.6%
1,3-Dichlorobenzene	17.1	25.0	68.4%	15.3	25.0	61.2%	11.1%
1,4-Dichlorobenzene	17.8	25.0	71.2%	15.8	25.0	63.2%	11.9%
Benzyl Alcohol	23.3	25.0	93.2%	22.4	25.0	89.6%	3.9%
1,2-Dichlorobenzene	18.4	25.0	73.6%	16.7	25.0	66.8%	9.7%
2-Methylphenol	21.2	25.0	84.8%	20.0	25.0	80.0%	5.8%
4-Methylphenol	42.8	50.0	85.6%	40.6	50.0	81.2%	5.3%
Hexachloroethane	15.1	25.0	60.4%	13.1	25.0	52.4%	14.2%
2,4-Dimethylphenol	46.7	75.0	62.3%	42.4	75.0	56.5%	9.7%
Benzoic Acid	126	138	91.3%	59.9	138	43.4%	71.1%
1,2,4-Trichlorobenzene	18.2	25.0	72.8%	16.5	25.0	66.0%	9.8%
Naphthalene	21.0	25.0	84.0%	20.0	25.0	80.0%	4.9%
Hexachlorobutadiene	14.0	25.0	56.0%	12.4	25.0	49.6%	12.1%
2-Methylnaphthalene	21.0	25.0	84.0%	20.3	25.0	81.2%	3.4%
Dimethylphthalate	23.4	25.0	93.6%	23.0	25.0	92.0%	1.7%
Acenaphthylene	22.5	25.0	90.0%	21.8	25.0	87.2%	3.2%
Acenaphthene	22.8	25.0	91.2%	21.8	25.0	87.2%	4.5%
Dibenzofuran	23.0	25.0	92.0%	22.4	25.0	89.6%	2.6%
Diethylphthalate	23.8	25.0	95.2%	23.5	25.0	94.0%	1.3%
Fluorene	23.9	25.0	95.6%	23.3	25.0	93.2%	2.5%
N-Nitrosodiphenylamine	19.6	25.0	78.4%	17.5	25.0	70.0%	11.3%
Hexachlorobenzene	23.9	25.0	95.6%	22.6	25.0	90.4%	5.6%
Pentachlorophenol	79.4	75.0	106%	76.6	75.0	102%	3.6%
Phenanthrene	24.1	25.0	96.4%	23.5	25.0	94.0%	2.5%
Anthracene	22.5	25.0	90.0%	21.8	25.0	87.2%	3.2%
Di-n-Butylphthalate	24.8	25.0	99.2%	24.4	25.0	97.6%	1.6%
Fluoranthene	24.9	25.0	99.6%	24.8	25.0	99.2%	0.4%
Pyrene	24.5	25.0	98.0%	23.7	25.0	94.8%	3.3%
Butylbenzylphthalate	25.4	25.0	102%	24.4	25.0	97.6%	4.0%
Benzo(a)anthracene	24.4	25.0	97.6%	23.7	25.0	94.8%	2.9%
bis(2-Ethylhexyl)phthalate	24.2	25.0	96.8%	23.6	25.0	94.4%	2.5%
Chrysene	24.9	25.0	99.6%	24.0	25.0	96.0%	3.7%
Di-n-Octyl phthalate	22.2	25.0	88.8%	21.5	25.0	86.0%	3.2%
Benzo(a)pyrene	21.4	25.0	85.6%	21.0	25.0	84.0%	1.9%
Indeno(1,2,3-cd)pyrene	25.3	25.0	101%	23.6	25.0	94.4%	7.0%
Dibenz(a,h)anthracene	26.0	25.0	104%	24.0	25.0	96.0%	8.0%
Benzo(g,h,i)perylene	25.9	25.0	104%	22.7	25.0	90.8%	13.2%
1-Methylnaphthalene	21.8	25.0	87.2%	21.2	25.0	84.8%	2.8%
Total Benzofluoranthenes	48.2	50.0	96.4%	48.0	50.0	96.0%	0.4%

Semivolatile Surrogate Recovery

	LCS	LCSD
d5-Nitrobenzene	73.6%	70.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: LCS-111811**
 LCS/LCSD

Lab Sample ID: LCS-111811 QC Report No: TX57-Integral Consulting, Inc.
LIMS ID: 11-26634 Project: Slip 4 Early Action Area
Matrix: Water A0006-14L
Date Analyzed LCS: 11/29/11 13:04
LCSD: 11/29/11 13:37

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2-Fluorobiphenyl			74.8%	72.8%			
d14-p-Terphenyl			79.6%	76.8%			
d4-1,2-Dichlorobenzene			64.4%	58.4%			
d5-Phenol			76.8%	72.5%			
2-Fluorophenol			72.5%	67.2%			
2,4,6-Tribromophenol			89.1%	89.1%			
d4-2-Chlorophenol			76.3%	71.2%			

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

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

TX57MBW1

Lab Name: ANALYTICAL RESOURCES INC

Client: Integral Consulting, Inc.

ARI Job No: TX57

Project: Slip 4 Early Action Area

Lab File ID: 11291103

Date Extracted: 11/18/11

Instrument ID: NT6

Date Analyzed: 11/29/11

Matrix: LIQUID

Time Analyzed: 1231

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	TW99LCSW1	TW99LCSW1	11291104	11/29/11
02	TW99LCSDW1	TW99LCSDW1	11291105	11/29/11
03	RB0003	TX57P	11291110	11/29/11
04	WB0002	TX57Q	11291111	11/29/11
05				
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TX57 00035

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 1 of 1

Sample ID: MB-111811
METHOD BLANK

Lab Sample ID: MB-111811
LIMS ID: 11-26634
Matrix: Water
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: NA
Date Received: NA

Date Extracted: 11/18/11
Date Analyzed: 11/29/11 12:31
Instrument/Analyst: NT6/JZ

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U
TOTBFA	Total Benzofluoranthenes	1.0	< 1.0 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	77.6%	2-Fluorobiphenyl	73.6%
d14-p-Terphenyl	72.0%	d4-1,2-Dichlorobenzene	67.2%
d5-Phenol	75.2%	2-Fluorophenol	70.7%
2,4,6-Tribromophenol	69.1%	d4-2-Chlorophenol	76.8%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING, INC.

Instrument ID: NT6 Project: SLIP 4 EARLY ACTION AREA

DFTPP Injection Date: 11/21/11 DFTPP Injection Time: 1033

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	23.9
68	Less than 2.0% of mass 69	0.3 (0.6)1
69	Mass 69 relative abundance	41.5
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	10.0 - 80.0% of mass 198	51.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	22.7
365	Greater than 1.0% of mass 198	2.28
441	0.0 - 24.0% of mass 442	11.1 (14.4)2
442	50.0 - 200.0% of mass 198	76.8
443	15.0 - 24.0% of mass 442	15.1 (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	IC11121	IC11121	11211102	11/21/11	1124
02	IC51121	IC51121	11211103	11/21/11	1157
03	IC101121	IC101121	11211104	11/21/11	1230
04	IC401121	IC401121	11211105	11/21/11	1320
05	IC601121	IC601121	11211106	11/21/11	1353
06	IC801121	IC801121	11211107	11/21/11	1426
07	IC251121	IC250121	11211109	11/21/11	1737
08					
09					
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FORM V SV

TX57:00037

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING, INC.

Instrument ID: NT6 Project: SLIP 4 EARLY ACTION AREA

DFTPP Injection Date: 11/29/11 DFTPP Injection Time: 1126

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	24.1
68	Less than 2.0% of mass 69	0.3 (0.6)1
69	Mass 69 relative abundance	41.9
70	Less than 2.0% of mass 69	0.2 (0.6)1
127	10.0 - 80.0% of mass 198	50.9
197	Less than 2.0% of mass 198	0.4
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	22.3
365	Greater than 1.0% of mass 198	2.38
441	0.0 - 24.0% of mass 442	11.3 (14.0)2
442	50.0 - 200.0% of mass 198	80.9
443	15.0 - 24.0% of mass 442	15.4 (19.1)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	CC1129	CC1129	11291102	11/29/11	1158
02	TW99MBW1	TW99MBW1	11291103	11/29/11	1231
03	TW99LCSW1	TW99LCSW1	11291104	11/29/11	1304
04	TW99LCSDW1	TW99LCSDW1	11291105	11/29/11	1337
05	RB0003	TX57P	11291110	11/29/11	1621
06	WB0002	TX57Q	11291111	11/29/11	1654
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TX57 00038

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING, INC.

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT6 Calibration Date: 11/21/11

LAB FILE ID: RRF1 =11211102 RRF5 =11211103 RRF10 =11211104
RRF25 =11211109 RRF40 =11211105 RRF60 =11211106
RRF80 =11211107

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	RRF	%RSD /R^2
Phenol	2.046	1.795	1.782	1.677	1.628	1.542	1.504	1.710	10.8
Bis(2-Chloroethyl)ether	1.582	1.343	1.489	1.368	1.347	1.304	1.290	1.389	7.7
2-Chlorophenol	1.675	1.408	1.453	1.395	1.346	1.287	1.255	1.403	9.9
1,3-Dichlorobenzene	1.828	1.568	1.759	1.631	1.573	1.502	1.461	1.617	8.3
1,4-Dichlorobenzene	1.834	1.581	1.743	1.617	1.530	1.497	1.436	1.605	8.7
1,2-Dichlorobenzene	1.761	1.496	1.614	1.516	1.428	1.378	1.364	1.508	9.3
Benzyl alcohol	0.890	0.850	0.928	0.863	0.829	0.822	0.831	0.859	4.5
2,2'-oxybis(1-Chloropropane)	1.340	1.123	1.212	1.115	1.072	1.030	0.993	1.126	10.4
2-Methylphenol	1.488	1.327	1.302	1.250	1.219	1.168	1.100	1.265	9.9
Hexachloroethane	0.682	0.585	0.657	0.625	0.606	0.596	0.584	0.619	6.1
N-Nitroso-di-n-propylamine	1.090	0.950	1.005	0.927	0.882	0.878	0.837	0.938	9.2
4-Methylphenol	1.567	1.356	1.352	1.252	1.212	1.181	1.095	1.288	12.0
Nitrobenzene	0.441	0.378	0.428	0.396	0.379	0.363	0.354	0.391	8.3
Isophorone	0.652	0.568	0.635	0.584	0.563	0.567	0.545	0.588	6.8
2-Nitrophenol	0.190	0.181	0.192	0.198	0.192	0.190	0.187	0.190	2.7
2,4-Dimethylphenol	0.399	0.352	0.357	0.347	0.330	0.322	0.310	0.345	8.4
Bis(2-Chloroethoxy)methane	0.471	0.421	0.468	0.435	0.412	0.408	0.400	0.431	6.7
2,4-Dichlorophenol	0.318	0.293	0.300	0.296	0.280	0.273	0.261	0.289	6.6
1,2,4-Trichlorobenzene	0.368	0.310	0.347	0.325	0.307	0.303	0.296	0.322	8.2
Naphthalene	1.178	1.014	1.090	0.992	0.920	0.870	0.814	0.982	12.9
Benzoic acid		0.120	0.164	0.214	0.212	0.239	0.230	0.196	0.992
4-Chloroaniline	0.454	0.417	0.435	0.399	0.366	0.358	0.320	0.393	12.1
Hexachlorobutadiene	0.193	0.165	0.186	0.180	0.165	0.166	0.165	0.174	6.8
4-Chloro-3-methylphenol	0.307	0.288	0.282	0.275	0.262	0.271	0.248	0.276	6.8
2-Methylnaphthalene	0.621	0.531	0.563	0.518	0.478	0.481	0.446	0.520	11.4
Hexachlorocyclopentadiene	0.239	0.256	0.338	0.361	0.358	0.345	0.375	0.324	16.7
2,4,6-Trichlorophenol	0.320	0.312	0.346	0.351	0.343	0.341	0.340	0.336	4.3
2,4,5-Trichlorophenol	0.330	0.320	0.362	0.373	0.360	0.361	0.363	0.353	5.6
2-Chloronaphthalene	1.301	1.086	1.198	1.110	1.029	0.949	0.943	1.088	12.0
2-Nitroaniline	0.247	0.266	0.295	0.281	0.269	0.280	0.266	0.272	5.6
Acenaphthylene	1.786	1.610	1.787	1.664	1.561	1.492	1.445	1.621	8.3
Dimethylphthalate	1.323	1.124	1.212	1.122	1.057	1.097	1.064	1.143	8.3
2,6-Dinitrotoluene	0.234	0.248	0.279	0.271	0.255	0.272	0.262	0.260	6.0
Acenaphthene	1.213	1.012	1.098	1.035	0.964	0.951	0.924	1.028	9.8
3-Nitroaniline	0.293	0.280	0.292	0.270	0.248	0.227		0.268	9.8
2,4-Dinitrophenol		0.060	0.099	0.143	0.140	0.163	0.158	0.127	0.995
Dibenzofuran	1.704	1.471	1.541	1.419	1.315	1.298	1.204	1.422	11.9

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

TX57 00039

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING, INC.

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT6 Calibration Date: 11/21/11

LAB FILE ID: RRF1 =11211102 RRF5 =11211103 RRF10 =11211104
RRF25 =11211109 RRF40 =11211105 RRF60 =11211106
RRF80 =11211107

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	RRF	%RSD /R^2
4-Nitrophenol	0.066	0.109	0.112	0.127	0.117	0.129	0.117	0.111	19.2
2,4-Dinitrotoluene	0.310	0.315	0.353	0.349	0.328	0.368	0.345	0.338	6.3
Fluorene	1.346	1.162	1.250	1.170	1.074	1.083	1.029	1.159	9.5
4-Chlorophenyl-phenylether	0.668	0.548	0.600	0.565	0.530	0.536	0.516	0.566	9.3
Diethylphthalate	1.263	1.088	1.145	1.067	0.990	1.031	0.971	1.079	9.3
4-Nitroaniline	0.240	0.268	0.269	0.271	0.242	0.279	0.246	0.259	6.2
4,6-Dinitro-2-methylphenol		0.104	0.123	0.142	0.140	0.142	0.145	0.133	12.0
N-Nitrosodiphenylamine (1)	0.697	0.598	0.658	0.597	0.589	0.554	0.568	0.609	8.4
4-Bromophenyl-phenylether	0.252	0.203	0.238	0.215	0.214	0.202	0.210	0.219	8.6
Hexachlorobenzene	0.264	0.220	0.248	0.228	0.223	0.210	0.217	0.230	8.3
Pentachlorophenol		0.079	0.110	0.117	0.122	0.129	0.130	0.114	16.5
Phenanthrene	1.306	1.096	1.165	1.076	1.017	0.962	0.947	1.081	11.6
Anthracene	1.262	1.117	1.215	1.126	1.059	0.993	0.984	1.108	9.5
Carbazole	1.122	1.038	1.095	1.047	0.963	0.951	0.916	1.019	7.6
Di-n-butylphthalate	1.220	1.155	1.248	1.218	1.118	1.088	1.056	1.158	6.4
Fluoranthene	1.098	1.046	1.090	1.062	0.972	0.968	0.951	1.027	6.0
Pyrene	1.517	1.207	1.344	1.210	1.183	1.116	1.090	1.238	11.9
Butylbenzylphthalate	0.485	0.496	0.567	0.559	0.549	0.542	0.534	0.533	5.8
Benzo(a)anthracene	1.044	0.938	1.042	0.994	0.966	0.922	0.913	0.974	5.6
3,3'-Dichlorobenzidine	0.322	0.334	0.357	0.341	0.320	0.286	0.277	0.320	9.1
Chrysene	1.162	0.950	1.057	1.012	0.969	0.934	0.929	1.002	8.4
bis(2-Ethylhexyl)phthalate	0.615	0.538	0.612	0.607	0.594	0.585	0.586	0.591	4.4
Di-n-octylphthalate	1.192	0.962	1.061	1.038	0.988	0.978	0.962	1.026	8.1
Benzo(b)fluoranthene	1.041	0.998	1.057	1.058	1.053	1.000	1.007	1.030	2.7
Benzo(k)fluoranthene	1.261	1.058	1.255	1.092	1.011	0.946	0.903	1.075	13.0
Benzo(a)pyrene	0.926	0.882	0.993	0.956	0.934	0.893	0.893	0.925	4.3
Indeno(1,2,3-cd)pyrene	1.249	1.102	1.325	1.269	1.241	1.177	1.231	1.228	5.8
Dibenzo(a,h)anthracene	1.016	0.916	1.088	1.064	1.018	0.965	0.998	1.009	5.7
Benzo(g,h,i)perylene	1.094	0.968	1.157	1.103	1.103	1.058	1.108	1.084	5.4
N-Nitrosodimethylamine	0.953	0.886	1.001	0.951	0.959	0.934	0.950	0.948	3.6
Aniline	2.291	2.084	2.213	2.022	1.955	1.884	1.752	2.029	9.2
Benzidine		0.092	0.176	0.217	0.248	0.239	0.252	0.204	0.992
Pyridine	1.564	1.631	1.863	1.811	1.771	1.760	1.742	1.734	6.0
1-methylnaphthalene	0.599	0.531	0.555	0.519	0.473	0.485	0.448	0.516	10.0
Azobenzene (1,2-DP-Hydrazine	1.372	1.231	1.322	1.242	1.151	1.159	1.096	1.225	8.0
Total Benzofluoranthenes	1.094	0.982	1.099	1.022	0.985	0.921	0.898	1.000	7.8
2-Fluorophenol	1.558	1.439	1.559	1.465	1.394	1.361		1.463	5.6

(1) Cannot be seperated from Diphenylamine

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

TX57 00040

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING, INC.

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT6 Calibration Date: 11/21/11

LAB FILE ID: RRF1 =11211102 RRF5 =11211103 RRF10 =11211104
RRF25 =11211109 RRF40 =11211105 RRF60 =11211106
RRF80 =11211107

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	___ RRF	%RSD /R^2
Phenol-d5	2.012	1.839	1.911	1.729	1.669	1.638		1.800	8.1
2-Chlorophenol-d4	1.543	1.393	1.498	1.381	1.333	1.302		1.408	6.7
1,2-Dichlorobenzene-d4	1.124	0.997	1.030	0.944	0.890	0.858		0.974	10.0
Nitrobenzene-d5	0.414	0.396	0.436	0.417	0.408	0.402		0.412	3.3
2-Fluorobiphenyl	1.483	1.302	1.425	1.318	1.258	1.191		1.330	8.1
2,4,6-Tribromophenol	0.133	0.128	0.146	0.144	0.135	0.149		0.139	6.0
Terphenyl-d14	1.089	0.778	0.826	0.736	0.731	0.708		0.811	17.5

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

FORM VI SV-3

TX57 : 00041

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC | Client: INTEGRAL CONSULTING, INC.

ARI Job No: TX57 | Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT6 | Cont. Calib. Date: 11/29/11

Init. Calib. Date: 11/21/11 | Cont. Calib. Time: 1158

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Phenol	1.710	1.750	0.800	AVRG	2.3
Bis(2-Chloroethyl)ether	1.389	1.417	0.700	AVRG	2.0
2-Chlorophenol	1.403	1.419	0.800	AVRG	1.1
1,3-Dichlorobenzene	1.617	1.630	0.010	AVRG	0.8
1,4-Dichlorobenzene	1.605	1.608	0.010	AVRG	0.2
1,2-Dichlorobenzene	1.508	1.511	0.010	AVRG	0.2
Benzyl alcohol	0.859	0.931	0.010	AVRG	8.4
2,2'-oxybis(1-Chloropropane)	1.126	1.157	0.010	AVRG	2.8
2-Methylphenol	1.265	1.313	0.700	AVRG	3.8
Hexachloroethane	0.619	0.626	0.300	AVRG	1.1
N-Nitroso-di-n-propylamine	0.938	0.988	0.500	AVRG	5.3
4-Methylphenol	1.288	1.351	0.600	AVRG	4.9
Nitrobenzene	0.391	0.404	0.200	AVRG	3.3
Isophorone	0.588	0.609	0.400	AVRG	3.6
2-Nitrophenol	0.190	0.198	0.100	AVRG	4.2
2,4-Dimethylphenol	0.345	0.357	0.200	AVRG	3.5
Bis(2-Chloroethoxy)methane	0.431	0.445	0.300	AVRG	3.2
2,4-Dichlorophenol	0.289	0.298	0.200	AVRG	3.1
1,2,4-Trichlorobenzene	0.322	0.319	0.010	AVRG	-0.9
Naphthalene	0.982	0.986	0.700	AVRG	0.4
Benzoic acid	50.00	47.33	0.010	LINR	-5.3
4-Chloroaniline	0.393	0.397	0.010	AVRG	1.0
Hexachlorobutadiene	0.174	0.172	0.010	AVRG	-1.1
4-Chloro-3-methylphenol	0.276	0.291	0.200	AVRG	5.4
2-Methylnaphthalene	0.520	0.524	0.400	AVRG	0.8
Hexachlorocyclopentadiene	0.324	0.327	0.050	AVRG	0.9
2,4,6-Trichlorophenol	0.336	0.351	0.200	AVRG	4.5
2,4,5-Trichlorophenol	0.353	0.369	0.200	AVRG	4.5
2-Chloronaphthalene	1.088	1.072	0.800	AVRG	-1.5
2-Nitroaniline	0.272	0.291	0.010	AVRG	7.0
Acenaphthylene	1.621	1.651	0.900	AVRG	1.8
Dimethylphthalate	1.143	1.148	0.010	AVRG	0.4
2,6-Dinitrotoluene	0.260	0.275	0.200	AVRG	5.8
Acenaphthene	1.028	1.018	0.900	AVRG	-1.0
3-Nitroaniline	0.268	0.274	0.010	AVRG	2.2
2,4-Dinitrophenol	50.00	42.16	0.010	2ORDR	-15.7
Dibenzofuran	1.422	1.414	0.800	AVRG	-0.6

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII SV-1

TX57 00042

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING, INC.

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT6 Cont. Calib. Date: 11/29/11

Init. Calib. Date: 11/21/11 Cont. Calib. Time: 1158

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
4-Nitrophenol	0.111	0.127	0.010	AVRG	14.4
2,4-Dinitrotoluene	0.338	0.361	0.200	AVRG	6.8
Fluorene	1.159	1.174	0.900	AVRG	1.3
4-Chlorophenyl-phenylether	0.566	0.573	0.400	AVRG	1.2
Diethylphthalate	1.079	1.096	0.010	AVRG	1.6
4-Nitroaniline	0.259	0.273	0.010	AVRG	5.4
4,6-Dinitro-2-methylphenol	0.133	0.133	0.010	AVRG	0.0
N-Nitrosodiphenylamine(1)	0.609	0.608	0.010	AVRG	-0.2
4-Bromophenyl-phenylether	0.219	0.216	0.100	AVRG	-1.4
Hexachlorobenzene	0.230	0.229	0.100	AVRG	-0.4
Pentachlorophenol	0.114	0.122	0.050	AVRG	7.0
Phenanthrene	1.081	1.084	0.700	AVRG	0.3
Anthracene	1.108	1.130	0.700	AVRG	2.0
Carbazole	1.019	1.057	0.010	AVRG	3.7
Di-n-butylphthalate	1.158	1.239	0.010	AVRG	7.0
Fluoranthene	1.027	1.078	0.600	AVRG	5.0
Pyrene	1.238	1.204	0.600	AVRG	-2.7
Butylbenzylphthalate	0.533	0.564	0.010	AVRG	5.8
Benzo(a)anthracene	0.974	0.997	0.800	AVRG	2.4
3,3'-Dichlorobenzidine	0.320	0.342	0.010	AVRG	6.9
Chrysene	1.002	1.003	0.700	AVRG	0.1
bis(2-Ethylhexyl)phthalate	0.591	0.607	0.010	AVRG	2.7
Di-n-octylphthalate	1.026	1.019	0.010	AVRG	-0.7
Benzo(b)fluoranthene	1.030	0.953	0.700	AVRG	-7.5
Benzo(k)fluoranthene	1.075	1.146	0.700	AVRG	6.6
Benzo(a)pyrene	0.925	0.962	0.700	AVRG	4.0
Indeno(1,2,3-cd)pyrene	1.228	1.254	0.500	AVRG	2.1
Dibenzo(a,h)anthracene	1.009	1.051	0.400	AVRG	4.2
Benzo(g,h,i)perylene	1.084	1.082	0.500	AVRG	-0.2
N-Nitrosodimethylamine	0.948	0.986	0.010	AVRG	4.0
Aniline	2.029	2.018	0.010	AVRG	-0.5
Benzidine	25.00	0.000	0.010	LINR	
Pyridine	1.734	1.800	0.010	AVRG	3.8
1-methylnaphthalene	0.516	0.525	0.010	AVRG	1.7
Azobenzene (1,2-DP-Hydrazine	1.225	1.258	0.010	AVRG	2.7
Total Benzofluoranthenes	1.000	1.000	0.010	AVRG	0.0

(1) Cannot be separated from Diphenylamine
<- Exceeds QC limit of 20% D
* RF less than minimum RF

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC | Client: INTEGRAL CONSULTING, INC.

ARI Job No: TX57 | Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT6 | Cont. Calib. Date: 11/29/11

Init. Calib. Date: 11/21/11 | Cont. Calib. Time: 1158

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
2-Fluorophenol	1.463	1.456	0.010	AVRG	-0.5
Phenol-d5	1.800	1.805	0.010	AVRG	0.3
2-Chlorophenol-d4	1.408	1.417	0.010	AVRG	0.6
1,2-Dichlorobenzene-d4	0.974	0.949	0.010	AVRG	-2.6
Nitrobenzene-d5	0.412	0.427	0.010	AVRG	3.6
2-Fluorobiphenyl	1.330	1.287	0.010	AVRG	-3.2
2,4,6-Tribromophenol	0.139	0.150	0.010	AVRG	7.9
Terphenyl-d14	0.811	0.747	0.010	AVRG	-7.9

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-3

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: INTEGRAL CONSULTING, INC.

ARI Job No: TX57 | Project: SLIP 4 EARLY ACTION AREA

Ical Midpoint ID: 11211109 | Ical Date: 11/21/11

Instrument ID: NT6 | Cont. Cal Date: 11/29/11

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	393702	8.10	1422023	10.15	754629	13.03
	UPPER LIMIT	787404		2844046		1509258	
	LOWER LIMIT	196851		711012		377314	
	CCAL	464939	8.10	1747430	10.15	973585	13.02
	UPPER LIMIT		8.60		10.65		13.52
	LOWER LIMIT		7.60		9.65		12.52
01	TW99MBW1	448033	8.09	1624948	10.15	885283	13.02
02	TW99LCSW1	535457	8.10	2033611	10.15	1075371	13.03
03	TW99LCSDW1	514026	8.10	1936339	10.15	1049534	13.03
04	RB0003	567335	8.09	2098683	10.15	1171622	13.02
05	WB0002	603848	8.10	2266578	10.15	1271130	13.02
06							
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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.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: INTEGRAL CONSULTING, INC.

ARI Job No: TX57 | Project: SLIP 4 EARLY ACTION AREA

Ical Midpoint ID: 11211109 | Ical Date: 11/21/11

Instrument ID: NT6 | Cont. Cal Date: 11/29/11

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	ICAL MIDPT	1068116		15.41		993839		19.75		976441		21.91	
	UPPER LIMIT	2136232				1987678				1952882			
	LOWER LIMIT	534058				496920				488220			
	CCAL	1384067		15.41		1280022		19.74		1331426		21.91	
	UPPER LIMIT			15.91				20.24				22.41	
	LOWER LIMIT			14.91				19.24				21.41	
01	TW99MBW1	1230515		15.41		1182700		19.74		1245256		21.90	
02	TW99LCSW1	1456439		15.41		1231378		19.74		1379933		21.90	
03	TW99LCSDW1	1501430		15.41		1322308		19.74		1409684		21.90	
04	RB0003	1602523		15.41		1215271		19.73		1283846		21.90	
05	WB0002	1752279		15.41		1383264		19.74		1387856		21.90	
06													
07													
08													
09													
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22													
23													
24													
25													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

TX57.00046

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: INTEGRAL CONSULTING, INC.

ARI Job No: TX57 | Project: SLIP 4 EARLY ACTION AREA

Ical Midpoint ID: 11211109 | Ical Date: 11/21/11

Instrument ID: NT6 | Cont. Cal Date: 11/29/11

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	1256584	20.88				
	UPPER LIMIT	2513168					
	LOWER LIMIT	628292					
	CCAL	1629483	20.88				
	UPPER LIMIT		21.38				
	LOWER LIMIT		20.38				
01	TW99MBW1	1476277	20.88				
02	TW99LCSW1	1598547	20.88				
03	TW99LCSDW1	1722164	20.88				
04	RB0003	1604761	20.88				
05	WB0002	1819575	20.88				
06							
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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.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0012**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57A
LIMS ID: 11-26619
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 16:17
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 19.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
106-44-5	4-Methylphenol	38	< 38 U
67-72-1	Hexachloroethane	19	< 19 U
105-67-9	2,4-Dimethylphenol	38	< 38 U
65-85-0	Benzoic Acid	380	< 380 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	**Naphthalene**	**19**	**18 J**
87-68-3	Hexachlorobutadiene	94	< 94 U
91-57-6	**2-Methylnaphthalene**	**19**	**16 J**
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	**Acenaphthylene**	**19**	**9.4 J**
83-32-9	**Acenaphthene**	**19**	**26**
132-64-9	**Dibenzofuran**	**19**	**17 J**
84-66-2	Diethylphthalate	47	< 47 U
86-73-7	**Fluorene**	**19**	**20**
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	190	< 190 U
85-01-8	**Phenanthrene**	**19**	**110**
120-12-7	**Anthracene**	**19**	**35**
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**160**
129-00-0	**Pyrene**	**19**	**140**
85-68-7	Butylbenzylphthalate	19	< 19 U
56-55-3	**Benzo(a)anthracene**	**19**	**65**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**24**	**40 B**
218-01-9	**Chrysene**	**19**	**92**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
50-32-8	**Benzo(a)pyrene**	**19**	**69**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**40**
53-70-3	**Dibenz(a,h)anthracene**	**19**	**14 J**
191-24-2	**Benzo(g,h,i)perylene**	**19**	**58**
90-12-0	**1-Methylnaphthalene**	**19**	**12 J**
TOTBFA	**Total Benzofluoranthenes**	**19**	**100**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	61.8%	2-Fluorobiphenyl	71.0%
d14-p-Terphenyl	68.8%	d4-1,2-Dichlorobenzene	60.2%
d5-Phenol	64.8%	2-Fluorophenol	58.8%
2,4,6-Tribromophenol	66.7%	**FORM I** d4-2-Chlorophenol	61.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0013**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57B
LIMS ID: 11-26620
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 17:25
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 18.8%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
106-44-5	4-Methylphenol	37	< 37 U
67-72-1	Hexachloroethane	19	< 19 U
105-67-9	2,4-Dimethylphenol	37	< 37 U
65-85-0	Benzoic Acid	370	< 370 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	**Naphthalene**	**19**	**16 J**
87-68-3	Hexachlorobutadiene	93	< 93 U
91-57-6	**2-Methylnaphthalene**	**19**	**15 J**
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	**Acenaphthylene**	**19**	**9.3 J**
83-32-9	**Acenaphthene**	**19**	**24**
132-64-9	**Dibenzofuran**	**19**	**16 J**
84-66-2	**Diethylphthalate**	**46**	**60**
86-73-7	**Fluorene**	**19**	**19**
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	190	< 190 U
85-01-8	**Phenanthrene**	**19**	**96**
120-12-7	**Anthracene**	**19**	**26**
84-74-2	**Di-n-Butylphthalate**	**19**	**11 J**
206-44-0	**Fluoranthene**	**19**	**160**
129-00-0	**Pyrene**	**19**	**140**
85-68-7	Butylbenzylphthalate	19	< 19 U
56-55-3	**Benzo(a)anthracene**	**19**	**63**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**23**	**44 B**
218-01-9	**Chrysene**	**19**	**79**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
50-32-8	**Benzo(a)pyrene**	**19**	**75**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**37**
53-70-3	**Dibenz(a,h)anthracene**	**19**	**14 J**
191-24-2	**Benzo(g,h,i)perylene**	**19**	**56**
90-12-0	**1-Methylnaphthalene**	**19**	**12 J**
TOTBFA	**Total Benzofluoranthenes**	**19**	**120**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	67.8%		2-Fluorobiphenyl	77.8%
d14-p-Terphenyl	70.2%		d4-1,2-Dichlorobenzene	66.0%
d5-Phenol	66.8%		2-Fluorophenol	62.7%
2,4,6-Tribromophenol	74.9%	**FORM I**	d4-2-Chlorophenol	66.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0014**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57C
LIMS ID: 11-26621
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 17:59
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 25.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	18	< 18 U
541-73-1	1,3-Dichlorobenzene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
100-51-6	Benzyl Alcohol	18	< 18 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
95-48-7	2-Methylphenol	18	< 18 U
106-44-5	4-Methylphenol	37	< 37 U
67-72-1	Hexachloroethane	18	< 18 U
105-67-9	2,4-Dimethylphenol	37	< 37 U
65-85-0	Benzoic Acid	370	< 370 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
91-20-3	**Naphthalene**	**18**	**14 J**
87-68-3	Hexachlorobutadiene	92	< 92 U
91-57-6	**2-Methylnaphthalene**	**18**	**14 J**
131-11-3	Dimethylphthalate	18	< 18 U
208-96-8	Acenaphthylene	18	< 18 U
83-32-9	**Acenaphthene**	**18**	**24**
132-64-9	**Dibenzofuran**	**18**	**16 J**
84-66-2	**Diethylphthalate**	**46**	**67**
86-73-7	**Fluorene**	**18**	**24**
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-86-5	Pentachlorophenol	180	< 180 U
85-01-8	**Phenanthrene**	**18**	**82**
120-12-7	**Anthracene**	**18**	**18**
84-74-2	Di-n-Butylphthalate	18	< 18 U
206-44-0	**Fluoranthene**	**18**	**110**
129-00-0	**Pyrene**	**18**	**97**
85-68-7	Butylbenzylphthalate	18	< 18 U
56-55-3	**Benzo(a)anthracene**	**18**	**37**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**23**	**46 B**
218-01-9	**Chrysene**	**18**	**63**
117-84-0	Di-n-Octyl phthalate	18	< 18 U
50-32-8	**Benzo(a)pyrene**	**18**	**44**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**18**	**17 J**
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
191-24-2	**Benzo(g,h,i)perylene**	**18**	**25**
90-12-0	1-Methylnaphthalene	18	< 18 U
TOTBFA	**Total Benzofluoranthenes**	**18**	**78**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.6%	2-Fluorobiphenyl	66.2%
d14-p-Terphenyl	65.2%	d4-1,2-Dichlorobenzene	55.8%
d5-Phenol	53.7%	2-Fluorophenol	59.7%
2,4,6-Tribromophenol	70.5%	d4-2-Chlorophenol	59.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0015**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57D
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/07/11 12:33
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 21.4%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	58	< 58 U
541-73-1	1,3-Dichlorobenzene	58	< 58 U
106-46-7	1,4-Dichlorobenzene	58	< 58 U
100-51-6	Benzyl Alcohol	58	< 58 U
95-50-1	1,2-Dichlorobenzene	58	< 58 U
95-48-7	2-Methylphenol	58	< 58 U
106-44-5	4-Methylphenol	120	< 120 U
67-72-1	Hexachloroethane	58	< 58 U
105-67-9	2,4-Dimethylphenol	120	< 120 U
65-85-0	Benzoic Acid	1,200	< 1,200 U
120-82-1	1,2,4-Trichlorobenzene	58	< 58 U
91-20-3	**Naphthalene**	**58**	**600**
87-68-3	Hexachlorobutadiene	290	< 290 U
91-57-6	**2-Methylnaphthalene**	**58**	**210**
131-11-3	Dimethylphthalate	58	< 58 U
208-96-8	**Acenaphthylene**	**58**	**41 J**
83-32-9	**Acenaphthene**	**58**	**870**
132-64-9	**Dibenzofuran**	**58**	**340**
84-66-2	Diethylphthalate	150	< 150 U
86-73-7	**Fluorene**	**58**	**950**
86-30-6	**N-Nitrosodiphenylamine**	**58**	**67 M**
118-74-1	Hexachlorobenzene	58	< 58 U
87-86-5	Pentachlorophenol	580	< 580 U
85-01-8	**Phenanthrene**	**58**	**2,900**
120-12-7	**Anthracene**	**58**	**620**
84-74-2	Di-n-Butylphthalate	58	< 58 U
206-44-0	**Fluoranthene**	**58**	**3,100**
129-00-0	**Pyrene**	**58**	**2,600**
85-68-7	Butylbenzylphthalate	58	< 58 U
56-55-3	**Benzo(a)anthracene**	**58**	**790**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**73**	**91 B**
218-01-9	**Chrysene**	**58**	**930**
117-84-0	Di-n-Octyl phthalate	58	< 58 U
50-32-8	**Benzo(a)pyrene**	**58**	**590**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**58**	**270**
53-70-3	**Dibenz(a,h)anthracene**	**58**	**91**
191-24-2	**Benzo(g,h,i)perylene**	**58**	**350**
90-12-0	**1-Methylnaphthalene**	**58**	**110**
TOTBFA	**Total Benzofluoranthenes**	**58**	**1,000**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.0%		2-Fluorobiphenyl	70.2%
d14-p-Terphenyl	70.8%		d4-1,2-Dichlorobenzene	65.4%
d5-Phenol	63.6%		2-Fluorophenol	62.0%
2,4,6-Tribromophenol	59.2%	**FORM I**	d4-2-Chlorophenol	63.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0016**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57E
LIMS ID: 11-26623
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 20:16
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 14.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	58	< 58 U
541-73-1	1,3-Dichlorobenzene	58	< 58 U
106-46-7	1,4-Dichlorobenzene	58	< 58 U
100-51-6	Benzyl Alcohol	58	< 58 U
95-50-1	1,2-Dichlorobenzene	58	< 58 U
95-48-7	2-Methylphenol	58	< 58 U
106-44-5	4-Methylphenol	120	< 120 U
67-72-1	Hexachloroethane	58	< 58 U
105-67-9	2,4-Dimethylphenol	120	< 120 U
65-85-0	Benzoic Acid	1,200	< 1,200 U
120-82-1	1,2,4-Trichlorobenzene	58	< 58 U
91-20-3	Naphthalene	58	< 58 U
87-68-3	Hexachlorobutadiene	290	< 290 U
91-57-6	**2-Methylnaphthalene**	**58**	**32 J**
131-11-3	Dimethylphthalate	58	< 58 U
208-96-8	Acenaphthylene	58	< 58 U
83-32-9	**Acenaphthene**	**58**	**32 J**
132-64-9	Dibenzofuran	58	< 58 U
84-66-2	Diethylphthalate	140	< 140 U
86-73-7	**Fluorene**	**58**	**32 J**
86-30-6	N-Nitrosodiphenylamine	58	< 58 U
118-74-1	Hexachlorobenzene	58	< 58 U
87-86-5	Pentachlorophenol	580	< 580 U
85-01-8	**Phenanthrene**	**58**	**89**
120-12-7	Anthracene	58	< 58 U
84-74-2	**Di-n-Butylphthalate**	**58**	**35 J**
206-44-0	**Fluoranthene**	**58**	**120**
129-00-0	**Pyrene**	**58**	**160**
85-68-7	Butylbenzylphthalate	58	< 58 U
56-55-3	**Benzo(a)anthracene**	**58**	**55 J**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**72**	**66 BJ**
218-01-9	**Chrysene**	**58**	**140**
117-84-0	Di-n-Octyl phthalate	58	< 58 U
50-32-8	**Benzo(a)pyrene**	**58**	**58**
193-39-5	Indeno(1,2,3-cd)pyrene	58	< 58 U
53-70-3	Dibenz(a,h)anthracene	58	< 58 U
191-24-2	**Benzo(g,h,i)perylene**	**58**	**63**
90-12-0	**1-Methylnaphthalene**	**58**	**46 J**
TOTBFA	**Total Benzofluoranthenes**	**58**	**120**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.6%	2-Fluorobiphenyl	72.6%
d14-p-Terphenyl	70.8%	d4-1,2-Dichlorobenzene	59.4%
d5-Phenol	56.4%	2-Fluorophenol	58.0%
2,4,6-Tribromophenol	65.6%	d4-2-Chlorophenol	59.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0017**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57F
LIMS ID: 11-26624
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 20:50
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 16.2%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
106-44-5	4-Methylphenol	38	< 38 U
67-72-1	Hexachloroethane	19	< 19 U
105-67-9	2,4-Dimethylphenol	38	< 38 U
65-85-0	Benzoic Acid	380	< 380 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
87-68-3	Hexachlorobutadiene	96	< 96 U
91-57-6	2-Methylnaphthalene	19	< 19 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
83-32-9	Acenaphthene	19	< 19 U
132-64-9	Dibenzofuran	19	< 19 U
84-66-2	Diethylphthalate	48	< 48 U
86-73-7	Fluorene	19	< 19 U
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	190	< 190 U
85-01-8	**Phenanthrene**	**19**	**32**
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**44**
129-00-0	**Pyrene**	**19**	**43**
85-68-7	Butylbenzylphthalate	19	< 19 U
56-55-3	**Benzo(a)anthracene**	**19**	**20**
117-81-7	bis(2-Ethylhexyl)phthalate	24	< 24 U
218-01-9	**Chrysene**	**19**	**29**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
50-32-8	**Benzo(a)pyrene**	**19**	**20**
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U
TOTBFA	**Total Benzofluoranthenes**	**19**	**43**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.2%	2-Fluorobiphenyl	68.2%
d14-p-Terphenyl	66.2%	d4-1,2-Dichlorobenzene	55.4%
d5-Phenol	59.6%	2-Fluorophenol	52.3%
2,4,6-Tribromophenol	63.3%	d4-2-Chlorophenol	57.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0018**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57G
LIMS ID: 11-26625
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 21:24
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 11.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	18	< 18 U
541-73-1	1,3-Dichlorobenzene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
100-51-6	Benzyl Alcohol	18	< 18 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
95-48-7	2-Methylphenol	18	< 18 U
106-44-5	4-Methylphenol	37	< 37 U
67-72-1	Hexachloroethane	18	< 18 U
105-67-9	2,4-Dimethylphenol	37	< 37 U
65-85-0	Benzoic Acid	370	< 370 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
91-20-3	Naphthalene	18	< 18 U
87-68-3	Hexachlorobutadiene	92	< 92 U
91-57-6	2-Methylnaphthalene	18	< 18 U
131-11-3	Dimethylphthalate	18	< 18 U
208-96-8	Acenaphthylene	18	< 18 U
83-32-9	Acenaphthene	18	< 18 U
132-64-9	Dibenzofuran	18	< 18 U
84-66-2	Diethylphthalate	46	< 46 U
86-73-7	Fluorene	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-86-5	Pentachlorophenol	180	< 180 U
85-01-8	Phenanthrene	18	< 18 U
120-12-7	Anthracene	18	< 18 U
84-74-2	Di-n-Butylphthalate	18	< 18 U
206-44-0	**Fluoranthene**	**18**	**9.2 J**
129-00-0	Pyrene	18	< 18 U
85-68-7	Butylbenzylphthalate	18	< 18 U
56-55-3	Benzo(a)anthracene	18	< 18 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**23**	**20 BJ**
218-01-9	**Chrysene**	**18**	**10 J**
117-84-0	Di-n-Octyl phthalate	18	< 18 U
50-32-8	Benzo(a)pyrene	18	< 18 U
193-39-5	Indeno(1,2,3-cd)pyrene	18	< 18 U
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
191-24-2	Benzo(g,h,i)perylene	18	< 18 U
90-12-0	1-Methylnaphthalene	18	< 18 U
TOTBFA	**Total Benzofluoranthenes**	**18**	**15 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.6%	2-Fluorobiphenyl	61.4%
d14-p-Terphenyl	67.0%	d4-1,2-Dichlorobenzene	58.0%
d5-Phenol	46.3%	2-Fluorophenol	26.0%
2,4,6-Tribromophenol	13.2%	d4-2-Chlorophenol	34.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0019**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57H
LIMS ID: 11-26626
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 21:58
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 13.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	58	< 58 U
541-73-1	1,3-Dichlorobenzene	58	< 58 U
106-46-7	1,4-Dichlorobenzene	58	< 58 U
100-51-6	Benzyl Alcohol	58	< 58 U
95-50-1	1,2-Dichlorobenzene	58	< 58 U
95-48-7	2-Methylphenol	58	< 58 U
106-44-5	4-Methylphenol	120	< 120 U
67-72-1	Hexachloroethane	58	< 58 U
105-67-9	2,4-Dimethylphenol	120	< 120 U
65-85-0	Benzoic Acid	1,200	< 1,200 U
120-82-1	1,2,4-Trichlorobenzene	58	< 58 U
91-20-3	**Naphthalene**	**58**	**43 J**
87-68-3	Hexachlorobutadiene	290	< 290 U
91-57-6	**2-Methylnaphthalene**	**58**	**32 J**
131-11-3	Dimethylphthalate	58	< 58 U
208-96-8	Acenaphthylene	58	< 58 U
83-32-9	**Acenaphthene**	**58**	**150**
132-64-9	**Dibenzofuran**	**58**	**52 J**
84-66-2	Diethylphthalate	140	< 140 U
86-73-7	**Fluorene**	**58**	**120**
86-30-6	N-Nitrosodiphenylamine	58	< 58 U
118-74-1	Hexachlorobenzene	58	< 58 U
87-86-5	Pentachlorophenol	580	< 580 U
85-01-8	**Phenanthrene**	**58**	**820**
120-12-7	**Anthracene**	**58**	**240**
84-74-2	Di-n-Butylphthalate	58	< 58 U
206-44-0	**Fluoranthene**	**58**	**970**
129-00-0	**Pyrene**	**58**	**860**
85-68-7	Butylbenzylphthalate	58	< 58 U
56-55-3	**Benzo(a)anthracene**	**58**	**420**
117-81-7	bis(2-Ethylhexyl)phthalate	72	< 72 U
218-01-9	**Chrysene**	**58**	**510**
117-84-0	Di-n-Octyl phthalate	58	< 58 U
50-32-8	**Benzo(a)pyrene**	**58**	**430**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**58**	**140**
53-70-3	**Dibenz(a,h)anthracene**	**58**	**52 J**
191-24-2	**Benzo(g,h,i)perylene**	**58**	**190**
90-12-0	1-Methylnaphthalene	58	< 58 U
TOTBFA	**Total Benzofluoranthenes**	**58**	**740**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	79.2%	2-Fluorobiphenyl	83.4%
d14-p-Terphenyl	75.0%	d4-1,2-Dichlorobenzene	60.6%
d5-Phenol	59.2%	2-Fluorophenol	61.6%
2,4,6-Tribromophenol	72.0%	d4-2-Chlorophenol	70.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0020**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57I
LIMS ID: 11-26627
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 22:32
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 9.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	58	< 58 U
541-73-1	1,3-Dichlorobenzene	58	< 58 U
106-46-7	1,4-Dichlorobenzene	58	< 58 U
100-51-6	Benzyl Alcohol	58	< 58 U
95-50-1	1,2-Dichlorobenzene	58	< 58 U
95-48-7	2-Methylphenol	58	< 58 U
106-44-5	4-Methylphenol	120	< 120 U
67-72-1	Hexachloroethane	58	< 58 U
105-67-9	2,4-Dimethylphenol	120	< 120 U
65-85-0	Benzoic Acid	1,200	< 1,200 U
120-82-1	1,2,4-Trichlorobenzene	58	< 58 U
91-20-3	**Naphthalene**	**58**	**90**
87-68-3	Hexachlorobutadiene	290	< 290 U
91-57-6	**2-Methylnaphthalene**	**58**	**100**
131-11-3	Dimethylphthalate	58	< 58 U
208-96-8	Acenaphthylene	58	< 58 U
83-32-9	**Acenaphthene**	**58**	**210**
132-64-9	**Dibenzofuran**	**58**	**110**
84-66-2	Diethylphthalate	150	< 150 U
86-73-7	**Fluorene**	**58**	**270**
86-30-6	N-Nitrosodiphenylamine	58	< 58 U
118-74-1	Hexachlorobenzene	58	< 58 U
87-86-5	Pentachlorophenol	580	< 580 U
85-01-8	**Phenanthrene**	**58**	**610**
120-12-7	**Anthracene**	**58**	**610**
84-74-2	Di-n-Butylphthalate	58	< 58 U
206-44-0	**Fluoranthene**	**58**	**530**
129-00-0	**Pyrene**	**58**	**570**
85-68-7	Butylbenzylphthalate	58	< 58 U
56-55-3	**Benzo(a)anthracene**	**58**	**200**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**73**	**64 BJ**
218-01-9	**Chrysene**	**58**	**400**
117-84-0	Di-n-Octyl phthalate	58	< 58 U
50-32-8	**Benzo(a)pyrene**	**58**	**190**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**58**	**52 J**
53-70-3	Dibenz(a,h)anthracene	58	< 58 U
191-24-2	**Benzo(g,h,i)perylene**	**58**	**61**
90-12-0	**1-Methylnaphthalene**	**58**	**82**
TOTBFA	**Total Benzofluoranthenes**	**58**	**380**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	66.6%	2-Fluorobiphenyl	69.6%
d14-p-Terphenyl	71.4%	d4-1,2-Dichlorobenzene	57.0%
d5-Phenol	53.6%	2-Fluorophenol	61.6%
2,4,6-Tribromophenol	63.6%	d4-2-Chlorophenol	54.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0021**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57J
LIMS ID: 11-26628
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 23:06
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 8.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	59	< 59 U
541-73-1	1,3-Dichlorobenzene	59	< 59 U
106-46-7	1,4-Dichlorobenzene	59	< 59 U
100-51-6	Benzyl Alcohol	59	< 59 U
95-50-1	1,2-Dichlorobenzene	59	< 59 U
95-48-7	2-Methylphenol	59	< 59 U
106-44-5	4-Methylphenol	120	< 120 U
67-72-1	Hexachloroethane	59	< 59 U
105-67-9	2,4-Dimethylphenol	120	< 120 U
65-85-0	Benzoic Acid	1,200	< 1,200 U
120-82-1	1,2,4-Trichlorobenzene	59	< 59 U
91-20-3	Naphthalene	59	< 59 U
87-68-3	Hexachlorobutadiene	300	< 300 U
91-57-6	2-Methylnaphthalene	59	< 59 U
131-11-3	Dimethylphthalate	59	< 59 U
208-96-8	Acenaphthylene	59	< 59 U
83-32-9	Acenaphthene	59	< 59 U
132-64-9	Dibenzofuran	59	< 59 U
84-66-2	Diethylphthalate	150	< 150 U
86-73-7	Fluorene	59	< 59 U
86-30-6	N-Nitrosodiphenylamine	59	< 59 U
118-74-1	Hexachlorobenzene	59	< 59 U
87-86-5	Pentachlorophenol	590	< 590 U
85-01-8	**Phenanthrene**	**59**	**54 J**
120-12-7	Anthracene	59	< 59 U
84-74-2	Di-n-Butylphthalate	59	< 59 U
206-44-0	**Fluoranthene**	**59**	**54 J**
129-00-0	**Pyrene**	**59**	**50 J**
85-68-7	Butylbenzylphthalate	59	< 59 U
56-55-3	Benzo(a)anthracene	59	< 59 U
117-81-7	bis(2-Ethylhexyl)phthalate	74	< 74 U
218-01-9	**Chrysene**	**59**	**48 J**
117-84-0	Di-n-Octyl phthalate	59	< 59 U
50-32-8	**Benzo(a)pyrene**	**59**	**54 J**
193-39-5	Indeno(1,2,3-cd)pyrene	59	< 59 U
53-70-3	Dibenz(a,h)anthracene	59	< 59 U
191-24-2	Benzo(g,h,i)perylene	59	< 59 U
90-12-0	1-Methylnaphthalene	59	< 59 U
TOTBFA	Total Benzofluoranthenes	59	< 59 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	57.0%	2-Fluorobiphenyl	65.4%
d14-p-Terphenyl	63.6%	d4-1,2-Dichlorobenzene	52.2%
d5-Phenol	54.0%	2-Fluorophenol	52.8%
2,4,6-Tribromophenol	52.4%	d4-2-Chlorophenol	54.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0022**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57K
LIMS ID: 11-26629
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 23:40
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 12.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	18	< 18 U
541-73-1	1,3-Dichlorobenzene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
100-51-6	Benzyl Alcohol	18	< 18 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
95-48-7	2-Methylphenol	18	< 18 U
106-44-5	4-Methylphenol	37	< 37 U
67-72-1	Hexachloroethane	18	< 18 U
105-67-9	2,4-Dimethylphenol	37	< 37 U
65-85-0	Benzoic Acid	370	< 370 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
91-20-3	**Naphthalene**	**18**	**12 J**
87-68-3	Hexachlorobutadiene	92	< 92 U
91-57-6	2-Methylnaphthalene	18	< 18 U
131-11-3	Dimethylphthalate	18	< 18 U
208-96-8	**Acenaphthylene**	**18**	**26**
83-32-9	Acenaphthene	18	< 18 U
132-64-9	Dibenzofuran	18	< 18 U
84-66-2	Diethylphthalate	46	< 46 U
86-73-7	Fluorene	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-86-5	Pentachlorophenol	180	< 180 U
85-01-8	**Phenanthrene**	**18**	**66**
120-12-7	**Anthracene**	**18**	**17 J**
84-74-2	Di-n-Butylphthalate	18	< 18 U
206-44-0	**Fluoranthene**	**18**	**93**
129-00-0	**Pyrene**	**18**	**110**
85-68-7	Butylbenzylphthalate	18	< 18 U
56-55-3	**Benzo(a)anthracene**	**18**	**48**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**23**	**17 BJ**
218-01-9	**Chrysene**	**18**	**61**
117-84-0	Di-n-Octyl phthalate	18	< 18 U
50-32-8	**Benzo(a)pyrene**	**18**	**79**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**18**	**34**
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
191-24-2	**Benzo(g,h,i)perylene**	**18**	**42**
90-12-0	1-Methylnaphthalene	18	< 18 U
TOTBFA	**Total Benzofluoranthenes**	**18**	**100**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	59.0%	2-Fluorobiphenyl	61.4%
d14-p-Terphenyl	63.2%	d4-1,2-Dichlorobenzene	56.8%
d5-Phenol	61.6%	2-Fluorophenol	52.4%
2,4,6-Tribromophenol	56.4%	d4-2-Chlorophenol	57.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0023**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57L
LIMS ID: 11-26630
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/07/11 13:07
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 19.4%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	55	< 55 U
541-73-1	1,3-Dichlorobenzene	55	< 55 U
106-46-7	1,4-Dichlorobenzene	55	< 55 U
100-51-6	Benzyl Alcohol	55	< 55 U
95-50-1	1,2-Dichlorobenzene	55	< 55 U
95-48-7	2-Methylphenol	55	< 55 U
106-44-5	4-Methylphenol	110	< 110 U
67-72-1	Hexachloroethane	55	< 55 U
105-67-9	2,4-Dimethylphenol	110	< 110 U
65-85-0	Benzoic Acid	1,100	< 1,100 U
120-82-1	1,2,4-Trichlorobenzene	55	< 55 U
91-20-3	**Naphthalene**	**55**	**52 J**
87-68-3	Hexachlorobutadiene	280	< 280 U
91-57-6	**2-Methylnaphthalene**	**55**	**77**
131-11-3	Dimethylphthalate	55	< 55 U
208-96-8	Acenaphthylene	55	< 55 U
83-32-9	**Acenaphthene**	**55**	**400**
132-64-9	**Dibenzofuran**	**55**	**270**
84-66-2	Diethylphthalate	140	< 140 U
86-73-7	**Fluorene**	**55**	**510**
86-30-6	N-Nitrosodiphenylamine	55	< 55 U
118-74-1	Hexachlorobenzene	55	< 55 U
87-86-5	Pentachlorophenol	550	< 550 U
85-01-8	**Phenanthrene**	**55**	**2,000**
120-12-7	**Anthracene**	**55**	**200**
84-74-2	Di-n-Butylphthalate	55	< 55 U
206-44-0	**Fluoranthene**	**55**	**1,800**
129-00-0	**Pyrene**	**55**	**1,400**
85-68-7	**Butylbenzylphthalate**	**55**	**50 J**
56-55-3	**Benzo(a)anthracene**	**55**	**410**
117-81-7	bis(2-Ethylhexyl)phthalate	69	< 69 U
218-01-9	**Chrysene**	**55**	**450**
117-84-0	Di-n-Octyl phthalate	55	< 55 U
50-32-8	**Benzo(a)pyrene**	**55**	**260**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**55**	**130**
53-70-3	**Dibenz(a,h)anthracene**	**55**	**41 J**
191-24-2	**Benzo(g,h,i)perylene**	**55**	**150**
90-12-0	**1-Methylnaphthalene**	**55**	**77**
TOTBFA	**Total Benzofluoranthenes**	**55**	**540**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	65.4%	2-Fluorobiphenyl	72.0%
d14-p-Terphenyl	73.8%	d4-1,2-Dichlorobenzene	69.0%
d5-Phenol	68.8%	2-Fluorophenol	54.8%
2,4,6-Tribromophenol	54.4%	d4-2-Chlorophenol	65.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0024**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57M
LIMS ID: 11-26631
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/07/11 00:48
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 15.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	18	< 18 U
541-73-1	1,3-Dichlorobenzene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
100-51-6	Benzyl Alcohol	18	< 18 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
95-48-7	2-Methylphenol	18	< 18 U
106-44-5	4-Methylphenol	37	< 37 U
67-72-1	Hexachloroethane	18	< 18 U
105-67-9	2,4-Dimethylphenol	37	< 37 U
65-85-0	Benzoic Acid	370	< 370 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
91-20-3	**Naphthalene**	**18**	**16 J**
87-68-3	Hexachlorobutadiene	93	< 93 U
91-57-6	**2-Methylnaphthalene**	**18**	**20**
131-11-3	Dimethylphthalate	18	< 18 U
208-96-8	Acenaphthylene	18	< 18 U
83-32-9	Acenaphthene	18	< 18 U
132-64-9	**Dibenzofuran**	**18**	**10 J**
84-66-2	Diethylphthalate	46	< 46 U
86-73-7	Fluorene	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-86-5	Pentachlorophenol	180	< 180 U
85-01-8	**Phenanthrene**	**18**	**41**
120-12-7	Anthracene	18	< 18 U
84-74-2	Di-n-Butylphthalate	18	< 18 U
206-44-0	**Fluoranthene**	**18**	**44**
129-00-0	**Pyrene**	**18**	**40**
85-68-7	Butylbenzylphthalate	18	< 18 U
56-55-3	**Benzo(a)anthracene**	**18**	**20**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**23**	**24 B**
218-01-9	**Chrysene**	**18**	**32**
117-84-0	Di-n-Octyl phthalate	18	< 18 U
50-32-8	**Benzo(a)pyrene**	**18**	**28**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**18**	**18**
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
191-24-2	**Benzo(g,h,i)perylene**	**18**	**22**
90-12-0	**1-Methylnaphthalene**	**18**	**16 J**
TOTBFA	**Total Benzofluoranthenes**	**18**	**57**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	69.4%	2-Fluorobiphenyl	77.2%
d14-p-Terphenyl	71.8%	d4-1,2-Dichlorobenzene	54.2%
d5-Phenol	58.3%	2-Fluorophenol	62.4%
2,4,6-Tribromophenol	72.8%	d4-2-Chlorophenol	61.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0011**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57N
LIMS ID: 11-26632
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/16/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/07/11 01:22
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 28.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
106-44-5	4-Methylphenol	39	< 39 U
67-72-1	Hexachloroethane	19	< 19 U
105-67-9	2,4-Dimethylphenol	39	< 39 U
65-85-0	Benzoic Acid	390	< 390 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	**Naphthalene**	**19**	**70**
87-68-3	Hexachlorobutadiene	97	< 97 U
91-57-6	**2-Methylnaphthalene**	**19**	**62**
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
83-32-9	**Acenaphthene**	**19**	**110**
132-64-9	**Dibenzofuran**	**19**	**84**
84-66-2	**Diethylphthalate**	**48**	**41 J**
86-73-7	**Fluorene**	**19**	**150**
86-30-6	**N-Nitrosodiphenylamine**	**19**	**37**
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	190	< 190 U
85-01-8	**Phenanthrene**	**19**	**350**
120-12-7	**Anthracene**	**19**	**77**
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**530**
129-00-0	**Pyrene**	**19**	**420**
85-68-7	Butylbenzylphthalate	19	< 19 U
56-55-3	**Benzo(a)anthracene**	**19**	**140**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**24**	**250 B**
218-01-9	**Chrysene**	**19**	**140**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
50-32-8	**Benzo(a)pyrene**	**19**	**120**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**33**
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	**Benzo(g,h,i)perylene**	**19**	**36**
90-12-0	**1-Methylnaphthalene**	**19**	**44**
TOTBFA	**Total Benzofluoranthenes**	**19**	**250**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	71.4%		2-Fluorobiphenyl	74.0%
d14-p-Terphenyl	71.4%		d4-1,2-Dichlorobenzene	57.0%
d5-Phenol	60.4%		2-Fluorophenol	61.1%
2,4,6-Tribromophenol	72.4%	**FORM I**	d4-2-Chlorophenol	60.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0010**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57O
LIMS ID: 11-26633
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/16/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/07/11 13:41
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 53.9%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**59**	**38 J**
541-73-1	1,3-Dichlorobenzene	59	< 59 U
106-46-7	1,4-Dichlorobenzene	59	< 59 U
100-51-6	**Benzyl Alcohol**	**59**	**62**
95-50-1	1,2-Dichlorobenzene	59	< 59 U
95-48-7	2-Methylphenol	59	< 59 U
106-44-5	**4-Methylphenol**	**120**	**44 J**
67-72-1	Hexachloroethane	59	< 59 U
105-67-9	2,4-Dimethylphenol	120	< 120 U
65-85-0	Benzoic Acid	1,200	< 1,200 U
120-82-1	1,2,4-Trichlorobenzene	59	< 59 U
91-20-3	**Naphthalene**	**59**	**340**
87-68-3	Hexachlorobutadiene	300	< 300 U
91-57-6	**2-Methylnaphthalene**	**59**	**260**
131-11-3	**Dimethylphthalate**	**59**	**32 J**
208-96-8	**Acenaphthylene**	**59**	**38 J**
83-32-9	**Acenaphthene**	**59**	**460**
132-64-9	**Dibenzofuran**	**59**	**360**
84-66-2	Diethylphthalate	150	< 150 U
86-73-7	**Fluorene**	**59**	**580**
86-30-6	N-Nitrosodiphenylamine	59	< 59 U
118-74-1	Hexachlorobenzene	59	< 59 U
87-86-5	Pentachlorophenol	590	< 590 U
85-01-8	**Phenanthrene**	**59**	**2,000**
120-12-7	**Anthracene**	**59**	**310**
84-74-2	**Di-n-Butylphthalate**	**59**	**1,300**
206-44-0	**Fluoranthene**	**59**	**3,000**
129-00-0	**Pyrene**	**59**	**3,100**
85-68-7	**Butylbenzylphthalate**	**59**	**120**
56-55-3	**Benzo(a)anthracene**	**59**	**950**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**74**	**1,700 B**
218-01-9	**Chrysene**	**59**	**1,300**
117-84-0	**Di-n-Octyl phthalate**	**59**	**86**
50-32-8	**Benzo(a)pyrene**	**59**	**1,000**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**59**	**610**
53-70-3	**Dibenz(a,h)anthracene**	**59**	**200**
191-24-2	**Benzo(g,h,i)perylene**	**59**	**690**
90-12-0	**1-Methylnaphthalene**	**59**	**150**
TOTBFA	**Total Benzofluoranthenes**	**59**	**2,100**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.2%	2-Fluorobiphenyl	68.4%
d14-p-Terphenyl	70.8%	d4-1,2-Dichlorobenzene	59.4%
d5-Phenol	63.2%	2-Fluorophenol	56.8%
2,4,6-Tribromophenol	73.2%	d4-2-Chlorophenol	68.4%

ANALYTICAL RESOURCES INCORPORATED

SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT OUT
SD0012	61.8%	71.0%	68.8%	60.2%	64.8%	58.8%	66.7%	61.7%	0
SD0013	67.8%	77.8%	70.2%	66.0%	66.8%	62.7%	74.9%	66.7%	0
SD0014	64.6%	66.2%	65.2%	55.8%	53.7%	59.7%	70.5%	59.5%	0
MB-112611	82.2%	80.4%	99.8%	65.8%	72.7%	73.2%	77.5%	78.1%	0
LCS-112611	76.8%	69.8%	85.2%	73.4%	70.9%	70.3%	77.3%	72.8%	0
SD0015	63.0%	70.2%	70.8%	65.4%	63.6%	62.0%	59.2%	63.6%	0
SD0015 MS	72.2%	66.8%	63.2%	57.0%	64.0%	59.9%	75.7%	58.0%	0
SD0015 MSD	74.0%	70.8%	69.0%	60.4%	67.6%	60.7%	75.5%	66.3%	0
SD0016	63.6%	72.6%	70.8%	59.4%	56.4%	58.0%	65.6%	59.2%	0
SD0017	62.2%	68.2%	66.2%	55.4%	59.6%	52.3%	63.3%	57.3%	0
SD0018	64.6%	61.4%	67.0%	58.0%	46.3%	26.0%*	13.2%*	34.9%	2
SD0019	79.2%	83.4%	75.0%	60.6%	59.2%	61.6%	72.0%	70.8%	0
SD0020	66.6%	69.6%	71.4%	57.0%	53.6%	61.6%	63.6%	54.0%	0
SD0021	57.0%	65.4%	63.6%	52.2%	54.0%	52.8%	52.4%	54.8%	0
SD0022	59.0%	61.4%	63.2%	56.8%	61.6%	52.4%	56.4%	57.3%	0
SD0023	65.4%	72.0%	73.8%	69.0%	68.8%	54.8%	54.4%	65.2%	0
SD0024	69.4%	77.2%	71.8%	54.2%	58.3%	62.4%	72.8%	61.1%	0
SD0011	71.4%	74.0%	71.4%	57.0%	60.4%	61.1%	72.4%	60.4%	0
SD0010	64.2%	68.4%	70.8%	59.4%	63.2%	56.8%	73.2%	68.4%	0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(30-160)	(30-160)
(FBP) = 2-Fluorobiphenyl	(30-160)	(30-160)
(TPH) = d14-p-Terphenyl	(30-160)	(30-160)
(DCB) = d4-1,2-Dichlorobenzene	(30-160)	(30-160)
(PHL) = d5-Phenol	(30-160)	(30-160)
(2FP) = 2-Fluorophenol	(30-160)	(30-160)
(TBP) = 2,4,6-Tribromophenol	(30-160)	(30-160)
(2CP) = d4-2-Chlorophenol	(30-160)	(30-160)

Prep Method: SW3546
Log Number Range: 11-26619 to 11-26633

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0015**
Page 1 of 1 **MS/MSD**

Lab Sample ID: TX57D
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted MS/MSD: 11/26/11

Date Analyzed MS: 12/06/11 19:08
MSD: 12/06/11 19:42
Instrument/Analyst MS: NT10/YZ
MSD: NT10/YZ
GPC Cleanup: Yes

Sample Amount MS: 10.8 g-dry-wt
MSD: 10.7 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL
Dilution Factor MS: 1.00
MSD: 1.00
Percent Moisture: 21.4 %

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Phenol	< 58.4 U	271	464	58.4%	289	467	61.9%	6.4%
1,3-Dichlorobenzene	< 58.4 U	276	464	59.5%	273	467	58.5%	1.1%
1,4-Dichlorobenzene	< 58.4 U	300	464	64.7%	291	467	62.3%	3.0%
Benzyl Alcohol	< 58.4 U	296	464	63.8%	303	467	64.9%	2.3%
1,2-Dichlorobenzene	< 58.4 U	288	464	62.1%	312	467	66.8%	8.0%
2-Methylphenol	< 58.4 U	314	464	67.7%	326	467	69.8%	3.8%
4-Methylphenol	< 117 U	661	928	71.2%	699	934	74.8%	5.6%
Hexachloroethane	< 58.4 U	284	464	61.2%	248	467	53.1%	13.5%
2,4-Dimethylphenol	< 117 U	969	1390	69.7%	960	1400	68.6%	0.9%
Benzoic Acid	< 1170 U	519	2550	20.4%	471	2570	18.3%	9.7%
1,2,4-Trichlorobenzene	< 58.4 U	327	464	70.5%	355	467	76.0%	8.2%
Naphthalene	602	1050	464	96.6%	1200	467	128%	13.3%
Hexachlorobutadiene	< 292 U	316	464	68.1%	362	467	77.5%	13.6%
2-Methylnaphthalene	213	626	464	89.0%	695	467	103%	10.4%
Dimethylphthalate	< 58.4 U	289	464	62.3%	339	467	72.6%	15.9%
Acenaphthylene	40.9 J	368	464	70.5%	403	467	77.5%	9.1%
Acenaphthene	873	1480	464	131%	1810	467	201%	20.1%
Dibenzofuran	345	789	464	95.7%	923	467	124%	15.7%
Diethylphthalate	< 146 U	346	464	74.6%	408	467	87.4%	16.4%
Fluorene	949	1360	464	88.6%	1620	467	144%	17.4%
N-Nitrosodiphenylamine	67.2 M	401	464	71.9%	380	467	67.0%	5.4%
Hexachlorobenzene	< 58.4 U	265	464	57.1%	280	467	60.0%	5.5%
Pentachlorophenol	< 584 U	868	1390	62.4%	808	1400	57.7%	7.2%
Phenanthrene	2880	4190 E	464	NA	5250 E	467	NA	22.5%
Anthracene	619	1190	464	123%	1570	467	204%	27.5%
Di-n-Butylphthalate	< 58.4 U	480	464	103%	4580 E	467	981%	162%
Fluoranthene	3130	4330 E	464	NA	4950 E	467	NA	13.4%
Pyrene	2560	3370 E	464	NA	3990 E	467	NA	16.8%
Butylbenzylphthalate	< 58.4 U	319	464	68.8%	356	467	76.2%	11.0%
Benzo(a)anthracene	789	1150	464	77.8%	1890	467	236%	48.7%
bis(2-Ethylhexyl)phthalate	90.6 B	324 B	464	50.3%	371 B	467	60.0%	13.5%
Chrysene	932	1380	464	96.6%	2310 E	467	295%	50.4%
Di-n-Octyl phthalate	< 58.4 U	250	464	53.9%	266	467	57.0%	6.2%
Benzo(a)pyrene	593	877	464	61.2%	1390	467	171%	45.3%
Indeno(1,2,3-cd)pyrene	269	264	464	NA	347	467	16.7%	27.2%
Dibenz(a,h)anthracene	90.6	214	464	26.6%	275	467	39.5%	24.9%
Benzo(g,h,i)perylene	348	253	464	NA	295	467	NA	15.3%
1-Methylnaphthalene	108	521	464	89.0%	543	467	93.1%	4.1%
Total Benzofluoranthenes	1020	1740	928	77.6%	2740	934	184%	44.6%

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.
NA-No recovery due to high concentration of analyte in original sample and/or calculated negative recovery.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0015**
Page 1 of 1 **MATRIX SPIKE**

Lab Sample ID: TX57D
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 19:08
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 21.4%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	---
541-73-1	1,3-Dichlorobenzene	19	---
106-46-7	1,4-Dichlorobenzene	19	---
100-51-6	Benzyl Alcohol	19	---
95-50-1	1,2-Dichlorobenzene	19	---
95-48-7	2-Methylphenol	19	---
106-44-5	4-Methylphenol	37	---
67-72-1	Hexachloroethane	19	---
105-67-9	2,4-Dimethylphenol	37	---
65-85-0	Benzoic Acid	370	---
120-82-1	1,2,4-Trichlorobenzene	19	---
91-20-3	Naphthalene	19	---
87-68-3	Hexachlorobutadiene	93	---
91-57-6	2-Methylnaphthalene	19	---
131-11-3	Dimethylphthalate	19	---
208-96-8	Acenaphthylene	19	---
83-32-9	Acenaphthene	19	---
132-64-9	Dibenzofuran	19	---
84-66-2	Diethylphthalate	46	---
86-73-7	Fluorene	19	---
86-30-6	N-Nitrosodiphenylamine	19	---
118-74-1	Hexachlorobenzene	19	---
87-86-5	Pentachlorophenol	190	---
85-01-8	Phenanthrene	19	---
120-12-7	Anthracene	19	---
84-74-2	Di-n-Butylphthalate	19	---
206-44-0	Fluoranthene	19	---
129-00-0	Pyrene	19	---
85-68-7	Butylbenzylphthalate	19	---
56-55-3	Benzo(a)anthracene	19	---
117-81-7	bis(2-Ethylhexyl)phthalate	23	---
218-01-9	Chrysene	19	---
117-84-0	Di-n-Octyl phthalate	19	---
50-32-8	Benzo(a)pyrene	19	---
193-39-5	Indeno(1,2,3-cd)pyrene	19	---
53-70-3	Dibenz(a,h)anthracene	19	---
191-24-2	Benzo(g,h,i)perylene	19	---
90-12-0	1-Methylnaphthalene	19	---
TOTBFA	Total Benzofluoranthenes	19	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	72.2%	2-Fluorobiphenyl	66.8%
d14-p-Terphenyl	63.2%	d4-1,2-Dichlorobenzene	57.0%
d5-Phenol	64.0%	2-Fluorophenol	59.9%
2,4,6-Tribromophenol	75.7%	d4-2-Chlorophenol	58.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SD0015**
Page 1 of 1 **MATRIX SPIKE DUPLICATE**

Lab Sample ID: TX57D
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 19:42
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 21.4%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	---
541-73-1	1,3-Dichlorobenzene	19	---
106-46-7	1,4-Dichlorobenzene	19	---
100-51-6	Benzyl Alcohol	19	---
95-50-1	1,2-Dichlorobenzene	19	---
95-48-7	2-Methylphenol	19	---
106-44-5	4-Methylphenol	37	---
67-72-1	Hexachloroethane	19	---
105-67-9	2,4-Dimethylphenol	37	---
65-85-0	Benzoic Acid	370	---
120-82-1	1,2,4-Trichlorobenzene	19	---
91-20-3	Naphthalene	19	---
87-68-3	Hexachlorobutadiene	93	---
91-57-6	2-Methylnaphthalene	19	---
131-11-3	Dimethylphthalate	19	---
208-96-8	Acenaphthylene	19	---
83-32-9	Acenaphthene	19	---
132-64-9	Dibenzofuran	19	---
84-66-2	Diethylphthalate	47	---
86-73-7	Fluorene	19	---
86-30-6	N-Nitrosodiphenylamine	19	---
118-74-1	Hexachlorobenzene	19	---
87-86-5	Pentachlorophenol	190	---
85-01-8	Phenanthrene	19	---
120-12-7	Anthracene	19	---
84-74-2	Di-n-Butylphthalate	19	---
206-44-0	Fluoranthene	19	---
129-00-0	Pyrene	19	---
85-68-7	Butylbenzylphthalate	19	---
56-55-3	Benzo(a)anthracene	19	---
117-81-7	bis(2-Ethylhexyl)phthalate	23	---
218-01-9	Chrysene	19	---
117-84-0	Di-n-Octyl phthalate	19	---
50-32-8	Benzo(a)pyrene	19	---
193-39-5	Indeno(1,2,3-cd)pyrene	19	---
53-70-3	Dibenz(a,h)anthracene	19	---
191-24-2	Benzo(g,h,i)perylene	19	---
90-12-0	1-Methylnaphthalene	19	---
TOTBFA	Total Benzofluoranthenes	19	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	74.0%	2-Fluorobiphenyl	70.8%
d14-p-Terphenyl	69.0%	d4-1,2-Dichlorobenzene	60.4%
d5-Phenol	67.6%	2-Fluorophenol	60.7%
2,4,6-Tribromophenol	75.5%	d4-2-Chlorophenol	66.3%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: LCS-112611**
 LAB CONTROL

Lab Sample ID: LCS-112611
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 15:43
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
Phenol	369	500	73.8%
1,3-Dichlorobenzene	376	500	75.2%
1,4-Dichlorobenzene	337	500	67.4%
Benzyl Alcohol	381	500	76.2%
1,2-Dichlorobenzene	363	500	72.6%
2-Methylphenol	366	500	73.2%
4-Methylphenol	731	1000	73.1%
Hexachloroethane	381	500	76.2%
2,4-Dimethylphenol	720	1500	48.0%
Benzoic Acid	1240	2750	45.1%
1,2,4-Trichlorobenzene	363	500	72.6%
Naphthalene	365	500	73.0%
Hexachlorobutadiene	365	500	73.0%
2-Methylnaphthalene	390	500	78.0%
Dimethylphthalate	367	500	73.4%
Acenaphthylene	366	500	73.2%
Acenaphthene	373	500	74.6%
Dibenzofuran	380	500	76.0%
Diethylphthalate	417	500	83.4%
Fluorene	394	500	78.8%
N-Nitrosodiphenylamine	403	500	80.6%
Hexachlorobenzene	322	500	64.4%
Pentachlorophenol	1150	1500	76.7%
Phenanthrene	405	500	81.0%
Anthracene	393	500	78.6%
Di-n-Butylphthalate	403	500	80.6%
Fluoranthene	418	500	83.6%
Pyrene	467	500	93.4%
Butylbenzylphthalate	419	500	83.8%
Benzo(a)anthracene	443	500	88.6%
bis(2-Ethylhexyl)phthalate	322 B	500	64.4%
Chrysene	448	500	89.6%
Di-n-Octyl phthalate	264	500	52.8%
Benzo(a)pyrene	416	500	83.2%
Indeno(1,2,3-cd)pyrene	446	500	89.2%
Dibenz(a,h)anthracene	437	500	87.4%
Benzo(g,h,i)perylene	453	500	90.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: LCS-112611**
 LAB CONTROL

Lab Sample ID: LCS-112611 QC Report No: TX57-Integral Consulting, Inc.
LIMS ID: 11-26622 Project: Slip 4 Early Action Area
Matrix: Sediment A0006-14L
Date Analyzed: 12/06/11 15:43

Analyte	Lab Control	Spike Added	Recovery
1-Methylnaphthalene	363	500	72.6%
Total Benzofluoranthenes	868	1000	86.8%

Semivolatile Surrogate Recovery

d5-Nitrobenzene	76.8%
2-Fluorobiphenyl	69.8%
d14-p-Terphenyl	85.2%
d4-1,2-Dichlorobenzene	73.4%
d5-Phenol	70.9%
2-Fluorophenol	70.3%
2,4,6-Tribromophenol	77.3%
d4-2-Chlorophenol	72.8%

Reported in µg/kg (ppb)

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

TX57MBS1

Lab Name: ANALYTICAL RESOURCES INC

Client: INTEGRAL

ARI Job No: TX57

Project: SLIP 4 EARLY ACTION

Lab File ID: TX57MB

Date Extracted: 11/26/11

Instrument ID: NT10

Date Analyzed: 12/06/11

Matrix: SOLID

Time Analyzed: 1508

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	TX57LCSS1	TX57LCSS1	TX57SB	12/06/11
02	SD0012	TX57A	TX57A	12/06/11
03	SD0013	TX57B	TX57B	12/06/11
04	SD0014	TX57C	TX57C	12/06/11
05	SD0015 MS	TX57DMS	TX57DMS	12/06/11
06	SD0015 MSD	TX57DMSD	TX57DMSD	12/06/11
07	SD0016	TX57E	TX57E	12/06/11
08	SD0017	TX57F	TX57F	12/06/11
09	SD0018	TX57G	TX57G	12/06/11
10	SD0019	TX57H	TX57H	12/06/11
11	SD0020	TX57I	TX57I	12/06/11
12	SD0021	TX57J	TX57J	12/06/11
13	SD0022	TX57K	TX57K	12/06/11
14	SD0024	TX57M	TX57M	12/07/11
15	SD0011	TX57N	TX57N	12/07/11
16	SD0010	TX57O	TX57O	12/07/11
17	SD0015	TX57D	TX57D3	12/07/11
18	SD0023	TX57L	TX57L3	12/07/11
19	SD0010	TX57O	TX57O3	12/07/11
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FORM IV SV

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: MB-112611**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-112611
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: NA
Date Received: NA

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 15:08
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
106-44-5	4-Methylphenol	40	< 40 U
67-72-1	Hexachloroethane	20	< 20 U
105-67-9	2,4-Dimethylphenol	40	< 40 U
65-85-0	Benzoic Acid	400	< 400 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
87-68-3	Hexachlorobutadiene	100	< 100 U
91-57-6	2-Methylnaphthalene	20	< 20 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
83-32-9	Acenaphthene	20	< 20 U
132-64-9	Dibenzofuran	20	< 20 U
84-66-2	Diethylphthalate	50	< 50 U
86-73-7	Fluorene	20	< 20 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	200	< 200 U
85-01-8	Phenanthrene	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**25**	**22 J**
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	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
90-12-0	1-Methylnaphthalene	20	< 20 U
TOTBFA	Total Benzofluoranthenes	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	82.2%	2-Fluorobiphenyl	80.4%
d14-p-Terphenyl	99.8%	d4-1,2-Dichlorobenzene	65.8%
d5-Phenol	72.7%	2-Fluorophenol	73.2%
2,4,6-Tribromophenol	77.5%	d4-2-Chlorophenol	78.1%

FORM I

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

Instrument ID: NT10 Project: SLIP 4 EARLY ACTION AREA

DFTPP Injection Date: 10/11/11 DFTPP Injection Time: 1223

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	12.1
68	Less than 2.0% of mass 69	0.5 (1.3)1
69	Mass 69 relative abundance	34.5
70	Less than 2.0% of mass 69	0.2 (0.7)1
127	10.0 - 80.0% of mass 198	34.3
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	34.3
365	Greater than 1.0% of mass 198	5.25
441	0.0 - 24.0% of mass 442	11.7 (15.8)2
442	50.0 - 200.0% of mass 198	73.7
443	15.0 - 24.0% of mass 442	14.6 (19.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		IC1011A	IC1011A	10/11/11	1237
02		IC1011B	IC1011B	10/11/11	1311
03		IC1011D	IC1011D	10/11/11	1421
04		IC1011E	IC1011E	10/11/11	1455
05		IC1011G	IC1011G	10/11/11	1604
06		IC1011H	IC1011H	10/11/11	1639
07		IC1011I	IC1011I	10/11/11	1713
08					
09					
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TX57 00071

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

Instrument ID: NT10 Project: SLIP 4 EARLY ACTION AREA

DFTPP Injection Date: 12/06/11 DFTPP Injection Time: 1345

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.0 - 80.0% of mass 198	17.9	
68	Less than 2.0% of mass 69	0.6	(1.5)1
69	Mass 69 relative abundance	41.6	
70	Less than 2.0% of mass 69	0.3	(0.8)1
127	10.0 - 80.0% of mass 198	33.6	
197	Less than 2.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.4	
275	10.0 - 60.0% of mass 198	36.2	
365	Greater than 1.0% of mass 198	6.65	
441	0.0 - 24.0% of mass 442	13.7	(15.9)2
442	50.0 - 200.0% of mass 198	86.5	
443	15.0 - 24.0% of mass 442	17.5	(20.2)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		CC1206	CC1206	12/06/11	1400
02	TX57MBS1	TX57MBS1	TX57MB	12/06/11	1508
03	TX57LCSS1	TX57LCSS1	TX57SB	12/06/11	1543
04	SD0012	TX57A	TX57A	12/06/11	1617
05	SD0013	TX57B	TX57B	12/06/11	1725
06	SD0014	TX57C	TX57C	12/06/11	1759
07	SD0015 MS	TX57DMS	TX57DMS	12/06/11	1908
08	SD0015 MSD	TX57DMSD	TX57DMSD	12/06/11	1942
09	SD0016	TX57E	TX57E	12/06/11	2016
10	SD0017	TX57F	TX57F	12/06/11	2050
11	SD0018	TX57G	TX57G	12/06/11	2124
12	SD0019	TX57H	TX57H	12/06/11	2158
13	SD0020	TX57I	TX57I	12/06/11	2232
14	SD0021	TX57J	TX57J	12/06/11	2306
15	SD0022	TX57K	TX57K	12/06/11	2340
16	SD0024	TX57M	TX57M	12/07/11	0048
17	SD0011	TX57N	TX57N	12/07/11	0122
18	SD0010	TX57O	TX57O	12/07/11	0156
19					
20					
21					
22					

TX57:00072

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

Instrument ID: NT10 Project: SLIP 4 EARLY ACTION AREA

DFTPP Injection Date: 12/07/11 DFTPP Injection Time: 1145

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	18.7
68	Less than 2.0% of mass 69	0.7 (1.7)1
69	Mass 69 relative abundance	41.6
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	10.0 - 80.0% of mass 198	35.9
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	35.6
365	Greater than 1.0% of mass 198	6.60
441	0.0 - 24.0% of mass 442	12.7 (15.0)2
442	50.0 - 200.0% of mass 198	84.9
443	15.0 - 24.0% of mass 442	16.3 (19.2)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		CC1207	CC1207	12/07/11	1159
02	SD0015	TX57D	TX57D3	12/07/11	1233
03	SD0023	TX57L	TX57L3	12/07/11	1307
04	SD0010	TX57O	TX57O3	12/07/11	1341
05					
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TX57:00073

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT10 Calibration Date: 10/11/11

LAB FILE ID: RRF0.2=IC1011H RRF0.5=IC1011I RRF1 =IC1011D
RRF2.5=IC1011G RRF5 =IC1011A RRF10 =IC1011E
RRF20 =IC1011B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	___ RRF	%RSD /R^2
Phenol	1.159	1.388	1.610	1.566	1.921	1.566	1.633	1.549	15.1
Bis(2-Chloroethyl)ether	0.815	0.999	0.801	0.947	1.134	0.966	0.916	0.940	12.1
2-Chlorophenol	1.078	1.252	1.203	1.194	1.365	1.174	1.186	1.207	7.2
1,3-Dichlorobenzene	1.503	1.643	1.485	1.528	1.788	1.534	1.456	1.562	7.4
1,4-Dichlorobenzene	1.808	1.635	1.523	1.493	1.762	1.524	1.429	1.596	9.0
1,2-Dichlorobenzene	1.462	1.392	1.460	1.424	1.700	1.440	1.379	1.465	7.4
Benzyl alcohol	0.607	0.692	0.743	0.673	0.906	0.708	0.694	0.718	12.9
2,2'-oxybis(1-Chloropropane)	0.317	0.367	0.427	0.406	0.462	0.382	0.359	0.388	12.3
2-Methylphenol	0.781	1.090	0.928	1.015	1.176	0.990	1.006	0.998	12.4
Hexachloroethane	0.476	0.654	0.627	0.672	0.744	0.638	0.602	0.630	12.9
N-Nitroso-di-n-propylamine	0.755	0.889	0.864	0.906	0.996	0.873	0.818	0.872	8.6
4-Methylphenol	1.123	1.018	1.093	1.011	1.262	1.055	1.039	1.086	8.1
Nitrobenzene	0.358	0.368	0.422	0.430	0.437	0.412	0.447	0.410	8.4
Isophorone	0.608	0.612	0.674	0.706	0.747	0.674	0.744	0.681	8.3
2-Nitrophenol	0.193	0.197	0.218	0.212	0.220	0.211	0.237	0.212	6.9
2,4-Dimethylphenol	0.380	0.352	0.397	0.396	0.441	0.380	0.434	0.397	7.9
Bis(2-Chloroethoxy)methane	0.296	0.254	0.314	0.341	0.362	0.336	0.358	0.323	11.8
2,4-Dichlorophenol		0.352	0.404	0.384	0.423	0.380	0.420	0.394	6.9
1,2,4-Trichlorobenzene	0.434	0.459	0.486	0.494	0.626	0.563	0.511	0.510	12.7
Naphthalene	0.926	0.877	0.977	1.010	1.023	0.945	1.022	0.968	5.7
Benzoic acid		0.067	0.179	0.197	0.269	0.278	0.316	0.218	0.999
4-Chloroaniline		0.342	0.364	0.405	0.414	0.401	0.443	0.395	9.2
Hexachlorobutadiene	0.421	0.444	0.489	0.474	0.464	0.434	0.446	0.453	5.2
4-Chloro-3-methylphenol		0.320	0.353	0.365	0.383	0.356	0.402	0.363	7.7
2-Methylnaphthalene	0.635	0.593	0.770	0.788	0.790	0.733	0.778	0.727	11.0
Hexachlorocyclopentadiene		0.311	0.461	0.597	0.631	0.688	0.709	0.566	0.999
2,4,6-Trichlorophenol		0.490	0.496	0.493	0.544	0.516	0.536	0.512	4.5
2,4,5-Trichlorophenol		0.394	0.533	0.525	0.567	0.541	0.566	0.521	12.4
2-Chloronaphthalene	1.122	1.102	1.141	1.160	1.229	1.179	1.134	1.152	3.6
2-Nitroaniline		0.224	0.281	0.289	0.307	0.308	0.294	0.284	10.9
Acenaphthylene	1.573	1.738	1.718	1.697	1.733	1.659	1.645	1.680	3.5
Dimethylphthalate	1.295	1.559	1.796	1.746	1.744	1.662	1.353	1.594	12.5
2,6-Dinitrotoluene		0.307	0.326	0.344	0.327	0.306	0.303	0.319	5.0
Acenaphthene	0.987	1.050	1.040	1.054	1.086	1.072	1.054	1.049	3.0
3-Nitroaniline		0.196	0.239	0.207	0.224	0.246	0.240	0.225	8.9
2,4-Dinitrophenol		0.057	0.145	0.185	0.233	0.261	0.274	0.192	0.998
Dibenzofuran	1.574	1.685	1.644	1.649	1.748	1.739	1.736	1.682	3.8

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

TX57 00074

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT10 Calibration Date: 10/11/11

LAB FILE ID: RRF0.2=IC1011H RRF0.5=IC1011I RRF1 =IC1011D
RRF2.5=IC1011G RRF5 =IC1011A RRF10 =IC1011E
RRF20 =IC1011B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	$\overline{RRF}$	%RSD /R^2
4-Nitrophenol		0.165	0.215	0.262	0.302	0.299	0.306	0.258	0.999
2,4-Dinitrotoluene	0.367	0.351	0.437	0.466	0.463	0.455	0.446	0.426	11.1
Fluorene	1.330	1.321	1.306	1.338	1.340	1.315	1.325	1.325	0.9
4-Chlorophenyl-phenylether	0.847	0.955	0.940	0.954	0.931	0.929	0.994	0.936	4.8
Diethylphthalate	1.246	1.378	1.449	1.485	1.412	1.341	1.323	1.376	5.9
4-Nitroaniline		0.240	0.229	0.208	0.202	0.231	0.260	0.228	9.3
4,6-Dinitro-2-methylphenol		0.140	0.166	0.173	0.198	0.192	0.198	0.178	12.9
N-Nitrosodiphenylamine (1)	0.464	0.519	0.510	0.487	0.510	0.465	0.482	0.491	4.5
4-Bromophenyl-phenylether	0.308	0.336	0.303	0.320	0.337	0.328	0.322	0.322	4.0
Hexachlorobenzene	0.448	0.451	0.505	0.489	0.468	0.456	0.447	0.466	4.8
Pentachlorophenol	0.046	0.071	0.121	0.134	0.181	0.192	0.209	0.136	0.999
Phenanthrene	1.001	1.044	1.008	1.030	1.053	1.020	1.052	1.030	2.0
Anthracene	0.980	0.921	1.068	1.008	1.136	1.070	1.077	1.037	6.9
Carbazole	0.791	0.908	0.890	0.738	0.671	0.681	0.777	0.779	11.9
Di-n-butylphthalate	1.078	1.067	1.132	1.142	1.200	1.150	1.180	1.136	4.3
Fluoranthene	1.340	1.384	1.467	1.385	1.468	1.431	1.456	1.419	3.5
Pyrene	0.904	0.896	0.988	0.992	1.074	0.939	0.978	0.967	6.3
Butylbenzylphthalate	0.357	0.332	0.357	0.351	0.395	0.334	0.338	0.352	6.2
Benzo(a)anthracene	1.018	1.064	1.046	1.110	1.175	1.083	1.123	1.088	4.8
3,3'-Dichlorobenzidine		0.645	0.652	0.492	0.538	0.517	0.582	0.571	11.7
Chrysene	0.966	0.963	0.998	0.964	1.047	0.965	0.970	0.982	3.2
bis(2-Ethylhexyl)phthalate	0.542	0.574	0.570	0.574	0.608	0.550	0.565	0.569	3.7
Di-n-octylphthalate	0.927	0.956	0.976	0.953	1.017	0.942	0.982	0.965	3.1
Benzo(b)fluoranthene	1.262	1.111	1.149	1.287	1.349	1.199	1.172	1.218	6.9
Benzo(k)fluoranthene	1.149	1.269	1.278	1.239	1.335	1.230	1.339	1.263	5.2
Benzo(a)pyrene	0.940	1.031	0.988	1.026	1.048	0.966	1.004	1.000	3.8
Indeno(1,2,3-cd)pyrene	1.361	1.374	1.340	1.392	1.425	1.319	1.332	1.363	2.7
Dibenzo(a,h)anthracene	1.205	1.152	1.122	1.155	1.181	1.074	1.096	1.141	4.1
Benzo(g,h,i)perylene	1.150	1.089	1.158	1.193	1.217	1.117	1.106	1.147	4.1
N-Nitrosodimethylamine	0.517	0.535	0.637	0.660	0.769	0.657	0.652	0.632	13.4
Aniline	2.534	2.948	3.396	3.027	3.713	3.174	3.272	3.152	11.8
Benzidine	0.377	0.377	0.333	0.214	0.239	0.208	0.333	0.297	0.996
Perylene	0.985	0.903	1.007	1.011	1.056	0.964	0.986	0.987	4.8
Pyridine		0.548	0.532	0.530	0.720	0.615	0.587	0.589	12.3
1-methylnaphthalene	0.678	0.762	0.716	0.748	0.775	0.755	0.788	0.746	5.0
Azobenzene (1,2-DP-Hydrazine	1.438	1.195	1.385	1.370	1.350	1.308	1.316	1.337	5.7
Total Benzofluoranthenes	1.174	1.145	1.139	1.188	1.258	1.140	1.172	1.174	3.6

(1) Cannot be seperated from Diphenylamine

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

TX57 00075

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT10 Calibration Date: 10/11/11

LAB FILE ID: RRF0.2=IC1011H RRF0.5=IC1011I RRF1 =IC1011D
RRF2.5=IC1011G RRF5 =IC1011A RRF10 =IC1011E
RRF20 =IC1011B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	$\overline{RRF}$	%RSD /R^2
2-Fluorophenol	0.806	0.943	0.992	1.025	1.148	1.020	0.912	0.978	10.9
Phenol-d5	1.052	1.188	1.293	1.270	1.453	1.319	1.218	1.256	9.9
2-Chlorophenol-d4	1.335	0.981	1.098	1.168	1.205	1.149	1.021	1.137	10.4
1,2-Dichlorobenzene-d4	0.913	0.961	1.043	1.077	1.045	1.002	0.863	0.986	7.9
Nitrobenzene-d5	0.422	0.409	0.425	0.450	0.419	0.432	0.419	0.425	3.1
2-Fluorobiphenyl	1.472	1.503	1.496	1.432	1.444	1.460	1.316	1.446	4.3
2,4,6-Tribromophenol	0.278	0.365	0.389	0.377	0.352	0.372	0.334	0.352	10.6
Terphenyl-d14	0.817	0.865	0.820	0.807	0.782	0.758	0.731	0.797	5.6

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

FORM VI SV-3

TX57 00076

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT10 Cont. Calib. Date: 12/06/11

Init. Calib. Date: 10/11/11 Cont. Calib. Time: 1400

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	1.549	1.587	0.800	AVRG	2.4	
Bis(2-Chloroethyl)ether	0.940	0.923	0.700	AVRG	-1.8	
2-Chlorophenol	1.207	1.136	0.800	AVRG	-5.9	
1,3-Dichlorobenzene	1.562	1.643	0.010	AVRG	5.2	
1,4-Dichlorobenzene	1.596	1.613	0.010	AVRG	1.1	
1,2-Dichlorobenzene	1.465	1.528	0.010	AVRG	4.3	
Benzyl alcohol	0.718	0.662	0.010	AVRG	-7.8	
2,2'-oxybis(1-Chloropropane)	0.388	0.414	0.010	AVRG	6.7	
2-Methylphenol	0.998	0.992	0.700	AVRG	-0.6	
Hexachloroethane	0.630	0.667	0.300	AVRG	5.9	
N-Nitroso-di-n-propylamine	0.872	0.884	0.500	AVRG	1.4	
4-Methylphenol	1.086	1.024	0.600	AVRG	-5.7	
Nitrobenzene	0.410	0.488	0.200	AVRG	19.0	
Isophorone	0.681	0.688	0.400	AVRG	1.0	
2-Nitrophenol	0.212	0.218	0.100	AVRG	2.8	
2,4-Dimethylphenol	0.397	0.430	0.200	AVRG	8.3	
Bis(2-Chloroethoxy)methane	0.323	0.344	0.300	AVRG	6.5	
2,4-Dichlorophenol	0.394	0.405	0.200	AVRG	2.8	
1,2,4-Trichlorobenzene	0.510	0.544	0.010	AVRG	6.7	
Naphthalene	0.968	1.059	0.700	AVRG	9.4	
Benzoic acid	20.00	18.15	0.010	2ORDR	-9.2	
4-Chloroaniline	0.395	0.412	0.010	AVRG	4.3	
Hexachlorobutadiene	0.453	0.508	0.010	AVRG	12.1	
4-Chloro-3-methylphenol	0.363	0.363	0.200	AVRG	0.0	
2-Methylnaphthalene	0.727	0.819	0.400	AVRG	12.6	
Hexachlorocyclopentadiene	10.00	8.034	0.050	2ORDR	-19.7	
2,4,6-Trichlorophenol	0.512	0.519	0.200	AVRG	1.4	
2,4,5-Trichlorophenol	0.521	0.532	0.200	AVRG	2.1	
2-Chloronaphthalene	1.152	1.187	0.800	AVRG	3.0	
2-Nitroaniline	0.284	0.307	0.010	AVRG	8.1	
Acenaphthylene	1.680	1.654	0.900	AVRG	-1.5	
Dimethylphthalate	1.594	1.456	0.010	AVRG	-8.6	
2,6-Dinitrotoluene	0.319	0.302	0.200	AVRG	-5.3	
Acenaphthene	1.049	1.076	0.900	AVRG	2.6	
3-Nitroaniline	0.225	0.255	0.010	AVRG	13.3	
2,4-Dinitrophenol	20.00	14.57	0.010	2ORDR	-27.2	<-
Dibenzofuran	1.682	1.670	0.800	AVRG	-0.7	

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII SV-1

TX57:00077

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT10 Cont. Calib. Date: 12/06/11

Init. Calib. Date: 10/11/11 Cont. Calib. Time: 1400

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
4-Nitrophenol	10.00	9.803	0.010	2ORDR	-2.0	
2,4-Dinitrotoluene	0.426	0.436	0.200	AVRG	2.3	
Fluorene	1.325	1.318	0.900	AVRG	-0.5	
4-Chlorophenyl-phenylether	0.936	1.182	0.400	AVRG	26.3	<-
Diethylphthalate	1.376	1.338	0.010	AVRG	-2.8	
4-Nitroaniline	0.228	0.200	0.010	AVRG	-12.3	
4,6-Dinitro-2-methylphenol	0.178	0.171	0.010	AVRG	-3.9	
N-Nitrosodiphenylamine(1)	0.491	0.476	0.010	AVRG	-3.0	
4-Bromophenyl-phenylether	0.322	0.342	0.100	AVRG	6.2	
Hexachlorobenzene	0.466	0.407	0.100	AVRG	-12.7	
Pentachlorophenol	10.00	9.545	0.050	2ORDR	-4.6	
Phenanthrene	1.030	1.029	0.700	AVRG	-0.1	
Anthracene	1.037	1.073	0.700	AVRG	3.5	
Carbazole	0.779	0.722	0.010	AVRG	-7.3	
Di-n-butylphthalate	1.136	1.120	0.010	AVRG	-1.4	
Fluoranthene	1.419	1.434	0.600	AVRG	1.0	
Pyrene	0.967	1.028	0.600	AVRG	6.3	
Butylbenzylphthalate	0.352	0.350	0.010	AVRG	-0.6	
Benzo(a)anthracene	1.088	1.093	0.800	AVRG	0.4	
3,3'-Dichlorobenzidine	0.571	0.570	0.010	AVRG	-0.2	
Chrysene	0.982	1.002	0.700	AVRG	2.0	
bis(2-Ethylhexyl)phthalate	0.569	0.596	0.010	AVRG	4.7	
Di-n-octylphthalate	0.965	0.967	0.010	AVRG	0.2	
Benzo(b)fluoranthene	1.218	1.268	0.700	AVRG	4.1	
Benzo(k)fluoranthene	1.263	1.377	0.700	AVRG	9.0	
Benzo(a)pyrene	1.000	1.042	0.700	AVRG	4.2	
Indeno(1,2,3-cd)pyrene	1.363	1.439	0.500	AVRG	5.6	
Dibenzo(a,h)anthracene	1.141	1.199	0.400	AVRG	5.1	
Benzo(g,h,i)perylene	1.147	1.256	0.500	AVRG	9.5	
N-Nitrosodimethylamine	0.632	0.632	0.010	AVRG	0.0	
Aniline	3.152	3.182	0.010	AVRG	1.0	
Benzidine	10.00	9.199	0.010	2ORDR	-8.0	
Perylene	0.987	1.007	0.010	AVRG	2.0	
Pyridine	0.589	0.499	0.010	AVRG	-15.3	
1-methylnaphthalene	0.746	0.794	0.010	AVRG	6.4	
Azobenzene (1,2-DP-Hydrazine	1.337	1.544	0.010	AVRG	15.5	

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-2

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT10 Cont. Calib. Date: 12/06/11

Init. Calib. Date: 10/11/11 Cont. Calib. Time: 1400

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Total Benzofluoranthenes	1.174	1.238	0.010	AVRG	5.4	
2-Fluorophenol	0.978	0.990	0.010	AVRG	1.2	
Phenol-d5	1.256	1.437	0.010	AVRG	14.4	
2-Chlorophenol-d4	1.137	1.260	0.010	AVRG	10.8	
1,2-Dichlorobenzene-d4	0.986	1.072	0.010	AVRG	8.7	
Nitrobenzene-d5	0.425	0.534	0.010	AVRG	25.6	<-
2-Fluorobiphenyl	1.446	1.608	0.010	AVRG	11.2	
2,4,6-Tribromophenol	0.352	0.385	0.010	AVRG	9.4	
Terphenyl-d14	0.797	0.894	0.010	AVRG	12.2	

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-3

TX57 00079

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT10 Cont. Calib. Date: 12/07/11

Init. Calib. Date: 10/11/11 Cont. Calib. Time: 1159

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	1.549	1.512	0.800	AVRG	-2.4	
Bis(2-Chloroethyl)ether	0.940	0.874	0.700	AVRG	-7.0	
2-Chlorophenol	1.207	1.164	0.800	AVRG	-3.6	
1,3-Dichlorobenzene	1.562	1.528	0.010	AVRG	-2.2	
1,4-Dichlorobenzene	1.596	1.543	0.010	AVRG	-3.3	
1,2-Dichlorobenzene	1.465	1.492	0.010	AVRG	1.8	
Benzyl alcohol	0.718	0.718	0.010	AVRG	0.0	
2,2'-oxybis(1-Chloropropane)	0.388	0.362	0.010	AVRG	-6.7	
2-Methylphenol	0.998	1.053	0.700	AVRG	5.5	
Hexachloroethane	0.630	0.658	0.300	AVRG	4.4	
N-Nitroso-di-n-propylamine	0.872	0.858	0.500	AVRG	-1.6	
4-Methylphenol	1.086	1.051	0.600	AVRG	-3.2	
Nitrobenzene	0.410	0.473	0.200	AVRG	15.4	
Isophorone	0.681	0.726	0.400	AVRG	6.6	
2-Nitrophenol	0.212	0.231	0.100	AVRG	9.0	
2,4-Dimethylphenol	0.397	0.437	0.200	AVRG	10.1	
Bis(2-Chloroethoxy)methane	0.323	0.375	0.300	AVRG	16.1	
2,4-Dichlorophenol	0.394	0.414	0.200	AVRG	5.1	
1,2,4-Trichlorobenzene	0.510	0.562	0.010	AVRG	10.2	
Naphthalene	0.968	1.035	0.700	AVRG	6.9	
Benzoic acid	20.00	17.44	0.010	2ORDR	-12.8	
4-Chloroaniline	0.395	0.431	0.010	AVRG	9.1	
Hexachlorobutadiene	0.453	0.511	0.010	AVRG	12.8	
4-Chloro-3-methylphenol	0.363	0.376	0.200	AVRG	3.6	
2-Methylnaphthalene	0.727	0.824	0.400	AVRG	13.3	
Hexachlorocyclopentadiene	10.00	6.296	0.050	2ORDR	-37.0	<-
2,4,6-Trichlorophenol	0.512	0.496	0.200	AVRG	-3.1	
2,4,5-Trichlorophenol	0.521	0.529	0.200	AVRG	1.5	
2-Chloronaphthalene	1.152	1.150	0.800	AVRG	-0.2	
2-Nitroaniline	0.284	0.308	0.010	AVRG	8.4	
Acenaphthylene	1.680	1.657	0.900	AVRG	-1.4	
Dimethylphthalate	1.594	1.406	0.010	AVRG	-11.8	
2,6-Dinitrotoluene	0.319	0.309	0.200	AVRG	-3.1	
Acenaphthene	1.049	1.027	0.900	AVRG	-2.1	
3-Nitroaniline	0.225	0.246	0.010	AVRG	9.3	
2,4-Dinitrophenol	20.00	15.02	0.010	2ORDR	-24.9	<-
Dibenzofuran	1.682	1.710	0.800	AVRG	1.7	

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

TX57 : 00080

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT10 Cont. Calib. Date: 12/07/11

Init. Calib. Date: 10/11/11 Cont. Calib. Time: 1159

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
4-Nitrophenol	10.00	9.073	0.010	2ORDR	-9.3	
2,4-Dinitrotoluene	0.426	0.434	0.200	AVRG	1.9	
Fluorene	1.325	1.324	0.900	AVRG	-0.1	
4-Chlorophenyl-phenylether	0.936	1.081	0.400	AVRG	15.5	
Diethylphthalate	1.376	1.372	0.010	AVRG	-0.3	
4-Nitroaniline	0.228	0.202	0.010	AVRG	-11.4	
4,6-Dinitro-2-methylphenol	0.178	0.178	0.010	AVRG	0.0	
N-Nitrosodiphenylamine(1)	0.491	0.478	0.010	AVRG	-2.6	
4-Bromophenyl-phenylether	0.322	0.363	0.100	AVRG	12.7	
Hexachlorobenzene	0.466	0.415	0.100	AVRG	-10.9	
Pentachlorophenol	10.00	8.062	0.050	2ORDR	-19.4	
Phenanthrene	1.030	1.012	0.700	AVRG	-1.7	
Anthracene	1.037	1.076	0.700	AVRG	3.8	
Carbazole	0.779	0.765	0.010	AVRG	-1.8	
Di-n-butylphthalate	1.136	1.108	0.010	AVRG	-2.5	
Fluoranthene	1.419	1.432	0.600	AVRG	0.9	
Pyrene	0.967	1.035	0.600	AVRG	7.0	
Butylbenzylphthalate	0.352	0.348	0.010	AVRG	-1.1	
Benzo(a)anthracene	1.088	1.144	0.800	AVRG	5.1	
3,3'-Dichlorobenzidine	0.571	0.607	0.010	AVRG	6.3	
Chrysene	0.982	0.974	0.700	AVRG	-0.8	
bis(2-Ethylhexyl)phthalate	0.569	0.603	0.010	AVRG	6.0	
Di-n-octylphthalate	0.965	0.967	0.010	AVRG	0.2	
Benzo(b)fluoranthene	1.218	1.420	0.700	AVRG	16.6	
Benzo(k)fluoranthene	1.263	1.244	0.700	AVRG	-1.5	
Benzo(a)pyrene	1.000	1.047	0.700	AVRG	4.7	
Indeno(1,2,3-cd)pyrene	1.363	1.444	0.500	AVRG	5.9	
Dibenzo(a,h)anthracene	1.141	1.192	0.400	AVRG	4.5	
Benzo(g,h,i)perylene	1.147	1.197	0.500	AVRG	4.4	
N-Nitrosodimethylamine	0.632	0.605	0.010	AVRG	-4.3	
Aniline	3.152	3.158	0.010	AVRG	0.2	
Benzidine	10.00	12.77	0.010	2ORDR	27.7	<-
Perylene	0.987	1.045	0.010	AVRG	5.9	
Pyridine	0.589	0.516	0.010	AVRG	-12.4	
1-methylnaphthalene	0.746	0.788	0.010	AVRG	5.6	
Azobenzene (1,2-DP-Hydrazine	1.337	1.529	0.010	AVRG	14.4	

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-2

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Instrument ID: NT10 Cont. Calib. Date: 12/07/11

Init. Calib. Date: 10/11/11 Cont. Calib. Time: 1159

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Total Benzofluoranthenes	1.174	1.245	0.010	AVRG	6.0	
2-Fluorophenol	0.978	1.081	0.010	AVRG	10.5	
Phenol-d5	1.256	1.360	0.010	AVRG	8.3	
2-Chlorophenol-d4	1.137	1.173	0.010	AVRG	3.2	
1,2-Dichlorobenzene-d4	0.986	1.050	0.010	AVRG	6.5	
Nitrobenzene-d5	0.425	0.520	0.010	AVRG	22.4	<-
2-Fluorobiphenyl	1.446	1.606	0.010	AVRG	11.1	
2,4,6-Tribromophenol	0.352	0.366	0.010	AVRG	4.0	
Terphenyl-d14	0.797	0.890	0.010	AVRG	11.7	

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-3

TX57:00082

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Ical Midpoint ID: IC1021A Ical Date: 10/11/11

Instrument ID: NT10 Cont. Cal Date: 12/06/11

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	172860	7.70	574010	10.11	467963	13.64
	UPPER LIMIT	345720		1148020		935926	
	LOWER LIMIT	86430		287005		233982	
	CCAL	219718	8.18	736249	10.60	609934	14.13
	UPPER LIMIT		8.68		11.10		14.63
	LOWER LIMIT		7.68		10.10		13.63
01	TX57MBS1	177732	8.18	598658	10.60	480560	14.13
02	TX57LCSS1	183200	8.17	683714	10.59	556073	14.13
03	SD0012	193167	8.18	710987	10.60	499082	14.13
04	SD0013	186305	8.18	669543	10.60	466692	14.13
05	SD0014	195487	8.18	677257	10.60	479535	14.14
06	SD0015 MS	191255	8.18	628932	10.61	507095	14.14
07	SD0015 MSD	182229	8.18	597207	10.61	466118	14.14
08	SD0016	200088	8.18	674067	10.60	465230	14.14
09	SD0017	186745	8.18	649840	10.61	473107	14.14
10	SD0018	182024	8.18	622988	10.60	501203	14.14
11	SD0019	169600	8.18	580460	10.60	432785	14.14
12	SD0020	198076	8.18	660335	10.61	450383	14.14
13	SD0021	198992	8.18	725337	10.61	517098	14.14
14	SD0022	190439	8.18	680811	10.60	523448	14.14
15	SD0024	186410	8.18	624489	10.61	438423	14.14
16	SD0011	181658	8.18	613576	10.61	423970	14.14
17	SD0010	172403	8.18	658867	10.61	499354	14.14
18							
19							
20							
21							
22							
23							
24							
25							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Ical Midpoint ID: IC1021A Ical Date: 10/11/11

Instrument ID: NT10 Cont. Cal Date: 12/06/11

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	976150	16.63	1397129	21.56	1407308	23.82
	UPPER LIMIT	1952300		2794258		2814616	
	LOWER LIMIT	488075		698564		703654	
	CCAL	1225974	17.11	1653515	21.96	1658921	24.23
	UPPER LIMIT		17.61		22.46		24.73
	LOWER LIMIT		16.61		21.46		23.73
01	TX57MBS1	1021560	17.10	1202386	21.96	1315981	24.23
02	TX57LCSS1	1110987	17.11	1457352	21.96	1518674	24.23
03	SD0012	1027336	17.11	1587333	21.96	1684808	24.25
04	SD0013	972614	17.11	1556369	21.96	1627525	24.26
05	SD0014	1041839	17.11	1596972	21.97	1688505	24.26
06	SD0015 MS	1159255	17.13	1883863	22.01	1806878	24.32
07	SD0015 MSD	1187263	17.14	1813238	22.01	1606636	24.32
08	SD0016	977321	17.12	1629941	21.98	1576818	24.28
09	SD0017	983239	17.12	1556491	21.97	1471800	24.26
10	SD0018	1077078	17.12	1460641	21.97	1415715	24.25
11	SD0019	909892	17.12	1402473	21.97	1195073	24.28
12	SD0020	969507	17.13	1544733	21.98	1457386	24.28
13	SD0021	1000723	17.12	1681864	21.98	1456035	24.28
14	SD0022	1061162	17.12	1536014	21.97	1406700	24.26
15	SD0024	884829	17.12	1417823	21.97	1227059	24.26
16	SD0011	1023816	17.13	1605041	21.99	1452118	24.28
17	SD0010	1367964	17.13	1728083	22.00	1475583	24.30
18							
19							
20							
21							
22							
23							
24							
25							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: INTEGRAL CONSULTING

ARI Job No: TX57 | Project: SLIP 4 EARLY ACTION AREA

Ical Midpoint ID: IC1021A | Ical Date: 10/11/11

Instrument ID: NT10 | Cont. Cal Date: 12/06/11

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	1264537	22.72				
	UPPER LIMIT	2529074					
	LOWER LIMIT	632268					
	CCAL	1402440	23.05				
	UPPER LIMIT		23.55				
	LOWER LIMIT		22.55				
01	TX57MBS1	987795	23.05				
02	TX57LCSS1	1230802	23.05				
03	SD0012	1354819	23.06				
04	SD0013	1311247	23.06				
05	SD0014	1339082	23.06				
06	SD0015 MS	1847892	23.09				
07	SD0015 MSD	1752079	23.09				
08	SD0016	1540293	23.07				
09	SD0017	1319715	23.07				
10	SD0018	1193476	23.06				
11	SD0019	1187443	23.07				
12	SD0020	1471823	23.07				
13	SD0021	1454966	23.07				
14	SD0022	1271804	23.06				
15	SD0024	1203660	23.06				
16	SD0011	1408505	23.08				
17	SD0010	1498069	23.09				
18							
19							
20							
21							
22							
23							
24							
25							

IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

TX57 000085

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Ical Midpoint ID: IC1021A Ical Date: 10/11/11

Instrument ID: NT10 Cont. Cal Date: 12/07/11

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	172860	7.70	574010	10.11	467963	13.64
	UPPER LIMIT	345720		1148020		935926	
	LOWER LIMIT	86430		287005		233982	
	CCAL	238021	8.08	773110	10.52	668653	14.09
	UPPER LIMIT		8.58		11.02		14.59
	LOWER LIMIT		7.58		10.02		13.59
01	SD0015	192302	8.08	717393	10.52	532055	14.10
02	SD0023	197318	8.08	756736	10.53	577825	14.11
03	SD0010	208416	8.09	705757	10.53	557188	14.11
04							
05							
06							
07							
08							
09							
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22							
23							
24							
25							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

ARI Job No: TX57 Project: SLIP 4 EARLY ACTION AREA

Ical Midpoint ID: IC1021A Ical Date: 10/11/11

Instrument ID: NT10 Cont. Cal Date: 12/07/11

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	976150	16.63	1397129	21.56	1407308	23.82
	UPPER LIMIT	1952300		2794258		2814616	
	LOWER LIMIT	488075		698564		703654	
	CCAL	1356492	17.10	1826643	21.99	1728665	24.30
	UPPER LIMIT		17.60		22.49		24.80
	LOWER LIMIT		16.60		21.49		23.80
01	SD0015	1194989	17.10	1767619	22.01	1735176	24.33
02	SD0023	1104934	17.11	1542944	22.01	1638058	24.32
03	SD0010	1311900	17.12	1703772	22.03	1772920	24.34
04							
05							
06							
07							
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21							
22							
23							
24							
25							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

TX57 : 00087

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: INTEGRAL CONSULTING

ARI Job No: TX57 | Project: SLIP 4 EARLY ACTION AREA

Ical Midpoint ID: IC1021A | Ical Date: 10/11/11

Instrument ID: NT10 | Cont. Cal Date: 12/07/11

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	1264537	22.72				
	UPPER LIMIT	2529074					
	LOWER LIMIT	632268					
	CCAL	1511097	23.13				
	UPPER LIMIT		23.63				
	LOWER LIMIT		22.63				
01	SD0015	1468257	23.13				
02	SD0023	1339525	23.13				
03	SD0010	1414257	23.15				
04							
05							
06							
07							
08							
09							
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21							
22							
23							
24							
25							

IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

TX57 : 00088

PCB Analysis
Report and Summary QC Forms

ARI Job ID: TX57

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: RB0003
SAMPLE

Lab Sample ID: TX57P
LIMS ID: 11-26634
Matrix: Water
Data Release Authorized:
Reported: 11/29/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/19/11
Date Analyzed: 11/22/11 18:51
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: Yes
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.010	< 0.010 U
53469-21-9	Aroclor 1242	0.010	< 0.010 U
12672-29-6	Aroclor 1248	0.010	< 0.010 U
11097-69-1	Aroclor 1254	0.010	< 0.010 U
11096-82-5	Aroclor 1260	0.010	< 0.010 U
11104-28-2	Aroclor 1221	0.010	< 0.010 U
11141-16-5	Aroclor 1232	0.010	< 0.010 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	59.0%
Tetrachlorometaxylene	54.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: WB0002
SAMPLE

Lab Sample ID: TX57Q
LIMS ID: 11-26635
Matrix: Water
Data Release Authorized:
Reported: 11/29/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/19/11
Date Analyzed: 11/22/11 19:09
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: Yes
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.010	< 0.010 U
53469-21-9	Aroclor 1242	0.010	< 0.010 U
12672-29-6	Aroclor 1248	0.010	< 0.010 U
11097-69-1	Aroclor 1254	0.010	< 0.010 U
11096-82-5	Aroclor 1260	0.010	< 0.010 U
11104-28-2	Aroclor 1221	0.010	< 0.010 U
11141-16-5	Aroclor 1232	0.010	< 0.010 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	72.8%
Tetrachlorometaxylene	47.5%

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
MB-111911	73.5%	32-108	45.5%	31-100	0
LCS-111911	71.5%	32-108	47.0%	31-100	0
LCSD-111911	70.2%	32-108	45.0%	31-100	0
RB0003	59.0%	19-111	54.2%	21-100	0
WB0002	72.8%	19-111	47.5%	21-100	0

Prep Method: SW3510C
Log Number Range: 11-26634 to 11-26635

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: LCS-111911
LCS/LCSD

Lab Sample ID: LCS-111911
LIMS ID: 11-26634
Matrix: Water
Data Release Authorized:
Reported: 11/29/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 11/19/11
Date Analyzed LCS: 11/22/11 18:13
LCSD: 11/22/11 18:32
Instrument/Analyst LCS: ECD5/JGR
LCSD: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount LCS: 1000 mL
LCSD: 1000 mL
Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Silica Gel: Yes
Acid Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	0.037	0.050	74.0%	0.037	0.050	74.0%	0.0%
Aroclor 1260	0.049	0.050	98.0%	0.049	0.050	98.0%	0.0%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	71.5%	70.2%
Tetrachlorometaxylene	47.0%	45.0%

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

PCB METHOD BLANK SUMMARY

BLANK NO.

TX57MBW1

Lab Name: ANALYTICAL RESOURCES INC

Client: INTEGRAL

ARI Job No.: TX57

Project: SLIP 4 EARLY ACTION

Lab Sample ID: TX57MBW1

Lab File ID: 1122B010

Date Extracted: 11/19/11

Matrix: LIQUID

Date Analyzed: 11/22/11

Instrument ID: ECD5

Time Analyzed: 1754

GC Columns: ZB5/ZB35

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	TX57LCSW1	TX57LCSW1	11/22/11
02	TX57LCSDW1	TX57LCSDW1	11/22/11
03	RB0003	TX57P	11/22/11
04	WB0002	TX57Q	11/22/11

ALL RUNS ARE DUAL COLUMN

TX57 - 00094

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: MB-111911
METHOD BLANK

Lab Sample ID: MB-111911
LIMS ID: 11-26634
Matrix: Water
Data Release Authorized:
Reported: 11/29/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: NA
Date Received: NA

Date Extracted: 11/19/11
Date Analyzed: 11/22/11 17:54
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: Yes
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.010	< 0.010 U
53469-21-9	Aroclor 1242	0.010	< 0.010 U
12672-29-6	Aroclor 1248	0.010	< 0.010 U
11097-69-1	Aroclor 1254	0.010	< 0.010 U
11096-82-5	Aroclor 1260	0.010	< 0.010 U
11104-28-2	Aroclor 1221	0.010	< 0.010 U
11141-16-5	Aroclor 1232	0.010	< 0.010 U

Reported in µg/L (ppb)

PCB Surrogate Recovery	
Decachlorobiphenyl	73.5%
Tetrachlorometaxylene	45.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: SD0012
SAMPLE

Lab Sample ID: TX57A
LIMS ID: 11-26619
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 16:34
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.0 g-dry-wt
Final Extract Volume: 25.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 19.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	38	< 38 U
53469-21-9	Aroclor 1242	38	< 38 U
12672-29-6	Aroclor 1248	150	< 150 Y
11097-69-1	**Aroclor 1254**	**38**	**820**
11096-82-5	**Aroclor 1260**	**38**	**390**
11104-28-2	Aroclor 1221	38	< 38 U
11141-16-5	Aroclor 1232	38	< 38 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	131%
Tetrachlorometaxylene	108%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: SD0013
SAMPLE

Lab Sample ID: TX57B
LIMS ID: 11-26620
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 16:53
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 2.48 g-dry-wt
Final Extract Volume: 25.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 18.8%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	200	< 200 U
53469-21-9	Aroclor 1242	200	< 200 U
12672-29-6	Aroclor 1248	200	< 200 U
11097-69-1	**Aroclor 1254**	**200**	**1,100**
11096-82-5	**Aroclor 1260**	**200**	**270**
11104-28-2	Aroclor 1221	200	< 200 U
11141-16-5	Aroclor 1232	200	< 200 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery	
Decachlorobiphenyl	131%
Tetrachlorometaxylene	113%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD **Sample ID: SD0014**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57C
LIMS ID: 11-26621
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 17:12
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.7 g-dry-wt
Final Extract Volume: 25.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 25.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	39	< 39 U
53469-21-9	Aroclor 1242	39	< 39 U
12672-29-6	Aroclor 1248	160	< 160 Y
11097-69-1	**Aroclor 1254**	**39**	**420**
11096-82-5	**Aroclor 1260**	**39**	**68**
11104-28-2	Aroclor 1221	39	< 39 U
11141-16-5	Aroclor 1232	39	< 39 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	128%
Tetrachlorometaxylene	106%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: SD0015
SAMPLE

Lab Sample ID: TX57D
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 17:31
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 25.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 21.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	40	< 40 U
53469-21-9	Aroclor 1242	40	< 40 U
12672-29-6	Aroclor 1248	400	< 400 Y
11097-69-1	**Aroclor 1254**	**40**	**1,300**
11096-82-5	**Aroclor 1260**	**40**	**230**
11104-28-2	Aroclor 1221	40	< 40 U
11141-16-5	Aroclor 1232	40	< 40 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	97.2%
Tetrachlorometaxylene	68.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: SD0016
SAMPLE

Lab Sample ID: TX57E
LIMS ID: 11-26623
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 18:28
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.1 g-dry-wt
Final Extract Volume: 25.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 14.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	38	< 38 U
53469-21-9	Aroclor 1242	38	< 38 U
12672-29-6	Aroclor 1248	130	< 130 Y
11097-69-1	**Aroclor 1254**	**38**	**750**
11096-82-5	**Aroclor 1260**	**38**	**610**
11104-28-2	Aroclor 1221	38	< 38 U
11141-16-5	Aroclor 1232	38	< 38 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	130%
Tetrachlorometaxylene	102%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD **Sample ID: SD0017**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57F
LIMS ID: 11-26624
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 18:47
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.1 g-dry-wt
Final Extract Volume: 25.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 16.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	38	< 38 U
53469-21-9	Aroclor 1242	38	< 38 U
12672-29-6	Aroclor 1248	96	< 96 Y
11097-69-1	**Aroclor 1254**	**38**	**460**
11096-82-5	**Aroclor 1260**	**38**	**110**
11104-28-2	Aroclor 1221	38	< 38 U
11141-16-5	Aroclor 1232	38	< 38 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	121%
Tetrachlorometaxylene	102%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD **Sample ID: SD0018**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57G
LIMS ID: 11-26625
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 19:44
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 14.1 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 11.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.5	< 3.5 U
53469-21-9	Aroclor 1242	3.5	< 3.5 U
12672-29-6	Aroclor 1248	3.5	< 3.5 U
11097-69-1	**Aroclor 1254**	**3.5**	**7.3**
11096-82-5	**Aroclor 1260**	**3.5**	**4.7**
11104-28-2	Aroclor 1221	3.5	< 3.5 U
11141-16-5	Aroclor 1232	11	< 11 Y

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	96.0%
Tetrachlorometaxylene	87.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: SD0019
SAMPLE

Lab Sample ID: TX57H
LIMS ID: 11-26626
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 20:03
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.2 g-dry-wt
Final Extract Volume: 25.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 13.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	38	< 38 U
53469-21-9	Aroclor 1242	38	< 38 U
12672-29-6	Aroclor 1248	38	< 38 U
11097-69-1	**Aroclor 1254**	**38**	**220**
11096-82-5	**Aroclor 1260**	**38**	**78**
11104-28-2	Aroclor 1221	38	< 38 U
11141-16-5	Aroclor 1232	38	< 38 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	126%
Tetrachlorometaxylene	108%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: SD0020
SAMPLE

Lab Sample ID: TX57I
LIMS ID: 11-26627
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 20:21
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.9 g-dry-wt
Final Extract Volume: 25.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 9.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	39	< 39 U
53469-21-9	Aroclor 1242	39	< 39 U
12672-29-6	Aroclor 1248	78	< 78 Y
11097-69-1	**Aroclor 1254**	**39**	**320**
11096-82-5	**Aroclor 1260**	**39**	**210**
11104-28-2	Aroclor 1221	39	< 39 U
11141-16-5	Aroclor 1232	39	< 39 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	122%
Tetrachlorometaxylene	89.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: SD0021
SAMPLE

Lab Sample ID: TX57J
LIMS ID: 11-26628
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 20:40
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.9 g-dry-wt
Final Extract Volume: 25.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 8.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	39	< 39 U
53469-21-9	Aroclor 1242	39	< 39 U
12672-29-6	Aroclor 1248	120	< 120 Y
11097-69-1	**Aroclor 1254**	**39**	**980**
11096-82-5	**Aroclor 1260**	**39**	**1,100**
11104-28-2	Aroclor 1221	39	< 39 U
11141-16-5	Aroclor 1232	39	< 39 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	126%
Tetrachlorometaxylene	99.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: SD0022
SAMPLE

Lab Sample ID: TX57K
LIMS ID: 11-26629
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 20:59
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.6 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 12.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.7	< 3.7 U
53469-21-9	Aroclor 1242	3.7	< 3.7 U
12672-29-6	Aroclor 1248	3.7	< 3.7 U
11097-69-1	Aroclor 1254	3.7	< 3.7 U
11096-82-5	**Aroclor 1260**	**3.7**	**7.4**
11104-28-2	Aroclor 1221	3.7	< 3.7 U
11141-16-5	Aroclor 1232	3.7	< 3.7 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	104%
Tetrachlorometaxylene	92.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: SD0023
SAMPLE

Lab Sample ID: TX57L
LIMS ID: 11-26630
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 21:18
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.5 g-dry-wt
Final Extract Volume: 25.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 19.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	37	< 37 U
53469-21-9	Aroclor 1242	37	< 37 U
12672-29-6	Aroclor 1248	55	< 55 Y
11097-69-1	**Aroclor 1254**	**37**	**390**
11096-82-5	**Aroclor 1260**	**37**	**98**
11104-28-2	Aroclor 1221	37	< 37 U
11141-16-5	Aroclor 1232	37	< 37 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	135%
Tetrachlorometaxylene	103%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD **Sample ID: SD0024**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57M
LIMS ID: 11-26631
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 21:37
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.9 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 15.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	12	< 12 Y
11096-82-5	**Aroclor 1260**	**3.9**	**25**
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	95.0%
Tetrachlorometaxylene	84.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
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Sample ID: SD0011
SAMPLE

Lab Sample ID: TX57N
LIMS ID: 11-26632
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/16/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/08/11 09:49
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 2.17 g-dry-wt
Final Extract Volume: 25.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 28.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1,200	< 1,200 U
53469-21-9	Aroclor 1242	1,200	< 1,200 U
12672-29-6	Aroclor 1248	7,200	< 7,200 Y
11097-69-1	**Aroclor 1254**	**1,200**	**23,000**
11096-82-5	Aroclor 1260	1,700	< 1,700 Y
11104-28-2	Aroclor 1221	1,200	< 1,200 U
11141-16-5	Aroclor 1232	1,200	< 1,200 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: SD0010
SAMPLE

Lab Sample ID: TX57O
LIMS ID: 11-26633
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/16/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/08/11 10:08
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 1.39 g-dry-wt
Final Extract Volume: 25.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 53.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1,800	< 1,800 U
53469-21-9	Aroclor 1242	1,800	< 1,800 U
12672-29-6	Aroclor 1248	22,000	< 22,000 Y
11097-69-1	**Aroclor 1254**	**1,800**	**26,000**
11096-82-5	**Aroclor 1260**	**1,800**	**4,600**
11104-28-2	Aroclor 1221	1,800	< 1,800 U
11141-16-5	Aroclor 1232	1,800	< 1,800 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
MB-112611	108%	40-109	82.8%	35-100	0
LCS-112611	109%	40-109	87.2%	35-100	0
SD0015	97.2%	34-141	68.8%	38-102	0
SD0015 MS	134%	34-141	93.2%	38-102	0
SD0015 MSD	130%	34-141	91.5%	38-102	0
SD0016	130%	34-141	102%	38-102	0
SD0017	121%	34-141	102%	38-102	0
SD0018	96.0%	34-141	87.8%	38-102	0
SD0019	126%	34-141	108%*	38-102	1
SD0020	122%	34-141	89.2%	38-102	0
SD0021	126%	34-141	99.0%	38-102	0
SD0022	104%	34-141	92.0%	38-102	0
SD0023	135%	34-141	103%*	38-102	1
SD0024	95.0%	34-141	84.0%	38-102	0
SD0011	D	34-141	D	38-102	0
SD0010	D	34-141	D	38-102	0

Microwave (MARS) Control Limits PCBSMM
Prep Method: SW3546
Log Number Range: 11-26622 to 11-26633

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
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Sample ID: SD0015
MS/MSD

Lab Sample ID: TX57D
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted MS/MSD: 11/26/11

Date Analyzed MS: 12/06/11 17:50
MSD: 12/06/11 18:09
Instrument/Analyst MS: ECD5/JGR
MSD: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount MS: 12.9 g-dry-wt
MSD: 13.3 g-dry-wt
Final Extract Volume MS: 25 mL
MSD: 25 mL
Dilution Factor MS: 1.00
MSD: 1.00
Silica Gel: Yes

Percent Moisture: 21.4%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 39.7 U	121	97.6	124%	115	94.7	121%	5.1%
Aroclor 1260	232	387	97.6	159%	397	94.7	174%	2.6%

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: SD0015
MATRIX SPIKE

Lab Sample ID: TX57D
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized: MV
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 17:50
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.9 g-dry-wt
Final Extract Volume: 25.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 21.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	39	---
53469-21-9	Aroclor 1242	39	< 39 U
12672-29-6	Aroclor 1248	480	< 480 Y
11097-69-1	**Aroclor 1254**	**39**	**1,400**
11096-82-5	Aroclor 1260	39	---
11104-28-2	Aroclor 1221	39	< 39 U
11141-16-5	Aroclor 1232	39	< 39 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	134%
Tetrachlorometaxylene	93.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: SD0015
MATRIX SPIKE DUP

Lab Sample ID: TX57D
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 18:09
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.3 g-dry-wt
Final Extract Volume: 25.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 21.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	38	---
53469-21-9	Aroclor 1242	38	< 38 U
12672-29-6	Aroclor 1248	560	< 560 Y
11097-69-1	**Aroclor 1254**	**38**	**1,800**
11096-82-5	Aroclor 1260	38	---
11104-28-2	Aroclor 1221	38	< 38 U
11141-16-5	Aroclor 1232	38	< 38 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	130%
Tetrachlorometaxylene	91.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: LCS-112611
LAB CONTROL

Lab Sample ID: LCS-112611
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: NA
Date Received: NA

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 16:15
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
Aroclor 1016	88.5	101	87.6%
Aroclor 1260	95.6	101	94.7%

PCB Surrogate Recovery

Decachlorobiphenyl	109%
Tetrachlorometaxylene	87.2%

Results reported in µg/kg (ppb)

PCB METHOD BLANK SUMMARY

BLANK NO.

TX57MBS1

Lab Name: ANALYTICAL RESOURCES INC — Client: INTEGRAL

ARI Job No.: TX57 — Project: SLIP 4 EARLY ACTION

Lab Sample ID: TX57MBS1 — Lab File ID: 1206B014

Date Extracted: 11/26/11 — Matrix: SOLID

Date Analyzed: 12/06/11 — Instrument ID: ECD5

Time Analyzed: 1556 — GC Columns: ZB5/ZB35

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	TX57LCSS1	TX57LCSS1	12/06/11
02	SD0012	TX57A	12/06/11
03	SD0013	TX57B	12/06/11
04	SD0014	TX57C	12/06/11
05	SD0015	TX57D	12/06/11
06	SD0015 MS	TX57DMS	12/06/11
07	SD0015 MSD	TX57DMSD	12/06/11
08	SD0016	TX57E	12/06/11
09	SD0017	TX57F	12/06/11
10	SD0018	TX57G	12/06/11
11	SD0019	TX57H	12/06/11
12	SD0020	TX57I	12/06/11
13	SD0021	TX57J	12/06/11
14	SD0022	TX57K	12/06/11
15	SD0023	TX57L	12/06/11
16	SD0024	TX57M	12/06/11
17	SD0011	TX57N	12/06/11
18	SD0010	TX57O	12/06/11

ALL RUNS ARE DUAL COLUMN

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: MB-112611
METHOD BLANK

Lab Sample ID: MB-112611
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized:
Reported: 12/09/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: NA
Date Received: NA

Date Extracted: 11/26/11
Date Analyzed: 12/06/11 15:56
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	4.0	< 4.0 U
53469-21-9	Aroclor 1242	4.0	< 4.0 U
12672-29-6	Aroclor 1248	4.0	< 4.0 U
11097-69-1	Aroclor 1254	4.0	< 4.0 U
11096-82-5	Aroclor 1260	4.0	< 4.0 U
11104-28-2	Aroclor 1221	4.0	< 4.0 U
11141-16-5	Aroclor 1232	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	108%
Tetrachlorometaxylene	82.8%

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 09/30/11

SURROGATES

RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX 4.55- 4.75	1.5051	1.4384	1.4168	1.4054	1.2798	1.2123	1.3763	7.9
DCB 12.93-13.13	1.5881	1.4116	1.3347	1.2085	1.0785	1.0057	1.2712	17.1

Aroclor-1016 Peak RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1 6.18- 6.38	0.0471	0.0419	0.0386	0.0359	0.0310	0.0275	0.0370	19.4
2 6.58- 6.78	0.1570	0.1395	0.1282	0.1175	0.1002	0.0896	0.1220	16.8
3 6.73- 6.93	0.0614	0.0557	0.0522	0.0480	0.0413	0.0371	0.0493	14.7
4 6.84- 7.04	0.0468	0.0413	0.0383	0.0359	0.0309	0.0274	0.0368	19.1

AROCLOR AVERAGE %RSD = 17.5

Aroclor-1260 Peak RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1 10.39-10.59	0.0547	0.0489	0.0454	0.0415	0.0364	0.0327	0.0433	18.8
2 10.76-10.96	0.1405	0.1242	0.1146	0.1043	0.0915	0.0850	0.1100	18.9
3 11.16-11.36	0.0779	0.0707	0.0667	0.0611	0.0539	0.0490	0.0632	17.0
4 11.28-11.48	0.0329	0.0303	0.0285	0.0262	0.0234	0.0211	0.0271	16.2
5 11.35-11.55	0.0377	0.0351	0.0336	0.0312	0.0278	0.0253	0.0318	14.6

AROCLOR AVERAGE %RSD = 17.1

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 09/30/11

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	4.56- 4.76	1.2336	1.2075	1.2362	1.2531	1.1824	1.1333	1.2077	3.6
DCB	13.31-13.51	1.2609	1.1951	1.1563	1.0942	1.0031	0.9531	1.1105	10.5

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	6.29- 6.49	0.0568	0.0529	0.0508	0.0475	0.0414	0.0366	0.0477	15.8
2	6.92- 7.12	0.1205	0.1145	0.1119	0.1082	0.0968	0.0878	0.1066	11.4
3	7.12- 7.32	0.0487	0.0395	0.0431	0.0430	0.0394	0.0318	0.0409	13.7
4	8.41- 8.61	0.0251	0.0240	0.0230	0.0225	0.0208	0.0199	0.0226	8.7

AROCLOR AVERAGE %RSD = 12.4

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	10.27-10.47	0.0898	0.0761	0.0751	0.0685	0.0623	0.0587	0.0717	15.6
2	11.09-11.29	0.1239	0.1172	0.1139	0.1115	0.1020	0.0976	0.1110	8.8
3	11.61-11.81	0.0426	0.0351	0.0336	0.0340	0.0299	0.0286	0.0340	14.5
4	12.41-12.61	0.0418	0.0346	0.0320	0.0305	0.0279	0.0266	0.0322	17.1

AROCLOR AVERAGE %RSD = 14.0

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 09/30/11

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	5.020	4.92- 5.12	0.01346
2	5.199	5.10- 5.30	0.00951
3	5.303	5.20- 5.40	0.03216

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.280	6.18- 6.38	0.01558
2	6.679	6.58- 6.78	0.05181
3	6.828	6.73- 6.93	0.02098
4	8.020	7.92- 8.12	0.02212

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.285	6.18- 6.38	0.02850
2	6.684	6.58- 6.78	0.09363
3	6.832	6.73- 6.93	0.03796
4	8.024	7.92- 8.12	0.03763

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	7.182	7.08- 7.28	0.04247
2	7.480	7.38- 7.58	0.04810
3	8.024	7.92- 8.12	0.06040
4	8.314	8.21- 8.41	0.06031

TX57.00120

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 09/30/11

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.399	8.30- 8.50	0.09679
2	8.770	8.67- 8.87	0.06661
3	8.906	8.81- 9.01	0.11970
4	9.255	9.16- 9.36	0.13646
5	9.616	9.52- 9.72	0.09008

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	10.168	10.07-10.27	0.06439
2	10.485	10.39-10.59	0.05216
3	10.860	10.76-10.96	0.12653
4	11.377	11.28-11.48	0.05802
5	11.450	11.35-11.55	0.06118

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.377	11.28-11.48	0.14042
2	11.449	11.35-11.55	0.13582
3	11.836	11.74-11.94	0.12082
4	12.627	12.53-12.73	0.35276

TX57 00121

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 09/30/11

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	5.358	5.26- 5.46	0.01372
2	5.587	5.49- 5.69	0.00787
3	5.698	5.60- 5.80	0.02569
4	5.762	5.66- 5.86	0.00429

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.389	6.29- 6.49	0.02194
2	7.011	6.91- 7.11	0.04544
3	7.223	7.12- 7.32	0.01580
4	8.367	8.27- 8.47	0.01759

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.391	6.29- 6.49	0.03732
2	7.016	6.92- 7.12	0.08407
3	7.225	7.12- 7.32	0.03312
4	8.368	8.27- 8.47	0.03002

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	7.505	7.41- 7.61	0.03819
2	7.918	7.82- 8.02	0.04427
3	8.368	8.27- 8.47	0.04928
4	8.791	8.69- 8.89	0.05344

TX57 : 00122

6G
8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 09/30/11

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.509	8.41- 8.61	0.04305
2	8.681	8.58- 8.78	0.05611
3	9.204	9.10- 9.30	0.04513
4	9.354	9.25- 9.45	0.09675
5	10.136	10.04-10.24	0.06002

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	10.464	10.36-10.56	0.07217
2	10.911	10.81-11.01	0.06890
3	11.185	11.09-11.29	0.13446
4	11.707	11.61-11.81	0.06389
5	12.550	12.45-12.65	0.05257

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.707	11.61-11.81	0.15777
2	11.770	11.67-11.87	0.13620
3	12.174	12.07-12.27	0.11563
4	12.991	12.89-13.09	0.34883

TX57.00129

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 12/02/11

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	4.54- 4.74	1.2047	1.1519	1.1602	1.1423	1.1385	1.0396	1.1395	4.8
DCB	12.92-13.12	1.0271	1.0390	1.0284	0.9960	0.9831	0.9511	1.0041	3.3

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	6.17- 6.37	0.0320	0.0292	0.0283	0.0267	0.0260	0.0232	0.0276	11.0
2	6.57- 6.77	0.1054	0.0970	0.0937	0.0879	0.0861	0.0773	0.0912	10.7
3	6.72- 6.92	0.0430	0.0397	0.0381	0.0355	0.0347	0.0309	0.0370	11.4
4	6.83- 7.03	0.0306	0.0277	0.0265	0.0247	0.0245	0.0219	0.0260	11.6

AROCLOR AVERAGE %RSD = 11.2

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	10.38-10.58	0.0453	0.0425	0.0402	0.0388	0.0362	0.0340	0.0395	10.4
2	10.75-10.95	0.1133	0.1057	0.1015	0.0985	0.0939	0.0904	0.1005	8.2
3	11.15-11.35	0.0588	0.0575	0.0555	0.0536	0.0510	0.0481	0.0541	7.5
4	11.27-11.47	0.0237	0.0234	0.0228	0.0217	0.0206	0.0193	0.0219	7.9
5	11.34-11.54	0.0279	0.0278	0.0272	0.0263	0.0251	0.0235	0.0263	6.6

AROCLOR AVERAGE %RSD = 8.1

TX57 00124

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 12/02/11

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	4.54- 4.74	1.0571	1.0302	1.0451	1.0403	1.0247	0.9656	1.0272	3.1
DCB	13.30-13.50	1.1015	1.0703	1.0055	0.9618	0.9174	0.8792	0.9893	8.8

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	6.28- 6.48	0.0450	0.0417	0.0399	0.0368	0.0348	0.0317	0.0383	12.6
2	6.91- 7.11	0.0863	0.0799	0.0776	0.0738	0.0716	0.0671	0.0760	8.9
3	7.11- 7.31	0.0295	0.0283	0.0309	0.0290	0.0279	0.0260	0.0286	5.8
4	8.40- 8.60	0.0152	0.0148	0.0144	0.0132	0.0126	0.0117	0.0137	9.9

AROCLOR AVERAGE %RSD = 9.3

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	10.36-10.56	0.0516	0.0484	0.0463	0.0444	0.0414	0.0390	0.0452	10.2
2	10.81-11.01	0.0637	0.0594	0.0565	0.0544	0.0516	0.0489	0.0557	9.6
3	11.08-11.28	0.1238	0.1158	0.1113	0.1095	0.1050	0.1012	0.1111	7.2
4	11.60-11.80	0.0365	0.0333	0.0321	0.0310	0.0292	0.0276	0.0316	9.9

AROCLOR AVERAGE %RSD = 9.2

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 12/03/11

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	5.017	4.92- 5.12	0.01091
2	5.196	5.10- 5.30	0.00769
3	5.300	5.20- 5.40	0.02700

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.278	6.18- 6.38	0.01111
2	6.677	6.58- 6.78	0.03678
3	6.826	6.73- 6.93	0.01499
4	8.019	7.92- 8.12	0.01323

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.273	6.17- 6.37	0.02084
2	6.672	6.57- 6.77	0.06873
3	6.821	6.72- 6.92	0.02767
4	8.013	7.91- 8.11	0.02333

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	6.669	6.57- 6.77	0.04664
2	7.469	7.37- 7.57	0.03240
3	8.014	7.91- 8.11	0.03886
4	8.304	8.20- 8.40	0.03742

TX57 : 00126

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 12/03/11

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.388	8.29- 8.49	0.05823
2	8.759	8.66- 8.86	0.03740
3	8.895	8.80- 9.00	0.06971
4	9.244	9.14- 9.34	0.07226
5	9.606	9.51- 9.71	0.04893

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	10.168	10.07-10.27	0.06372
2	10.485	10.38-10.58	0.04966
3	10.859	10.76-10.96	0.12187
4	11.376	11.28-11.48	0.05071
5	11.449	11.35-11.55	0.05445

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.377	11.28-11.48	0.13067
2	11.448	11.35-11.55	0.12779
3	11.835	11.73-11.93	0.10788
4	12.626	12.53-12.73	0.33333

TX57 : 00127

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 12/03/11

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	5.332	5.23- 5.43	0.01152
2	5.579	5.48- 5.68	0.00660
3	5.691	5.59- 5.79	0.02085
4	5.759	5.66- 5.86	0.00330

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.385	6.29- 6.49	0.01666
2	7.010	6.91- 7.11	0.03042
3	7.219	7.12- 7.32	0.01062
4	8.364	8.26- 8.46	0.01024

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.379	6.28- 6.48	0.02867
2	7.004	6.90- 7.10	0.05697
3	7.214	7.11- 7.31	0.02258
4	8.358	8.26- 8.46	0.01786

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	7.002	6.90- 7.10	0.03778
2	7.908	7.81- 8.01	0.02821
3	8.359	8.26- 8.46	0.02937
4	8.780	8.68- 8.88	0.03206

TX57 : 00128

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 12/03/11

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.499	8.40- 8.60	0.02518
2	8.671	8.57- 8.77	0.03288
3	9.193	9.09- 9.29	0.02589
4	9.345	9.24- 9.44	0.05551
5	10.125	10.03-10.23	0.03431

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	10.461	10.36-10.56	0.07193
2	10.914	10.81-11.01	0.06836
3	11.184	11.08-11.28	0.13299
4	11.707	11.61-11.81	0.05907
5	12.505	12.41-12.61	0.04741

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.707	11.61-11.81	0.13881
2	11.774	11.67-11.87	0.12660
3	12.172	12.07-12.27	0.10479
4	12.993	12.89-13.09	0.31117

TX57:00129

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 09/30/11

Date Analyzed :11/22/11

Lab Standard ID: AR1660 Time Analyzed :1716

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.28	6.18	6.38	258.7	250.0	3.5
Aroclor-1016-2	6.68	6.58	6.78	249.8	250.0	-0.1
Aroclor-1016-3	6.83	6.73	6.93	256.3	250.0	2.5
Aroclor-1016-4	6.94	6.84	7.04	267.1	250.0	6.8

AVERAGE %D = 3.2

Date Analyzed :11/22/11

Lab Standard ID: AR1660 Time Analyzed :1716

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.49	10.39	10.59	281.3	250.0	12.5
Aroclor-1260-2	10.86	10.76	10.96	272.5	250.0	9.0
Aroclor-1260-3	11.26	11.16	11.36	277.2	250.0	10.9
Aroclor-1260-4	11.38	11.28	11.48	283.8	250.0	13.5
Aroclor-1260-5	11.45	11.35	11.55	288.3	250.0	15.3

AVERAGE %D = 12.2

TX57 00130

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 09/30/11

Date Analyzed :11/22/11

Lab Standard ID: AR1660 Time Analyzed :1716

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.39	6.29	6.49	240.4	250.0	-3.8
Aroclor-1016-2	7.02	6.92	7.12	246.7	250.0	-1.3
Aroclor-1016-3	7.22	7.12	7.32	222.3	250.0	-11.1
Aroclor-1016-4	8.51	8.41	8.61	233.9	250.0	-6.4

AVERAGE %D = 5.7

Date Analyzed :11/22/11

Lab Standard ID: AR1660 Time Analyzed :1716

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.37	10.27	10.47	260.0	250.0	4.0
Aroclor-1260-2	11.18	11.09	11.29	279.9	250.0	11.9
Aroclor-1260-3	11.71	11.61	11.81	267.3	250.0	6.9
Aroclor-1260-4	12.51	12.41	12.61	224.7	250.0	-10.1

AVERAGE %D = 8.2

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 09/30/11

Date Analyzed :11/22/11

Lab Standard ID: AR1254 Time Analyzed :1735

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	8.40	8.30	8.50	193.4	250.0	-22.6
Aroclor-1254-2	8.77	8.67	8.87	250.5	250.0	0.2
Aroclor-1254-3	8.90	8.81	9.01	273.1	250.0	9.2
Aroclor-1254-4	9.25	9.16	9.36	263.1	250.0	5.2
Aroclor-1254-5	9.61	9.52	9.72	288.1	250.0	15.2

AVERAGE %D = 10.5

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 09/30/11

Date Analyzed :11/22/11

Lab Standard ID: AR1254 Time Analyzed :1735

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	8.50	8.41	8.61	195.1	250.0	-22.0
Aroclor-1254-2	8.68	8.58	8.78	262.4	250.0	5.0
Aroclor-1254-3	9.20	9.10	9.30	234.0	250.0	-6.4
Aroclor-1254-4	9.35	9.25	9.45	271.6	250.0	8.6
Aroclor-1254-5	10.13	10.04	10.24	277.8	250.0	11.1

AVERAGE %D = 10.6

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 09/30/11

Date Analyzed :11/22/11

Lab Standard ID: AR1660 Time Analyzed :2122

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.28	6.18	6.38	248.2	250.0	-0.7
Aroclor-1016-2	6.68	6.58	6.78	245.6	250.0	-1.8
Aroclor-1016-3	6.83	6.73	6.93	247.5	250.0	-1.0
Aroclor-1016-4	6.94	6.84	7.04	257.9	250.0	3.2

AVERAGE %D = 1.7

Date Analyzed :11/22/11

Lab Standard ID: AR1660 Time Analyzed :2122

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.49	10.39	10.59	290.6	250.0	16.2
Aroclor-1260-2	10.86	10.76	10.96	283.1	250.0	13.2
Aroclor-1260-3	11.26	11.16	11.36	275.2	250.0	10.1
Aroclor-1260-4	11.38	11.28	11.48	268.7	250.0	7.5
Aroclor-1260-5	11.45	11.35	11.55	274.6	250.0	9.8

AVERAGE %D = 11.4

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 09/30/11

Date Analyzed :11/22/11

Lab Standard ID: AR1660 Time Analyzed :2122

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.39	6.29	6.49	239.7	250.0	-4.1
Aroclor-1016-2	7.01	6.92	7.12	243.9	250.0	-2.4
Aroclor-1016-3	7.22	7.12	7.32	217.9	250.0	-12.8
Aroclor-1016-4	8.51	8.41	8.61	224.5	250.0	-10.2

AVERAGE %D = 7.4

Date Analyzed :11/22/11

Lab Standard ID: AR1660 Time Analyzed :2122

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.37	10.27	10.47	271.7	250.0	8.7
Aroclor-1260-2	11.18	11.09	11.29	287.8	250.0	15.1
Aroclor-1260-3	11.71	11.61	11.81	279.6	250.0	11.8
Aroclor-1260-4	12.51	12.41	12.61	234.7	250.0	-6.1

AVERAGE %D = 10.4

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 09/30/11

Date Analyzed :11/22/11

Lab Standard ID: AR1242 Time Analyzed :2141

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.28	6.18	6.38	259.0	250.0	3.6
Aroclor-1242-2	6.68	6.58	6.78	267.8	250.0	7.1
Aroclor-1242-3	6.83	6.73	6.93	269.0	250.0	7.6
Aroclor-1242-4	8.02	7.92	8.12	257.5	250.0	3.0

AVERAGE %D = 5.3

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 09/30/11

Date Analyzed :11/22/11

Lab Standard ID: AR1242 Time Analyzed :2141

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.39	6.29	6.49	245.6	250.0	-1.8
Aroclor-1242-2	7.02	6.92	7.12	247.5	250.0	-1.0
Aroclor-1242-3	7.22	7.12	7.32	216.9	250.0	-13.2
Aroclor-1242-4	8.37	8.27	8.47	246.6	250.0	-1.4

AVERAGE %D = 4.3

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/06/11

Lab Standard ID: AR1254 Time Analyzed :1519

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	8.39	8.29	8.49	249.7	250.0	-0.1
Aroclor-1254-2	8.76	8.66	8.86	241.6	250.0	-3.4
Aroclor-1254-3	8.90	8.80	9.00	247.5	250.0	-1.0
Aroclor-1254-4	9.25	9.14	9.34	249.7	250.0	-0.1
Aroclor-1254-5	9.61	9.51	9.71	246.7	250.0	-1.3

AVERAGE %D = 1.2

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/06/11

Lab Standard ID: AR1254 Time Analyzed :1519

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	8.50	8.40	8.60	245.4	250.0	-1.8
Aroclor-1254-2	8.67	8.57	8.77	243.3	250.0	-2.7
Aroclor-1254-3	9.19	9.09	9.29	230.1	250.0	-8.0
Aroclor-1254-4	9.35	9.24	9.44	241.8	250.0	-3.3
Aroclor-1254-5	10.13	10.03	10.23	238.5	250.0	-4.6

AVERAGE %D = 4.1

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/06/11

Lab Standard ID: AR1660 Time Analyzed :1537

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.28	6.17	6.37	242.2	250.0	-3.1
Aroclor-1016-2	6.68	6.57	6.77	248.2	250.0	-0.7
Aroclor-1016-3	6.82	6.72	6.92	240.4	250.0	-3.8
Aroclor-1016-4	6.93	6.83	7.03	252.1	250.0	0.8

AVERAGE %D = 2.1

Date Analyzed :12/06/11

Lab Standard ID: AR1660 Time Analyzed :1537

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.48	10.38	10.58	218.8	250.0	-12.5
Aroclor-1260-2	10.86	10.75	10.95	229.4	250.0	-8.2
Aroclor-1260-3	11.26	11.15	11.35	238.8	250.0	-4.5
Aroclor-1260-4	11.37	11.27	11.47	244.8	250.0	-2.1
Aroclor-1260-5	11.45	11.34	11.54	246.5	250.0	-1.4

AVERAGE %D = 5.7

TX57 : 00146

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/06/11

Lab Standard ID: AR1660 Time Analyzed :1537

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.38	6.28	6.48	234.5	250.0	-6.2
Aroclor-1016-2	7.01	6.91	7.11	243.4	250.0	-2.6
Aroclor-1016-3	7.22	7.11	7.31	214.2	250.0	-14.3
Aroclor-1016-4	8.50	8.40	8.60	244.8	250.0	-2.1

AVERAGE %D = 6.3

Date Analyzed :12/06/11

Lab Standard ID: AR1660 Time Analyzed :1537

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.46	10.36	10.56	231.8	250.0	-7.3
Aroclor-1260-2	10.91	10.81	11.01	235.1	250.0	-6.0
Aroclor-1260-3	11.18	11.08	11.28	239.3	250.0	-4.3
Aroclor-1260-4	11.70	11.60	11.80	242.1	250.0	-3.2

AVERAGE %D = 5.2

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/06/11

Lab Standard ID: AR1242 Time Analyzed :1906

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.27	6.17	6.37	249.2	250.0	-0.3
Aroclor-1242-2	6.67	6.57	6.77	253.1	250.0	1.2
Aroclor-1242-3	6.82	6.72	6.92	248.6	250.0	-0.6
Aroclor-1242-4	8.02	7.91	8.11	243.5	250.0	-2.6

AVERAGE %D = 1.2

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/06/11

Lab Standard ID: AR1242 Time Analyzed :1906

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.38	6.28	6.48	244.5	250.0	-2.2
Aroclor-1242-2	7.01	6.90	7.10	240.6	250.0	-3.8
Aroclor-1242-3	7.22	7.11	7.31	209.4	250.0	-16.2
Aroclor-1242-4	8.36	8.26	8.46	240.0	250.0	-4.0

AVERAGE %D = 6.5

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/06/11

Lab Standard ID: AR1660 Time Analyzed :1925

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.27	6.17	6.37	241.7	250.0	-3.3
Aroclor-1016-2	6.67	6.57	6.77	247.3	250.0	-1.1
Aroclor-1016-3	6.82	6.72	6.92	240.4	250.0	-3.8
Aroclor-1016-4	6.93	6.83	7.03	250.7	250.0	0.3

AVERAGE %D = 2.1

Date Analyzed :12/06/11

Lab Standard ID: AR1660 Time Analyzed :1925

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.48	10.38	10.58	213.7	250.0	-14.5
Aroclor-1260-2	10.85	10.75	10.95	225.9	250.0	-9.6
Aroclor-1260-3	11.26	11.15	11.35	234.5	250.0	-6.2
Aroclor-1260-4	11.37	11.27	11.47	238.8	250.0	-4.5
Aroclor-1260-5	11.45	11.34	11.54	241.4	250.0	-3.4

AVERAGE %D = 7.6

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/06/11

Lab Standard ID: AR1660 Time Analyzed :1925

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.38	6.28	6.48	237.3	250.0	-5.1
Aroclor-1016-2	7.01	6.91	7.11	234.4	250.0	-6.2
Aroclor-1016-3	7.22	7.11	7.31	214.6	250.0	-14.1
Aroclor-1016-4	8.50	8.40	8.60	244.9	250.0	-2.0

AVERAGE %D = 6.8

Date Analyzed :12/06/11

Lab Standard ID: AR1660 Time Analyzed :1925

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.46	10.36	10.56	232.1	250.0	-7.2
Aroclor-1260-2	10.91	10.81	11.01	234.2	250.0	-6.3
Aroclor-1260-3	11.18	11.08	11.28	239.1	250.0	-4.3
Aroclor-1260-4	11.70	11.60	11.80	242.6	250.0	-3.0

AVERAGE %D = 5.2

TX57.00145

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/06/11

Lab Standard ID: AR1248 Time Analyzed :2234

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	6.67	6.57	6.77	252.7	250.0	1.1
Aroclor-1248-2	7.47	7.37	7.57	241.6	250.0	-3.4
Aroclor-1248-3	8.02	7.91	8.11	242.7	250.0	-2.9
Aroclor-1248-4	8.31	8.20	8.40	244.9	250.0	-2.0

AVERAGE %D = 2.4

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/06/11

Lab Standard ID: AR1248 Time Analyzed :2234

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	7.00	6.90	7.10	247.1	250.0	-1.2
Aroclor-1248-2	7.91	7.81	8.01	242.8	250.0	-2.9
Aroclor-1248-3	8.36	8.26	8.46	245.1	250.0	-1.9
Aroclor-1248-4	8.78	8.68	8.88	245.8	250.0	-1.7

AVERAGE %D = 1.9

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/06/11

Lab Standard ID: AR1660 Time Analyzed :2253

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.27	6.17	6.37	244.5	250.0	-2.2
Aroclor-1016-2	6.67	6.57	6.77	249.8	250.0	-0.1
Aroclor-1016-3	6.82	6.72	6.92	244.2	250.0	-2.3
Aroclor-1016-4	6.93	6.83	7.03	252.3	250.0	0.9

AVERAGE %D = 1.4

Date Analyzed :12/06/11

Lab Standard ID: AR1660 Time Analyzed :2253

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.48	10.38	10.58	213.4	250.0	-14.6
Aroclor-1260-2	10.85	10.75	10.95	228.7	250.0	-8.5
Aroclor-1260-3	11.26	11.15	11.35	235.5	250.0	-5.8
Aroclor-1260-4	11.37	11.27	11.47	238.6	250.0	-4.6
Aroclor-1260-5	11.45	11.34	11.54	240.2	250.0	-3.9

AVERAGE %D = 7.5

TX57 00146

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/06/11

Lab Standard ID: AR1660 Time Analyzed :2253

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.38	6.28	6.48	241.1	250.0	-3.6
Aroclor-1016-2	7.01	6.91	7.11	250.2	250.0	0.1
Aroclor-1016-3	7.22	7.11	7.31	220.6	250.0	-11.7
Aroclor-1016-4	8.50	8.40	8.60	249.8	250.0	-0.1

AVERAGE %D = 3.9

Date Analyzed :12/06/11

Lab Standard ID: AR1660 Time Analyzed :2253

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.46	10.36	10.56	236.1	250.0	-5.5
Aroclor-1260-2	10.91	10.81	11.01	239.4	250.0	-4.2
Aroclor-1260-3	11.18	11.08	11.28	244.2	250.0	-2.3
Aroclor-1260-4	11.70	11.60	11.80	242.0	250.0	-3.2

AVERAGE %D = 3.8

TX57 00149

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/08/11

Lab Standard ID: AR1242 Time Analyzed :0754

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.27	6.17	6.37	274.4	250.0	9.7
Aroclor-1242-2	6.67	6.57	6.77	279.8	250.0	11.9
Aroclor-1242-3	6.82	6.72	6.92	278.6	250.0	11.4
Aroclor-1242-4	8.01	7.91	8.11	278.4	250.0	11.4

AVERAGE %D = 11.1

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/08/11

Lab Standard ID: AR1242 Time Analyzed :0754

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.38	6.28	6.48	251.5	250.0	0.6
Aroclor-1242-2	7.01	6.91	7.11	263.1	250.0	5.2
Aroclor-1242-3	7.21	7.11	7.31	219.7	250.0	-12.1
Aroclor-1242-4	8.36	8.26	8.46	258.2	250.0	3.3

AVERAGE %D = 5.3

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/08/11

Lab Standard ID: AR1660 Time Analyzed :0813

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.27	6.17	6.37	258.8	250.0	3.5
Aroclor-1016-2	6.67	6.57	6.77	266.0	250.0	6.4
Aroclor-1016-3	6.82	6.72	6.92	260.0	250.0	4.0
Aroclor-1016-4	6.93	6.83	7.03	274.7	250.0	9.9

AVERAGE %D = 6.0

Date Analyzed :12/08/11

Lab Standard ID: AR1660 Time Analyzed :0813

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.48	10.38	10.58	211.7	250.0	-15.3
Aroclor-1260-2	10.85	10.75	10.95	231.8	250.0	-7.3
Aroclor-1260-3	11.25	11.15	11.35	241.6	250.0	-3.4
Aroclor-1260-4	11.37	11.27	11.47	246.0	250.0	-1.6
Aroclor-1260-5	11.44	11.34	11.54	246.9	250.0	-1.2

AVERAGE %D = 5.8

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/08/11

Lab Standard ID: AR1660 Time Analyzed :0813

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.38	6.28	6.48	239.0	250.0	-4.4
Aroclor-1016-2	7.01	6.91	7.11	251.5	250.0	0.6
Aroclor-1016-3	7.21	7.11	7.31	219.8	250.0	-12.1
Aroclor-1016-4	8.50	8.40	8.60	254.5	250.0	1.8

AVERAGE %D = 4.7

Date Analyzed :12/08/11

Lab Standard ID: AR1660 Time Analyzed :0813

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.45	10.35	10.55	240.0	250.0	-4.0
Aroclor-1260-2	10.91	10.81	11.01	243.1	250.0	-2.7
Aroclor-1260-3	11.18	11.08	11.28	247.7	250.0	-0.9
Aroclor-1260-4	11.70	11.60	11.80	252.0	250.0	0.8

AVERAGE %D = 2.1

TX57 : 00153

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/08/11

Lab Standard ID: AR1248 Time Analyzed :1027

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	6.67	6.57	6.77	270.2	250.0	8.1
Aroclor-1248-2	7.47	7.37	7.57	263.9	250.0	5.6
Aroclor-1248-3	8.01	7.91	8.11	265.3	250.0	6.1
Aroclor-1248-4	8.30	8.20	8.40	274.9	250.0	10.0

AVERAGE %D = 7.4

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/08/11

Lab Standard ID: AR1248 Time Analyzed :1027

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	7.00	6.90	7.10	253.9	250.0	1.6
Aroclor-1248-2	7.91	7.81	8.01	255.6	250.0	2.2
Aroclor-1248-3	8.36	8.26	8.46	260.3	250.0	4.1
Aroclor-1248-4	8.78	8.68	8.88	267.0	250.0	6.8

AVERAGE %D = 3.7

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/08/11

Lab Standard ID: AR1660 Time Analyzed :1046

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.27	6.17	6.37	256.0	250.0	2.4
Aroclor-1016-2	6.67	6.57	6.77	262.6	250.0	5.0
Aroclor-1016-3	6.82	6.72	6.92	258.0	250.0	3.2
Aroclor-1016-4	6.93	6.83	7.03	270.4	250.0	8.2

AVERAGE %D = 4.7

Date Analyzed :12/08/11

Lab Standard ID: AR1660 Time Analyzed :1046

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.48	10.38	10.58	201.0	250.0	-19.6
Aroclor-1260-2	10.85	10.75	10.95	227.1	250.0	-9.2
Aroclor-1260-3	11.25	11.15	11.35	237.1	250.0	-5.1
Aroclor-1260-4	11.37	11.27	11.47	242.3	250.0	-3.1
Aroclor-1260-5	11.44	11.34	11.54	244.0	250.0	-2.4

AVERAGE %D = 7.9

TX57.00156

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL CONSULTING

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION AREA

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 12/02/11

Date Analyzed :12/08/11

Lab Standard ID: AR1660 Time Analyzed :1046

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.38	6.28	6.48	240.8	250.0	-3.7
Aroclor-1016-2	7.00	6.90	7.10	251.8	250.0	0.7
Aroclor-1016-3	7.21	7.11	7.31	223.6	250.0	-10.5
Aroclor-1016-4	8.50	8.40	8.60	255.7	250.0	2.3

AVERAGE %D = 4.3

Date Analyzed :12/08/11

Lab Standard ID: AR1660 Time Analyzed :1046

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.45	10.35	10.55	236.2	250.0	-5.5
Aroclor-1260-2	10.91	10.80	11.00	239.1	250.0	-4.4
Aroclor-1260-3	11.18	11.08	11.28	244.5	250.0	-2.2
Aroclor-1260-4	11.70	11.60	11.80	248.9	250.0	-0.4

AVERAGE %D = 3.1

FORM VII PCB

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 09/30/11

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

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	119324916	2.436	247758184	13.395
	UPPER LIMIT	238649832	2.536	495516368	13.495
	LOWER LIMIT	59662458	2.336	123879092	13.295

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	09/30/11	1624	122304889	2.437	253776804	13.395
02		0.25 PPM AR1	09/30/11	1643	119324916	2.436	247758184	13.395
03		0.02 PPM AR1	09/30/11	1702	123307765	2.438	256486260	13.396
04		0.05 PPM AR1	09/30/11	1721	122563162	2.438	252437005	13.396
05		1 PPM AR1660	09/30/11	1740	117923883	2.438	251697732	13.396
06		0.1 PPM AR16	09/30/11	1759	128792057	2.437	261443126	13.396
07		0.5 PPM AR16	09/30/11	1818	121783479	2.439	254502664	13.396
08		AR1242	09/30/11	1837	122192308	2.436	255299258	13.395
09		AR1248	09/30/11	1856	123657838	2.437	258597123	13.396
10		AR1254	09/30/11	1915	125249878	2.437	261836582	13.395
11		AR2162	09/30/11	1934	123432717	2.437	258404617	13.396
12		AR3268	09/30/11	1952	122451147	2.438	256878806	13.397
13	ZZZZZ	ZZZZZ	09/30/11	2011	124509298	2.438	262602066	13.395
14	ZZZZZ	ZZZZZ	09/30/11	2030	126141261	2.439	262615256	13.396
15	ZZZZZ	ZZZZZ	09/30/11	2049	122973217	2.437	260908524	13.396
16	ZZZZZ	ZZZZZ	09/30/11	2108	123999069	2.438	262522642	13.396
17	ZZZZZ	ZZZZZ	09/30/11	2127	122906238	2.438	264368956	13.395
18	ZZZZZ	ZZZZZ	09/30/11	2146	124264777	2.437	264101558	13.396
19		AR1660	11/22/11	1716	114559869	2.442	228514163	13.395
20		AR1254	11/22/11	1735	131204952	2.443	261909533	13.397
21	TX57MBW1	TX57MBW1	11/22/11	1754	121898525	2.442	233699796	13.397
22	TX57LCSW1	TX57LCSW1	11/22/11	1813	121965627	2.442	241049306	13.397
23	TX57LCSDW1	TX57LCSDW1	11/22/11	1832	122166115	2.442	241044088	13.397
24	RB0003	TX57P	11/22/11	1851	132111813	2.441	245816534	13.396
25	WB0002	TX57Q	11/22/11	1909	127358036	2.443	247628905	13.397
26		AR1660	11/22/11	2122	121911362	2.441	198357324	13.397
27		AR1242	11/22/11	2141	136535185	2.442	221249270	13.396

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLP 4 EARLY

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 09/30/11

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

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	91266419	2.934	103671329	14.287
	UPPER LIMIT	182532838	3.034	207342658	14.387
	LOWER LIMIT	45633210	2.834	51835664	14.187

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	09/30/11	1624	93216414	2.934	106420039	14.287
02		0.25 PPM AR1	09/30/11	1643	91266419	2.934	103671329	14.287
03		0.02 PPM AR1	09/30/11	1702	93787793	2.935	106985869	14.286
04		0.05 PPM AR1	09/30/11	1721	92187630	2.936	105401967	14.287
05		1 PPM AR1660	09/30/11	1740	90316651	2.934	105007750	14.287
06		0.1 PPM AR16	09/30/11	1759	95621183	2.934	108809586	14.287
07		0.5 PPM AR16	09/30/11	1818	92352253	2.936	106232077	14.287
08		AR1242	09/30/11	1837	92665769	2.934	106924100	14.287
09		AR1248	09/30/11	1856	93803662	2.933	108452389	14.287
10		AR1254	09/30/11	1915	95179929	2.934	109986239	14.287
11		AR2162	09/30/11	1934	91663397	2.934	108620873	14.287
12		AR3268	09/30/11	1952	91890518	2.936	108076988	14.287
13	ZZZZZ	ZZZZZ	09/30/11	2011	94948276	2.935	110187949	14.286
14	ZZZZZ	ZZZZZ	09/30/11	2030	95698461	2.936	110364355	14.287
15	ZZZZZ	ZZZZZ	09/30/11	2049	93530870	2.935	109843824	14.287
16	ZZZZZ	ZZZZZ	09/30/11	2108	94010944	2.935	110223953	14.288
17	ZZZZZ	ZZZZZ	09/30/11	2127	92316058	2.935	111102769	14.287
18	ZZZZZ	ZZZZZ	09/30/11	2146	93278062	2.935	111348929	14.287
19		AR1660	11/22/11	1716	94054595	2.934	104689891	14.279
20		AR1254	11/22/11	1735	105506653	2.934	119857323	14.278
21	TX57MBW1	TX57MBW1	11/22/11	1754	97985753	2.934	107117382	14.278
22	TX57LCSW1	TX57LCSW1	11/22/11	1813	97768887	2.936	110155315	14.279
23	TX57LCSDW1	TX57LCSDW1	11/22/11	1832	97227504	2.935	110063564	14.278
24	RB0003	TX57P	11/22/11	1851	100683579	2.933	112471055	14.279
25	WB0002	TX57Q	11/22/11	1909	101311188	2.936	113748283	14.279
26		AR1660	11/22/11	2122	93507017	2.933	86139906	14.279
27		AR1242	11/22/11	2141	103752049	2.935	98006480	14.278

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 12/02/11

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

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	124794321	2.435	134444165	13.395
	UPPER LIMIT	249588642	2.535	268888330	13.495
	LOWER LIMIT	62397160	2.335	67222082	13.295

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	12/02/11	1826	123999794	2.437	135536206	13.395
02		0.25 PPM AR1	12/02/11	1845	124794321	2.435	134444165	13.395
03		0.02 PPM AR1	12/02/11	1904	127714397	2.436	138828818	13.395
04		0.05 PPM AR1	12/02/11	1923	126178756	2.435	136015002	13.395
05		1 PPM AR1660	12/02/11	1942	123900693	2.435	138432375	13.395
06		0.1 PPM AR16	12/02/11	2001	129088017	2.436	141375771	13.394
07		0.5 PPM AR16	12/02/11	2019	120375033	2.434	137263113	13.394
08		AR1242	12/02/11	2038	128494839	2.436	141819901	13.395
09		AR1248	12/02/11	2057	130434881	2.434	143284415	13.394
10		AR1254	12/02/11	2116	131876664	2.435	146688625	13.394
11		AR2162	12/02/11	2135	129033764	2.435	143743337	13.394
12		AR3268	12/02/11	2154	130661085	2.435	144362449	13.394
13	ZZZZZ	ZZZZZ	12/02/11	2213	130607790	2.434	145458906	13.393
14	ZZZZZ	ZZZZZ	12/02/11	2232	130647721	2.435	145488613	13.394
15	ZZZZZ	ZZZZZ	12/02/11	2251	131568071	2.434	144062372	13.393
16	ZZZZZ	ZZZZZ	12/02/11	2310	131132964	2.433	143643010	13.393
17	ZZZZZ	ZZZZZ	12/02/11	2329	132376190	2.435	149989610	13.394
18	ZZZZZ	ZZZZZ	12/02/11	2347	133082669	2.435	146034173	13.394
19		AR1254	12/06/11	1519	137288767	2.435	163984538	13.391
20		AR1660	12/06/11	1537	135662115	2.434	163580947	13.390
21	TX57MBS1	TX57MBS1	12/06/11	1556	137512131	2.433	162704805	13.389
22	TX57LCSS1	TX57LCSS1	12/06/11	1615	138878705	2.435	168129362	13.389
23	SD0012	TX57A	12/06/11	1634	138739233	2.433	165650841	13.389
24	SD0013	TX57B	12/06/11	1653	160171066	2.433	190427681	13.389
25	SD0014	TX57C	12/06/11	1712	142696236	2.432	167673419	13.388
26	SD0015	TX57D	12/06/11	1731	131831159	2.433	161862258	13.388
27	SD0015 MS	TX57DMS	12/06/11	1750	128152378	2.433	155724824	13.388
28	SD0015 MSD	TX57DMSD	12/06/11	1809	128246238	2.433	152634983	13.389
29	SD0016	TX57E	12/06/11	1828	131897123	2.433	155028821	13.389
30	SD0017	TX57F	12/06/11	1847	138984980	2.432	156197958	13.389
31		AR1242	12/06/11	1906	138790903	2.433	160540976	13.389
32		AR1660	12/06/11	1925	140900918	2.433	166567030	13.389

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 12/02/11

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

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	124794321	2.435	134444165	13.395
				UPPER LIMIT	249588642	2.535	268888330	13.495
				LOWER LIMIT	62397160	2.335	67222082	13.295
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
33	SD0018	TX57G	12/06/11	1944	145313650	2.432	170489686	13.389
34	SD0019	TX57H	12/06/11	2003	141399868	2.432	161936745	13.388
35	SD0020	TX57I	12/06/11	2021	131798420	2.433	158041954	13.390
36	SD0021	TX57J	12/06/11	2040	137315518	2.433	154378856	13.390
37	SD0022	TX57K	12/06/11	2059	142415884	2.433	161351793	13.389
38	SD0023	TX57L	12/06/11	2118	139934114	2.434	157461015	13.389
39	SD0024	TX57M	12/06/11	2137	131557919	2.433	153599837	13.390
40	SD0011	TX57N	12/06/11	2156	138778071	2.433	160379964	13.390
41	SD0010	TX57O	12/06/11	2215	139016675	2.433	160254221	13.388
42		AR1248	12/06/11	2234	145008948	2.433	167936989	13.389
43		AR1660	12/06/11	2253	146909714	2.433	174333330	13.390

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 12/02/11

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

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	89469381	2.926	57341096	14.279
	UPPER LIMIT	178938762	3.026	114682192	14.379
	LOWER LIMIT	44734690	2.826	28670548	14.179

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	12/02/11	1826	88885262	2.927	57627135	14.279
02		0.25 PPM AR1	12/02/11	1845	89469381	2.926	57341096	14.279
03		0.02 PPM AR1	12/02/11	1904	90189924	2.927	59125575	14.278
04		0.05 PPM AR1	12/02/11	1923	89072654	2.926	58010235	14.278
05		1 PPM AR1660	12/02/11	1942	88763225	2.927	59316615	14.278
06		0.1 PPM AR16	12/02/11	2001	90709282	2.926	60424259	14.278
07		0.5 PPM AR16	12/02/11	2019	87712920	2.925	58837471	14.276
08		AR1242	12/02/11	2038	90555660	2.927	60662135	14.278
09		AR1248	12/02/11	2057	92334593	2.925	61345325	14.277
10		AR1254	12/02/11	2116	93358587	2.925	62942647	14.278
11		AR2162	12/02/11	2135	90508535	2.926	61628206	14.277
12		AR3268	12/02/11	2154	91331356	2.926	62159879	14.278
13	ZZZZZ	ZZZZZ	12/02/11	2213	92807628	2.925	62582379	14.277
14	ZZZZZ	ZZZZZ	12/02/11	2232	93086564	2.925	62601391	14.278
15	ZZZZZ	ZZZZZ	12/02/11	2251	93196633	2.926	61972743	14.278
16	ZZZZZ	ZZZZZ	12/02/11	2310	93361690	2.924	61867212	14.277
17	ZZZZZ	ZZZZZ	12/02/11	2329	93623298	2.926	64755595	14.277
18	ZZZZZ	ZZZZZ	12/02/11	2347	93702408	2.925	63070645	14.277
19		AR1254	12/06/11	1519	93051001	2.924	64322059	14.272
20		AR1660	12/06/11	1537	89764550	2.923	63269766	14.271
21	TX57MBS1	TX57MBS1	12/06/11	1556	92205887	2.923	62820056	14.272
22	TX57LCSS1	TX57LCSS1	12/06/11	1615	93624337	2.923	64586127	14.273
23	SD0012	TX57A	12/06/11	1634	91798742	2.923	65235450	14.272
24	SD0013	TX57B	12/06/11	1653	105397228	2.922	73851886	14.271
25	SD0014	TX57C	12/06/11	1712	93408677	2.922	66086311	14.272
26	SD0015	TX57D	12/06/11	1731	87900411	2.923	65912427	14.272
27	SD0015 MS	TX57DMS	12/06/11	1750	85487263	2.923	64163929	14.272
28	SD0015 MSD	TX57DMSD	12/06/11	1809	85337031	2.922	63687189	14.272
29	SD0016	TX57E	12/06/11	1828	89978332	2.923	63760933	14.271
30	SD0017	TX57F	12/06/11	1847	92830226	2.921	61864360	14.272
31		AR1242	12/06/11	1906	92758559	2.923	62114510	14.273
32		AR1660	12/06/11	1925	93803682	2.923	64064369	14.272

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY ACTION

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 12/02/11

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

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	89469381	2.926	57341096	14.279
				UPPER LIMIT	178938762	3.026	114682192	14.379
				LOWER LIMIT	44734690	2.826	28670548	14.179
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
33	SD0018	TX57G	12/06/11	1944	99224509	2.922	67148660	14.272
34	SD0019	TX57H	12/06/11	2003	92518840	2.922	63755283	14.272
35	SD0020	TX57I	12/06/11	2021	88316717	2.924	65313491	14.273
36	SD0021	TX57J	12/06/11	2040	88001513	2.922	63759948	14.272
37	SD0022	TX57K	12/06/11	2059	96202103	2.923	64822194	14.272
38	SD0023	TX57L	12/06/11	2118	91796298	2.924	63388499	14.272
39	SD0024	TX57M	12/06/11	2137	90595695	2.924	65585722	14.273
40	SD0011	TX57N	12/06/11	2156	92721834	2.923	63244171	14.273
41	SD0010	TX57O	12/06/11	2215	92326963	2.923	63106772	14.272
42		AR1248	12/06/11	2234	97072892	2.922	65184317	14.274
43		AR1660	12/06/11	2253	97499349	2.923	67318424	14.272

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 12/02/11

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

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	144726061	2.438	189337843	13.392
				UPPER LIMIT	289452122	2.538	378675686	13.492
				LOWER LIMIT	72363030	2.338	94668922	13.292
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
02		AR1242	12/08/11	0754	146737026	2.435	195406451	13.388
03		AR1660	12/08/11	0813	146080074	2.433	193568609	13.387
06	SD0011	TX57N	12/08/11	0949	136241994	2.438	175601232	13.392
07	SD0010	TX57O	12/08/11	1008	133816742	2.432	171953241	13.388
08		AR1248	12/08/11	1027	159191526	2.432	208608252	13.387
09		AR1660	12/08/11	1046	152577067	2.431	203559177	13.386

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

TX57 · 00164

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: INTEGRAL

ARI Job No.: TX57 Project: SLIP 4 EARLY

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 12/02/11

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

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	113587861	2.913	77380638	14.268
				UPPER LIMIT	227175722	3.013	154761276	14.368
				LOWER LIMIT	56793930	2.813	38690319	14.168
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
02		AR1242	12/08/11	0754	107532465	2.924	78988446	14.270
03		AR1660	12/08/11	0813	106215470	2.923	78188813	14.271
06	SD0011	TX57N	12/08/11	0949	100129267	2.912	70856151	14.270
07	SD0010	TX57O	12/08/11	1008	96594482	2.921	69416336	14.269
08		AR1248	12/08/11	1027	113212661	2.922	83732270	14.270
09		AR1660	12/08/11	1046	108442144	2.921	81468656	14.269

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

TX57 : 00165

Metals Analysis
Report and Summary QC Forms

ARI Job ID: TX57

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

SDG: TX57

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SD0012	TX57A	11-26619	
SD0013	TX57B	11-26620	
SD0014	TX57C	11-26621	
SD0015	TX57D	11-26622	
SD0015D	TX57DDUP	11-26622	
SD0015S	TX57DSPK	11-26622	
SD0016	TX57E	11-26623	
PBS	TX57MB1	11-26623	
LCSS	TX57MB1SPK	11-26623	
SD0017	TX57F	11-26624	
SD0018	TX57G	11-26625	
SD0019	TX57H	11-26626	
SD0020	TX57I	11-26627	
SD0021	TX57J	11-26628	
SD0022	TX57K	11-26629	
SD0023	TX57L	11-26630	
SD0024	TX57M	11-26631	
SD0011	TX57N	11-26632	
SD0010	TX57O	11-26633	
RB0003	TX57P	11-26634	
RB0003D	TX57PDUP	11-26634	

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: 11/30/11 Title: Inorganics Director

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

SDG: TX57

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
RB0003S	TX57PSPK	11-26634	
PBW	TX57MB2	11-26635	
LCSW	TX57MB2SPK	11-26635	
WB0002	TX57Q	11-26635	

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: 11/30/11 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: RB0003
SAMPLE

Lab Sample ID: TX57P
LIMS ID: 11-26634
Matrix: Water
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	11/23/11	6010B	11/28/11	7440-38-2	Arsenic	0.05	0.05	U
3010A	11/23/11	6010B	11/28/11	7440-43-9	Cadmium	0.002	0.002	U
3010A	11/23/11	6010B	11/28/11	7440-47-3	Chromium	0.005	0.005	U
3010A	11/23/11	6010B	11/28/11	7440-50-8	Copper	0.002	0.002	U
3010A	11/23/11	6010B	11/28/11	7439-92-1	Lead	0.02	0.02	U
7470A	11/23/11	7470A	11/23/11	7439-97-6	Mercury	0.0001	0.0001	U
3010A	11/23/11	6010B	11/28/11	7440-22-4	Silver	0.003	0.003	U
3010A	11/23/11	6010B	11/28/11	7440-66-6	Zinc	0.01	0.01	U

U-Analyte undetected at given RL
RL-Reporting Limit

TX57 : 00168

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: WB0002
SAMPLE

Lab Sample ID: TX57Q
LIMS ID: 11-26635
Matrix: Water
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	11/23/11	6010B	11/28/11	7440-38-2	Arsenic	0.05	0.05	U
3010A	11/23/11	6010B	11/28/11	7440-43-9	Cadmium	0.002	0.002	U
3010A	11/23/11	6010B	11/28/11	7440-47-3	Chromium	0.005	0.005	U
3010A	11/23/11	6010B	11/28/11	7440-50-8	Copper	0.002	0.002	U
3010A	11/23/11	6010B	11/28/11	7439-92-1	Lead	0.02	0.02	U
7470A	11/23/11	7470A	11/23/11	7439-97-6	Mercury	0.0001	0.0001	U
3010A	11/23/11	6010B	11/28/11	7440-22-4	Silver	0.003	0.003	U
3010A	11/23/11	6010B	11/28/11	7440-66-6	Zinc	0.01	0.01	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: RB0003
MATRIX SPIKE

Lab Sample ID: TX57P
LIMS ID: 11-26634
Matrix: Water
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010B	0.05 U	2.07	2.00	104%	
Cadmium	6010B	0.002 U	0.513	0.500	103%	
Chromium	6010B	0.005 U	0.508	0.500	102%	
Copper	6010B	0.002 U	0.514	0.500	103%	
Lead	6010B	0.02 U	2.01	2.00	100%	
Mercury	7470A	0.0001 U	0.0010	0.0010	100%	
Silver	6010B	0.003 U	0.522	0.500	104%	
Zinc	6010B	0.010 U	0.492	0.500	98.4%	

Reported in mg/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
TOTAL METALS
Page 1 of 1

Sample ID: RB0003
DUPLICATE

Lab Sample ID: TX57P
LIMS ID: 11-26634
Matrix: Water
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010B	0.05 U	0.05 U	0.0%	+/- 0.05	L
Cadmium	6010B	0.002 U	0.002 U	0.0%	+/- 0.002	L
Chromium	6010B	0.005 U	0.005 U	0.0%	+/- 0.005	L
Copper	6010B	0.002 U	0.002 U	0.0%	+/- 0.002	L
Lead	6010B	0.02 U	0.02 U	0.0%	+/- 0.02	L
Mercury	7470A	0.0001 U	0.0001 U	0.0%	+/- 0.0001	L
Silver	6010B	0.003 U	0.003 U	0.0%	+/- 0.003	L
Zinc	6010B	0.01 U	0.01 U	0.0%	+/- 0.01	L

Reported in mg/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: TX57LCS
LIMS ID: 11-26635
Matrix: Water
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	2.07	2.00	104%	
Cadmium	6010B	0.517	0.500	103%	
Chromium	6010B	0.509	0.500	102%	
Copper	6010B	0.517	0.500	103%	
Lead	6010B	2.02	2.00	101%	
Mercury	7470A	0.0020	0.0020	100%	
Silver	6010B	0.525	0.500	105%	
Zinc	6010B	0.49	0.50	98.0%	

Reported in mg/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: TX57MB
LIMS ID: 11-26635
Matrix: Water
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	11/23/11	6010B	11/28/11	7440-38-2	Arsenic	0.05	0.05	U
3010A	11/23/11	6010B	11/28/11	7440-43-9	Cadmium	0.002	0.002	U
3010A	11/23/11	6010B	11/28/11	7440-47-3	Chromium	0.005	0.005	U
3010A	11/23/11	6010B	11/28/11	7440-50-8	Copper	0.002	0.002	U
3010A	11/23/11	6010B	11/28/11	7439-92-1	Lead	0.02	0.02	U
7470A	11/23/11	7470A	11/23/11	7439-97-6	Mercury	0.0001	0.0001	U
3010A	11/23/11	6010B	11/28/11	7440-22-4	Silver	0.003	0.003	U
3010A	11/23/11	6010B	11/28/11	7440-66-6	Zinc	0.01	0.01	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: SD0012
SAMPLE

Lab Sample ID: TX57A
LIMS ID: 11-26619
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Percent Total Solids: 76.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	7440-38-2	Arsenic	6	6	U
3050B	11/28/11	6010B	11/29/11	7440-43-9	Cadmium	0.3	0.3	U
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	0.6	**15.7**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.3	**23.2**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	3	**25**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.02	**0.04**	
3050B	11/28/11	6010B	11/29/11	7440-22-4	Silver	0.4	0.4	U
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	1	**56**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SD0013
SAMPLE

Lab Sample ID: TX57B
LIMS ID: 11-26620
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Percent Total Solids: 76.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	7440-38-2	Arsenic	6	6	U
3050B	11/28/11	6010B	11/29/11	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	0.6	**15.7**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.2	**22.4**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	2	**35**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.02	**0.04**	
3050B	11/28/11	6010B	11/29/11	7440-22-4	Silver	0.4	0.4	U
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	1	**62**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SD0014**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57C
LIMS ID: 11-26621
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Percent Total Solids: 71.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	7440-38-2	Arsenic	7	7	U
3050B	11/28/11	6010B	11/29/11	7440-43-9	Cadmium	0.3	0.3	U
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	0.7	**15.7**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.3	**23.2**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	3	**15**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.03	**0.06**	
3050B	11/28/11	6010B	11/29/11	7440-22-4	Silver	0.4	0.4	U
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	1	**46**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SD0015**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57D
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Percent Total Solids: 69.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	**7440-38-2**	**Arsenic**	7	**9**	
3050B	11/28/11	6010B	11/29/11	**7440-43-9**	**Cadmium**	0.3	**1.2**	
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	0.7	**32.2**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.3	**36.1**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	3	**51**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.03	**0.34**	
3050B	11/28/11	6010B	11/29/11	**7440-22-4**	**Silver**	0.4	**1.4**	
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	1	**99**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SD0016
SAMPLE

Lab Sample ID: TX57E
LIMS ID: 11-26623
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Percent Total Solids: 83.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	**7440-38-2**	**Arsenic**	6	**10**	
3050B	11/28/11	6010B	11/29/11	**7440-43-9**	**Cadmium**	0.2	**0.3**	
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	0.6	**34.7**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.2	**42.3**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	2	**31**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.03	**0.06**	
3050B	11/28/11	6010B	11/29/11	7440-22-4	Silver	0.3	0.3	U
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	1	**88**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SD0017**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57F
LIMS ID: 11-26624
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Percent Total Solids: 81.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	7440-38-2	Arsenic	6	6	U
3050B	11/28/11	6010B	11/29/11	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	0.6	**15.7**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.2	**19.2**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	2	**23**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.03	**0.03**	
3050B	11/28/11	6010B	11/29/11	7440-22-4	Silver	0.3	0.3	U
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	1	**59**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SD0018**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57G
LIMS ID: 11-26625
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Percent Total Solids: 90.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	7440-38-2	Arsenic	5	5	U
3050B	11/28/11	6010B	11/29/11	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	0.5	**26.3**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.2	**15.5**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	2	**6**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.02	**0.02**	
3050B	11/28/11	6010B	11/29/11	7440-22-4	Silver	0.3	0.3	U
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	1	**46**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SD0019**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57H
LIMS ID: 11-26626
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Percent Total Solids: 83.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	**7440-38-2**	**Arsenic**	6	**7**	
3050B	11/28/11	6010B	11/29/11	**7440-43-9**	**Cadmium**	0.2	**0.5**	
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	0.6	**28.4**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.2	**38.2**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	2	**25**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.02	**0.19**	
3050B	11/28/11	6010B	11/29/11	7440-22-4	Silver	0.3	0.3	U
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	1	**83**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SD0020**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57I
LIMS ID: 11-26627
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Percent Total Solids: 89.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	**7440-38-2**	**Arsenic**	5	**6**	
3050B	11/28/11	6010B	11/29/11	**7440-43-9**	**Cadmium**	0.2	**0.3**	
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	0.5	**28.3**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.2	**30.3**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	2	**26**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.02	**0.12**	
3050B	11/28/11	6010B	11/29/11	7440-22-4	Silver	0.3	0.3	U
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	1	**96**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SD0021**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57J
LIMS ID: 11-26628
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Percent Total Solids: 89.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	**7440-38-2**	**Arsenic**	5	**10**	
3050B	11/28/11	6010B	11/29/11	**7440-43-9**	**Cadmium**	0.2	**0.4**	
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	0.5	**33.9**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.2	**43.4**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	2	**45**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.02	**0.07**	
3050B	11/28/11	6010B	11/29/11	7440-22-4	Silver	0.3	0.3	U
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	1	**84**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SD0022
SAMPLE

Lab Sample ID: TX57K
LIMS ID: 11-26629
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Percent Total Solids: 88.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	**7440-38-2**	**Arsenic**	5	**6**	
3050B	11/28/11	6010B	11/29/11	**7440-43-9**	**Cadmium**	0.2	**0.3**	
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	0.5	**16.9**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.2	**30.6**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	2	**33**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.02	**0.07**	
3050B	11/28/11	6010B	11/29/11	7440-22-4	Silver	0.3	0.3	U
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	1	**99**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SD0023**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57L
LIMS ID: 11-26630
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Percent Total Solids: 81.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	**7440-38-2**	**Arsenic**	6	**10**	
3050B	11/28/11	6010B	11/29/11	**7440-43-9**	**Cadmium**	0.2	**0.5**	
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	0.6	**23.2**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.2	**35.4**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	2	**46**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.03	**0.05**	
3050B	11/28/11	6010B	11/29/11	7440-22-4	Silver	0.4	0.4	U
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	1	**118**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SD0024**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57M
LIMS ID: 11-26631
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Percent Total Solids: 84.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	**7440-38-2**	**Arsenic**	6	**7**	
3050B	11/28/11	6010B	11/29/11	**7440-43-9**	**Cadmium**	0.2	**0.4**	
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	0.6	**19.7**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.2	**25.6**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	2	**20**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.03	**0.11**	
3050B	11/28/11	6010B	11/29/11	7440-22-4	Silver	0.3	0.3	U
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	1	**108**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SD0011**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57N
LIMS ID: 11-26632
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/16/11
Date Received: 11/16/11

Percent Total Solids: 70.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	**7440-38-2**	**Arsenic**	6	**7**	
3050B	11/28/11	6010B	11/29/11	**7440-43-9**	**Cadmium**	0.3	**1.0**	
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	0.6	**23.0**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.3	**33.7**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	3	**50**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.03	**0.15**	
3050B	11/28/11	6010B	11/29/11	**7440-22-4**	**Silver**	0.4	**2.0**	
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	1	**106**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SD0010**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TX57O
LIMS ID: 11-26633
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/16/11
Date Received: 11/16/11

Percent Total Solids: 42.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/28/11	6010B	11/29/11	**7440-38-2**	**Arsenic**	10	**20**	
3050B	11/28/11	6010B	11/29/11	**7440-43-9**	**Cadmium**	0.4	**2.4**	
3050B	11/28/11	6010B	11/29/11	**7440-47-3**	**Chromium**	1	**55**	
3050B	11/28/11	6010B	11/29/11	**7440-50-8**	**Copper**	0.4	**113**	
3050B	11/28/11	6010B	11/29/11	**7439-92-1**	**Lead**	4	**222**	
CLP	11/28/11	7471A	11/29/11	**7439-97-6**	**Mercury**	0.04	**0.69**	
3050B	11/28/11	6010B	11/29/11	**7440-22-4**	**Silver**	0.7	**4.9**	
3050B	11/28/11	6010B	11/29/11	**7440-66-6**	**Zinc**	2	**339**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SD0015**
Page 1 of 1 **MATRIX SPIKE**

Lab Sample ID: TX57D
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010B	9	285	274	101%	
Cadmium	6010B	1.2	72.4	68.5	104%	
Chromium	6010B	32.2	97.9	68.5	95.9%	
Copper	6010B	36.1	107	68.5	104%	
Lead	6010B	51	325	274	100%	
Mercury	7471A	0.34	0.67	0.307	107%	
Silver	6010B	1.4	68.5	68.5	98.0%	
Zinc	6010B	99	168	68.5	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: SD0015
DUPLICATE

Lab Sample ID: TX57D
LIMS ID: 11-26622
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010B	9	9	0.0%	+/- 7	L
Cadmium	6010B	1.2	1.3	8.0%	+/- 0.3	L
Chromium	6010B	32.2	30.4	5.8%	+/- 20%	
Copper	6010B	36.1	36.8	1.9%	+/- 20%	
Lead	6010B	51	49	4.0%	+/- 20%	
Mercury	7471A	0.34	0.35	2.9%	+/- 20%	
Silver	6010B	1.4	1.3	7.4%	+/- 0.4	L
Zinc	6010B	99	107	7.8%	+/- 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: TX57LCS
LIMS ID: 11-26623
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	201	200	100%	
Cadmium	6010B	50.4	50.0	101%	
Chromium	6010B	49.9	50.0	99.8%	
Copper	6010B	50.0	50.0	100%	
Lead	6010B	202	200	101%	
Mercury	7471A	0.50	0.50	100%	
Silver	6010B	51.0	50.0	102%	
Zinc	6010B	49	50	98.0%	

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: TX57MB
LIMS ID: 11-26623
Matrix: Sediment
Data Release Authorized:
Reported: 11/30/11

QC Report No: TX57-Integral Consulting, Inc.
Project: Slip 4 Early Action Area
A0006-14L
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	11/28/11	6010B	11/29/11	7440-38-2	Arsenic	5	5	U
3050B	11/28/11	6010B	11/29/11	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/28/11	6010B	11/29/11	7440-47-3	Chromium	0.5	0.5	U
3050B	11/28/11	6010B	11/29/11	7440-50-8	Copper	0.2	0.2	U
3050B	11/28/11	6010B	11/29/11	7439-92-1	Lead	2	2	U
CLP	11/28/11	7471A	11/29/11	7439-97-6	Mercury	0.02	0.02	U
3050B	11/28/11	6010B	11/29/11	7440-22-4	Silver	0.3	0.3	U
3050B	11/28/11	6010B	11/29/11	7440-66-6	Zinc	1	1	U

U-Analyte undetected at given RL
RL-Reporting Limit

TX57.00193

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

UNITS:ug/L

SDG: TX57

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	ICP	IP112871	2000.0	2020.28	**101.0**	2000.0	2011.86	**100.6**	1967.47	**98.4**						
Cadmium	CD	ICP	IP112871	1000.0	1053.48	**105.3**	1000.0	1045.36	**104.5**	1025.25	**102.5**						
Chromium	CR	ICP	IP112871	1000.0	1022.18	**102.2**	1000.0	1013.07	**101.3**	1000.80	**100.1**						
Copper	CU	ICP	IP112871	1000.0	1020.16	**102.0**	1000.0	1016.99	**101.7**	1004.08	**100.4**						
Lead	PB	ICP	IP112871	2000.0	2026.83	**101.3**	2000.0	2011.81	**100.6**	1969.62	**98.5**						
Mercury	HG	CVA	HG112301	8.0	7.76	**97.0**	4.0	4.16	**104.0**	4.26	**106.5**	4.19	**104.8**	4.16	**104.0**	4.21	**105.3**
Silver	AG	ICP	IP112871	1000.0	1047.61	**104.8**	1000.0	1045.96	**104.6**	1012.64	**101.3**						
Zinc	ZN	ICP	IP112871	1000.0	1004.28	**100.4**	1000.0	993.26	**99.3**	981.23	**98.1**						

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

TX57 : 00194

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

UNITS:ug/L

SDG: TX57

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Arsenic	AS	ICP	IP112871	2000.0												
Cadmium	CD	ICP	IP112871	1000.0												
Chromium	CR	ICP	IP112871	1000.0												
Copper	CU	ICP	IP112871	1000.0												
Lead	PB	ICP	IP112871	2000.0												
Mercury	HG	CVA	HG112301	4.0	4.20	**105.0**										
Silver	AG	ICP	IP112871	1000.0												
Zinc	ZN	ICP	IP112871	1000.0												

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

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

UNITS: ug/L

SDG: TX57

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	ICP	IP112971	2000.0	1984.46	**99.2**	2000.0	2003.83	**100.2**	1964.30	**98.2**	2002.77	**100.1**	1993.99	**99.7**	1979.40	**99.0**
Cadmium	CD	ICP	IP112971	1000.0	1048.14	**104.8**	1000.0	1058.02	**105.8**	1041.24	**104.1**	1052.87	**105.3**	1053.74	**105.4**	1050.31	**105.0**
Chromium	CR	ICP	IP112971	1000.0	1019.21	**101.9**	1000.0	1010.42	**101.0**	1008.74	**100.9**	1026.18	**102.6**	1023.86	**102.4**	1029.43	**102.9**
Copper	CU	ICP	IP112971	1000.0	1015.92	**101.6**	1000.0	1026.28	**102.6**	1013.87	**101.4**	1011.71	**101.2**	1026.62	**102.7**	1026.06	**102.6**
Lead	PB	ICP	IP112971	2000.0	2049.18	**102.5**	2000.0	2069.85	**103.5**	2027.17	**101.4**	2067.00	**103.4**	2066.44	**103.3**	2061.06	**103.1**
Mercury	HG	CVA	HG112901	8.0	8.45	**105.6**	4.0	4.19	**104.8**	4.17	**104.3**	4.21	**105.3**	4.12	**103.0**	4.23	**105.8**
Silver	AG	ICP	IP112971	1000.0	1045.20	**104.5**	1000.0	1056.28	**105.6**	1028.80	**102.9**	1035.62	**103.6**	1041.42	**104.1**	1050.94	**105.1**
Zinc	ZN	ICP	IP112971	1000.0	1003.66	**100.4**	1000.0	996.83	**99.7**	993.05	**99.3**	1024.61	**102.5**	1011.40	**101.1**	1018.22	**101.8**

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

TX57 08152

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

UNITS:ug/L

SDG: TX57

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Arsenic	AS	ICP	IP112971	2000.0	1950.77	**97.5**	1943.45	**97.2**	1935.12	**96.8**	1947.74	**97.4**				
Cadmium	CD	ICP	IP112971	1000.0	1038.51	**103.9**	1044.25	**104.4**	1027.55	**102.8**	1028.24	**102.8**				
Chromium	CR	ICP	IP112971	1000.0	1018.88	**101.9**	1006.46	**100.6**	990.80	**99.1**	1016.25	**101.6**				
Copper	CU	ICP	IP112971	1000.0	1020.06	**102.0**	1022.20	**102.2**	1007.59	**100.8**	1007.18	**100.7**				
Lead	PB	ICP	IP112971	2000.0	2030.44	**101.5**	2025.11	**101.3**	2008.64	**100.4**	2030.00	**101.5**				
Mercury	HG	CVA	HG112901	4.0	4.11	**102.8**										
Silver	AG	ICP	IP112971	1000.0	1133.09	**113.3**	1031.55	**103.2**	1013.83	**101.4**	1023.60	**102.4**				
Zinc	ZN	ICP	IP112971	1000.0	1002.82	**100.3**	993.06	**99.3**	976.98	**97.7**	1001.59	**100.2**				

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

TX57 · 00197

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

SDG: TX57

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Arsenic	AS	ICP	IP112871	50.0	51.88	**103.8**										
Cadmium	CD	ICP	IP112871	2.0	2.21	**110.5**										
Chromium	CR	ICP	IP112871	5.0	5.47	**109.4**										
Copper	CU	ICP	IP112871	2.0	2.27	**113.5**										
Lead	PB	ICP	IP112871	20.0	20.31	**101.6**										
Mercury	HG	CVA	HG112301	0.1	0.09	**90.0**										
Silver	AG	ICP	IP112871	3.0	3.02	**100.7**										
Zinc	ZN	ICP	IP112871	10.0	10.57	**105.7**										

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

SDG - TX57

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

UNITS: ug/L

SDG: TX57

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	IP112971	50.0	51.09	**102.2**	50.77	**101.5**								
Cadmium	CD	ICP	IP112971	2.0	1.95	**97.5**	2.03	**101.5**								
Chromium	CR	ICP	IP112971	5.0	5.20	**104.0**	5.03	**100.6**								
Copper	CU	ICP	IP112971	2.0	2.01	**100.5**	2.07	**103.5**								
Lead	PB	ICP	IP112971	20.0	21.08	**105.4**	20.63	**103.2**								
Mercury	HG	CVA	HG112901	0.1	0.11	**110.0**										
Silver	AG	ICP	IP112971	3.0	3.26	**108.7**	3.17	**105.7**								
Zinc	ZN	ICP	IP112971	10.0	9.24	**92.4**	9.34	**93.4**								

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

TX57 - 00199

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

UNITS: ug/L

SDG: TX57

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Arsenic	AS	ICP	IP112871	10.0	50.0	50.0	U	50.0	U	50.0	U						
Cadmium	CD	ICP	IP112871	5.0	2.0	2.0	U	2.0	U	2.0	U						
Chromium	CR	ICP	IP112871	10.0	5.0	5.0	U	5.0	U	5.0	U						
Copper	CU	ICP	IP112871	25.0	2.0	2.0	U	2.0	U	2.0	U						
Lead	PB	ICP	IP112871	3.0	20.0	20.0	U	20.0	U	20.0	U						
Mercury	HG	CVA	HG112301	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Silver	AG	ICP	IP112871	10.0	3.0	3.0	U	3.0	U	3.0	U						
Zinc	ZN	ICP	IP112871	20.0	10.0	10.0	U	10.0	U	10.0	U						

TX57 . 00200

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

SDG: TX57

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Arsenic	AS	ICP	IP112871	10.0	50.0												
Cadmium	CD	ICP	IP112871	5.0	2.0												
Chromium	CR	ICP	IP112871	10.0	5.0												
Copper	CU	ICP	IP112871	25.0	2.0												
Lead	PB	ICP	IP112871	3.0	20.0												
Mercury	HG	CVA	HG112301	0.2	0.1	0.1	U										
Silver	AG	ICP	IP112871	10.0	3.0												
Zinc	ZN	ICP	IP112871	20.0	10.0												

TX57.00201

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

UNITS:ug/L

SDG: TX57

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Arsenic	AS	ICP	IP112971	10.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Cadmium	CD	ICP	IP112971	5.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Chromium	CR	ICP	IP112971	10.0	5.0	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Copper	CU	ICP	IP112971	25.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Lead	PB	ICP	IP112971	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U
Mercury	HG	CVA	HG112901	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Silver	AG	ICP	IP112971	10.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
Zinc	ZN	ICP	IP112971	20.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U

TX57:00202

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

SDG: TX57

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Arsenic	AS	ICP	IP112971	10.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U				
Cadmium	CD	ICP	IP112971	5.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U				
Chromium	CR	ICP	IP112971	10.0	5.0	5.0	U	5.0	U	5.0	U	5.0	U				
Copper	CU	ICP	IP112971	25.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U				
Lead	PB	ICP	IP112971	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U				
Mercury	HG	CVA	HG112901	0.2	0.1	0.1	U										
Silver	AG	ICP	IP112971	10.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U				
Zinc	ZN	ICP	IP112971	20.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U				

TX57.00203

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

ICS SOURCE: I.V.

PROJECT: Slip 4 Early Action

RUNID: IP112871

SDG: TX57

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	200444.3	199877.3	**99.9**						
Antimony		1000	0.4	994.4	**99.4**						
Arsenic		1000	4.2	1024.3	**102.4**						
Barium		1000	-0.3	975.8	**97.6**						
Beryllium		1000	0.0	976.9	**97.7**						
Boron			-11.1	-11.6							
Cadmium		1000	-0.9	1016.1	**101.6**						
Calcium	100000	100000	102820.6	102159.1	**102.2**						
Chromium		1000	0.6	986.7	**98.7**						
Cobalt		1000	1.8	948.1	**94.8**						
Copper		1000	3.1	1050.7	**105.1**						
Iron	200000	200000	197875.2	198537.2	**99.3**						
Lead		1000	-8.7	975.7	**97.6**						
Magnesium	100000	100000	103544.0	98346.6	**98.3**						
Manganese		1000	0.3	969.6	**97.0**						
Molybdenum			6.9	6.9							
Nickel		1000	-2.0	936.2	**93.6**						
Potassium			26.5	205.2							
Selenium		1000	27.5	1042.7	**104.3**						
Silicon			-1.7	3.2							
Silver		1000	-0.1	1065.3	**106.5**						
Sodium			16.4	9.9							
Strontium			10.4	10.2							
Thallium		1000	10.8	981.7	**98.2**						
Tin			-14.5	-14.7							
Titanium			0.0	-0.5							
Vanadium		1000	-6.2	978.5	**97.9**						
Zinc		1000	0.3	929.8	**93.0**						

1820 .1 SXI

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

SDG: TX57

ICS SOURCE: I.V.

RUNID: IP112971

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	201443.1	201425.3	**100.7**	199986.8	198342.7	**99.2**			
Antimony		1000	1.0	1004.9	**100.5**	2.2	995.8	**99.6**			
Arsenic		1000	-2.8	1018.6	**101.9**	0.6	1008.6	**100.9**			
Barium		1000	-1.1	998.4	**99.8**	-0.5	991.6	**99.2**			
Beryllium		1000	0.1	1010.8	**101.1**	0.0	990.6	**99.1**			
Boron			-10.3	-8.0		-10.9	-6.3				
Cadmium		1000	0.7	1034.9	**103.5**	0.8	1024.4	**102.4**			
Calcium	100000	100000	101412.7	101350.6	**101.4**	101560.4	101550.8	**101.6**			
Chromium		1000	-0.3	996.7	**99.7**	0.9	999.1	**99.9**			
Cobalt		1000	1.6	963.9	**96.4**	1.7	959.1	**95.9**			
Copper		1000	-1.1	1055.9	**105.6**	-0.6	1049.7	**105.0**			
Iron	200000	200000	200057.7	200576.4	**100.3**	198234.9	197420.9	**98.7**			
Lead		1000	-4.3	1014.6	**101.5**	-4.9	1003.0	**100.3**			
Magnesium	100000	100000	102809.1	99725.8	**99.7**	102855.3	99093.1	**99.1**			
Manganese		1000	0.8	992.4	**99.2**	0.6	938.2	**93.8**			
Molybdenum			5.5	6.4		5.7	5.7				
Nickel		1000	-0.5	958.2	**95.8**	-1.1	945.0	**94.5**			
Potassium			50.2	225.8		47.6	237.9				
Selenium		1000	5.4	1026.2	**102.6**	6.7	1022.9	**102.3**			
Silicon			-17.1	-14.3		-10.9	-13.0				
Silver		1000	-0.7	1081.2	**108.1**	-0.6	1058.9	**105.9**			
Sodium			18.5	15.2		15.1	9.2				
Strontium			10.3	10.3		10.2	10.1				
Thallium		1000	8.5	991.3	**99.1**	10.5	980.0	**98.0**			
Tin			-13.2	-13.8		-14.2	-14.6				
Titanium			0.7	0.0		0.7	0.2				
Vanadium		1000	5.8	998.8	**99.9**	5.1	990.8	**99.1**			
Zinc		1000	-2.4	944.4	**94.4**	-1.5	945.8	**94.6**			

TX57 : 00205

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

SDG: TX57 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	4/1/2011	30000.0	8/3/2011
Cadmium	CD	ICP	OPTIMA ICP 2	228.80		5	2.0	4/1/2011	20000.0	8/3/2011
Chromium	CR	ICP	OPTIMA ICP 2	267.72		10	5.0	4/1/2011	100000.0	8/3/2011
Copper	CU	ICP	OPTIMA ICP 2	324.75		25	2.0	4/1/2011	40000.0	8/3/2011
Lead	PB	ICP	OPTIMA ICP 2	220.35		3	20.0	4/1/2011	300000.0	8/3/2011
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2011		
Silver	AG	ICP	OPTIMA ICP 2	328.07		10	3.0	4/1/2011	5000.0	8/3/2011
Zinc	ZN	ICP	OPTIMA ICP 2	213.86		20	10.0	4/1/2011	100000.0	8/3/2011

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

IEC DATE: 10/12/2011

SDG: TX57

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.3927600	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	10.6149000	0.0000000	0.1208350
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.8345790	1.1215100	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	-0.0064419	0.0000000	-0.1892080	0.0000000	0.0000000	0.0533312
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	5.2418600	0.0000000	0.0000000	0.0000000	0.0000000	0.1195910	0.0000000	0.0000000	0.0082519
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5252460	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0226040	0.0000000	0.0000000	0.0000000	0.0000000	-0.0463186
Cobalt	228.62	0.0000000	0.0000000	0.1238430	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.2279050	-0.0318969	0.0000000	-0.0713613
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.6163900	0.0000000	0.0000000
Lead	220.35	-0.1877280	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-2.3072100	1.2452600	0.0618558
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.1401880	0.0000000	-1.6380600	-1.2519300	0.0000000	0.6450170
Manganese	257.61	0.0070737	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0043654
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	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	-0.2170230	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3514040	0.0000000	0.0000000	-0.1712990
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.4885200	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0086547	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	5.0699400	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	1.7836600	0.3510820	0.0000000	-0.1061930
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.0267074	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0542616	0.0000000	0.0000000	0.1632010	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.9361800	0.0000000	0.1173010
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0164828	0.0000000	0.0000000	-0.1475900	0.0000000	0.0000000

TX57_CXI

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

IEC DATE: 10/12/2011

SDG: TX57

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	15.3131000	0.0000000	0.0000000	0.0000000	1.5167500	0.0000000	17.6996000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	-0.4730780	0.0000000	0.0000000	-0.8897510	0.0000000	-3.3546800	0.0000000
Arsenic	188.98	0.0000000	0.0000000	2.3330800	0.0000000	0.0000000	0.0000000	-5.4412000	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0766262	0.0000000	0.0000000	0.0000000	0.0000000	0.6419380	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.2960780	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.7324130	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0483190	0.0000000	0.1395070	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.2773470	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.1579570	0.1588330	0.0000000	0.0000000	1.8115900	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0044200	0.0000000	0.2688440	0.0000000	0.0000000	0.0000000	0.2461180	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	8.4403600	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-4.6256200	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0044544	0.0000000	0.0000000	0.0000000	-0.2175850	0.0000000	0.0000000	0.0000000	-0.0271775	0.0000000
Molybdenum	202.03	0.0111403	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	-0.7744280	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	0.0504922	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	-0.1365290	0.0000000	-2.7358100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.2442620	0.2419260	0.0000000	0.0000000	0.0000000	-0.0470302	0.0000000	-0.2758080	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	242.4230000	0.0000000	0.0000000	318.1570000
Thallium	190.80	0.0000000	-1.4179000	1.9562000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	1.2892100	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.5848020	-0.3044710	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.9873960	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1398510	-0.6804250	0.0000000	0.0000000	0.0000000	0.6004670	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2377960	0.0000000	-0.0708227	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

TX2759.JSXL

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

IEC DATE: 11/29/2011

SDG: TX57

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.3891270	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	10.6149000	0.0000000	0.1208350
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0339516	0.0000000	-0.8345790	1.1215100	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	-0.0076716	0.0000000	-0.1892080	0.0000000	0.0000000	0.0522067
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	5.2418600	0.0000000	0.0000000	0.0000000	0.0000000	0.1195910	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5252460	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0242504	0.0000000	0.0000000	0.0000000	0.0000000	-0.0377814
Cobalt	228.62	0.0000000	0.0000000	0.1238430	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.2279050	-0.0318969	0.0000000	-0.0584929
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.6163900	0.0000000	0.0000000
Lead	220.35	-0.2018030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-2.3072100	1.2452600	0.0540270
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.6380600	-1.2519300	0.0000000	0.5652870
Manganese	257.61	0.0071394	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0051324
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0123608	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	-0.2053280	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3514040	0.0000000	0.0000000	-0.1233420
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.4885200	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0108199	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	1.7836600	0.3510820	0.0000000	-0.1141760
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0387268	0.0000000	0.0000000	0.1632010	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.9361800	0.0000000	0.0730907
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0258303	0.0000000	0.0000000	-0.1475900	0.0000000	0.0000000

TX57S.XLS

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

IEC DATE: 11/29/2011

SDG: TX57

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	15.3131000	0.0000000	0.0000000	0.0000000	1.5167500	0.0000000	17.6996000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	-0.4730780	0.0000000	0.0000000	-0.8897510	0.0000000	-3.3546800	0.0000000
Arsenic	188.98	0.0000000	0.0000000	2.3330800	0.0000000	0.0000000	0.0000000	-5.4412000	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0766262	0.0000000	0.0000000	0.0000000	0.0000000	0.6419380	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.2960780	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.7324130	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0405628	0.0000000	0.1395070	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.2773470	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.1579570	0.1588330	0.0000000	0.0000000	1.8115900	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0057432	0.0000000	0.2688440	0.0000000	0.0000000	0.0000000	0.2461180	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	8.4403600	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-4.6256200	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0041261	0.0000000	0.0000000	0.0000000	-0.2175850	0.0000000	0.0000000	0.0000000	-0.0271775	0.0000000
Molybdenum	202.03	0.0107429	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	-0.7744280	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	0.0736777	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	-2.7358100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.2442620	0.2419260	0.0000000	0.0000000	0.0000000	-0.0470302	0.0000000	-0.2758080	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	242.4230000	0.0000000	0.0000000	318.1570000
Thallium	190.80	0.0000000	-1.4179000	1.9562000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	1.2892100	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.5848020	-0.3044710	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.9873960	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1398510	-0.6804250	0.0000000	0.0000000	0.0000000	0.6004670	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2377960	0.0000000	-0.0708227	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

SLIP4-TX57-JSX1

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

SDG: TX57

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 11/28/2011

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SD0012	TX57A	1.046	0.0	50.0
SD0013	TX57B	1.044	0.0	50.0
SD0014	TX57C	1.053	0.0	50.0
SD0015	TX57D	1.046	0.0	50.0
SD0015D	TX57DDUP	1.044	0.0	50.0
SD0015S	TX57DSPK	1.048	0.0	50.0
SD0016	TX57E	1.035	0.0	50.0
SD0017	TX57F	1.084	0.0	50.0
SD0018	TX57G	1.079	0.0	50.0
SD0019	TX57H	1.083	0.0	50.0
SD0020	TX57I	1.071	0.0	50.0
SD0021	TX57J	1.016	0.0	50.0
SD0022	TX57K	1.061	0.0	50.0
SD0023	TX57L	1.029	0.0	50.0
SD0024	TX57M	1.033	0.0	50.0
PBS	TX57MB1	1.000	0.0	50.0
LCSS	TX57MB1SPK	1.000	0.0	50.0
SD0011	TX57N	1.095	0.0	50.0
SD0010	TX57O	1.056	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

SDG: TX57

ANALYSIS METHOD: ICP

ARI PREP CODE: TWC

PREPDATE: 11/23/2011

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
PBW	TX57MB2	0.000	50.0	50.0
LCSW	TX57MB2SPK	0.000	50.0	50.0
RB0003	TX57P	0.000	50.0	50.0
RB0003D	TX57PDUP	0.000	50.0	50.0
RB0003S	TX57PSPK	0.000	50.0	50.0
WB0002	TX57Q	0.000	50.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

SDG: TX57

ANALYSIS METHOD: CVA

ARI PREP CODE: TWM

PREPDATE: 11/23/2011

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
PBW	TX57MB2	0.000	20.0	20.0
LCSW	TX57MB2SPK	0.000	20.0	20.0
RB0003	TX57P	0.000	20.0	20.0
RB0003D	TX57PDUP	0.000	20.0	20.0
RB0003S	TX57PSPK	0.000	20.0	20.0
WB0002	TX57Q	0.000	20.0	20.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action

SDG: TX57

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 11/28/2011

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SD0012	TX57A	0.269	0.0	50.0
SD0013	TX57B	0.271	0.0	50.0
SD0014	TX57C	0.260	0.0	50.0
SD0015	TX57D	0.238	0.0	50.0
SD0015D	TX57DDUP	0.239	0.0	50.0
SD0015S	TX57DSPK	0.234	0.0	50.0
SD0016	TX57E	0.221	0.0	50.0
SD0017	TX57F	0.238	0.0	50.0
SD0018	TX57G	0.258	0.0	50.0
SD0019	TX57H	0.276	0.0	50.0
SD0020	TX57I	0.232	0.0	50.0
SD0021	TX57J	0.241	0.0	50.0
SD0022	TX57K	0.229	0.0	50.0
SD0023	TX57L	0.215	0.0	50.0
SD0024	TX57M	0.234	0.0	50.0
PBS	TX57MB1	0.200	0.0	50.0
LCSW	TX57MB1SPK	0.200	0.0	50.0
SD0011	TX57N	0.273	0.0	50.0
SD0010	TX57O	0.264	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action INSTRUMENT ID: OPTIMA ICP 2 START DATE: 11/28/2011

SDG: TX57 RUNID: IP112871 METHOD: ICP END DATE: 11/28/2011

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	10181		X		X					X		X	X									X									X
S2	S2	1.00	10222									X		X	X																		
S3	S3	1.00	10240		X		X																	X									X
S4	S4	1.00	10264																														
S5	S5	1.00	10285																														
ICV	ICV	1.00	10354		X		X					X		X	X									X									X
ICB	ICB	1.00	10394		X		X					X		X	X									X									X
CRI	CRII	1.00	10435		X		X					X		X	X									X									X
ICSA	ICSAI	1.00	10480		X		X					X		X	X									X									X
ICSAB	ICSABI	1.00	10522		X		X					X		X	X									X									X
CCV	CCV1	1.00	10562		X		X					X		X	X									X									X
CCB	CCB1	1.00	11002		X		X					X		X	X									X									X
ZZZZZZ	DICHECK	1.00	11043																														
PBW	TX57MB2	1.00	11084		X		X					X		X	X									X									X
ZZZZZZ	TX83MB	1.00	11130																														
ZZZZZZ	QC21	1.00	11171																														
ZZZZZZ	QC7M	1.00	11213																														
WB0002	TX57Q	1.00	11254		X		X					X		X	X									X									X
RB0003D	TX57PDUP	1.00	11295		X		X					X		X	X									X									X
RB0003	TX57P	1.00	11340		X		X					X		X	X									X									X
RB0003S	TX57PSPK	1.00	11381		X		X					X		X	X									X									X
LCSW	TX57MB2SPK	1.00	11421		X		X					X		X	X									X									X
CCV	CCV2	1.00	11461		X		X					X		X	X									X									X
CCB	CCB2	1.00	11501		X		X					X		X	X									X									X

TX57 . 00215

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action INSTRUMENT ID: OPTIMA ICP 2 START DATE: 11/29/2011

SDG: TX57 RUNID: IP112971 METHOD: ICP END DATE: 11/29/2011

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	10333		X		X					X		X	X									X									X
S2	S2	1.00	10374									X		X	X																		
S3	S3	1.00	10394		X		X																	X									X
S4	S4	1.00	10421																														
S5	S5	1.00	10443																														
ICV	ICV	1.00	10482		X		X					X		X	X									X									X
ICB	ICB	1.00	10522		X		X					X		X	X									X									X
CRI	CRII	1.00	10563		X		X					X		X	X									X									X
ICSA	ICSAI	1.00	11004		X		X					X		X	X									X									X
ICSAB	ICSABI	1.00	11050		X		X					X		X	X									X									X
CCV	CCV1	1.00	11090		X		X					X		X	X									X									X
CCB	CCB1	1.00	11130		X		X					X		X	X									X									X
ZZZZZZ	TY01MB2	1.00	11171																														
ZZZZZZ	TZ04MB1	2.00	11213																														
ZZZZZZ	TZ04G-L	10.00	11254																														
ZZZZZZ	TZ04G	2.00	11294																														
ZZZZZZ	TZ04GDUP	2.00	11334																														
ZZZZZZ	TZ04GSPK	2.00	11374																														
ZZZZZZ	TZ04GPOST	2.00	11414																														
ZZZZZZ	TZ04H	2.00	11454																														
ZZZZZZ	TZ04I	2.00	11493																														
ZZZZZZ	TZ04MB1SPK	2.00	11533																														
CCV	CCV2	1.00	11573		X		X					X		X	X									X									X
CCB	CCB2	1.00	12013		X		X					X		X	X									X									X
CRI	CRIF	1.00	12054		X		X					X		X	X									X									X
ICSA	ICSAF	1.00	12100		X		X					X		X	X									X									X
ICSAB	ICSABF	1.00	12141		X		X					X		X	X									X									X
CCV	CCV3	1.00	12181		X		X					X		X	X									X									X
CCB	CCB3	1.00	12221		X		X					X		X	X									X									X
PBS	TX57MB1	2.00	12262		X		X					X		X	X									X									X
SD0012	TX57A	2.00	12304		X		X					X		X	X									X									X
SD0013	TX57B	2.00	12343		X		X					X		X	X									X									X
SD0014	TX57C	2.00	12383		X		X					X		X	X									X									X
SD0016	TX57E	2.00	12423		X		X					X		X	X									X									X
SD0017	TX57F	2.00	12463		X		X					X		X	X									X									X

FORM XIV

TX57 : 00216

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action INSTRUMENT ID: OPTIMA ICP 2 START DATE: 11/29/2011

SDG: TX57 RUNID: IP112971 METHOD: ICP END DATE: 11/29/2011

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
SD0015D	TX57DDUP	2.00	12503		X		X					X		X	X									X									X
SD0015	TX57D	2.00	12545		X		X					X		X	X									X									X
SD0015S	TX57DSPK	2.00	12590		X		X					X		X	X									X									X
LCSS	TX57MB1SPK	2.00	13020		X		X					X		X	X									X									X
CCV	CCV4	1.00	13060		X		X					X		X	X									X									X
CCB	CCB4	1.00	13100		X		X					X		X	X									X									X
SD0018	TX57G	2.00	13141		X		X					X		X	X									X									X
SD0019	TX57H	2.00	13181		X		X					X		X	X									X									X
SD0020	TX57I	2.00	13221		X		X					X		X	X									X									X
SD0021	TX57J	2.00	13261		X		X					X		X	X									X									X
SD0022	TX57K	2.00	13301																														
SD0023	TX57L	2.00	13343																														
SD0024	TX57M	2.00	13422		X		X					X		X	X									X									X
SD0011	TX57N	2.00	13462		X		X					X		X	X									X									X
SD0010	TX57O	2.00	13504		X		X					X		X	X									X									X
ZZZZZZ	TY35MBSPK	1.00	13545																														
CCV	CCV5	1.00	13585		X		X					X		X	X									X									X
CCB	CCB5	1.00	14025		X		X					X		X	X									X									X
ZZZZZZ	TY35MB	1.00	14070																														
ZZZZZZ	TY35B	1.00	14112																														
ZZZZZZ	TY01G	1.00	14153																														
ZZZZZZ	TY01H	1.00	14194																														
ZZZZZZ	TY01I	1.00	14240																														
ZZZZZZ	TY01J	1.00	14281																														
ZZZZZZ	TY01FDUP	1.00	14322																														
ZZZZZZ	TY01F	1.00	14363																														
ZZZZZZ	TY01FSPK	1.00	14405																														
ZZZZZZ	TY01MB2SPK	1.00	14450																														
CCV	CCV6	1.00	14490		X		X					X		X	X									X									X
CCB	CCB6	1.00	14530		X		X					X		X	X									X									X
CCV	CCV7	1.00	14571		X		X					X		X	X									X									X
CCB	CCB7	1.00	15011		X		X					X		X	X									X									X
ZZZZZZ	TY32MB	1.00	15052																														
ZZZZZZ	TY35C	1.00	15094																														
ZZZZZZ	TY35D	1.00	15135																														

FORM XIV

TX57 : 00217

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action INSTRUMENT ID: OPTIMA ICP 2 START DATE: 11/29/2011

SDG: TX57 RUNID: IP112971 METHOD: ICP END DATE: 11/29/2011

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
ZZZZZZ	TY35ADUP	1.00	15180																														
ZZZZZZ	TY35A	1.00	15221																														
ZZZZZZ	TY35ASPK	1.00	15263																														
ZZZZZZ	TY32ADUP	1.00	15302																														
ZZZZZZ	TY32A	1.00	15344																														
ZZZZZZ	TY32ASPK	1.00	15385																														
ZZZZZZ	TY32MBSPK	1.00	15425																														
CCV	CCV8	1.00	15464		X		X					X		X	X									X									X
CCB	CCB8	1.00	15504		X		X					X		X	X									X									X
ZZZZZZ	NEWHNO3	10.00	15550																														
ZZZZZZ	TZ17MB1	2.00	15591																														
ZZZZZZ	TY01B	1.00	16032																														
SD0022	TX57K	2.00	16074		X		X					X		X	X									X									X
SD0023	TX57L	2.00	16115		X		X					X		X	X									X									X
ZZZZZZ	TZ17B	5.00	16155																														
ZZZZZZ	TZ17ADUP	5.00	16201																														
ZZZZZZ	TZ17A	5.00	16242																														
ZZZZZZ	TZ17ASPK	5.00	16284																														
ZZZZZZ	TZ17MB1SPK	2.00	16325																														
CCV	CCV9	1.00	16365		X		X					X		X	X									X									X
CCB	CCB9	1.00	16405		X		X					X		X	X									X									X

TX57 : 00218

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/23/2011

SDG: TX57 | RUNID: HG112301 | METHOD: CVA | END DATE: 11/23/2011

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	10412														X																
S0.1	S0.1	1.00	10430														X																
S0.5	S0.5	1.00	10443														X																
S1	S1	1.00	10461														X																
S2	S2	1.00	10475														X																
S5	S5	1.00	10493														X																
S10	S10	1.00	10511														X																
ICV	AICV	1.00	10553														X																
ICB	ICB	1.00	10570														X																
CCV	ACCV1	1.00	10584														X																
CCB	CCB1	1.00	11002														X																
CRA	CRA	1.00	11020														X																
ZZZZZZ	TY16MB2	1.00	11033																														
ZZZZZZ	TY16G	1.00	11051																														
ZZZZZZ	TY16GDUP	1.00	11065																														
ZZZZZZ	TY16GSPK	1.00	11082																														
ZZZZZZ	TY16H	1.00	11100																														
ZZZZZZ	TY16I	1.00	11114																														
ZZZZZZ	TX92MB2	1.00	11131																														
ZZZZZZ	TX92At	1.00	11145																														
ZZZZZZ	TX92AtDUP	1.00	11163																														
CCV	ACCV2	1.00	11181														X																
CCB	CCB2	1.00	11195														X																
ZZZZZZ	TX92AtSPK	1.00	11213																														
ZZZZZZ	TX26MB	1.00	11230																														
ZZZZZZ	TX26MBSPK	1.00	11244																														
ZZZZZZ	TX26A	1.00	11261																														
ZZZZZZ	TX26ADUP	1.00	11275																														
ZZZZZZ	TX26ASPK	1.00	11293																														
ZZZZZZ	TX26B	1.00	11310																														
ZZZZZZ	TX26C	1.00	11324																														
ZZZZZZ	TX13MB	1.00	11342																														
ZZZZZZ	TX13MBSPK	1.00	11355																														
CCV	ACCV3	1.00	11373														X																
CCB	CCB3	1.00	11391														X																

ST2301.XSL

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action INSTRUMENT ID: CETAC MERCURY START DATE: 11/23/2011

SDG: TX57 RUNID: HG112301 METHOD: CVA END DATE: 11/23/2011

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
ZZZZZZ	TX13A	1.00	11405																														
ZZZZZZ	TX13ADUP	1.00	11423																														
ZZZZZZ	TX13ASPK	1.00	11441																														
ZZZZZZ	TX13B	1.00	11454																														
ZZZZZZ	TX58MB	1.00	11472																														
ZZZZZZ	TX58MBSPK	1.00	11490																														
ZZZZZZ	TX58A	1.00	11503																														
ZZZZZZ	TX58ADUP	1.00	11521																														
ZZZZZZ	TX58ASPK	1.00	11535																														
ZZZZZZ	TX58B	1.00	11552																														
CCV	ACCV4	1.00	11570														X																
CCB	CCB4	1.00	11584														X																
ZZZZZZ	TX58C	1.00	12002																														
ZZZZZZ	TX58D	1.00	12020																														
ZZZZZZ	TX58E	1.00	12034																														
ZZZZZZ	TX58F	1.00	12052																														
ZZZZZZ	TX90MB1	1.00	12070																														
ZZZZZZ	TX90MB1SPK	1.00	12083																														
ZZZZZZ	TX90A	1.00	12101																														
ZZZZZZ	TX90ADUP	1.00	12114																														
ZZZZZZ	TX90ASPK	1.00	12132																														
ZZZZZZ	TX90B	1.00	12150																														
CCV	ACCV5	1.00	12164														X																
CCB	CCB5	1.00	12182														X																
PBW	TX57MB2	1.00	12201														X																
LCSW	TX57MB2SPK	1.00	12214														X																
RB0003	TX57P	1.00	12232														X																
RB0003D	TX57PDUP	1.00	12250														X																
RB0003S	TX57PSPK	1.00	12263														X																
WB0002	TX57Q	1.00	12281														X																
ZZZZZZ	TX83MB	1.00	12294																														
ZZZZZZ	TX83MBSPK	1.00	12312																														
ZZZZZZ	TX83A	1.00	12330																														
ZZZZZZ	TX83ADUP	1.00	12343																														
CCV	ACCV6	1.00	12361														X																

FORM XIV

TX57 00220

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action INSTRUMENT ID: CETAC MERCURY START DATE: 11/23/2011

SDG: TX57 RUNID: HG112301 METHOD: CVA END DATE: 11/23/2011

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
CCB	CCB6	1.00	12375														X																

TX57 : 00221

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action INSTRUMENT ID: CETAC MERCURY START DATE: 11/29/2011

SDG: TX57 RUNID: HG112901 METHOD: CVA END DATE: 11/29/2011

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	08232														X																
S0.1	S0.1	1.00	08245														X																
S0.5	S0.5	1.00	08263														X																
S1	S1	1.00	08280														X																
S2	S2	1.00	08294														X																
S5	S5	1.00	08312														X																
S10	S10	1.00	08330														X																
ICV	AICV	1.00	08371														X																
ICB	ICB	1.00	08385														X																
CCV	ACCV1	1.00	08403														X																
CCB	CCB1	1.00	08421														X																
CRA	CRA	1.00	08434														X																
ZZZZZZ	TZ04MB1	1.00	08452																														
ZZZZZZ	TZ04MB1SPK	1.00	08470																														
ZZZZZZ	TZ04G	1.00	08483																														
ZZZZZZ	TZ04GDUP	1.00	08501																														
ZZZZZZ	TZ04GSPK	1.00	08514																														
ZZZZZZ	TZ04H	1.00	08532																														
ZZZZZZ	TZ04I	1.00	08550																														
ZZZZZZ	TY67MB1	1.00	08564																														
ZZZZZZ	TY67MB1SPK	1.00	08581																														
CCV	ACCV2	1.00	08595														X																
CCB	CCB2	1.00	09013														X																
ZZZZZZ	TY67A	1.00	09031																														
ZZZZZZ	TY67ADUP	1.00	09045																														
ZZZZZZ	TY67ASPK	1.00	09062																														
ZZZZZZ	TX70MB1	1.00	09080																														
ZZZZZZ	TX70MB1SPK	1.00	09093																														
ZZZZZZ	TX70A	1.00	09111																														
ZZZZZZ	TX70ADUP	1.00	09125																														
ZZZZZZ	TX70ASPK	1.00	09142																														
ZZZZZZ	TX70B	1.00	09160																														
ZZZZZZ	TX70C	1.00	09174																														
CCV	ACCV3	1.00	09192														X																
CCB	CCB3	1.00	09210														X																

FORM XIV

TX57 : 00222

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Integral Consulting,

PROJECT: Slip 4 Early Action | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/29/2011

SDG: TX57 | RUNID: HG112901 | METHOD: CVA | END DATE: 11/29/2011

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
ZZZZZZ	TX70D	1.00	09224																														
ZZZZZZ	TX70E	1.00	09242																														
ZZZZZZ	TX70F	1.00	09255																														
PBW	TX57MB1	1.00	09273														X																
LCSW	TX57MB1SPK	1.00	09291														X																
SD0012	TX57A	1.00	09304														X																
SD0013	TX57B	1.00	09322														X																
SD0014	TX57C	1.00	09340														X																
SD0015	TX57D	1.00	09353														X																
SD0015D	TX57DDUP	1.00	09371														X																
CCV	ACCV4	1.00	09385														X																
CCB	CCB4	1.00	09403														X																
SD0015S	TX57DSPK	1.00	09421														X																
SD0016	TX57E	1.00	09435														X																
SD0017	TX57F	1.00	09453														X																
SD0018	TX57G	1.00	09471														X																
SD0019	TX57H	1.00	09484														X																
SD0020	TX57I	1.00	09502														X																
SD0021	TX57J	1.00	09515														X																
SD0022	TX57K	1.00	09533														X																
SD0023	TX57L	1.00	09551														X																
SD0024	TX57M	1.00	09564														X																
CCV	ACCV5	1.00	09582														X																
CCB	CCB5	1.00	10000														X																
SD0011	TX57N	1.00	10014														X																
SD0010	TX57O	1.00	10032														X																
CCV	ACCV6	1.00	10050														X																
CCB	CCB6	1.00	10064														X																

S2250-1SXL

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: TX57

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: RB0003
ARI ID: 11-26634 TX57P

Analyte	Date Batch	Method	Units	RL	Sample
Total Organic Carbon	11/18/11 111811#1	EPA 415.1	mg/L	1.50	< 1.50 U

RL Analytical reporting limit
U Undetected at reported detection limit

TX57 : 00225

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: WB0002
ARI ID: 11-26635 TX57Q

Analyte	Date Batch	Method	Units	RL	Sample
Total Organic Carbon	11/18/11 111811#1	EPA 415.1	mg/L	1.50	< 1.50 U

RL Analytical reporting limit
U Undetected at reported detection limit

TX57 00226

MS/MSD RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Analyte	Method	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: TX57P Client ID: RB0003							
Total Organic Carbon	EPA 415.1	11/18/11	mg/L	< 1.50	20.0	20.0	100.0%

TX57 : 00227

REPLICATE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Analyte	Method	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: TX57P Client ID: RB0003						
Total Organic Carbon	EPA 415.1	11/18/11	mg/L	< 1.50	< 1.50	NA

TX57 : 00228

METHOD BLANK RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	Blank	ID
Total Organic Carbon	EPA 415.1	11/18/11	mg/L	< 1.50 U	

TX57 00225

STANDARD REFERENCE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Method	Date	Units	SRM	True Value	Recovery
Total Organic Carbon ERA 0523-11-05	EPA 415.1	11/18/11	mg/L	19.9	20.0	99.5%

TX57.00230

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: SD0012
ARI ID: 11-26619 TX57A

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	75.50
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	1.74

RL Analytical reporting limit
U Undetected at reported detection limit

TX57:00231

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: SD0013
ARI ID: 11-26620 TX57B

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	74.60
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	1.43

RL Analytical reporting limit
U Undetected at reported detection limit

TX57 06232

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: SD0014
ARI ID: 11-26621 TX57C

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	72.80
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	0.952

RL Analytical reporting limit
U Undetected at reported detection limit

TX57:00235

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: SD0015
ARI ID: 11-26622 TX57D

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	74.10
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	2.10

RL Analytical reporting limit
U Undetected at reported detection limit

TX57 : 00234

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: SD0016
ARI ID: 11-26623 TX57E

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	84.70
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	2.63

RL Analytical reporting limit
U Undetected at reported detection limit

TX57.00235

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: SD0017
ARI ID: 11-26624 TX57F

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	74.60
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	1.57

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: SD0018
ARI ID: 11-26625 TX57G

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	91.00
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	0.361

RL Analytical reporting limit
U Undetected at reported detection limit

TX57 : 00237

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: SD0019
ARI ID: 11-26626 TX57H

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	91.40
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	2.62

RL Analytical reporting limit
U Undetected at reported detection limit

TX57.00236

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: SD0020
ARI ID: 11-26627 TX57I

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	92.60
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	3.39

RL Analytical reporting limit
U Undetected at reported detection limit

TX57 : 00235

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: SD0021
ARI ID: 11-26628 TX57J

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	92.00
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	3.25

RL Analytical reporting limit
U Undetected at reported detection limit

TX57 : 00240

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: SD0022
ARI ID: 11-26629 TX57K

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	87.70
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	1.32

RL Analytical reporting limit
U Undetected at reported detection limit

TX57.00241

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: SD0023
ARI ID: 11-26630 TX57L

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	82.00
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	1.18

RL Analytical reporting limit
U Undetected at reported detection limit

TX57:00242

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Client ID: SD0024
ARI ID: 11-26631 TX57M

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	88.10
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	0.829

RL Analytical reporting limit
U Undetected at reported detection limit

TX57.00245

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/16/11
Date Received: 11/16/11

Client ID: SD0011
ARI ID: 11-26632 TX57N

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	69.70
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	1.71

RL Analytical reporting limit
U Undetected at reported detection limit

TX57 : 00244

SAMPLE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/16/11
Date Received: 11/16/11

Client ID: SD0010
ARI ID: 11-26633 TX57O

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/17/11 111711#1	EPA 160.3	Percent	0.01	40.90
Total Organic Carbon	12/02/11 120211#1	Plumb,1981	Percent	0.020	4.86

RL Analytical reporting limit
U Undetected at reported detection limit

MS/MSD RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: TX57D Client ID: SD0015						
Total Organic Carbon	12/02/11	Percent	2.10	6.86	3.63	131.0%

TX57 00246

REPLICATE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: 11/14/11
Date Received: 11/16/11

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: TX57D Client ID: SD0015					
Total Solids	11/17/11	Percent	74.10	79.70 75.40	3.8%
Total Organic Carbon	12/02/11	Percent	2.10	1.96 2.09	3.8%

TX57 00247

LAB CONTROL RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Organic Carbon Plumb,1981	ICVL	12/02/11	Percent	0.102	0.100	102.0%

TX57.002146

METHOD BLANK RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	11/17/11	Percent	< 0.01 U
Total Organic Carbon	12/02/11	Percent	< 0.020 U

TX57 . 00249

STANDARD REFERENCE RESULTS-CONVENTIONALS
TX57-Integral Consulting, Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 12/05/11

Project: Slip 4 Early Action Area
Event: A0006-14L
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST 1941B	12/02/11	Percent	3.09	2.99	103.3%

TX57 . 00250

Total Solids

ARI Job ID: TX57

Extractions Total Solids-extts
Data By: Damien Greene
Created: 11/21/11

Worklist: 1622
Analyst: RVR
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	TX57A 11-26619 SD0012	1.11	10.07	8.31	80.4	NR
2.	TX57B 11-26620 SD0013	1.12	10.25	8.53	81.2	NR
3.	TX57C 11-26621 SD0014	1.15	10.56	8.20	74.9	NR
4.	TX57D 11-26622 SD0015	1.16	10.18	8.25	78.6	NR
5.	TX57E 11-26623 SD0016	1.16	10.41	9.05	85.3	NR
6.	TX57F 11-26624 SD0017	1.16	10.68	9.14	83.8	NR
7.	TX57G 11-26625 SD0018	1.15	10.79	9.70	88.7	NR
8.	TX57H 11-26626 SD0019	1.16	10.00	8.79	86.3	NR
9.	TX57I 11-26627 SD0020	1.16	10.14	9.33	91.0	NR
10.	TX57J 11-26628 SD0021	1.15	10.07	9.29	91.3	NR
11.	TX57K 11-26629 SD0022	1.15	10.29	9.18	87.9	NR
12.	TX57L 11-26630 SD0023	1.15	10.43	8.63	80.6	NR
13.	TX57M 11-26631 SD0024	1.12	10.08	8.68	84.4	NR

TX57 : 0025

Extractions Total Solids-extts
Data By: Damien Greene
Created: 11/21/11

Worklist: 1622
Analyst: RVR
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
14.	TX57N 11-26632 SD0011	1.14	10.10	7.59	72.0	NR
15.	TX57O 11-26633 SD0010	1.16	10.85	5.63	46.1	NR

TX57.00253

Extractions Total Solids-extts
Data By: Damien Greene
Created: 11/21/11

Worklist: 1622
Analyst: DG
Comments:

Oven ID: #15

Balance ID: 21754536

Samples In: Date: 11/21/11 Time: 1540 Temp: 105° Analyst: DG

Samples Out: Date: 11/22/11 Time: 0600 Temp: 98° Analyst: RR

	ARI ID / CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	TX57A 11-26619 SD0012	~~1.15~~ 1.11	~~10.73~~ 10.07 DG 11/22/11 1415 105°		8.31	NR
2.	TX57B 11-26620 SD0013	~~1.14~~ 1.12	~~10.34~~ 10.25 DG 11/22/11 1415 105°		8.53	NR
3.	TX57C 11-26621 SD0014	1.15	10.56		8.20	NR
4.	TX57D 11-26622 SD0015	1.16	10.18		8.25	NR
5.	TX57E 11-26623 SD0016	1.16	10.41		9.05	NR
6.	TX57F 11-26624 SD0017	1.16	10.68		9.14	NR
7.	TX57G 11-26625 SD0018	1.15	10.79		9.70	NR
8.	TX57H 11-26626 SD0019	1.16	10.00		8.79	NR
9.	TX57I 11-26627 SD0020	1.16	10.14		9.33	NR
10.	TX57J 11-26628 SD0021	1.15	10.07		9.29	NR
11.	TX57K 11-26629 SD0022	1.15	10.29		9.18	NR
12.	TX57L 11-26630 SD0023	1.15	10.43		8.63	NR
13.	TX57M 11-26631 SD0024	1.12	10.08		8.68	NR

TX57.00254

Extractions Total Solids-extts
Data By: Damien Greene
Created: 11/21/11

Worklist: 1622
Analyst: DG
Comments:

Oven ID: Ø15

Balance ID: 275450

Samples In: Date: 11/21/11 Time: 1540 Temp: 105° Analyst: DG

Samples Out: Date: _____ Time: _____ Temp: _____ Analyst: _____

	ARI ID / CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
14.	TX57N 11-26632 SD0011	1.14	10.10	7.59		NR
15.	TX57O 11-26633 SD0010	1.16	10.85	5.63		NR

TX57 00255

Solids Data Entry Report Checked by: MJ Date: 11/29/11
Date: 11/29/11 Data Analyst: DM

Solids Determination performed on 11/28/11 by KM

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
TX57	A	SD0012	1.004	10.213	8.020	76.19
TX57	B	SD0013	0.984	10.883	8.590	76.84
TX57	C	SD0014	0.962	10.550	7.805	71.37
TX57	D	SD0015	1.026	10.538	7.654	69.68
TX57	E	SD0016	1.007	10.253	8.713	83.34
TX57	F	SD0017	1.008	10.247	8.487	80.95
TX57	G	SD0018	1.006	10.124	9.283	90.78
TX57	H	SD0019	1.022	10.230	8.720	83.60
TX57	I	SD0020	1.014	10.768	9.761	89.68
TX57	J	SD0021	1.017	10.119	9.190	89.79
TX57	K	SD0022	0.997	10.053	8.986	88.22
TX57	L	SD0023	1.034	10.306	8.593	81.53
TX57	M	SD0024	1.024	10.219	8.818	84.76
TX57	N	SD0011	0.978	10.456	7.657	70.47
TX57	O	SD0010	1.011	10.716	5.165	42.80

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section Metals

Oven Identification: 07 **Balance ID:** 068755

Samples in Oven: Date: 11/28/11 Time: 1325 Temp: 105°C Analyst: KM

Removed from Oven: Date: 11·29·11 Time: 0710 Temp: 105°C Analyst: DM

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
TX57 A	1.004	10.213	8.020	–	✓
" B	0.984	10.883	8.590	–	✓
" C	0.962	10.550	7.805	–	✓
" D	1.026	10.538	7.654	–	✓
" E	1.007	10.253	8.713	–	✓
" F	1.008	10.247	8.487	–	✓
" G	1.006	10.124	9.283	–	✓
" H	1.022	10.230	8.720	–	✓
" I	1.014	10.768	9.761	–	✓
" J	1.017	10.119	9.190	–	✓
" K	0.997	10 053	8.986	–	✓
" L	1.034	10.306	8.593	–	✓
" M	1.024	10.219	8.818	–	✓
" N	0.978	10.456	7.657	–	✓
" O	1.011	10.716	5.165	–	✓
		KM			
			11/28/11		

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.

TX57 : 082567

Semivolatile Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: TX57

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

8270 BAN –Water
Liquid/Liquid (3520C) (SOP # 3311S)

Preparation Test BAN # 2 (BANWLI)
ARI Job No(s) TW99, TX94, TX57

In-House (1.0-10.0ppb)
Batch set up by: SP

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	Disassemble Liq/Liq (Mantle ID)	KD Or DryVap	TurboVap 1 2 3	Final Effective Volume	Volume to Lab	Comments
	TW99 MBW	Date 11-18-11	500mL	1	1		0.5mL	0.5mL	
	SBW	↓	↓	2	2		↓	↓	
	SBW Dup	↓	↓	3	3		↓	↓	
	QLS	↓	↓	4	4		↓	↓	
16	A	verified	~~450mL~~ 500 AC 11-18-11	5	5				
4	TX94 A			6	6				
4	↓ B			7	8				
6	TX57 P			8	9				
5	↓ Q	↓	↓	10	10				
Analyst/Date	AC 11-18-11			AC 11-19-11	AC 11-28-11		AC 11-28-11		

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	**A**	**125µL**	4/30/12	M	AC
Full List Spike (Freezer)	**7**	**125µL**	8/30/12	M	AC
Base Spike	**56**	**125µL**	1/5/12	M	AC
Acid Spike	**38**	**125µL**	4/21/12	M	AC
QLS Spike	**14**	**50µL**	6/21/12	M	AC
Extraction Time: 13:05		**Liq/Liq Start:** 15:30		**Liq/Liq Stop:** 15:40	

SPECIAL INSTRUCTIONS: 1. Add ~200mL DCM to Liq/Liq. 2. Add 500mL sample. 3. Add surr/spk. 4. Adjust Acid (pH <2) using 1:1 Sulfuric Acid. (1/4 pipet for blanks & 1/2 pipet for samples). Stir to mix. Verify pH! Let sit 10 minutes. Verify pH again. 5. Extract minimum 8 hrs. 6. ~~DryVap to 0.5mL or KD (NO drying column) to~~ 8mL at 80°. 7. (If KD)=TurboVap to 0.5mL. 8. Vial in DCM.

A. Archive Y / N
TW99 only

TX57 : 00259

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: TX57 Client ID: Integral Consulting, Inc.

Parameter: BAN Client Project: Slip 4 Early Action Area

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☒ No Anomalies P, Q	AC 11-18-11
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

8270 BAN PSDDA–Soil/Sediment
Microwave (3546) (SOP # 3304S)

Preparation Test BAN PSDDA # 6 (BANSDMP) PSDDA (20ppb)

ARI Job No(s) TX57 Batch set up by: SP

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted (dry wt)	KD 80-85°C	Turbo Vap (1) 2 3	GPC Prep Filter (1:1)	(Opt) GPC (1:1) (1) or 2 Y / N (REQ)	Post GPC KD 80-85°C	Turbo Vap 1 (2) 3	Final Effective Volume	Volume to Lab	Comments
	MBS TX57	Date 11/26/11	10g			0.45µm	SP 12/2/11			1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)
	SBS	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SBS Dup.		↓							↓	↓	↓
	QLS		↓							↓	↓	↓
3	TX57 A	checked	13.18			0.45/6DX	TH 12/2/11					
	B		13.27									
	C		14.55									
	D		13.06									
	DmS		13.71			1.45/6DX	SP 12/2					
	DmSD		13.62									
	E		12.20				TH 12/2/11					
	F		12.43									
	G		12.31			0.45µm						
	H		12.07			0.45/6DX						
	I		11.31									
	J		11.06									
	K		12.42			0.45µm						
	L		13.55									
	M		12.80			0.45/6DX						
	N		14.31			0.45µm						
	O	↓	22.04	↓	↓	0.45/6DX	↓	↓	↓	↓	↓	
Analyst/Date	AR 11/26/11 →			YC 11/27/11	SP 12/2/11		TH 12/2/11	DX 12/8/11	QZ 12/15/11	→		

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	A	50µL	4/30/12	AR	PD
Full List Spike (Freezer)	7	50µL	8/30/12	AR	PD
Base Spike	56	50µL	1/5/12	AR	PD
Acid Spike	38	50µL	4/21/12	AR	PD
QLS Spike (~~14 in freezer~~)	~~14~~	~~20µL~~			
Extraction Time: 13:11			Balance ID: 38004492		

SPECIAL INSTRUCTIONS: Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. Note: do not fill vessel more than 2/3rd full. Some samples may require two vessels).
3. Add 1:1 DCM/ACE to the vessels (until solvent is 3" above soil layer after homogenization). 4. Add surr/spike.
5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-let cool 10-15 min in cold water.
7. Decant 1:1 DCM/ACE into Erlenmeyer flask with sodium sulfate in the bottom and funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using DCM only (until solvent is 3" above soil layer after homogenization). 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM.
11. KD (small/~~large~~ drying column with pre-deactivated glasswool-Blanks=5g of sulfate)) to 5mL at 80- 85°C.
12. GPC Optional. 13. TurboVap. 14. IF NO GPC: TurboVap to 3mL add 2mL Hexane. TurboVap to Final Volume and vial in DCM. 15. (After GPC): KD at 80-85°. 16. TurboVap. 17. Vial in DCM.

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.: TX57 Client ID: Integral Consulting, Inc.

Parameter: PSDDA SVOA Client Project: Slip 4 Early Actions Area

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☒ No Anomalies (standard soil/wet sediment/sand/gravel)= (sediment) A-F, H-J, L, N	DV 11/21/11
☒ Standing Water Decanted (Not shared)= A-C, F, N	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☒ Rocks (%+size)? (less than 5% medium rocks) A, B, K, M, N (30% large rocks removed) B, D, F, I, J, L (80%) E, H	
☒ Organics (Leaves/sticks/grass)= (few sticks) O	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	

Semivolatile Raw Data
Initial Calibration

ARI Job ID: TX57

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: Curtis Client ID: /

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) (**804S**(SVOA-8270D)) **805S**(op-Pest)

Parameter(s): 8270

Instrument: NT-2 NT-4 (NT-6) NT-8 NT11

Curve Date: 11/21/11 Analysis Start Date: 11/21/11

DFTPP Tune Meets Criteria?	(YES) / NO	Internal Standard Meets Criteria?	(YES) / NO
DDT Breakdown <20%?	(YES) / NO / NA	Method Blank In Control?	YES / NO / (NA)
Peak Tailing Factor ≤2?	(YES) / NO / NA	LCS / LCSD Recovery In Control?	(YES) / (NO)
ICal acceptable?	(YES) / NO	CCal acceptable?	(YES) / NO
Q flag applied?	YES / (NO)	Q flag applied?	YES / (NO)
Surrogate Recovery in Control?	(YES) / NO	Special Analysis Criteria Met?	YES / NO / (NA)
Manual Integrations for ICal?	(YES) / NO	Manual Integrations for Samples?	(Yes) / NO

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

Linear curve fit: Benzoic Acid & Benzidine

Quadratic curve fit: 2,4-Dinitrophenol

ICV: compounds 2-Methylphenol, 4-methylphenol and 2,4,5-Trichlorophenol recoveries out of QC limits at high bias

Additional Details on Reverse: Yes / No

Analyst: [signature] **Date:** 11/28/11

Reviewer: [signature] **Date:** 11/20/11

TXST 00264

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-NOV-2011 11:24
End Cal Date : 21-NOV-2011 17:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20111121.b/SW846112111.m
Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Calibration File Names:
Level 1: /chem2/nt6.i/20111121.b/11211102.D
Level 2: /chem2/nt6.i/20111121.b/11211103.D
Level 3: /chem2/nt6.i/20111121.b/11211104.D
Level 4: /chem2/nt6.i/20111121.b/11211109.D
Level 5: /chem2/nt6.i/20111121.b/11211105.D
Level 6: /chem2/nt6.i/20111121.b/11211106.D
Level 7: /chem2/nt6.i/20111121.b/11211107.D

11/28/11

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	RRF	% RSD
186 Carbaryl	0.50128	0.55183	0.54666	0.57754	0.54649	0.55690	0.53490	0.54509	4.279
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-NOV-2011 11:24
End Cal Date : 21-NOV-2011 17:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20111121.b/SW846112111.m
Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 p-Benzoquinone	0.06127	0.06824	0.08238	0.08680	0.08367	0.08333	0.08407	0.07854	12.378
168 Pentachlorobenzene	0.48760	0.38940	0.42343	0.41151	0.38775	0.38639	0.38143	0.40964	9.187
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	RRF	% RSD
135 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 2,3,4,5-tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Butylatedhydroxytoluene	0.98250	0.85735	0.89954	0.84937	0.78086	0.76022	0.73573	0.83794	10.329
132 3,6-Dimethylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

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Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 alpha-Terpineol	0.21510	0.19905	0.20633	0.20000	0.18963	0.18738	0.17969	0.19674	6.133
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
123 Acetophenone	2.02231	1.68538	1.83348	1.69946	1.63045	1.64075	1.56523	1.72529	8.978
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 1,4-Dioxane	0.62435	0.55339	0.63450	0.62496	0.60921	0.60839	0.61199	0.60954	4.362
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2,3,4,6-Tetrachlorophenol	0.20072	0.21383	0.22939	0.24643	0.23766	0.25299	0.24290	0.23199	8.093

Analytical Resources, Inc.

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Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7							
178 2-Benzyl-4-Chlorophenol	0.17741	0.17511	0.17791	0.19239	0.17646	0.19223		
	0.18414						0.18224	4.087
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
118 Triphenyl Phosphate	0.18009	0.16755	0.17485	0.17641	0.17125	0.17165		
	0.17165						0.17335	2.365
117 Butyl Diphenyl Phosphate	0.26181	0.24334	0.26836	0.25058	0.24285	0.23305		
	0.22596						0.24656	6.095
116 Dibutyl Phenyl Phosphate	0.51810	0.54663	0.56495	0.58378	0.53393	0.56060		
	0.54815						0.55088	3.895
115 Tributyl Phosphate	0.95844	0.91248	0.94334	0.90843	0.85605	0.82901		
	0.80690						0.88781	6.522
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
113 Diphenyl Oxide	0.89080	0.76132	0.83575	0.78192	0.74499	0.72189		
	0.72206						0.77982	8.059
112 Biphenyl	1.51247	1.26383	1.37981	1.23909	1.13890	1.05293		
	1.02131						1.22976	14.343

Analytical Resources, Inc.

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Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	___ RRF	% RSD
	80.000 Level 7							
111 Azobenzene (1,2-DP-Hydrazine)	1.37204	1.23108	1.32191	1.24252	1.15073	1.15894		
	1.09640						1.22480	8.012
110 Tetrachloroguaiacol	0.09768	0.10908	0.11595	0.11581	0.10874	0.11095		
	0.11108						0.10990	5.576
109 3,4,5-Trichloroguaiacol	0.13292	0.12958	0.13567	0.12410	0.13060	0.12137		
	0.12825						0.12893	3.819
181 3,4,6-Trichloroguaiacol	0.41575	0.45777	0.42559	0.40157	0.38091	0.45446		
	0.38536						0.41734	7.374
108 4,5,6-Trichloroguaiacol	0.15056	0.17883	0.17196	0.18182	0.16975	0.19024		
	0.17478						0.17399	7.119
184 3,4-Dichloroguaiacol	0.46973	0.43990	0.44066	0.40432	0.40079	0.44608		
	0.39135						0.42755	6.760
107 4,5-Dichloroguaiacol	0.25489	0.26219	0.26611	0.25937	0.24640	0.25193		
	0.24706						0.25542	2.944
182 4,6-Dichloroguaiacol	0.54574	0.55685	0.52339	0.48922	0.46407	0.53037		
	0.46698						0.51095	7.345
185 4-Chloroguaiacol	0.56255	0.54690	0.56497	0.52959	0.52982	0.56837		
	0.53059						0.54754	3.238

Analytical Resources, Inc.

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Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	___ RRF	% RSD
	80.000 Level 7							
106 Guaiacol	1.24889	1.10222	1.11974	1.05214	0.99829	0.97648		
	0.92427						1.06029	10.209
105 1-methylnaphthalene	0.59949	0.53081	0.55495	0.51944	0.47333	0.48481		
	0.44813						0.51585	10.048
151 1,2,4,5-Tetrachlorobenzene	0.52968	0.46281	0.52646	0.49982	0.47680	0.45191		
	0.47569						0.48902	6.227
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

TX57 00271

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20111121.b/SW846112111.m
Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Phenol	2.04656	1.79526	1.78169	1.67736	1.62811	1.54213	1.50388	1.71071	10.782
4 Bis(2-Chloroethyl)ether	1.58170	1.34320	1.48860	1.36808	1.34670	1.30427	1.28987	1.38892	7.686
6 2-Chlorophenol	1.67547	1.40808	1.45326	1.39521	1.34625	1.28705	1.25498	1.40290	9.887
7 1,3-Dichlorobenzene	1.82816	1.56789	1.75907	1.63116	1.57314	1.50155	1.46111	1.61744	8.254
9 1,4-Dichlorobenzene	1.83356	1.58085	1.74326	1.61730	1.53007	1.49693	1.43601	1.60542	8.733
11 Benzyl alcohol	0.88970	0.85016	0.92845	0.86278	0.82944	0.82155	0.83143	0.85907	4.482
12 1,2-Dichlorobenzene	1.76118	1.49650	1.61356	1.51610	1.42842	1.37802	1.36430	1.50830	9.350
13 2-Methylphenol	1.48824	1.32672	1.30214	1.24965	1.21898	1.16821	1.10048	1.26492	9.885

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem2/nt6.i/20111121.b/SW846112111.m
Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
14 2,2'-oxybis(1-Chloropropane)	1.33988	1.12288	1.21183	1.11525	1.07182	1.03021	0.99311	1.12643	10.442
15 4-Methylphenol	1.56711	1.35566	1.35203	1.25223	1.21192	1.18117	1.09514	1.28789	11.956
16 N-Nitroso-di-n-propylamine	1.09012	0.94963	1.00509	0.92706	0.88229	0.87859	0.83674	0.93850	9.205
17 Hexachloroethane	0.68171	0.58487	0.65729	0.62542	0.60556	0.59562	0.58387	0.61919	6.102
19 Nitrobenzene	0.44072	0.37781	0.42782	0.39585	0.37866	0.36267	0.35365	0.39103	8.336
20 Isophorone	0.65152	0.56761	0.63488	0.58386	0.56330	0.56703	0.54545	0.58766	6.780
21 2-Nitrophenol	0.19007	0.18097	0.19254	0.19763	0.19222	0.19030	0.18718	0.19013	2.708
22 2,4-Dimethylphenol	0.39890	0.35243	0.35721	0.34675	0.33035	0.32245	0.30984	0.34542	8.416
23 Bis(2-Chloroethoxy)methane	0.47133	0.42093	0.46787	0.43491	0.41249	0.40816	0.39951	0.43074	6.673

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20111121.b/SW846112111.m
Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	RRF	% RSD	
24 Benzoic acid	+++++	0.11953	0.16452	0.21398	0.21175	0.23910	0.23030	0.19653	23.253	<-
25 2,4-Dichlorophenol	0.31786	0.29301	0.30046	0.29642	0.28036	0.27262	0.26086	0.28880	6.586	
26 1,2,4-Trichlorobenzene	0.36826	0.30987	0.34719	0.32517	0.30705	0.30322	0.29570	0.32235	8.206	
28 Naphthalene	1.17827	1.01385	1.09006	0.99233	0.91958	0.87036	0.81424	0.98267	12.860	
29 4-Chloroaniline	0.45435	0.41694	0.43542	0.39865	0.36569	0.35791	0.31993	0.39270	12.072	
30 Hexachlorobutadiene	0.19287	0.16533	0.18618	0.17975	0.16464	0.16604	0.16501	0.17426	6.807	
31 4-Chloro-3-methylphenol	0.30680	0.28754	0.28246	0.27539	0.26165	0.27130	0.24826	0.27620	6.808	
32 2-Methylnaphthalene	0.62109	0.53075	0.56302	0.51763	0.47765	0.48134	0.44555	0.51958	11.392	
33 Hexachlorocyclopentadiene	0.23907	0.25590	0.33810	0.36126	0.35838	0.34478	0.37474	0.32461	16.696	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-NOV-2011 11:24
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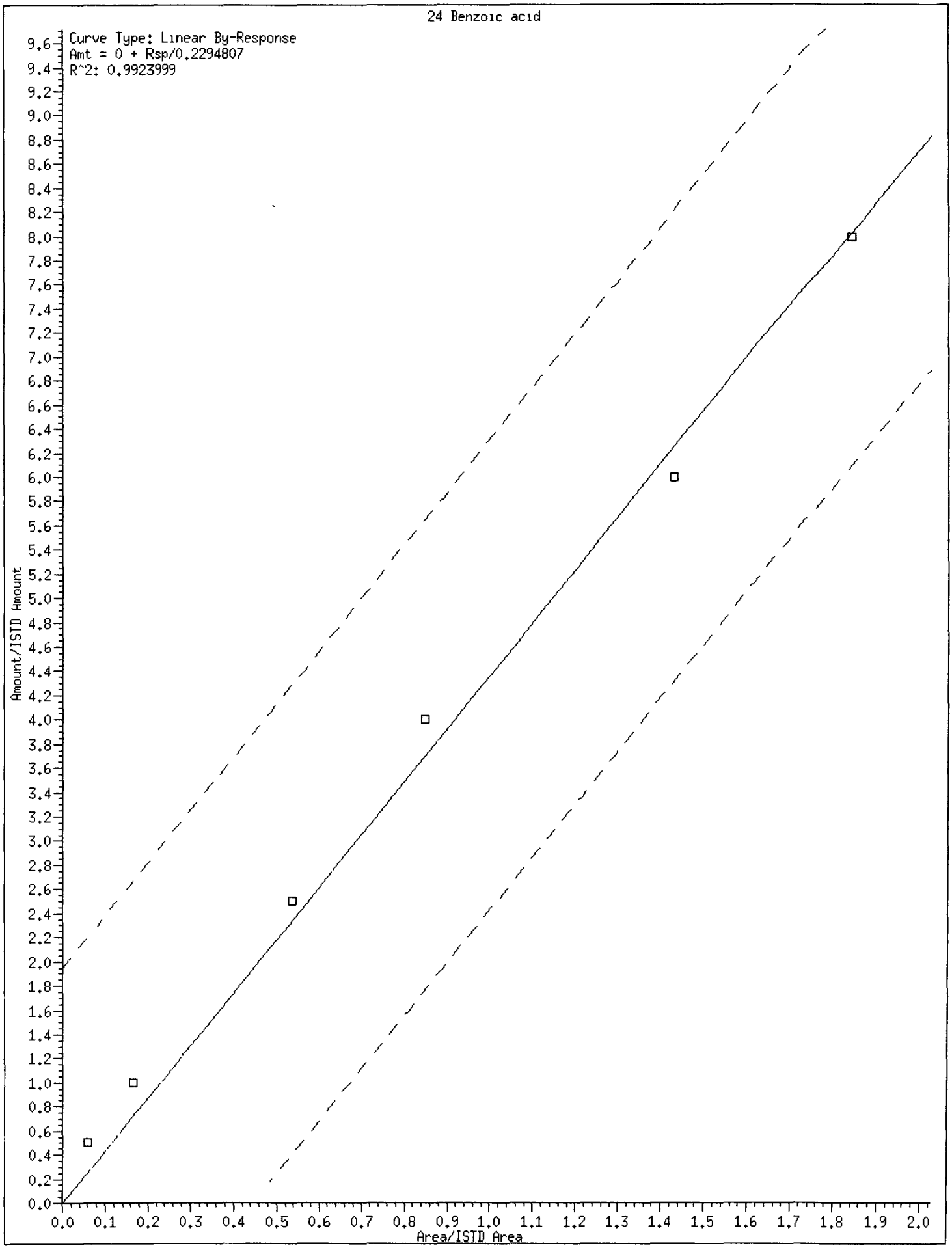
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20111121.b/SW846112111.m
Cal Date : 28-Nov-2011 10:45 jianqing

11/28/11

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7										
23 Bis(2-Chloroethoxy)methane	0.47133	0.42093	0.46787	0.43491	0.41249	0.40816					
	0.39951						AVRG		0.43074		6.67346
24 Benzoic acid	+++++	99712	278538	760708	1300796	2171088					
	2780137						LINR	0.000e+00	0.22948		0.99240
25 2,4-Dichlorophenol	0.31786	0.29301	0.30046	0.29642	0.28036	0.27262					
	0.26086						AVRG		0.28880		6.58559
26 1,2,4-Trichlorobenzene	0.36826	0.30987	0.34719	0.32517	0.30705	0.30322					
	0.29570						AVRG		0.32235		8.20649
28 Naphthalene	1.17827	1.01385	1.09006	0.99233	0.91958	0.87036					
	0.81424						AVRG		0.98267		12.86004
29 4-Chloroaniline	0.45435	0.41694	0.43542	0.39865	0.36569	0.35791					
	0.31993						AVRG		0.39270		12.07190
30 Hexachlorobutadiene	0.19287	0.16533	0.18618	0.17975	0.16464	0.16604					
	0.16501						AVRG		0.17426		6.80690


24 Benzoic acid
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.2294807
R^2: 0.9923999
Amount/ISTD Amount
Area/ISTD Area

Analytical Resources, Inc.

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Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	RRF	% RSD
34 2,4,6-Trichlorophenol	0.31996	0.31160	0.34596	0.35077	0.34312	0.34117	0.34046	0.33615	4.323
35 2,4,5-Trichlorophenol	0.32994	0.31952	0.36180	0.37327	0.36031	0.36101	0.36340	0.35275	5.629
37 2-Chloronaphthalene	1.30124	1.08562	1.19789	1.11027	1.02885	0.94906	0.94333	1.08804	11.971
38 2-Nitroaniline	0.24747	0.26582	0.29543	0.28084	0.26885	0.28002	0.26566	0.27201	5.578
39 Dimethylphthalate	1.32276	1.12378	1.21200	1.12258	1.05672	1.09725	1.06357	1.14266	8.280
40 Acenaphthylene	1.78618	1.61000	1.78737	1.66442	1.56076	1.49222	1.44461	1.62079	8.289
41 2,6-Dinitrotoluene	0.23417	0.24812	0.27939	0.27136	0.25483	0.27176	0.26226	0.26027	6.041
43 3-Nitroaniline	0.29288	0.27987	0.29192	0.27046	0.24761	0.22664	+++++	0.26823	9.814
44 Acenaphthene	1.21312	1.01167	1.09818	1.03529	0.96379	0.95086	0.92424	1.02817	9.755

Analytical Resources, Inc.

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Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD	
	80.000 Level 7								
45 2,4-Dinitrophenol	+++++	0.06031	0.09891	0.14317	0.13981	0.16300			
	0.15763						0.12714	31.258	<-
46 Dibenzofuran	1.70420	1.47081	1.54096	1.41924	1.31519	1.29790			
	1.20399						1.42176	11.857	
47 4-Nitrophenol	0.06573	0.10908	0.11169	0.12701	0.11739	0.12928			
	0.11745						0.11109	19.189	
48 2,4-Dinitrotoluene	0.31043	0.31521	0.35312	0.34864	0.32796	0.36849			
	0.34480						0.33838	6.266	
49 Fluorene	1.34619	1.16249	1.25021	1.16962	1.07460	1.08279			
	1.02861						1.15922	9.543	
50 Diethylphthalate	1.26303	1.08773	1.14536	1.06749	0.98977	1.03119			
	0.97092						1.07936	9.296	
51 4-Chlorophenyl-phenylether	0.66783	0.54823	0.60054	0.56470	0.53052	0.53649			
	0.51621						0.56636	9.256	
52 4-Nitroaniline	0.23976	0.26783	0.26873	0.27141	0.24214	0.27867			
	0.24620						0.25925	6.162	
53 4,6-Dinitro-2-methylphenol	+++++	0.10427	0.12299	0.14168	0.13993	0.14206			
	0.14478						0.13262	12.012	

Analytical Resources, Inc.

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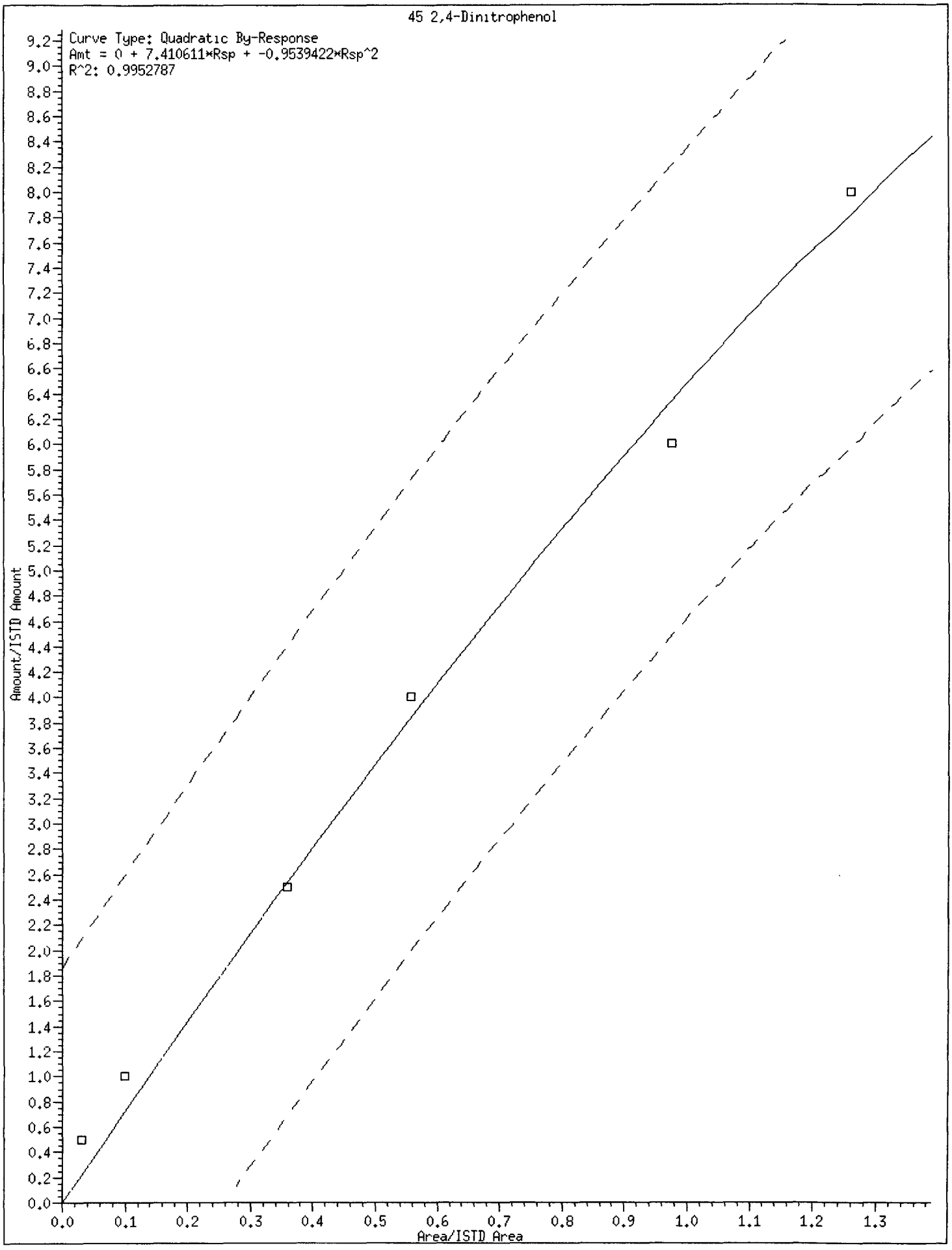
Method file : /chem2/nt6.i/20111121.b/SW846112111.m
Cal Date : 28-Nov-2011 10:45 jianqing

11/28/11

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7										
39 Dimethylphthalate	1.32276	1.12378	1.21200	1.12258	1.05672	1.09725					
	1.06357						AVRG		1.14266		8.27969
40 Acenaphthylene	1.78618	1.61000	1.78737	1.66442	1.56076	1.49222					
	1.44461						AVRG		1.62079		8.28907
41 2,6-Dinitrotoluene	0.23417	0.24812	0.27939	0.27136	0.25483	0.27176					
	0.26226						AVRG		0.26027		6.04084
43 3-Nitroaniline	0.29288	0.27987	0.29192	0.27046	0.24761	0.22664					
	+++++						AVRG		0.26823		9.81449
44 Acenaphthene	1.21312	1.01167	1.09818	1.03529	0.96379	0.95086					
	0.92424						AVRG		1.02817		9.75467
45 2,4-Dinitrophenol	+++++	28399	89821	270100	442360	826238					
	982394						QUAD	0.000e+00	7.41061	-0.95394	0.99528
46 Dibenzofuran	1.70420	1.47081	1.54096	1.41924	1.31519	1.29790					
	1.20399						AVRG		1.42176		11.85731


45 2,4-Dinitrophenol
Curve Type: Quadratic By-Response
Amt = 0 + 7.410611*Rsp + -0.9539422*Rsp^2
R^2: 0.9952787
Amount/ISTD Amount
Area/ISTD Area
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
1.3

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-NOV-2011 11:24
End Cal Date : 21-NOV-2011 17:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20111121.b/SW846112111.m
Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7							
54 N-Nitrosodiphenylamine	0.69702	0.59762	0.65785	0.59715	0.58890	0.55441		
	0.56758						0.60865	8.351
56 4-Bromophenyl-phenylether	0.25222	0.20331	0.23758	0.21471	0.21351	0.20206		
	0.20971						0.21901	8.576
57 Hexachlorobenzene	0.26431	0.22036	0.24762	0.22820	0.22334	0.21028		
	0.21673						0.23012	8.308
58 Pentachlorophenol	+++++	0.07947	0.10973	0.11686	0.12175	0.12926		
	0.13049						0.11459	16.472
60 Phenanthrene	1.30602	1.09658	1.16520	1.07639	1.01739	0.96230		
	0.94710						1.08157	11.576
61 Anthracene	1.26239	1.11725	1.21508	1.12552	1.05889	0.99286		
	0.98388						1.10798	9.521
62 Carbazole	1.12209	1.03775	1.09488	1.04732	0.96320	0.95072		
	0.91596						1.01885	7.595
63 Di-n-butylphthalate	1.22013	1.15545	1.24811	1.21839	1.11785	1.08804		
	1.05592						1.15770	6.363
64 Fluoranthene	1.09859	1.04627	1.08952	1.06251	0.97200	0.96818		
	0.95103						1.02687	6.019

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20111121.b/SW846112111.m
Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	RRF	% RSD
65 Pyrene	1.51708	1.20741	1.34381	1.20966	1.18298	1.11593	1.09030	1.23817	11.914
67 Butylbenzylphthalate	0.48535	0.49624	0.56690	0.55866	0.54946	0.54153	0.53353	0.53310	5.819
68 Benzo(a)anthracene	1.04441	0.93850	1.04253	0.99423	0.96556	0.92167	0.91291	0.97426	5.601
70 3,3'-Dichlorobenzidine	0.32209	0.33408	0.35720	0.34147	0.31996	0.28565	0.27717	0.31966	9.085
71 Chrysene	1.16238	0.94992	1.05700	1.01154	0.96865	0.93400	0.92892	1.00178	8.414
72 bis(2-Ethylhexyl)phthalate	0.61502	0.53820	0.61232	0.60675	0.59364	0.58497	0.58639	0.59104	4.440
73 Di-n-octylphthalate	1.19199	0.96177	1.06112	1.03783	0.98766	0.97810	0.96160	1.02572	8.055
74 Benzo(b)fluoranthene	1.04102	0.99813	1.05741	1.05781	1.05261	0.99978	1.00692	1.03053	2.692
75 Benzo(k)fluoranthene	1.26108	1.05807	1.25511	1.09206	1.01101	0.94625	0.90297	1.07522	13.038

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20111121.b/SW846112111.m
Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	RRF	% RSD	
76 Benzo(a)pyrene	0.92653	0.88212	0.99316	0.95621	0.93457	0.89301	0.89287	0.92550	4.323	
78 Indeno(1,2,3-cd)pyrene	1.24930	1.10188	1.32507	1.26875	1.24083	1.17704	1.23126	1.22773	5.780	
79 Dibenzo(a,h)anthracene	1.01596	0.91639	1.08814	1.06458	1.01831	0.96487	0.99774	1.00943	5.739	
80 Benzo(g,h,i)perylene	1.09403	0.96851	1.15749	1.10314	1.10332	1.05758	1.10816	1.08460	5.436	
90 N-Nitrosodimethylamine	0.95260	0.88585	1.00094	0.95142	0.95878	0.93374	0.95059	0.94770	3.610	
91 Aniline	2.29142	2.08392	2.21307	2.02240	1.95480	1.88449	1.75242	2.02893	9.192	
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
93 Benzidine	+++++	0.09165	0.17595	0.21742	0.24793	0.23942	0.25217	0.20409	30.278	<-
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

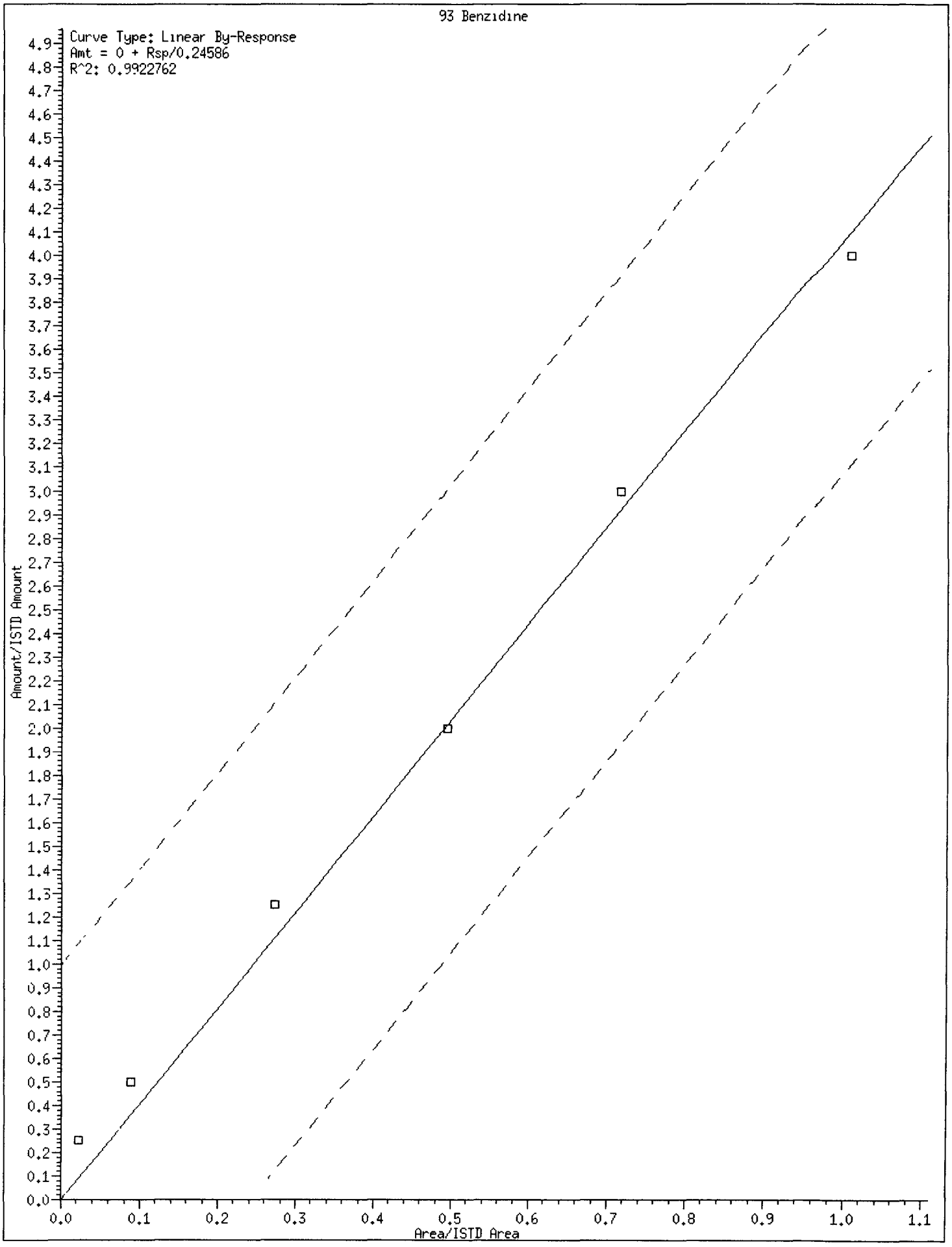
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-NOV-2011 11:24
End Cal Date : 21-NOV-2011 17:37
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20111121.b/SW846112111.m
Cal Date : 28-Nov-2011 10:45 jianqing

D 11/28/11

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7										
80 Benzo(g,h,i)perylene	1.09403	0.96851	1.15749	1.10314	1.10332	1.05758					
	1.10816						AVRG		1.08460		5.43595
90 N-Nitrosodimethylamine	0.95260	0.88585	1.00094	0.95142	0.95878	0.93374					
	0.95059						AVRG		0.94770		3.61048
91 Aniline	2.29142	2.08392	2.21307	2.02240	1.95480	1.88449					
	1.75242						AVRG		2.02893		9.19199
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
93 Benzidine	+++++	28399	89821	270100	442360	826238					
	982394						LINR	0.000e+00	0.24586		0.99228
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00


93 Benzidine
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.24586
R^2: 0.9922762
Amount/ISTD Amount
Area/ISTD Area
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-NOV-2011 11:24
End Cal Date : 21-NOV-2011 17:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20111121.b/SW846112111.m
Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 Retene	0.51785	0.44492	0.47440	0.45817	0.45492	0.43809	0.43053	0.45984	6.377
99 Perylene	1.28569	1.12405	1.21033	1.14938	1.11855	0.99719	0.99720	1.12606	9.342
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Pyridine	1.56437	1.63112	1.86282	1.81061	1.77093	1.76020	1.74230	1.73462	5.951
187 Total Benzofluoranthenes	1.09384	0.98242	1.09902	1.02176	0.98515	0.92097	0.89836	1.00022	7.765
$ 1 2-Fluorophenol	1.55757	1.43864	1.55908	1.46513	1.39445	1.36108	+++++	1.46266	5.626

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20111121.b/SW846112111.m
Cal Date : 28-Nov-2011 10:44 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7							
$ 137 d8-1,4-Dioxane	0.64009	0.59794	0.67558	0.66426	0.64494	0.64815		
	0.64393						0.64498	3.775
$ 2 Phenol-d5	2.01171	1.83941	1.91071	1.72883	1.66904	1.63859		
	+++++						1.79972	8.124
$ 5 2-Chlorophenol-d4	1.54324	1.39312	1.49769	1.38127	1.33296	1.30182		
	+++++						1.40835	6.674
$ 10 1,2-Dichlorobenzene-d4	1.12406	0.99703	1.03041	0.94400	0.88985	0.85853		
	+++++						0.97398	10.012
$ 18 Nitrobenzene-d5	0.41372	0.39600	0.43567	0.41719	0.40859	0.40238		
	+++++						0.41226	3.343
$ 36 2-Fluorobiphenyl	1.48312	1.30191	1.42477	1.31857	1.25796	1.19083		
	+++++						1.32953	8.094
$ 55 2,4,6-Tribromophenol	0.13286	0.12798	0.14600	0.14453	0.13532	0.14865		
	+++++						0.13922	5.968
$ 66 Terphenyl-d14	1.08932	0.77803	0.82563	0.73591	0.73099	0.70859		
	+++++						0.81141	17.541
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-NOV-2011 11:24
End Cal Date : 21-NOV-2011 17:37
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20111121.b/SW846112111.m
Cal Date : 28-Nov-2011 10:45 jianqing

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.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20111121.b/SW846112111.m
Batch File: /chem2/nt6.i/20111121.b
Inst ID: nt6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	11211102	11211103	11211104	11211105	11211106	11211107	11211109
INJ.DATE:	21-NOV-2011	21-NOV-2011	21-NOV-2011	21-NOV-2011	21-NOV-2011	21-NOV-2011	21-NOV-2011
INJ.TIME:	11:24	11:57	12:30	13:20	13:53	14:26	17:37

11/28/11

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 1 2-Fluorophenol	6.131	6.133	6.137	6.136	6.142	0.000	6.134	6.131	3.131-9.131	5.259	2.319
186 Carbaryl	16.212	16.214	16.218	16.222	16.233	16.230	16.219	16.212	13.212-19.212	16.221	0.008
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.061	5.061-11.061	+++++	+++++
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.369	11.369-17.369	+++++	+++++
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.531	15.531-21.531	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.634	13.634-19.634	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.609	14.609-20.609	+++++	+++++
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.863	13.863-19.863	+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.605	17.605-23.605	+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.015	14.015-20.015	+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.609	14.609-20.609	+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.562	14.562-20.562	+++++	+++++
177 p-Benzoquinone	6.767	6.769	6.768	6.767	6.777	6.780	6.764	6.767	3.767-9.767	6.770	0.006
168 Pentachlorobenzene	13.380	13.377	13.381	13.386	13.391	13.393	13.383	13.380	10.380-16.380	13.385	0.006
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.212	44.212-50.212	+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.746	44.746-50.746	+++++	+++++
147 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.216	45.216-51.216	+++++	+++++

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: 11/28/11

TX07 - 00289

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20111121.b/SW846112111.m
Batch File: /chem2/nt6.i/20111121.b
Inst ID: nt6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
148 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.281	44.281-50.281	+++++	+++++
149 TCMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.387	40.387-46.387	+++++	+++++
150 DCBP	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.989	47.989-53.989	+++++	+++++
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	67.733	64.733-70.733	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.067	62.067-68.067	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.917	46.917-52.917	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.677	10.677-16.677	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.317	36.317-42.317	+++++	+++++
$ 137 d8-1,4-Dioxane	2.648	2.645	2.654	2.648	2.664	2.672	2.645	2.648	0.000-5.648	2.654	0.010
* 134 Di-n-octylphthalate-d4	20.881	20.883	20.882	20.886	20.881	20.883	20.883	20.881	17.881-23.881	20.883	0.002
133 Butylatedhydroxytoluen	13.199	13.201	13.200	13.204	13.204	13.207	13.201	13.199	10.199-16.199	13.202	0.003
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.450	62.450-68.450	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	64.400	61.400-67.400	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	62.100	59.100-65.100	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.912	51.912-57.912	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.212	51.212-57.212	+++++	+++++
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	57.650	54.650-60.650	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.750	53.750-59.750	+++++	+++++
144 alpha-Terpineol	10.207	10.209	10.208	10.212	10.218	10.220	10.210	10.207	7.207-13.207	10.212	0.005
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.166	49.166-55.166	+++++	+++++

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Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20111121.b/SW846112111.m
Batch File: /chem2/nt6.i/20111121.b
Inst ID: nt6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.617	47.617-53.617	+++++	+++++
123 Acetophenone	8.791	8.794	8.793	8.797	8.802	8.805	8.794	8.791	5.791-11.791	8.796	0.005
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.467	40.467-46.467	+++++	+++++
143 1,4-Dioxane	2.707	2.698	2.708	2.701	2.717	2.720	2.693	2.707	0.000-5.707	2.706	0.010
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.500	51.500-57.500	+++++	+++++
120 2,3,4,6-Tetrachlorophe	13.626	13.623	13.627	13.631	13.631	13.634	13.629	13.626	10.626-16.626	13.629	0.004
178 2-Benzyl-4-Chloropheno	16.174	16.171	16.175	16.180	16.190	16.193	16.177	16.174	13.174-19.174	16.180	0.008
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.069	44.069-50.069	+++++	+++++
118 Triphenyl Phosphate	19.262	19.259	19.263	19.267	19.267	19.270	19.264	19.262	16.262-22.262	19.265	0.004
117 Butyl Diphenyl Phospha	17.654	17.656	17.655	17.659	17.659	17.662	17.657	17.654	14.654-20.654	17.657	0.003
116 Dibutyl Phenyl Phospha	15.966	15.963	15.962	15.971	15.976	15.974	15.968	15.966	12.966-18.966	15.969	0.006
115 Tributyl Phosphate	14.219	14.221	14.220	14.230	14.235	14.238	14.227	14.219	11.219-17.219	14.227	0.007
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.950	45.950-51.950	+++++	+++++
113 Diphenyl Oxide	12.285	12.282	12.286	12.285	12.290	12.293	12.288	12.285	9.285-15.285	12.287	0.004
112 Biphenyl	12.093	12.090	12.089	12.093	12.098	12.101	12.095	12.093	9.093-15.093	12.094	0.004
111 Azobenzene (1,2-DP-Hyd	14.171	14.173	14.172	14.182	14.181	14.184	14.173	14.171	11.171-17.171	14.177	0.005
110 Tetrachloroguaiacol	15.357	15.354	15.358	15.362	15.367	15.370	15.359	15.357	12.357-18.357	15.361	0.006
109 3,4,5-Trichloroguaiaco	13.722	13.719	13.723	13.727	13.727	13.730	13.725	13.722	10.722-16.722	13.725	0.004
181 3,4,6-Trichloroguaiaco	13.845	13.842	13.846	13.845	13.850	13.853	13.848	13.845	10.845-16.845	13.847	0.004
108 4,5,6-Trichloroguaiaco	14.759	14.761	14.754	14.764	14.764	14.766	14.761	14.759	11.759-17.759	14.761	0.004
184 3,4-Dichloroguaiacol	12.178	12.175	12.179	12.178	12.184	12.186	12.181	12.178	9.178-15.178	12.180	0.004
107 4,5-Dichloroguaiacol	12.958	12.960	12.959	12.969	12.969	12.971	12.961	12.958	9.958-15.958	12.964	0.005
182 4,6-Dichloroguaiacol	12.958	12.960	12.959	12.969	12.969	12.971	12.961	12.958	9.958-15.958	12.964	0.005
185 4-Chloroguaiacol	11.083	11.085	11.084	11.088	11.088	11.091	11.086	11.083	8.083-14.083	11.087	0.003

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Analytical Resources, Inc.
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Method File: /chem2/nt6.i/20111121.b/SW846112111.m
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Inst ID: nt6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	106 Guaiacol	9.059	9.061	9.060	9.064	9.069	9.072	9.066	9.059	6.059-12.059	9.064	0.005
	105 1-methylnaphthalene	11.484	11.481	11.485	11.489	11.489	11.492	11.486	11.484	8.484-14.484	11.487	0.004
	151 1,2,4,5-Tetrachloroben	11.649	11.652	11.651	11.655	11.655	11.657	11.652	11.649	8.649-14.649	11.653	0.003
	152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
	153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.442	20.442-26.442	+++++	+++++
	154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.968	18.968-24.968	+++++	+++++
	155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.466	20.466-26.466	+++++	+++++
	156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.866	19.866-25.866	+++++	+++++
	157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.413	20.413-26.413	+++++	+++++
	158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.952	21.952-27.952	+++++	+++++
	159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.721	18.721-24.721	+++++	+++++
	160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.159	15.159-21.159	+++++	+++++
	161 1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
	162 1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
	163 1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
	164 1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
	165 1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
	166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
	167 2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
$	2 Phenol-d5	7.675	7.677	7.681	7.686	7.691	0.000	7.683	7.675	4.675-10.675	6.585	2.904
	3 Phenol	7.696	7.698	7.697	7.702	7.712	7.709	7.699	7.696	4.696-10.696	7.702	0.006
	4 Bis(2-Chloroethyl)ethe	7.760	7.762	7.767	7.771	7.776	7.774	7.763	7.760	4.760-10.760	7.768	0.006
$	5 2-Chlorophenol-d4	7.798	7.800	7.799	7.803	7.808	0.000	7.800	7.798	4.798-10.798	6.687	2.949

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	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	6 2-Chlorophenol	7.819	7.821	7.826	7.824	7.830	7.832	7.822	7.819	4.819-10.819	7.825	0.005
	7 1,3-Dichlorobenzene	8.033	8.035	8.034	8.038	8.038	8.041	8.035	8.033	5.033-11.033	8.036	0.003
*	8 1,4-Dichlorobenzene-d4	8.092	8.094	8.098	8.097	8.102	8.099	8.099	8.092	5.092-11.092	8.097	0.004
	9 1,4-Dichlorobenzene	8.118	8.120	8.125	8.124	8.129	8.126	8.121	8.118	5.118-11.118	8.123	0.004
$	10 1,2-Dichlorobenzene-d4	8.396	8.398	8.397	8.396	8.401	0.000	8.399	8.396	5.396-11.396	7.198	3.174
	11 Benzyl alcohol	8.380	8.377	8.381	8.385	8.391	8.399	8.383	8.380	5.380-11.380	8.385	0.007
	12 1,2-Dichlorobenzene	8.418	8.414	8.419	8.423	8.423	8.425	8.420	8.418	5.418-11.418	8.420	0.004
	13 2-Methylphenol	8.626	8.628	8.627	8.631	8.636	8.639	8.628	8.626	5.626-11.626	8.631	0.005
	14 2,2'-oxybis(1-Chloropr	8.642	8.639	8.643	8.647	8.647	8.650	8.644	8.642	5.642-11.642	8.645	0.004
	15 4-Methylphenol	8.856	8.858	8.862	8.866	8.871	8.874	8.863	8.856	5.856-11.856	8.864	0.007
	16 N-Nitroso-di-n-propyla	8.850	8.852	8.857	8.866	8.871	8.874	8.858	8.850	5.850-11.850	8.861	0.009
	17 Hexachloroethane	8.909	8.911	8.910	8.909	8.914	8.917	8.911	8.909	5.909-11.909	8.912	0.003
$	18 Nitrobenzene-d5	9.027	9.029	9.033	9.037	9.037	+++++	9.034	9.027	6.027-12.027	9.033	0.004
	19 Nitrobenzene	9.059	9.055	9.060	9.064	9.069	9.072	9.061	9.059	6.059-12.059	9.063	0.006
	20 Isophorone	9.438	9.440	9.439	9.443	9.454	9.456	9.440	9.438	6.438-12.438	9.444	0.008
	21 2-Nitrophenol	9.577	9.579	9.578	9.582	9.587	9.590	9.579	9.577	6.577-12.577	9.582	0.005
	22 2,4-Dimethylphenol	9.694	9.696	9.701	9.700	9.705	9.713	9.697	9.694	6.694-12.694	9.701	0.006
	23 Bis(2-Chloroethoxy)met	9.839	9.835	9.840	9.844	9.849	9.852	9.841	9.839	6.839-12.839	9.843	0.006
	24 Benzoic acid	9.828	9.851	9.877	9.956	9.988	10.017	9.916	9.828	6.828-12.828	9.919	0.071
	25 2,4-Dichlorophenol	9.972	9.969	9.973	9.977	9.977	9.985	9.975	9.972	6.972-12.972	9.975	0.005
	26 1,2,4-Trichlorobenzene	10.095	10.092	10.096	10.100	10.100	10.103	10.097	10.095	7.095-13.095	10.098	0.004
*	27 Naphthalene-d8	10.154	10.150	10.155	10.154	10.159	10.162	10.151	10.154	7.154-13.154	10.155	0.004
	28 Naphthalene	10.180	10.182	10.181	10.186	10.191	10.194	10.183	10.180	7.180-13.180	10.185	0.005
	29 4-Chloroaniline	10.325	10.327	10.331	10.330	10.335	10.338	10.327	10.325	7.325-13.325	10.330	0.005

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Analytical Resources, Inc.
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Inst ID: nt6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
30 Hexachlorobutadiene	10.506	10.508	10.507	10.506	10.506	10.509	10.509	10.506	7.506-13.506	10.507	0.001
31 4-Chloro-3-methylpheno	11.153	11.149	11.154	11.158	11.158	11.160	11.155	11.153	8.153-14.153	11.155	0.004
32 2-Methylnaphthalene	11.308	11.310	11.309	11.313	11.313	11.315	11.310	11.308	8.308-14.308	11.311	0.003
33 Hexachlorocyclopentadi	11.692	11.694	11.693	11.697	11.697	11.700	11.695	11.692	8.692-14.692	11.696	0.003
34 2,4,6-Trichlorophenol	11.831	11.828	11.832	11.831	11.836	11.839	11.834	11.831	8.831-14.831	11.833	0.004
35 2,4,5-Trichlorophenol	11.895	11.892	11.891	11.895	11.895	11.898	11.892	11.895	8.895-14.895	11.894	0.002
$ 36 2-Fluorobiphenyl	11.954	11.956	11.955	11.959	11.964	0.000	11.956	11.954	8.954-14.954	10.249	4.520
37 2-Chloronaphthalene	12.088	12.090	12.089	12.098	12.098	12.101	12.095	12.088	9.088-15.088	12.094	0.005
38 2-Nitroaniline	12.323	12.325	12.324	12.328	12.333	12.336	12.325	12.323	9.323-15.323	12.328	0.005
39 Dimethylphthalate	12.697	12.699	12.698	12.702	12.707	12.710	12.699	12.697	9.697-15.697	12.701	0.005
40 Acenaphthylene	12.771	12.768	12.772	12.777	12.776	12.779	12.774	12.771	9.771-15.771	12.774	0.004
41 2,6-Dinitrotoluene	12.793	12.789	12.794	12.798	12.798	12.806	12.795	12.793	9.793-15.793	12.796	0.005
* 42 Acenaphthene-d10	13.028	13.024	13.029	13.028	13.028	13.030	13.030	13.028	10.028-16.028	13.028	0.002
43 3-Nitroaniline	13.001	12.998	13.002	13.012	13.017	13.020	13.009	13.001	10.001-16.001	13.008	0.008
44 Acenaphthene	13.076	13.073	13.077	13.081	13.081	13.084	13.078	13.076	10.076-16.076	13.078	0.004
45 2,4-Dinitrophenol	13.167	13.169	13.168	13.177	13.182	13.185	13.174	13.167	10.167-16.167	13.175	0.007
46 Dibenzofuran	13.338	13.334	13.339	13.343	13.348	13.351	13.340	13.338	10.338-16.338	13.342	0.006
47 4-Nitrophenol	13.332	13.324	13.328	13.327	13.337	13.335	13.329	13.332	10.332-16.332	13.330	0.005
48 2,4-Dinitrotoluene	13.423	13.420	13.419	13.428	13.428	13.431	13.420	13.423	10.423-16.423	13.424	0.005
49 Fluorene	13.899	13.895	13.900	13.904	13.904	13.906	13.901	13.899	10.899-16.899	13.901	0.004
50 Diethylphthalate	13.856	13.853	13.857	13.861	13.872	13.869	13.864	13.856	10.856-16.856	13.861	0.007
51 4-Chlorophenyl-phenyle	13.925	13.922	13.921	13.925	13.930	13.933	13.928	13.925	10.925-16.925	13.926	0.004
52 4-Nitroaniline	13.995	13.997	14.001	14.011	14.021	14.024	14.008	13.995	10.995-16.995	14.008	0.011
53 4,6-Dinitro-2-methylph	14.075	14.072	14.076	14.085	14.091	14.093	14.077	14.075	11.075-17.075	14.081	0.008

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Inst ID: nt6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	54 N-Nitrosodiphenylamine	14.128	14.125	14.129	14.133	14.139	14.141	14.131	14.128	11.128-17.128	14.132	0.006
$	55 2,4,6-Tribromophenol	14.321	14.323	14.322	14.331	14.331	0.000	14.328	14.321	11.321-17.321	12.279	5.415
	56 4-Bromophenyl-phenylet	14.705	14.707	14.706	14.716	14.716	14.713	14.708	14.705	11.705-17.705	14.710	0.005
	57 Hexachlorobenzene	14.930	14.926	14.931	14.935	14.935	14.937	14.932	14.930	11.930-17.930	14.932	0.004
	58 Pentachlorophenol	15.234	15.231	15.230	15.234	15.239	15.237	15.231	15.234	12.234-18.234	15.234	0.003
*	59 Phenanthrene-d10	15.410	15.407	15.411	15.416	15.415	15.418	15.413	15.410	12.410-18.410	15.413	0.004
	60 Phenanthrene	15.448	15.444	15.449	15.453	15.458	15.456	15.450	15.448	12.448-18.448	15.451	0.005
	61 Anthracene	15.517	15.519	15.518	15.522	15.528	15.530	15.525	15.517	12.517-18.517	15.523	0.005
	62 Carbazole	15.800	15.802	15.807	15.811	15.816	15.813	15.808	15.800	12.800-18.800	15.808	0.006
	63 Di-n-butylphthalate	16.522	16.518	16.517	16.527	16.527	16.529	16.524	16.522	13.522-19.522	16.523	0.005
	64 Fluoranthene	17.392	17.389	17.393	17.398	17.397	17.400	17.395	17.392	14.392-20.392	17.395	0.004
	65 Pyrene	17.750	17.747	17.746	17.755	17.755	17.758	17.753	17.750	14.750-20.750	17.752	0.005
$	66 Terphenyl-d14	18.065	18.062	18.066	18.065	18.071	0.000	18.068	18.065	15.065-21.065	15.485	6.828
	67 Butylbenzylphthalate	18.952	18.944	18.948	18.952	18.952	18.955	18.949	18.952	15.952-21.952	18.950	0.004
	68 Benzo(a)anthracene	19.716	19.713	19.717	19.721	19.721	19.724	19.719	19.716	16.716-22.716	19.719	0.004
*	69 Chrysene-d12	19.743	19.740	19.739	19.743	19.748	19.751	19.745	19.743	16.743-22.743	19.744	0.004
	70 3,3'-Dichlorobenzidine	19.727	19.724	19.723	19.727	19.732	19.729	19.724	19.727	16.727-22.727	19.726	0.003
	71 Chrysene	19.780	19.777	19.781	19.785	19.791	19.793	19.783	19.780	16.780-22.780	19.784	0.006
	72 bis(2-Ethylhexyl)phtha	19.946	19.948	19.947	19.946	19.951	19.948	19.948	19.946	16.946-22.946	19.948	0.002
	73 Di-n-octylphthalate	20.891	20.888	20.887	20.891	20.897	20.894	20.894	20.891	17.891-23.891	20.892	0.003
	74 Benzo(b)fluoranthene	21.372	21.374	21.373	21.377	21.383	21.391	21.380	21.372	18.372-24.372	21.379	0.007
	75 Benzo(k)fluoranthene	21.404	21.406	21.405	21.415	21.420	21.423	21.412	21.404	18.404-24.404	21.412	0.007
	76 Benzo(a)pyrene	21.826	21.823	21.827	21.832	21.837	21.839	21.829	21.826	18.826-24.826	21.830	0.006
*	77 Perylene-d12	21.906	21.903	21.907	21.912	21.912	21.914	21.909	21.906	18.906-24.906	21.909	0.004

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Method File: /chem2/nt6.i/20111121.b/SW846112111.m
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Inst ID: nt6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
78 Indeno(1,2,3-cd)pyrene	23.450	23.452	23.446	23.461	23.466	23.474	23.458	23.450	20.450-26.450	23.458	0.010
79 Dibenzo(a,h)anthracene	23.477	23.474	23.473	23.482	23.493	23.495	23.479	23.477	20.477-26.477	23.482	0.009
80 Benzo(g,h,i)perylene	23.872	23.874	23.873	23.888	23.899	23.907	23.885	23.872	20.872-26.872	23.886	0.013
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	51.633	48.633-54.633	+++++	+++++
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	63.533	60.533-66.533	+++++	+++++
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	60.273	57.273-63.273	+++++	+++++
$ 88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	78.600	75.600-81.600	+++++	+++++
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.841	47.841-53.841	+++++	+++++
90 N-Nitrosodimethylamine	3.391	3.393	3.402	3.412	3.433	3.446	3.393	3.391	0.391-6.391	3.410	0.022
91 Aniline	7.643	7.645	7.649	7.648	7.653	7.656	7.651	7.643	4.643-10.643	7.649	0.005
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.160	53.160-59.160	+++++	+++++
93 Benzidine	13.167	13.169	13.168	13.177	13.182	13.185	13.174	13.167	10.167-16.167	13.175	0.007
$ 95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.075	49.075-55.075	+++++	+++++
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.250	46.250-52.250	+++++	+++++
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	61.202	58.202-64.202	+++++	+++++
98 Retene	18.311	18.308	18.312	18.316	18.316	18.319	18.314	18.311	15.311-21.311	18.314	0.004
99 Perylene	21.938	21.941	21.939	21.944	21.954	21.957	21.946	21.938	18.938-24.938	21.946	0.007
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.074	19.074-25.074	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.255	19.255-25.255	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.369	18.369-24.369	+++++	+++++
103 Pyridine	3.401	3.382	3.386	3.374	3.390	3.393	3.372	3.401	0.401-6.401	3.386	0.010
187 Total Benzofluoranthen	21.404	21.374	21.405	21.415	21.420	21.423	21.412	21.404	18.404-24.404	21.408	0.016

TX57.00296

Analytical Resources Inc.: Organics Instrument Log

NT-6 Serial No.:GC=US00036167, MS=US81221575

Date: 11/21/11 Analysis: 8270 Analyst: [illegible]

GC Program: [illegible] Column No: 206f18 Column Type: ZB-5MSi

Instrument Tune (.U or .CT.): 11of19 EM Voltage: 1706

Calibration File: _____ Curve Date: 11/21/11 Injection Vol.: 1µl

IS/SS	Ical/Ccal	LCS/ICV
1875-1	1910-1, 1911-1	1908-1, 1893-1
	1912-1, 1913-1	1894-1, 1913-1
	1614f, 1907-3	1614f, 1907-3
	1877-4	1877-4

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem2/nt6.i/20111121.b

	Time	Filename	LabID	ClientId	DF																
1	1033	11211101 D	DFTPP	DFTPP	1	NO ISTDS FOUND															
2	1124	11211102 D	IC11121	IC11121	1	8 09	526180	10 15	1999855	13 03	1126450	15 41	1546349	19 74	1215863	21 91	1040138	20 88	1447686		
3	1157	11211103 D	IC51121	IC51121	1	8 09	443459	10 15	1668435	13 02	941839	15 41	1345056	19 74	1239425	21 90	1128675	20 88	1546070		
4	1230	11211104 D	IC101121	IC101121	1	8 10	461685	10 15	1693052	13 03	908064	15 41	1215891	19 74	1020975	21 91	945211	20 88	1276210		
5	1320	11211105 D	IC401121	IC401121	1	8 10	419981	10 15	1535748	13 03	791002	15 42	1047648	19 74	892107	21 91	866978	20 89	1128113		
6	1353	11211106 D	IC601121	IC601121	1	8 10	406643	10 16	1513404	13 03	844849	15 42	1263785	19.75	1150353	21 91	1177349	20 88	1423927		
7	1426	11211107 D	IC801121	IC801121	1	8 10	414877	10 16	1509006	13 03	779016	15 42	1076497	19 75	973946	21 91	1043391	20 88	1217220		
8	1602	11211108 D	IC40121	IC401121 conf	1	8 10	416645	10 15	1530452	13 03	804805	15 42	1143793	19 74	1064613	21 91	1060177	20 88	1372855		
9	1737	11211109 D	IC250121	IC251121	1	8 10	393702	10 15	1422023	13 03	754629	15 41	1068116	19 75	993839	21 91	976441	20 88	1256584		
10	1819	11211110 D	ICV1121	ICV1121	1	8 09	402224	10.15	1446633	13 03	781049	15.41	1074242	19 75	988938	21 91	966943	20 88	1270709		
11	1957	11211111 D	TT61MBS1	TT61MBS1	1	8 09	455185	10 15	1773855	13 03	999310	15.41	1404364	19 74	1178929	20 88	1443403	21 91	1010277		
12	2030	11211112 D	TT61LCSS1	TT61LCSS1	1	8 09	472096	10 15	1863622	13 03	1057207	15 41	1489173	19 74	1283018	20 88	1672114	21 91	1206891		
13	2103	11211113.D	TT61D E	SPE003-40G	1	8 09	485533	10 15	1824586	13 03	994389	15 41	1370675	19 75	1228632	21 91	1279376	20 88	1711458		
14	2136	11211114 D	TT61D 5X	SPE003-40G	5	8 10	536529	10 15	1985616	13 03	1090318	15 41	1458960	19 74	1214725	21 91	1178193	20 88	1602989		

[illegible] 11/28/11

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/nt6.i/20111121.b

ARI Job No.: IC11 Method: SW846112111.m Instrument: nt6.i Date: 21-NOV-2011

AR 11/28/11

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1124	11211102.D	IC11121	IC11121	1	Benzoic acid, 2,4-Dinitrophenol, 4-Nitrophenol, Pentachlorophenol, Benzidine, 2-Benzyl-4-Chlorophenol, Total Benzofluoranthenes,
1157	11211103.D	IC51121	IC51121	1	3-Nitroaniline, Pentachlorophenol, 2-Benzyl-4-Chlorophenol, Total Benzofluoranthenes,
1230	11211104.D	IC101121	IC101121	1	NO MANUAL INTEGRATION
1320	11211105.D	IC401121	IC401121	1	NO MANUAL INTEGRATION
1353	11211106.D	IC601121	IC601121	1	NO MANUAL INTEGRATION
1426	11211107.D	IC801121	IC801121	1	NO MANUAL INTEGRATION
1737	11211109.D	IC250121	IC251121	1	NO MANUAL INTEGRATION
1819	11211110.D	ICV1121	ICV1121	1	NO MANUAL INTEGRATION

TX57:00294

Data File: /chem2/nt6.i/20111121.b/tune.b/11211101.D

Date : 21-NOV-2011 10:33

Client ID: DFTPP

Instrument: nt6.i

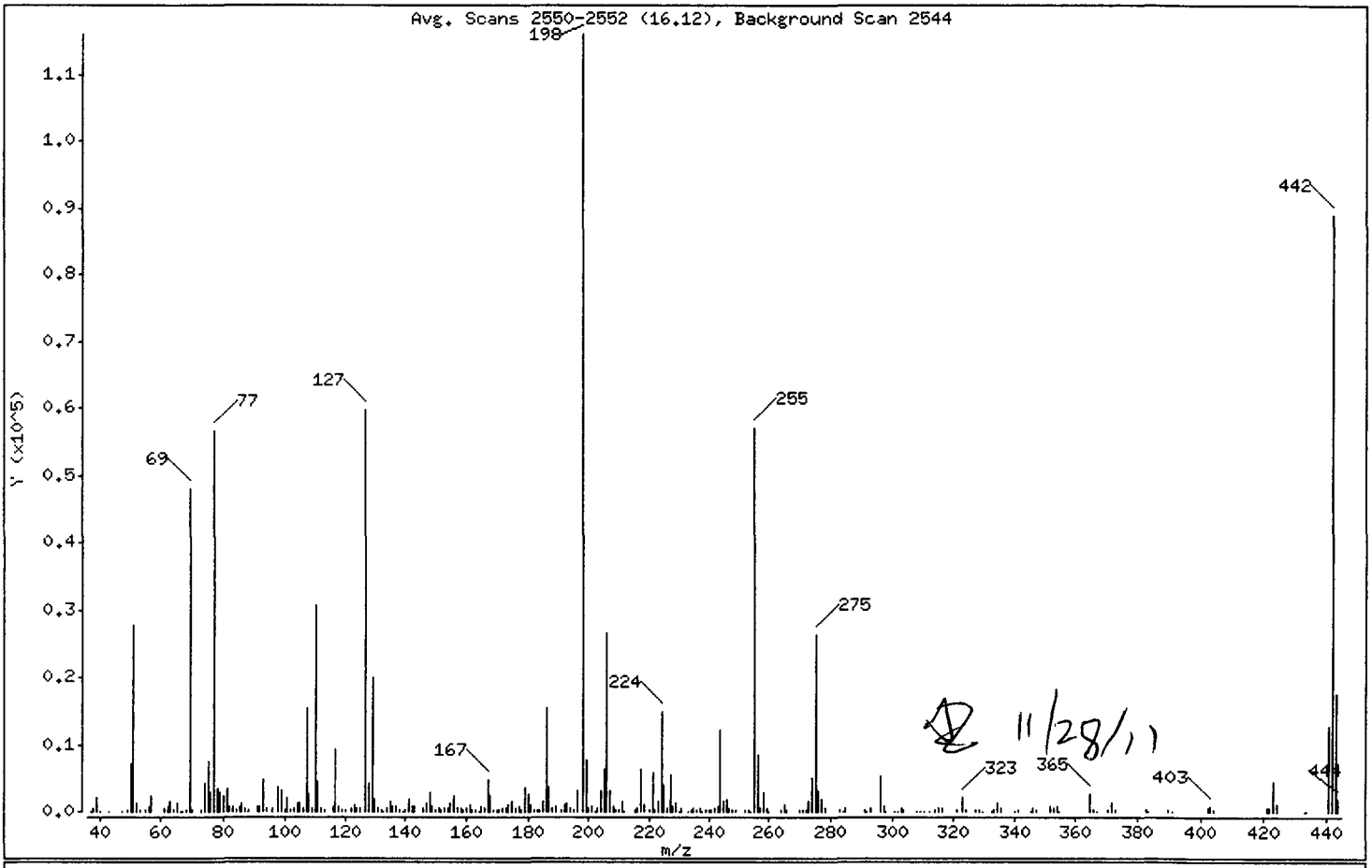
Sample Info: DFTPP

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



11/28/11

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	23.87
68	Less than 2.00% of mass 69	0.27 (0.65)
69	Mass 69 relative abundance	41.46
70	Less than 2.00% of mass 69	0.17 (0.42)
127	10.00 - 80.00% of mass 198	51.61
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.66
275	10.00 - 60.00% of mass 198	22.72
365	Greater than 1.00% of mass 198	2.28
441	0.01 - 24.00% of mass 442	11.07 (14.42)
442	50.00 - 200.00% of mass 198	76.80
443	15.00 - 24.00% of mass 442	15.06 (19.62)

TX57.00299

Date : 21-NOV-2011 10:33

Client ID: DFTPP Instrument: nt6.i

Sample Info: DFTPP

Operator: JZ

Column phase: ZB-5msi Column diameter: 0.25

Data File: 11211101.D
Spectrum: Avg. Scans 2550-2552 (16.12), Background Scan 2544
Location of Maximum: 198.00
Number of points: 280

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	119	127.00	59880	201.00	796	284.00	77
38.00	437	128.00	4191	202.00	104	285.00	448
39.00	2154	129.00	19928	203.00	466	291.00	135
40.00	8	130.00	1826	204.00	3288	292.00	105
43.00	132	131.00	514	205.00	6519	293.00	461
47.00	89	132.00	341	206.00	26776	294.00	53
49.00	391	133.00	86	207.00	3280	296.00	5434
50.00	7083	134.00	558	208.00	852	297.00	874
51.00	27696	135.00	1720	209.00	180	298.00	110
52.00	1426	136.00	723	210.00	375	301.00	54
53.00	186	137.00	884	211.00	1656	302.00	98
55.00	152	138.00	388	212.00	126	303.00	651
56.00	816	139.00	53	213.00	130	304.00	275
57.00	2378	140.00	238	215.00	324	308.00	75
60.00	83	141.00	1882	216.00	444	309.00	109
61.00	482	142.00	898	217.00	6461	310.00	51
62.00	787	143.00	749	218.00	1045	312.00	66
63.00	1569	144.00	93	220.00	144	314.00	200
64.00	293	146.00	476	221.00	5924	315.00	596
65.00	1205	147.00	1275	222.00	279	316.00	581
66.00	78	148.00	2889	223.00	1626	321.00	355
67.00	70	149.00	735	224.00	14927	323.00	2266
68.00	312	150.00	244	225.00	4096	324.00	362
69.00	48104	151.00	437	226.00	602	327.00	384
70.00	201	152.00	215	227.00	5544	328.00	236
73.00	383	153.00	642	228.00	775	329.00	56
74.00	4212	154.00	556	229.00	1438	332.00	111
75.00	7467	155.00	1232	230.00	11	333.00	169
76.00	3028	156.00	2297	231.00	508	334.00	1420
77.00	56512	157.00	585	233.00	53	335.00	483
78.00	3446	158.00	593	234.00	356	340.00	69
79.00	3066	159.00	353	235.00	438	341.00	265
80.00	2385	160.00	606	236.00	291	345.00	58
81.00	3379	161.00	1172	237.00	419	346.00	581
82.00	682	162.00	343	238.00	101	347.00	137

Date : 21-NOV-2011 10:33

Client ID: DFTPP Instrument: nt6.i

Sample Info: DFTPP

Operator: JZ

Column phase: ZB-5msi Column diameter: 0.25

Data File: 11211101.D
Spectrum: Avg. Scans 2550-2552 (16,12), Background Scan 2544
Location of Maximum: 198.00
Number of points: 280

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	732	163.00	250	239.00	198	352.00	667
84.00	206	164.00	122	240.00	137	353.00	411
85.00	831	165.00	778	241.00	273	354.00	856
86.00	1238	166.00	625	242.00	645	355.00	63
87.00	620	167.00	4842	243.00	855	361.00	60
88.00	380	168.00	2522	244.00	12150	365.00	2644
91.00	903	169.00	234	245.00	1540	366.00	309
92.00	899	170.00	160	246.00	1829	367.00	53
93.00	4893	171.00	230	247.00	634	371.00	223
94.00	587	172.00	549	248.00	155	372.00	1237
96.00	538	173.00	547	249.00	366	373.00	364
98.00	3711	174.00	1118	252.00	135	383.00	302
99.00	3134	175.00	1713	253.00	327	384.00	61
100.00	339	176.00	567	254.00	100	390.00	302
101.00	2031	177.00	779	255.00	57104	391.00	132
102.00	193	178.00	375	256.00	8489	396.00	105
103.00	607	179.00	3638	257.00	524	401.00	53
104.00	1229	180.00	2591	258.00	2813	402.00	444
105.00	1267	181.00	1054	259.00	505	403.00	706
106.00	512	182.00	163	260.00	101	404.00	340
107.00	15445	183.00	282	261.00	133	421.00	635
108.00	2770	184.00	207	264.00	198	422.00	534
109.00	536	185.00	1634	265.00	1179	423.00	4546
110.00	30568	186.00	15553	266.00	210	424.00	1002
111.00	4526	187.00	3776	267.00	69	433.00	54
112.00	491	188.00	437	270.00	142	434.00	55
113.00	287	189.00	820	271.00	155	438.00	53
116.00	678	191.00	354	272.00	195	439.00	61
117.00	9419	192.00	985	273.00	1706	441.00	12846
118.00	919	193.00	1378	274.00	5101	442.00	89112
119.00	159	194.00	437	275.00	26368	443.00	17480
120.00	207	195.00	335	276.00	3158	444.00	1821
122.00	603	196.00	3227	277.00	1933		
123.00	1060	198.00	116032	278.00	413		
124.00	633	199.00	7732	282.00	83		

Data File: /chem2/nt6.1/20111121.b/tune.b/11211101.D

Date : 21-NOV-2011 10:33

Client ID: DFTPP

Instrument: nt6.1

Sample Info: DFTPP

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: 11211101.D
Spectrum: Avg. Scans 2550-2552 (16,12), Background Scan 2544
Location of Maximum: 198.00
Number of points: 280

m/z	Y	m/z	Y	m/z	Y	m/z	Y
125.00	623	200.00	665	283.00	245		

Data File: /chem2/nt6.1/20111121.b/tune.b/11211101.D

Date : 21-NOV-2011 10:33

Client ID: DFTPP

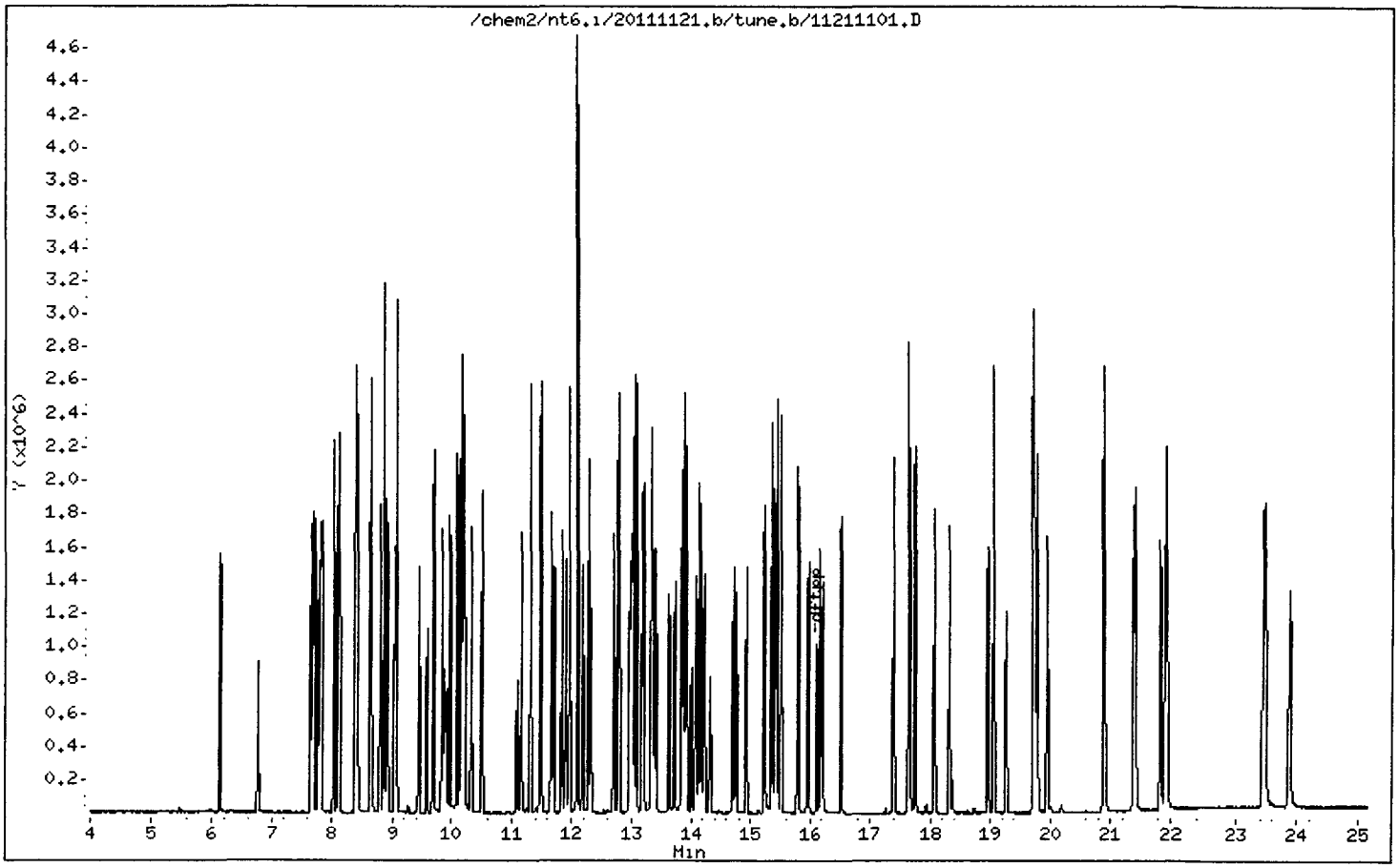
Instrument: nt6.1

Sample Info: DFTPP

Operator: JZ

Column phase: ZB-5ms1

Column diameter: 0.25



TX57 : 60303

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem2/nt6.i/20111121.b/ddt.b/11211101.D ARI ID: DDT1121
Method: /chem2/nt6.i/20111121.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 21-NOV-2011 10:33 Instrument: nt6.i

COMPOUND	RT	AREA
Pentachlorophenol	15.229	330662
Benzidine	17.644	1356883
4,4'-DDE	----	----
4,4'-DDD	18.632	4338
4,4'-DDT	19.049	771242

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

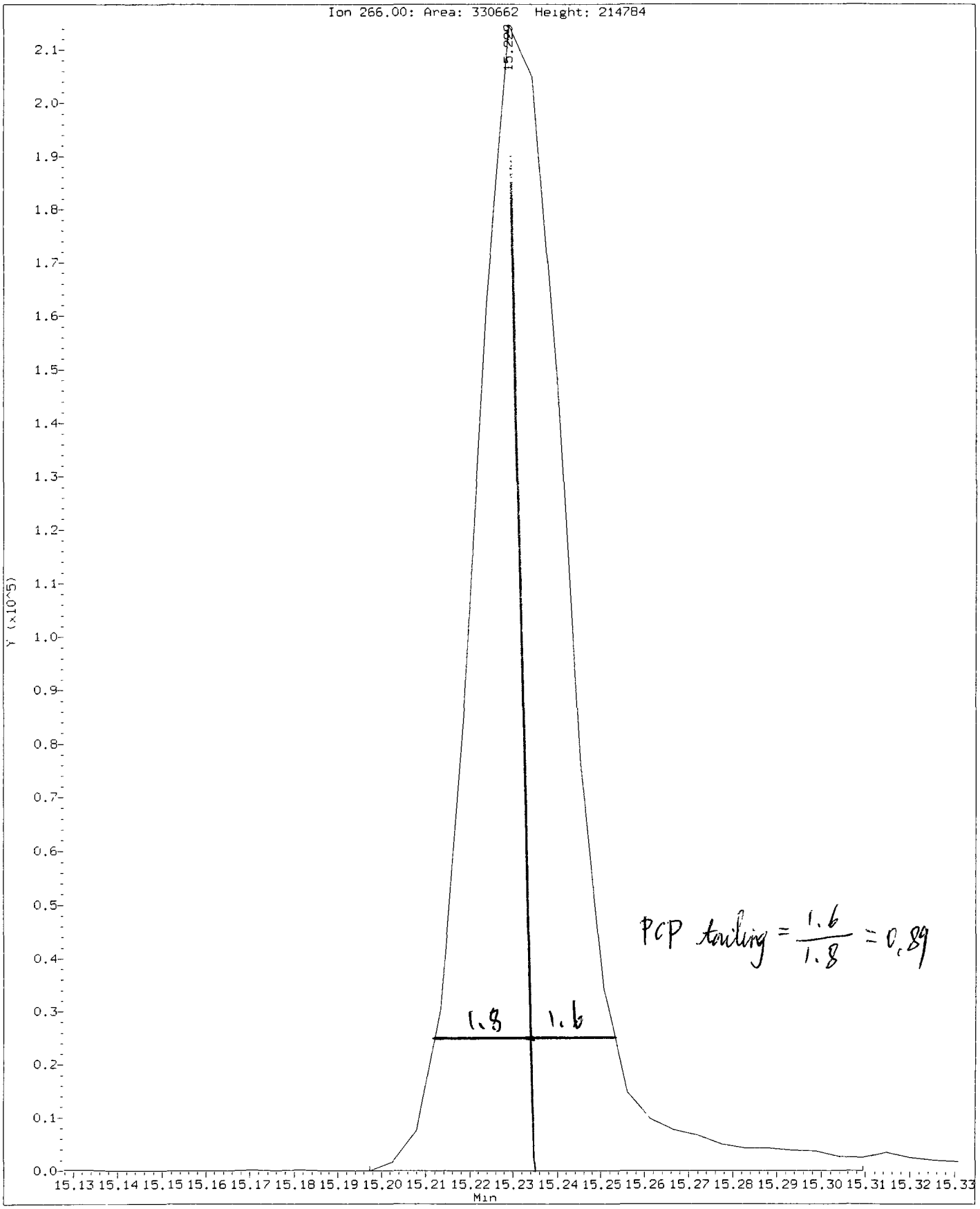
$$\text{DDT Percent Breakdown} = \frac{(\ 0 + 4338) * 100}{(\ 0 + 4338 + 771242)}$$

DDT Percent Breakdown = 0.6 %

OB 11/29/11

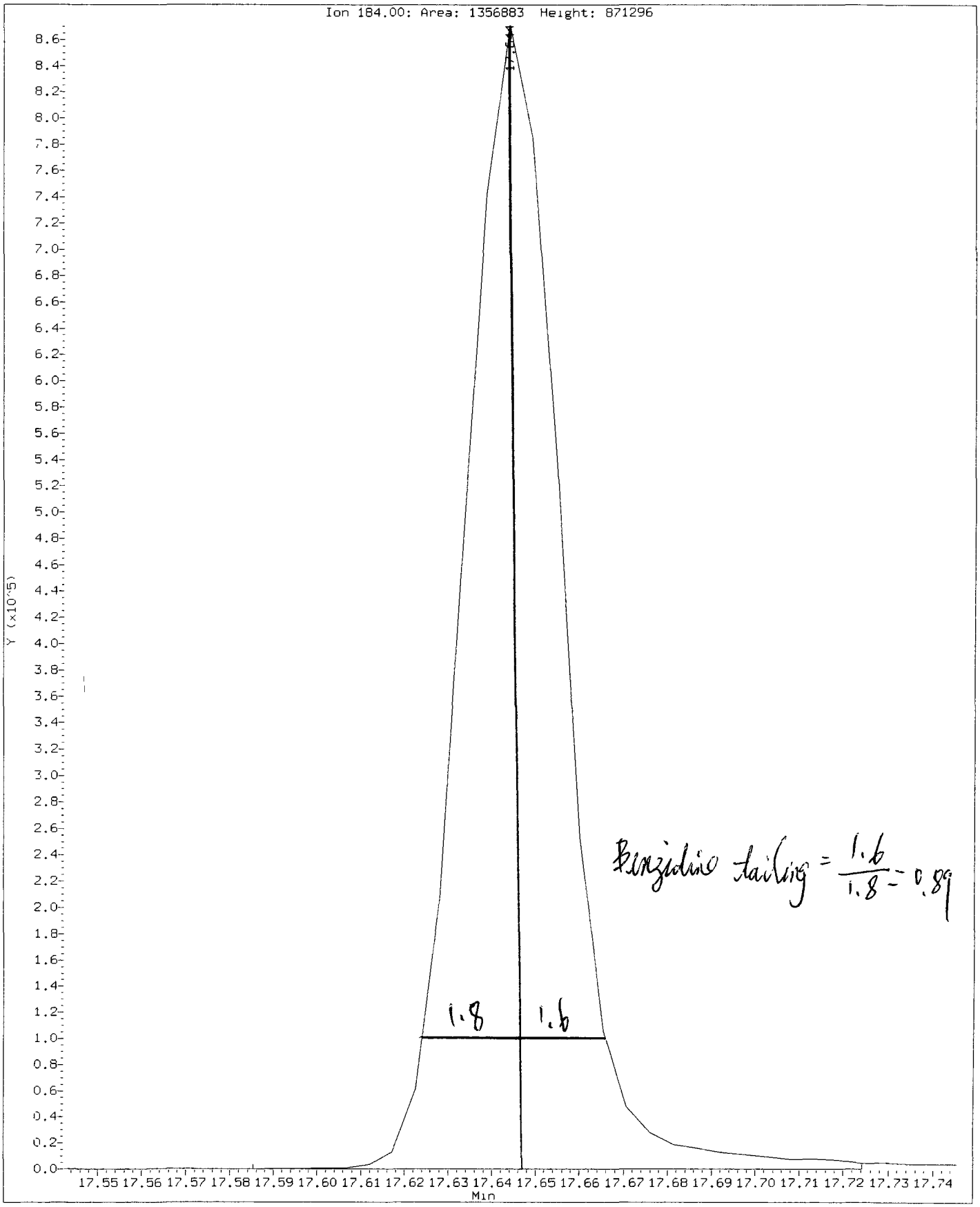
Data File: /chem2/nt6.1/20111121.b/ddt.b/11211101.D
Injection Date: 21-NOV-2011 10:33
Instrument: nt6.1
Client Sample ID: DDT1121

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem2/nt6.i/20111121.b/ddt.b/11211101.D
Injection Date: 21-NOV-2011 10:33
Instrument: nt6.i
Client Sample ID: DDT1121

Compound: Benzidine
CAS Number:



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20111121.b/11211102.D
Lab Smp Id: IC11121 Client Smp ID: IC11121
Inj Date : 21-NOV-2011 11:24
Operator : JZ Inst ID: nt6.i
Smp Info : IC11121,
Misc Info : 11-
Comment : 1ul Injection
Method : /chem2/nt6.i/20111121.b/SW846112111.m
Meth Date : 28-Nov-2011 10:58 jianqing Quant Type: ISTD
Cal Date : 21-NOV-2011 11:24 Cal File: 11211102.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

JZ 11/28/11

AMOUNTS

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.131	6.142	(0.758)	40978	1.00000	1.000
$	2	Phenol-d5	99	7.675	7.691	(0.948)	52926	1.00000	1.000
	3	Phenol	94	7.696	7.709	(0.951)	53843	1.00000	1.000
$	5	2-Chlorophenol-d4	132	7.798	7.808	(0.964)	40601	1.00000	1.000
	4	Bis(2-Chloroethyl)ether	93	7.760	7.774	(0.959)	41613	1.00000	1.000
	6	2-Chlorophenol	128	7.819	7.832	(0.966)	44080	1.00000	1.000
	7	1,3-Dichlorobenzene	146	8.033	8.041	(0.993)	48097	1.00000	1.000
*	8	1,4-Dichlorobenzene-d4	152	8.092	8.099	(1.000)	526180	20.0000	
	9	1,4-Dichlorobenzene	146	8.118	8.126	(1.003)	48239	1.00000	1.000
$	10	1,2-Dichlorobenzene-d4	152	8.396	8.401	(1.038)	29573	1.00000	1.000
	12	1,2-Dichlorobenzene	146	8.418	8.425	(1.040)	46335	1.00000	1.000
	11	Benzyl alcohol	108	8.380	8.399	(1.036)	23407	1.00000	1.000
	14	2,2'-oxybis(1-Chloropropane)	45	8.642	8.650	(1.068)	35251	1.00000	1.000
	13	2-Methylphenol	108	8.626	8.639	(1.066)	39154	1.00000	1.000
	17	Hexachloroethane	117	8.909	8.917	(1.101)	17935	1.00000	1.000
	16	N-Nitroso-di-n-propylamine	70	8.850	8.874	(1.094)	28680	1.00000	1.000
	15	4-Methylphenol	108	8.856	8.874	(1.094)	41229	1.00000	1.000
$	18	Nitrobenzene-d5	82	9.027	9.037	(0.889)	41369	1.00000	1.000
	19	Nitrobenzene	77	9.059	9.072	(0.892)	44069	1.00000	1.000
	20	Isophorone	82	9.438	9.456	(0.930)	65147	1.00000	1.000
	21	2-Nitrophenol	139	9.577	9.590	(0.943)	19006	1.00000	1.000
	22	2,4-Dimethylphenol	107	9.694	9.713	(0.955)	39887	1.00000	1.000
	23	Bis(2-Chloroethoxy)methane	93	9.839	9.852	(0.969)	47130	1.00000	1.000
	25	2,4-Dichlorophenol	162	9.972	9.985	(0.982)	31784	1.00000	1.000
	26	1,2,4-Trichlorobenzene	180	10.095	10.103	(0.994)	36823	1.00000	1.000
*	27	Naphthalene-d8	136	10.154	10.162	(1.000)	1999855	20.0000	
	28	Naphthalene	128	10.180	10.194	(1.003)	117818	1.00000	1.000

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	29 4-Chloroaniline	127	10.325	10.338	(1.017)	45432	1.00000	1.000
	30 Hexachlorobutadiene	225	10.506	10.509	(1.035)	19286	1.00000	1.000
	31 4-Chloro-3-methylphenol	107	11.153	11.160	(1.098)	30678	1.00000	1.000
	32 2-Methylnaphthalene	141	11.308	11.315	(1.114)	62104	1.00000	1.000
	33 Hexachlorocyclopentadiene	237	11.692	11.700	(0.897)	13465	1.00000	1.000
	34 2,4,6-Trichlorophenol	196	11.831	11.839	(0.908)	18021	1.00000	1.000
	35 2,4,5-Trichlorophenol	196	11.895	11.898	(0.913)	18583	1.00000	1.000
$	36 2-Fluorobiphenyl	172	11.954	11.964	(0.918)	83533	1.00000	1.000
	37 2-Chloronaphthalene	162	12.088	12.101	(0.928)	73289	1.00000	1.000
	38 2-Nitroaniline	65	12.323	12.336	(0.946)	13938	1.00000	1.000
	39 Dimethylphthalate	163	12.697	12.710	(0.975)	74501	1.00000	1.000
	40 Acenaphthylene	152	12.771	12.779	(0.980)	100602	1.00000	1.000
	41 2,6-Dinitrotoluene	165	12.793	12.806	(0.982)	13189	1.00000	1.000
*	42 Acenaphthene-d10	164	13.028	13.030	(1.000)	1126450	20.0000	
	43 3-Nitroaniline	138	13.001	13.020	(0.998)	16496	1.00000	1.000
	44 Acenaphthene	153	13.076	13.084	(1.004)	68326	1.00000	1.000
	46 Dibenzofuran	168	13.338	13.351	(1.024)	95985	1.00000	1.000
	47 4-Nitrophenol	109	13.332	13.335	(1.023)	3702	1.00000	1.000 (M)
	48 2,4-Dinitrotoluene	165	13.423	13.431	(1.030)	17484	1.00000	1.000
	50 Diethylphthalate	149	13.856	13.869	(1.064)	71137	1.00000	1.000
	49 Fluorene	166	13.899	13.906	(1.067)	75821	1.00000	1.000
	51 4-Chlorophenyl-phenylether	204	13.925	13.933	(1.069)	37614	1.00000	1.000
	52 4-Nitroaniline	138	13.995	14.024	(1.074)	13504	1.00000	1.000
	54 N-Nitrosodiphenylamine	169	14.128	14.141	(0.917)	53892	1.00000	1.000
$	55 2,4,6-Tribromophenol	330	14.321	14.331	(1.099)	7483	1.00000	1.000
	56 4-Bromophenyl-phenylether	248	14.705	14.713	(0.954)	19501	1.00000	1.000
	57 Hexachlorobenzene	284	14.930	14.937	(0.969)	20436	1.00000	1.000
*	59 Phenanthrene-d10	188	15.410	15.418	(1.000)	1546349	20.0000	
	60 Phenanthrene	178	15.448	15.456	(1.002)	100978	1.00000	1.000
	61 Anthracene	178	15.517	15.530	(1.007)	97605	1.00000	1.000
	62 Carbazole	167	15.800	15.813	(1.025)	86757	1.00000	1.000
	63 Di-n-butylphthalate	149	16.522	16.529	(1.072)	94337	1.00000	1.000
	64 Fluoranthene	202	17.392	17.400	(1.129)	84940	1.00000	1.000
	65 Pyrene	202	17.750	17.758	(0.899)	92228	1.00000	1.000
$	66 Terphenyl-d14	244	18.065	18.071	(0.915)	66223	1.00000	1.000
	67 Butylbenzylphthalate	149	18.952	18.955	(0.960)	29506	1.00000	1.000
	68 Benzo(a)anthracene	228	19.716	19.724	(0.999)	63493	1.00000	1.000
*	69 Chrysene-d12	240	19.743	19.751	(1.000)	1215863	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.727	19.729	(0.999)	19581	1.00000	1.000
	71 Chrysene	228	19.780	19.793	(1.002)	70665	1.00000	1.000
	72 bis(2-Ethylhexyl)phthalate	149	19.946	19.948	(0.955)	44518	1.00000	1.000
*	134 Di-n-octylphthalate-d4	153	20.881	20.883	(1.000)	1447686	20.0000	
	73 Di-n-octylphthalate	149	20.891	20.894	(1.000)	86281	1.00000	1.000
	74 Benzo(b)fluoranthene	252	21.372	21.391	(0.976)	54140	1.00000	1.000
	75 Benzo(k)fluoranthene	252	21.404	21.423	(0.977)	65585	1.00000	1.000
	187 Total Benzofluoranthenes	252	21.404	21.423	(0.977)	113774	2.00000	2.000 (M)
	76 Benzo(a)pyrene	252	21.826	21.839	(0.996)	48186	1.00000	1.000

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
*	77 Perylene-d12	264	21.906	21.914	(1.000)	1040138	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	23.450	23.474	(1.070)	64972	1.00000	1.000
	79 Dibenzo(a,h)anthracene	278	23.477	23.495	(1.072)	52837	1.00000	1.000
	80 Benzo(g,h,i)perylene	276	23.872	23.907	(1.090)	56897	1.00000	1.000
	90 N-Nitrosodimethylamine	74	3.391	3.446	(0.419)	25062	1.00000	1.000
	103 Pyridine	79	3.401	3.393	(0.420)	41157	1.00000	1.000
	91 Aniline	93	7.643	7.656	(0.945)	60285	1.00000	1.000
	105 1-methylnaphthalene	141	11.484	11.492	(1.131)	59945	1.00000	1.000
	111 Azobenzene (1,2-DP-Hydrazine)	77	14.171	14.184	(1.088)	77277	1.00000	1.000
	143 1,4-Dioxane	88	2.707	2.720	(0.334)	16426	1.00000	1.000
$	137 d8-1,4-Dioxane	96	2.648	2.672	(0.327)	16840	1.00000	1.000
	144 alpha-Terpineol	59	10.207	10.220	(1.005)	21508	1.00000	1.000
	177 p-Benzoquinone	82	6.767	6.780	(0.666)	6127	1.00000	1.000
	98 Retene	219	18.311	18.319	(0.927)	31482	1.00000	1.000
	99 Perylene	252	21.938	21.957	(1.001)	66865	1.00000	1.000
	133 Butylatedhydroxytoluene	205	13.199	13.207	(1.013)	55337	1.00000	1.000
	115 Tributyl Phosphate	99	14.219	14.238	(0.923)	74104	1.00000	1.000
	116 Dibutyl Phenyl Phosphate	175	15.966	15.974	(1.036)	40058	1.00000	1.000
	117 Butyl Diphenyl Phosphate	94	17.654	17.662	(0.894)	15916	1.00000	1.000
	118 Triphenyl Phosphate	326	19.262	19.270	(0.976)	10948	1.00000	1.000
	123 Acetophenone	105	8.791	8.805	(1.086)	53205	1.00000	1.000
	168 Pentachlorobenzene	250	13.380	13.393	(1.027)	27463	1.00000	1.000
	113 Diphenyl Oxide	170	12.285	12.293	(0.943)	50172	1.00000	1.000
	112 Biphenyl	154	12.093	12.101	(0.928)	85186	1.00000	1.000
	120 2,3,4,6-Tetrachlorophenol	232	13.626	13.634	(1.046)	11305	1.00000	1.000
	151 1,2,4,5-Tetrachlorobenzene	216	11.649	11.657	(0.894)	29833	1.00000	1.000
	110 Tetrachloroguaiacol	247	15.357	15.370	(0.997)	15105	2.00000	2.000
	109 3,4,5-Trichloroguaiacol	213	13.722	13.730	(0.890)	10277	1.00000	1.000
	181 3,4,6-Trichloroguaiacol	211	13.845	13.853	(1.711)	10938	1.00000	1.000
	108 4,5,6-Trichloroguaiacol	213	14.759	14.766	(1.133)	8480	1.00000	1.000
	184 3,4-Dichloroguaiacol	192	12.178	12.186	(1.505)	12358	1.00000	1.000
	107 4,5-Dichloroguaiacol	192	12.958	12.971	(0.995)	28712	2.00000	2.000
	182 4,6-Dichloroguaiacol	192	12.958	12.971	(1.601)	28716	2.00000	2.000
	185 4-Chloroguaiacol	115	11.083	11.091	(1.370)	7400	0.50000	0.5000
	186 Carbaryl	144	16.212	16.230	(1.052)	38758	1.00000	1.000
	178 2-Benzyl-4-Chlorophenol	218	16.174	16.193	(1.050)	13717	1.00000	1.000(M)
	106 Guaiacol	124	9.059	9.072	(1.119)	32857	1.00000	1.000

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 11211102.D
Lab Smp Id: IC11121
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20111121.b/SW846112111.m
Misc Info: 11-

Calibration Date: 21-NOV-2011
Calibration Time: 17:37
Client Smp ID: IC11121
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	393702	196851	787404	526180	33.65
27 Naphthalene-d8	1422023	711012	2844046	1999855	40.63
42 Acenaphthene-d10	754629	377314	1509258	1126450	49.27
59 Phenanthrene-d10	1068116	534058	2136232	1546349	44.77
69 Chrysene-d12	993839	496920	1987678	1215863	22.34
134 Di-n-octylphthala	1256584	628292	2513168	1447686	15.21
77 Perylene-d12	976441	488220	1952882	1040138	6.52

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.10	7.60	8.60	8.09	-0.10
27 Naphthalene-d8	10.15	9.65	10.65	10.15	0.03
42 Acenaphthene-d10	13.03	12.53	13.53	13.03	-0.02
59 Phenanthrene-d10	15.41	14.91	15.91	15.41	-0.02
69 Chrysene-d12	19.75	19.25	20.25	19.74	-0.01
134 Di-n-octylphthala	20.88	20.38	21.38	20.88	-0.01
77 Perylene-d12	21.91	21.41	22.41	21.91	-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.

TX57 : 00316

Data File: /chem2/nt6.i/20111121.b/11211102.D

Date : 21-NOV-2011 11:24

Client ID: IC11121

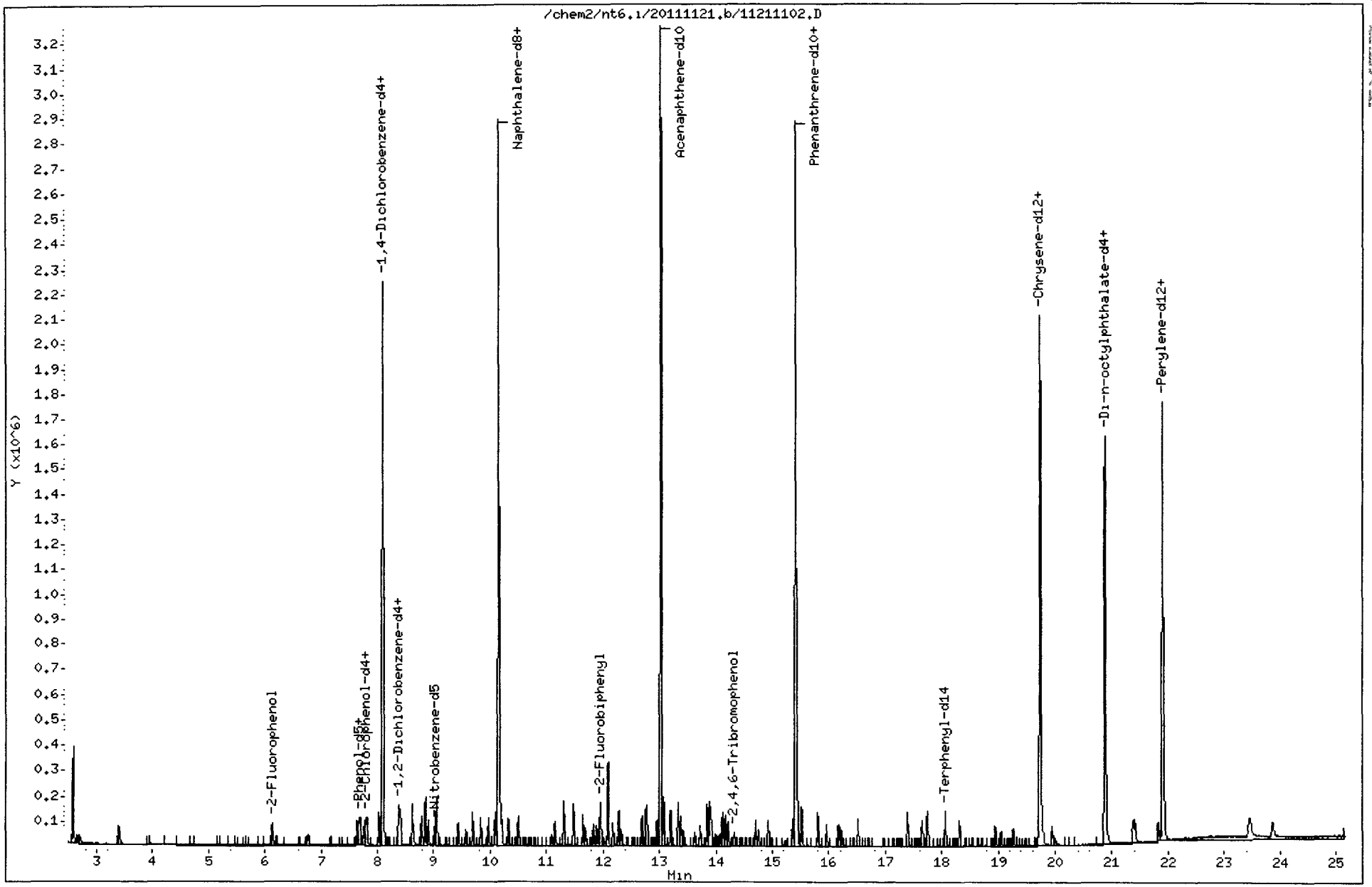
Sample Info: IC11121,

Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ

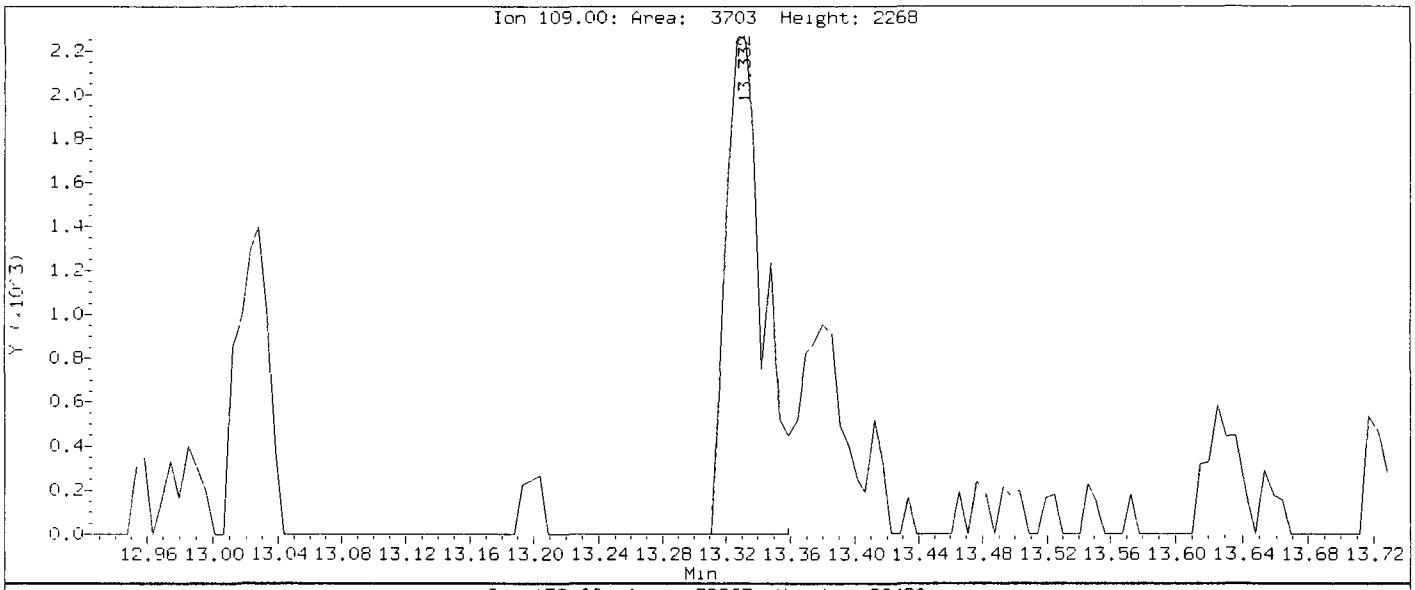
Column diameter: 0.32

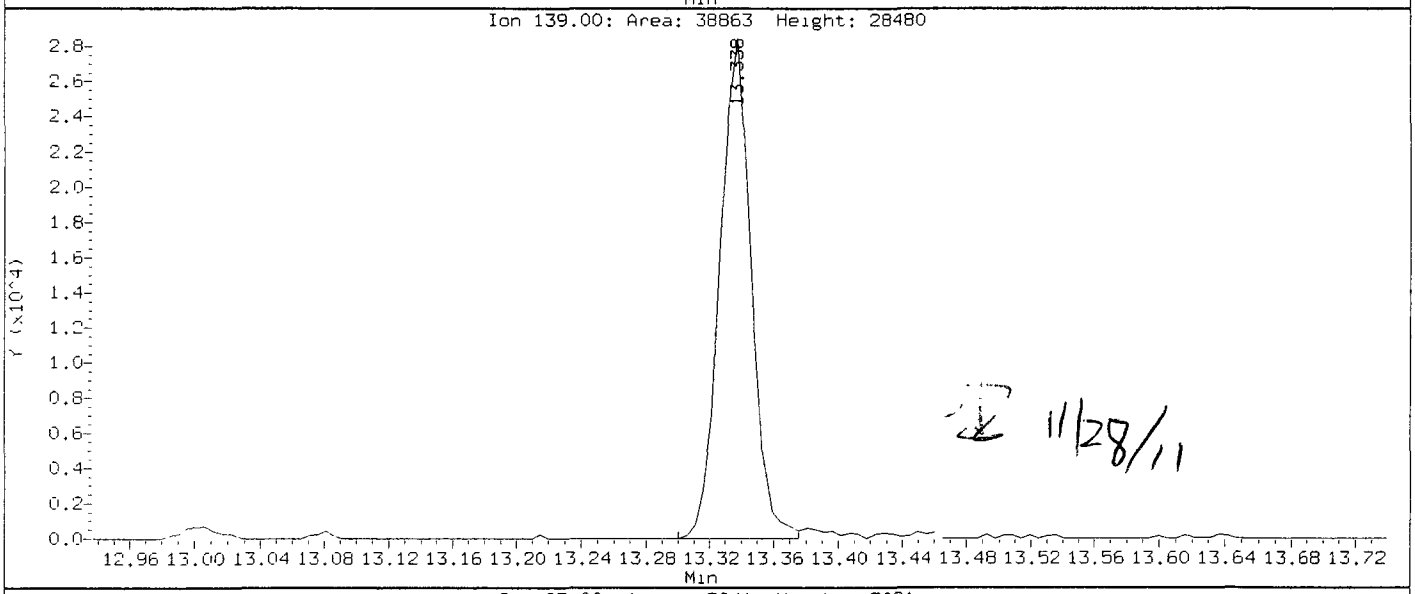


TX57.00311

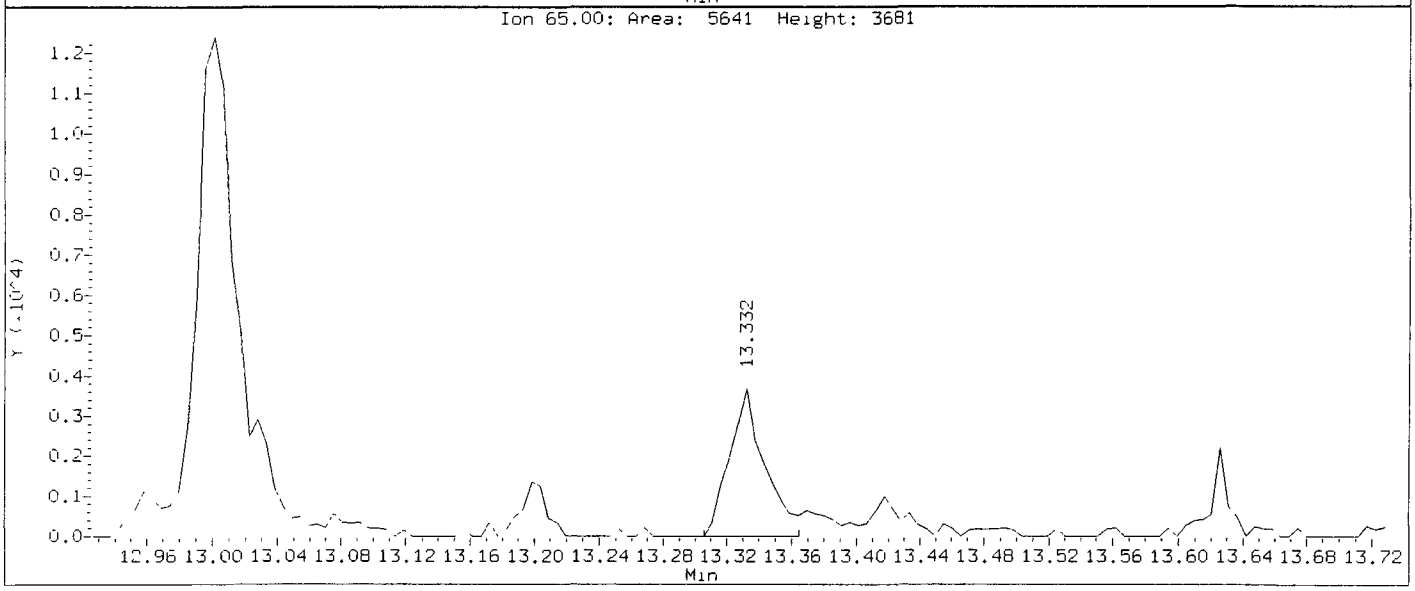
Data File: /chem2/nt6.i/20111121.b/11211102.D
Injection Date: 21-NOV-2011 11:24
Instrument: nt6.i
Client Sample ID: IC11121

Compound: 4-Nitrophenol
CAS Number: 100-02-7





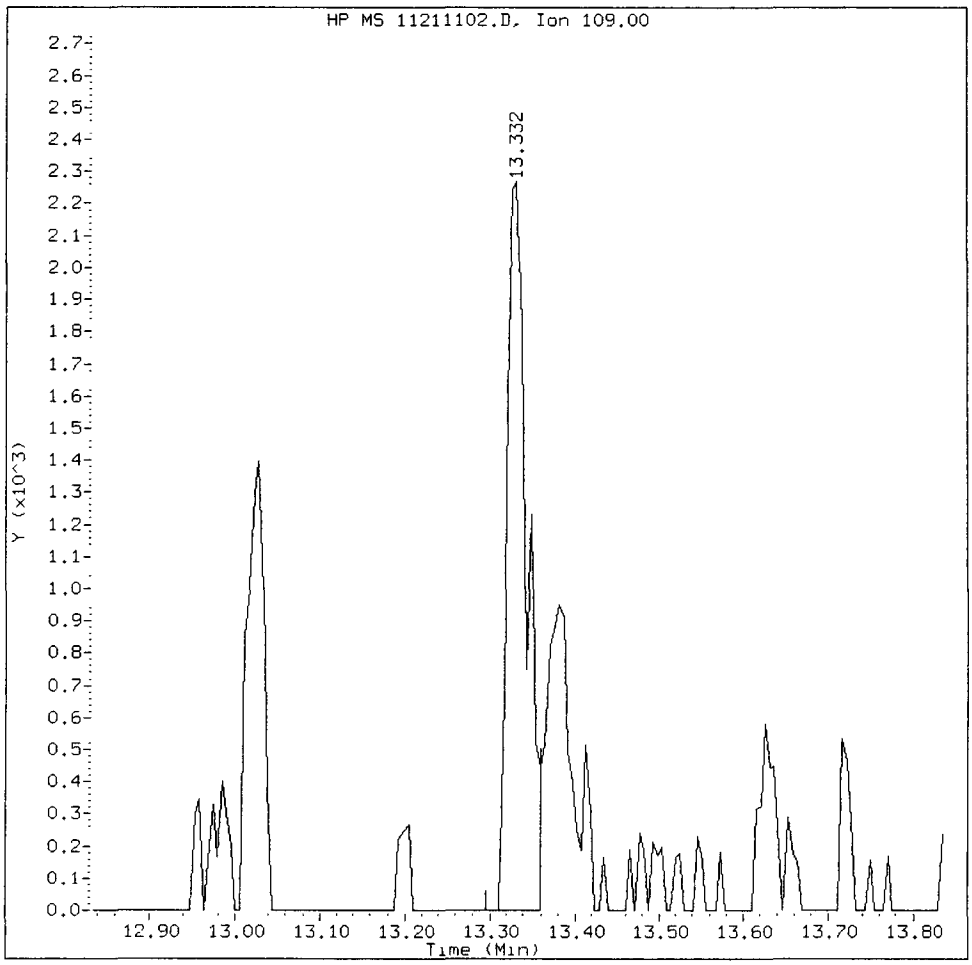
11/28/11



TX57 00312

IC11121, /chem2/nt6.i/20111121.b/11211102.D

4-Nitrophenol Amount: 1.00 Area: 3702



MANUAL INTEGRATION for 4-Nitrophenol

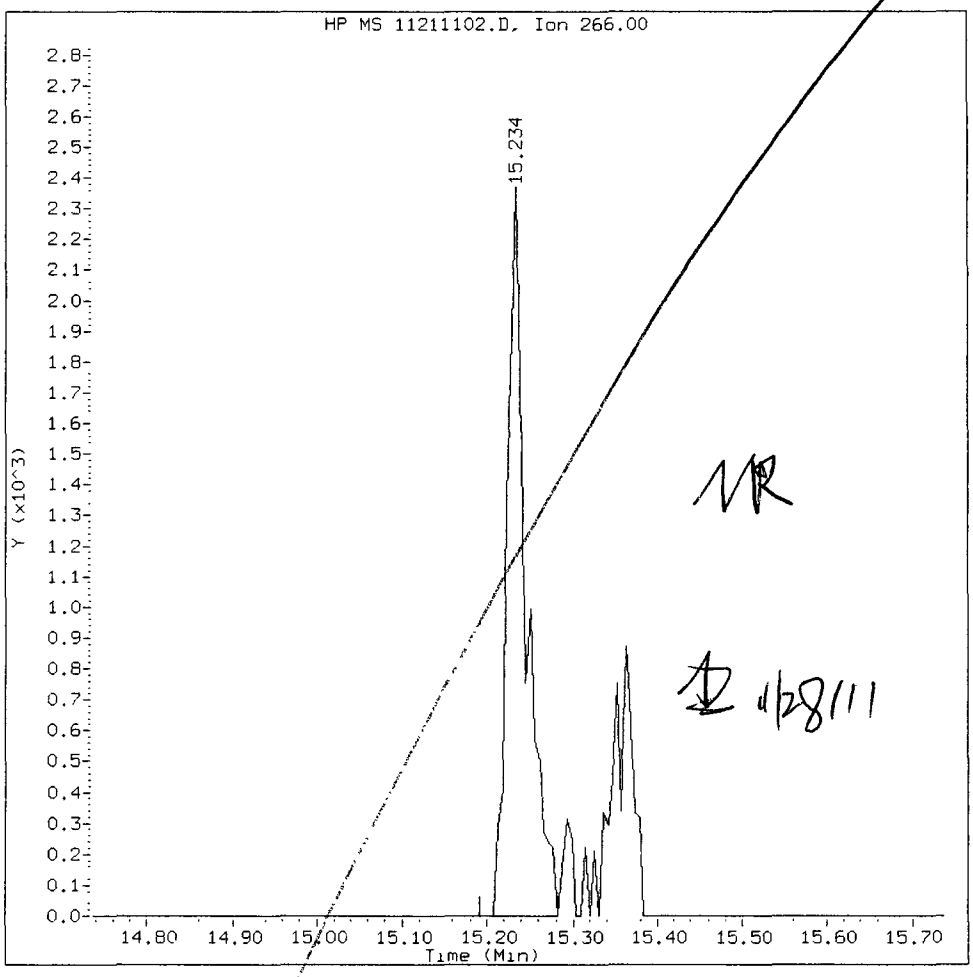
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 11/28/11

IC11121, /chem2/nt6.i/20111121.b/11211102.D

Pentachlorophenol Amount: 0.00 Area: 3652



MANUAL INTEGRATION for Pentachlorophenol

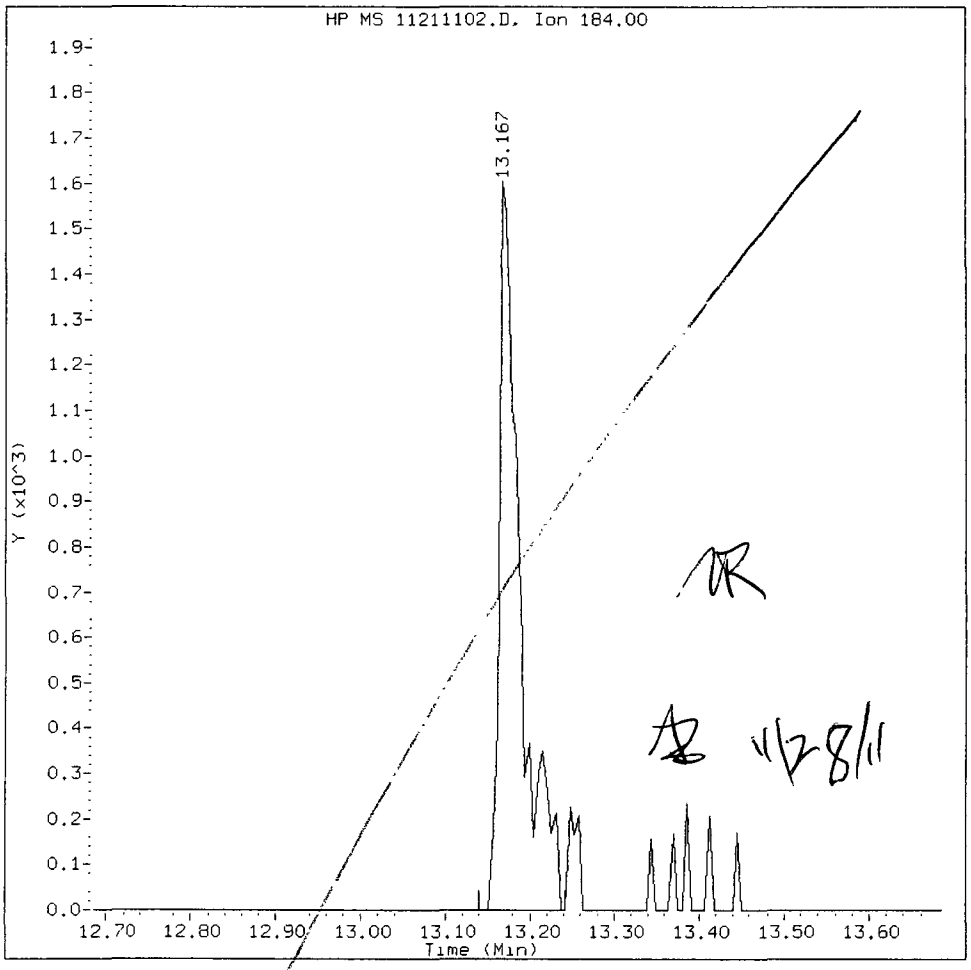
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

IC11121, /chem2/nt6.i/20111121.b/11211102.D

Benzidine Amount: 0.00 Area: 2781



MANUAL INTEGRATION for Benzidine

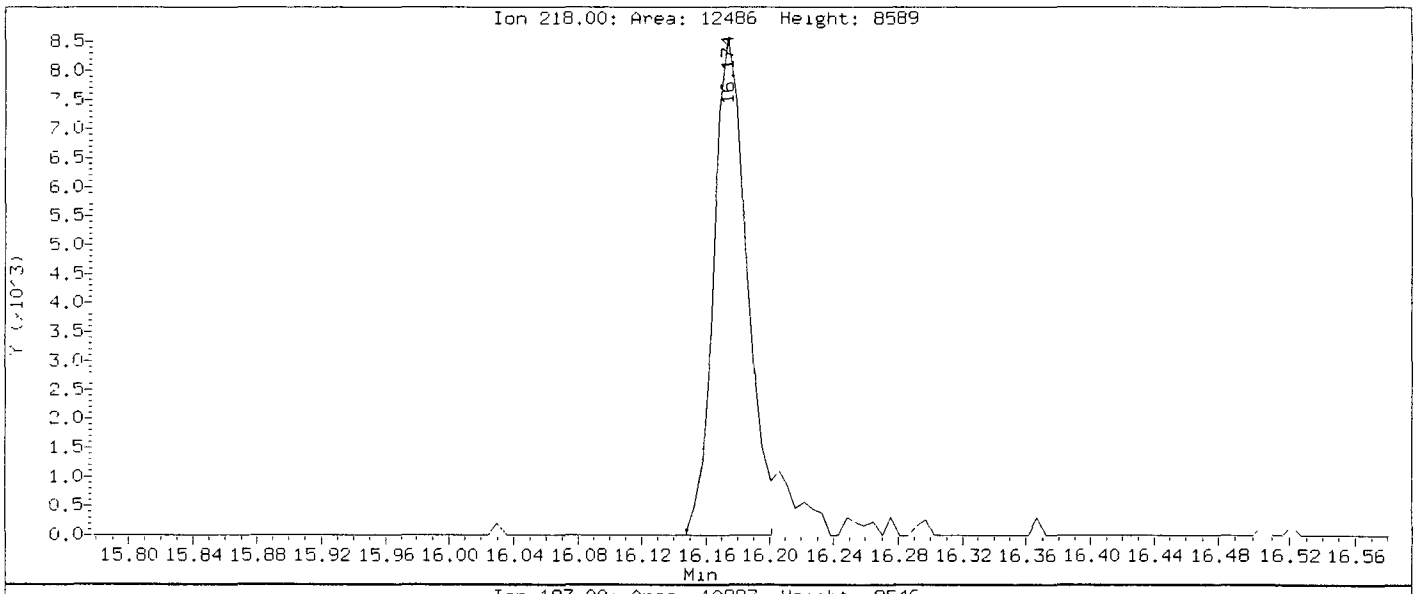
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

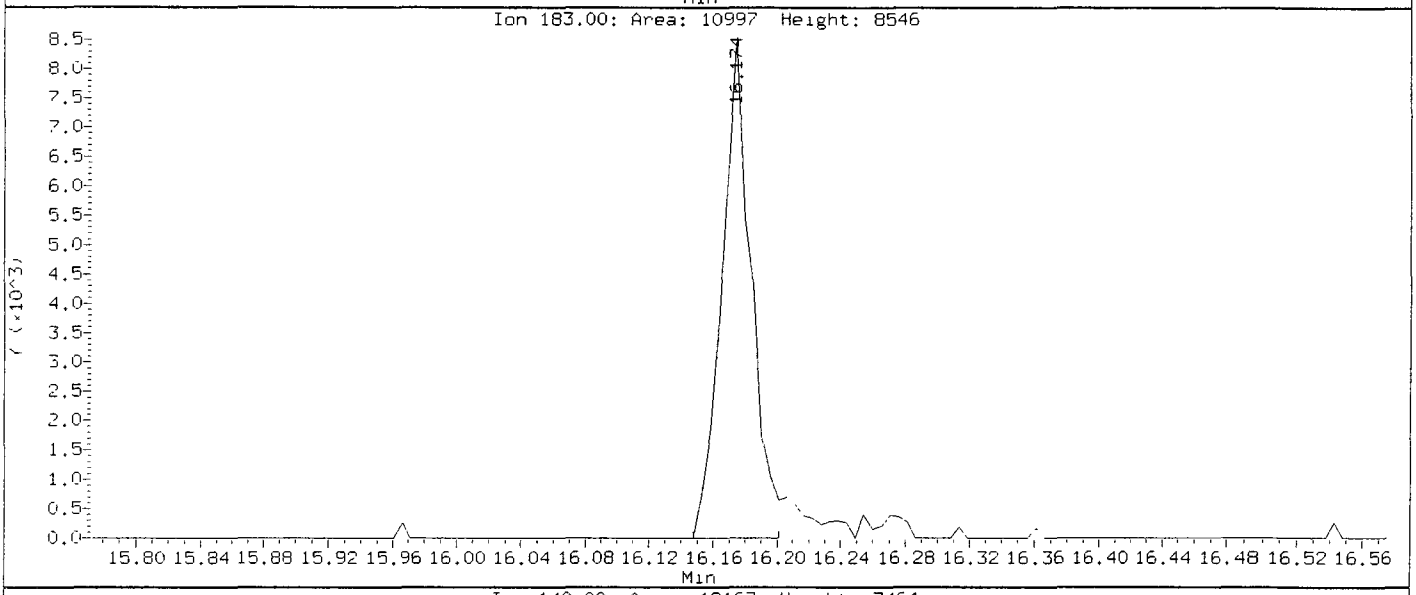
5. Other _____

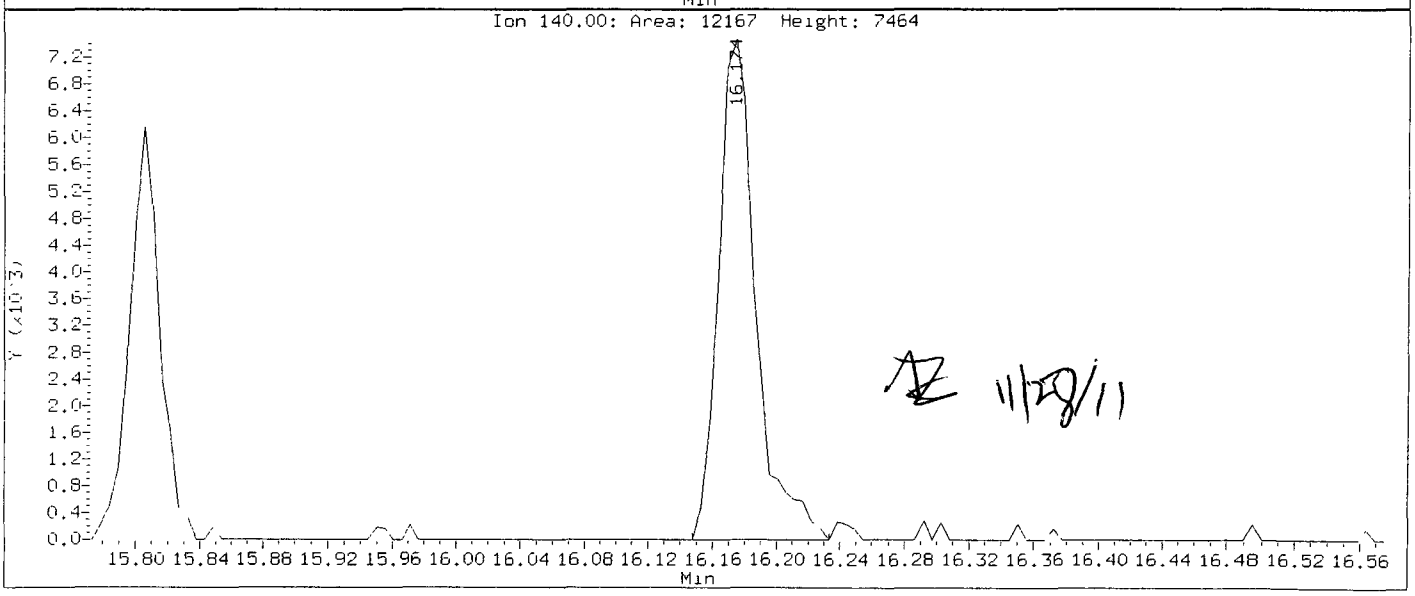
Analyst: _____ Date: _____

Data File: /chem2/nt6.1/20111121.b/11211102.D
Injection Date: 21-NOV-2011 11:24
Instrument: nt6.1
Client Sample ID: IC11121

Compound: 2-Benzyl-4-Chlorophenol
CAS Number:





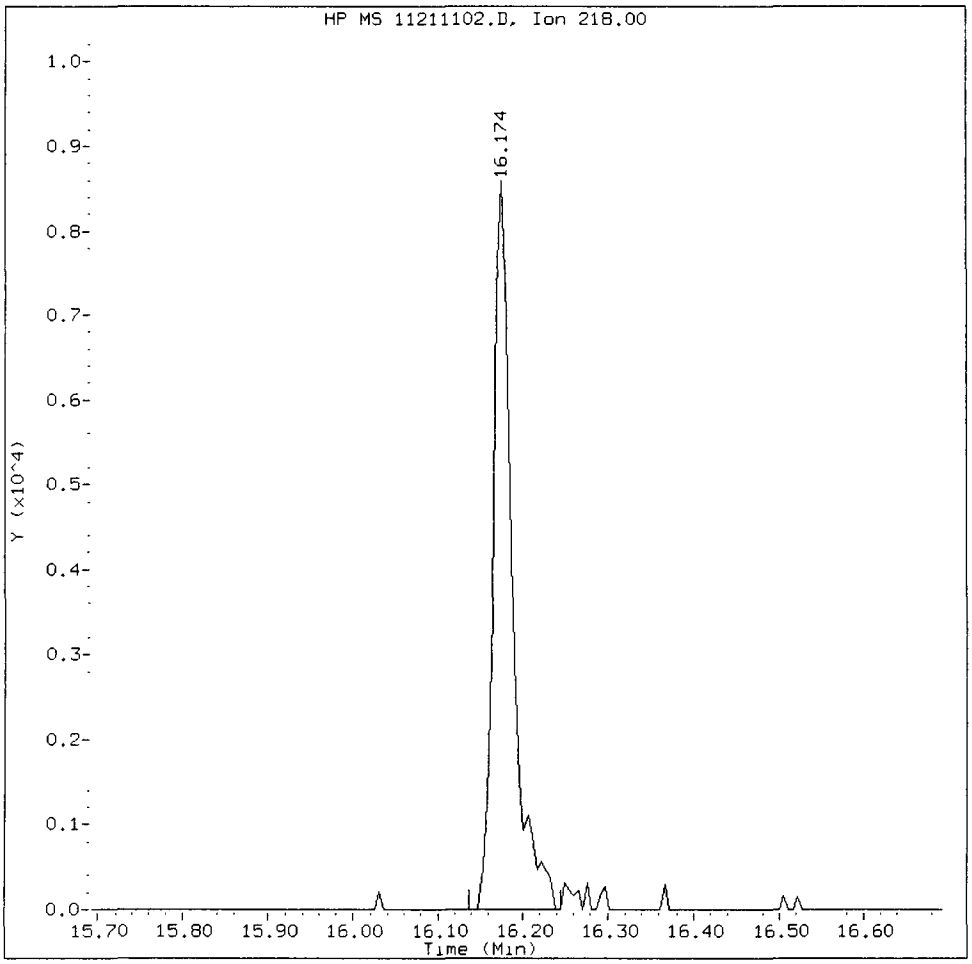


11/29/11

TX57 : 00316

IC11121, /chem2/nt6.i/20111121.b/11211102.D

2-Benzyl-4-Chlorophenol Amount: 1.00 Area: 13717



MANUAL INTEGRATION for 2-Benzyl-4-Chlorophenol

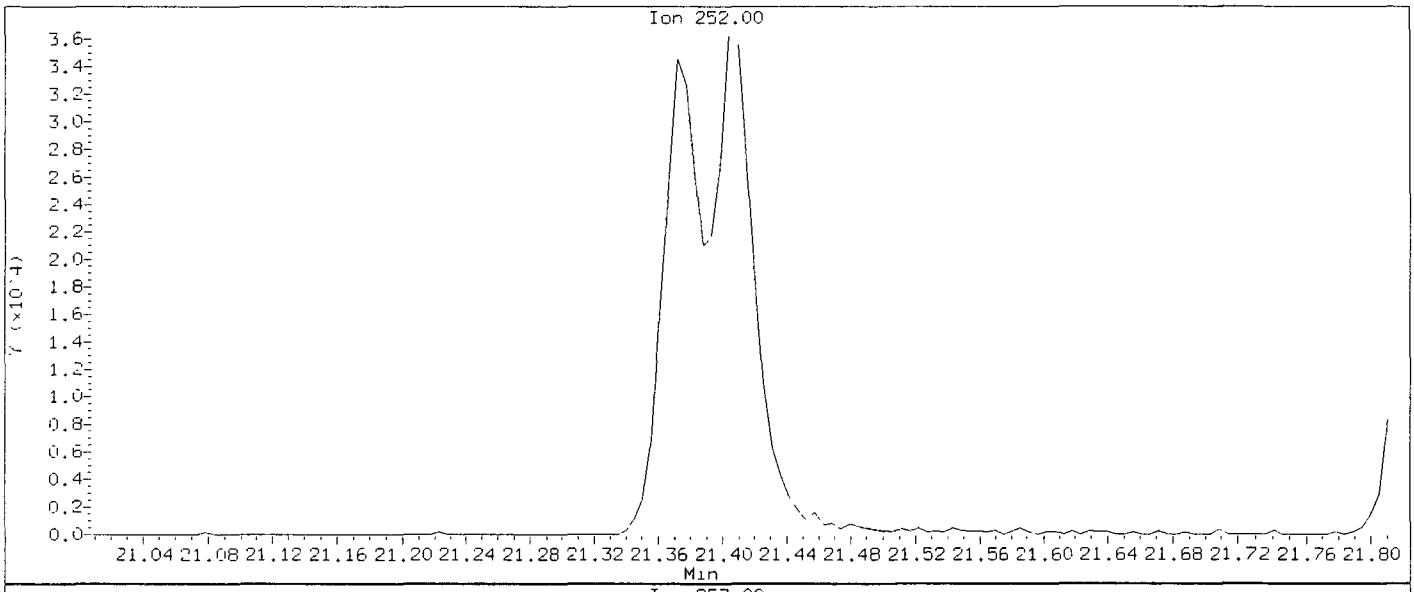
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

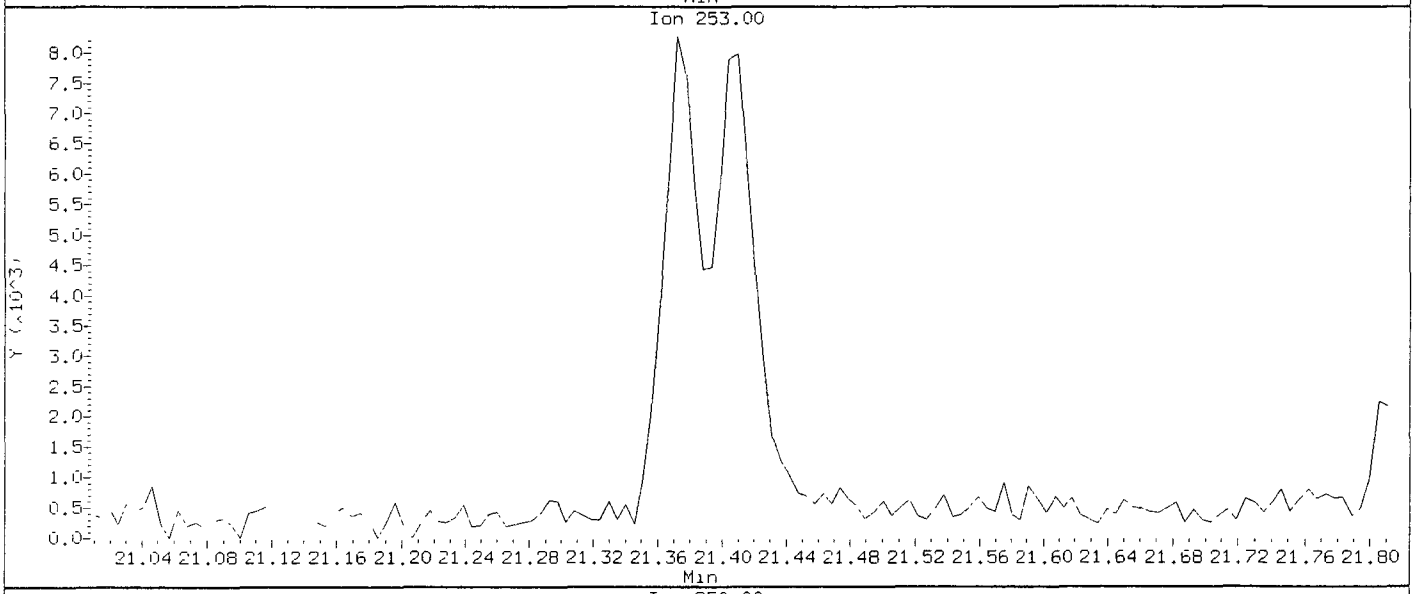
5. Other _____

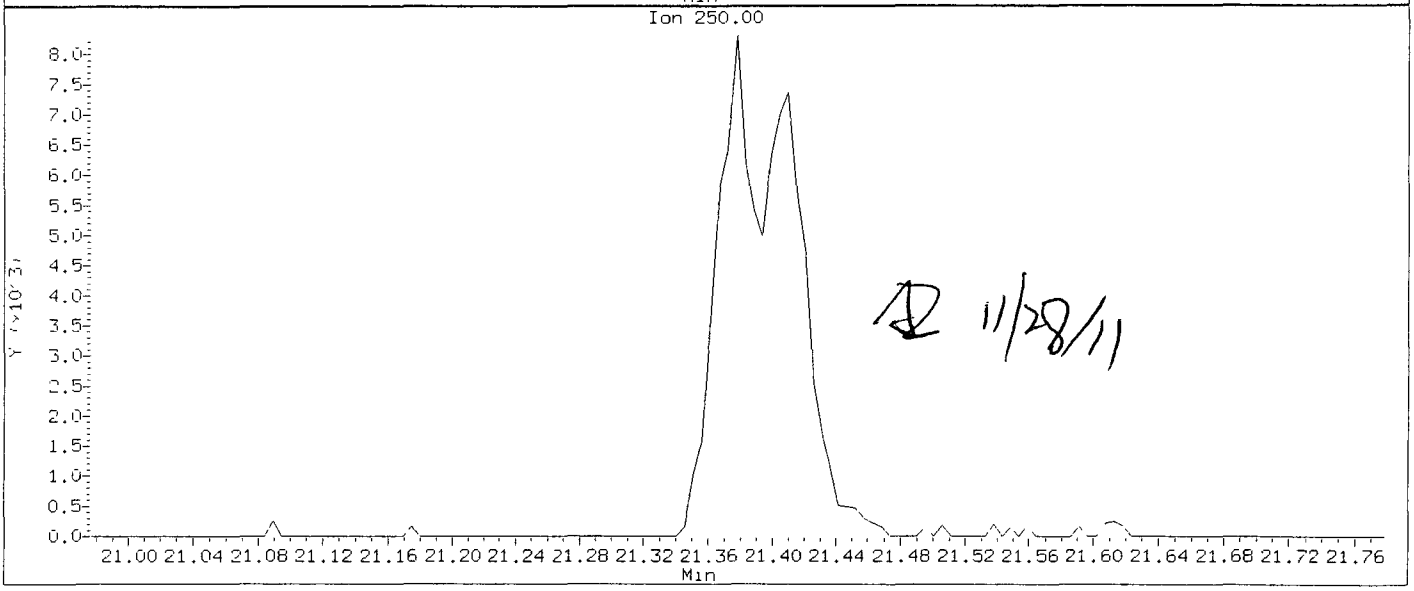
Analyst: _____ Date: 11/28/11

Data File: /chem2/nt6.i/20111121.b/11211102.D
Injection Date: 21-NOV-2011 11:24
Instrument: nt6.i
Client Sample ID: IC11121

Compound: Total Benzofluoranthenes
CAS Number:



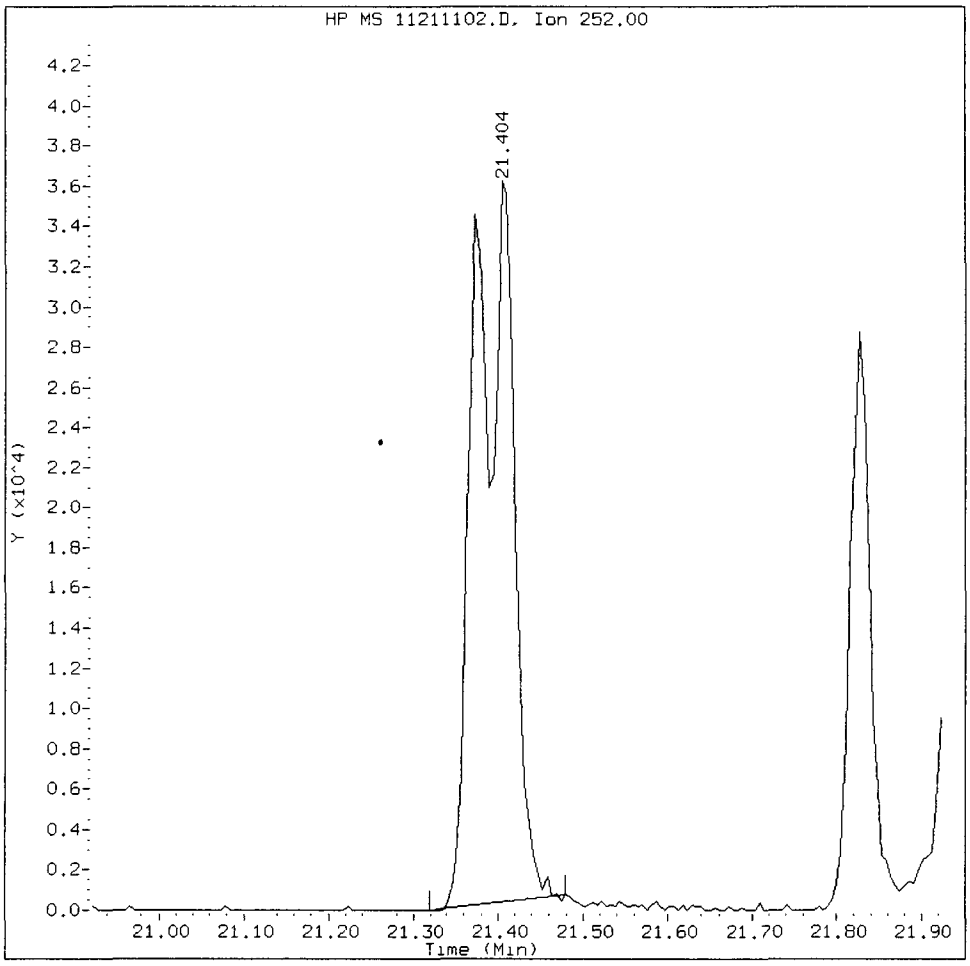




11/28/11

IC11121, /chem2/nt6.i/20111121.b/11211102.D

Total Benzofluoranthenes Amount: 2.00 Area: 113774



MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: [signature] Date: 11/28/11

CO-ELUTION SUMMARY FOR FILE - 11211102.D

Lab ID: IC11121, Method: SW846112111.m, Instrument: nt6.i, Date: 21-NOV-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20111121.b/11211103.D
Lab Smp Id: IC51121 Client Smp ID: IC51121
Inj Date : 21-NOV-2011 11:57
Operator : JZ Inst ID: nt6.i
Smp Info : IC51121,
Misc Info : 11-
Comment : 1ul Injection
Method : /chem2/nt6.i/20111121.b/SW846112111.m
Meth Date : 28-Nov-2011 10:58 jianqing Quant Type: ISTD
Cal Date : 21-NOV-2011 11:57 Cal File: 11211103.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

11/28/11

AMOUNTS

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.133	6.142	(0.758)	159495	5.00000	4.802
$	2	Phenol-d5	99	7.677	7.691	(0.948)	203926	5.00000	4.776
	3	Phenol	94	7.698	7.709	(0.951)	199031	5.00000	4.673
$	5	2-Chlorophenol-d4	132	7.800	7.808	(0.964)	154448	5.00000	4.744
	4	Bis(2-Chloroethyl)ether	93	7.762	7.774	(0.959)	148914	5.00000	4.592
	6	2-Chlorophenol	128	7.821	7.832	(0.966)	156106	5.00000	4.566
	7	1,3-Dichlorobenzene	146	8.035	8.041	(0.993)	173824	5.00000	4.617
*	8	1,4-Dichlorobenzene-d4	152	8.094	8.099	(1.000)	443459	20.0000	
	9	1,4-Dichlorobenzene	146	8.120	8.126	(1.003)	175260	5.00000	4.630
$	10	1,2-Dichlorobenzene-d4	152	8.398	8.401	(1.038)	110536	5.00000	4.701
	12	1,2-Dichlorobenzene	146	8.414	8.425	(1.040)	165909	5.00000	4.594
	11	Benzyl alcohol	108	8.377	8.399	(1.035)	94253	5.00000	4.886
	14	2,2'-oxybis(1-Chloropropane)	45	8.639	8.650	(1.067)	124488	5.00000	4.559
	13	2-Methylphenol	108	8.628	8.639	(1.066)	147087	5.00000	4.713
	17	Hexachloroethane	117	8.911	8.917	(1.101)	64842	5.00000	4.618
	16	N-Nitroso-di-n-propylamine	70	8.852	8.874	(1.094)	105281	5.00000	4.656
	15	4-Methylphenol	108	8.858	8.874	(1.094)	150295	5.00000	4.638
$	18	Nitrobenzene-d5	82	9.029	9.037	(0.889)	165176	5.00000	4.891
	19	Nitrobenzene	77	9.055	9.072	(0.892)	157587	5.00000	4.616
	20	Isophorone	82	9.440	9.456	(0.930)	236757	5.00000	4.656
	21	2-Nitrophenol	139	9.579	9.590	(0.944)	75485	5.00000	4.877
	22	2,4-Dimethylphenol	107	9.696	9.713	(0.955)	147003	5.00000	4.691
	23	Bis(2-Chloroethoxy)methane	93	9.835	9.852	(0.969)	175574	5.00000	4.718
	24	Benzoic acid	105	9.851	10.017	(0.971)	99712	10.0000	10.00
	25	2,4-Dichlorophenol	162	9.969	9.985	(0.982)	122216	5.00000	4.797
	26	1,2,4-Trichlorobenzene	180	10.092	10.103	(0.994)	129250	5.00000	4.570
*	27	Naphthalene-d8	136	10.150	10.162	(1.000)	1668435	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	28 Naphthalene	128	10.182	10.194	(1.003)	422886	5.00000	4.625
	29 4-Chloroaniline	127	10.327	10.338	(1.017)	173909	5.00000	4.785
	30 Hexachlorobutadiene	225	10.508	10.509	(1.035)	68959	5.00000	4.615
	31 4-Chloro-3-methylphenol	107	11.149	11.160	(1.098)	119936	5.00000	4.838
	32 2-Methylnaphthalene	141	11.310	11.315	(1.114)	221381	5.00000	4.608
	33 Hexachlorocyclopentadiene	237	11.694	11.700	(0.898)	60255	5.00000	5.170
	34 2,4,6-Trichlorophenol	196	11.828	11.839	(0.908)	73369	5.00000	4.934
	35 2,4,5-Trichlorophenol	196	11.892	11.898	(0.913)	75235	5.00000	4.920
$	36 2-Fluorobiphenyl	172	11.956	11.964	(0.918)	306547	5.00000	4.675
	37 2-Chloronaphthalene	162	12.090	12.101	(0.928)	255620	5.00000	4.548
	38 2-Nitroaniline	65	12.325	12.336	(0.946)	62591	5.00000	5.179
	39 Dimethylphthalate	163	12.699	12.710	(0.975)	264604	5.00000	4.593
	40 Acenaphthylene	152	12.768	12.779	(0.980)	379090	5.00000	4.741
	41 2,6-Dinitrotoluene	165	12.789	12.806	(0.982)	58422	5.00000	5.145
*	42 Acenaphthene-d10	164	13.024	13.030	(1.000)	941839	20.0000	
	43 3-Nitroaniline	138	12.998	13.020	(0.998)	65899	5.00000	4.886 (M)
	44 Acenaphthene	153	13.073	13.084	(1.004)	238208	5.00000	4.547
	45 2,4-Dinitrophenol	184	13.169	13.185	(1.011)	28399	10.0000	10.00
	46 Dibenzofuran	168	13.334	13.351	(1.024)	346317	5.00000	4.632
	47 4-Nitrophenol	109	13.324	13.335	(1.023)	25684	5.00000	6.240
	48 2,4-Dinitrotoluene	165	13.420	13.431	(1.030)	74220	5.00000	5.038
	50 Diethylphthalate	149	13.853	13.869	(1.064)	256116	5.00000	4.627
	49 Fluorene	166	13.895	13.906	(1.067)	273720	5.00000	4.634
	51 4-Chlorophenyl-phenylether	204	13.922	13.933	(1.069)	129087	5.00000	4.508
	52 4-Nitroaniline	138	13 997	14.024	(1.075)	63064	5.00000	5.277
	53 4,6-Dinitro-2-methylphenol	198	14.072	14.093	(0.913)	70126	10.0000	10.00
	54 N-Nitrosodiphenylamine	169	14.125	14.141	(0.917)	200957	5.00000	4.616
$	55 2,4,6-Tribromophenol	330	14.323	14.331	(1.100)	30133	5.00000	4.906
	56 4-Bromophenyl-phenylether	248	14.707	14.713	(0.955)	68365	5.00000	4.463
	57 Hexachlorobenzene	284	14.926	14.937	(0.969)	74098	5.00000	4.547
	58 Pentachlorophenol	266	15.231	15.237	(0.989)	26723	5.00000	5.000 (M)
*	59 Phenanthrene-d10	188	15.407	15.418	(1.000)	1345056	20.0000	
	60 Phenanthrene	178	15.444	15.456	(1.002)	368739	5.00000	4.564
	61 Anthracene	178	15.519	15.530	(1.007)	375691	5.00000	4.695
	62 Carbazole	167	15.802	15.813	(1.026)	348959	5.00000	4.805
	63 Di-n-butylphthalate	149	16.518	16.529	(1.072)	388535	5.00000	4.864
	64 Fluoranthene	202	17.389	17.400	(1.129)	351824	5.00000	4.878
	65 Pyrene	202	17.747	17.758	(0.899)	374123	5.00000	4.432
$	66 Terphenyl-d14	244	18.062	18.071	(0.915)	241077	5.00000	4.166
	67 Butylbenzylphthalate	149	18.944	18.955	(0.960)	153763	5.00000	5.055
	68 Benzo(a)anthracene	228	19.713	19.724	(0.999)	290800	5.00000	4.733
*	69 Chrysene-d12	240	19.740	19.751	(1.000)	1239425	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.724	19.729	(0.999)	103517	5.00000	5.091
	71 Chrysene	228	19.777	19.793	(1.002)	294339	5.00000	4.497
	72 bis(2-Ethylhexyl)phthalate	149	19.948	19.948	(0.955)	208023	5.00000	4.667
*	134 Di-n-octylphthalate-d4	153	20.883	20.883	(1.000)	1546070	20.0000	
	73 Di-n-octylphthalate	149	20.888	20.894	(1.000)	371740	5.00000	4.466

TX57 . 00322

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.374	21.391	(0.976)	281640	5.00000	4.895
75	Benzo(k)fluoranthene	252	21.406	21.423	(0.977)	298555	5.00000	4.562
187	Total Benzofluoranthenes	252	21.374	21.423	(0.976)	554417	10.0000	9.463 (M)
76	Benzo(a)pyrene	252	21.823	21.839	(0.996)	248908	5.00000	4.877
* 77	Perylene-d12	264	21.903	21.914	(1.000)	1128675	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.452	23.474	(1.071)	310916	5.00000	4.687
79	Dibenzo(a,h)anthracene	278	23.474	23.495	(1.072)	258578	5.00000	4.742
80	Benzo(g,h,i)perylene	276	23.874	23.907	(1.090)	273284	5.00000	4.696
90	N-Nitrosodimethylamine	74	3.393	3.446	(0.419)	98209	5.00000	4.818
103	Pyridine	79	3.382	3.393	(0.418)	180834	5.00000	5.104
91	Aniline	93	7.645	7.656	(0.945)	231033	5.00000	4.763
105	1-methylnaphthalene	141	11.481	11.492	(1.131)	221407	5.00000	4.696
93	Benzidine	184	13.169	13.185	(0.667)	28399	5.00000	5.000
111	Azobenzene (1,2-DP-Hydrazine)	77	14.173	14.184	(1.088)	289869	5.00000	4.729
143	1,4-Dioxane	88	2.698	2.720	(0.333)	61351	5.00000	4.699
$ 137	d8-1,4-Dioxane	96	2.645	2.672	(0.327)	66290	5.00000	4.830
144	alpha-Terpineol	59	10.209	10.220	(1.006)	83026	5.00000	4.806
177	p-Benzoquinone	82	6.769	6.780	(0.667)	28462	5.00000	5.269
98	Retene	219	18.308	18.319	(0.927)	137861	5.00000	4.621
99	Perylene	252	21.941	21.957	(1.002)	317171	5.00000	4.665
133	Butylatedhydroxytoluene	205	13.201	13.207	(1.014)	201871	5.00000	4.660
115	Tributyl Phosphate	99	14.221	14.238	(0.923)	306835	5.00000	4.877
116	Dibutyl Phenyl Phosphate	175	15.963	15.974	(1.036)	183813	5.00000	5.134
117	Butyl Diphenyl Phosphate	94	17.656	17.662	(0.894)	75399	5.00000	4.817
118	Triphenyl Phosphate	326	19.259	19.270	(0.976)	51916	5.00000	4.820
123	Acetophenone	105	8.794	8.805	(1.086)	186849	5.00000	4.546
168	Pentachlorobenzene	250	13.377	13.393	(1.027)	91689	5.00000	4.440
113	Diphenyl Oxide	170	12.282	12.293	(0.943)	179260	5.00000	4.608
112	Biphenyl	154	12.090	12.101	(0.928)	297580	5.00000	4.552
120	2,3,4,6-Tetrachlorophenol	232	13.623	13.634	(1.046)	50349	5.00000	5.158
151	1,2,4,5-Tetrachlorobenzene	216	11.652	11.657	(0.895)	108972	5.00000	4.663
110	Tetrachloroguaiacol	247	15.354	15.370	(0.997)	73358	10.0000	10.55
109	3,4,5-Trichloroguaiacol	213	13.719	13.730	(0.890)	43572	5.00000	4.936
181	3,4,6-Trichloroguaiacol	211	13.842	13.853	(1.710)	50751	5.00000	5.241
108	4,5,6-Trichloroguaiacol	213	14.761	14.766	(1.133)	42107	5.00000	5.429
184	3,4-Dichloroguaiacol	192	12.175	12.186	(1.504)	48769	5.00000	4.836
107	4,5-Dichloroguaiacol	192	12.960	12.971	(0.995)	123469	10.0000	10 14
182	4,6-Dichloroguaiacol	192	12.960	12.971	(1.601)	123469	10.0000	10.10
185	4-Chloroguaiacol	115	11.085	11.091	(1.370)	30316	2.50000	2.465
186	Carbaryl	144	16.214	16.230	(1.052)	185562	5.00000	5.240
178	2-Benzyl-4-Chlorophenol	218	16.171	16.193	(1.050)	58883	5.00000	4.967 (M)
106	Guaiacol	124	9.061	9.072	(1.119)	122197	5.00000	4.688

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 11211103.D
Lab Smp Id: IC51121
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20111121.b/SW846112111.m
Misc Info: 11-

Calibration Date: 21-NOV-2011
Calibration Time: 17:37
Client Smp ID: IC51121
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	393702	196851	787404	443459	12.64
27 Naphthalene-d8	1422023	711012	2844046	1668435	17.33
42 Acenaphthene-d10	754629	377314	1509258	941839	24.81
59 Phenanthrene-d10	1068116	534058	2136232	1345056	25.93
69 Chrysene-d12	993839	496920	1987678	1239425	24.71
134 Di-n-octylphthala	1256584	628292	2513168	1546070	23.04
77 Perylene-d12	976441	488220	1952882	1128675	15.59

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.10	7.60	8.60	8.09	-0.07
27 Naphthalene-d8	10.15	9.65	10.65	10.15	0.00
42 Acenaphthene-d10	13.03	12.53	13.53	13.02	-0.04
59 Phenanthrene-d10	15.41	14.91	15.91	15.41	-0.04
69 Chrysene-d12	19.75	19.25	20.25	19.74	-0.03
134 Di-n-octylphthala	20.88	20.38	21.38	20.88	0.00
77 Perylene-d12	21.91	21.41	22.41	21.90	-0.03

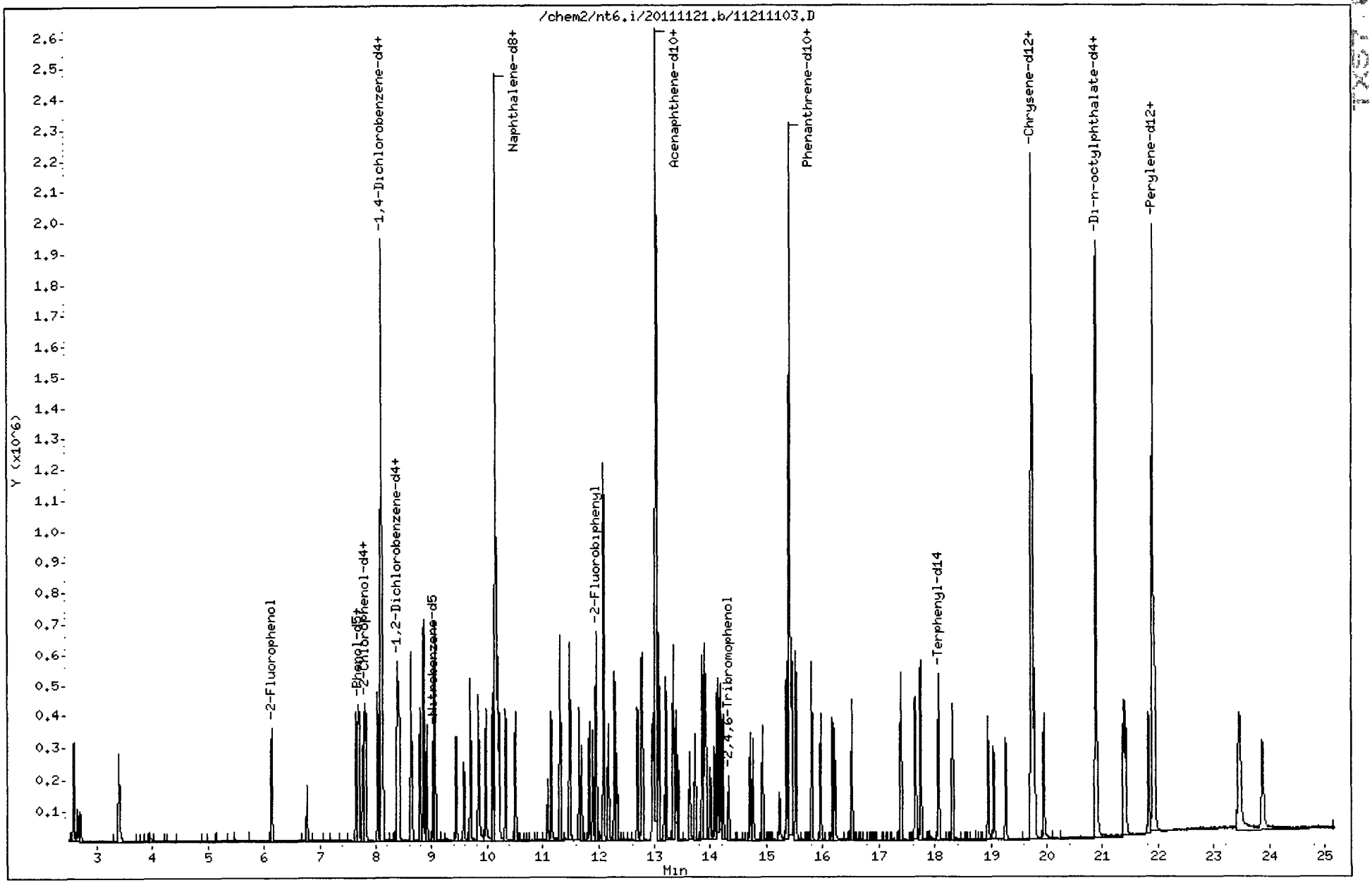
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20111121.b/11211103.D
Date : 21-NOV-2011 11:57
Client ID: IC51121
Sample Info: IC51121,

Instrument: nt6.i

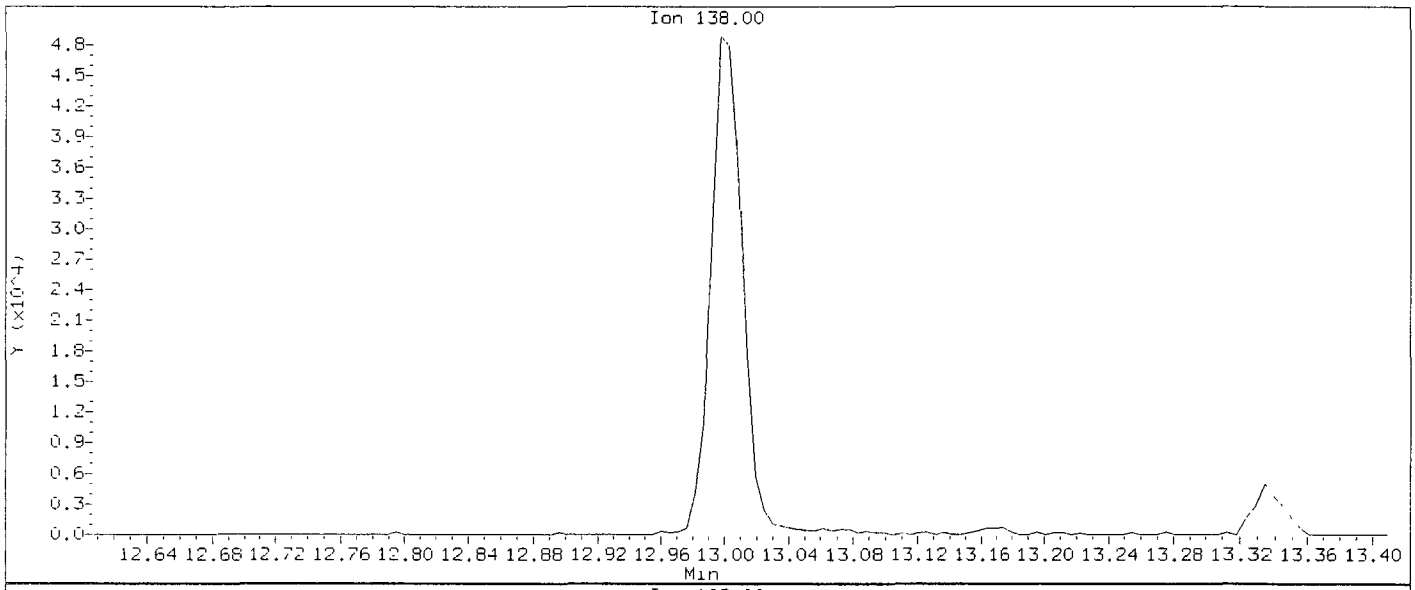
Operator: JZ
Column diameter: 0.32

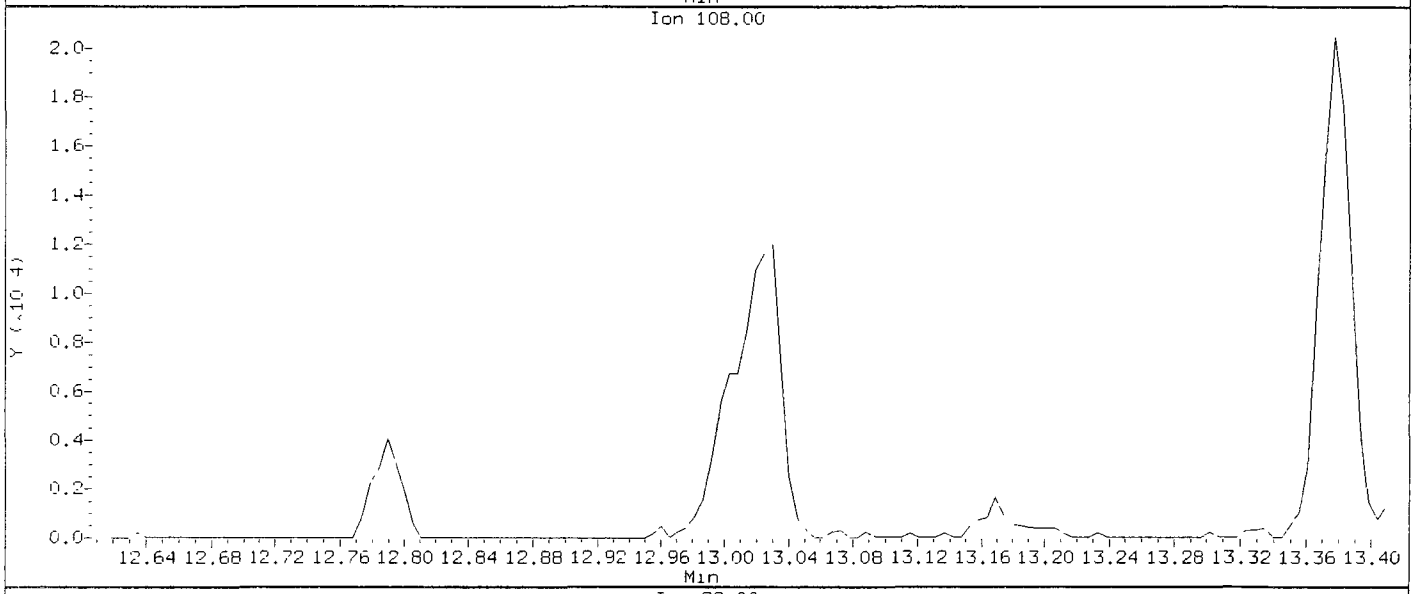
Column phase: ZB-5ms1

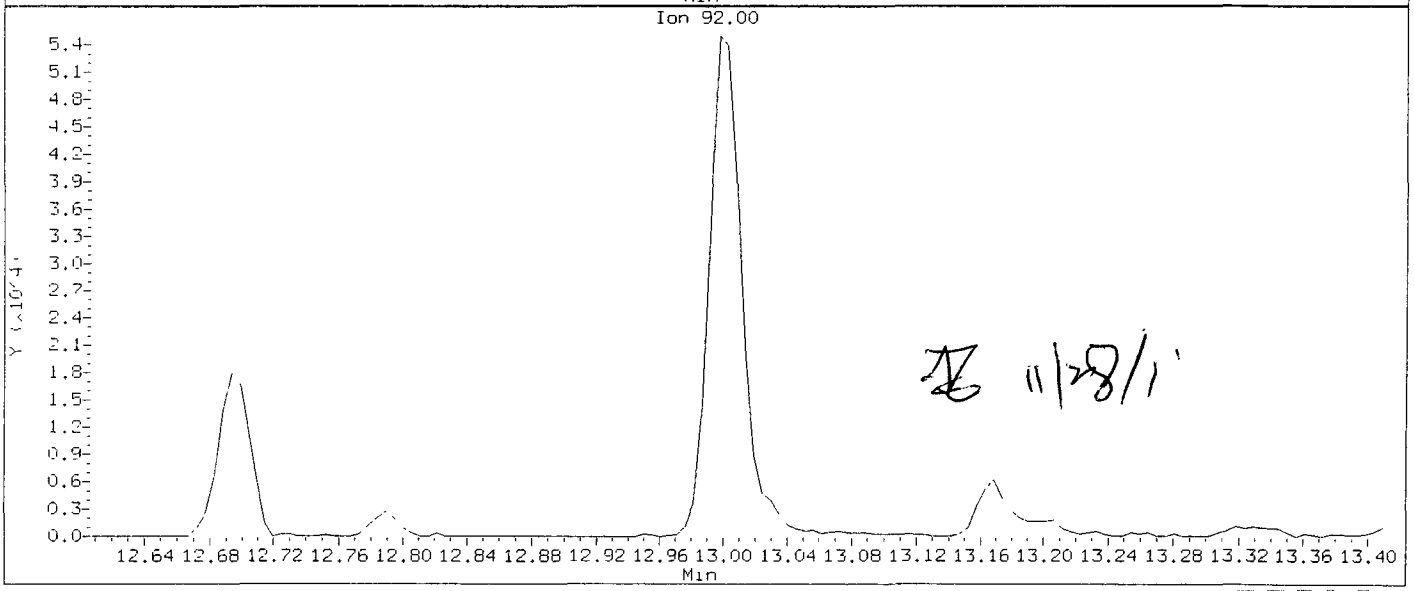


Data File: /chem2/nt6.i/20111121.b/11211103.D
Injection Date: 21-NOV-2011 11:57
Instrument: nt6.i
Client Sample ID: IC51121

Compound: 3-Nitroaniline
CAS Number: 99-09-2





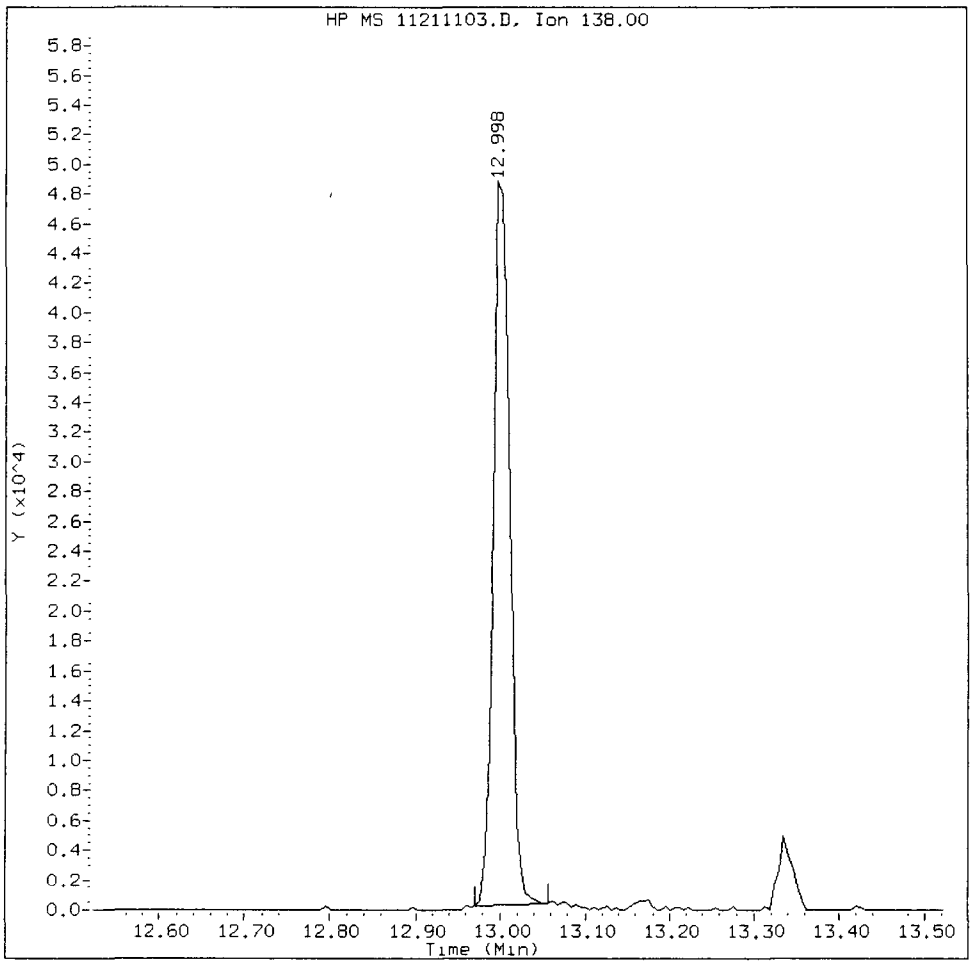


11/28/11

TX57 : 00326

IC51121, /chem2/nt6.i/20111121.b/11211103.D

3-Nitroaniline Amount: 4.89 Area: 65899



MANUAL INTEGRATION for 3-Nitroaniline

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

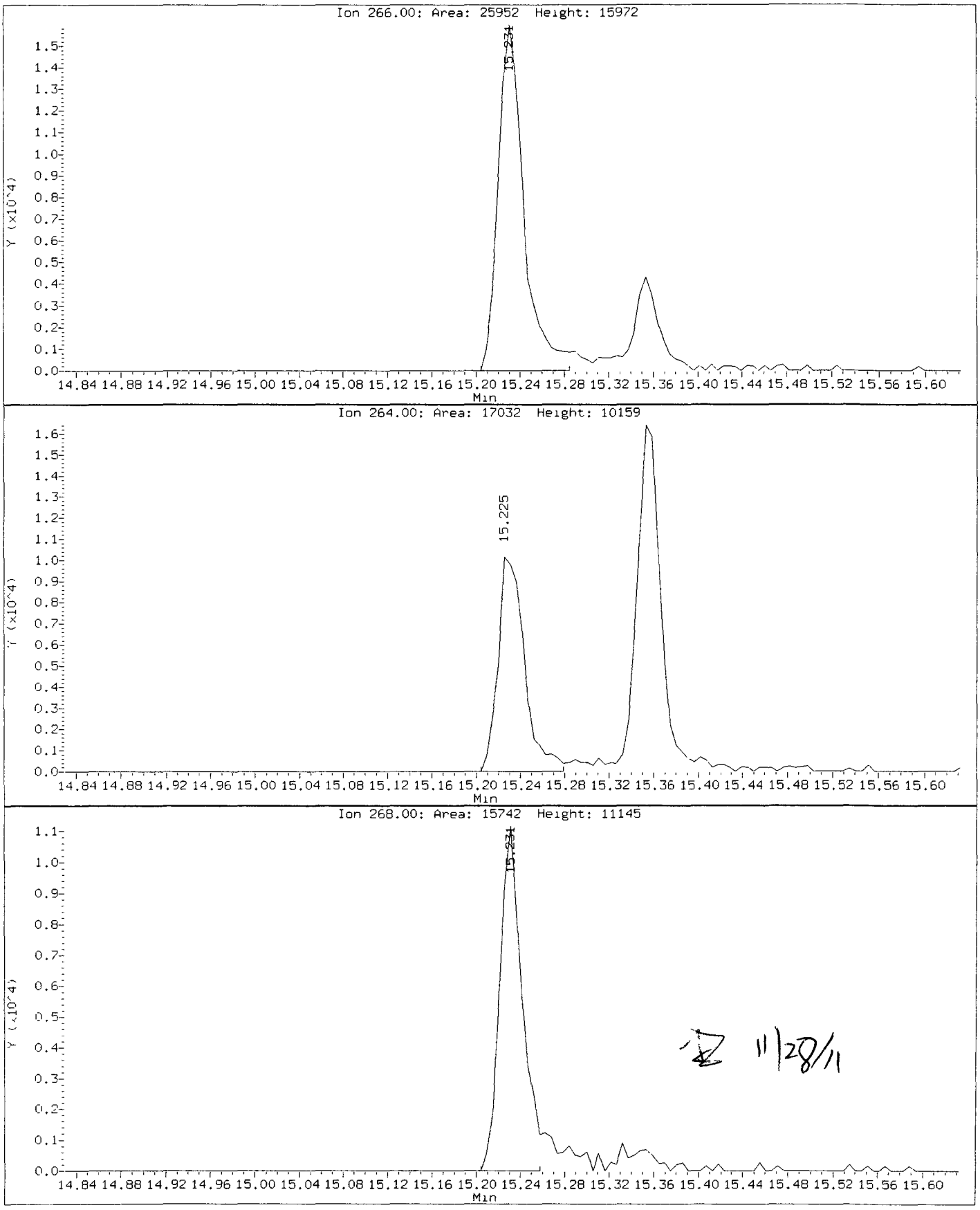
5. Other _____

Analyst: _____ Date: 1/29/11

TX57 00327

Data File: /chem2/nt6.i/20111121A.b/11211103.D
Injection Date: 21-NOV-2011 11:57
Instrument: nt6.i
Client Sample ID: IC51121

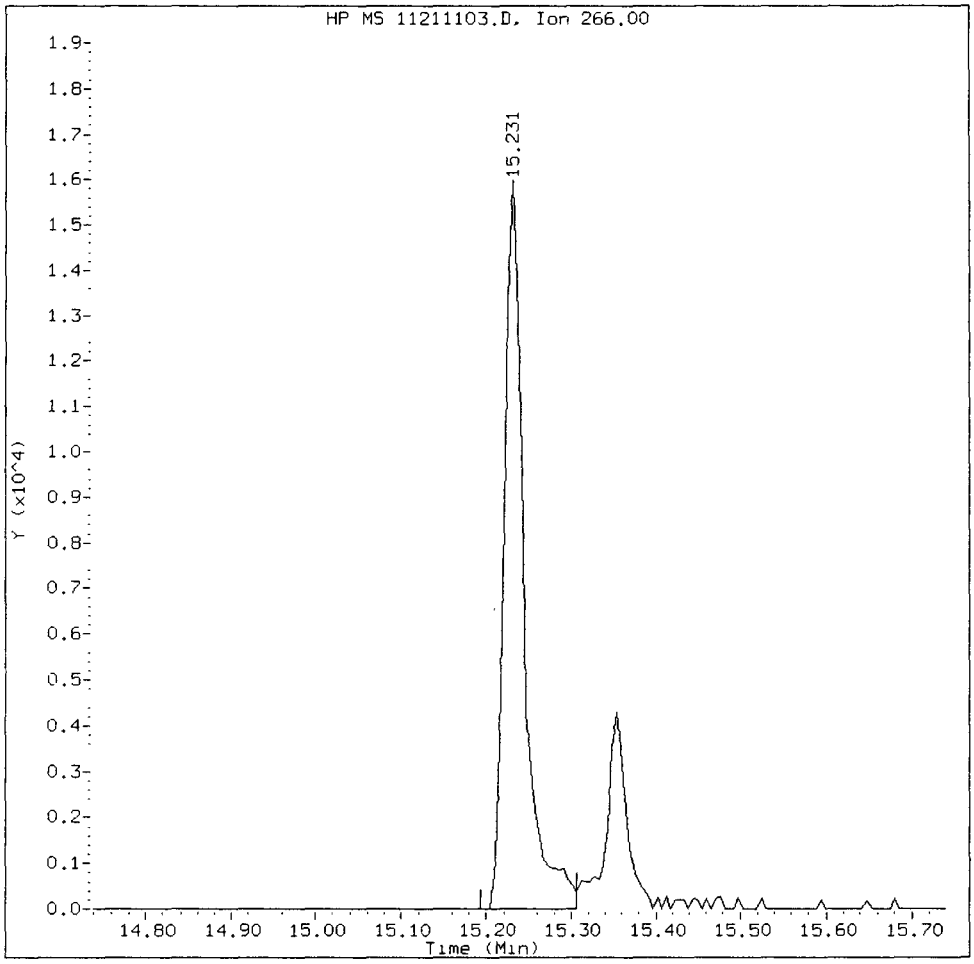
Compound: Pentachlorophenol
CAS Number: 87-86-5



11/28/11

IC51121, /chem2/nt6.i/20111121.b/11211103.D

Pentachlorophenol Amount: 5.00 Area: 26723



MANUAL INTEGRATION for Pentachlorophenol

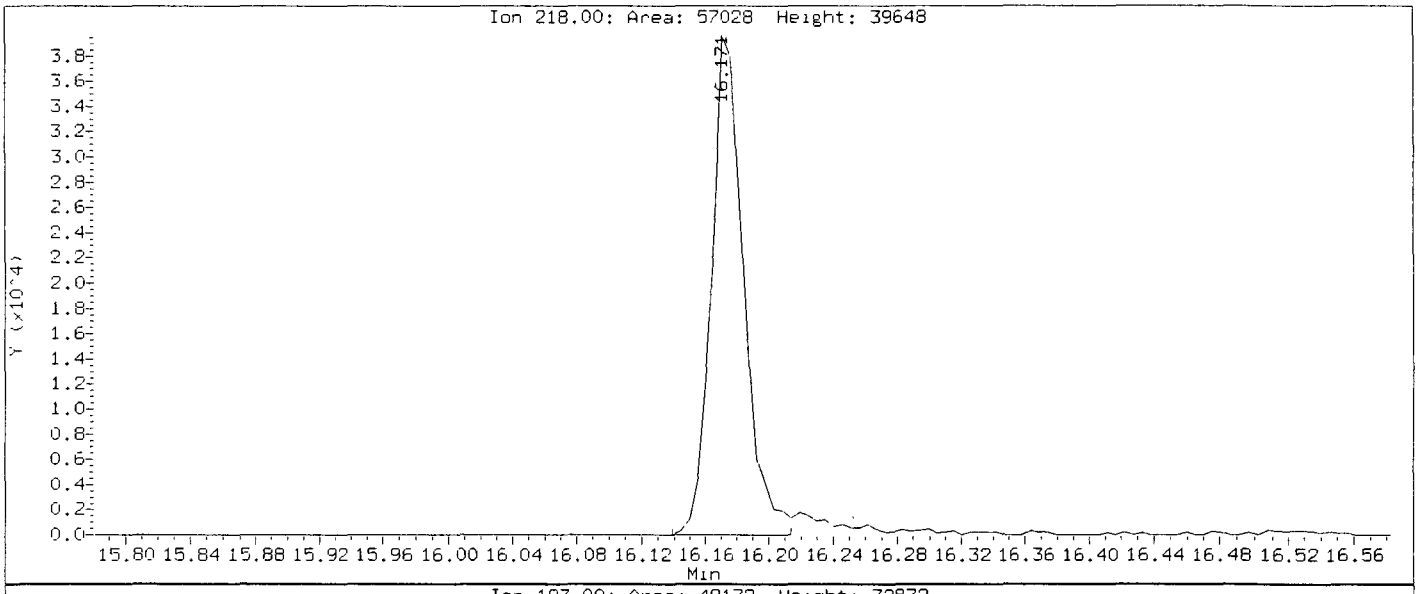
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

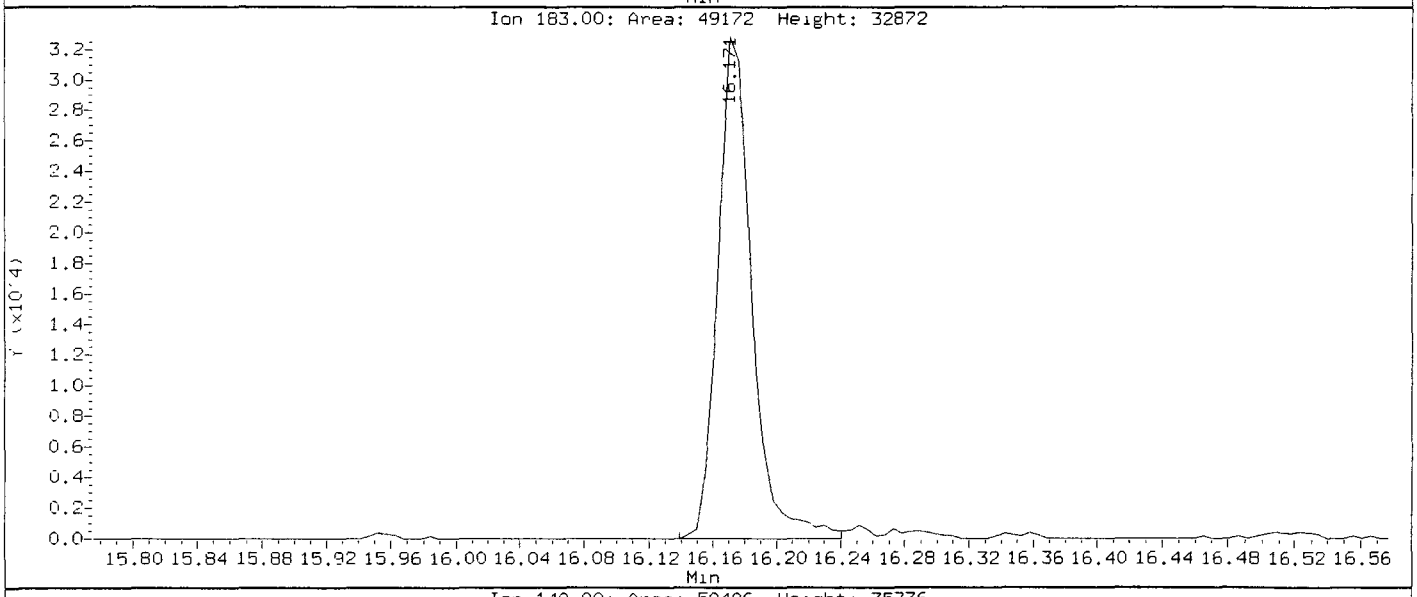
5. Other _____

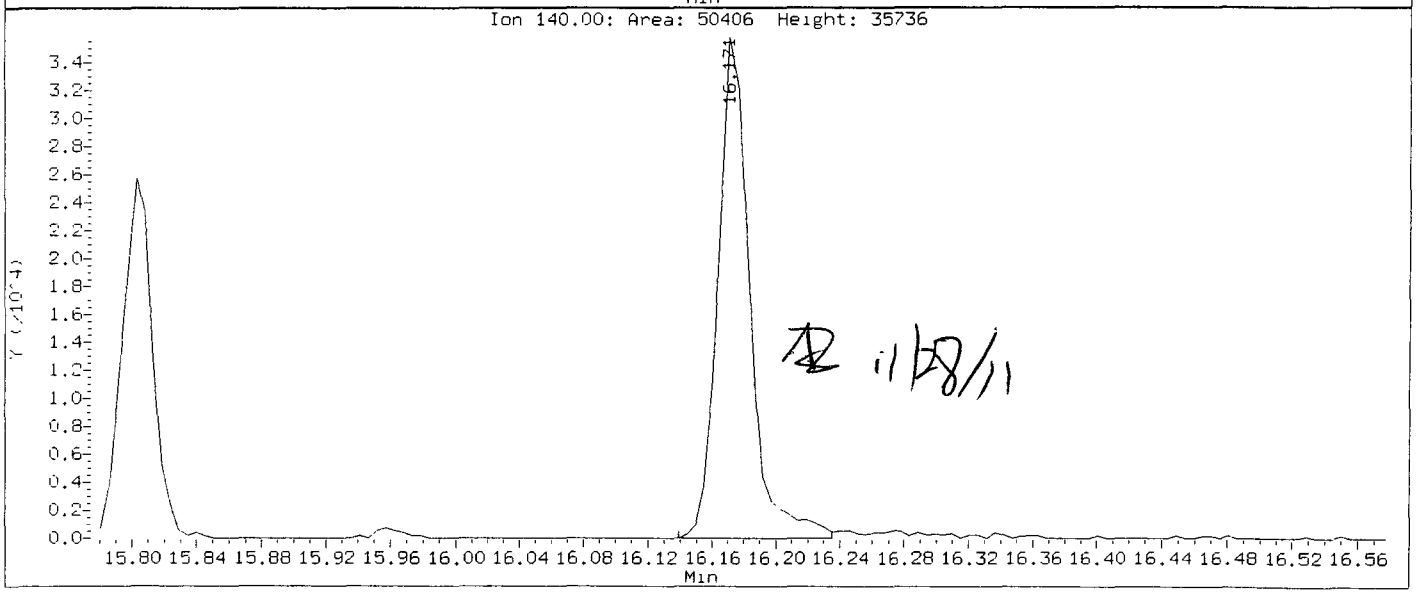
Analyst: _____ Date: 11/28/11

Data File: /chem2/nt6.i/20111121.b/11211103.D
Injection Date: 21-NOV-2011 11:57
Instrument: nt6.i
Client Sample ID: IC51121

Compound: 2-Benzyl-4-Chlorophenol
CAS Number:



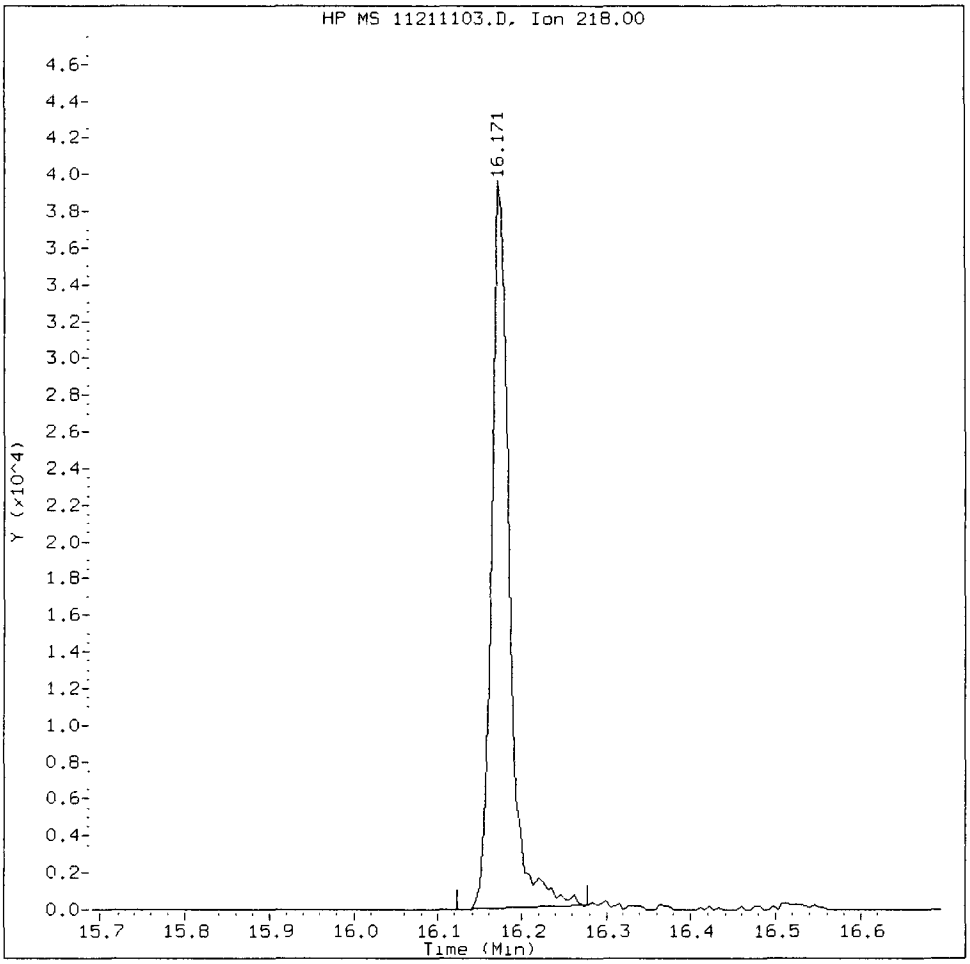




TX57 00330

IC51121, /chem2/nt6.i/20111121.b/11211103.D

2-Benzyl-4-Chlorophenol Amount: 4.97 Area: 58883



MANUAL INTEGRATION for 2-Benzyl-4-Chlorophenol

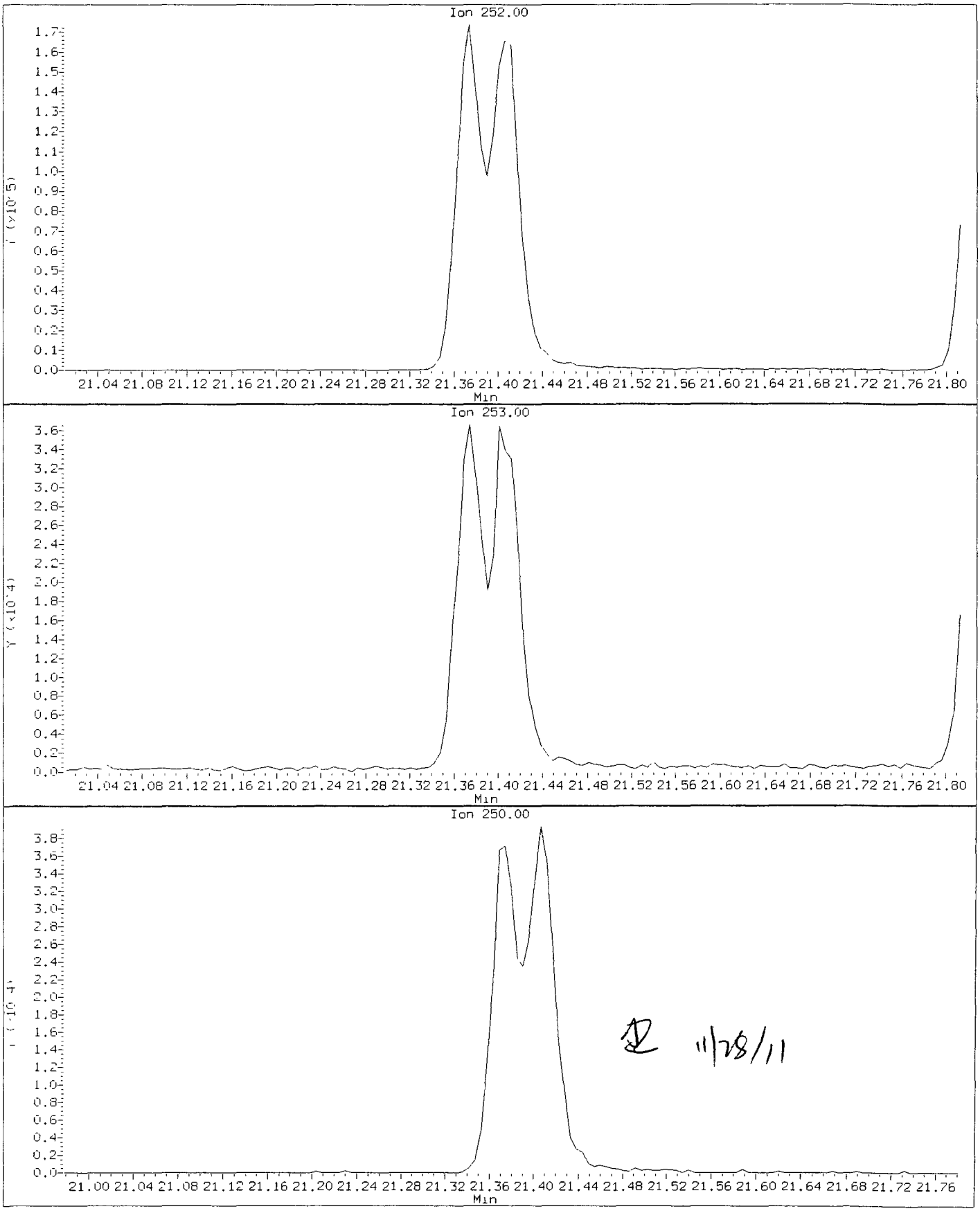
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 11/28/11

Data File: /chem2/nt6.1/20111121.b/11211103.D
Injection Date: 21-NOV-2011 11:57
Instrument: nt6.1
Client Sample ID: IC51121

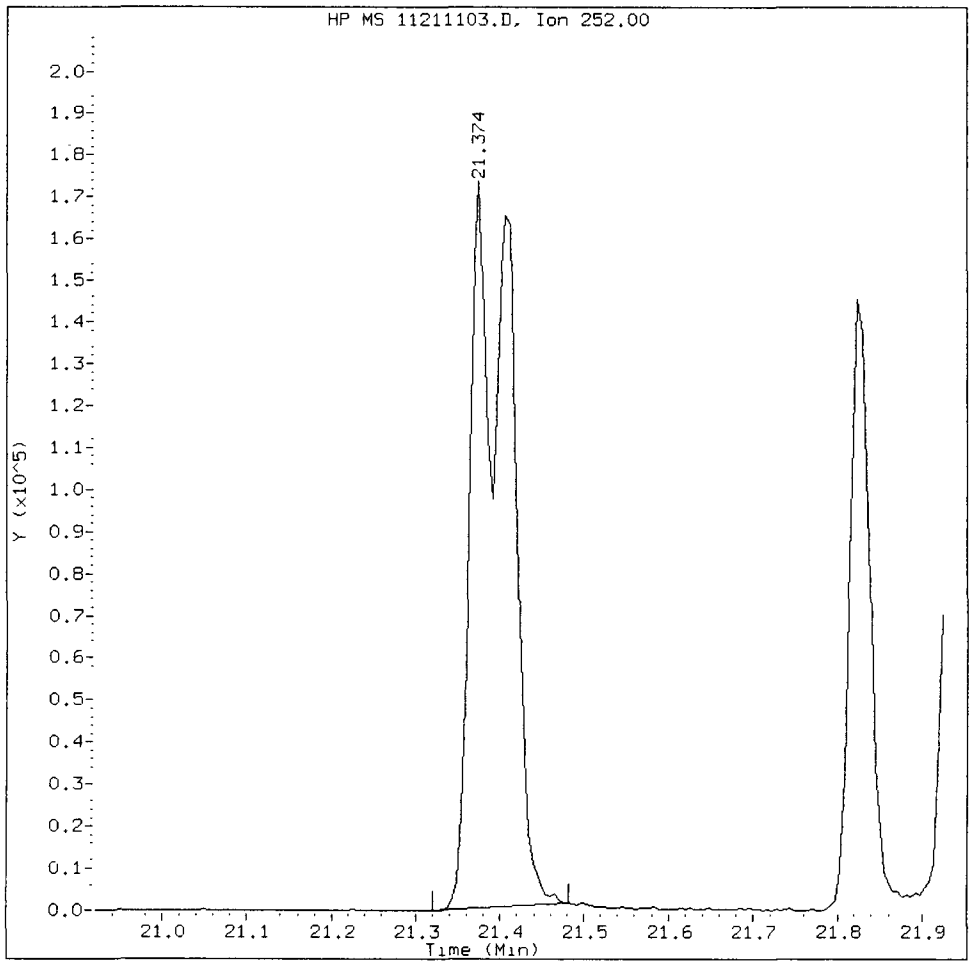
Compound: Total Benzofluoranthenes
CAS Number:



11/28/11

IC51121, /chem2/nt6.i/20111121.b/11211103.D

Total Benzofluoranthenes Amount: 9.46 Area: 554417



MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 11/28/11

CO-ELUTION SUMMARY FOR FILE - 11211103.D

Lab ID: IC51121, Method: SW846112111.m, Instrument: nt6.i, Date: 21-NOV-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20111121.b/11211104.D
Lab Smp Id: IC101121 Client Smp ID: IC101121
Inj Date : 21-NOV-2011 12:30
Operator : JZ Inst ID: nt6.i
Smp Info : IC101121,
Misc Info : 11-
Comment : 1ul Injection
Method : /chem2/nt6.i/20111121.b/SW846112111.m
Meth Date : 28-Nov-2011 10:58 jianqing Quant Type: ISTD
Cal Date : 21-NOV-2011 12:30 Cal File: 11211104.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

11/28/11

AMOUNTS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$ 1	2-Fluorophenol	112	6.137	6.142	(0.758)	359902	10.0000	10.27
$ 2	Phenol-d5	99	7.681	7.691	(0.949)	441072	10.0000	9.948
3	Phenol	94	7.697	7.709	(0.951)	411289	10.0000	9.505
$ 5	2-Chlorophenol-d4	132	7.799	7.808	(0.963)	345731	10.0000	10.13
4	Bis(2-Chloroethyl)ether	93	7.767	7.774	(0.959)	343633	10.0000	10.12
6	2-Chlorophenol	128	7.826	7.832	(0.966)	335474	10.0000	9.610
7	1,3-Dichlorobenzene	146	8.034	8.041	(0.992)	406067	10.0000	10.24
* 8	1,4-Dichlorobenzene-d4	152	8.098	8.099	(1.000)	461685	20.0000	
9	1,4-Dichlorobenzene	146	8.125	8.126	(1.003)	402419	10.0000	10.14
$ 10	1,2-Dichlorobenzene-d4	152	8.397	8.401	(1.037)	237863	10.0000	9.809
12	1,2-Dichlorobenzene	146	8.419	8.425	(1.040)	372478	10.0000	9.937
11	Benzyl alcohol	108	8.381	8.399	(1.035)	214326	10.0000	10.44
14	2,2'-oxybis(1-Chloropropane)	45	8.643	8.650	(1.067)	279742	10.0000	9.894
13	2-Methylphenol	108	8.627	8.639	(1.065)	300590	10.0000	9.488
17	Hexachloroethane	117	8.910	8.917	(1.100)	151730	10.0000	10.25
16	N-Nitroso-di-n-propylamine	70	8.857	8.874	(1.094)	232018	10.0000	9.903
15	4-Methylphenol	108	8.862	8.874	(1.094)	312106	10.0000	9.488
$ 18	Nitrobenzene-d5	82	9.033	9.037	(0.890)	368808	10.0000	10.49
19	Nitrobenzene	77	9.060	9.072	(0.892)	362159	10.0000	10.30
20	Isophorone	82	9.439	9.456	(0.930)	537444	10.0000	10.27
21	2-Nitrophenol	139	9.578	9.590	(0.943)	162991	10.0000	10.25
22	2,4-Dimethylphenol	107	9.701	9.713	(0.955)	302386	10.0000	9.667
23	Bis(2-Chloroethoxy)methane	93	9.840	9.852	(0.969)	396061	10.0000	10.32
24	Benzoic acid	105	9.877	10.017	(0.973)	278538	20.0000	23.17
25	2,4-Dichlorophenol	162	9.973	9.985	(0.982)	254344	10.0000	9.891
26	1,2,4-Trichlorobenzene	180	10.096	10.103	(0.994)	293907	10.0000	10.16
* 27	Naphthalene-d8	136	10.155	10.162	(1.000)	1693052	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.181	10.194	(1.003)	922765	10.0000	9.963
	29 4-Chloroaniline	127	10.331	10.338	(1.017)	368591	10.0000	9.996
	30 Hexachlorobutadiene	225	10.507	10.509	(1.035)	157602	10.0000	10.26
	31 4-Chloro-3-methylphenol	107	11.154	11.160	(1.098)	239113	10.0000	9.665
	32 2-Methylnaphthalene	141	11.309	11.315	(1.114)	476610	10.0000	9.850
	33 Hexachlorocyclopentadiene	237	11.693	11.700	(0.897)	153507	10.0000	12.18
	34 2,4,6-Trichlorophenol	196	11.832	11.839	(0.908)	157078	10.0000	10.62
	35 2,4,5-Trichlorophenol	196	11.891	11.898	(0.913)	164267	10.0000	10.73
$	36 2-Fluorobiphenyl	172	11.955	11.964	(0.918)	646892	10.0000	10.15
	37 2-Chloronaphthalene	162	12.089	12.101	(0.928)	543881	10.0000	10.02
	38 2-Nitroaniline	65	12.324	12.336	(0.946)	134134	10.0000	10.96
	39 Dimethylphthalate	163	12.698	12.710	(0.975)	550285	10.0000	9.938
	40 Acenaphthylene	152	12.772	12.779	(0.980)	811525	10.0000	10.34
	41 2,6-Dinitrotoluene	165	12.794	12.806	(0.982)	126854	10.0000	11.00
*	42 Acenaphthene-d10	164	13.029	13.030	(1.000)	908064	20.0000	
	43 3-Nitroaniline	138	13.002	13.020	(0.998)	132543	10.0000	10.13
	44 Acenaphthene	153	13.077	13.084	(1.004)	498610	10.0000	9.914
	45 2,4-Dinitrophenol	184	13.168	13.185	(1.011)	89821	20.0000	24.85
	46 Dibenzofuran	168	13.339	13.351	(1.024)	699647	10.0000	9.803
	47 4-Nitrophenol	109	13.328	13.335	(1.023)	50711	10.0000	11.70
	48 2,4-Dinitrotoluene	165	13.419	13.431	(1.030)	160327	10.0000	10.82
	50 Diethylphthalate	149	13.857	13.869	(1.064)	520031	10.0000	9.828
	49 Fluorene	166	13.900	13.906	(1.067)	567636	10.0000	9.978
	51 4-Chlorophenyl-phenylether	204	13.921	13.933	(1.068)	272666	10.0000	9.918
	52 4-Nitroaniline	138	14.001	14.024	(1.075)	122011	10.0000	10.38
	53 4,6-Dinitro-2-methylphenol	198	14.076	14.093	(0.913)	149548	20.0000	21.65
	54 N-Nitrosodiphenylamine	169	14.129	14.141	(0.917)	399934	10.0000	10.11
$	55 2,4,6-Tribromophenol	330	14.322	14.331	(1.099)	66288	10.0000	10.77
	56 4-Bromophenyl-phenylether	248	14.706	14.713	(0.954)	144434	10.0000	10.28
	57 Hexachlorobenzene	284	14.931	14.937	(0.969)	150540	10.0000	10.14
	58 Pentachlorophenol	266	15.230	15.237	(0.988)	66708	10.0000	11.60
*	59 Phenanthrene-d10	188	15.411	15.418	(1.000)	1215891	20.0000	
	60 Phenanthrene	178	15.449	15.456	(1.002)	708379	10.0000	9.798
	61 Anthracene	178	15.518	15.530	(1.007)	738700	10.0000	10.14
	62 Carbazole	167	15.807	15.813	(1.026)	665630	10.0000	10.09
	63 Di-n-butylphthalate	149	16.517	16.529	(1.072)	758784	10.0000	10.33
	64 Fluoranthene	202	17.393	17.400	(1.129)	662367	10.0000	10.11
	65 Pyrene	202	17.746	17.758	(0.899)	685996	10.0000	9.909
$	66 Terphenyl-d14	244	18.066	18.071	(0.915)	421473	10.0000	9.198
	67 Butylbenzylphthalate	149	18.948	18.955	(0.960)	289394	10.0000	10.98
	68 Benzo(a)anthracene	228	19.717	19.724	(0.999)	532196	10.0000	10.34
*	69 Chrysene-d12	240	19.739	19.751	(1.000)	1020975	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.723	19.729	(0.999)	182347	10.0000	10.57
	71 Chrysene	228	19.781	19.793	(1.002)	539587	10.0000	10.01
	72 bis(2-Ethylhexyl)phthalate	149	19.947	19.948	(0.955)	390725	10.0000	10.40
*	134 Di-n-octylphthalate-d4	153	20.882	20.883	(1.000)	1276210	20.0000	
	73 Di-n-octylphthalate	149	20.887	20.894	(1.000)	677107	10.0000	9.902

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.373	21.391	(0.976)	499737	10.0000	10.24
75	Benzo(k)fluoranthene	252	21.405	21.423	(0.977)	593171	10.0000	10.53
187	Total Benzofluoranthenes	252	21.405	21.423	(0.977)	1038802	20.0000	20.77
76	Benzo(a)pyrene	252	21.827	21.839	(0.996)	469372	10.0000	10.63
* 77	Perylene-d12	264	21.907	21.914	(1.000)	945211	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.446	23.474	(1.070)	626235	10.0000	10.81
79	Dibenzo(a,h)anthracene	278	23.473	23.495	(1.071)	514260	10.0000	10.81
80	Benzo(g,h,i)perylene	276	23.873	23.907	(1.090)	547035	10.0000	10.78
90	N-Nitrosodimethylamine	74	3.402	3.446	(0.420)	231060	10.0000	10.58
103	Pyridine	79	3.386	3.393	(0.418)	430018	10.0000	11.05
91	Aniline	93	7.649	7.656	(0.945)	510871	10.0000	10.08
105	1-methylnaphthalene	141	11.485	11.492	(1.131)	469779	10.0000	9.879
93	Benzidine	184	13.168	13.185	(0.667)	89821	10.0000	13.15
111	Azobenzene (1,2-DP-Hydrazine)	77	14.172	14.184	(1.088)	600189	10.0000	10.10
143	1,4-Dioxane	88	2.708	2.720	(0.334)	146469	10.0000	10.50
$ 137	d8-1,4-Dioxane	96	2.654	2.672	(0.328)	155953	10.0000	10.59
144	alpha-Terpineol	59	10.208	10.220	(1.005)	174665	10.0000	9.976
177	p-Benzoquinone	82	6.768	6.780	(0.666)	69736	10.0000	11.66
98	Retene	219	18.312	18.319	(0.928)	242176	10.0000	9.903
99	Perylene	252	21.939	21.957	(1.001)	572007	10.0000	10.03
133	Butylatedhydroxytoluene	205	13.200	13.207	(1.013)	408419	10.0000	9.851
115	Tributyl Phosphate	99	14.220	14.238	(0.923)	573502	10.0000	10.06
116	Dibutyl Phenyl Phosphate	175	15.962	15.974	(1.036)	343461	10.0000	10.40
117	Butyl Diphenyl Phosphate	94	17.655	17.662	(0.894)	136996	10.0000	10.41
118	Triphenyl Phosphate	326	19.263	19.270	(0.976)	89257	10.0000	10.04
123	Acetophenone	105	8.793	8.805	(1.086)	423244	10.0000	9.926
168	Pentachlorobenzene	250	13.381	13.393	(1.027)	192251	10.0000	9.768
113	Diphenyl Oxide	170	12.286	12.293	(0.943)	379458	10.0000	10.08
112	Biphenyl	154	12.089	12.101	(0.928)	626477	10.0000	9.960
120	2,3,4,6-Tetrachlorophenol	232	13.627	13.634	(1.046)	104151	10.0000	10.69
151	1,2,4,5-Tetrachlorobenzene	216	11.651	11.657	(0.894)	239028	10.0000	10.40
110	Tetrachloroguaiacol	247	15.358	15.370	(0.997)	140979	20.0000	21.56
109	3,4,5-Trichloroguaiacol	213	13.723	13.730	(0.890)	82478	10.0000	10.22
181	3,4,6-Trichloroguaiacol	211	13.846	13.853	(1.710)	98244	10.0000	9.828
108	4,5,6-Trichloroguaiacol	213	14.754	14.766	(1.132)	78075	10.0000	10.29
184	3,4-Dichloroguaiacol	192	12.179	12.186	(1.504)	101723	10.0000	9.790
107	4,5-Dichloroguaiacol	192	12.959	12.971	(0.995)	241641	20.0000	20.39
182	4,6-Dichloroguaiacol	192	12.959	12.971	(1.600)	241641	20.0000	19.31
185	4-Chloroguaiacol	115	11.084	11.091	(1.369)	65209	5.00000	5.061
186	Carbaryl	144	16.218	16.230	(1.052)	332337	10.0000	10.25
178	2-Benzyl-4-Chlorophenol	218	16.175	16.193	(1.050)	108162	10.0000	10.06
106	Guaiacol	124	9.060	9.072	(1.119)	258483	10.0000	9.678

TX57 : 088377

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 11211104.D
Lab Smp Id: IC101121
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20111121.b/SW846112111.m
Misc Info: 11-

Calibration Date: 21-NOV-2011
Calibration Time: 17:37
Client Smp ID: IC101121
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	393702	196851	787404	461685	17.27
27 Naphthalene-d8	1422023	711012	2844046	1693052	19.06
42 Acenaphthene-d10	754629	377314	1509258	908064	20.33
59 Phenanthrene-d10	1068116	534058	2136232	1215891	13.84
69 Chrysene-d12	993839	496920	1987678	1020975	2.73
134 Di-n-octylphthala	1256584	628292	2513168	1276210	1.56
77 Perylene-d12	976441	488220	1952882	945211	-3.20

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.10	7.60	8.60	8.10	-0.02
27 Naphthalene-d8	10.15	9.65	10.65	10.15	0.04
42 Acenaphthene-d10	13.03	12.53	13.53	13.03	-0.01
59 Phenanthrene-d10	15.41	14.91	15.91	15.41	-0.01
69 Chrysene-d12	19.75	19.25	20.25	19.74	-0.03
134 Di-n-octylphthala	20.88	20.38	21.38	20.88	-0.01
77 Perylene-d12	21.91	21.41	22.41	21.91	-0.01

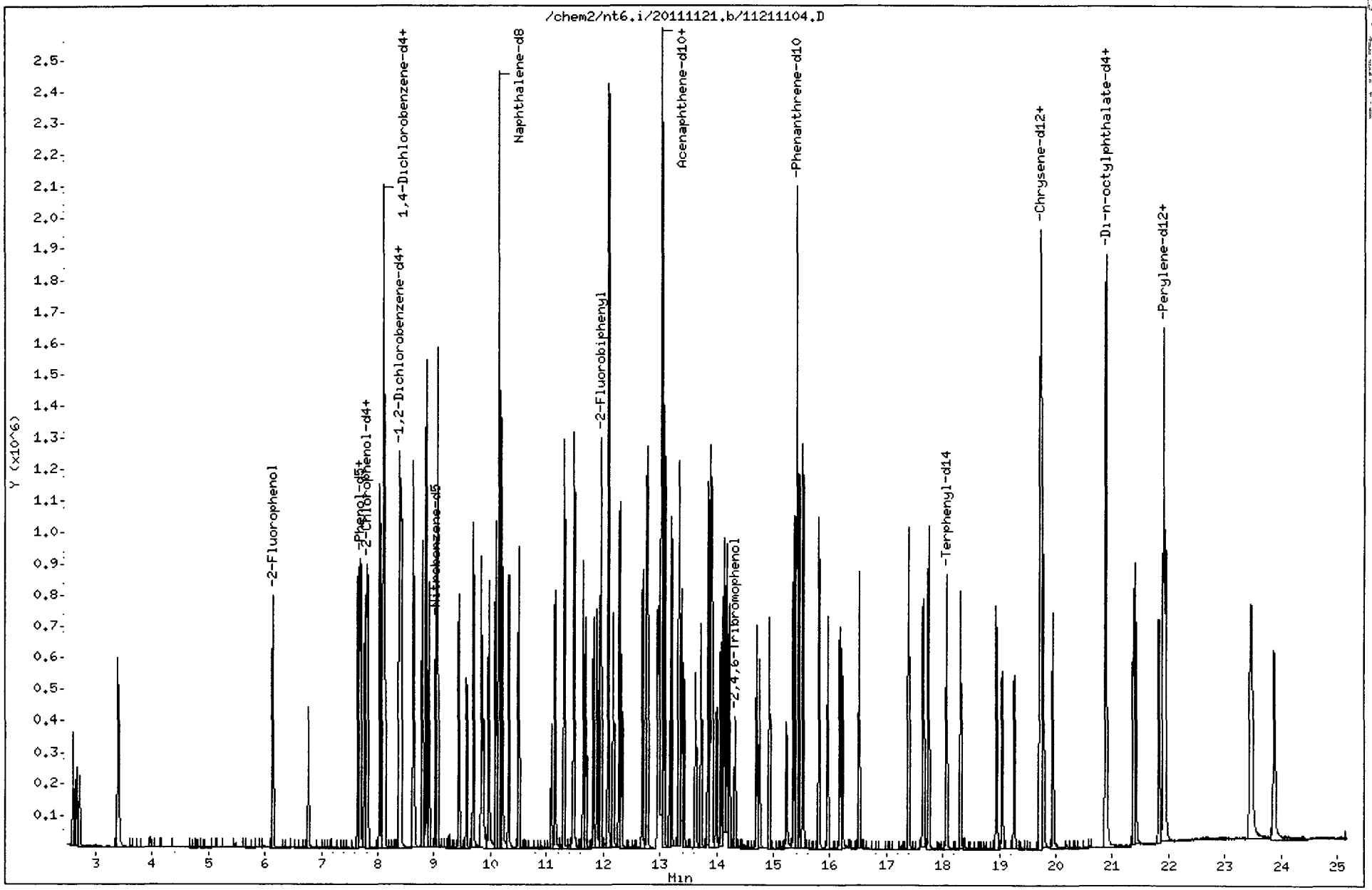
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20111121.b/11211104.D
Date : 21-NOV-2011 12:30
Client ID: IC101121
Sample Info: IC101121,

Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32



TX57 00339

CO-ELUTION SUMMARY FOR FILE - 11211104.D

Lab ID: IC101121, Method: SW846112111.m, Instrument: nt6.i, Date: 21-NOV-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20111121.b/11211109.D
Lab Smp Id: IC250121 Client Smp ID: IC251121
Inj Date : 21-NOV-2011 17:37
Operator : JZ Inst ID: nt6.i
Smp Info : IC250121,
Misc Info : 11-
Comment : 1ul Injection
Method : /chem2/nt6.i/20111121.b/SW846112111.m
Meth Date : 28-Nov-2011 10:58 jianqing Quant Type: ISTD
Cal Date : 21-NOV-2011 17:37 Cal File: 11211109.D
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

AR 11/28/11

AMOUNTS

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$ 1 2-Fluorophenol	112	6.134	6.142	(0.757)	721030	25.0000	24.34
$ 2 Phenol-d5	99	7.683	7.691	(0.949)	850807	25.0000	23.08
3 Phenol	94	7.699	7.709	(0.951)	825474	25.0000	22.97
$ 5 2-Chlorophenol-d4	132	7.800	7.808	(0.963)	679759	25.0000	23.75
4 Bis(2-Chloroethyl)ether	93	7.763	7.774	(0.958)	673272	25.0000	23.66
6 2-Chlorophenol	128	7.822	7.832	(0.966)	686619	25.0000	23.52
7 1,3-Dichlorobenzene	146	8.035	8.041	(0.992)	802738	25.0000	24.04
* 8 1,4-Dichlorobenzene-d4	152	8.099	8.099	(1.000)	393702	20.0000	
9 1,4-Dichlorobenzene	146	8.121	8.126	(1.003)	795919	25.0000	23.87
$ 10 1,2-Dichlorobenzene-d4	152	8.399	8.401	(1.037)	464570	25.0000	23.05
12 1,2-Dichlorobenzene	146	8.420	8.425	(1.040)	746116	25.0000	23.74
11 Benzyl alcohol	108	8.383	8.399	(1.035)	424600	25.0000	24.43
14 2,2'-oxybis(1-Chloropropane)	45	8.644	8.650	(1.067)	548845	25.0000	23.28
13 2-Methylphenol	108	8.628	8.639	(1.065)	614985	25.0000	23.28
17 Hexachloroethane	117	8.911	8.917	(1.100)	307787	25.0000	24.53
16 N-Nitroso-di-n-propylamine	70	8.858	8.874	(1.094)	456230	25.0000	23.34
15 4-Methylphenol	108	8.863	8.874	(1.094)	616258	25.0000	22.66
$ 18 Nitrobenzene-d5	82	9.034	9.037	(0.890)	741569	25.0000	25.09
19 Nitrobenzene	77	9.061	9.072	(0.893)	703633	25.0000	24.10
20 Isophorone	82	9.440	9.456	(0.930)	1037833	25.0000	23.95
21 2-Nitrophenol	139	9.579	9.590	(0.944)	351301	25.0000	25.96
22 2,4-Dimethylphenol	107	9.697	9.713	(0.955)	616364	25.0000	23.83
23 Bis(2-Chloroethoxy)methane	93	9.841	9.852	(0.969)	773065	25.0000	24.23
24 Benzoic acid	105	9.916	10.017	(0.977)	760708	50.0000	64.45
25 2,4-Dichlorophenol	162	9.975	9.985	(0.983)	526899	25.0000	24.54
26 1,2,4-Trichlorobenzene	180	10.097	10.103	(0.995)	577992	25.0000	24.08
* 27 Naphthalene-d8	136	10.151	10.162	(1.000)	1422023	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.183	10.194	(1.003)	1763887	25.0000	23.21
	29 4-Chloroaniline	127	10.327	10.338	(1.017)	708610	25.0000	23.38
	30 Hexachlorobutadiene	225	10.509	10.509	(1.035)	319514	25.0000	24.82
	31 4-Chloro-3-methylphenol	107	11.155	11.160	(1.099)	489519	25.0000	23.90
	32 2-Methylnaphthalene	141	11.310	11.315	(1.114)	920105	25.0000	23.19
	33 Hexachlorocyclopentadiene	237	11.695	11.700	(0.898)	340774	25.0000	30.25
	34 2,4,6-Trichlorophenol	196	11.834	11.839	(0.908)	330878	25.0000	26.41
	35 2,4,5-Trichlorophenol	196	11.892	11.898	(0.913)	352097	25.0000	26.96
$	36 2-Fluorobiphenyl	172	11.956	11.964	(0.918)	1243787	25.0000	23.85
	37 2-Chloronaphthalene	162	12.095	12.101	(0.928)	1047301	25.0000	23.65
	38 2-Nitroaniline	65	12.325	12.336	(0.946)	264914	25.0000	25.78
	39 Dimethylphthalate	163	12.699	12.710	(0.975)	1058916	25.0000	23.48
	40 Acenaphthylene	152	12.774	12.779	(0.980)	1570026	25.0000	24.31
	41 2,6-Dinitrotoluene	165	12.795	12.806	(0.982)	255967	25.0000	26.27
*	42 Acenaphthene-d10	164	13.030	13.030	(1.000)	754629	20.0000	
	43 3-Nitroaniline	138	13.009	13.020	(0.998)	255118	25.0000	23.83
	44 Acenaphthene	153	13.078	13.084	(1.004)	976577	25.0000	23.75
	45 2,4-Dinitrophenol	184	13.174	13.185	(1.011)	270100	50.0000	71.02
	46 Dibenzofuran	168	13.340	13.351	(1.024)	1338748	25.0000	23.13
	47 4-Nitrophenol	109	13.329	13.335	(1.023)	119805	25.0000	30.71
	48 2,4-Dinitrotoluene	165	13.420	13.431	(1.030)	328869	25.0000	26.27
	50 Diethylphthalate	149	13.864	13.869	(1.064)	1006951	25.0000	23.39
	49 Fluorene	166	13.901	13.906	(1.067)	1103283	25.0000	23.73
	51 4-Chlorophenyl-phenylether	204	13.928	13.933	(1.069)	532675	25.0000	23.71
	52 4-Nitroaniline	138	14.008	14.024	(1.075)	256017	25.0000	25.90
	53 4,6-Dinitro-2-methylphenol	198	14.077	14.093	(0.913)	378334	50.0000	57.60
	54 N-Nitrosodiphenylamine	169	14.131	14.141	(0.917)	797287	25.0000	23.42
$	55 2,4,6-Tribromophenol	330	14.328	14.331	(1.100)	136331	25.0000	26.21
	56 4-Bromophenyl-phenylether	248	14.708	14.713	(0.954)	286666	25.0000	23.65
	57 Hexachlorobenzene	284	14.932	14.937	(0.969)	304679	25.0000	23.76
	58 Pentachlorophenol	266	15.231	15.237	(0.988)	156023	25.0000	28.64
*	59 Phenanthrene-d10	188	15.413	15.418	(1.000)	1068116	20.0000	
	60 Phenanthrene	178	15.450	15.456	(1.002)	1437141	25.0000	23.18
	61 Anthracene	178	15.525	15.530	(1.007)	1502731	25.0000	23.84
	62 Carbazole	167	15.808	15.813	(1.026)	1398323	25.0000	24.34
	63 Di-n-butylphthalate	149	16.524	16.529	(1.072)	1626728	25.0000	25.16
	64 Fluoranthene	202	17.395	17.400	(1.129)	1418603	25.0000	24.73
	65 Pyrene	202	17.753	17.758	(0.899)	1502754	25.0000	22.92
$	66 Terphenyl-d14	244	18.068	18.071	(0.915)	914223	25.0000	21.46
	67 Butylbenzylphthalate	149	18.949	18.955	(0.960)	694024	25.0000	26.51
	68 Benzo(a)anthracene	228	19.719	19.724	(0.999)	1235132	25.0000	24.73
*	69 Chrysene-d12	240	19.745	19.751	(1.000)	993839	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.724	19.729	(0.999)	424202	25.0000	25.20
	71 Chrysene	228	19.783	19.793	(1.002)	1256639	25.0000	24.19
	72 bis(2-Ethylhexyl)phthalate	149	19.948	19.948	(0.955)	953037	25.0000	25.58
*	134 Di-n-octylphthalate-d4	153	20.883	20.883	(1.000)	1256584	20.0000	
	73 Di-n-octylphthalate	149	20.894	20.894	(1.000)	1630148	25.0000	24.40

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.380	21.391	(0.976)	1291112	25.0000	25.46
75	Benzo(k)fluoranthene	252	21.412	21.423	(0.977)	1332920	25.0000	23.40
187	Total Benzofluoranthenes	252	21.412	21.423	(0.977)	2494218	50.0000	48.69
76	Benzo(a)pyrene	252	21.829	21.839	(0.996)	1167105	25.0000	25.44
* 77	Perylene-d12	264	21.909	21.914	(1.000)	976441	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.458	23.474	(1.071)	1548577	25.0000	25.66
79	Dibenzo(a,h)anthracene	278	23.479	23.495	(1.072)	1299375	25.0000	26.06
80	Benzo(g,h,i)perylene	276	23.885	23.907	(1.090)	1346436	25.0000	25.52
90	N-Nitrosodimethylamine	74	3.393	3.446	(0.419)	468220	25.0000	25.10
103	Pyridine	79	3.372	3.393	(0.416)	891053	25.0000	26.36
91	Aniline	93	7.651	7.656	(0.945)	995277	25.0000	23.49
105	1-methylnaphthalene	141	11.486	11.492	(1.132)	923316	25.0000	23.56
93	Benzidine	184	13.174	13.185	(0.667)	270100	25.0000	33.62
111	Azobenzene (1,2-DP-Hydrazine)	77	14.173	14.184	(1.088)	1172052	25.0000	24.04
143	1,4-Dioxane	88	2.693	2.720	(0.332)	307560	25.0000	25.64
$ 137	d8-1,4-Dioxane	96	2.645	2.672	(0.327)	326902	25.0000	25.77
144	alpha-Terpineol	59	10.210	10.220	(1.006)	355506	25.0000	24.38
177	p-Benzoquinone	82	6.764	6.780	(0.666)	154284	25.0000	29.06
98	Retene	219	18.314	18.319	(0.927)	569186	25.0000	24.17
99	Perylene	252	21.946	21.957	(1.002)	1402876	25.0000	24.10
133	Butylatedhydroxytoluene	205	13.201	13.207	(1.013)	801200	25.0000	23.67
115	Tributyl Phosphate	99	14.227	14.238	(0.923)	1212882	25.0000	24.40
116	Dibutyl Phenyl Phosphate	175	15.968	15.974	(1.036)	779437	25.0000	26.37
117	Butyl Diphenyl Phosphate	94	17.657	17.662	(0.894)	311300	25.0000	24.47
118	Triphenyl Phosphate	326	19.264	19.270	(0.976)	219157	25.0000	25.24
123	Acetophenone	105	8.794	8.805	(1.086)	836352	25.0000	23.47
168	Pentachlorobenzene	250	13.383	13.393	(1.027)	388171	25.0000	24.04
113	Diphenyl Oxide	170	12.288	12.293	(0.943)	737576	25.0000	23.91
112	Biphenyl	154	12.095	12.101	(0.928)	1168814	25.0000	22.97
120	2,3,4,6-Tetrachlorophenol	232	13.629	13.634	(1.046)	232456	25.0000	27.68
151	1,2,4,5-Tetrachlorobenzene	216	11.652	11.657	(0.894)	471473	25.0000	24.76
110	Tetrachloroguaiacol	247	15.359	15.370	(0.997)	309248	50.0000	52.82
109	3,4,5-Trichloroguaiacol	213	13.725	13.730	(0.890)	165685	25.0000	23.76
181	3,4,6-Trichloroguaiacol	211	13.848	13.853	(1.710)	197622	25.0000	23.61
108	4,5,6-Trichloroguaiacol	213	14.761	14.766	(1.133)	171509	25.0000	26.61
184	3,4-Dichloroguaiacol	192	12.181	12.186	(1.504)	198978	25.0000	23.04
107	4,5-Dichloroguaiacol	192	12.961	12.971	(0.995)	489319	50.0000	49.76
182	4,6-Dichloroguaiacol	192	12.961	12.971	(1.600)	481519	50.0000	46.26
185	4-Chloroguaiacol	115	11.086	11.091	(1.369)	130314	12.5000	12.01
186	Carbaryl	144	16.219	16.230	(1.052)	771093	25.0000	26.53
178	2-Benzyl-4-Chlorophenol	218	16.177	16.193	(1.050)	256875	25.0000	26.62
106	Guaiacol	124	9.066	9.072	(1.119)	517788	25.0000	23.26

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 11211109.D
Lab Smp Id: IC250121
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20111121.b/SW846112111.m
Misc Info: 11-

Calibration Date: 21-NOV-2011
Calibration Time: 17:37
Client Smp ID: IC251121
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	393702	196851	787404	393702	0.00
27 Naphthalene-d8	1422023	711012	2844046	1422023	0.00
42 Acenaphthene-d10	754629	377314	1509258	754629	0.00
59 Phenanthrene-d10	1068116	534058	2136232	1068116	0.00
69 Chrysene-d12	993839	496920	1987678	993839	0.00
134 Di-n-octylphthala	1256584	628292	2513168	1256584	0.00
77 Perylene-d12	976441	488220	1952882	976441	0.00

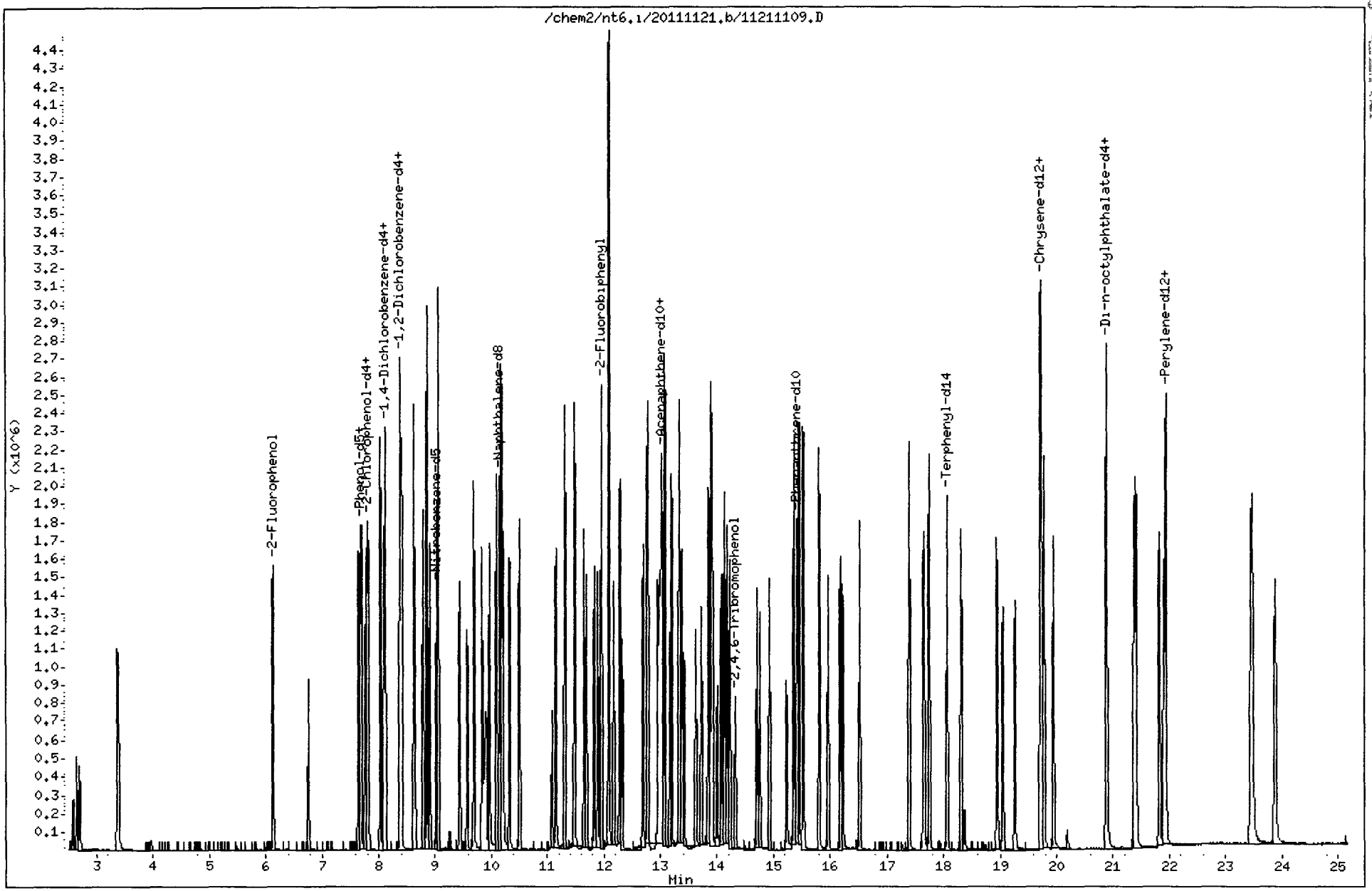
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.10	7.60	8.60	8.10	0.00
27 Naphthalene-d8	10.15	9.65	10.65	10.15	0.00
42 Acenaphthene-d10	13.03	12.53	13.53	13.03	0.00
59 Phenanthrene-d10	15.41	14.91	15.91	15.41	0.00
69 Chrysene-d12	19.75	19.25	20.25	19.75	0.00
134 Di-n-octylphthala	20.88	20.38	21.38	20.88	0.00
77 Perylene-d12	21.91	21.41	22.41	21.91	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: /chem2/nt6.i/20111121.b/11211109.D
Date : 21-NOV-2011 17:37
Client ID: IC251121
Sample Info: IC250121,

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32

Column phase: ZB-5ms1



CO-ELUTION SUMMARY FOR FILE - 11211109.D

Lab ID: IC250121, Method: SW846112111.m, Instrument: nt6.i, Date: 21-NOV-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20111121.b/11211105.D
Lab Smp Id: IC401121 Client Smp ID: IC401121
Inj Date : 21-NOV-2011 13:20
Operator : JZ Inst ID: nt6.i
Smp Info : IC401121,
Misc Info : 11-
Comment : 1ul Injection
Method : /chem2/nt6.i/20111121.b/SW846112111.m
Meth Date : 28-Nov-2011 10:58 jianqing Quant Type: ISTD
Cal Date : 21-NOV-2011 13:20 Cal File: 11211105.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

AZ 11/28/11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$ 1 2-Fluorophenol	112	6.136	6.142	(0.758)	1171284	40.0000	37.61
$ 2 Phenol-d5	99	7.686	7.691	(0.949)	1401933	40.0000	36.44
3 Phenol	94	7.702	7.709	(0.951)	1367547	40.0000	36.47
$ 5 2-Chlorophenol-d4	132	7.803	7.808	(0.964)	1119635	40.0000	37.29
4 Bis(2-Chloroethyl)ether	93	7.771	7.774	(0.960)	1131179	40.0000	37.78
6 2-Chlorophenol	128	7.824	7.832	(0.966)	1130799	40.0000	36.99
7 1,3-Dichlorobenzene	146	8.038	8.041	(0.993)	1321376	40.0000	37.64
* 8 1,4-Dichlorobenzene-d4	152	8.097	8.099	(1.000)	419981	20.0000	
9 1,4-Dichlorobenzene	146	8.124	8.126	(1.003)	1285200	40.0000	36.85
$ 10 1,2-Dichlorobenzene-d4	152	8.396	8.401	(1.037)	747441	40.0000	35.70
12 1,2-Dichlorobenzene	146	8.423	8.425	(1.040)	1199821	40.0000	36.55
11 Benzyl alcohol	108	8.385	8.399	(1.036)	696698	40.0000	38.04
14 2,2'-oxybis(1-Chloropropane)	45	8.647	8.650	(1.068)	900285	40.0000	36.57
13 2-Methylphenol	108	8.631	8.639	(1.066)	1023896	40.0000	37.02
17 Hexachloroethane	117	8.909	8.917	(1.100)	508650	40.0000	38.39
16 N-Nitroso-di-n-propylamine	70	8.866	8.874	(1.095)	741091	40.0000	36.35
15 4-Methylphenol	108	8.866	8.874	(1.095)	1017969	40.0000	35.97
$ 18 Nitrobenzene-d5	82	9.037	9.037	(0.890)	1254972	40.0000	39.45
19 Nitrobenzene	77	9.064	9.072	(0.893)	1163046	40.0000	37.48
20 Isophorone	82	9.443	9.456	(0.930)	1730163	40.0000	37.54
21 2-Nitrophenol	139	9.582	9.590	(0.944)	590400	40.0000	40.32
22 2,4-Dimethylphenol	107	9.700	9.713	(0.955)	1014683	40.0000	37.00
23 Bis(2-Chloroethoxy)methane	93	9.844	9.852	(0.969)	1266949	40.0000	37.37
24 Benzoic acid	105	9.956	10.017	(0.981)	1300796	80.0000	95.47
25 2,4-Dichlorophenol	162	9.977	9.985	(0.983)	861110	40.0000	37.68
26 1,2,4-Trichlorobenzene	180	10.100	10.103	(0.995)	943110	40.0000	37.05
* 27 Naphthalene-d8	136	10.154	10.162	(1.000)	1535748	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.186	10.194	(1.003)	2824472	40.0000	35.41
	29 4-Chloroaniline	127	10.330	10.338	(1.017)	1123228	40.0000	35.31
	30 Hexachlorobutadiene	225	10.506	10.509	(1.035)	505700	40.0000	37.05
	31 4-Chloro-3-methylphenol	107	11.158	11.160	(1.099)	803666	40.0000	37.01
	32 2-Methylnaphthalene	141	11.313	11.315	(1.114)	1467115	40.0000	35.25
	33 Hexachlorocyclopentadiene	237	11.697	11.700	(0.898)	566960	40.0000	46.16
	34 2,4,6-Trichlorophenol	196	11.831	11.839	(0.908)	542812	40.0000	41.06
	35 2,4,5-Trichlorophenol	196	11.895	11.898	(0.913)	570019	40.0000	41.30
$	36 2-Fluorobiphenyl	172	11.959	11.964	(0.918)	1990104	40.0000	37.07
	37 2-Chloronaphthalene	162	12.098	12.101	(0.929)	1627637	40.0000	35.95
	38 2-Nitroaniline	65	12.328	12.336	(0.946)	425319	40.0000	39.58
	39 Dimethylphthalate	163	12.702	12.710	(0.975)	1671741	40.0000	36.20
	40 Acenaphthylene	152	12.777	12.779	(0.981)	2469132	40.0000	37.12
	41 2,6-Dinitrotoluene	165	12.798	12.806	(0.982)	403137	40.0000	39.57
*	42 Acenaphthene-d10	164	13.028	13.030	(1.000)	791002	20.0000	
	43 3-Nitroaniline	138	13.012	13.020	(0.999)	391716	40.0000	35.81
	44 Acenaphthene	153	13.081	13.084	(1.004)	1524721	40.0000	36.22
	45 2,4-Dinitrophenol	184	13.177	13.185	(1.011)	442360	80.0000	101.2
	46 Dibenzofuran	168	13.343	13.351	(1.024)	2080636	40.0000	35.31
	47 4-Nitrophenol	109	13.327	13.335	(1.023)	185711	40.0000	44.22
	48 2,4-Dinitrotoluene	165	13.428	13.431	(1.031)	518828	40.0000	39.62
	50 Diethylphthalate	149	13.861	13.869	(1.064)	1565827	40.0000	35.65
	49 Fluorene	166	13.904	13.906	(1.067)	1700014	40.0000	35.80
	51 4-Chlorophenyl-phenylether	204	13.925	13.933	(1.069)	839291	40.0000	36.44
	52 4-Nitroaniline	138	14.011	14.024	(1.075)	383059	40.0000	37.54
	53 4,6-Dinitro-2-methylphenol	198	14.085	14.093	(0.914)	586394	80.0000	87.99
	54 N-Nitrosodiphenylamine	169	14.133	14.141	(0.917)	1233915	40.0000	37.53
$	55 2,4,6-Tribromophenol	330	14.331	14.331	(1.100)	214071	40.0000	39.41
	56 4-Bromophenyl-phenylether	248	14.716	14.713	(0.955)	447377	40.0000	38.08
	57 Hexachlorobenzene	284	14.935	14.937	(0.969)	467959	40.0000	37.73
	58 Pentachlorophenol	266	15.234	15.237	(0.988)	255100	40.0000	45.53
*	59 Phenanthrene-d10	188	15.416	15.418	(1.000)	1047648	20.0000	
	60 Phenanthrene	178	15.453	15.456	(1.002)	2131733	40.0000	35.94
	61 Anthracene	178	15.522	15.530	(1.007)	2218685	40.0000	36.65
	62 Carbazole	167	15.811	15.813	(1.026)	2018190	40.0000	36.59
	63 Di-n-butylphthalate	149	16.527	16.529	(1.072)	2342217	40.0000	37.51
	64 Fluoranthene	202	17.398	17.400	(1.129)	2036622	40.0000	36.90
	65 Pyrene	202	17.755	17.758	(0.899)	2110691	40.0000	36 62
$	66 Terphenyl-d14	244	18.065	18.071	(0.915)	1304243	40.0000	35.14
	67 Butylbenzylphthalate	149	18.952	18.955	(0.960)	980349	40.0000	41.37
	68 Benzo(a)anthracene	228	19.721	19.724	(0.999)	1722773	40.0000	38.74
*	69 Chrysene-d12	240	19.743	19.751	(1.000)	892107	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.727	19.729	(0.999)	570881	40.0000	38.21
	71 Chrysene	228	19.785	19.793	(1.002)	1728286	40.0000	37.62
	72 bis(2-Ethylhexyl)phthalate	149	19.946	19.948	(0.955)	1339388	40.0000	40.03
*	134 Di-n-octylphthalate-d4	153	20.886	20.883	(1.000)	1128113	20.0000	
	73 Di-n-octylphthalate	149	20.891	20.894	(1.000)	2228395	40.0000	37.69

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.377	21.391	(0.976)	1825188	40.0000	40.43
75	Benzo(k)fluoranthene	252	21.415	21.423	(0.977)	1753054	40.0000	35.62
187	Total Benzofluoranthenes	252	21.415	21.423	(0.977)	3416411	80.0000	76.04
76	Benzo(a)pyrene	252	21.832	21.839	(0.996)	1620510	40.0000	39.83
* 77	Perylene-d12	264	21.912	21.914	(1.000)	866978	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.461	23.474	(1.071)	2151540	40.0000	40.12
79	Dibenzo(a,h)anthracene	278	23.482	23.495	(1.072)	1765710	40.0000	39.91
80	Benzo(g,h,i)perylene	276	23.888	23.907	(1.090)	1913109	40.0000	40.66
90	N-Nitrosodimethylamine	74	3.412	3.446	(0.421)	805339	40.0000	40.37
103	Pyridine	79	3.374	3.393	(0.417)	1487518	40.0000	40.99
91	Aniline	93	7.648	7.656	(0.945)	1641954	40.0000	37.00
105	1-methylnaphthalene	141	11.489	11.492	(1.132)	1453838	40.0000	35.35
93	Benzidine	184	13.177	13.185	(0.667)	442360	40.0000	54.12
111	Azobenzene (1,2-DP-Hydrazine)	77	14.182	14.184	(1.089)	1820467	40.0000	36.43
143	1,4-Dioxane	88	2.701	2.720	(0.334)	511713	40.0000	40.00
$ 137	d8-1,4-Dioxane	96	2.648	2.672	(0.327)	541725	40.0000	40.02
144	alpha-Terpineol	59	10.212	10.220	(1.006)	582460	40.0000	37.55
177	p-Benzoquinone	82	6.767	6.780	(0.666)	256983	40.0000	43.76
98	Retene	219	18.316	18.319	(0.928)	811670	40.0000	38.71
99	Perylene	252	21.944	21.957	(1.001)	1939511	40.0000	37.99
133	Butylatedhydroxytoluene	205	13.204	13.207	(1.014)	1235327	40.0000	35.74
115	Tributyl Phosphate	99	14.230	14.238	(0.923)	1793678	40.0000	37.39
116	Dibutyl Phenyl Phosphate	175	15.971	15.974	(1.036)	1118737	40.0000	38.87
117	Butyl Diphenyl Phosphate	94	17.659	17.662	(0.894)	433302	40.0000	38.34
118	Triphenyl Phosphate	326	19.267	19.270	(0.976)	305541	40.0000	39.36
123	Acetophenone	105	8.797	8.805	(1.086)	1369512	40.0000	36.76
168	Pentachlorobenzene	250	13.386	13.393	(1.027)	613419	40.0000	36.93
113	Diphenyl Oxide	170	12.285	12.293	(0.943)	1178575	40.0000	37.11
112	Biphenyl	154	12.093	12.101	(0.928)	1801743	40.0000	34.86
120	2,3,4,6-Tetrachlorophenol	232	13.631	13.634	(1.046)	375983	40.0000	42.14
151	1,2,4,5-Tetrachlorobenzene	216	11.655	11.657	(0.895)	754299	40.0000	38.21
110	Tetrachloroguaiacol	247	15.362	15.370	(0.997)	455694	80.0000	79.48
109	3,4,5-Trichloroguaiacol	213	13.727	13.730	(0.890)	273652	40.0000	40.01
181	3,4,6-Trichloroguaiacol	211	13.845	13.853	(1.710)	319950	40.0000	36.60
108	4,5,6-Trichloroguaiacol	213	14.764	14.766	(1.133)	268543	40.0000	39.80
184	3,4-Dichloroguaiacol	192	12.178	12.186	(1.504)	336647	40.0000	37.19
107	4,5-Dichloroguaiacol	192	12.969	12.971	(0.995)	779610	80.0000	76.47
182	4,6-Dichloroguaiacol	192	12.969	12.971	(1.602)	779610	80.0000	71.97
185	4-Chloroguaiacol	115	11.088	11.091	(1.369)	222513	20.0000	19.38
186	Carbaryl	144	16.222	16.230	(1.052)	1145060	40.0000	40.13
178	2-Benzyl-4-Chlorophenol	218	16.180	16.193	(1.050)	369740	40.0000	39.24
106	Guaiacol	124	9.064	9.072	(1.119)	838524	40.0000	36.16

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 11211105.D
Lab Smp Id: IC401121
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20111121.b/SW846112111.m
Misc Info: 11-

Calibration Date: 21-NOV-2011
Calibration Time: 17:37
Client Smp ID: IC401121
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	393702	196851	787404	419981	6.67
27 Naphthalene-d8	1422023	711012	2844046	1535748	8.00
42 Acenaphthene-d10	754629	377314	1509258	791002	4.82
59 Phenanthrene-d10	1068116	534058	2136232	1047648	-1.92
69 Chrysene-d12	993839	496920	1987678	892107	-10.24
134 Di-n-octylphthala	1256584	628292	2513168	1128113	-10.22
77 Perylene-d12	976441	488220	1952882	866978	-11.21

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.10	7.60	8.60	8.10	-0.03
27 Naphthalene-d8	10.15	9.65	10.65	10.15	0.03
42 Acenaphthene-d10	13.03	12.53	13.53	13.03	-0.02
59 Phenanthrene-d10	15.41	14.91	15.91	15.42	0.02
69 Chrysene-d12	19.75	19.25	20.25	19.74	-0.01
134 Di-n-octylphthala	20.88	20.38	21.38	20.89	0.01
77 Perylene-d12	21.91	21.41	22.41	21.91	0.01

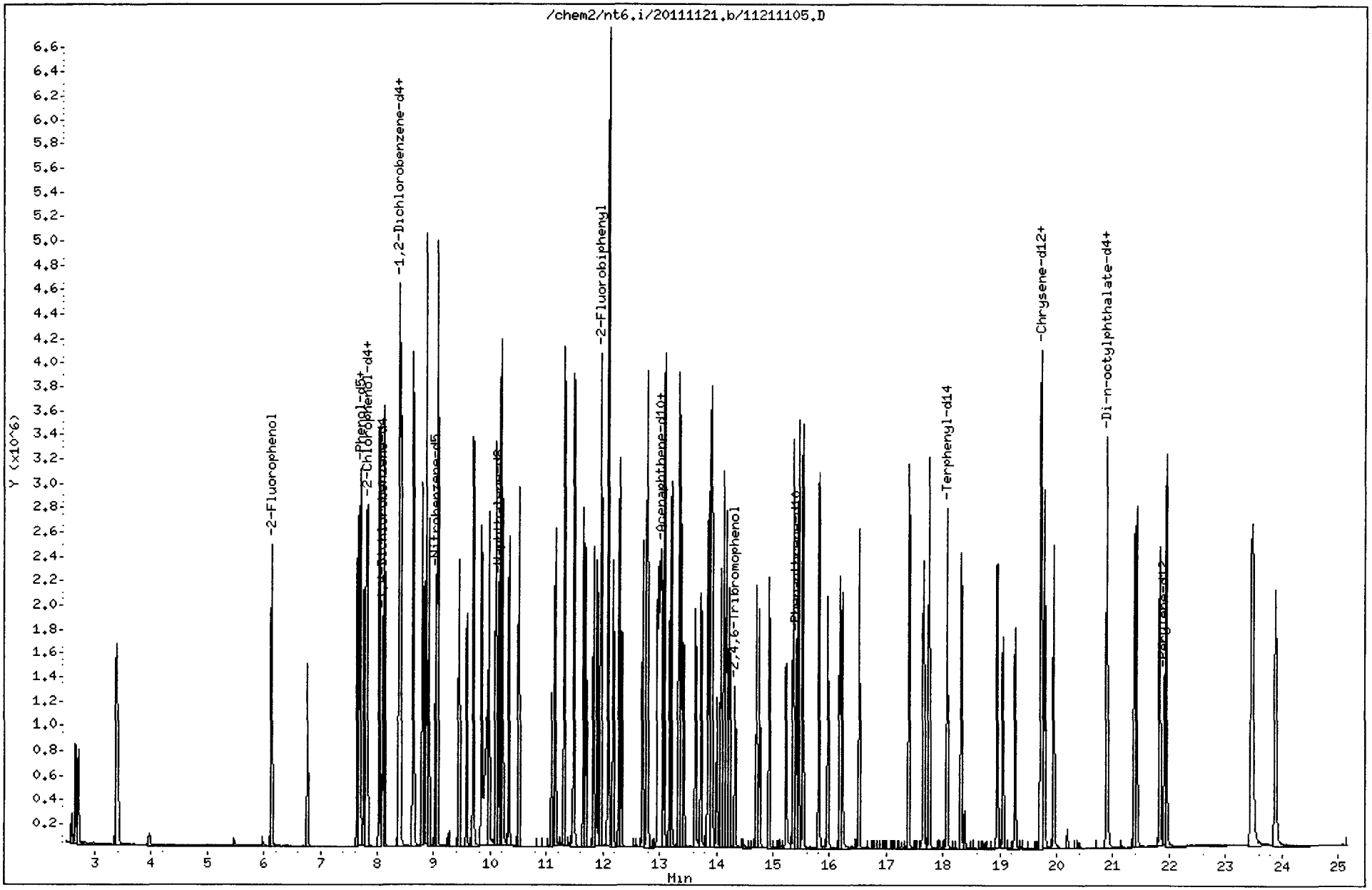
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20111121.b/11211105.D
Date : 21-NOV-2011 13:20
Client ID: IC401121
Sample Info: IC401121,

Column phase: ZB-5ms1

Instrument: nt6.1

Operator: JZ
Column diameter: 0.32



CO-ELUTION SUMMARY FOR FILE - 11211105.D

Lab ID: IC401121, Method: SW846112111.m, Instrument: nt6.i, Date: 21-NOV-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20111121.b/11211106.D
Lab Smp Id: IC601121 Client Smp ID: IC601121
Inj Date : 21-NOV-2011 13:53
Operator : JZ Inst ID: nt6.i
Smp Info : IC601121,
Misc Info : 11-
Comment : 1ul Injection
Method : /chem2/nt6.i/20111121.b/SW846112111.m
Meth Date : 28-Nov-2011 10:58 jianqing Quant Type: ISTD
Cal Date : 21-NOV-2011 13:53 Cal File: 11211106.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

11/28/11

AMOUNTS

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.142	6.142	(0.758)	1660415	60.0000	55.83
$	2	Phenol-d5	99	7.691	7.691	(0.949)	1998969	60.0000	54.63
	3	Phenol	94	7.712	7.709	(0.952)	1881288	60.0000	53.02
$	5	2-Chlorophenol-d4	132	7.808	7.808	(0.964)	1588125	60.0000	55.46
	4	Bis(2-Chloroethyl)ether	93	7.776	7.774	(0.960)	1591118	60.0000	55.68
	6	2-Chlorophenol	128	7.830	7.832	(0.966)	1570107	60.0000	54.09
	7	1,3-Dichlorobenzene	146	8.038	8.041	(0.992)	1831783	60.0000	54.82
*	8	1,4-Dichlorobenzene-d4	152	8.102	8.099	(1.000)	406643	20.0000	
	9	1,4-Dichlorobenzene	146	8.129	8.126	(1.003)	1826152	60.0000	54.98
$	10	1,2-Dichlorobenzene-d4	152	8.401	8.401	(1.037)	1047345	60.0000	52.89
	12	1,2-Dichlorobenzene	146	8.423	8.425	(1.040)	1681088	60.0000	53.96
	11	Benzyl alcohol	108	8.391	8.399	(1.036)	1002231	60.0000	57.07
	14	2,2'-oxybis(1-Chloropropane)	45	8.647	8.650	(1.067)	1256780	60.0000	53.81
	13	2-Methylphenol	108	8.636	8.639	(1.066)	1425131	60.0000	54.24
	17	Hexachloroethane	117	8.914	8.917	(1.100)	726613	60.0000	57.17
	16	N-Nitroso-di-n-propylamine	70	8.871	8.874	(1.095)	1071819	60.0000	55.17
	15	4-Methylphenol	108	8.871	8.874	(1.095)	1440944	60.0000	53.69
$	18	Nitrobenzene-d5	82	9.037	9.037	(0.890)	1826912	60.0000	58.56
	19	Nitrobenzene	77	9.069	9.072	(0.893)	1646621	60.0000	54.78
	20	Isophorone	82	9.454	9.456	(0.931)	2574437	60.0000	57.21
	21	2-Nitrophenol	139	9.587	9.590	(0.944)	864020	60.0000	59.90
	22	2,4-Dimethylphenol	107	9.705	9.713	(0.955)	1463992	60.0000	55.06
	23	Bis(2-Chloroethoxy)methane	93	9.849	9.852	(0.969)	1853151	60.0000	56.18
	24	Benzoic acid	105	9.988	10.017	(0.983)	2171088	120.000	151.2
	25	2,4-Dichlorophenol	162	9.977	9.985	(0.982)	1237736	60.0000	55.74
	26	1,2,4-Trichlorobenzene	180	10.100	10.103	(0.994)	1376670	60.0000	55.67
*	27	Naphthalene-d8	136	10.159	10.162	(1.000)	1513404	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.191	10.194	(1.003)	3951630	60.0000	51.67
	29 4-Chloroaniline	127	10.335	10.338	(1.017)	1624991	60.0000	53.05
	30 Hexachlorobutadiene	225	10.506	10.509	(1.034)	753840	60.0000	56.67
	31 4-Chloro-3-methylphenol	107	11.158	11.160	(1.098)	1231740	60.0000	57.96
	32 2-Methylnaphthalene	141	11.313	11.315	(1.114)	2185375	60.0000	54.30
	33 Hexachlorocyclopentadiene	237	11.697	11.700	(0.898)	873862	60.0000	65.41
	34 2,4,6-Trichlorophenol	196	11.836	11.839	(0.909)	864700	60.0000	61.03
	35 2,4,5-Trichlorophenol	196	11.895	11.898	(0.913)	915001	60.0000	61.72
$	36 2-Fluorobiphenyl	172	11.964	11.964	(0.918)	3018225	60.0000	53.74
	37 2-Chloronaphthalene	162	12.098	12.101	(0.929)	2405434	60.0000	51.20
	38 2-Nitroaniline	65	12.333	12.336	(0.947)	709716	60.0000	61.53
	39 Dimethylphthalate	163	12.707	12.710	(0.975)	2781021	60.0000	56.96
	40 Acenaphthylene	152	12.776	12.779	(0.981)	3782093	60.0000	54.26
	41 2,6-Dinitrotoluene	165	12.798	12.806	(0.982)	688789	60.0000	62.73
*	42 Acenaphthene-d10	164	13.028	13.030	(1.000)	844849	20.0000	
	43 3-Nitroaniline	138	13.017	13.020	(0.999)	574420	60.0000	50.70
	44 Acenaphthene	153	13.081	13.084	(1.004)	2409997	60.0000	54.57
	45 2,4-Dinitrophenol	184	13.182	13.185	(1.012)	826238	120.000	161.6
	46 Dibenzofuran	168	13.348	13.351	(1.025)	3289598	60.0000	53.41
	47 4-Nitrophenol	109	13.337	13.335	(1.024)	327663	60.0000	70.50
	48 2,4-Dinitrotoluene	165	13.428	13.431	(1.031)	933954	60.0000	65.55
	50 Diethylphthalate	149	13.872	13.869	(1.065)	2613603	60.0000	56.38
	49 Fluorene	166	13.904	13.906	(1.067)	2744388	60.0000	55.01
	51 4-Chlorophenyl-phenylether	204	13.930	13.933	(1.069)	1359767	60.0000	56.01
	52 4-Nitroaniline	138	14.021	14.024	(1.076)	706299	60.0000	63.96
	53 4,6-Dinitro-2-methylphenol	198	14.091	14.093	(0.914)	1077200	120.000	130.9
	54 N-Nitrosodiphenylamine	169	14.139	14.141	(0.917)	2101979	60.0000	54.05
$	55 2,4,6-Tribromophenol	330	14.331	14.331	(1.100)	376766	60.0000	64.06
	56 4-Bromophenyl-phenylether	248	14.716	14.713	(0.955)	766094	60.0000	54.97
	57 Hexachlorobenzene	284	14.935	14.937	(0.969)	797257	60.0000	54.30
	58 Pentachlorophenol	266	15.239	15.237	(0.989)	490080	60.0000	69.61
*	59 Phenanthrene-d10	188	15.415	15.418	(1.000)	1263785	20.0000	
	60 Phenanthrene	178	15.458	15.456	(1.003)	3648415	60.0000	52.30
	61 Anthracene	178	15.528	15.530	(1.007)	3764296	60.0000	52.78
	62 Carbazole	167	15.816	15.813	(1.026)	3604506	60.0000	55.06
	63 Di-n-butylphthalate	149	16.527	16.529	(1.072)	4125130	60.0000	55.58
	64 Fluoranthene	202	17.397	17.400	(1.129)	3670698	60.0000	55.88
	65 Pyrene	202	17.755	17.758	(0.899)	3851133	60.0000	53.02
$	66 Terphenyl-d14	244	18.071	18.071	(0.915)	2445390	60.0000	52.40
	67 Butylbenzylphthalate	149	18.952	18.955	(0.960)	1868851	60.0000	60.96
	68 Benzo(a)anthracene	228	19.721	19.724	(0.999)	3180734	60.0000	56.17
*	69 Chrysene-d12	240	19.748	19.751	(1.000)	1150353	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.732	19.729	(0.999)	985794	60.0000	52.45
	71 Chrysene	228	19.791	19.793	(1.002)	3223294	60.0000	55.27
	72 bis(2-Ethylhexyl)phthalate	149	19.951	19.948	(0.955)	2498880	60.0000	59.31
*	134 Di-n-octylphthalate-d4	153	20.881	20.883	(1.000)	1423927	20.0000	
	73 Di-n-octylphthalate	149	20.897	20.894	(1.001)	4178219	60.0000	56.62

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.383	21.391	(0.976)	3531284	60.0000	57.99
75	Benzo(k)fluoranthene	252	21.420	21.423	(0.978)	3342183	60.0000	51.43
187	Total Benzofluoranthenes	252	21.420	21.423	(0.978)	6505818	120.000	108.6
76	Benzo(a)pyrene	252	21.837	21.839	(0.997)	3154164	60.0000	57.56
* 77	Perylene-d12	264	21.912	21.914	(1.000)	1177349	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.466	23.474	(1.071)	4157376	60.0000	57.55
79	Dibenzo(a,h)anthracene	278	23.493	23.495	(1.072)	3407954	60.0000	57.24
80	Benzo(g,h,i)perylene	276	23.899	23.907	(1.091)	3735437	60.0000	58.72
90	N-Nitrosodimethylamine	74	3.433	3.446	(0.424)	1139095	60.0000	59.15
103	Pyridine	79	3.390	3.393	(0.418)	2147322	60.0000	60.93
91	Aniline	93	7.653	7.656	(0.945)	2298940	60.0000	54.49
105	1-methylnaphthalene	141	11.489	11.492	(1.131)	2201122	60.0000	55.18
93	Benzidine	184	13.182	13.185	(0.668)	826238	60.0000	73.87
111	Azobenzene (1,2-DP-Hydrazine)	77	14.181	14.184	(1.089)	2937396	60.0000	55.80
143	1,4-Dioxane	88	2.717	2.720	(0.335)	742198	60.0000	59.93
$ 137	d8-1,4-Dioxane	96	2.664	2.672	(0.329)	790697	60.0000	60.28
144	alpha-Terpineol	59	10.218	10.220	(1.006)	850752	60.0000	56.33
177	p-Benzoquinone	82	6.777	6.780	(0.667)	378327	60.0000	64.42
98	Retene	219	18.316	18.319	(0.928)	1511869	60.0000	56.56
99	Perylene	252	21.954	21.957	(1.002)	3522114	60.0000	52.14
133	Butylatedhydroxytoluene	205	13.204	13.207	(1.014)	1926817	60.0000	53.35
115	Tributyl Phosphate	99	14.235	14.238	(0.923)	3143076	60.0000	55.19
116	Dibutyl Phenyl Phosphate	175	15.976	15.974	(1.036)	2125444	60.0000	61.01
117	Butyl Diphenyl Phosphate	94	17.659	17.662	(0.894)	804262	60.0000	55.93
118	Triphenyl Phosphate	326	19.267	19.270	(0.976)	592378	60.0000	59.32
123	Acetophenone	105	8.802	8.805	(1.086)	2001596	60.0000	56.19
168	Pentachlorobenzene	250	13.391	13.393	(1.028)	979327	60.0000	55.95
113	Diphenyl Oxide	170	12.290	12.293	(0.943)	1829652	60.0000	54.87
112	Biphenyl	154	12.098	12.101	(0.929)	2668700	60.0000	49.96
120	2,3,4,6-Tetrachlorophenol	232	13.631	13.634	(1.046)	641214	60.0000	65.95
151	1,2,4,5-Tetrachlorobenzene	216	11.655	11.657	(0.895)	1145386	60.0000	55.20
110	Tetrachloroguaiacol	247	15.367	15.370	(0.997)	841316	120.000	121.4
109	3,4,5-Trichloroguaiacol	213	13.727	13.730	(0.890)	460166	60.0000	56.44
181	3,4,6-Trichloroguaiacol	211	13.850	13.853	(1.709)	554410	60.0000	64.51
108	4,5,6-Trichloroguaiacol	213	14.764	14.766	(1.133)	482184	60.0000	65.65
184	3,4-Dichloroguaiacol	192	12.184	12.186	(1.504)	544190	60.0000	61.73
107	4,5-Dichloroguaiacol	192	12.969	12.971	(0.995)	1277070	120.000	117.7
182	4,6-Dichloroguaiacol	192	12.969	12.971	(1.601)	1294037	120.000	122.8
185	4-Chloroguaiacol	115	11.088	11.091	(1.369)	346684	30.0000	30.98
186	Carbaryl	144	16.233	16.230	(1.053)	2111408	60.0000	61.11
178	2-Benzyl-4-Chlorophenol	218	16.190	16.193	(1.050)	728831	60.0000	63.40
106	Guaiacol	124	9.069	9.072	(1.119)	1191235	60.0000	54.10

TX57 · 00355

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 11211106.D
Lab Smp Id: IC601121
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20111121.b/SW846112111.m
Misc Info: 11-

Calibration Date: 21-NOV-2011
Calibration Time: 17:37
Client Smp ID: IC601121
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	393702	196851	787404	406643	3.29
27 Naphthalene-d8	1422023	711012	2844046	1513404	6.43
42 Acenaphthene-d10	754629	377314	1509258	844849	11.96
59 Phenanthrene-d10	1068116	534058	2136232	1263785	18.32
69 Chrysene-d12	993839	496920	1987678	1150353	15.75
134 Di-n-octylphthala	1256584	628292	2513168	1423927	13.32
77 Perylene-d12	976441	488220	1952882	1177349	20.58

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.10	7.60	8.60	8.10	0.03
27 Naphthalene-d8	10.15	9.65	10.65	10.16	0.08
42 Acenaphthene-d10	13.03	12.53	13.53	13.03	-0.02
59 Phenanthrene-d10	15.41	14.91	15.91	15.42	0.02
69 Chrysene-d12	19.75	19.25	20.25	19.75	0.01
134 Di-n-octylphthala	20.88	20.38	21.38	20.88	-0.01
77 Perylene-d12	21.91	21.41	22.41	21.91	0.01

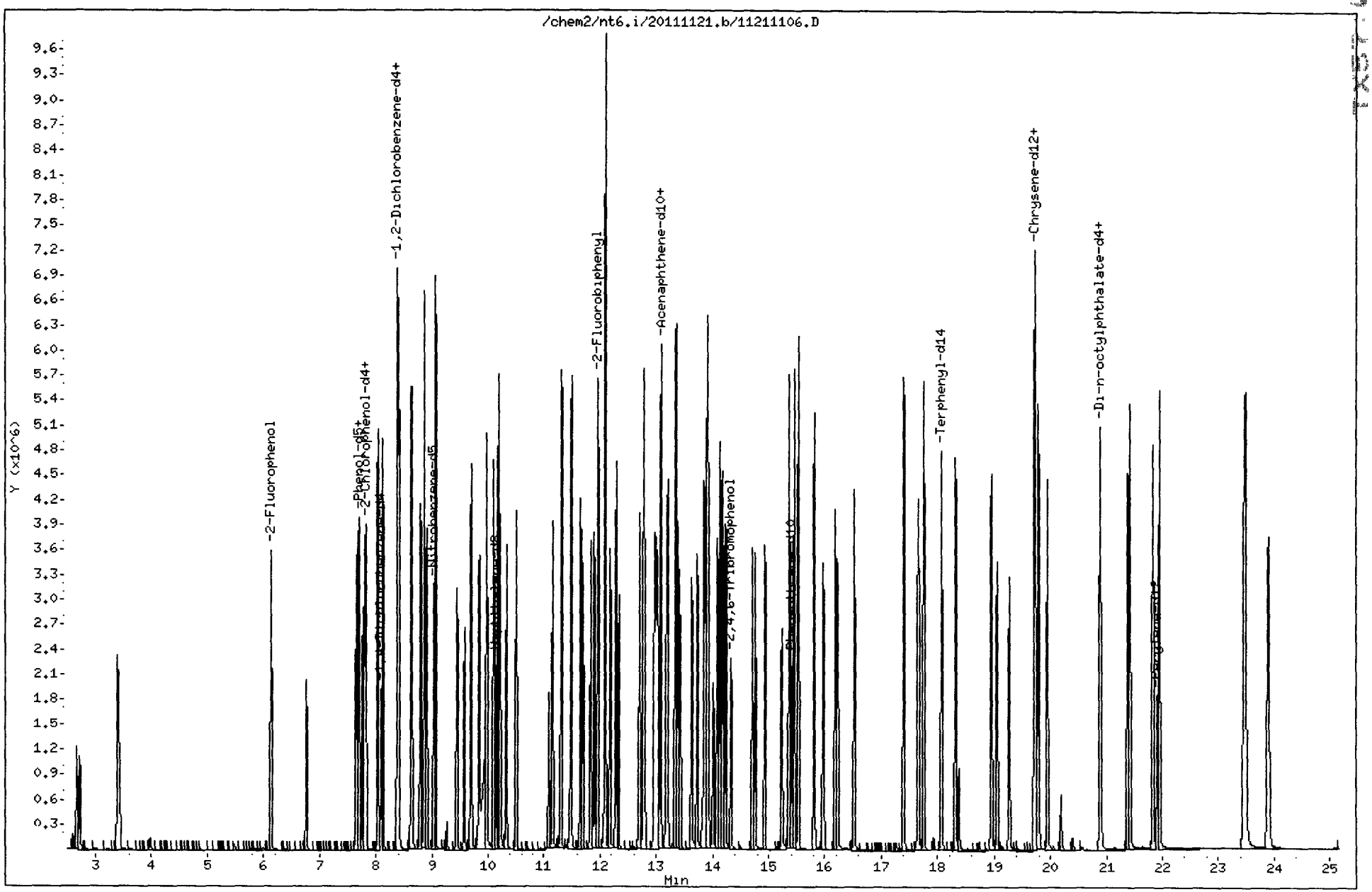
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20111121.b/11211106.D
Date : 21-NOV-2011 13:53
Client ID: IC601121
Sample Info: IC601121,

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

Column phase: ZB-5ms1



CO-ELUTION SUMMARY FOR FILE - 11211106.D

Lab ID: IC601121, Method: SW846112111.m, Instrument: nt6.i, Date: 21-NOV-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20111121.b/11211107.D
Lab Smp Id: IC801121 Client Smp ID: IC801121
Inj Date : 21-NOV-2011 14:26
Operator : JZ Inst ID: nt6.i
Smp Info : IC801121,
Misc Info : 11-
Comment : 1ul Injection
Method : /chem2/nt6.i/20111121.b/SW846112111.m
Meth Date : 28-Nov-2011 10:58 jianqing Quant Type: ISTD
Cal Date : 21-NOV-2011 14:26 Cal File: 11211107.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

11/28/11

AMOUNTS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	Compound Not Detected.					
$	2 Phenol-d5	99	Compound Not Detected.					
	3 Phenol	94	7.709	7.709	(0.952)	2495704	80.0000	70.33
$	5 2-Chlorophenol-d4	132	Compound Not Detected.					
	4 Bis(2-Chloroethyl)ether	93	7.774	7.774	(0.960)	2140548	80.0000	74.29
	6 2-Chlorophenol	128	7.832	7.832	(0.967)	2082648	80.0000	71.56
	7 1,3-Dichlorobenzene	146	8.041	8.041	(0.993)	2424717	80.0000	72.27
*	8 1,4-Dichlorobenzene-d4	152	8.099	8.099	(1.000)	414877	20.0000	
	9 1,4-Dichlorobenzene	146	8.126	8.126	(1.003)	2383063	80.0000	71.56
$	10 1,2-Dichlorobenzene-d4	152	Compound Not Detected.					
	12 1,2-Dichlorobenzene	146	8.425	8.425	(1.040)	2264068	80.0000	72.36
	11 Benzyl alcohol	108	8.399	8.399	(1.037)	1379773	80.0000	77.43
	14 2,2'-oxybis(1-Chloropropane)	45	8.650	8.650	(1.068)	1648067	80.0000	70.53
	13 2-Methylphenol	108	8.639	8.639	(1.067)	1826251	80.0000	69.60
	17 Hexachloroethane	117	8.917	8.917	(1.101)	968936	80.0000	75.44
	16 N-Nitroso-di-n-propylamine	70	8.874	8.874	(1.096)	1388581	80.0000	71.33
	15 4-Methylphenol	108	8.874	8.874	(1.096)	1817393	80.0000	68.03
$	18 Nitrobenzene-d5	82	Compound Not Detected.					
	19 Nitrobenzene	77	9.072	9.072	(0.893)	2134617	80.0000	72.35
	20 Isophorone	82	9.456	9.456	(0.931)	3292321	80.0000	74.25
	21 2-Nitrophenol	139	9.590	9.590	(0.944)	1129817	80.0000	78.76
	22 2,4-Dimethylphenol	107	9.713	9.713	(0.956)	1870214	80.0000	71.76
	23 Bis(2-Chloroethoxy)methane	93	9.852	9.852	(0.970)	2411474	80.0000	74.20
	24 Benzoic acid	105	10.017	10.017	(0.986)	2780137	160.000	187.5
	25 2,4-Dichlorophenol	162	9.985	9.985	(0.983)	1574543	80.0000	72.26
	26 1,2,4-Trichlorobenzene	180	10.103	10.103	(0.994)	1784823	80.0000	73.38
*	27 Naphthalene-d8	136	10.162	10.162	(1.000)	1509006	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
28	Naphthalene	128	10.194	10.194	(1.003)	4914768	80.0000	66.29
29	4-Chloroaniline	127	10.338	10.338	(1.017)	1931092	80.0000	65.18
30	Hexachlorobutadiene	225	10.509	10.509	(1.034)	995976	80.0000	75.75
31	4-Chloro-3-methylphenol	107	11.160	11.160	(1.098)	1498500	80.0000	71.91
32	2-Methylnaphthalene	141	11.315	11.315	(1.114)	2689345	80.0000	68.60
33	Hexachlorocyclopentadiene	237	11.700	11.700	(0.898)	1167718	80.0000	92.36
34	2,4,6-Trichlorophenol	196	11.839	11.839	(0.909)	1060896	80.0000	81.03
35	2,4,5-Trichlorophenol	196	11.898	11.898	(0.913)	1132382	80.0000	82.42
$ 36	2-Fluorobiphenyl	172	Compound Not Detected.					
37	2-Chloronaphthalene	162	12.101	12.101	(0.929)	2939466	80.0000	69.36
38	2-Nitroaniline	65	12.336	12.336	(0.947)	827822	80.0000	78.13
39	Dimethylphthalate	163	12.710	12.710	(0.975)	3314147	80.0000	74.46
40	Acenaphthylene	152	12.779	12.779	(0.981)	4501495	80.0000	71.30
41	2,6-Dinitrotoluene	165	12.806	12.806	(0.983)	817227	80.0000	80.61
* 42	Acenaphthene-d10	164	13.030	13.030	(1.000)	779016	20.0000	
43	3-Nitroaniline	138	13.020	13.020	(0.999)	549312	80.0000	52.58
44	Acenaphthene	153	13.084	13.084	(1.004)	2880006	80.0000	71.91
45	2,4-Dinitrophenol	184	13.185	13.185	(1.012)	982394	160.000	198.4
46	Dibenzofuran	168	13.351	13.351	(1.025)	3751696	80.0000	67 75
47	4-Nitrophenol	109	13.335	13.335	(1.023)	365977	80.0000	84 58
48	2,4-Dinitrotoluene	165	13.431	13.431	(1.031)	1074418	80.0000	81.52
50	Diethylphthalate	149	13.869	13.869	(1.064)	3025438	80.0000	71.96
49	Fluorene	166	13.906	13.906	(1.067)	3205204	80.0000	70.99
51	4-Chlorophenyl-phenylether	204	13.933	13.933	(1.069)	1608549	80.0000	72.92
52	4-Nitroaniline	138	14.024	14.024	(1.076)	767188	80.0000	75.97
53	4,6-Dinitro-2-methylphenol	198	14.093	14.093	(0.914)	1246860	160.000	174.7
54	N-Nitrosodiphenylamine	169	14.141	14.141	(0.917)	2443991	80.0000	74.60
$ 55	2,4,6-Tribromophenol	330	Compound Not Detected.					
56	4-Bromophenyl-phenylether	248	14.713	14.713	(0.954)	902998	80.0000	76.60
57	Hexachlorobenzene	284	14.937	14.937	(0.969)	933243	80.0000	75.35
58	Pentachlorophenol	266	15.237	15.237	(0.988)	561892	80.0000	91.10
* 59	Phenanthrene-d10	188	15.418	15.418	(1.000)	1076497	20.0000	
60	Phenanthrene	178	15.456	15.456	(1.002)	4078208	80.0000	70.05
61	Anthracene	178	15.530	15.530	(1.007)	4236584	80.0000	71.04
62	Carbazole	167	15.813	15.813	(1.026)	3944127	80.0000	71.92
63	Di-n-butylphthalate	149	16.529	16.529	(1.072)	4546779	80.0000	72.97
64	Fluoranthene	202	17.400	17.400	(1.129)	4095135	80.0000	74.09
65	Pyrene	202	17.758	17.758	(0.899)	4247565	80.0000	70.45
$ 66	Terphenyl-d14	244	Compound Not Detected.					
67	Butylbenzylphthalate	149	18.955	18.955	(0.960)	2078517	80.0000	80.07
68	Benzo(a)anthracene	228	19.724	19.724	(0.999)	3556519	80.0000	74.96
* 69	Chrysene-d12	240	19.751	19.751	(1.000)	973946	20.0000	
70	3,3'-Dichlorobenzidine	252	19.729	19.729	(0.999)	1079805	80.0000	69.37
71	Chrysene	228	19.793	19.793	(1.002)	3618883	80.0000	74.18
72	bis(2-Ethylhexyl)phthalate	149	19.948	19.948	(0.955)	2855057	80.0000	79.37
* 134	Di-n-octylphthalate-d4	153	20.883	20.883	(1.000)	1217220	20.0000	
73	Di-n-octylphthalate	149	20.894	20.894	(1.000)	4681934	80.0000	75.00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.391	21.391	(0.976)	4202449	80.0000	78.17
75	Benzo(k)fluoranthene	252	21.423	21.423	(0.978)	3768585	80.0000	67.18
187	Total Benzofluoranthenes	252	21.423	21.423	(0.978)	7498711	160.000	143.7
76	Benzo(a)pyrene	252	21.839	21.839	(0.997)	3726468	80.0000	77.18
* 77	Perylene-d12	264	21.914	21.914	(1.000)	1043391	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.474	23.474	(1.071)	5138722	80.0000	80.23
79	Dibenzo(a,h)anthracene	278	23.495	23.495	(1.072)	4164121	80.0000	79.07
80	Benzo(g,h,i)perylene	276	23.907	23.907	(1.091)	4624964	80.0000	81.74
90	N-Nitrosodimethylamine	74	3.446	3.446	(0.426)	1577505	80.0000	80.24
103	Pyridine	79	3.393	3.393	(0.419)	2891363	80.0000	80.35
91	Aniline	93	7.656	7.656	(0.945)	2908162	80.0000	69.10
105	1-methylnaphthalene	141	11.492	11.492	(1.131)	2704894	80.0000	69.50
93	Benzidine	184	13.185	13.185	(0.668)	982394	80.0000	98.85
111	Azobenzene (1,2-DP-Hydrazine)	77	14.184	14.184	(1.089)	3416460	80.0000	71.61
143	1,4-Dioxane	88	2.720	2.720	(0.336)	1015601	80.0000	80.32
$ 137	d8-1,4-Dioxane	96	2.672	2.672	(0.330)	1068603	80.0000	79.87
144	alpha-Terpineol	59	10.220	10.220	(1.006)	1084611	80.0000	73.07
177	p-Benzoquinone	82	6.780	6.780	(0.667)	507447	80.0000	85.64
98	Retene	219	18.319	18.319	(0.928)	1677254	80.0000	74.90
99	Perylene	252	21.957	21.957	(1.002)	4161890	80.0000	70.85
133	Butylatedhydroxytoluene	205	13.207	13.207	(1.014)	2292597	80.0000	70.24
115	Tributyl Phosphate	99	14.238	14.238	(0.923)	3474495	80.0000	72.71
116	Dibutyl Phenyl Phosphate	175	15.974	15.974	(1.036)	2360346	80.0000	79.60
117	Butyl Diphenyl Phosphate	94	17.662	17.662	(0.894)	880288	80.0000	73.31
118	Triphenyl Phosphate	326	19.270	19.270	(0.976)	668705	80.0000	79.22
123	Acetophenone	105	8.805	8.805	(1.087)	2597506	80.0000	72.58
168	Pentachlorobenzene	250	13.393	13.393	(1.028)	1188548	80.0000	74.49
113	Diphenyl Oxide	170	12.293	12.293	(0.943)	2249978	80.0000	74.07
112	Biphenyl	154	12.101	12.101	(0.929)	3182470	80.0000	66.44
120	2,3,4,6-Tetrachlorophenol	232	13.634	13.634	(1.046)	756894	80.0000	83.76
151	1,2,4,5-Tetrachlorobenzene	216	11.657	11.657	(0.895)	1482271	80.0000	77.82
110	Tetrachloroguaiacol	247	15.370	15.370	(0.997)	956608	160.000	161.7
109	3,4,5-Trichloroguaiacol	213	13.730	13.730	(0.890)	552246	80.0000	79.58
181	3,4,6-Trichloroguaiacol	211	13.853	13.853	(1.710)	639511	80.0000	73.87
108	4,5,6-Trichloroguaiacol	213	14.766	14.766	(1.133)	544631	80.0000	80.36
184	3,4-Dichloroguaiacol	192	12.186	12.186	(1.505)	649453	80.0000	73.23
107	4,5-Dichloroguaiacol	192	12.971	12.971	(0.995)	1539691	160.000	154.8
182	4,6-Dichloroguaiacol	192	12.971	12.971	(1.602)	1549922	160.000	146.2
185	4-Chloroguaiacol	115	11.091	11.091	(1.369)	440257	40.0000	38.76
186	Carbaryl	144	16.230	16.230	(1.053)	2303275	80.0000	78.51
178	2-Benzyl-4-Chlorophenol	218	16.193	16.193	(1.050)	792901	80.0000	80.83
106	Guaiacol	124	9.072	9.072	(1.120)	1533835	80.0000	69.74

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 11211107.D
Lab Smp Id: IC801121
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20111121.b/SW846112111.m
Misc Info: 11-

Calibration Date: 21-NOV-2011
Calibration Time: 17:37
Client Smp ID: IC801121
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	393702	196851	787404	414877	5.38
27 Naphthalene-d8	1422023	711012	2844046	1509006	6.12
42 Acenaphthene-d10	754629	377314	1509258	779016	3.23
59 Phenanthrene-d10	1068116	534058	2136232	1076497	0.78
69 Chrysene-d12	993839	496920	1987678	973946	-2.00
134 Di-n-octylphthala	1256584	628292	2513168	1217220	-3.13
77 Perylene-d12	976441	488220	1952882	1043391	6.86

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.10	7.60	8.60	8.10	0.00
27 Naphthalene-d8	10.15	9.65	10.65	10.16	0.11
42 Acenaphthene-d10	13.03	12.53	13.53	13.03	0.00
59 Phenanthrene-d10	15.41	14.91	15.91	15.42	0.03
69 Chrysene-d12	19.75	19.25	20.25	19.75	0.03
134 Di-n-octylphthala	20.88	20.38	21.38	20.88	0.00
77 Perylene-d12	21.91	21.41	22.41	21.91	0.02

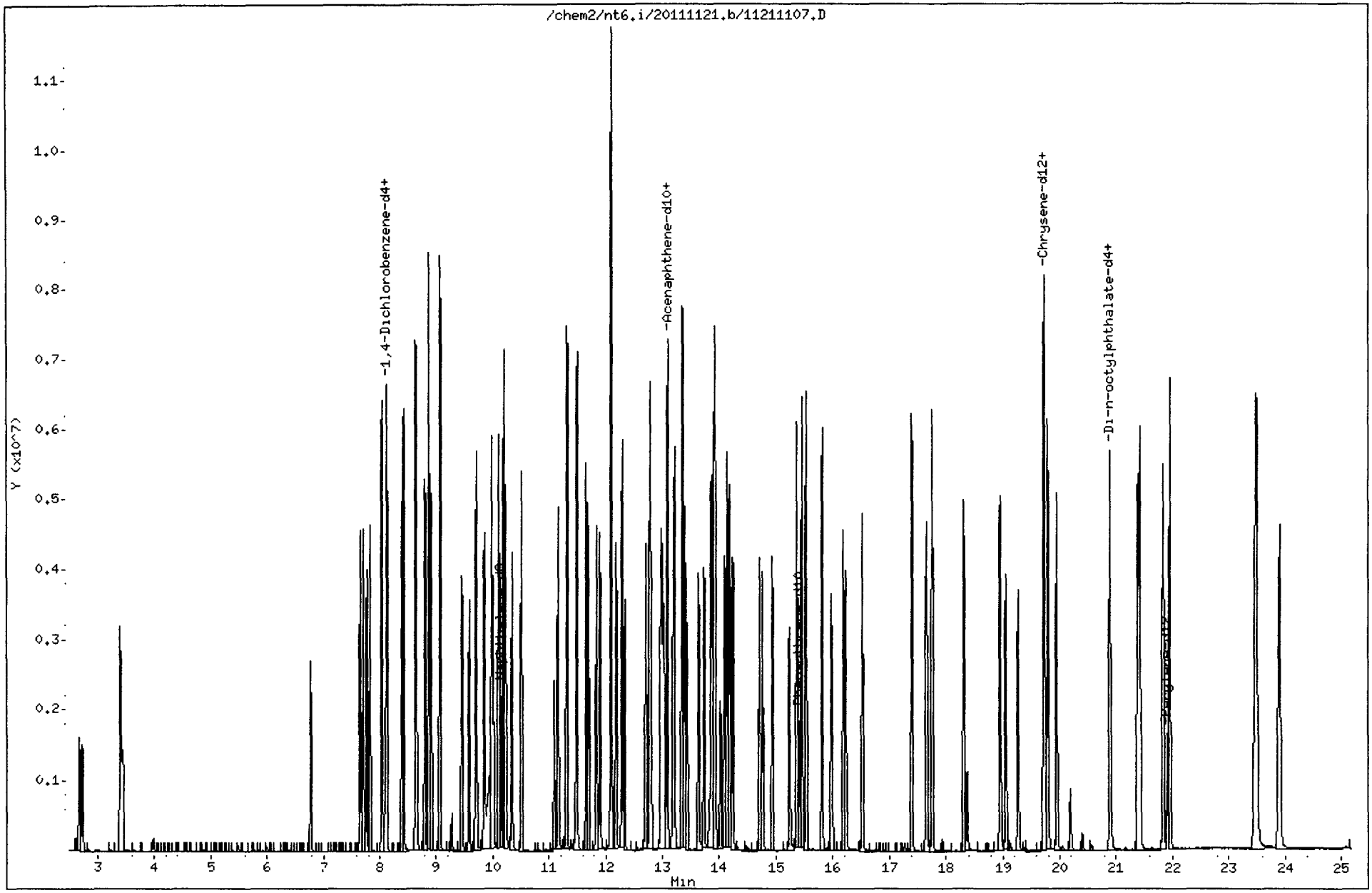
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20111121.b/11211107.D
Date : 21-NOV-2011 14:26
Client ID: IC801121
Sample Info: IC801121,

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

Column phase: ZB-5ms1



CO-ELUTION SUMMARY FOR FILE - 11211107.D

Lab ID: IC801121, Method: SW846112111.m, Instrument: nt6.i, Date: 21-NOV-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20111121.b/11211110.D
Lab Smp Id: ICV1121 Client Smp ID: ICV1121
Inj Date : 21-NOV-2011 18:19
Operator : JZ Inst ID: nt6.i
Smp Info : ICV1121,
Misc Info : 11-
Comment : 1ul Injection
Method : /chem2/nt6.i/20111121.b/SW846112111.m
Meth Date : 28-Nov-2011 10:58 jianqing Quant Type: ISTD
Cal Date : 21-NOV-2011 14:26 Cal File: 11211107.D
Als bottle: 10 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

11/28/11

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
$	1	2-Fluorophenol	112	6.134	6.142	(0.758)	709201	24.1095	24.11(R)
$	2	Phenol-d5	99	7.683	7.691	(0.949)	847714	23.4211	23.42(R)
	3	Phenol	94	7.699	7.709	(0.951)	805424	23.4104	23.41
$	5	2-Chlorophenol-d4	132	7.801	7.808	(0.964)	684822	24.1785	24 18(R)
	4	Bis(2-Chloroethyl)ether	93	7.763	7.774	(0.959)	666116	23.8470	23.85
	6	2-Chlorophenol	128	7.822	7.832	(0.966)	670291	23.7574	23.76
	7	1,3-Dichlorobenzene	146	8.036	8.041	(0.993)	775043	23.8265	23.83
*	8	1,4-Dichlorobenzene-d4	152	8.095	8.099	(1.000)	402224	20.0000	
	9	1,4-Dichlorobenzene	146	8.121	8.126	(1.003)	779096	24.1303	24.13
$	10	1,2-Dichlorobenzene-d4	152	8.399	8.401	(1.038)	467961	23.8902	23.89(R)
	12	1,2-Dichlorobenzene	146	8.421	8.425	(1.040)	726966	23.9656	23.97
	11	Benzyl alcohol	108	8.383	8.399	(1.036)	426621	24.6930	24.69
	14	2,2'-oxybis(1-Chloropropane)	45	8.645	8.650	(1.068)	537131	23.7104	23.71
	13	2-Methylphenol	108	8.629	8.639	(1.066)	887674	34.8942	34.89(R)
	17	Hexachloroethane	117	8.912	8.917	(1.101)	303413	24.3653	24.37
	16	N-Nitroso-di-n-propylamine	70	8.859	8.874	(1.094)	427920	22.6719	22.67
	15	4-Methylphenol	108	8.864	8.874	(1.095)	899103	34.7129	34.71(R)
$	18	Nitrobenzene-d5	82	9.035	9.037	(0.890)	750952	25.1833	25.18(R)
	19	Nitrobenzene	77	9.062	9.072	(0.893)	674920	23.8627	23.86
	20	Isophorone	82	9.441	9.456	(0.930)	1145487	26.9484	26.95
	21	2-Nitrophenol	139	9.580	9.590	(0.944)	333609	24.2580	24.26
	22	2,4-Dimethylphenol	107	9.697	9.713	(0.955)	591425	23.6714	23.67
	23	Bis(2-Chloroethoxy)methane	93	9.842	9.852	(0.969)	732037	23.4956	23.50
	24	Benzoic acid	105	9.927	10.017	(0.978)	943460	56.8394	56.84
	25	2,4-Dichlorophenol	162	9.975	9.985	(0.983)	498386	23.8586	23.86
	26	1,2,4-Trichlorobenzene	180	10.098	10.103	(0.995)	553121	23.7227	23.72
*	27	Naphthalene-d8	136	10.151	10.162	(1.000)	1446633	20.0000	

TXST : 08365

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	28 Naphthalene	128	10.183	10.194	(1.003)	1768112	24.8756	24.88
	29 4-Chloroaniline	127	10.333	10.338	(1.018)	731795	25.7633	25.76
	30 Hexachlorobutadiene	225	10.509	10.509	(1.035)	303123	24.0490	24.05
	31 4-Chloro-3-methylphenol	107	11.156	11.160	(1.099)	473738	23.7129	23.71
	32 2-Methylnaphthalene	141	11.311	11.315	(1.114)	939759	25.0057	25.01
	33 Hexachlorocyclopentadiene	237	11.695	11.700	(0.898)	316287	24.9504	24.95
	34 2,4,6-Trichlorophenol	196	11.834	11.839	(0.909)	325165	24.7699	24.77
	35 2,4,5-Trichlorophenol	196	11.893	11.898	(0.913)	503288	36.5343	36.53 (R)
$	36 2-Fluorobiphenyl	172	11.957	11.964	(0.918)	1264679	24.3576	24.36 (R)
	37 2-Chloronaphthalene	162	12.096	12.101	(0.929)	1000543	23.5475	23.55
	38 2-Nitroaniline	65	12.326	12.336	(0.946)	258186	24.3049	24.30
	39 Dimethylphthalate	163	12.700	12.710	(0.975)	1023708	22.9408	22.94
	40 Acenaphthylene	152	12.774	12.779	(0.981)	1557853	24.6122	24.61
	41 2,6-Dinitrotoluene	165	12.796	12.806	(0.982)	243705	23.9769	23.98
*	42 Acenaphthene-d10	164	13.025	13.030	(1.000)	781049	20.0000	
	43 3-Nitroaniline	138	13.009	13.020	(0.999)	271189	25.8890	25.89
	44 Acenaphthene	153	13.079	13.084	(1.004)	930769	23.1809	23.18
	45 2,4-Dinitrophenol	184	13.175	13.185	(1.011)	255963	46.5227	46.52
	46 Dibenzofuran	168	13.341	13.351	(1 024)	1384384	24.9335	24.93
	47 4-Nitrophenol	109	13.325	13.335	(1.023)	113315	26.1198	26.12
	48 2,4-Dinitrotoluene	165	13.421	13.431	(1.030)	317232	24.0064	24.01
	50 Diethylphthalate	149	13.864	13.869	(1.064)	985990	23.3915	23.39
	49 Fluorene	166	13.902	13.906	(1.067)	1100692	24.3138	24.31
	51 4-Chlorophenyl-phenylether	204	13.928	13.933	(1.069)	504466	22.8081	22.81
	52 4-Nitroaniline	138	14.003	14.024	(1.075)	270980	26.7653	26.77
	53 4,6-Dinitro-2-methylphenol	198	14.078	14.093	(0.913)	341722	47.9723	47.97
	54 N-Nitrosodiphenylamine	169	14.131	14.141	(0.917)	745579	22.8064	22.81
$	55 2,4,6-Tribromophenol	330	14.329	14.331	(1.100)	135142	24.8562	24.86 (R)
	56 4-Bromophenyl-phenylether	248	14.708	14.713	(0.954)	270598	23.0029	23.00
	57 Hexachlorobenzene	284	14.933	14.937	(0.969)	292517	23.6660	23.67
	58 Pentachlorophenol	266	15.232	15.237	(0.988)	150147	24.3943	24.39
*	59 Phenanthrene-d10	188	15.413	15.418	(1.000)	1074242	20.0000	
	60 Phenanthrene	178	15.451	15.456	(1.002)	1383823	23.8207	23.82
	61 Anthracene	178	15.526	15.530	(1.007)	1463167	24.5861	24.59
	62 Carbazole	167	15.809	15.813	(1.026)	1346962	24.6136	24.61
	63 Di-n-butylphthalate	149	16.525	16.529	(1.072)	1566340	25.1895	25.19
	64 Fluoranthene	202	17.395	17.400	(1.129)	1453575	26.3542	26.35
	65 Pyrene	202	17.753	17.758	(0.899)	1501094	24.5183	24.52
$	66 Terphenyl-d14	244	18.063	18.071	(0.915)	916655	22.8468	22.85 (R)
	67 Butylbenzylphthalate	149	18.950	18.955	(0.960)	646950	24.5430	24.54
	68 Benzo(a)anthracene	228	19.719	19.724	(0.999)	1235138	25.6390	25.64
*	69 Chrysene-d12	240	19.746	19.751	(1.000)	988938	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.725	19.729	(0.999)	443462	28.0562	28.06
	71 Chrysene	228	19.783	19.793	(1.002)	1239514	25.0231	25.02
	72 bis(2-Ethylhexyl)phthalate	149	19.949	19.948	(0.955)	905765	24.1202	24.12
*	134 Di-n-octylphthalate-d4	153	20.884	20.883	(1.000)	1270709	20.0000	
	73 Di-n-octylphthalate	149	20.894	20.894	(1.000)	1478058	22.6801	22.68

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
74	Benzo(b)fluoranthene	252	21.381	21.391	(0.976)	1257679	25.2429	25.24
75	Benzo(k)fluoranthene	252	21.413	21.423	(0.977)	1304133	25.0872	25.09
187	Total Benzofluoranthenes	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	21.829	21.839	(0.996)	1134963	25.3650	25.37
* 77	Perylene-d12	264	21.909	21.914	(1.000)	966943	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.459	23.474	(1.071)	1502864	25.3189	25.32
79	Dibenzo(a,h)anthracene	278	23.480	23.495	(1.072)	1232582	25.2563	25.26
80	Benzo(g,h,i)perylene	276	23.886	23.907	(1.090)	1297671	24.7470	24.75
90	N-Nitrosodimethylamine	74	3.394	3.446	(0.419)	457361	23.9966	24.00
103	Pyridine	79	3.372	3.393	(0.417)	1036674	29.7165	29.72
91	Aniline	93	7.646	7.656	(0.945)	1079675	26.4598	26.46
105	1-methylnaphthalene	141	11.487	11.492	(1.132)	929193	24.9031	24.90
93	Benzidine	184	13.175	13.185	(0.667)	255963	21.0548	21.05
111	Azobenzene (1,2-DP-Hydrazine)	77	14.179	14.184	(1.089)	1121653	23.4500	23.45
143	1,4-Dioxane	88	2.694	2.720	(0.333)	308418	25.1593	25.16
$ 137	d8-1,4-Dioxane	96	2.640	2.672	(0.326)	314946	24.2801	24.28(R)
144	alpha-Terpineol	59	10.216	10.220	(1.006)	355644	24.9916	24.99
177	p-Benzoquinone	82	6.765	6.780	(0.666)	153935	27.0983	27.10
98	Retene	219	18.314	18.319	(0.927)	573886	25.2394	25.24
99	Perylene	252	21.947	21.957	(1.002)	1399605	25.7084	25.71
133	Butylatedhydroxytoluene	205	13.202	13.207	(1.014)	802613	24.5270	24.53
115	Tributyl Phosphate	99	14.227	14.238	(0.923)	1211022	25.3958	25.40
116	Dibutyl Phenyl Phosphate	175	15.969	15.974	(1.036)	786902	26.5945	26.59
117	Butyl Diphenyl Phosphate	94	17.657	17.662	(0.894)	306391	25.1308	25.13
118	Triphenyl Phosphate	326	19.265	19.270	(0.976)	213730	24.9349	24.93
123	Acetophenone	105	8.795	8.805	(1.086)	814495	23.4740	23.47
168	Pentachlorobenzene	250	13.383	13.393	(1.027)	385326	24.0864	24.09
113	Diphenyl Oxide	170	12.288	12.293	(0.943)	756695	24.8473	24.85
112	Biphenyl	154	12.096	12.101	(0.929)	1201049	25.0087	25.01
120	2,3,4,6-Tetrachlorophenol	232	13.629	13.634	(1.046)	206477	22.7905	22.79
151	1,2,4,5-Tetrachlorobenzene	216	11.653	11.657	(0.895)	468397	24.5266	24.53
110	Tetrachloroguaiacol	247	15.360	15.370	(0.997)	308406	52.2467	52.25
109	3,4,5-Trichloroguaiacol	213	13.725	13.730	(0.890)	168211	24.2909	24.29
181	3,4,6-Trichloroguaiacol	211	13.848	13.853	(1.711)	203271	24.2182	24.22
108	4,5,6-Trichloroguaiacol	213	14.762	14.766	(1.133)	169581	24.9575	24.96
184	3,4-Dichloroguaiacol	192	12.181	12.186	(1.505)	208396	24.2364	24.24
107	4,5-Dichloroguaiacol	192	12.967	12.971	(0.995)	496046	49.7300	49.73
182	4,6-Dichloroguaiacol	192	12.967	12.971	(1.602)	496046	48.2733	48.27
185	4-Chloroguaiacol	115	11.086	11.091	(1.370)	131881	11.9765	11.98
186	Carbaryl	144	16.220	16.230	(1.052)	728232	24.8733	24.87
178	2-Benzyl-4-Chlorophenol	218	16.177	16.193	(1.050)	261691	26.7349	26.73
106	Guaiacol	124	9.062	9.072	(1.119)	522436	24.5003	24.50

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: 11211110.D
Lab Smp Id: ICV1121
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20111121.b/SW846112111.m
Misc Info: 11-

Calibration Date: 21-NOV-2011
Calibration Time: 17:37
Client Smp ID: ICV1121
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	393702	196851	787404	402224	2.16
27 Naphthalene-d8	1422023	711012	2844046	1446633	1.73
42 Acenaphthene-d10	754629	377314	1509258	781049	3.50
59 Phenanthrene-d10	1068116	534058	2136232	1074242	0.57
69 Chrysene-d12	993839	496920	1987678	988938	-0.49
134 Di-n-octylphthala	1256584	628292	2513168	1270709	1.12
77 Perylene-d12	976441	488220	1952882	966943	-0.97

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.10	7.60	8.60	8.09	-0.06
27 Naphthalene-d8	10.15	9.65	10.65	10.15	0.01
42 Acenaphthene-d10	13.03	12.53	13.53	13.03	-0.04
59 Phenanthrene-d10	15.41	14.91	15.91	15.41	0.00
69 Chrysene-d12	19.75	19.25	20.25	19.75	0.00
134 Di-n-octylphthala	20.88	20.38	21.38	20.88	0.00
77 Perylene-d12	21.91	21.41	22.41	21.91	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: NONE
Lab Smp Id: ICV1121
Level:
Data Type: MS DATA
SpikeList File: ICVS.spk
Sublist File: ICALS.sub
Method File: /chem2/nt6.i/20111121.b/SW846112111.m
Misc Info: 11-

Client SDG: 20111121
Fraction: SV
Client Smp ID: ICV1121
Operator: JZ
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
3 Phenol	25.00	23.41	93.64	
4 Bis(2-Chloroethyl)	25.00	23.85	95.39	
6 2-Chlorophenol	25.00	23.76	95.03	
7 1,3-Dichlorobenzen	25.00	23.83	95.31	
9 1,4-Dichlorobenzen	25.00	24.13	96.52	
11 Benzyl alcohol	25.00	24.69	98.77	
12 1,2-Dichlorobenzen	25.00	23.97	95.86	
13 2-Methylphenol	25.00	34.89	139.58*	
14 2,2'-oxybis(1-Chlo	25.00	23.71	94.84	
15 4-Methylphenol	25.00	34.71	138.85*	
16 N-Nitroso-di-n-pro	25.00	22.67	90.69	
17 Hexachloroethane	25.00	24.37	97.46	
19 Nitrobenzene	25.00	23.86	95.45	
20 Isophorone	25.00	26.95	107.79	
21 2-Nitrophenol	25.00	24.26	97.03	
22 2,4-Dimethylphenol	25.00	23.67	94.69	
23 Bis(2-Chloroethoxy	25.00	23.50	93.98	
24 Benzoic acid	50.00	56.84	113.68	
25 2,4-Dichlorophenol	25.00	23.86	95.43	
26 1,2,4-Trichloroben	25.00	23.72	94.89	
28 Naphthalene	25.00	24.88	99.50	
29 4-Chloroaniline	25.00	25.76	103.05	
30 Hexachlorobutadien	25.00	24.05	96.20	
31 4-Chloro-3-methylp	25.00	23.71	94.85	
32 2-Methylnaphthalen	25.00	25.01	100.02	
33 Hexachlorocyclopen	25.00	24.95	99.80	
34 2,4,6-Trichlorophe	25.00	24.77	99.08	
35 2,4,5-Trichlorophe	25.00	36.53	146.14*	
37 2-Chloronaphthalen	25.00	23.55	94.19	
38 2-Nitroaniline	25.00	24.30	97.22	
39 Dimethylphthalate	25.00	22.94	91.76	
40 Acenaphthylene	25.00	24.61	98.45	
41 2,6-Dinitrotoluene	25.00	23.98	95.91	

SPIKE	COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
43	3-Nitroaniline	25.00	25.89	103.56	
44	Acenaphthene	25.00	23.18	92.72	
45	2,4-Dinitrophenol	50.00	46.52	93.05	
46	Dibenzofuran	25.00	24.93	99.73	
47	4-Nitrophenol	25.00	26.12	104.48	
48	2,4-Dinitrotoluene	25.00	24.01	96.03	
49	Fluorene	25.00	24.31	97.26	
50	Diethylphthalate	25.00	23.39	93.57	
51	4-Chlorophenyl-phe	25.00	22.81	91.23	
52	4-Nitroaniline	25.00	26.77	107.06	
53	4,6-Dinitro-2-meth	50.00	47.97	95.94	
54	N-Nitrosodiphenyla	25.00	22.81	91.23	
56	4-Bromophenyl-phen	25.00	23.00	92.01	
57	Hexachlorobenzene	25.00	23.67	94.66	
58	Pentachlorophenol	25.00	24.39	97.58	
60	Phenanthrene	25.00	23.82	95.28	
61	Anthracene	25.00	24.59	98.34	
62	Carbazole	25.00	24.61	98.45	
63	Di-n-butylphthalat	25.00	25.19	100.76	
64	Fluoranthene	25.00	26.35	105.42	
65	Pyrene	25.00	24.52	98.07	
67	Butylbenzylphthala	25.00	24.54	98.17	
68	Benzo(a)anthracene	25.00	25.64	102.56	
70	3,3'-Dichlorobenzi	25.00	28.06	112.22	
71	Chrysene	25.00	25.02	100.09	
72	bis(2-Ethylhexyl)p	25.00	24.12	96.48	
73	Di-n-octylphthalat	25.00	22.68	90.72	
74	Benzo(b)fluoranthe	25.00	25.24	100.97	
75	Benzo(k)fluoranthe	25.00	25.09	100.35	
76	Benzo(a)pyrene	25.00	25.37	101.46	
78	Indeno(1,2,3-cd)py	25.00	25.32	101.28	
79	Dibenzo(a,h)anthra	25.00	25.26	101.03	
80	Benzo(g,h,i)peryle	25.00	24.75	98.99	
90	N-Nitrosodimethyla	25.00	24.00	95.99	
103	Pyridine	25.00	29.72	118.87	
91	Aniline	25.00	26.46	105.84	
105	1-methylnaphthalen	25.00	24.90	99.61	
93	Benzidine	25.00	21.05	84.22	
111	Azobenzene (1,2-DP	25.00	23.45	93.80	
143	1,4-Dioxane	25.00	25.16	100.64	
144	alpha-Terpineol	25.00	24.99	99.97	
98	Retene	25.00	25.24	100.96	
99	Perylene	25.00	25.71	102.83	
133	Butylatedhydroxyto	25.00	24.53	98.11	
115	Tributyl Phosphate	25.00	25.40	101.58	
116	Dibutyl Phenyl Pho	25.00	26.59	106.38	
117	Butyl Diphenyl Pho	25.00	25.13	100.52	

TXST 00378

SPIKE COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
118 Triphenyl Phosphat	25.00	24.93	99.74	
123 Acetophenone	25.00	23.47	93.90	
168 Pentachlorobenzene	25.00	24.09	96.35	
113 Diphenyl Oxide	25.00	24.85	99.39	
112 Biphenyl	25.00	25.01	100.03	
120 2,3,4,6-Tetrachlor	25.00	22.79	91.16	
151 1,2,4,5-Tetrachlor	25.00	24.53	98.11	
106 Guaiacol	25.00	24.50	98.00	
186 Carbaryl	25.00	24.87	99.49	

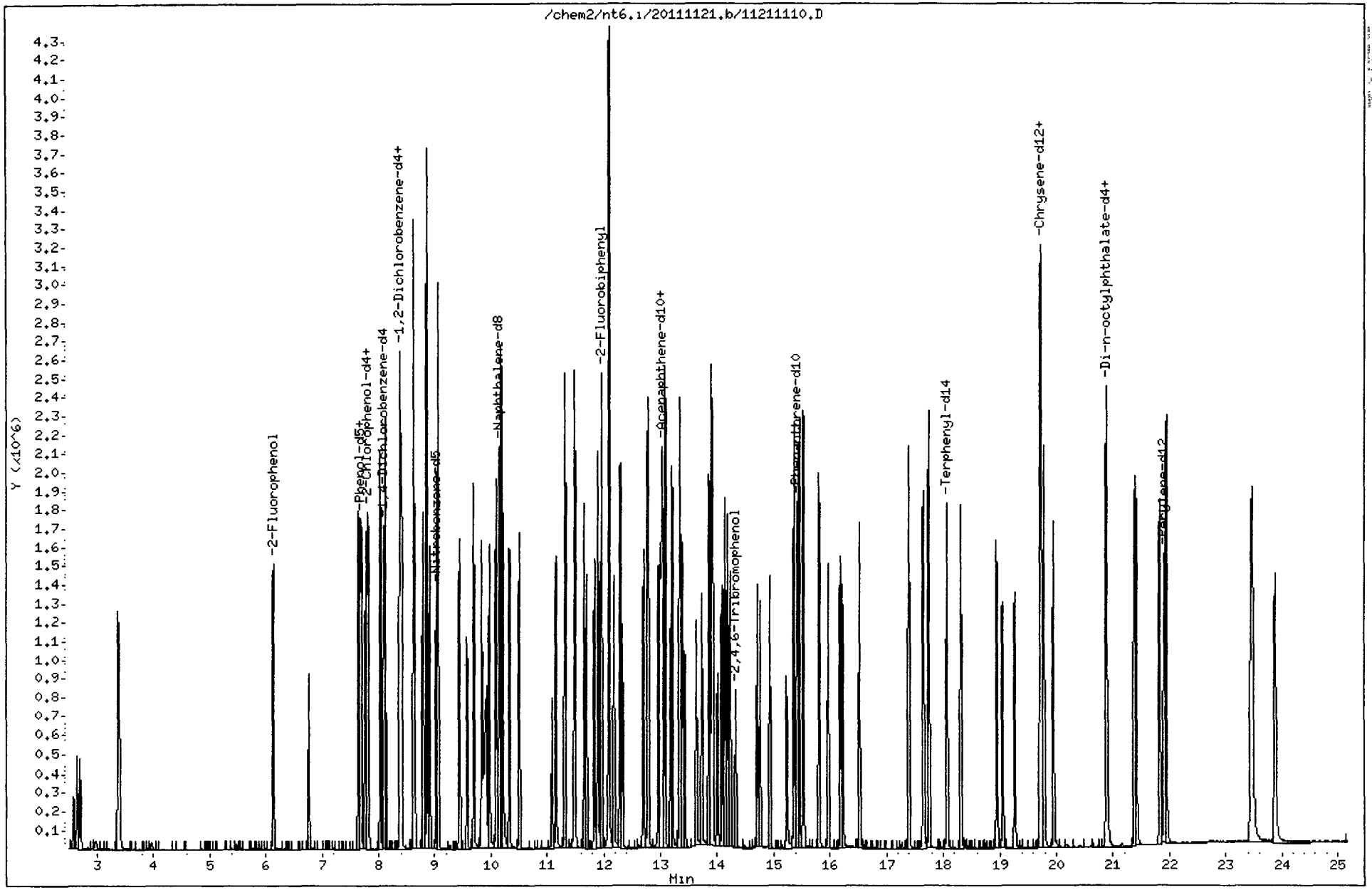
SURROGATE COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	25.00	24.11	96.44	
$ 2 Phenol-d5	25.00	23.42	93.68	
$ 5 2-Chlorophenol-d4	25.00	24.18	96.71	
$ 10 1,2-Dichlorobenzen	25.00	23.89	95.56	
$ 18 Nitrobenzene-d5	25.00	25.18	100.73	
$ 36 2-Fluorobiphenyl	25.00	24.36	97.43	
$ 55 2,4,6-Tribromophen	25.00	24.86	99.42	
$ 66 Terphenyl-d14	25.00	22.85	91.39	
$ 137 d8-1,4-Dioxane	25.00	24.28	97.12	

Data File: /chem2/nt6.1/20111121.b/11211110.D
Date : 21-NOV-2011 18:19
Client ID: ICV1121
Sample Info: ICV1121,

Instrument: nt6.1

Operator: JZ
Column diameter: 0.32

Column phase: ZB-5ms1



CO-ELUTION SUMMARY FOR FILE - 11211110.D

Lab ID: ICV1121, Method: SW846112111.m, Instrument: nt6.i, Date: 21-NOV-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: SVOA Redda curve Client ID: ARI

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): SVOA Redda

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date: 10/11/2011 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	CCal acceptable?	YES / NO
Q flag applied?	YES / NO	Q flag applied?	YES / NO
~~Surrogate Recovery in Control?~~	~~YES / NO~~	Special Analysis Criteria Met?	YES / NO / NA
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	Yes /NO

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

4 point curve

Benzoic Acid
Hexachlorocyclopentadiene
2,4 Dinitrophenol
4 Nitrophenol
PCP
Benzidine

→ quadratic fit.

Quadratic curve added on 10/21/11.
YZ 10/25/11.

Additional Details on Reverse: Yes / No

Analyst: YZ **Date:** 10/17/11

Reviewer: _____ **Date:** _____

TX57.00374

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 10·11·11 Analysis: ABN Analyst: VJ

GC Program: ABN2 Column No: 206288 Column Type: ZB-5msi

Instrument Tune (.U or .CT.): 111007.u EM Voltage: 2200

Calibration File: dF1011A Curve Date: 10·11·11 Injection Vol.: 1 ul

IS/SS	Ical/Ccal		LCS/ICV
1875-1	1890-1	1892-1	1880-1
	1891-1		1881-1
	1891-2		1882-1

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20111011.b

	Time	Filename	LabID	ClientId	DF											
1	1223	df1011a.d	DFTPP	DFTPP	1	NO ISTDS FOUND										
2	1237	ic1011a.d	IC1011A		1	7.71	177854	10.12	655081	13.67	503316	16.64	1020128	21.58	1376380	23.84	1393516	22.75	1305906
3	1311	ic1011b.d	IC1011B		1	7.71	216786	10.13	686870	13.67	560174	16.65	1109696	21.59	1605768	23.85	1597220	22.75	1480581
4	1421	ic1011d.d	IC1011D		1	7.71	231414	10.12	792445	13.66	615291	16.64	1286922	21.57	1878043	23.83	1931004	22.74	1758429
5	1455	ic1011e.d	IC1011E		1	7.71	205429	10.12	716874	13.67	543682	16.65	1140039	21.58	1685633	23.84	1711951	22.74	1571793
6	1604	ic1011g.d	IC1011G		1	7.71	198041	10.12	681347	13.66	531820	16.64	1146483	21.57	1648687	23.84	1659313	22.74	1532062
7	1639	ic1011h.d	IC1011H		1	7.71	217842	10.12	767640	13.66	559533	16.64	1192217	21.57	1738111	23.83	1789259	22.73	1602652
8	1713	ic1011i.d	IC1011I		1	7.71	176466	10.12	662234	13.66	497530	16.63	1029853	21.57	1518433	23.83	1569480	22.73	1394070
9	1748	icv1011.d	ICV1011		1	7.71	156072	10.12	538925	13.66	415220	16.64	839616	21.57	1297264	23.83	1320267	22.74	1197713

VJ 10.24.11

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

TX57 00375

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/nt4.i/20111017A.b

ARI Job No.: CC10 Method: PNA35EX1006.m Instrument: nt4.i Date: 17-OCT-2011

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1811	10171117.d	CC1017A	CC1017A	1	NO MANUAL INTEGRATION
1906	10171119.d	TP26MBS1	TP26MBS1	1	NO MANUAL INTEGRATION
1932	10171120.d	TP26LCSS1	TP26LCSS1	1	NO MANUAL INTEGRATION
1959	10171121.d	TP26LCSDS1	TP26LCSDS1	1	NO MANUAL INTEGRATION
2025	10171122.d	TP26A	BE31933	10	NO MANUAL INTEGRATION

TX57.00376

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20111011.b/ABN.m
Batch File: /chem1/nt10.i/20111011.b
Inst ID: nt10.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	ic1011a	ic1011b	ic1011d	ic1011e	ic1011g	ic1011h	ic1011i
INJ.DATE:	11-OCT-2011	11-OCT-2011	11-OCT-2011	11-OCT-2011	11-OCT-2011	11-OCT-2011	11-OCT-2011
INJ.TIME:	12:37	13:11	14:21	14:55	16:04	16:39	17:13

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 1 2-Fluorophenol	5.612	5.612	5.612	5.612	5.612	5.612	5.612	5.612	2.612-8.612	5.612	0.000
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.620	15.620-21.620	+++++	+++++
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.672	5.673-11.672	+++++	+++++
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.599	14.599-20.599	+++++	+++++
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.120	18.120-24.120	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.015	16.015-22.015	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.090	17.090-23.090	+++++	+++++
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.317	16.317-22.317	+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.482	20.482-26.482	+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.348	16.348-22.348	+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.090	17.090-23.090	+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.967	16.967-22.967	+++++	+++++
177 p-Benzoquinone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.790	4.790-10.790	+++++	+++++
168 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.914	12.914-18.914	+++++	+++++
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.212	44 212-50.212	+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.746	44.746-50.746	+++++	+++++
147 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.216	45.216-51.216	+++++	+++++

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20111011.b/ABN.m
Batch File: /chem1/nt10.i/20111011.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
148 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.281	44.281-50.281	+++++	+++++
149 TCMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.387	40.387-46.387	+++++	+++++
150 DCBP	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.989	47.989-53.989	+++++	+++++
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	67.733	64.733-70.733	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.067	62.067-68.067	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.917	46.917-52.917	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.767	12.767-18.767	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.317	36.317-42.317	+++++	+++++
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.445	0.000-5.445	+++++	+++++
* 134 Di-n-octylphthalate-d4	22.749	22.748	22.740	22.741	22.741	22.733	22.733	22.733	19.733-25.733	22.741	0.006
133 Butylatedhydroxytoluen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.397	12.397-18.397	+++++	+++++
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.450	62.450-68.450	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	64.400	61.400-67.400	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	62.100	59.100-65.100	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.912	51.912-57.912	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.212	51.212-57.212	+++++	+++++
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	57.650	54.650-60.650	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.750	53.750-59.750	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.799	8.799-14.799	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.166	49.166-55.166	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20111011.b/ABN.m
Batch File: /chem1/nt10.i/20111011.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.231	6.231-12.231	+++++	+++++
105 1-methylnaphthalene	11.748	11.756	11.748	11.756	11.748	11.741	11.741	11.741	8.741-14.741	11.748	0.006
151 1,2,4,5-Tetrachloroben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.499	8.499-14.499	+++++	+++++
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.466	24.466-30.466	+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.712	22.712-28.712	+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.505	24.505-30.505	+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.783	23.783-29.783	+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.451	24.451-30.451	+++++	+++++
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.952	21.952-27.952	+++++	+++++
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.480	22.480-28.480	+++++	+++++
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.346	17.346-23.346	+++++	+++++
161 1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
162 1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
163 1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
164 1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
165 1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
167 2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
$ 2 Phenol-d5	7.196	7.211	7.196	7.196	7.196	7.196	7.188	7.188	4.188-10.188	7.197	0.007
3 Phenol	7.212	7.227	7.211	7.219	7.212	7.211	7.219	7.219	4.219-10.219	7.216	0.006
4 Bis(2-Chloroethyl)ethe	7.320	7 327	7.319	7.327	7.320	7.320	7.320	7.320	4.320-10.320	7.322	0.004
$ 5 2-Chlorophenol-d4	7.374	7.381	7.373	7.374	7.374	7.381	7.374	7.374	4.374-10.374	7 376	0.004

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20111011.b/ABN.m
Batch File: /chem1/nt10.i/20111011.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	6 2-Chlorophenol	7.405	7.404	7.397	7.405	7.397	7.397	7.397	7.397	4.397-10.397	7.400	0.004
	7 1,3-Dichlorobenzene	7.645	7.652	7 644	7.645	7.645	7.652	7.645	7.645	4.645-10.645	7.647	0.004
*	8 1,4-Dichlorobenzene-d4	7.715	7.714	7.714	7.715	7.715	7.714	7.714	7.714	4.714-10.714	7.714	0.000
	9 1,4-Dichlorobenzene	7.746	7.745	7.745	7.746	7.746	7.738	7.745	7.745	4.745-10.745	7.744	0.003
$	10 1,2-Dichlorobenzene-d4	8.056	8.063	8.056	8.056	8.056	8.064	8.056	8.056	5.056-11.056	8.058	0.004
	11 Benzyl alcohol	8.025	8.032	8.024	8.025	8.017	8.017	8.017	8.017	5.017-11.017	8.023	0.006
	12 1,2-Dichlorobenzene	8.087	8.087	8.079	8.087	8.079	8.079	8.079	8.079	5.079-11.079	8.082	0.004
	13 2-Methylphenol	8.281	8.289	8.281	8.281	8.281	8.281	8.281	8.281	5.281-11.281	8.282	0.003
	14 2,2'-oxybis(1-Chloropr	8.312	8.320	8.320	8.320	8.320	8.312	8.312	8.312	5.312-11.312	8.316	0.004
	15 4-Methylphenol	8.553	8.568	8.552	8.561	8.553	8.560	8.553	8.553	5.553-11.553	8.557	0.006
	16 N-Nitroso-di-n-propyla	8.568	8.584	8.560	8.568	8.561	8.560	8.561	8.561	5.561-11.561	8.566	0.009
	17 Hexachloroethane	8.646	8.646	8.646	8 646	8.646	8.646	8.646	8.646	5.646-11.646	8.646	0.000
$	18 Nitrobenzene-d5	8.786	8.793	8.785	8.793	8.786	8.785	8.786	8.786	5.786-11.786	8.788	0.004
	19 Nitrobenzene	8.824	8.832	8.824	8.824	8.817	8.824	8.824	8.824	5.824-11.824	8.824	0.004
	20 Isophorone	9.267	9.290	9.266	9.275	9.267	9.259	9.259	9.259	6.259-12.259	9.269	0.011
	21 2-Nitrophenol	9.438	9.445	9.437	9.438	9.438	9.437	9.437	9.437	6.437-12.437	9.439	0.003
	22 2,4-Dimethylphenol	9.561	9.569	9.553	9.561	9.554	9.561	9.554	9.554	6.554-12.554	9.559	0.006
	23 Bis(2-Chloroethoxy)met	9.739	9.746	9.730	9.739	9.731	9.723	9.731	9.731	6.731-12.731	9.734	0.008
	24 Benzoic acid	9.823	9.993	9.746	9.900	9.785	9.746	9.708	9.708	6.708-12.708	9.814	0.101
	25 2,4-Dichlorophenol	9.900	9.908	9.900	9.900	9.893	9.900	9.893	9.893	6.893-12.893	9.899	0.005
	26 1,2,4-Trichlorobenzene	10.055	10.062	10.054	10.055	10.055	10.054	10.055	10.055	7.054-13.055	10.056	0.003
*	27 Naphthalene-d8	10.124	10.132	10.124	10.124	10.124	10.124	10.124	10.124	7.124-13.124	10.125	0.003
	28 Naphthalene	10.163	10.170	10.162	10.163	10.163	10.162	10.163	10.163	7.163-13.163	10.164	0.003
	29 4-Chloroaniline	10.340	10.348	10.340	10.340	10.332	10.332	10.332	10.332	7.332-13.332	10.338	0.006

EXHIBIT 7
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Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20111011.b/ABN.m
Batch File: /chem1/nt10.i/20111011.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
30 Hexachlorobutadiene	10.541	10.549	10.541	10.549	10.541	10.541	10.541	10.541	7.541-13.541	10.543	0.004
31 4-Chloro-3-methylpheno	11.346	11.354	11.338	11.346	11.338	11.338	11.338	11.338	8.338-14.338	11.343	0.006
32 2-Methylnaphthalene	11.540	11.547	11.539	11.540	11.540	11.539	11.532	11.532	8.532-14.532	11.539	0.004
33 Hexachlorocyclopentadi	12.004	12.011	12.003	12.004	12.004	12.004	12.004	12.004	9.004-15.004	12.005	0.003
34 2,4,6-Trichlorophenol	12.182	12.189	12.181	12.182	12.182	12.182	12.174	12.174	9.174-15.174	12.182	0.004
35 2,4,5-Trichlorophenol	12.252	12.259	12.251	12.259	12.252	12.259	12.251	12.251	9.251-15.251	12.255	0.004
$ 36 2-Fluorobiphenyl	12.337	12.344	12.336	12.337	12.329	12.336	12.337	12.337	9.337-15.337	12.337	0.004
37 2-Chloronaphthalene	12.507	12.514	12.499	12.507	12.507	12.499	12.499	12.499	9.499-15.499	12.505	0.006
38 2-Nitroaniline	12.801	12.816	12.793	12.809	12.793	12.793	12.793	12.793	9.793-15.793	12.800	0.009
39 Dimethylphthalate	13.265	13.281	13.257	13.265	13.258	13.257	13.258	13.258	10.258-16.258	13.263	0.009
40 Acenaphthylene	13.351	13.358	13.350	13.351	13.351	13.343	13.343	13.343	10.343-16.343	13.349	0.005
41 2,6-Dinitrotoluene	13.381	13.397	13.373	13.389	13.374	13.374	13.381	13.381	10.381-16.381	13.381	0.009
* 42 Acenaphthene-d10	13.668	13.667	13.660	13.668	13.660	13.660	13.660	13.660	10.660-16.660	13.663	0.004
43 3-Nitroaniline	13.644	13.675	13.644	13.652	13.645	13.652	13.637	13.637	10.637-16.637	13.650	0.012
44 Acenaphthene	13.730	13.737	13.721	13.730	13.722	13.722	13.722	13.722	10.722-16.722	13.726	0.006
45 2,4-Dinitrophenol	13 861	13.884	13.853	13.869	13.853	13.861	13.861	13.861	10.861-16.861	13.863	0.011
46 Dibenzofuran	14.054	14.069	14.054	14.062	14.054	14.054	14.046	14.046	11.046-17.046	14.056	0.007
47 4-Nitrophenol	14.046	14.069	14.046	14.054	14.046	14.069	14.054	14.054	11.054-17.054	14.055	0.010
48 2,4-Dinitrotoluene	14.170	14.185	14.162	14.178	14.162	14.162	14.162	14.162	11.162-17.162	14.169	0.009
49 Fluorene	14.750	14.765	14.750	14.758	14.750	14.758	14.742	14.742	11.742-17.742	14.753	0.008
50 Diethylphthalate	14.711	14.734	14.703	14.719	14.704	14.703	14.704	14.704	11.704-17.703	14.711	0.012
51 4-Chlorophenyl-phenyle	14 789	14.788	14.780	14.789	14.781	14.781	14.781	14.781	11.781-17.781	14.784	0.004
52 4-Nitroaniline	14.897	14.943	14.881	14.912	14.889	14.889	14.881	14.881	11.881-17.881	14.899	0.022
53 4,6-Dinitro-2-methylph	14.989	15.028	14.981	15.005	14.982	14.981	14.974	14.974	11.974-17.974	14.991	0.019

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20111011.b/ABN.m
Batch File: /chem1/nt10.i/20111011.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	54 N-Nitrosodiphenylamine	15.043	15 059	15.043	15.051	15.043	15.035	15.036	15.036	12.036-18.036	15.044	0.008
$	55 2,4,6-Tribromophenol	15.290	15.298	15.282	15.290	15.282	15.290	15.282	15.282	12.282-18.282	15.288	0.006
	56 4-Bromophenyl-phenylet	15.768	15.776	15.768	15.768	15.768	15.760	15.760	15.760	12.760-18.760	15.767	0.005
	57 Hexachlorobenzene	16.046	16.046	16.038	16.038	16.038	16.030	16.038	16.038	13.038-19.038	16.039	0.005
	58 Pentachlorophenol	16.418	16.425	16.417	16.425	16.418	16.425	16.410	16.410	13.410-19.410	16.420	0.006
*	59 Phenanthrene-d10	16.642	16.650	16.642	16.650	16.642	16.642	16.634	16.634	13.634-19.634	16.643	0.005
	60 Phenanthrene	16.688	16.696	16.688	16.696	16.681	16.681	16.681	16.681	13.681-19.681	16.687	0.007
	61 Anthracene	16.781	16.789	16.773	16.781	16.774	16.781	16.774	16.774	13.774-19.774	16.779	0.006
	62 Carbazole	17.145	17.152	17.145	17.145	17.137	17.137	17.137	17.137	14.137-20.137	17.143	0.006
	63 Di-n-butylphthalate	18.019	18.019	18.019	18.019	18.011	18.011	18.011	18.011	15.011-21.011	18.016	0.004
	64 Fluoranthene	19.017	19.025	19.017	19.017	19.017	19.017	19.009	19.009	16.009-22.009	19.017	0.004
	65 Pyrene	19.420	19.427	19.419	19.420	19.412	19.412	19.412	19.412	16.412-22.412	19.417	0.006
$	66 Terphenyl-d14	19.768	19.775	19.767	19.768	19.768	19.760	19.760	19.760	16.760-22.760	19.767	0.005
	67 Butylbenzylphthalate	20.728	20.728	20.720	20.728	20.720	20.720	20.720	20.720	17.720-23.720	20.723	0.004
	68 Benzo(a)anthracene	21.556	21.564	21.548	21.556	21.549	21.548	21.541	21.541	18.541-24.541	21.552	0.008
*	69 Chrysene-d12	21.580	21.587	21.571	21.580	21.572	21.572	21.572	21.572	18.572-24.572	21.576	0.006
	70 3,3'-Dichlorobenzidine	21.564	21.572	21.556	21.564	21.556	21.556	21.549	21.549	18.549-24.549	21.560	0.008
	71 Chrysene	21.618	21.634	21.618	21.626	21.618	21.610	21.611	21.611	18.611-24.611	21.619	0.008
	72 bis(2-Ethylhexyl)phtha	21.773	21.781	21.773	21.773	21.773	21.765	21.765	21.765	18.765-24.765	21.772	0.005
	73 Di-n-octylphthalate	22.756	22.764	22.748	22.756	22.749	22.748	22.749	22.749	19.749-25.749	22.753	0.006
	74 Benzo(b)fluoranthene	23.290	23.298	23.282	23.291	23.283	23.275	23.275	23.275	20.275-26.275	23.285	0.009
	75 Benzo(k)fluoranthene	23.321	23.337	23.321	23.329	23.314	23.314	23.306	23.306	20.306-26.306	23.320	0.010
	187 Total Benzofluoranthen	23.321	23.337	23.321	23.329	23.283	23.314	23.275	23.275	20.275-26.275	23.311	0 023
	76 Benzo(a)pyrene	23.755	23.763	23.747	23.755	23.747	23.747	23.747	23.747	20.747-26.747	23.752	0.006

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Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20111011.b/ABN.m
Batch File: /chem1/nt10.i/20111011.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	77 Perylene-d12	23.840	23.848	23.832	23.840	23.840	23.832	23.832	23.832	20.832-26.832	23.838	0.006
	78 Indeno(1,2,3-cd)pyrene	25.630	25.653	25.614	25.638	25.614	25.614	25.606	25.606	22.606-28.606	25.624	0.017
	79 Dibenzo(a,h)anthracene	25.653	25.676	25.637	25.653	25.638	25.637	25.637	25.637	22.637-28.637	25.647	0.015
	80 Benzo(g,h,i)perylene	26.142	26.165	26.126	26.142	26.127	26.127	26.111	26.111	23.111-29.111	26.135	0.017
$	85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	51.633	48.633-54.633	+++++	+++++
$	86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	63.533	60.533-66.533	+++++	+++++
$	87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	60.273	57.273-63.273	+++++	+++++
$	88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	78.600	75.600-81.600	+++++	+++++
$	89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.841	47.841-53.841	+++++	+++++
	90 N-Nitrosodimethylamine	3.481	3.504	3.480	3.488	3.481	3.480	3.481	3.481	0.481-6.481	3.485	0.009
	91 Aniline	7.204	7.219	7.204	7.212	7.204	7.211	7.204	7.204	4.204-10.204	7.208	0.006
	92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56 160	53.160-59.160	+++++	+++++
	93 Benzidine	19.304	19.319	19.303	19.311	19.304	19.303	19.303	19.303	16.303-22.303	19.307	0.006
$	95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.075	49.075-55.075	+++++	+++++
	96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.250	46.250-52.250	+++++	+++++
	97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	61.202	58.202-64.202	+++++	+++++
	98 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.036	17.036-23.036	+++++	+++++
	99 Perylene	23.879	23.894	23.871	23.879	23.871	23.871	23.863	23.863	20.863-26.863	23.876	0.010
	100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.805	22.805-28.805	+++++	+++++
	101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.967	22.967-28.967	+++++	+++++
	102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	79.550	76.550-82.550	+++++	+++++
	103 Pyridine	3.481	3.480	3.488	3.473	3.481	3.511	3.496	3.496	0.496-6.496	3.487	0.013

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-OCT-2011 12:37
End Cal Date : 11-OCT-2011 17:13
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20111011.b/ABN.m
Cal Date : 17-Oct-2011 16:03 peter

Calibration File Names:
Level 1: /chem1/nt10.i/20111011.b/ic1011h.d
Level 2: /chem1/nt10.i/20111011.b/ic1011i.d
Level 3: /chem1/nt10.i/20111011.b/ic1011d.d
Level 4: /chem1/nt10.i/20111011.b/ic1011g.d
Level 5: /chem1/nt10.i/20111011.b/ic1011a.d
Level 6: /chem1/nt10.i/20111011.b/ic1011e.d
Level 7: /chem1/nt10.i/20111011.b/ic1011b.d

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0 000e+00		0.000e+00	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-OCT-2011 12:37
End Cal Date : 11-OCT-2011 17:13
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20111011.b/ABN.m
Cal Date : 17-Oct-2011 16:03 peter

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
105 1-methylnaphthalene	0.67774	0.76240	0.71643	0.74752	0.77464	0.75486						
	0.78752						AVRG		0.74587		5.02477	
151 1,2,4,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0 000e+00	
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-OCT-2011 12:37
End Cal Date : 11-OCT-2011 17:13
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20111011.b/ABN.m
Cal Date : 17-Oct-2011 16:03 peter

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
163 1,2,3,5,8-Pentachloronaphthal	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
164 1,2,3,4,6,7-Hexachloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
165 1,2,3,4,5,6,7-Heptachloronaph	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
3 Phenol	1.15882	1.38851	1.60972	1.56591	1.92093	1.56609					
	1.63300						AVRG		1.54900		15.08615
4 Bis(2-Chloroethyl)ether	0.81490	0.99872	0.80069	0.94662	1 13403	0.96603					
	0.91616						AVRG		0.93959		12.09098

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-OCT-2011 12:37
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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20111011.b/ABN.m
Cal Date : 17-Oct-2011 16:03 peter

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2
6 2-Chlorophenol	1.07849	1.25155	1.20338	1.19390	1.36532	1.17367	1.18564	AVRG		1.20742		7.19754
7 1,3-Dichlorobenzene	1.50292	1.64347	1.48463	1.52798	1.78767	1.53428	1.45650	AVRG		1.56249		7.39452
9 1,4-Dichlorobenzene	1.80801	1.63549	1.52347	1.49347	1.76216	1.52405	1.42883	AVRG		1.59650		8.96866
11 Benzyl alcohol	0.60686	0.69162	0.74312	0.67348	0.90630	0.70767	0.69390	AVRG		0.71756		12.94917
12 1,2-Dichlorobenzene	1.46207	1.39209	1.45986	1.42445	1 69956	1.43994	1.37860	AVRG		1.46522		7.37733
13 2-Methylphenol	0.78066	1.08952	0.92841	1.01542	1.17558	0 99015	1.00577	AVRG		0.99793		12.43664
14 2,2'-oxybis(1-Chloropropane)	0.31684	0.36730	0.42666	0.40597	0.46228	0.38159	0.35941	AVRG		0 38858		12.28980

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20111011.b/ABN.m
Cal Date : 17-Oct-2011 16:03 peter

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
15 4-Methylphenol	1.12347	1.01758	1.09307	1.01118	1.26212	1.05497					
	1.03878						AVRG		1.08588		8.05846
16 N-Nitroso-di-n-propylamine	0.75541	0.88924	0.86434	0.90620	0.99597	0.87340					
	0.81783						AVRG		0.87177		8.56134
17 Hexachloroethane	0.47658	0.65409	0.62743	0.67218	0.74446	0.63802					
	0.60156						AVRG		0.63062		12.92726
19 Nitrobenzene	0.35756	0.36792	0.42166	0.42982	0.43713	0.41165					
	0.44709						AVRG		0.41040		8.41892
20 Isophorone	0.60771	0.61174	0.67355	0.70586	0.74710	0.67411					
	0.74382						AVRG		0.68055		8.31305
21 2-Nitrophenol	0.19298	0.19699	0.21811	0.21179	0.22024	0.21085					
	0.23673						AVRG		0.21253		6.93491
22 2,4-Dimethylphenol	0.37963	0.35203	0.39669	0.39625	0 44137	0.38051					
	0.43441						AVRG		0.39727		7.93583

ARCHIVE

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-OCT-2011 12:37
End Cal Date : 11-OCT-2011 17:13
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20111011.b/ABN.m
Cal Date : 17-Oct-2011 16:03 peter

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
23 Bis(2-Chloroethoxy)methane	0.29553	0.25424	0.31414	0.34124	0.36205	0.33552					
	0.35772						AVRG		0.32292		11.84650
24 Benzoic acid	+++++	22094	142072	335009	882264	1993123					
	4335077						QUAD	0.000e+00	4.00231	-0.13263	0.99903
25 2,4-Dichlorophenol	+++++	0.35224	0.40420	0.38352	0.42312	0.38056					
	0.42049						AVRG		0.39402		6.89269
26 1,2,4-Trichlorobenzene	0.43445	0.45922	0.48552	0.49372	0.62557	0.56349					
	0.51125						AVRG		0.51046		12.73841
28 Naphthalene	0.92559	0.87724	0 97700	1.00973	1.02285	0.94505					
	1.02178						AVRG		0.96846		5.70017
29 4-Chloroaniline	+++++	0.34157	0 36367	0.40489	0.41425	0.40106					
	0.44268						AVRG		0.39469		9.21555
30 Hexachlorobutadiene	0.42142	0.44413	0.48919	0 47428	0.46390	0.43452					
	0.44634						AVRG		0.45340		5.20577

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem1/nt10.i/20111011.b/ABN.m
Cal Date : 17-Oct-2011 16:03 peter

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
31 4-Chloro-3-methylphenol	+++++	0.31981	0.35318	0.36495	0.38336	0.35613					
	0.40167						AVRG		0.36318		7.71187
32 2-Methylnaphthalene	0.63470	0.59341	0.76973	0.78785	0.79027	0.73266					
	0.77769						AVRG		0.72662		11.02394
33 Hexachlorocyclopentadiene	+++++	38663	141934	396854	794496	1870068					
	3971014						QUAD	0.000e+00	1.56418	-0.02210	0.99959
34 2,4,6-Trichlorophenol	+++++	0.49009	0.49591	0.49285	0.54373	0.51554					
	0.53584						AVRG		0.51233		4.52998
35 2,4,5-Trichlorophenol	+++++	0.39388	0.53334	0.52533	0.56723	0.54089					
	0.56622						AVRG		0.52115		12.40826
37 2-Chloronaphthalene	1.12244	1.10207	1.14109	1.16006	1.22902	1.17877					
	1.13416						AVRG		1.15251		3.63243
38 2-Nitroaniline	+++++	0.22420	0.28139	0 28915	0.30686	0.30764					
	0.29397						AVRG		0.28387		10.90461

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem1/nt10.i/20111011.b/ABN.m
Cal Date : 17-Oct-2011 16:03 peter

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
39 Dimethylphthalate	1.29547	1.55877	1.79578	1.74599	1.74403	1.66192					
	1.35299						AVRG		1.59356		12.53435
40 Acenaphthylene	1.57281	1.73770	1.71850	1.69726	1.73316	1.65906					
	1.64547						AVRG		1.68057		3.52476
41 2,6-Dinitrotoluene	+++++	0.30711	0.32600	0.34351	0.32705	0.30645					
	0.30345						AVRG		0.31893		4.96840
43 3-Nitroaniline	+++++	0.19652	0.23882	0.20693	0.22389	0.24609					
	0.24022						AVRG		0.22541		8.88395
44 Acenaphthene	0.98672	1.05047	1.03964	1.05408	1.08604	1.07259					
	1.05443						AVRG		1.04914		3.00224
45 2,4-Dinitrophenol	+++++	14082	89088	245778	586610	1420821					
	3069472						QUAD	0.000e+00	4.25497	-0.11263	0.99889
46 Dibenzofuran	1.57374	1.68512	1.64444	1.64938	1.74797	1.73865					
	1.73556						AVRG		1.68212		3.80923

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem1/nt10.i/20111011.b/ABN.m
Cal Date : 17-Oct-2011 16:03 peter

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
47 4-Nitrophenol	+++++	20484	66128	174488	380638	814088					
	1714240						QUAD	0.000e+00	3.43863	-0.05666	0.99964
48 2,4-Dinitrotoluene	0.36661	0.35089	0.43745	0.46570	0.46318	0.45531					
	0.44606						AVRG		0.42646		11.13075
49 Fluorene	1.33047	1.32107	1.30615	1.33819	1.33950	1.31508					
	1.32502						AVRG		1.32507		0.91580
50 Diethylphthalate	1.24600	1.37780	1 44867	1.48500	1.41171	1.34111					
	1.32275						AVRG		1.37615		5.88793
51 4-Chlorophenyl-phenylether	0.84688	0.95512	0.93969	0.95440	0.93135	0.92890					
	0.99447						AVRG		0.93583		4.80860
52 4-Nitroaniline	+++++	0.23973	0.22905	0.20818	0.20253	0.23100					
	0.26044						AVRG		0.22849		9.26419
53 4,6-Dinitro-2-methylphenol	+++++	0 13960	0 16660	0 17315	0.19799	0.19183					
	0.19812						AVRG		0 17788		12.87834

Analytical Resources, Inc.

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Cal Date : 17-Oct-2011 16:03 peter

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
54 N-Nitrosodiphenylamine	0.46446	0.51888	0.50989	0.48674	0.51031	0.46533					
	0.48240						AVRG		0.49114		4.52409
56 4-Bromophenyl-phenylether	0.30823	0.33626	0.30323	0.32046	0.33684	0.32830					
	0.32220						AVRG		0.32222		4.02063
57 Hexachlorobenzene	0.44804	0.45109	0.50484	0.48941	0.46775	0.45584					
	0.44701						AVRG		0.46628		4.84997
58 Pentachlorophenol	5545	18206	77790	192758	461620	1094217					
	2322069						QUAD	0.000e+00	5.77454	-0.48030	0.99910
60 Phenanthrene	1.00098	1.04397	1.00829	1.02953	1.05279	1.01962					
	1.05252						AVRG		1 02967		2.03825
61 Anthracene	0.98004	0.92109	1.06778	1.00821	1.13575	1.07035					
	1.07745						AVRG		1.03724		6.92482
62 Carbazole	0.79071	0.90754	0.88994	0.73851	0.67096	0.68089					
	0.77687						AVRG		0.77935		11.93483

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Cal Date : 17-Oct-2011 16:03 peter

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
63 Di-n-butylphthalate	1.07797	1.06661	1.13245	1.14173	1.19980	1.15048					
	1.18011						AVRG		1.13559		4.32182
64 Fluoranthene	1.34033	1.38443	1.46745	1.38503	1.46791	1.43113					
	1.45598						AVRG		1.41890		3.49956
65 Pyrene	0.90445	0.89610	0.98756	0.99180	1.07417	0.93949					
	0.97782						AVRG		0.96734		6.30740
67 Butylbenzylphthalate	0.35685	0.33185	0.35748	0.35081	0.39515	0.33352					
	0.33843						AVRG		0.35201		6.18980
68 Benzo(a)anthracene	1.01849	1.06370	1.04618	1.11041	1.17527	1.08338					
	1.12299						AVRG		1.08863		4.82193
70 3,3'-Dichlorobenzidine	+++++	0.64546	0.65161	0.49181	0.53787	0.51713					
	0.58207						AVRG		0.57099		11.73161
71 Chrysene	0.96630	0.96307	0.99803	0.96358	1.04688	0.96512					
	0.96963						AVRG		0.98180		3.17993

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
72 bis(2-Ethylhexyl)phthalate	0.54171	0.57417	0.56980	0.57420	0.60759	0.54963					
	0.56498						AVRG		0.56887		3.71479
73 Di-n-octylphthalate	0 92731	0.95631	0.97582	0.95300	1.01697	0.94199					
	0.98162						AVRG		0.96472		3.06987
74 Benzo(b)fluoranthene	1.26195	1.11139	1.14893	1.28712	1.34877	1.19886					
	1.17176						AVRG		1.21840		6.90352
75 Benzo(k)fluoranthene	1.14906	1.26884	1.27773	1.23895	1.33520	1.23016					
	1.33900						AVRG		1.26271		5.20125
187 Total Benzofluoranthenes	1.17391	1.14548	1.13886	1.18809	1.25812	1.14027					
	1.17187						AVRG		1.17380		3.55784
76 Benzo(a)pyrene	0.94009	1.03120	0 98770	1.02615	1.04786	0.96576					
	1.00416						AVRG		1.00042		3.84472
78 Indeno(1,2,3-cd)pyrene	1.36063	1.37396	1.33997	1.39211	1.42478	1.31910					
	1.33253						AVRG		1.36330		2.70773

Analytical Resources, Inc.

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
79 Dibenzo(a,h)anthracene	1.20520	1.15164	1.12164	1.15466	1.18076	1.07397					
	1.09612						AVRG		1.14057		4.06265
80 Benzo(g,h,i)perylene	1.14954	1.08900	1.15761	1.19336	1.21686	1.11748					
	1.10614						AVRG		1.14714		4.06610
90 N-Nitrosodimethylamine	0.51698	0.53463	0.63701	0.65986	0.76894	0.65705					
	0.65197						AVRG		0.63235		13.43246
91 Aniline	2.53413	2.94806	3.39566	3.02728	3.71323	3.17413					
	3.27177						AVRG		3.15204		11.78619
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
93 Benzidine	65515	143132	312879	441808	822738	1748943					
	5343022						QUAD	0.000e+00	5.12458	-0.63480	0.99628
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Cal Date : 17-Oct-2011 16:03 peter

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
99 Perylene	0.98516	0.90312	1.00736	1 01070	1.05558	0.96437						
	0.98599						AVRG		0.98747		4.75525	
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
103 Pyridine	+++++	0.54753	0.53226	0.52951	0.72030	0.61537						
	0.58742						AVRG		0.58873		12.34576	

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
$ 1 2-Fluorophenol	0.80636	0.94323	0.99254	1.02509	1.14778	1.01983						
	0.91179						AVRG		0.97809		10.88866	
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0 000e+00		0.000e+00	<-
$ 2 Phenol-d5	1.05186	1.18826	1.29337	1.26996	1.45285	1.31874						
	1.21790						AVRG		1.25614		9.85736	
$ 5 2-Chlorophenol-d4	1.33482	0.98108	1.09805	1.16836	1.20474	1.14887						
	1.02124						AVRG		1.13674		10.41346	
$ 10 1,2-Dichlorobenzene-d4	0.91305	0.96141	1.04350	1.07705	1.04471	1.00165						
	0.86311						AVRG		0.98635		7.88750	
$ 18 Nitrobenzene-d5	0.42171	0.40909	0 42537	0.45047	0.41880	0.43184						
	0.41899						AVRG		0.42518		3.08787	
$ 36 2-Fluorobiphenyl	1.47198	1.50302	1.49555	1.43242	1 44364	1.46035						
	1.31609						AVRG		1.44615		4.34184	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-OCT-2011 12:37
End Cal Date : 11-OCT-2011 17:13
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20111011.b/ABN.m
Cal Date : 17-Oct-2011 16:03 peter

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 55 2,4,6-Tribromophenol	0.27791	0.36521	0.38875	0.37697	0.35229	0.37179	0.33374	AVRG		0.35238		10.59431
$ 66 Terphenyl-d14	0.81691	0.86514	0.82032	0.80738	0.78237	0.75783	0.73072	AVRG		0.79724		5.57016
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-OCT-2011 12:37
End Cal Date : 11-OCT-2011 17:13
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20111011.b/ABN.m
Cal Date : 17-Oct-2011 16:03 peter

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

TX57:00400

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111011.b/ic1011a.d
Lab Smp Id: IC1011A
Inj Date : 11-OCT-2011 12:37
Operator : YZ Inst ID: nt10.i
Smp Info : IC1011A
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20111011.b/ABN.m
Meth Date : 17-Oct-2011 16:03 peter Quant Type: ISTD
Cal Date : 11-OCT-2011 17:13 Cal File: ic1011i.d
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.612	5.612	(0.727)	255171	5.00000	5.867
$	2 Phenol-d5	99	7.196	7.188	(0.933)	322995	5.00000	5.783
	3 Phenol	94	7.212	7.219	(0.935)	427056	5.00000	6.201
$	5 2-Chlorophenol-d4	132	7.374	7.374	(0.956)	267835	5.00000	5.299
	4 Bis(2-Chloroethyl)ether	93	7.320	7.320	(0.949)	252114	5.00000	6.035
	6 2-Chlorophenol	128	7.405	7.397	(0.960)	303534	5.00000	5.654
	7 1,3-Dichlorobenzene	146	7.645	7.645	(0.991)	397431	5.00000	5.721
*	8 1,4-Dichlorobenzene-d4	152	7.715	7.714	(1.000)	177854	4.00000	
	9 1,4-Dichlorobenzene	146	7.746	7.745	(1.004)	391760	5.00000	5.519
$	10 1,2-Dichlorobenzene-d4	152	8.056	8.056	(1.044)	232258	5.00000	5.296
	12 1,2-Dichlorobenzene	146	8.087	8.079	(1.048)	377842	5.00000	5.800
	11 Benzyl alcohol	108	8.025	8.017	(1.040)	201486	5.00000	6.315
	14 2,2'-oxybis(1-Chloropropane)	121	8.312	8.312	(1.077)	102772	5.00000	5.948
	13 2-Methylphenol	108	8.281	8.281	(1.073)	261353	5.00000	5.890
	17 Hexachloroethane	117	8.646	8.646	(1.121)	165507	5.00000	5.903
	16 N-Nitroso-di-n-propylamine	70	8.568	8.561	(1.111)	221421	5.00000	5.712
	15 4-Methylphenol	108	8.553	8.553	(1.109)	280591	5.00000	5.811
$	18 Nitrobenzene-d5	82	8.786	8.786	(0.868)	342931	5.00000	4.925
	19 Nitrobenzene	77	8.824	8.824	(0.872)	357946	5.00000	5.326
	20 Isophorone	82	9.267	9.259	(0.915)	611763	5.00000	5.489
	21 2-Nitrophenol	139	9.438	9.437	(0.932)	180344	5.00000	5.181
	22 2,4-Dimethylphenol	107	9.561	9.554	(0.944)	722825	10.0000	11.11
	23 Bis(2-Chloroethoxy)methane	93	9.739	9.731	(0.962)	296463	5.00000	5.606
	24 Benzoic acid	105	9.823	9.708	(0.970)	882264	20.0000	20.60(M)
	25 2,4-Dichlorophenol	162	9.900	9.893	(0.978)	692942	10.0000	10.74
	26 1,2,4-Trichlorobenzene	180	10.055	10.055	(0.993)	512252	5.00000	6.128

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
*	27 Naphthalene-d8	136	10.124	10.124	(1.000)	655081	4.00000	
	28 Naphthalene	128	10.163	10.163	(1.004)	837561	5.00000	5.281
	29 4-Chloroaniline	127	10.340	10.332	(1.021)	678414	10.0000	10.50
	30 Hexachlorobutadiene	225	10.541	10.541	(1.041)	379868	5.00000	5.116
	31 4-Chloro-3-methylphenol	107	11.346	11.338	(1.121)	627824	10.0000	10.56
	32 2-Methylnaphthalene	142	11.540	11.532	(1.140)	647112	5.00000	5.438
	33 Hexachlorocyclopentadiene	237	12.004	12.004	(0.878)	794496	10.0000	9.656
	34 2,4,6-Trichlorophenol	196	12.182	12.174	(0.891)	684170	10.0000	10.61
	35 2,4,5-Trichlorophenol	196	12.252	12.251	(0.896)	713744	10.0000	10.88
$	36 2-Fluorobiphenyl	172	12.337	12.337	(0.903)	908260	5.00000	4.991
	37 2-Chloronaphthalene	162	12.507	12.499	(0.915)	773229	5.00000	5.332
	38 2-Nitroaniline	65	12.801	12.793	(0.937)	386120	10.0000	10.81
	39 Dimethylphthalate	163	13.265	13.258	(0.971)	1097247	5.00000	5.472
	40 Acenaphthylene	152	13.351	13.343	(0.977)	1090407	5.00000	5.156
	41 2,6-Dinitrotoluene	165	13.381	13.381	(0.979)	411528	10.0000	10.25
*	42 Acenaphthene-d10	164	13.668	13.660	(1.000)	503316	4.00000	
	43 3-Nitroaniline	138	13.644	13.637	(0.998)	281713	10.0000	9.932
	44 Acenaphthene	153	13.730	13.722	(1.005)	683275	5.00000	5.176
	45 2,4-Dinitrophenol	184	13.861	13.861	(1.014)	586610	20.0000	19.22
	46 Dibenzofuran	168	14.054	14.046	(1.028)	1099725	5.00000	5.196
	47 4-Nitrophenol	109	14.046	14.054	(1.028)	380638	10.0000	10.27
	48 2,4-Dinitrotoluene	165	14.170	14.162	(1.037)	582819	10.0000	10.86
	50 Diethylphthalate	149	14.711	14.704	(1.076)	888169	5.00000	5.129
	49 Fluorene	166	14.750	14.742	(1.079)	842742	5.00000	5.054
	51 4-Chlorophenyl-phenylether	204	14.789	14.781	(1.082)	585952	5.00000	4.976
	52 4-Nitroaniline	138	14.897	14.881	(1.090)	254841	10.0000	8.864
	53 4,6-Dinitro-2-methylphenol	198	14.989	14.974	(0.901)	1009882	20.0000	22.26
	54 N-Nitrosodiphenylamine	169	15.043	15.036	(0.904)	650733	5.00000	5.195
$	55 2,4,6-Tribromophenol	330	15.290	15.282	(1.119)	221639	5.00000	4.999
	56 4-Bromophenyl-phenylether	248	15.768	15.760	(0.947)	429520	5.00000	5.227
	57 Hexachlorobenzene	284	16.046	16.038	(0.964)	596458	5.00000	5.016
	58 Pentachlorophenol	266	16.418	16.410	(0.987)	461620	10.0000	10.06
*	59 Phenanthrene-d10	188	16.642	16.634	(1.000)	1020128	4.00000	
	60 Phenanthrene	178	16.688	16.681	(1.003)	1342478	5.00000	5.112
	61 Anthracene	178	16.781	16.774	(1.008)	1448268	5.00000	5.475
	62 Carbazole	167	17.145	17.137	(1.030)	855579	5.00000	4.305
	63 Di-n-butylphthalate	149	18.019	18.011	(1.083)	1529931	5.00000	5.283
	64 Fluoranthene	202	19.017	19.009	(1.143)	1871826	5.00000	5.173
	65 Pyrene	202	19.420	19.412	(0.900)	1848090	5.00000	5.552
$	66 Terphenyl-d14	244	19.768	19.760	(0.916)	1346053	5.00000	4.907
	67 Butylbenzylphthalate	149	20.728	20.720	(0.961)	679849	5.00000	5.613
	68 Benzo(a)anthracene	228	21.556	21.541	(0.999)	2022029	5.00000	5.398
*	69 Chrysene-d12	240	21.580	21.572	(1.000)	1376380	4.00000	
	70 3,3'-Dichlorobenzidine	252	21.564	21.549	(0.999)	1850775	10.0000	9.420
	71 Chrysene	228	21.618	21.611	(1.002)	1801138	5.00000	5.331
	72 bis(2-Ethylhexyl)phthalate	149	21.773	21.765	(0.957)	991821	5.00000	5.340
*	134 Di-n-octylphthalate-d4	153	22.749	22.733	(1.000)	1305906	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
73	Di-n-octylphthalate	149	22.756	22.749	(1.000)	1660077	5.00000	5.271
74	Benzo(b)fluoranthene	252	23.290	23.275	(0.977)	2349415	5.00000	5.535
75	Benzo(k)fluoranthene	252	23.321	23.306	(0.978)	2325781	5.00000	5.287
76	Benzo(a)pyrene	252	23.755	23.747	(0.996)	1825256	5.00000	5.237
* 77	Perylene-d12	264	23.840	23.832	(1.000)	1393516	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	25.630	25.606	(1.075)	2481824	5.00000	5.226
79	Dibenzo(a,h)anthracene	278	25.653	25.637	(1.076)	2056753	5.00000	5.176
80	Benzo(g,h,i)perylene	276	26.142	26.111	(1.097)	2119646	5.00000	5.304
90	N-Nitrosodimethylamine	74	3.481	3.481	(0.451)	341896	10.0000	12.16
91	Aniline	93	7.204	7.204	(0.934)	825516	5.00000	5.890
93	Benzidine	184	19.304	19.303	(0.895)	822738	10.0000	11.35
103	Pyridine	79	3.481	3.496	(0.451)	320269	10.0000	12.23
105	1-methylnaphthalene	142	11.748	11.741	(1.160)	634318	5.00000	5.193
111	Azobenzene (1,2-DP-Hydrazine)	77	15.105	15.097	(1.105)	849337	5.00000	5.046
187	Total Benzofluoranthenes	252	23.321	23.275	(0.978)	4383018	10.0000	10.72
99	Perylene	252	23.879	23.863	(1.002)	1838703	5.00000	5.345

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic1011a.d
Lab Smp Id: IC1011A
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111011.b/ABN.m
Misc Info:

Calibration Date: 11-OCT-2011
Calibration Time: 12:37
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	177854	88927	355708	177854	0.00
27 Naphthalene-d8	655081	327540	1310162	655081	0.00
42 Acenaphthene-d10	503316	251658	1006632	503316	0.00
59 Phenanthrene-d10	1020128	510064	2040256	1020128	0.00
69 Chrysene-d12	1376380	688190	2752760	1376380	0.00
134 Di-n-octylphthala	1305906	652953	2611812	1305906	0.00
77 Perylene-d12	1393516	696758	2787032	1393516	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.71	7.21	8.21	7.71	0.00
27 Naphthalene-d8	10.12	9.62	10.62	10.12	0.00
42 Acenaphthene-d10	13.67	13.17	14.17	13.67	0.00
59 Phenanthrene-d10	16.64	16.14	17.14	16.64	0.00
69 Chrysene-d12	21.58	21.08	22.08	21.58	0.00
134 Di-n-octylphthala	22.75	22.25	23.25	22.75	0.00
77 Perylene-d12	23.84	23.34	24.34	23.84	0.00

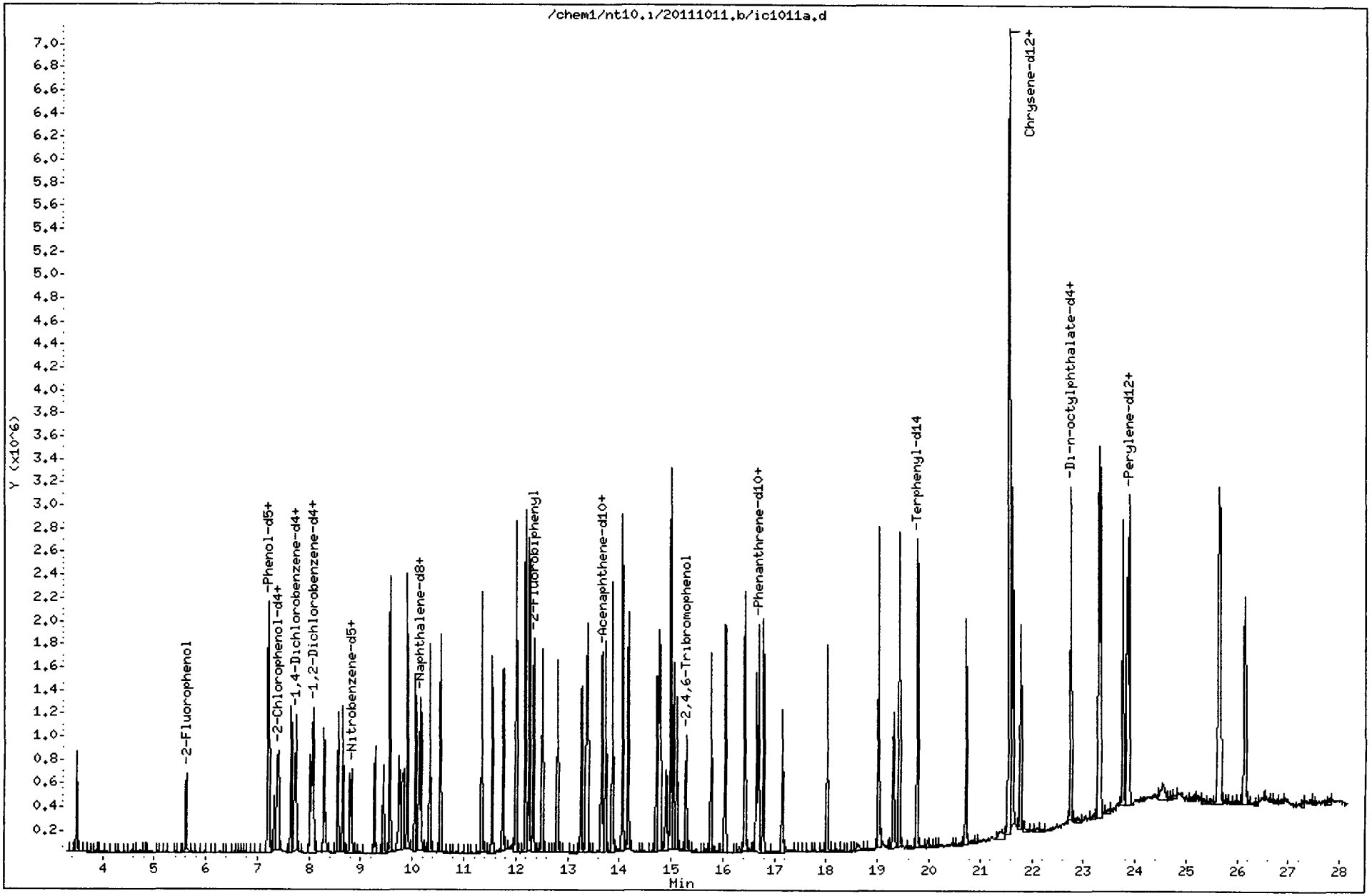
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20111011.b/ic1011a.d
Date : 11-OCT-2011 12:37
Client ID:
Sample Info: IC1011A

Instrument: nt10.i

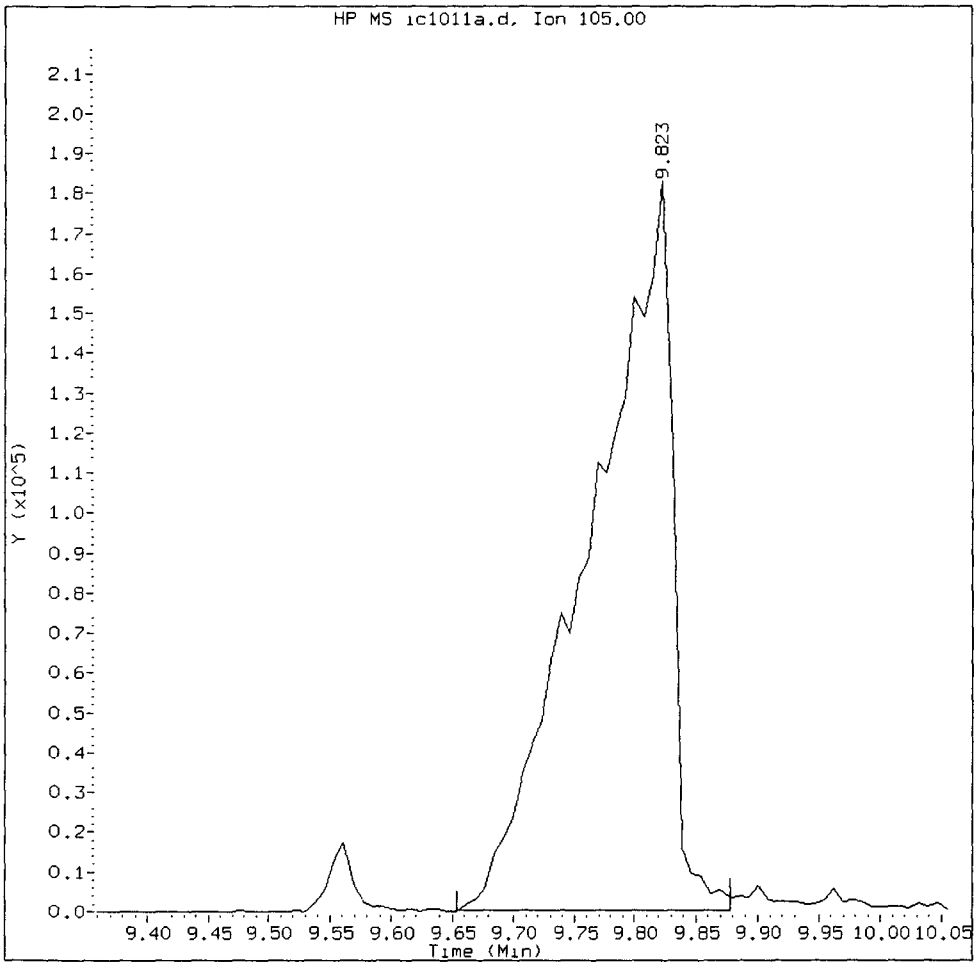
Operator: YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC1011A, /chem1/nt10.i/20111011.b/ic1011a.d

Benzoic acid Amount: 20.60 Area: 882264



MANUAL INTEGRATION for Benzoic acid

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - ic1011a.d

Lab ID: IC1011A, Method: ABN.m, Instrument: nt10.i, Date: 11-OCT-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111011.b/ic1011b.d
Lab Smp Id: IC1011B
Inj Date : 11-OCT-2011 13:11
Operator : YZ Inst ID: nt10.i
Smp Info : IC1011B
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20111011.b/ABN.m
Meth Date : 17-Oct-2011 16:03 peter Quant Type: ISTD
Cal Date : 11-OCT-2011 17:13 Cal File: ic1011i.d
Als bottle: 3 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.612	5.612	(0.727)	988316	20.0000	18.64
$	2 Phenol-d5	99	7.211	7.188	(0.935)	1320122	20.0000	19.39
	3 Phenol	94	7.227	7.219	(0.937)	1770055	20.0000	21.08
$	5 2-Chlorophenol-d4	132	7.381	7.374	(0.957)	1106949	20.0000	17.97
	4 Bis(2-Chloroethyl)ether	93	7.327	7.320	(0.950)	993056	20.0000	19.50
	6 2-Chlorophenol	128	7.404	7.397	(0.960)	1285156	20.0000	19.64
	7 1,3-Dichlorobenzene	146	7.652	7.645	(0.992)	1578744	20.0000	18.64
*	8 1,4-Dichlorobenzene-d4	152	7.714	7.714	(1.000)	216786	4.00000	
	9 1,4-Dichlorobenzene	146	7.745	7.745	(1.004)	1548754	20.0000	17.90
$	10 1,2-Dichlorobenzene-d4	152	8.063	8.056	(1.045)	935555	20.0000	17.50
	12 1,2-Dichlorobenzene	146	8.087	8.079	(1.048)	1494310	20.0000	18.82
	11 Benzyl alcohol	108	8.032	8.017	(1.041)	752141	20.0000	19.34
	14 2,2'-oxybis(1-Chloropropane)	121	8.320	8.312	(1.078)	389580	20.0000	18.50
	13 2-Methylphenol	108	8.289	8.281	(1.074)	1090188	20.0000	20.16
	17 Hexachloroethane	117	8.646	8.646	(1.121)	652051	20.0000	19.08
	16 N-Nitroso-di-n-propylamine	70	8.584	8.561	(1.113)	886471	20.0000	18.76
	15 4-Methylphenol	108	8.568	8.553	(1.111)	1125969	20.0000	19.13
$	18 Nitrobenzene-d5	82	8.793	8.786	(0.868)	1438967	20.0000	19.71
	19 Nitrobenzene	77	8.832	8.824	(0.872)	1535480	20.0000	21.79
	20 Isophorone	82	9.290	9.259	(0.917)	2554529	20.0000	21.86
	21 2-Nitrophenol	139	9.445	9.437	(0.932)	813030	20.0000	22.28
	22 2,4-Dimethylphenol	107	9.569	9.554	(0.944)	2983836	40.0000	43.74
	23 Bis(2-Chloroethoxy)methane	93	9.746	9.731	(0.962)	1228542	20.0000	22.16
	24 Benzoic acid	105	9.993	9.708	(0.986)	4335077	80.0000	79.91(M)
	25 2,4-Dichlorophenol	162	9.908	9.893	(0.978)	2888216	40.0000	42.69
	26 1,2,4-Trichlorobenzene	180	10.062	10.055	(0.993)	1755826	20.0000	20.03

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
*	27 Naphthalene-d8	136	10.132	10.124	(1.000)	686870	4.00000	
	28 Naphthalene	128	10.170	10.163	(1.004)	3509150	20.0000	21.10
	29 4-Chloroaniline	127	10.348	10.332	(1.021)	3040643	40.0000	44.86
	30 Hexachlorobutadiene	225	10.549	10.541	(1.041)	1532873	20.0000	19.69
	31 4-Chloro-3-methylphenol	107	11.354	11.338	(1.121)	2758934	40.0000	44.24
	32 2-Methylnaphthalene	142	11.547	11.532	(1.140)	2670857	20.0000	21.41
	33 Hexachlorocyclopentadiene	237	12.011	12.004	(0.879)	3971014	40.0000	39.91
	34 2,4,6-Trichlorophenol	196	12.189	12.174	(0.892)	3001638	40.0000	41.84
	35 2,4,5-Trichlorophenol	196	12.259	12.251	(0.897)	3171821	40.0000	43.46
$	36 2-Fluorobiphenyl	172	12.344	12.337	(0.903)	3686191	20.0000	18.20
	37 2-Chloronaphthalene	162	12.514	12.499	(0.916)	3176648	20.0000	19.68
	38 2-Nitroaniline	65	12.816	12.793	(0.938)	1646764	40.0000	41.42
	39 Dimethylphthalate	163	13.281	13.258	(0.972)	3789537	20.0000	16.98
	40 Acenaphthylene	152	13.358	13.343	(0.977)	4608739	20.0000	19.58
	41 2,6-Dinitrotoluene	165	13.397	13.381	(0.980)	1699834	40.0000	38.06
*	42 Acenaphthene-d10	164	13.667	13.660	(1.000)	560174	4.00000	
	43 3-Nitroaniline	138	13.675	13.637	(1.001)	1345624	40.0000	42.63
	44 Acenaphthene	153	13.737	13.722	(1.005)	2953308	20.0000	20.10
	45 2,4-Dinitrophenol	184	13.884	13.861	(1.016)	3069472	80.0000	79.73
	46 Dibenzofuran	168	14.069	14.046	(1.029)	4861077	20.0000	20.64
	47 4-Nitrophenol	109	14.069	14.054	(1.029)	1714240	40.0000	39.97
	48 2,4-Dinitrotoluene	165	14.185	14.162	(1.038)	2498687	40.0000	41.84
	50 Diethylphthalate	149	14.734	14.704	(1.078)	3704845	20.0000	19.22
	49 Fluorene	166	14.765	14.742	(1.080)	3711197	20.0000	20.00
	51 4-Chlorophenyl-phenylether	204	14.788	14.781	(1.082)	2785389	20.0000	21.25
	52 4-Nitroaniline	138	14.943	14.881	(1.093)	1458928	40.0000	45.59
	53 4,6-Dinitro-2-methylphenol	198	15.028	14.974	(0.903)	4397064	80.0000	89.10
	54 N-Nitrosodiphenylamine	169	15.059	15.036	(0.904)	2676568	20.0000	19.64
$	55 2,4,6-Tribromophenol	330	15.298	15.282	(1.119)	934769	20.0000	18.94
	56 4-Bromophenyl-phenylether	248	15.776	15.760	(0.948)	1787717	20.0000	20.00
	57 Hexachlorobenzene	284	16.046	16.038	(0.964)	2480203	20.0000	19.17
	58 Pentachlorophenol	266	16.425	16.410	(0.987)	2322069	40.0000	39.92
*	59 Phenanthrene-d10	188	16.650	16.634	(1.000)	1109696	4.00000	
	60 Phenanthrene	178	16.696	16.681	(1.003)	5839911	20.0000	20.44
	61 Anthracene	178	16.789	16.774	(1.008)	5978185	20.0000	20.78
	62 Carbazole	167	17.152	17.137	(1.030)	4310449	20.0000	19.94
	63 Di-n-butylphthalate	149	18.019	18.011	(1.082)	6547840	20.0000	20.78
	64 Fluoranthene	202	19.025	19.009	(1.143)	8078492	20.0000	20.52
	65 Pyrene	202	19.427	19.412	(0.900)	7850799	20.0000	20.22
$	66 Terphenyl-d14	244	19.775	19.760	(0.916)	5866812	20.0000	18.33
	67 Butylbenzylphthalate	149	20.728	20.720	(0.960)	2717200	20.0000	19.23
	68 Benzo(a)anthracene	228	21.564	21.541	(0.999)	9016306	20.0000	20.63
*	69 Chrysene-d12	240	21.587	21.572	(1.000)	1605768	4.00000	
	70 3,3'-Dichlorobenzidine	252	21.572	21.549	(0.999)	9346650	40.0000	40.78
	71 Chrysene	228	21.634	21.611	(1.002)	7785018	20.0000	19.75
	72 bis(2-Ethylhexyl)phthalate	149	21.781	21.765	(0.957)	4182494	20.0000	19.86
*	134 Di-n-octylphthalate-d4	153	22.748	22.733	(1.000)	1480581	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
73	Di-n-octylphthalate	149	22.764	22.749	(1.001)	7266832	20.0000	20.35
74	Benzo(b)fluoranthene	252	23.298	23.275	(0.977)	9357827	20.0000	19.23
75	Benzo(k)fluoranthene	252	23.337	23.306	(0.979)	10693427	20.0000	21.21
76	Benzo(a)pyrene	252	23.763	23.747	(0.996)	8019312	20.0000	20.07
* 77	Perylene-d12	264	23.848	23.832	(1.000)	1597220	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	25.653	25.606	(1.076)	10641679	20.0000	19.55
79	Dibenzo(a,h)anthracene	278	25.676	25.637	(1.077)	8753719	20.0000	19.22
80	Benzo(g,h,i)perylene	276	26.165	26.111	(1.097)	8833741	20.0000	19.29
90	N-Nitrosodimethylamine	74	3.504	3.481	(0.454)	1413387	40.0000	41.24
91	Aniline	93	7.219	7.204	(0.936)	3546365	20.0000	20.76
93	Benzidine	184	19.319	19.303	(0.895)	5343022	40.0000	40.09
103	Pyridine	79	3.480	3.496	(0.451)	1273448	40.0000	39.91
105	1-methylnaphthalene	142	11.756	11.741	(1.160)	2704605	20.0000	21.12
111	Azobenzene (1,2-DP-Hydrazine)	77	15.120	15.097	(1.106)	3687345	20.0000	19.68
187	Total Benzofluoranthenes	252	23.337	23.275	(0.979)	18717368	40.0000	39.93
99	Perylene	252	23.894	23.863	(1.002)	7874180	20.0000	19.97

QC Flag Legend

M - Compound response manually integrated.

TX57 : 00418

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic1011b.d
Lab Smp Id: IC1011B
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111011.b/ABN.m
Misc Info:

Calibration Date: 11-OCT-2011
Calibration Time: 12:37

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	177854	88927	355708	216786	21.89
27 Naphthalene-d8	655081	327540	1310162	686870	4.85
42 Acenaphthene-d10	503316	251658	1006632	560174	11.30
59 Phenanthrene-d10	1020128	510064	2040256	1109696	8.78
69 Chrysene-d12	1376380	688190	2752760	1605768	16.67
134 Di-n-octylphthala	1305906	652953	2611812	1480581	13.38
77 Perylene-d12	1393516	696758	2787032	1597220	14.62

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.71	7.21	8.21	7.71	0.00
27 Naphthalene-d8	10.12	9.62	10.62	10.13	0.07
42 Acenaphthene-d10	13.67	13.17	14.17	13.67	0.00
59 Phenanthrene-d10	16.64	16.14	17.14	16.65	0.05
69 Chrysene-d12	21.58	21.08	22.08	21.59	0.03
134 Di-n-octylphthala	22.75	22.25	23.25	22.75	0.00
77 Perylene-d12	23.84	23.34	24.34	23.85	0.03

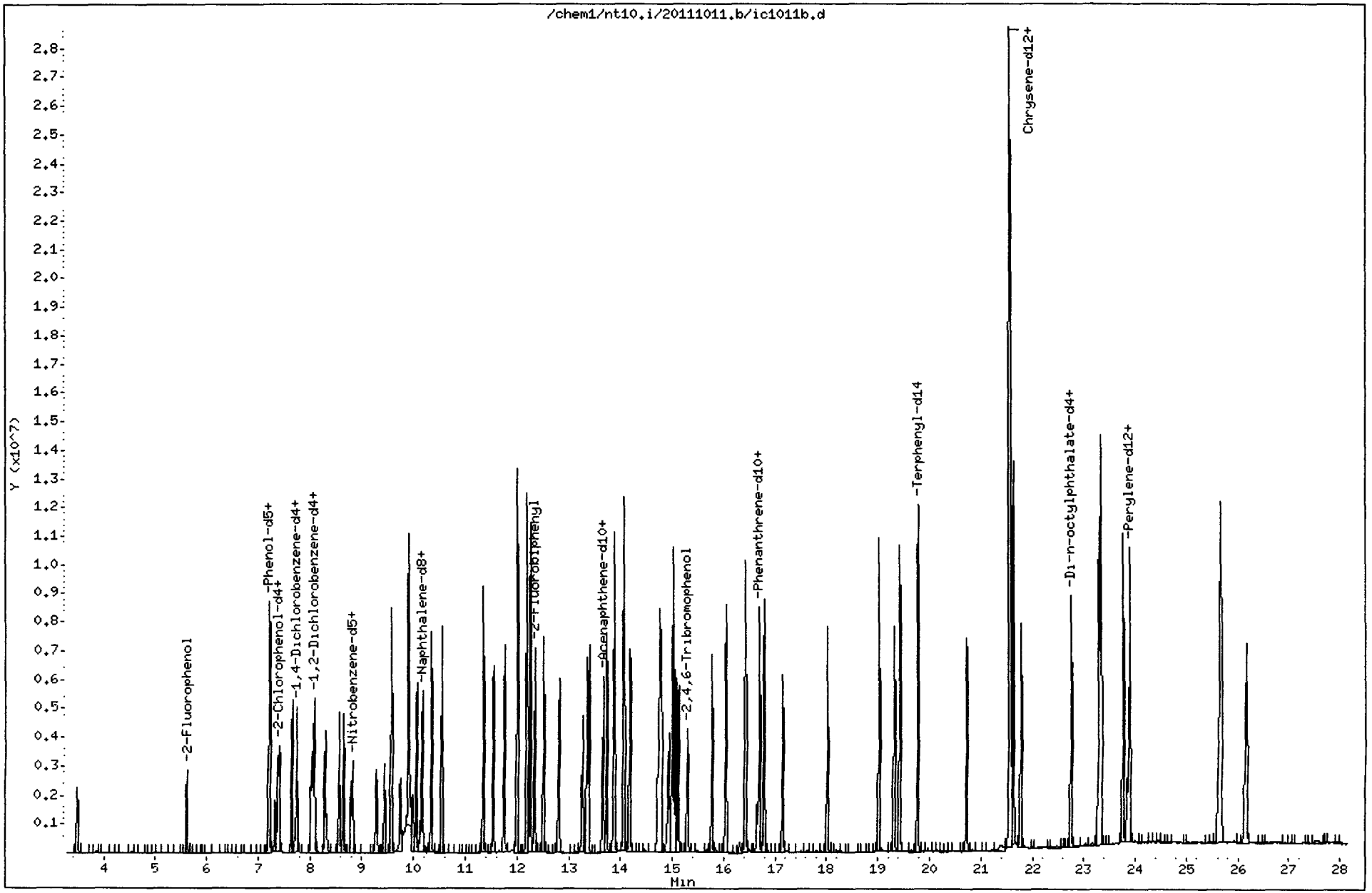
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20111011.b/ic1011b.d
Date : 11-OCT-2011 13:11
Client ID:
Sample Info: IC1011B

Instrument: nt10.i

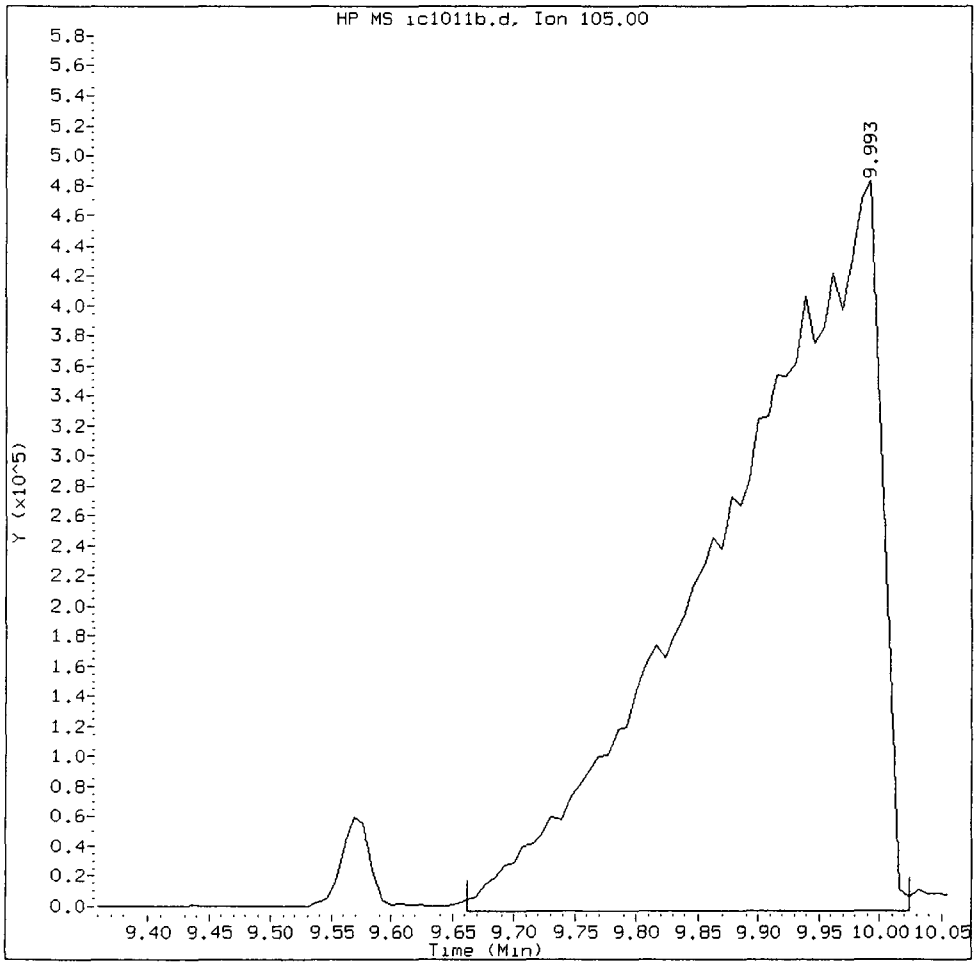
Operator: YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC1011B, /chem1/nt10.i/20111011.b/ic1011b.d

Benzoic acid Amount: 79.91 Area: 4335077



MANUAL INTEGRATION for Benzoic acid

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - ic1011b.d

Lab ID: IC1011B, Method: ABN.m, Instrument: nt10.i, Date: 11-OCT-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111011.b/ic1011d.d
Lab Smp Id: IC1011D
Inj Date : 11-OCT-2011 14:21
Operator : YZ Inst ID: nt10.i
Smp Info : IC1011D
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20111011.b/ABN.m
Meth Date : 17-Oct-2011 16:03 peter Quant Type: ISTD
Cal Date : 11-OCT-2011 17:13 Cal File: ic1011i.d
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.612	5.612	(0.727)	57422	1.00000	1.015
$	2 Phenol-d5	99	7.196	7.188	(0.933)	74826	1.00000	1.030
	3 Phenol	94	7.211	7.219	(0.935)	93128	1.00000	1.039
$	5 2-Chlorophenol-d4	132	7.373	7.374	(0.956)	63526	1.00000	0.9660
	4 Bis(2-Chloroethyl)ether	93	7.319	7.320	(0.949)	46323	1.00000	0.8522
	6 2-Chlorophenol	128	7.397	7.397	(0.959)	69620	1.00000	0.9967
	7 1,3-Dichlorobenzene	146	7.644	7.645	(0.991)	85891	1.00000	0.9502
*	8 1,4-Dichlorobenzene-d4	152	7.714	7.714	(1.000)	231414	4.00000	
	9 1,4-Dichlorobenzene	146	7.745	7.745	(1.004)	88138	1.00000	0.9543
$	10 1,2-Dichlorobenzene-d4	152	8.056	8.056	(1.044)	60370	1.00000	1.058
	12 1,2-Dichlorobenzene	146	8.079	8.079	(1.047)	84458	1.00000	0.9963
	11 Benzyl alcohol	108	8.024	8.017	(1.040)	42992	1.00000	1.036(M)
	14 2,2'-oxybis(1-Chloropropane)	121	8.320	8.312	(1.078)	24684	1.00000	1.098
	13 2-Methylphenol	108	8.281	8.281	(1.073)	53712	1.00000	0.9303
	17 Hexachloroethane	117	8.646	8.646	(1.121)	36299	1.00000	0.9949
	16 N-Nitroso-di-n-propylamine	70	8.560	8.561	(1.110)	50005	1.00000	0.9915
	15 4-Methylphenol	108	8.552	8.553	(1.109)	63238	1.00000	1.007
$	18 Nitrobenzene-d5	82	8.785	8.786	(0.868)	84271	1.00000	1.000
	19 Nitrobenzene	77	8.824	8.824	(0.872)	83535	1.00000	1.027
	20 Isophorone	82	9.266	9.259	(0.915)	133437	1.00000	0.9897
	21 2-Nitrophenol	139	9.437	9.437	(0.932)	43210	1.00000	1.026
	22 2,4-Dimethylphenol	107	9.553	9.554	(0.944)	157179	2.00000	1.997
	23 Bis(2-Chloroethoxy)methane	93	9.730	9.731	(0.961)	62235	1.00000	0.9728
	24 Benzoic acid	105	9.746	9.708	(0.963)	142072	4.00000	2.853(M)
	25 2,4-Dichlorophenol	162	9.900	9.893	(0.978)	160153	2.00000	2.052
	26 1,2,4-Trichlorobenzene	180	10.054	10.055	(0.993)	96187	1.00000	0.9511

TX57 00415

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
* 27 Naphthalene-d8	136	10.124	10.124	(1.000)	792445	4.00000	
28 Naphthalene	128	10.162	10.163	(1.004)	193555	1.00000	1.009
29 4-Chloroaniline	127	10.340	10.332	(1.021)	144094	2.00000	1.843
30 Hexachlorobutadiene	225	10.541	10.541	(1.041)	96915	1.00000	1.079
31 4-Chloro-3-methylphenol	107	11.338	11.338	(1.120)	139939	2.00000	1.945
32 2-Methylnaphthalene	142	11.539	11.532	(1.140)	152492	1.00000	1.059
33 Hexachlorocyclopentadiene	237	12.003	12.004	(0.879)	141934	2.00000	1.439
34 2,4,6-Trichlorophenol	196	12.181	12.174	(0.892)	152563	2.00000	1.936
35 2,4,5-Trichlorophenol	196	12.251	12.251	(0.897)	164081	2.00000	2.047
$ 36 2-Fluorobiphenyl	172	12.336	12.337	(0.903)	230050	1.00000	1.034
37 2-Chloronaphthalene	162	12.499	12.499	(0.915)	175525	1.00000	0.9901
38 2-Nitroaniline	65	12.793	12.793	(0.937)	86567	2.00000	1.983
39 Dimethylphthalate	163	13.257	13.258	(0.971)	276232	1.00000	1.127
40 Acenaphthylene	152	13.350	13.343	(0.977)	264344	1.00000	1.023
41 2,6-Dinitrotoluene	165	13.373	13.381	(0.979)	100292	2.00000	2.044
* 42 Acenaphthene-d10	164	13.660	13.660	(1.000)	615291	4.00000	
43 3-Nitroaniline	138	13.644	13.637	(0.999)	73472	2.00000	2.119
44 Acenaphthene	153	13.721	13.722	(1.005)	159921	1.00000	0.9910
45 2,4-Dinitrophenol	184	13.853	13.861	(1.014)	89088	4.00000	2.455
46 Dibenzofuran	168	14.054	14.046	(1.029)	252952	1.00000	0.9776
47 4-Nitrophenol	109	14.046	14.054	(1.028)	66128	2.00000	1.476
48 2,4-Dinitrotoluene	165	14.162	14.162	(1.037)	134580	2.00000	2.052
50 Diethylphthalate	149	14.703	14.704	(1.076)	222839	1.00000	1.053
49 Fluorene	166	14.750	14.742	(1.080)	200915	1.00000	0.9857
51 4-Chlorophenyl-phenylether	204	14.780	14.781	(1.082)	144546	1.00000	1.004
52 4-Nitroaniline	138	14.881	14.881	(1.089)	70467	2.00000	2.005
53 4,6-Dinitro-2-methylphenol	198	14.981	14.974	(0.900)	214398	4.00000	3.746
54 N-Nitrosodiphenylamine	169	15.043	15.036	(0.904)	164046	1.00000	1.038
$ 55 2,4,6-Tribromophenol	330	15.282	15.282	(1.119)	59799	1.00000	1.103
56 4-Bromophenyl-phenylether	248	15.768	15.760	(0.947)	97558	1.00000	0.9411
57 Hexachlorobenzene	284	16.038	16.038	(0.964)	162423	1.00000	1.083
58 Pentachlorophenol	266	16.417	16.410	(0.987)	77790	2.00000	1.389
* 59 Phenanthrene-d10	188	16.642	16.634	(1.000)	1286922	4.00000	
60 Phenanthrene	178	16.688	16.681	(1.003)	324399	1.00000	0.9792
61 Anthracene	178	16.773	16.774	(1.008)	343536	1.00000	1.029
62 Carbazole	167	17.145	17.137	(1.030)	286322	1.00000	1.142
63 Di-n-butylphthalate	149	18.019	18.011	(1.083)	364345	1.00000	0.9972
64 Fluoranthene	202	19.017	19.009	(1.143)	472125	1.00000	1.034
65 Pyrene	202	19.419	19.412	(0.900)	463668	1.00000	1.021
$ 66 Terphenyl-d14	244	19.767	19.760	(0.916)	385150	1.00000	1.029
67 Butylbenzylphthalate	149	20.720	20.720	(0.960)	167843	1.00000	1.016
68 Benzo(a)anthracene	228	21.548	21.541	(0.999)	491195	1.00000	0.9610
* 69 Chrysene-d12	240	21.571	21.572	(1.000)	1878043	4.00000	
70 3,3'-Dichlorobenzidine	252	21.556	21.549	(0.999)	611878	2.00000	2.282
71 Chrysene	228	21.618	21.611	(1.002)	468584	1.00000	1.017
72 bis(2-Ethylhexyl)phthalate	149	21.773	21.765	(0.957)	250490	1.00000	1.002
* 134 Di-n-octylphthalate-d4	153	22.740	22.733	(1.000)	1758429	4.00000	

TX57 08416

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
73	Di-n-octylphthalate	149	22.748	22.749	(1.000)	428978	1.00000	1.012
74	Benzo(b)fluoranthene	252	23.282	23.275	(0.977)	554647	1.00000	0.9430
75	Benzo(k)fluoranthene	252	23.321	23.306	(0.979)	616826	1.00000	1.012
76	Benzo(a)pyrene	252	23.747	23.747	(0.996)	476814	1.00000	0.9873
* 77	Perylene-d12	264	23.832	23.832	(1.000)	1931004	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	25.614	25.606	(1.075)	646872	1.00000	0.9829
79	Dibenzo(a,h)anthracene	278	25.637	25.637	(1.076)	541473	1.00000	0.9834
80	Benzo(g,h,i)perylene	276	26.126	26.111	(1.096)	558838	1.00000	1.009
90	N-Nitrosodimethylamine	74	3.480	3.481	(0.451)	73706	2.00000	2.015
91	Aniline	93	7.204	7.204	(0.934)	196451	1.00000	1.077
93	Benzidine	184	19.303	19.303	(0.895)	312879	2.00000	3.345
103	Pyridine	79	3.488	3.496	(0.452)	61586	2.00000	1.808
105	1-methylnaphthalene	142	11.748	11.741	(1.160)	141932	1.00000	0.9605
111	Azobenzene (1,2-DP-Hydrazine)	77	15.097	15.097	(1.105)	213101	1.00000	1.036
187	Total Benzofluoranthenes	252	23.321	23.275	(0.979)	1099572	2.00000	1.940
99	Perylene	252	23.871	23.863	(1.002)	486303	1.00000	1.020

QC Flag Legend

M - Compound response manually integrated.

TX57-0017

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic1011d.d
Lab Smp Id: IC1011D
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111011.b/ABN.m
Misc Info:

Calibration Date: 11-OCT-2011
Calibration Time: 12:37

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	177854	88927	355708	231414	30.11
27 Naphthalene-d8	655081	327540	1310162	792445	20.97
42 Acenaphthene-d10	503316	251658	1006632	615291	22.25
59 Phenanthrene-d10	1020128	510064	2040256	1286922	26.15
69 Chrysene-d12	1376380	688190	2752760	1878043	36.45
134 Di-n-octylphthala	1305906	652953	2611812	1758429	34.65
77 Perylene-d12	1393516	696758	2787032	1931004	38.57

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.71	7.21	8.21	7.71	0.00
27 Naphthalene-d8	10.12	9.62	10.62	10.12	0.00
42 Acenaphthene-d10	13.67	13.17	14.17	13.66	-0.06
59 Phenanthrene-d10	16.64	16.14	17.14	16.64	0.00
69 Chrysene-d12	21.58	21.08	22.08	21.57	-0.04
134 Di-n-octylphthala	22.75	22.25	23.25	22.74	-0.04
77 Perylene-d12	23.84	23.34	24.34	23.83	-0.03

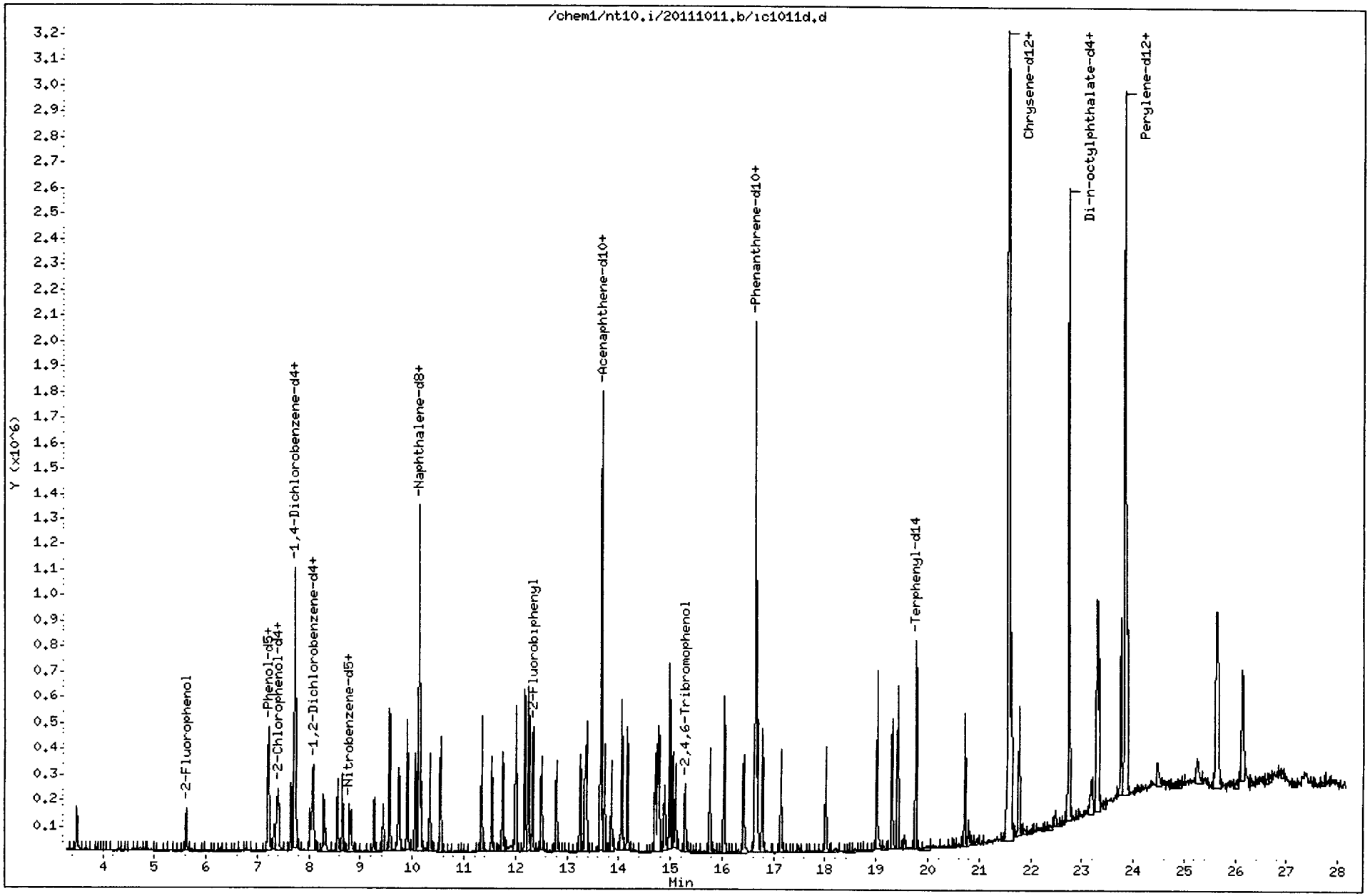
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20111011.b/ic1011d.d
Date : 11-OCT-2011 14:21
Client ID:
Sample Info: IC1011D

Instrument: nt10.i

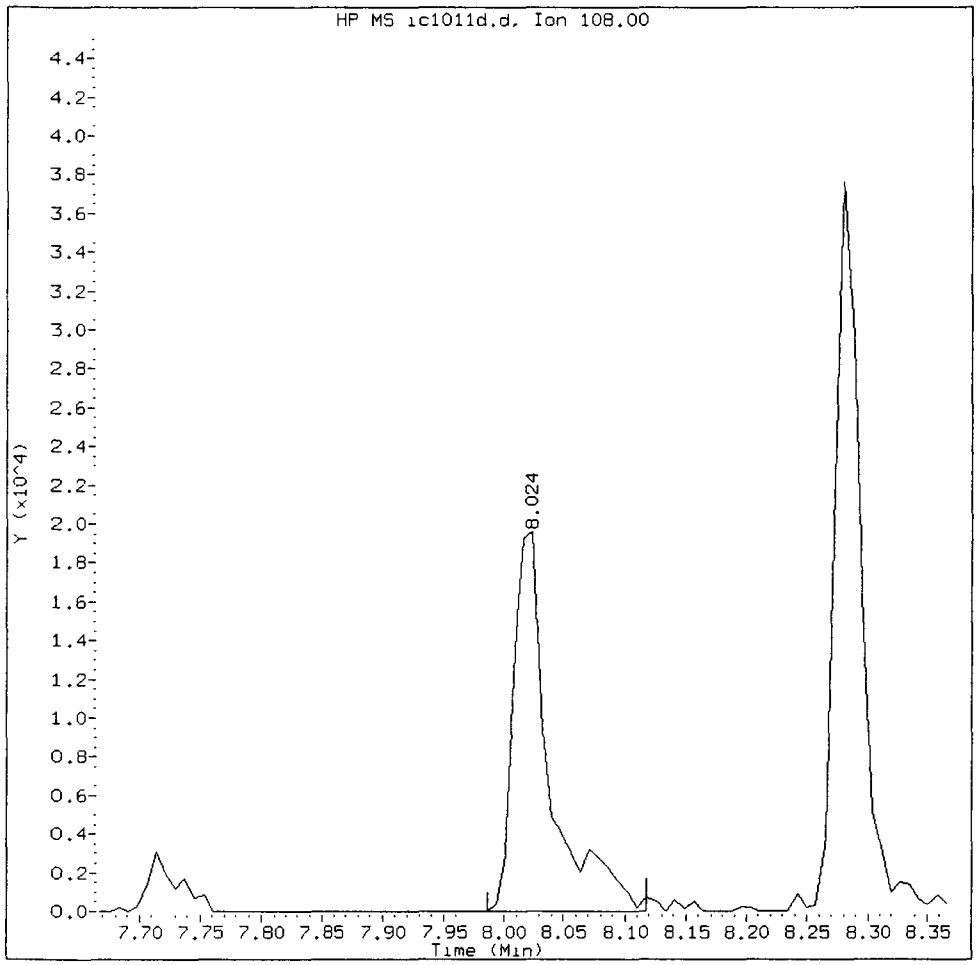
Operator: YZ
Column diameter: 0.25

Column phase: ZB-5ms1



IC1011D, /chem1/nt10.i/20111011.b/ic1011d.d

Benzyl alcohol Amount: 1.04 Area: 42992



MANUAL INTEGRATION for Benzyl alcohol

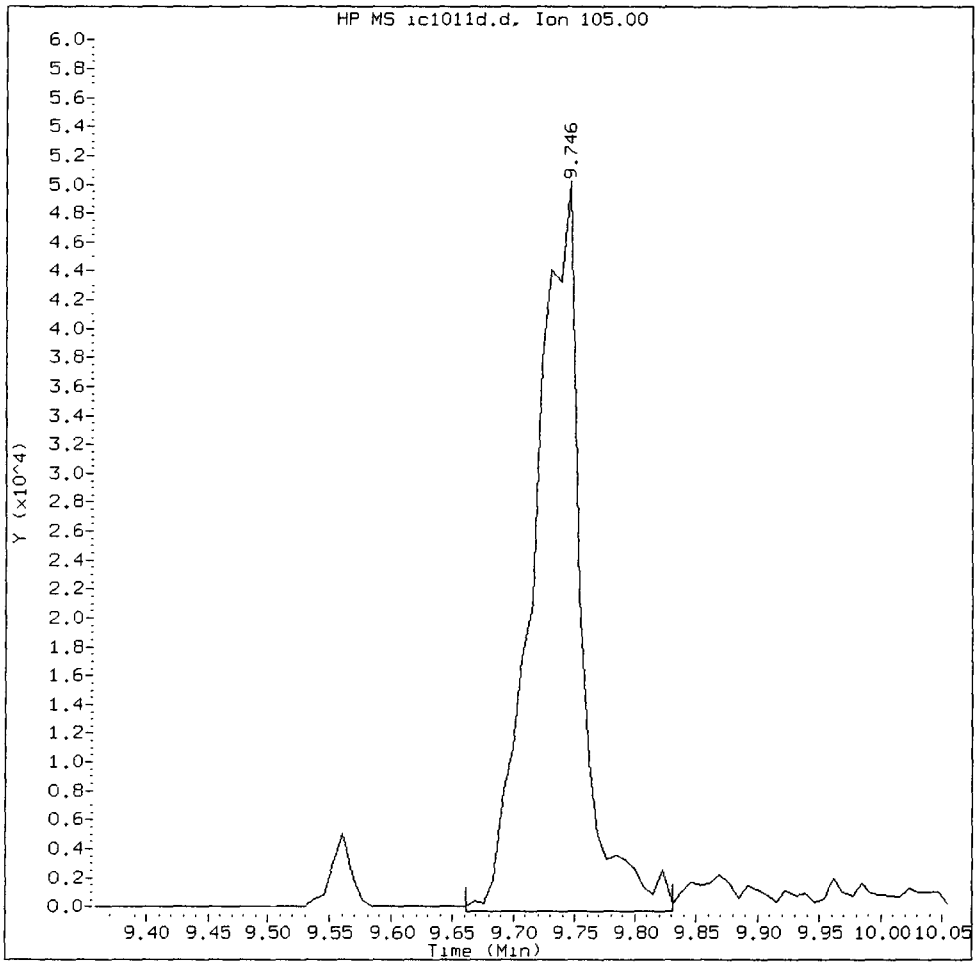
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

IC1011D, /chem1/nt10.i/20111011.b/ic1011d.d

Benzoic acid Amount: 2.85 Area: 142072



MANUAL INTEGRATION for Benzoic acid

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - ic1011d.d

Lab ID: IC1011D, Method: ABN.m, Instrument: nt10.i, Date: 11-OCT-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111011.b/ic1011e.d
Lab Smp Id: IC1011E
Inj Date : 11-OCT-2011 14:55
Operator : YZ Inst ID: nt10.i
Smp Info : IC1011E
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20111011.b/ABN.m
Meth Date : 17-Oct-2011 16:03 peter Quant Type: ISTD
Cal Date : 11-OCT-2011 17:13 Cal File: ic1011i.d
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.612	5.612	(0.727)	523757	10.0000	10.43
$	2 Phenol-d5	99	7.196	7.188	(0.933)	677270	10.0000	10.50
	3 Phenol	94	7.219	7.219	(0.936)	804302	10.0000	10.11
$	5 2-Chlorophenol-d4	132	7.374	7.374	(0.956)	590029	10.0000	10.11
	4 Bis(2-Chloroethyl)ether	93	7.327	7.320	(0.950)	496125	10.0000	10.28
	6 2-Chlorophenol	128	7.405	7.397	(0.960)	602766	10.0000	9.720
	7 1,3-Dichlorobenzene	146	7.645	7.645	(0.991)	787965	10.0000	9.819
*	8 1,4-Dichlorobenzene-d4	152	7.715	7.714	(1.000)	205429	4.00000	
	9 1,4-Dichlorobenzene	146	7.746	7.745	(1.004)	782711	10.0000	9.546
$	10 1,2-Dichlorobenzene-d4	152	8.056	8.056	(1.044)	514419	10.0000	10.16
	12 1,2-Dichlorobenzene	146	8.087	8.079	(1.048)	739512	10.0000	9.827
	11 Benzyl alcohol	108	8.025	8.017	(1.040)	363438	10.0000	9.862
	14 2,2'-oxybis(1-Chloropropane)	121	8.320	8.312	(1.078)	195973	10.0000	9.820
	13 2-Methylphenol	108	8.281	8.281	(1.073)	508512	10.0000	9.922
	17 Hexachloroethane	117	8.646	8.646	(1.121)	327671	10.0000	10.12
	16 N-Nitroso-di-n-propylamine	70	8.568	8.561	(1.111)	448552	10.0000	10.02
	15 4-Methylphenol	108	8.561	8.553	(1.110)	541802	10.0000	9.715
$	18 Nitrobenzene-d5	82	8.793	8.786	(0.869)	773932	10.0000	10.16
	19 Nitrobenzene	77	8.824	8.824	(0.872)	737745	10.0000	10.03
	20 Isophorone	82	9.275	9.259	(0.916)	1208134	10.0000	9.905
	21 2-Nitrophenol	139	9.438	9.437	(0.932)	377880	10.0000	9.921
	22 2,4-Dimethylphenol	107	9.561	9.554	(0.944)	1363889	20.0000	19.16
	23 Bis(2-Chloroethoxy)methane	93	9.739	9.731	(0.962)	601316	10.0000	10.39
	24 Benzoic acid	105	9.900	9.708	(0.978)	1993123	40.0000	40.41(M)
	25 2,4-Dichlorophenol	162	9.900	9.893	(0.978)	1364084	20.0000	19.32
	26 1,2,4-Trichlorobenzene	180	10.055	10.055	(0.993)	1009873	10.0000	11.04

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
*	27 Naphthalene-d8	136	10.124	10.124	(1.000)	716874	4.00000	
	28 Naphthalene	128	10.163	10.163	(1.004)	1693708	10.0000	9.758
	29 4-Chloroaniline	127	10.340	10.332	(1.021)	1437544	20.0000	20.32
	30 Hexachlorobutadiene	225	10.549	10.541	(1.042)	778741	10.0000	9.584
	31 4-Chloro-3-methylphenol	107	11.346	11.338	(1.121)	1276497	20.0000	19.61
	32 2-Methylnaphthalene	142	11.540	11.532	(1.140)	1313068	10.0000	10.08
	33 Hexachlorocyclopentadiene	237	12.004	12.004	(0.878)	1870068	20.0000	20.47
	34 2,4,6-Trichlorophenol	196	12.182	12.174	(0.891)	1401453	20.0000	20.13
	35 2,4,5-Trichlorophenol	196	12.259	12.251	(0.897)	1470374	20.0000	20.76
$	36 2-Fluorobiphenyl	172	12.337	12.337	(0.903)	1984916	10.0000	10.10
	37 2-Chloronaphthalene	162	12.507	12.499	(0.915)	1602194	10.0000	10.23
	38 2-Nitroaniline	65	12.809	12.793	(0.937)	836302	20.0000	21.68
	39 Dimethylphthalate	163	13.265	13.258	(0.971)	2258896	10.0000	10.43
	40 Acenaphthylene	152	13.351	13.343	(0.977)	2255006	10.0000	9.872
	41 2,6-Dinitrotoluene	165	13.389	13.381	(0.980)	833070	20.0000	19.22
*	42 Acenaphthene-d10	164	13.668	13.660	(1.000)	543682	4.00000	
	43 3-Nitroaniline	138	13.652	13.637	(0.999)	668971	20.0000	21.83
	44 Acenaphthene	153	13.730	13.722	(1.005)	1457876	10.0000	10.22
	45 2,4-Dinitrophenol	184	13.869	13.861	(1.015)	1420821	40.0000	41.40
	46 Dibenzofuran	168	14.062	14.046	(1.029)	2363181	10.0000	10.34
	47 4-Nitrophenol	109	14.054	14.054	(1.028)	814088	20.0000	20.09
	48 2,4-Dinitrotoluene	165	14.178	14.162	(1.037)	1237718	20.0000	21.35
	50 Diethylphthalate	149	14.719	14.704	(1.077)	1822844	10.0000	9.745
	49 Fluorene	166	14.758	14.742	(1.080)	1787462	10.0000	9.925
	51 4-Chlorophenyl-phenylether	204	14.789	14.781	(1.082)	1262572	10.0000	9.926
	52 4-Nitroaniline	138	14.912	14.881	(1.091)	627965	20.0000	20.22
	53 4,6-Dinitro-2-methylphenol	198	15.005	14.974	(0.901)	2186972	40.0000	43.14
	54 N-Nitrosodiphenylamine	169	15.051	15.036	(0.904)	1326229	10.0000	9.474
$	55 2,4,6-Tribromophenol	330	15.290	15.282	(1.119)	505336	10.0000	10.55
	56 4-Bromophenyl-phenylether	248	15.768	15.760	(0.947)	935678	10.0000	10.19
	57 Hexachlorobenzene	284	16.038	16.038	(0.963)	1299182	10.0000	9.776
	58 Pentachlorophenol	266	16.425	16.410	(0.987)	1094217	20.0000	20.40
*	59 Phenanthrene-d10	188	16.650	16.634	(1.000)	1140039	4.00000	
	60 Phenanthrene	178	16.696	16.681	(1.003)	2906013	10.0000	9.902
	61 Anthracene	178	16.781	16.774	(1.008)	3050614	10.0000	10.32
	62 Carbazole	167	17.145	17.137	(1.030)	1940603	10.0000	8.737
	63 Di-n-butylphthalate	149	18.019	18.011	(1.082)	3278969	10.0000	10.13
	64 Fluoranthene	202	19.017	19.009	(1.142)	4078866	10.0000	10.09
	65 Pyrene	202	19.420	19.412	(0.900)	3959094	10.0000	9.712
$	66 Terphenyl-d14	244	19.768	19.760	(0.916)	3193564	10.0000	9.506
	67 Butylbenzylphthalate	149	20.728	20.720	(0.961)	1405493	10.0000	9.475
	68 Benzo(a)anthracene	228	21.556	21.541	(0.999)	4565441	10.0000	9.952
*	69 Chrysene-d12	240	21.580	21.572	(1.000)	1685633	4.00000	
	70 3,3'-Dichlorobenzidine	252	21.564	21.549	(0.999)	4358474	20.0000	18.11
	71 Chrysene	228	21.626	21.611	(1.002)	4067091	10.0000	9.830
	72 bis(2-Ethylhexyl)phthalate	149	21.773	21.765	(0.957)	2159756	10.0000	9.662
*	134 Di-n-octylphthalate-d4	153	22.741	22.733	(1.000)	1571793	4.00000	

TX57.00426

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
73	Di-n-octylphthalate	149	22.756	22.749	(1.001)	3701518	10.0000	9.764
74	Benzo(b)fluoranthene	252	23.291	23.275	(0.977)	5130973	10.0000	9.840
75	Benzo(k)fluoranthene	252	23.329	23.306	(0.979)	5264914	10.0000	9.742
76	Benzo(a)pyrene	252	23.755	23.747	(0.996)	4133345	10.0000	9.654
* 77	Perylene-d12	264	23.840	23.832	(1.000)	1711951	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	25.638	25.606	(1.075)	5645601	10.0000	9.676
79	Dibenzo(a,h)anthracene	278	25.653	25.637	(1.076)	4596466	10.0000	9.416
80	Benzo(g,h,i)perylene	276	26.142	26.111	(1.097)	4782697	10.0000	9.741
90	N-Nitrosodimethylamine	74	3.488	3.481	(0.452)	674881	20.0000	20.78
91	Aniline	93	7.212	7.204	(0.935)	1630148	10.0000	10.07
93	Benzidine	184	19.311	19.303	(0.895)	1748943	20.0000	18.53
103	Pyridine	79	3.473	3.496	(0.450)	632076	20.0000	20.90
105	1-methylnaphthalene	142	11.756	11.741	(1.161)	1352840	10.0000	10.12
111	Azobenzene (1,2-DP-Hydrazine)	77	15.105	15.097	(1.105)	1777708	10.0000	9.778
187	Total Benzofluoranthenes	252	23.329	23.275	(0.979)	9760452	20.0000	19.43
99	Perylene	252	23.879	23.863	(1.002)	4127379	10.0000	9.766

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic1011e.d
Lab Smp Id: IC1011E
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111011.b/ABN.m
Misc Info:

Calibration Date: 11-OCT-2011
Calibration Time: 12:37

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	177854	88927	355708	205429	15.50
27 Naphthalene-d8	655081	327540	1310162	716874	9.43
42 Acenaphthene-d10	503316	251658	1006632	543682	8.02
59 Phenanthrene-d10	1020128	510064	2040256	1140039	11.75
69 Chrysene-d12	1376380	688190	2752760	1685633	22.47
134 Di-n-octylphthala	1305906	652953	2611812	1571793	20.36
77 Perylene-d12	1393516	696758	2787032	1711951	22.85

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.71	7.21	8.21	7.71	0.00
27 Naphthalene-d8	10.12	9.62	10.62	10.12	0.00
42 Acenaphthene-d10	13.67	13.17	14.17	13.67	0.00
59 Phenanthrene-d10	16.64	16.14	17.14	16.65	0.05
69 Chrysene-d12	21.58	21.08	22.08	21.58	0.00
134 Di-n-octylphthala	22.75	22.25	23.25	22.74	-0.03
77 Perylene-d12	23.84	23.34	24.34	23.84	0.00

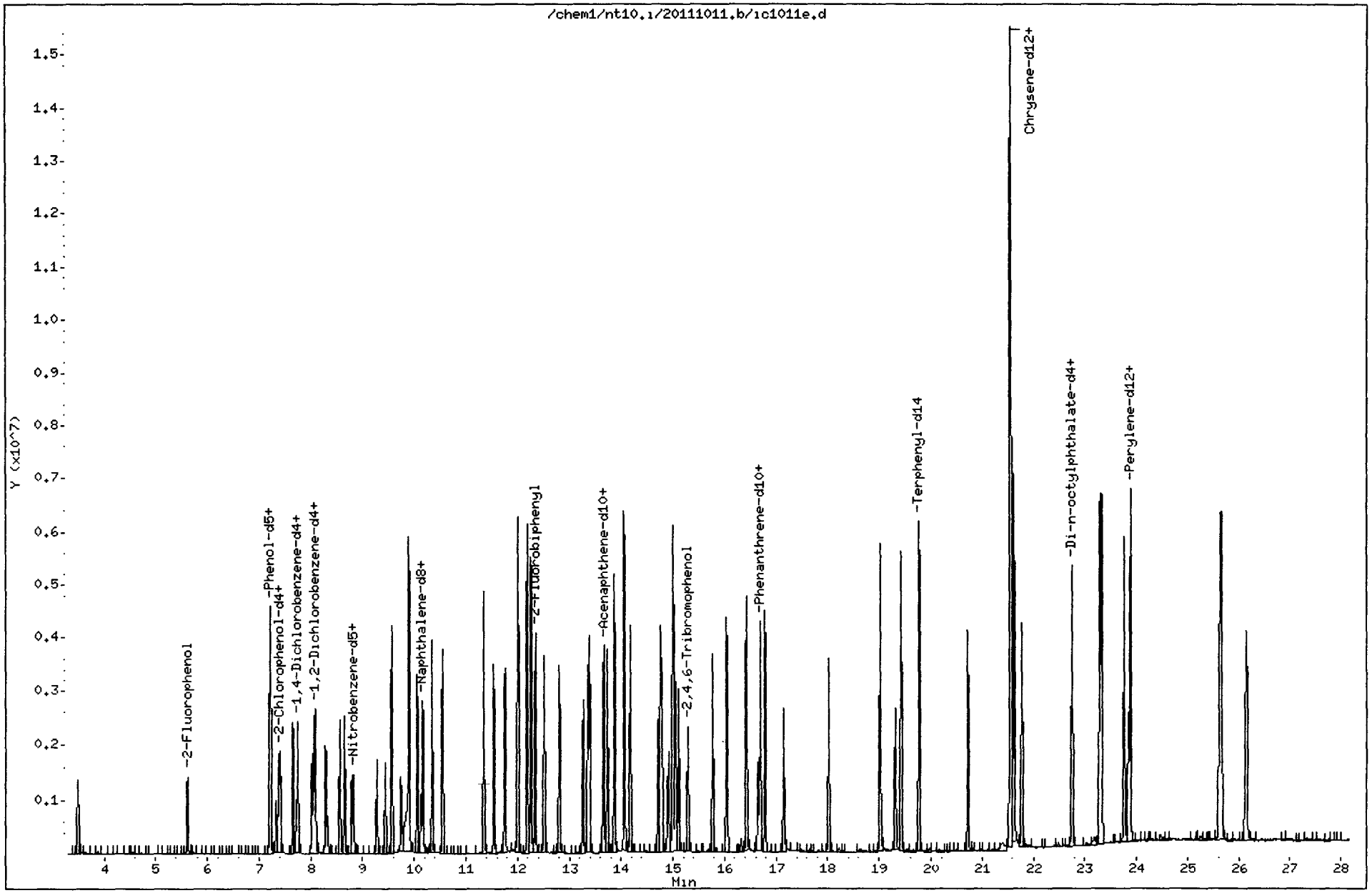
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20111011.b/ic1011e.d
Date : 11-OCT-2011 14:55
Client ID:
Sample Info: IC1011E

Instrument: nt10.i

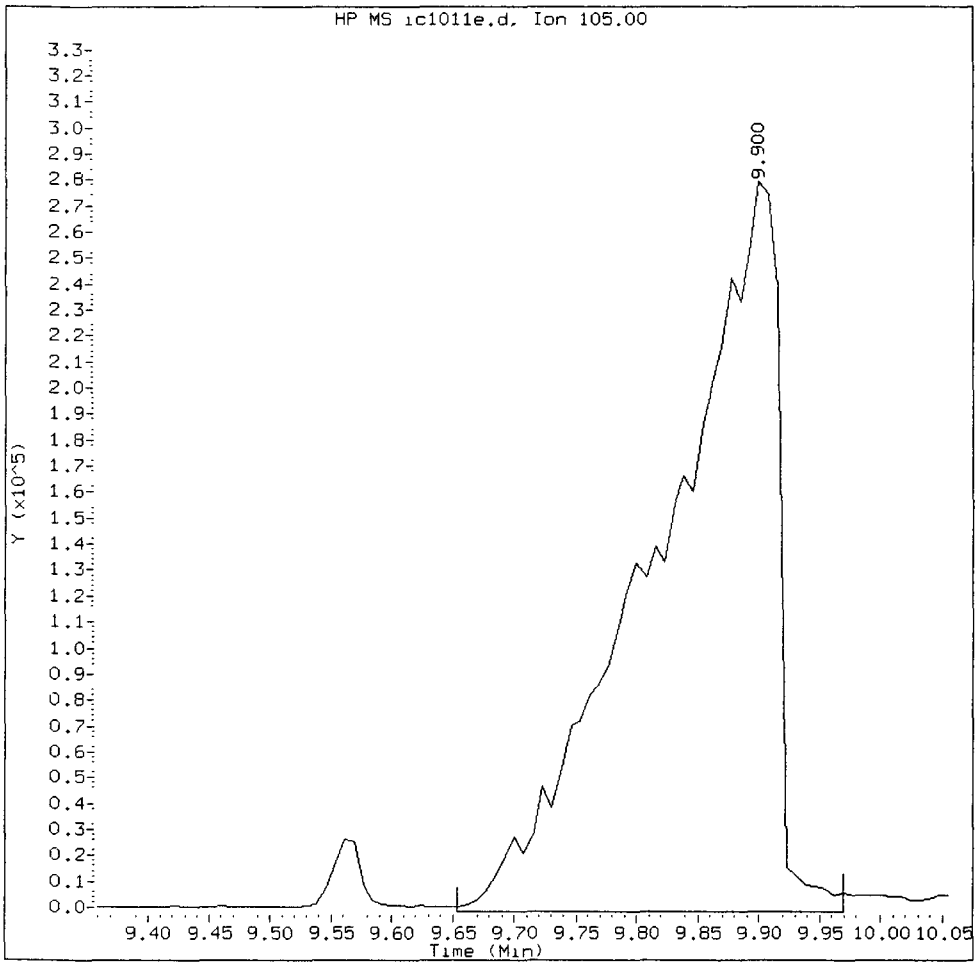
Operator: YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC1011E, /chem1/nt10.i/20111011.b/ic1011e.d

Benzoic acid Amount: 40.41 Area: 1993123



MANUAL INTEGRATION for Benzoic acid

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - ic1011e.d

Lab ID: IC1011E, Method: ABN.m, Instrument: nt10.i, Date: 11-OCT-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111011.b/ic1011g.d
Lab Smp Id: IC1011G
Inj Date : 11-OCT-2011 16:04
Operator : YZ Inst ID: nt10.i
Smp Info : IC1011G
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20111011.b/ABN.m
Meth Date : 17-Oct-2011 16:03 peter Quant Type: ISTD
Cal Date : 11-OCT-2011 17:13 Cal File: ic1011i.d
Als bottle: 8 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.612	5.612	(0.727)	126881	2.50000	2.620
$	2 Phenol-d5	99	7.196	7.188	(0.933)	157190	2.50000	2.528
	3 Phenol	94	7.212	7.219	(0.935)	193822	2.50000	2.527
$	5 2-Chlorophenol-d4	132	7.374	7.374	(0.956)	144615	2.50000	2.570
	4 Bis(2-Chloroethyl)ether	93	7.320	7.320	(0.949)	117168	2.50000	2.519
	6 2-Chlorophenol	128	7.397	7.397	(0.959)	147776	2.50000	2.472
	7 1,3-Dichlorobenzene	146	7.645	7.645	(0.991)	189127	2.50000	2.445
*	8 1,4-Dichlorobenzene-d4	152	7.715	7.714	(1.000)	198041	4.00000	
	9 1,4-Dichlorobenzene	146	7.746	7.745	(1.004)	184855	2.50000	2.339
$	10 1,2-Dichlorobenzene-d4	152	8.056	8.056	(1.044)	133313	2.50000	2.730
	12 1,2-Dichlorobenzene	146	8.079	8.079	(1.047)	176312	2.50000	2.430
	11 Benzyl alcohol	108	8.017	8.017	(1.039)	83360	2.50000	2.346
	14 2,2'-oxybis(1-Chloropropane)	121	8.320	8.312	(1.078)	50249	2.50000	2.612
	13 2-Methylphenol	108	8.281	8.281	(1.073)	125684	2.50000	2.544
	17 Hexachloroethane	117	8.646	8.646	(1.121)	83200	2.50000	2.665
	16 N-Nitroso-di-n-propylamine	70	8.561	8.561	(1.110)	112165	2.50000	2.599
	15 4-Methylphenol	108	8.553	8.553	(1.109)	125160	2.50000	2.328
$	18 Nitrobenzene-d5	82	8.786	8.786	(0.868)	191831	2.50000	2.649
	19 Nitrobenzene	77	8.817	8.824	(0.871)	183035	2.50000	2.618
	20 Isophorone	82	9.267	9.259	(0.915)	300585	2.50000	2.593
	21 2-Nitrophenol	139	9.438	9.437	(0.932)	90188	2.50000	2.491
	22 2,4-Dimethylphenol	107	9.554	9.554	(0.944)	337483	5.00000	4.987
	23 Bis(2-Chloroethoxy)methane	93	9.731	9.731	(0.961)	145316	2.50000	2.642
	24 Benzoic acid	105	9.785	9.708	(0.966)	335009	10.0000	7.743
	25 2,4-Dichlorophenol	162	9.893	9.893	(0.977)	326639	5.00000	4.867
	26 1,2,4-Trichlorobenzene	180	10.055	10.055	(0.993)	210246	2.50000	2.418

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
*	27 Naphthalene-d8	136	10.124	10.124	(1.000)	681347	4.00000	
	28 Naphthalene	128	10.163	10.163	(1.004)	429986	2.50000	2.607
	29 4-Chloroaniline	127	10.332	10.332	(1.021)	344838	5.00000	5.129
	30 Hexachlorobutadiene	225	10.541	10.541	(1.041)	201970	2.50000	2.615
	31 4-Chloro-3-methylphenol	107	11.338	11.338	(1.120)	310820	5.00000	5.024
	32 2-Methylnaphthalene	142	11.540	11.532	(1.140)	335499	2.50000	2.711
	33 Hexachlorocyclopentadiene	237	12.004	12.004	(0.879)	396854	5.00000	4.620
	34 2,4,6-Trichlorophenol	196	12.182	12.174	(0.892)	327634	5.00000	4.810
	35 2,4,5-Trichlorophenol	196	12.252	12.251	(0.897)	349223	5.00000	5.040
$	36 2-Fluorobiphenyl	172	12.329	12.337	(0.903)	476117	2.50000	2.476
	37 2-Chloronaphthalene	162	12.507	12.499	(0.916)	385589	2.50000	2.516
	38 2-Nitroaniline	65	12.793	12.793	(0.937)	192223	5.00000	5.093
	39 Dimethylphthalate	163	13.258	13.258	(0.971)	580344	2.50000	2.739
	40 Acenaphthylene	152	13.351	13.343	(0.977)	564147	2.50000	2.525
	41 2,6-Dinitrotoluene	165	13.374	13.381	(0.979)	228360	5.00000	5.385
*	42 Acenaphthene-d10	164	13.660	13.660	(1.000)	531820	4.00000	
	43 3-Nitroaniline	138	13.645	13.637	(0.999)	137560	5.00000	4.590
	44 Acenaphthene	153	13.722	13.722	(1.005)	350363	2.50000	2.512
	45 2,4-Dinitrophenol	184	13.853	13.861	(1.014)	245778	10.0000	7.769
	46 Dibenzofuran	168	14.054	14.046	(1.029)	548232	2.50000	2.451
	47 4-Nitrophenol	109	14.046	14.054	(1.028)	174488	5.00000	4.488
	48 2,4-Dinitrotoluene	165	14.162	14.162	(1.037)	309586	5.00000	5.460
	50 Diethylphthalate	149	14.704	14.704	(1.076)	493594	2.50000	2.698
	49 Fluorene	166	14.750	14.742	(1.080)	444798	2.50000	2.525
	51 4-Chlorophenyl-phenylether	204	14.781	14.781	(1.082)	317232	2.50000	2.550
	52 4-Nitroaniline	138	14.889	14.881	(1.090)	138392	5.00000	4.556
	53 4,6-Dinitro-2-methylphenol	198	14.982	14.974	(0.900)	496288	10.0000	9.734
	54 N-Nitrosodiphenylamine	169	15.043	15.036	(0.904)	348772	2.50000	2.478
$	55 2,4,6-Tribromophenol	330	15.282	15.282	(1.119)	125301	2.50000	2.674
	56 4-Bromophenyl-phenylether	248	15.768	15.760	(0.947)	229629	2.50000	2.486
	57 Hexachlorobenzene	284	16.038	16.038	(0.964)	350691	2.50000	2.624
	58 Pentachlorophenol	266	16.418	16.410	(0.987)	192758	5.00000	3.829
*	59 Phenanthrene-d10	188	16.642	16.634	(1.000)	1146483	4.00000	
	60 Phenanthrene	178	16.681	16.681	(1.002)	737712	2.50000	2.500
	61 Anthracene	178	16.774	16.774	(1.008)	722437	2.50000	2.430
	62 Carbazole	167	17.137	17.137	(1.030)	529184	2.50000	2.369
	63 Di-n-butylphthalate	149	18.011	18.011	(1.082)	818111	2.50000	2.514
	64 Fluoranthene	202	19.017	19.009	(1.143)	992447	2.50000	2.440
	65 Pyrene	202	19.412	19.412	(0.900)	1021983	2.50000	2.563
$	66 Terphenyl-d14	244	19.768	19.760	(0.916)	831949	2.50000	2.532
	67 Butylbenzylphthalate	149	20.720	20.720	(0.960)	361482	2.50000	2.491
	68 Benzo(a)anthracene	228	21.549	21.541	(0.999)	1144195	2.50000	2.550
*	69 Chrysene-d12	240	21.572	21.572	(1.000)	1648687	4.00000	
	70 3,3'-Dichlorobenzidine	252	21.556	21.549	(0.999)	1013548	5.00000	4.307
	71 Chrysene	228	21.618	21.611	(1.002)	992904	2.50000	2.454
	72 bis(2-Ethylhexyl)phthalate	149	21.773	21.765	(0.957)	549818	2.50000	2.523
*	134 Di-n-octylphthalate-d4	153	22.741	22.733	(1.000)	1532062	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
73	Di-n-octylphthalate	149	22.749	22.749	(1.000)	912537	2.50000	2.470
74	Benzo(b)fluoranthene	252	23.283	23.275	(0.977)	1334833	2.50000	2.641
75	Benzo(k)fluoranthene	252	23.314	23.306	(0.978)	1284883	2.50000	2.453
76	Benzo(a)pyrene	252	23.747	23.747	(0.996)	1064189	2.50000	2.564
* 77	Perylene-d12	264	23.840	23.832	(1.000)	1659313	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	25.614	25.606	(1.074)	1443720	2.50000	2.553
79	Dibenzo(a,h)anthracene	278	25.638	25.637	(1.075)	1197463	2.50000	2.531
80	Benzo(g,h,i)perylene	276	26.127	26.111	(1.096)	1237599	2.50000	2.601
90	N-Nitrosodimethylamine	74	3.481	3.481	(0.451)	163349	5.00000	5.218
91	Aniline	93	7.204	7.204	(0.934)	374703	2.50000	2.401
93	Benzidine	184	19.304	19.303	(0.895)	441808	5.00000	5.311
103	Pyridine	79	3.481	3.496	(0.451)	131082	5.00000	4.497
105	1-methylnaphthalene	142	11.748	11.741	(1.160)	318327	2.50000	2.506
111	Azobenzene (1,2-DP-Hydrazine)	77	15.097	15.097	(1.105)	455461	2.50000	2.561
187	Total Benzofluoranthenes	252	23.283	23.275	(0.977)	2464259	5.00000	5.061
99	Perylene	252	23.871	23.863	(1.001)	1048169	2.50000	2.559

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic1011g.d
Lab Smp Id: IC1011G
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111011.b/ABN.m
Misc Info:

Calibration Date: 11-OCT-2011
Calibration Time: 12:37
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	177854	88927	355708	198041	11.35
27 Naphthalene-d8	655081	327540	1310162	681347	4.01
42 Acenaphthene-d10	503316	251658	1006632	531820	5.66
59 Phenanthrene-d10	1020128	510064	2040256	1146483	12.39
69 Chrysene-d12	1376380	688190	2752760	1648687	19.78
134 Di-n-octylphthala	1305906	652953	2611812	1532062	17.32
77 Perylene-d12	1393516	696758	2787032	1659313	19.07

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.71	7.21	8.21	7.71	0.00
27 Naphthalene-d8	10.12	9.62	10.62	10.12	0.00
42 Acenaphthene-d10	13.67	13.17	14.17	13.66	-0.06
59 Phenanthrene-d10	16.64	16.14	17.14	16.64	0.00
69 Chrysene-d12	21.58	21.08	22.08	21.57	-0.04
134 Di-n-octylphthala	22.75	22.25	23.25	22.74	-0.03
77 Perylene-d12	23.84	23.34	24.34	23.84	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/nt10.i/20111011.b/ic1011g.d

Date : 11-OCT-2011 16:04

Client ID:

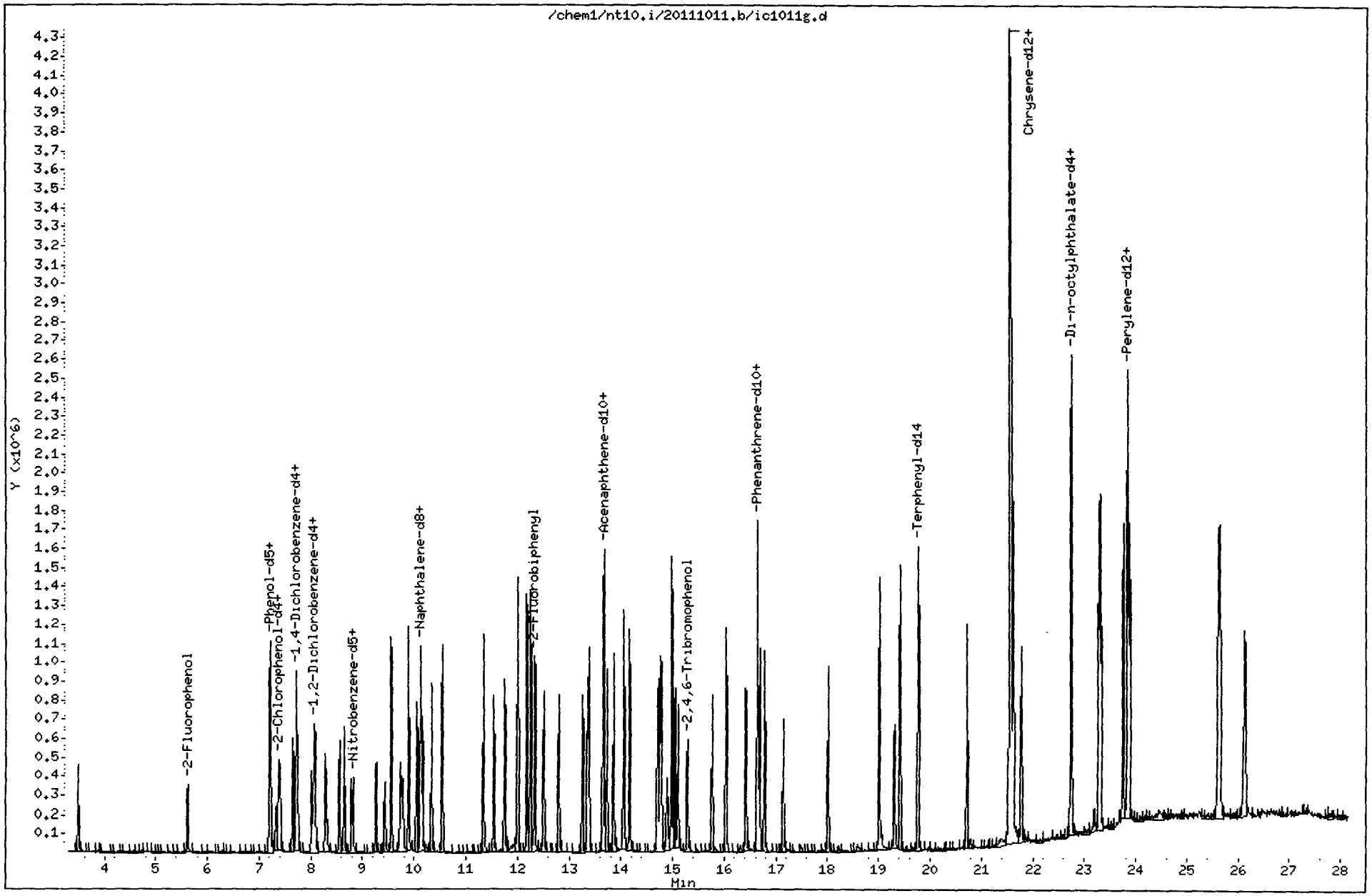
Sample Info: IC1011G

Column phase: ZB-5msi

Instrument: nt10.i

Operator: YZ

Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - ic1011g.d

Lab ID: IC1011G, Method: ABN.m, Instrument: nt10.i, Date: 11-OCT-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111011.b/ic1011h.d
Lab Smp Id: IC1011H
Inj Date : 11-OCT-2011 16:39
Operator : YZ Inst ID: nt10.i
Smp Info : IC1011H
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20111011.b/ABN.m
Meth Date : 17-Oct-2011 16:03 peter Quant Type: ISTD
Cal Date : 11-OCT-2011 17:13 Cal File: ic1011i.d
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.612	5.612	(0.727)	8783	0.20000	0.1649
$	2 Phenol-d5	99	7.196	7.188	(0.933)	11457	0.20000	0.1675
	3 Phenol	94	7.211	7.219	(0.935)	12622	0.20000	0.1496
$	5 2-Chlorophenol-d4	132	7.381	7.374	(0.957)	14539	0.20000	0.2349
	4 Bis(2-Chloroethyl)ether	93	7.320	7.320	(0.949)	8876	0.20000	0.1735
	6 2-Chlorophenol	128	7.397	7.397	(0.959)	11747	0.20000	0.1786
	7 1,3-Dichlorobenzene	146	7.652	7.645	(0.992)	16370	0.20000	0.1924
*	8 1,4-Dichlorobenzene-d4	152	7.714	7.714	(1.000)	217842	4.00000	
	9 1,4-Dichlorobenzene	146	7.738	7.745	(1.003)	19693	0.20000	0.2265
$	10 1,2-Dichlorobenzene-d4	152	8.064	8.056	(1.045)	9945	0.20000	0.1851
	12 1,2-Dichlorobenzene	146	8.079	8.079	(1.047)	15925	0.20000	0.1996
	11 Benzyl alcohol	108	8.017	8.017	(1.039)	6610	0.20000	0.1691(M)
	14 2,2'-oxybis(1-Chloropropane)	121	8.312	8.312	(1.077)	3451	0.20000	0.1631(M)
	13 2-Methylphenol	108	8.281	8.281	(1.073)	8503	0.20000	0.1565
	17 Hexachloroethane	117	8.646	8.646	(1.121)	5191	0.20000	0.1511
	16 N-Nitroso-di-n-propylamine	70	8.560	8.561	(1.110)	8228	0.20000	0.1733
	15 4-Methylphenol	108	8.560	8.553	(1.110)	12237	0.20000	0.2069
$	18 Nitrobenzene-d5	82	8.785	8.786	(0.868)	16186	0.20000	0.1984
	19 Nitrobenzene	77	8.824	8.824	(0.872)	13724	0.20000	0.1742(M)
	20 Isophorone	82	9.259	9.259	(0.915)	23325	0.20000	0.1786
	21 2-Nitrophenol	139	9.437	9.437	(0.932)	7407	0.20000	0.1816
	22 2,4-Dimethylphenol	107	9.561	9.554	(0.944)	29142	0.40000	0.3822
	23 Bis(2-Chloroethoxy)methane	93	9.723	9.731	(0.960)	11343	0.20000	0.1830
	24 Benzoic acid	105	9.746	9.708	(0.963)	5678	0.80000	0.1184(M)
	25 2,4-Dichlorophenol	162	9.900	9.893	(0.978)	24653	0.40000	0.3260
	26 1,2,4-Trichlorobenzene	180	10.054	10.055	(0.993)	16675	0.20000	0.1702

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
*	27 Naphthalene-d8	136	10.124	10.124	(1.000)	767640	4.00000	
	28 Naphthalene	128	10.162	10.163	(1.004)	35526	0.20000	0.1911
	29 4-Chloroaniline	127	10.332	10.332	(1.021)	24248	0.40000	0.3201
	30 Hexachlorobutadiene	225	10.541	10.541	(1.041)	16175	0.20000	0.1859
	31 4-Chloro-3-methylphenol	107	11.338	11.338	(1.120)	25012	0.40000	0.3589
	32 2-Methylnaphthalene	142	11.539	11.532	(1.140)	24361	0.20000	0.1747
	33 Hexachlorocyclopentadiene	237	12.004	12.004	(0.879)	11926	0.40000	0.1333
	34 2,4,6-Trichlorophenol	196	12.182	12.174	(0.892)	20916	0.40000	0.2919
	35 2,4,5-Trichlorophenol	196	12.259	12.251	(0.897)	23842	0.40000	0.3271
$	36 2-Fluorobiphenyl	172	12.336	12.337	(0.903)	41181	0.20000	0.2036
	37 2-Chloronaphthalene	162	12.499	12.499	(0.915)	31402	0.20000	0.1948
	38 2-Nitroaniline	65	12.793	12.793	(0.937)	11620	0.40000	0.2926
	39 Dimethylphthalate	163	13.257	13.258	(0.971)	36243	0.20000	0.1626
	40 Acenaphthylene	152	13.343	13.343	(0.977)	44002	0.20000	0.1872
	41 2,6-Dinitrotoluene	165	13.374	13.381	(0.979)	14388	0.40000	0.3225
*	42 Acenaphthene-d10	164	13.660	13.660	(1.000)	559533	4.00000	
	43 3-Nitroaniline	138	13.652	13.637	(0.999)	10017	0.40000	0.3177
	44 Acenaphthene	153	13.722	13.722	(1.005)	27605	0.20000	0.1881
	45 2,4-Dinitrophenol	184	13.861	13.861	(1.015)	417	0.80000	0.01268
	46 Dibenzofuran	168	14.054	14.046	(1.029)	44028	0.20000	0.1871
	47 4-Nitrophenol	109	14.069	14.054	(1.030)	7707	0.40000	0.1894(M)
	48 2,4-Dinitrotoluene	165	14.162	14.162	(1.037)	20513	0.40000	0.3439
	50 Diethylphthalate	149	14.703	14.704	(1.076)	34859	0.20000	0.1811
	49 Fluorene	166	14.758	14.742	(1.080)	37222	0.20000	0.2008
	51 4-Chlorophenyl-phenylether	204	14.781	14.781	(1.082)	23693	0.20000	0.1810
	52 4-Nitroaniline	138	14.889	14.881	(1.090)	12189	0.40000	0.3814
	53 4,6-Dinitro-2-methylphenol	198	14.981	14.974	(0.900)	20833	0.80000	0.3929
	54 N-Nitrosodiphenylamine	169	15.035	15.036	(0.903)	27687	0.20000	0.1891
$	55 2,4,6-Tribromophenol	330	15.290	15.282	(1.119)	7775	0.20000	0.1577
	56 4-Bromophenyl-phenylether	248	15.760	15.760	(0.947)	18374	0.20000	0.1913
	57 Hexachlorobenzene	284	16.030	16.038	(0.963)	26708	0.20000	0.1922
	58 Pentachlorophenol	266	16.425	16.410	(0.987)	5545	0.40000	0.1074
*	59 Phenanthrene-d10	188	16.642	16.634	(1.000)	1192217	4.00000	
	60 Phenanthrene	178	16.681	16.681	(1.002)	59669	0.20000	0.1944
	61 Anthracene	178	16.781	16.774	(1.008)	58421	0.20000	0.1890
	62 Carbazole	167	17.137	17.137	(1.030)	47135	0.20000	0.2029
	63 Di-n-butylphthalate	149	18.011	18.011	(1.082)	64259	0.20000	0.1899
	64 Fluoranthene	202	19.017	19.009	(1.143)	79898	0.20000	0.1889
	65 Pyrene	202	19.412	19.412	(0.900)	78602	0.20000	0.1870
$	66 Terphenyl-d14	244	19.760	19.760	(0.916)	70994	0.20000	0.2049
	67 Butylbenzylphthalate	149	20.720	20.720	(0.960)	31012	0.20000	0.2027
	68 Benzo(a)anthracene	228	21.548	21.541	(0.999)	88512	0.20000	0.1871
*	69 Chrysene-d12	240	21.572	21.572	(1.000)	1738111	4.00000	
	70 3,3'-Dichlorobenzidine	252	21.556	21.549	(0.999)	113065	0.40000	0.4557
	71 Chrysene	228	21.610	21.611	(1.002)	83977	0.20000	0.1968
	72 bis(2-Ethylhexyl)phthalate	149	21.765	21.765	(0.957)	43409	0.20000	0.1905
*	134 Di-n-octylphthalate-d4	153	22.733	22.733	(1.000)	1602652	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
73	Di-n-octylphthalate	149	22.748	22.749	(1.001)	74308	0.20000	0.1922
74	Benzo(b)fluoranthene	252	23.275	23.275	(0.977)	112898	0.20000	0.2071
75	Benzo(k)fluoranthene	252	23.314	23.306	(0.978)	102798	0.20000	0.1820
76	Benzo(a)pyrene	252	23.747	23.747	(0.996)	84103	0.20000	0.1879
* 77	Perylene-d12	264	23.832	23.832	(1.000)	1789259	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	25.614	25.606	(1.075)	121726	0.20000	0.1996
79	Dibenzo(a,h)anthracene	278	25.637	25.637	(1.076)	107821	0.20000	0.2113
80	Benzo(g,h,i)perylene	276	26.127	26.111	(1.096)	102841	0.20000	0.2004
90	N-Nitrosodimethylamine	74	3.480	3.481	(0.451)	11262	0.40000	0.3270
91	Aniline	93	7.211	7.204	(0.935)	27602	0.20000	0.1608
93	Benzidine	184	19.303	19.303	(0.895)	65515	0.40000	0.7690
103	Pyridine	79	3.511	3.496	(0.455)	8676	0.40000	0.2706
105	1-methylnaphthalene	142	11.741	11.741	(1.160)	26013	0.20000	0.1817
111	Azobenzene (1,2-DP-Hydrazine)	77	15.097	15.097	(1.105)	40235	0.20000	0.2150
187	Total Benzofluoranthenes	252	23.314	23.275	(0.978)	210043	0.40000	0.4000
99	Perylene	252	23.871	23.863	(1.002)	88135	0.20000	0.1995

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic1011h.d
Lab Smp Id: IC1011H
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111011.b/ABN.m
Misc Info:

Calibration Date: 11-OCT-2011
Calibration Time: 12:37

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	177854	88927	355708	217842	22.48
27 Naphthalene-d8	655081	327540	1310162	767640	17.18
42 Acenaphthene-d10	503316	251658	1006632	559533	11.17
59 Phenanthrene-d10	1020128	510064	2040256	1192217	16.87
69 Chrysene-d12	1376380	688190	2752760	1738111	26.28
134 Di-n-octylphthala	1305906	652953	2611812	1602652	22.72
77 Perylene-d12	1393516	696758	2787032	1789259	28.40

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.71	7.21	8.21	7.71	0.00
27 Naphthalene-d8	10.12	9.62	10.62	10.12	0.00
42 Acenaphthene-d10	13.67	13.17	14.17	13.66	-0.06
59 Phenanthrene-d10	16.64	16.14	17.14	16.64	0.00
69 Chrysene-d12	21.58	21.08	22.08	21.57	-0.04
134 Di-n-octylphthala	22.75	22.25	23.25	22.73	-0.07
77 Perylene-d12	23.84	23.34	24.34	23.83	-0.03

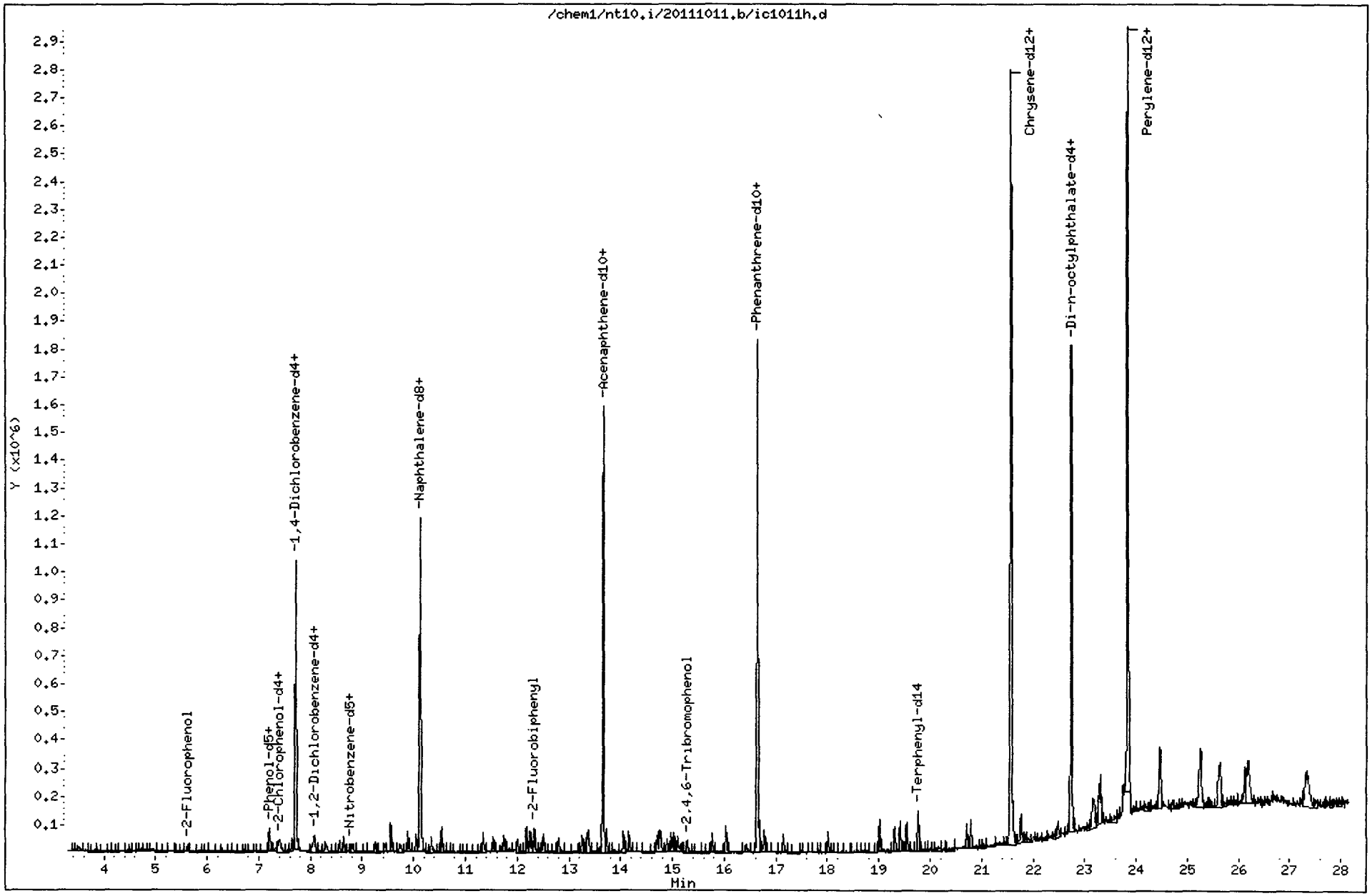
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20111011.b/ic1011h.d
Date : 11-OCT-2011 16:39
Client ID:
Sample Info: IC1011H

Instrument: nt10.i

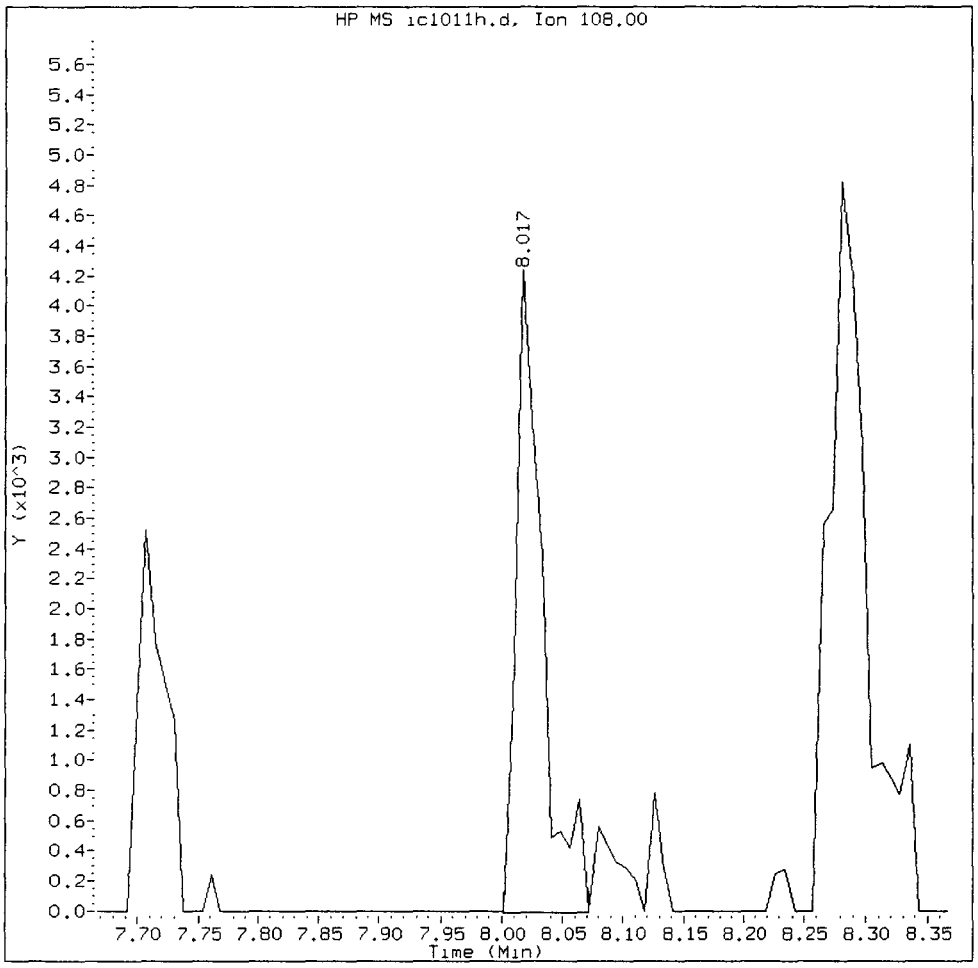
Operator: YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC1011H, /chem1/nt10.i/20111011.b/ic1011h.d

Benzyl alcohol Amount: 0.17 Area: 6610



MANUAL INTEGRATION for Benzyl alcohol

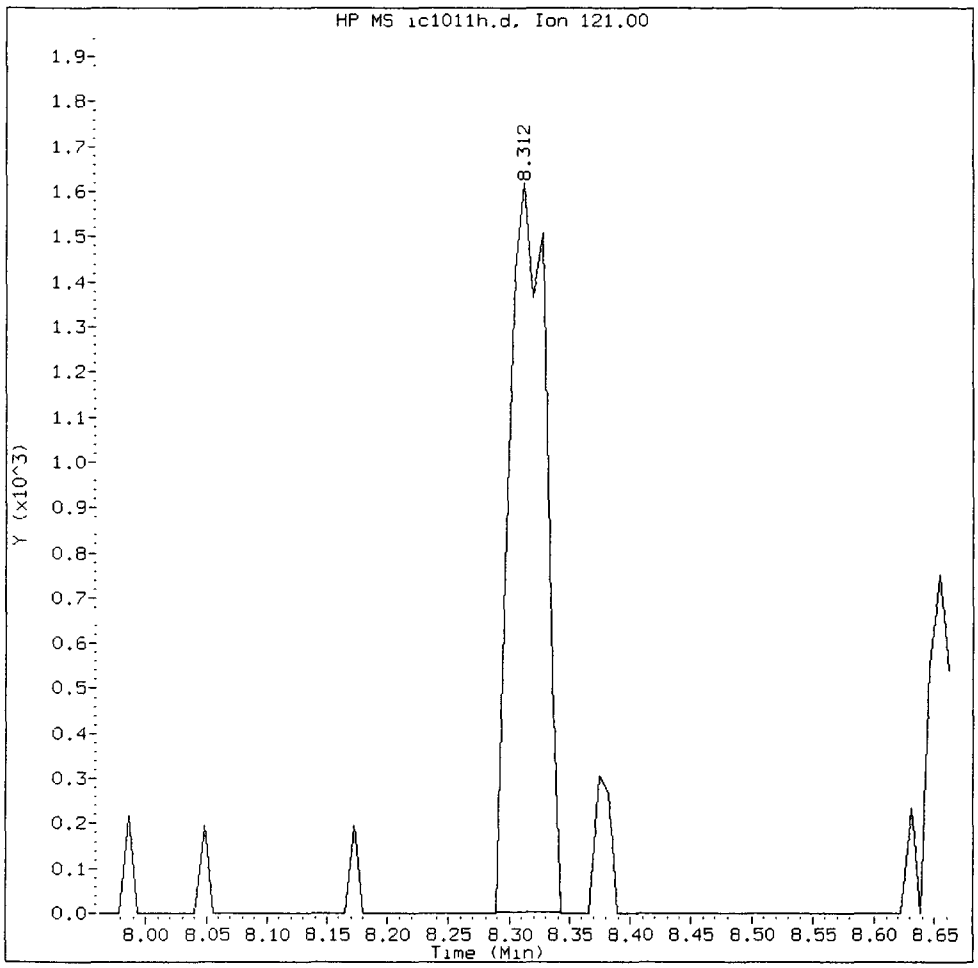
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

IC1011H, /chem1/nt10.i/20111011.b/ic1011h.d

2,2'-oxybis(1-Chloropropane) Amount: 0.16 Area: 3451



MANUAL INTEGRATION for 2,2'-oxybis(1-Chloropropane)

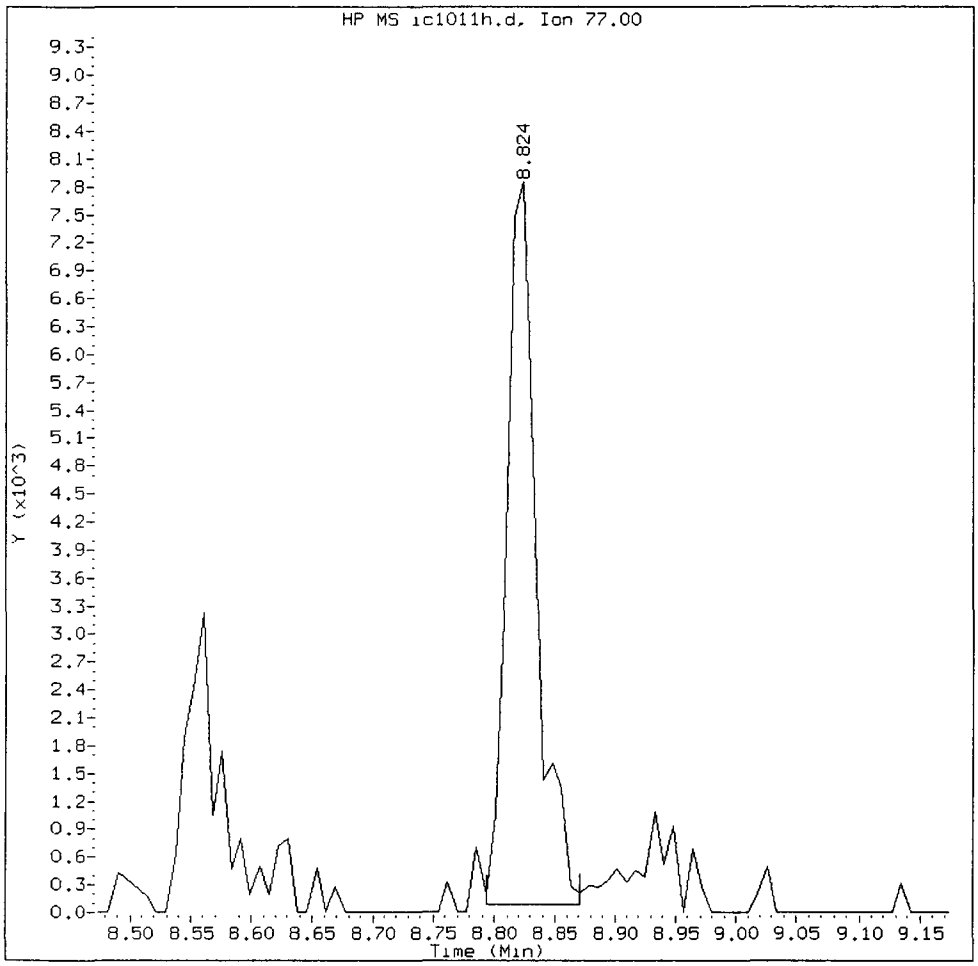
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

IC1011H, /chem1/nt10.i/20111011.b/ic1011h.d

Nitrobenzene Amount: 0.17 Area: 13724



MANUAL INTEGRATION for Nitrobenzene

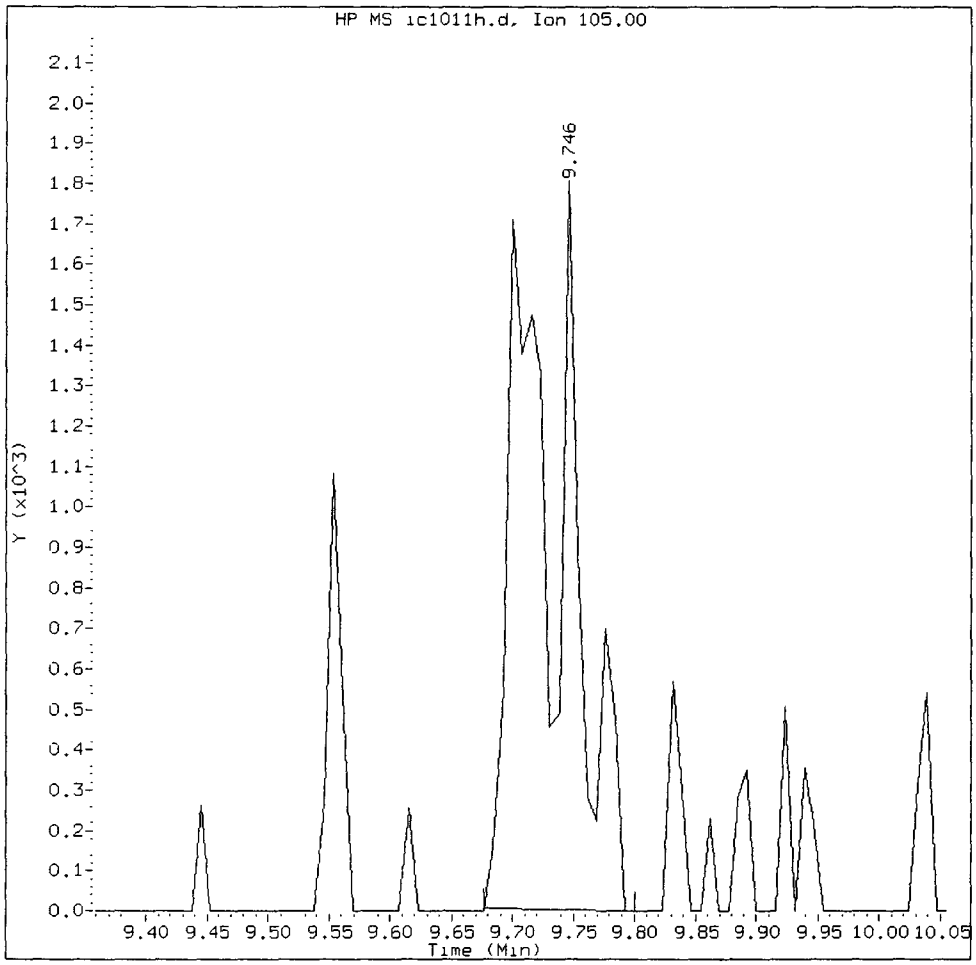
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

IC1011H, /chem1/nt10.i/20111011.b/ic1011h.d

Benzoic acid Amount: 0.12 Area: 5678



MANUAL INTEGRATION for Benzoic acid

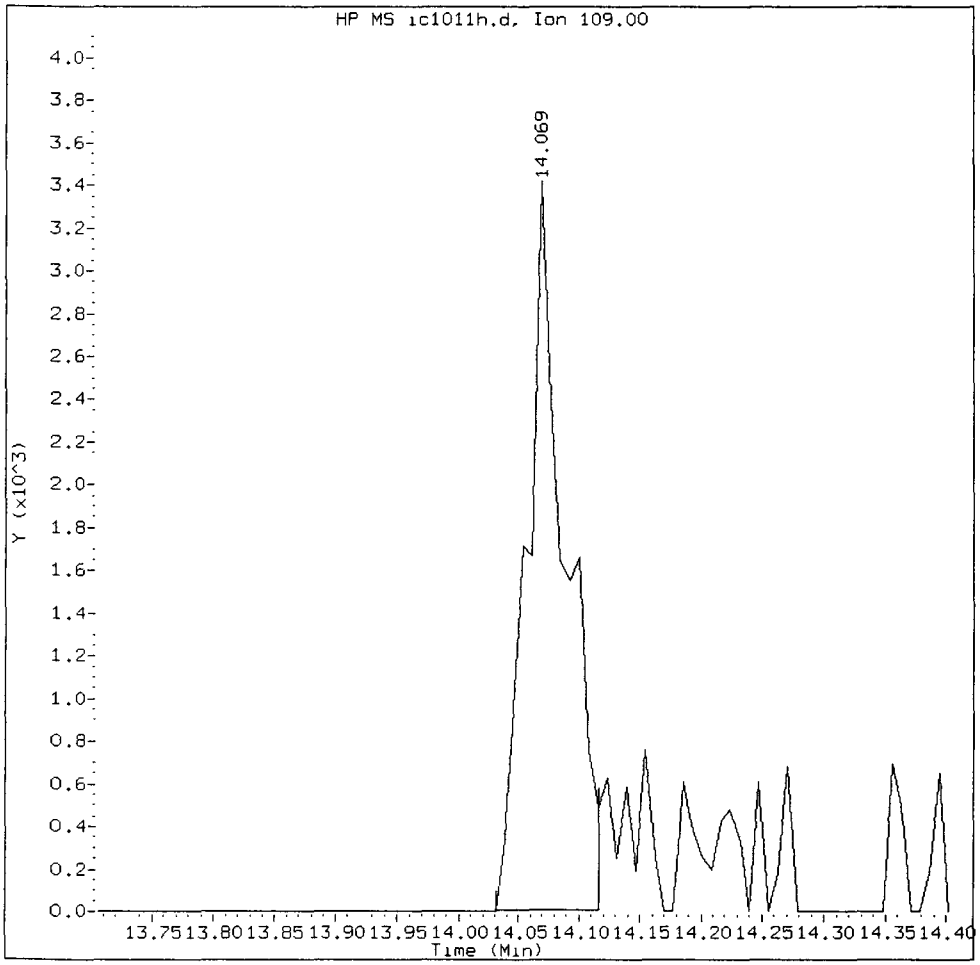
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

IC1011H, /chem1/nt10.i/20111011.b/ic1011h.d

4-Nitrophenol Amount: 0.19 Area: 7707



MANUAL INTEGRATION for 4-Nitrophenol

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - ic1011h.d

Lab ID: IC1011H, Method: ABN.m, Instrument: nt10.i, Date: 11-OCT-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Krone-1988

Data file : /chem1/nt12.i/20111017.b/tp88f.d
Lab Smp Id: TP88F Client Smp ID: DSY-SD-Y28-2448
Inj Date : 18-OCT-2011 00:32
Operator : VTS Inst ID: nt12.i
Smp Info : TP88F
Misc Info : 11-22237
Comment : 2 ul Injection
Method : /chem1/nt12.i/20111017.b/lowbts.m
Meth Date : 17-Oct-2011 15:28 jonw Quant Type: ISTD
Cal Date : 13-OCT-2011 10:52 Cal File: ic1013b2.d
Als bottle: 39
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TetraTechTBTS.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Effective Final Volume of extract (uL)
Ws	8.27000	Dry Weight of sample extracted (g)
M	0.00000	Percent moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 Tripropyl Tin (Hexyl)	291	5.388	5.376	(0.768)	17697	0.28033	16.95
	2 Tetrabutyl Tin	289	Compound Not Detected.					
	3 Tributyl Tin (Hexyl)	319	Compound Not Detected.					
*	4 Tetrapentyl Tin	333	7.016	7.004	(1.000)	152406	2.00000	
	5 Dibutyl Tin (Hexyl)	347	Compound Not Detected.					
$	6 Tripentyl Tin (Hexyl)	347	7.351	7.339	(0.930)	26344	0.48021	29.03
	7 Butyl Tin (Hexyl)	347	Compound Not Detected.					
*	8 p-Terphenyl-d14	244	7.901	7.889	(1.000)	144493	0.20000	

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: tp88f.d
Lab Smp Id: TP88F
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem1/nt12.i/20111017.b/lowbts.m
Misc Info: 11-22237

Calibration Date: 17-OCT-2011
Calibration Time: 15:28
Client Smp ID: DSY-SD-Y28-2448
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	144346	72173	288692	152406	5.58
8 p-Terphenyl-d14	132415	66208	264830	144493	9.12

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	7.00	6.50	7.50	7.02	0.16
8 p-Terphenyl-d14	7.89	7.39	8.39	7.90	0.15

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TX57 06445

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Tetra Tech NUS
Sample Matrix: SOLID
Lab Smp Id: TP88F
Level: LOW
Data Type: MS DATA
SpikeList File: tbtsed.spk
Sublist File: TetraTechTBTS.sub
Method File: /chem1/nt12.i/20111017.b/lowbts.m
Misc Info: 11-22237

Client SDG: TP88
Fraction: SV
Client Smp ID: DSY-SD-Y28-2448
Operator: VTS
SampleType: SAMPLE
Quant Type: ISTD

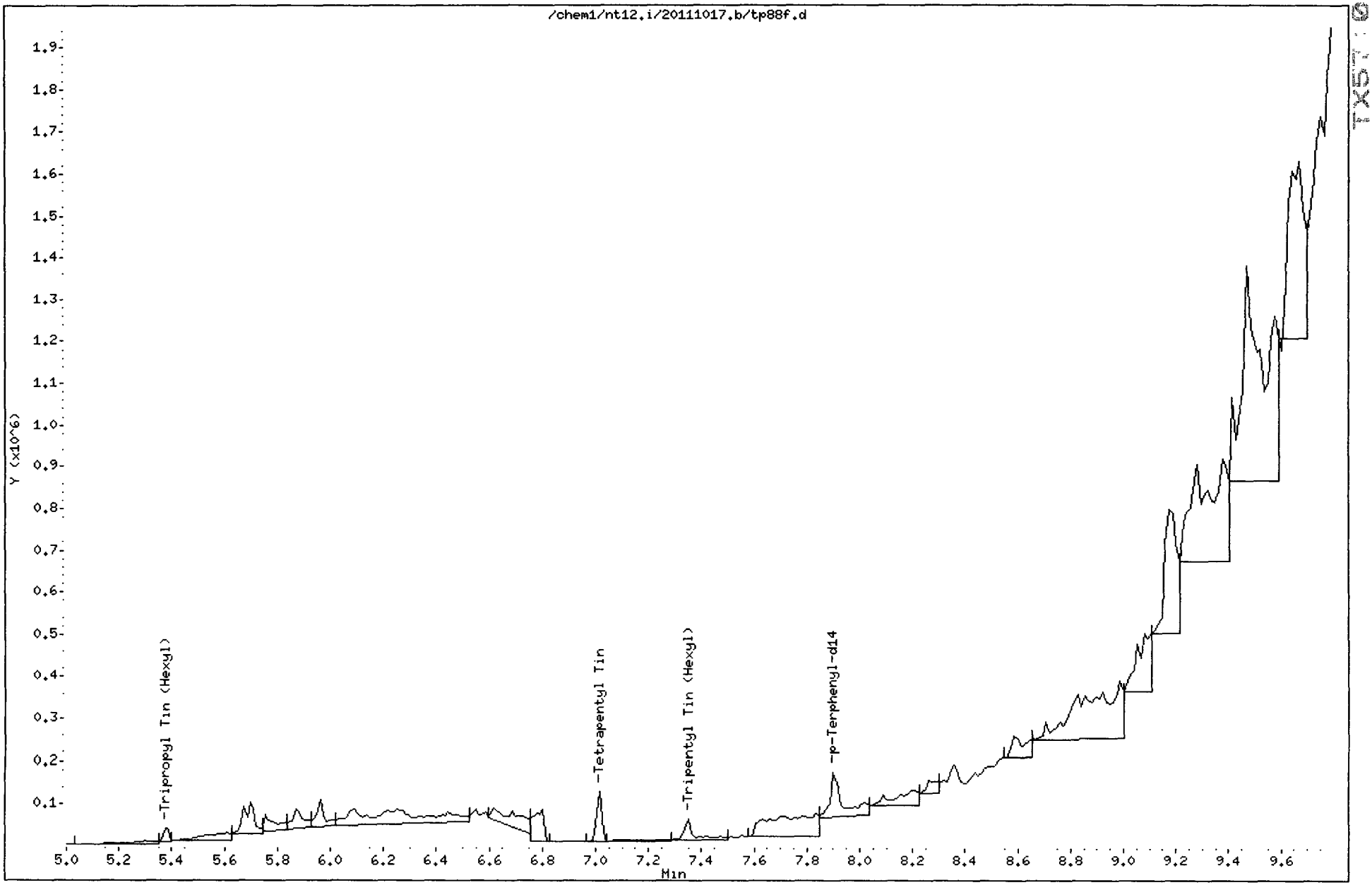
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 Tripropyl Tin (Hex	35.55	16.95	47.67	25-140
$ 6 Tripentyl Tin (Hex	34.34	29.03	84.54	25-140

Data File: /chem1/nt12.i/20111017.b/tp88f.d
Date : 18-OCT-2011 00:32
Client ID: DSY-SD-Y28-2448
Sample Info: TP88F

Instrument: nt12.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - tp88f.d

Lab ID: TP88F, Method: lowbts.m, Instrument: nt12.i, Date: 18-OCT-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111011.b/ic1011i.d
Lab Smp Id: IC1011I
Inj Date : 11-OCT-2011 17:13
Operator : YZ Inst ID: nt10.i
Smp Info : IC1011I
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20111011.b/ABN.m
Meth Date : 17-Oct-2011 16:03 peter Quant Type: ISTD
Cal Date : 11-OCT-2011 17:13 Cal File: ic1011i.d
Als bottle: 10 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.612	5.612	(0.727)	20806	0.50000	0.4822
$	2 Phenol-d5	99	7.188	7.188	(0.932)	26211	0.50000	0.4730
	3 Phenol	94	7.219	7.219	(0.936)	30628	0.50000	0.4482
$	5 2-Chlorophenol-d4	132	7.374	7.374	(0.956)	21641	0.50000	0.4315
	4 Bis(2-Chloroethyl)ether	93	7.320	7.320	(0.949)	22030	0.50000	0.5315
	6 2-Chlorophenol	128	7.397	7.397	(0.959)	27607	0.50000	0.5183
	7 1,3-Dichlorobenzene	146	7.645	7.645	(0.991)	36252	0.50000	0.5259
*	8 1,4-Dichlorobenzene-d4	152	7.714	7.714	(1.000)	176466	4.00000	
	9 1,4-Dichlorobenzene	146	7.745	7.745	(1.004)	36076	0.50000	0.5122
$	10 1,2-Dichlorobenzene-d4	152	8.056	8.056	(1.044)	21207	0.50000	0.4874
	12 1,2-Dichlorobenzene	146	8.079	8.079	(1.047)	30707	0.50000	0.4750
	11 Benzyl alcohol	108	8.017	8.017	(1.039)	15256	0.50000	0.4819(M)
	14 2,2'-oxybis(1-Chloropropane)	121	8.312	8.312	(1.077)	8102	0.50000	0.4726
	13 2-Methylphenol	108	8.281	8.281	(1.073)	24033	0.50000	0.5459
	17 Hexachloroethane	117	8.646	8.646	(1.121)	14428	0.50000	0.5186
	16 N-Nitroso-di-n-propylamine	70	8.561	8.561	(1.110)	19615	0.50000	0.5100
	15 4-Methylphenol	108	8.553	8.553	(1.109)	22446	0.50000	0.4685
$	18 Nitrobenzene-d5	82	8.786	8.786	(0.868)	33864	0.50000	0.4811
	19 Nitrobenzene	77	8.824	8.824	(0.872)	30456	0.50000	0.4482
	20 Isophorone	82	9.259	9.259	(0.915)	50639	0.50000	0.4494
	21 2-Nitrophenol	139	9.437	9.437	(0.932)	16307	0.50000	0.4635
	22 2,4-Dimethylphenol	107	9.554	9.554	(0.944)	58282	1.00000	0.8861
	23 Bis(2-Chloroethoxy)methane	93	9.731	9.731	(0.961)	21046	0.50000	0.3937
	24 Benzoic acid	105	9.708	9.708	(0.959)	22094	2.00000	0.5335
	25 2,4-Dichlorophenol	162	9.893	9.893	(0.977)	58316	1.00000	0.8940
	26 1,2,4-Trichlorobenzene	180	10.055	10.055	(0.993)	38014	0.50000	0.4498

TX57 00152

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
*	27 Naphthalene-d8	136	10.124	10.124	(1.000)	662234	4.00000	
	28 Naphthalene	128	10.163	10.163	(1.004)	72617	0.50000	0.4529
	29 4-Chloroaniline	127	10.332	10.332	(1.021)	56549	1.00000	0.8654
	30 Hexachlorobutadiene	225	10.541	10.541	(1.041)	36765	0.50000	0.4898
	31 4-Chloro-3-methylphenol	107	11.338	11.338	(1.120)	52947	1.00000	0.8806
	32 2-Methylnaphthalene	142	11.532	11.532	(1.139)	49122	0.50000	0.4083
	33 Hexachlorocyclopentadiene	237	12.004	12.004	(0.879)	38663	1.00000	0.4857
	34 2,4,6-Trichlorophenol	196	12.174	12.174	(0.891)	60958	1.00000	0.9566
	35 2,4,5-Trichlorophenol	196	12.251	12.251	(0.897)	48992	1.00000	0.7558
$	36 2-Fluorobiphenyl	172	12.337	12.337	(0.903)	93475	0.50000	0.5197
	37 2-Chloronaphthalene	162	12.499	12.499	(0.915)	68539	0.50000	0.4781
	38 2-Nitroaniline	65	12.793	12.793	(0.937)	27886	1.00000	0.7898
	39 Dimethylphthalate	163	13.258	13.258	(0.971)	96942	0.50000	0.4891
	40 Acenaphthylene	152	13.343	13.343	(0.977)	108070	0.50000	0.5170
	41 2,6-Dinitrotoluene	165	13.381	13.381	(0.980)	38199	1.00000	0.9629
*	42 Acenaphthene-d10	164	13.660	13.660	(1.000)	497530	4.00000	
	43 3-Nitroaniline	138	13.637	13.637	(0.998)	24444	1.00000	0.8718(H)
	44 Acenaphthene	153	13.722	13.722	(1.005)	65330	0.50000	0.5006
	45 2,4-Dinitrophenol	184	13.861	13.861	(1.015)	14082	2.00000	0.4814
	46 Dibenzofuran	168	14.046	14.046	(1.028)	104800	0.50000	0.5009
	47 4-Nitrophenol	109	14.054	14.054	(1.029)	20484	1.00000	0.5659(M)
	48 2,4-Dinitrotoluene	165	14.162	14.162	(1.037)	43644	1.00000	0.8228
	50 Diethylphthalate	149	14.704	14.704	(1.076)	85687	0.50000	0.5006
	49 Fluorene	166	14.742	14.742	(1.079)	82159	0.50000	0.4985
	51 4-Chlorophenyl-phenylether	204	14.781	14.781	(1.082)	59400	0.50000	0.5103
	52 4-Nitroaniline	138	14.881	14.881	(1.089)	29818	1.00000	1.049
	53 4,6-Dinitro-2-methylphenol	198	14.974	14.974	(0.900)	71883	2.00000	1.570
	54 N-Nitrosodiphenylamine	169	15.036	15.036	(0.904)	66796	0.50000	0.5282
$	55 2,4,6-Tribromophenol	330	15.282	15.282	(1.119)	22713	0.50000	0.5182
	56 4-Bromophenyl-phenylether	248	15.760	15.760	(0.947)	43287	0.50000	0.5218
	57 Hexachlorobenzene	284	16.038	16.038	(0.964)	58069	0.50000	0.4837
	58 Pentachlorophenol	266	16.410	16.410	(0.986)	18206	1.00000	0.4077
*	59 Phenanthrene-d10	188	16.634	16.634	(1.000)	1029853	4.00000	
	60 Phenanthrene	178	16.681	16.681	(1.003)	134392	0.50000	0.5069
	61 Anthracene	178	16.774	16.774	(1.008)	118574	0.50000	0.4440
	62 Carbazole	167	17.137	17.137	(1.030)	116829	0.50000	0.5822
	63 Di-n-butylphthalate	149	18.011	18.011	(1.083)	137306	0.50000	0.4696
	64 Fluoranthene	202	19.009	19.009	(1.143)	178220	0.50000	0.4879
	65 Pyrene	202	19.412	19.412	(0.900)	170083	0.50000	0.4632
$	66 Terphenyl-d14	244	19.760	19.760	(0.916)	164207	0.50000	0.5426
	67 Butylbenzylphthalate	149	20.720	20.720	(0.960)	62987	0.50000	0.4714
	68 Benzo(a)anthracene	228	21.541	21.541	(0.999)	201894	0.50000	0.4885
*	69 Chrysene-d12	240	21.572	21.572	(1.000)	1518433	4.00000	
	70 3,3'-Dichlorobenzidine	252	21.549	21.549	(0.999)	245022	1.00000	1.130
	71 Chrysene	228	21.611	21.611	(1.002)	182795	0.50000	0.4905
	72 bis(2-Ethylhexyl)phthalate	149	21.765	21.765	(0.957)	100054	0.50000	0.5047
*	134 Di-n-octylphthalate-d4	153	22.733	22.733	(1.000)	1394070	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
73	Di-n-octylphthalate	149	22.749	22.749	(1.001)	166646	0.50000	0.4956
74	Benzo(b)fluoranthene	252	23.275	23.275	(0.977)	218038	0.50000	0.4561
75	Benzo(k)fluoranthene	252	23.306	23.306	(0.978)	248928	0.50000	0.5024
76	Benzo(a)pyrene	252	23.747	23.747	(0.996)	202306	0.50000	0.5154
* 77	Perylene-d12	264	23.832	23.832	(1.000)	1569480	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	25.606	25.606	(1.074)	269551	0.50000	0.5039
79	Dibenzo(a,h)anthracene	278	25.637	25.637	(1.076)	225934	0.50000	0.5049
80	Benzo(g,h,i)perylene	276	26.111	26.111	(1.096)	213645	0.50000	0.4747
90	N-Nitrosodimethylamine	74	3.481	3.481	(0.451)	23586	1.00000	0.8455
91	Aniline	93	7.204	7.204	(0.934)	65029	0.50000	0.4676
93	Benzidine	184	19.303	19.303	(0.895)	143132	1.00000	1.910
103	Pyridine	79	3.496	3.496	(0.453)	24155	1.00000	0.9300
105	1-methylnaphthalene	142	11.741	11.741	(1.160)	63111	0.50000	0.5111
111	Azobenzene (1,2-DP-Hydrazine)	77	15.097	15.097	(1.105)	74327	0.50000	0.4467
187	Total Benzofluoranthenes	252	23.275	23.275	(0.977)	449451	1.00000	0.9759
99	Perylene	252	23.863	23.863	(1.001)	177179	0.50000	0.4573

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic1011i.d
Lab Smp Id: IC1011I
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111011.b/ABN.m
Misc Info:

Calibration Date: 11-OCT-2011
Calibration Time: 12:37
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	177854	88927	355708	176466	-0.78
27 Naphthalene-d8	655081	327540	1310162	662234	1.09
42 Acenaphthene-d10	503316	251658	1006632	497530	-1.15
59 Phenanthrene-d10	1020128	510064	2040256	1029853	0.95
69 Chrysene-d12	1376380	688190	2752760	1518433	10.32
134 Di-n-octylphthala	1305906	652953	2611812	1394070	6.75
77 Perylene-d12	1393516	696758	2787032	1569480	12.63

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.71	7.21	8.21	7.71	0.00
27 Naphthalene-d8	10.12	9.62	10.62	10.12	0.00
42 Acenaphthene-d10	13.67	13.17	14.17	13.66	-0.06
59 Phenanthrene-d10	16.64	16.14	17.14	16.63	-0.05
69 Chrysene-d12	21.58	21.08	22.08	21.57	-0.04
134 Di-n-octylphthala	22.75	22.25	23.25	22.73	-0.07
77 Perylene-d12	23.84	23.34	24.34	23.83	-0.03

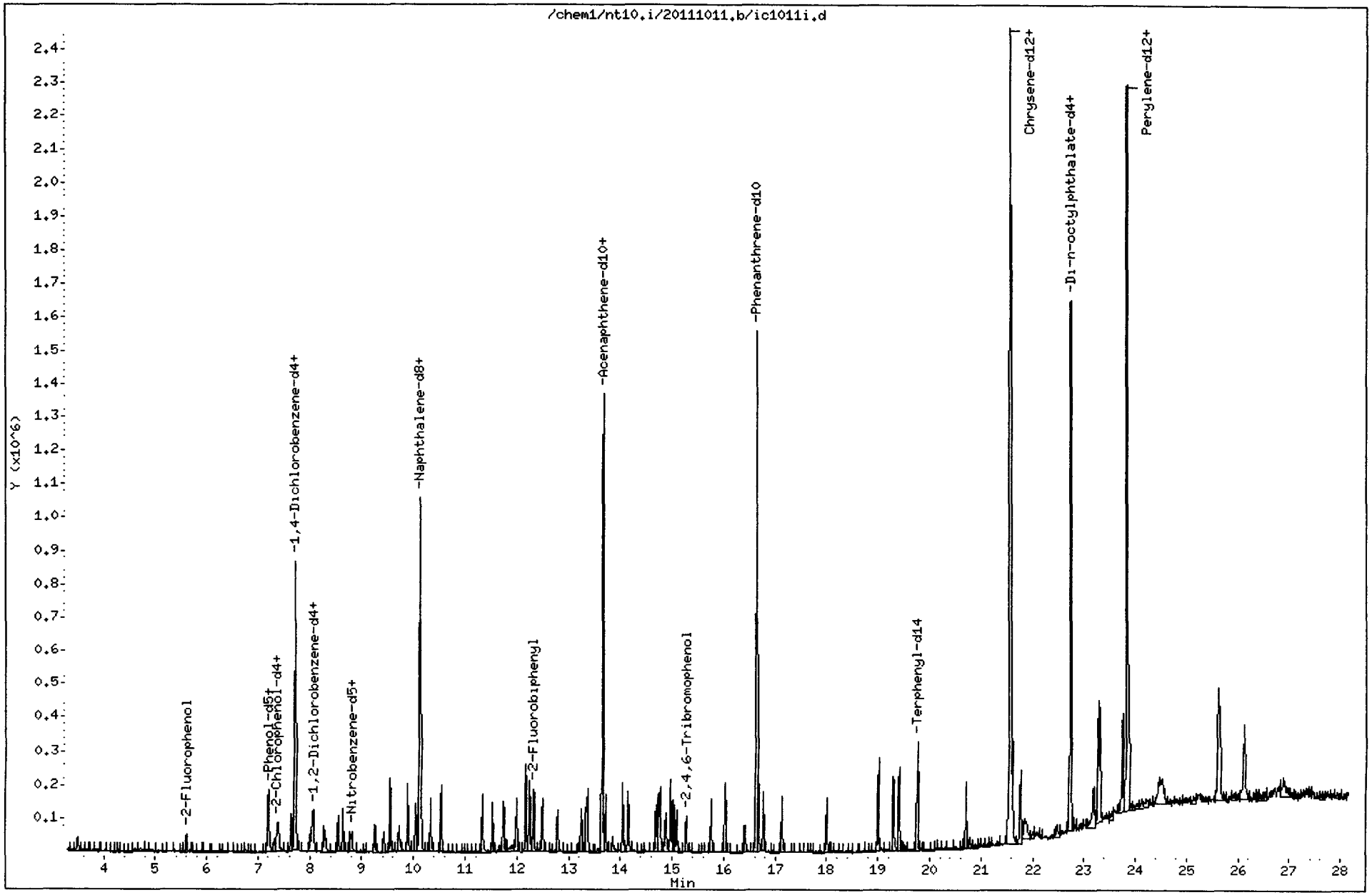
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20111011.b/ic1011i.d
Date : 11-OCT-2011 17:13
Client ID:
Sample Info: IC1011I

Instrument: nt10.i

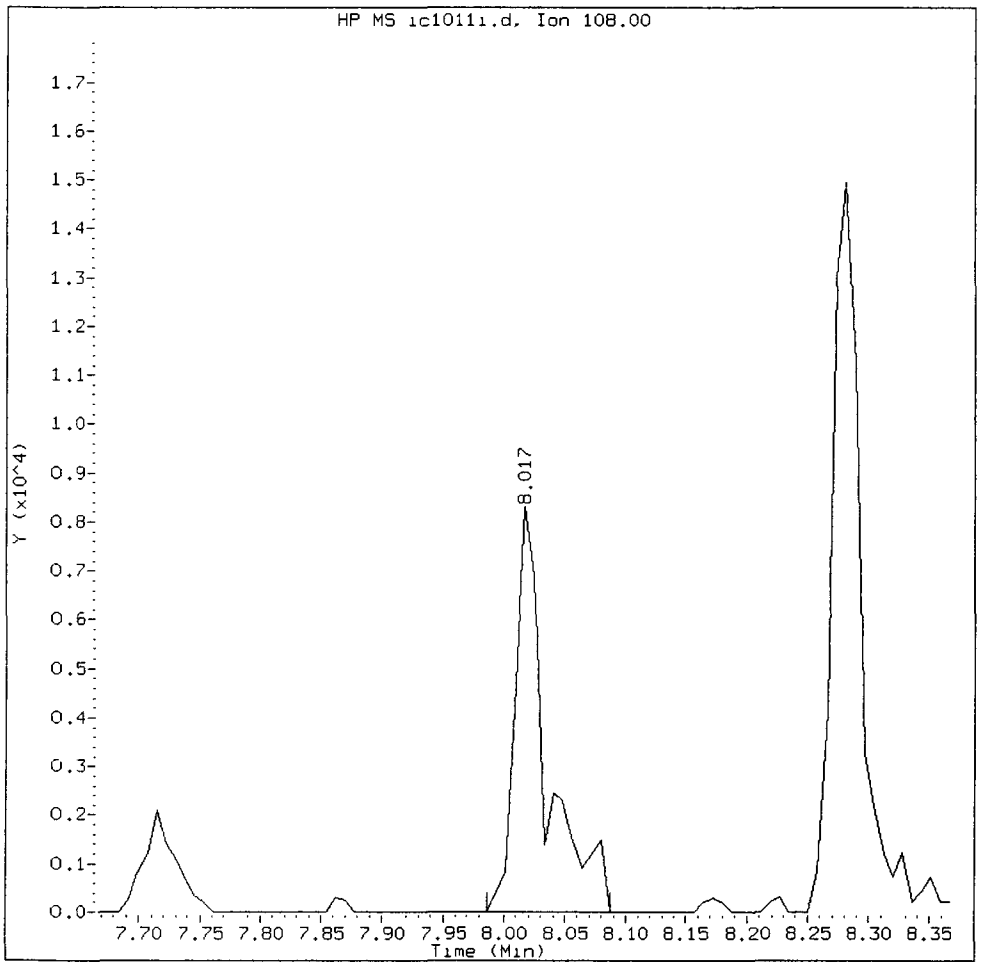
Operator: YZ
Column diameter: 0.25

Column phase: ZB-5ms1



IC1011I, /chem1/nt10.i/20111011.b/ic1011i.d

Benzyl alcohol Amount: 0.48 Area: 15256



MANUAL INTEGRATION for Benzyl alcohol

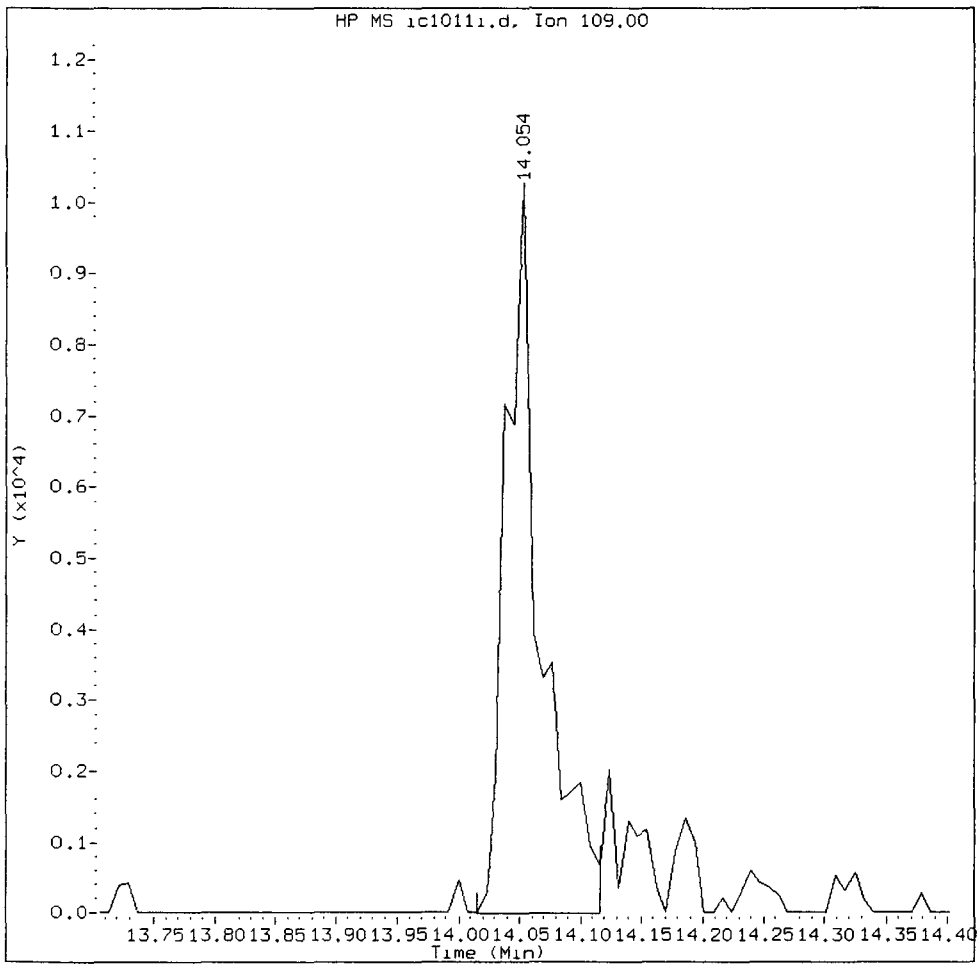
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

IC1011I, /chem1/nt10.i/20111011.b/ic1011i.d

4-Nitrophenol Amount: 0.57 Area: 20484



MANUAL INTEGRATION for 4-Nitrophenol

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - ic1011i.d

Lab ID: IC1011I, Method: ABN.m, Instrument: nt10.i, Date: 11-OCT-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111011.b/icv1011.d
Lab Smp Id: ICV1011
Inj Date : 11-OCT-2011 17:48
Operator : YZ Inst ID: nt10.i
Smp Info : ICV1011
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20111011.b/ABN.m
Meth Date : 18-Oct-2011 11:34 peter Quant Type: ISTD
Cal Date : 11-OCT-2011 17:13 Cal File: ic1011i.d
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
$	1 2-Fluorophenol	112	Compound Not Detected.					
$	2 Phenol-d5	99	7.397	7.188	(0.959)	27453	0.56013	0.5601(R)
	3 Phenol	94	7.212	7.219	(0.935)	298534	4.93945	4.939(R)
$	5 2-Chlorophenol-d4	132	Compound Not Detected.					
	4 Bis(2-Chloroethyl)ether	93	7.320	7.320	(0.949)	196879	5.37025	5.370(R)
	6 2-Chlorophenol	128	7.397	7.397	(0.959)	250039	5.30742	5.307(R)
	7 1,3-Dichlorobenzene	146	7.645	7.645	(0.991)	316483	5.19119	5.191(R)
*	8 1,4-Dichlorobenzene-d4	152	7.714	7.714	(1.000)	156072	4.00000	
	9 1,4-Dichlorobenzene	146	7.745	7.745	(1.004)	309894	4.97485	4.975(R)
$	10 1,2-Dichlorobenzene-d4	152	Compound Not Detected.					
	12 1,2-Dichlorobenzene	146	8.079	8.079	(1.047)	307205	5.37353	5.374(R)
	11 Benzyl alcohol	108	8.017	8.017	(1.039)	154616	5.52241	5.522(R)
	14 2,2'-oxybis(1-Chloropropane)	121	8.312	8.312	(1.077)	67151	4.42904	4.429(R)
	13 2-Methylphenol	108	8.281	8.281	(1.073)	217047	5.57427	5.574(R)
	17 Hexachloroethane	117	8.646	8.646	(1.121)	143153	5.81793	5.818(R)
	16 N-Nitroso-di-n-propylamine	70	8.568	8.561	(1.111)	177933	5.23107	5.231(R)
	15 4-Methylphenol	108	8.553	8.553	(1.109)	229203	5.40969	5.410(R)
$	18 Nitrobenzene-d5	82	Compound Not Detected.					
	19 Nitrobenzene	77	8.824	8.824	(0.872)	308335	5.57625	5.576(R)
	20 Isophorone	82	9.267	9.259	(0.915)	426608	4.65263	4.653(R)
	21 2-Nitrophenol	139	9.437	9.437	(0.932)	181080	6.32391	6.324(R)
	22 2,4-Dimethylphenol	107	9.553	9.554	(0.944)	293485	5.48316	5.483(R)
	23 Bis(2-Chloroethoxy)methane	93	9.731	9.731	(0.961)	251425	5.77888	5.779(R)
	24 Benzoic acid	105	9.769	9.708	(0.965)	236938	6.93590	6.936(R)
	25 2,4-Dichlorophenol	162	9.893	9.893	(0.977)	281150	5.29602	5.296(R)
	26 1,2,4-Trichlorobenzene	180	10.054	10.055	(0.993)	441692	6.42228	6.422(R)
*	27 Naphthalene-d8	136	10.124	10.124	(1.000)	538925	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	28 Naphthalene	128	10.163	10.163	(1.004)	690754	5.29386	5.294(R)
	29 4-Chloroaniline	127	10.332	10.332	(1.021)	351127	6.60306	6.603(R)
	30 Hexachlorobutadiene	225	10.541	10.541	(1.041)	328396	5.37587	5.376(R)
	31 4-Chloro-3-methylphenol	107	11.338	11.338	(1.120)	250737	5.12420	5.124(R)
	32 2-Methylnaphthalene	142	11.539	11.532	(1.140)	573942	5.86267	5.863(R)
	33 Hexachlorocyclopentadiene	237	12.004	12.004	(0.879)	319849	4.76718	4.767(R)
	34 2,4,6-Trichlorophenol	196	12.174	12.174	(0.891)	276330	5.19594	5.196(R)
	35 2,4,5-Trichlorophenol	196	12.251	12.251	(0.897)	289338	5.34841	5.348(R)
$	36 2-Fluorobiphenyl	172	Compound Not Detected.					
	37 2-Chloronaphthalene	162	12.499	12.499	(0.915)	662827	5.54033	5.540(R)
	38 2-Nitroaniline	65	12.793	12.793	(0.937)	167355	5.67940	5.679(R)
	39 Dimethylphthalate	163	13.258	13.258	(0.971)	946995	5.72479	5.725(R)
	40 Acenaphthylene	152	13.343	13.343	(0.977)	914956	5.24477	5.245(R)
	41 2,6-Dinitrotoluene	165	13.381	13.381	(0.980)	171782	5.18877	5.189(R)
*	42 Acenaphthene-d10	164	13.660	13.660	(1.000)	415220	4.00000	
	43 3-Nitroaniline	138	13.644	13.637	(0.999)	148158	6.33189	6.332(R)
	44 Acenaphthene	153	13.722	13.722	(1.005)	582899	5.35232	5.352(R)
	45 2,4-Dinitrophenol	184	13.853	13.861	(1.014)	197567	7.99628	7.996(R)
	46 Dibenzofuran	168	14.054	14.046	(1.029)	1035303	5.92914	5.929(R)
	47 4-Nitrophenol	109	14.039	14.054	(1.028)	139987	4.61143	4.611(R)
	48 2,4-Dinitrotoluene	165	14.162	14.162	(1.037)	245648	5.54907	5.549(R)
	50 Diethylphthalate	149	14.703	14.704	(1.076)	771117	5.39805	5.398(R)
	49 Fluorene	166	14.750	14.742	(1.080)	771327	5.60767	5.608(R)
	51 4-Chlorophenyl-phenylether	204	14.781	14.781	(1.082)	531726	5.47358	5.474(R)
	52 4-Nitroaniline	138	14.889	14.881	(1.090)	132130	5.57080	5.571(R)
	53 4,6-Dinitro-2-methylphenol	198	14.982	14.974	(0.900)	388102	10.3942	10.39(R)
	54 N-Nitrosodiphenylamine	169	15.043	15.036	(0.904)	596530	5.78633	5.786(R)
$	55 2,4,6-Tribromophenol	330	Compound Not Detected.					
	56 4-Bromophenyl-phenylether	248	15.760	15.760	(0.947)	395358	5.84551	5.846(R)
	57 Hexachlorobenzene	284	16.038	16.038	(0.964)	539603	5.51321	5.513(R)
	58 Pentachlorophenol	266	16.418	16.410	(0.987)	160296	4.33978	4.340(R)
*	59 Phenanthrene-d10	188	16.642	16.634	(1.000)	839616	4.00000	
	60 Phenanthrene	178	16.688	16.681	(1.003)	1170069	5.41367	5.414(R)
	61 Anthracene	178	16.773	16.774	(1.008)	1262080	5.79678	5.797(R)
	62 Carbazole	167	17.137	17.137	(1.030)	939262	5.74163	5.742(R)
	63 Di-n-butylphthalate	149	18.011	18.011	(1.082)	1340433	5.62343	5.623(R)
	64 Fluoranthene	202	19.009	19.009	(1.142)	1648810	5.53604	5.536(R)
	65 Pyrene	202	19.412	19.412	(0.900)	1721681	5.48787	5.488(R)
$	66 Terphenyl-d14	244	Compound Not Detected.					
	67 Butylbenzylphthalate	149	20.720	20.720	(0.960)	624004	5.46587	5.466(R)
	68 Benzo(a)anthracene	228	21.549	21.541	(0.999)	1920732	5.44024	5.440(R)
*	69 Chrysene-d12	240	21.572	21.572	(1.000)	1297264	4.00000	
	70 3,3'-Dichlorobenzidine	252	21.556	21.549	(0.999)	539266	2.91209	2.912(R)
	71 Chrysene	228	21.618	21.611	(1.002)	1716630	5.39118	5.391(R)
	72 bis(2-Ethylhexyl)phthalate	149	21.765	21.765	(0.957)	904654	5.31101	5.311(R)
*	134 Di-n-octylphthalate-d4	153	22.741	22.733	(1.000)	1197713	4.00000	
	73 Di-n-octylphthalate	149	22.748	22.749	(1.000)	1656628	5.73498	5.735(R)

TX57 : 00462

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
74	Benzo(b)fluoranthene	252	23.283	23.275	(0.977)	2182396	5.42679	5.427(R)
75	Benzo(k)fluoranthene	252	23.314	23.306	(0.978)	2230435	5.35162	5.352(R)
76	Benzo(a)pyrene	252	23.747	23.747	(0.996)	1903222	5.76377	5.764(R)
* 77	Perylene-d12	264	23.832	23.832	(1.000)	1320267	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	25.622	25.606	(1.075)	2490165	5.53395	5.534(R)
79	Dibenzo(a,h)anthracene	278	25.645	25.637	(1.076)	2003207	5.32111	5.321(R)
80	Benzo(g,h,i)perylene	276	26.127	26.111	(1.096)	2044414	5.39946	5.399(R)
90	N-Nitrosodimethylamine	74	3.481	3.481	(0.451)	126378	5.12213	5.122(R)
91	Aniline	93	7.204	7.204	(0.934)	329508	2.67923	2.679(R)
93	Benzidine	184	19.303	19.303	(0.895)	347144	5.30346	5.303(R)
103	Pyridine	79	3.481	3.496	(0.451)	239668	10.4334	10.43(R)
105	1-methylnaphthalene	142	11.748	11.741	(1.160)	535499	5.32876	5.329(R)
111	Azobenzene (1,2-DP-Hydrazine)	77	15.097	15.097	(1.105)	791374	5.69943	5.699(R)
187	Total Benzofluoranthenes	252	23.314	23.275	(0.978)	4111429	10.6120	10.61(R)
99	Perylene	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: icv1011.d
Lab Smp Id: ICV1011
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111011.b/ABN.m
Misc Info:

Calibration Date: 11-OCT-2011
Calibration Time: 12:37

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	177854	88927	355708	156072	-12.25
27 Naphthalene-d8	655081	327540	1310162	538925	-17.73
42 Acenaphthene-d10	503316	251658	1006632	415220	-17.50
59 Phenanthrene-d10	1020128	510064	2040256	839616	-17.70
69 Chrysene-d12	1376380	688190	2752760	1297264	-5.75
134 Di-n-octylphthala	1305906	652953	2611812	1197713	-8.28
77 Perylene-d12	1393516	696758	2787032	1320267	-5.26

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.71	7.21	8.21	7.71	0.00
27 Naphthalene-d8	10.12	9.62	10.62	10.12	0.00
42 Acenaphthene-d10	13.67	13.17	14.17	13.66	-0.06
59 Phenanthrene-d10	16.64	16.14	17.14	16.64	0.00
69 Chrysene-d12	21.58	21.08	22.08	21.57	-0.04
134 Di-n-octylphthala	22.75	22.25	23.25	22.74	-0.03
77 Perylene-d12	23.84	23.34	24.34	23.83	-0.03

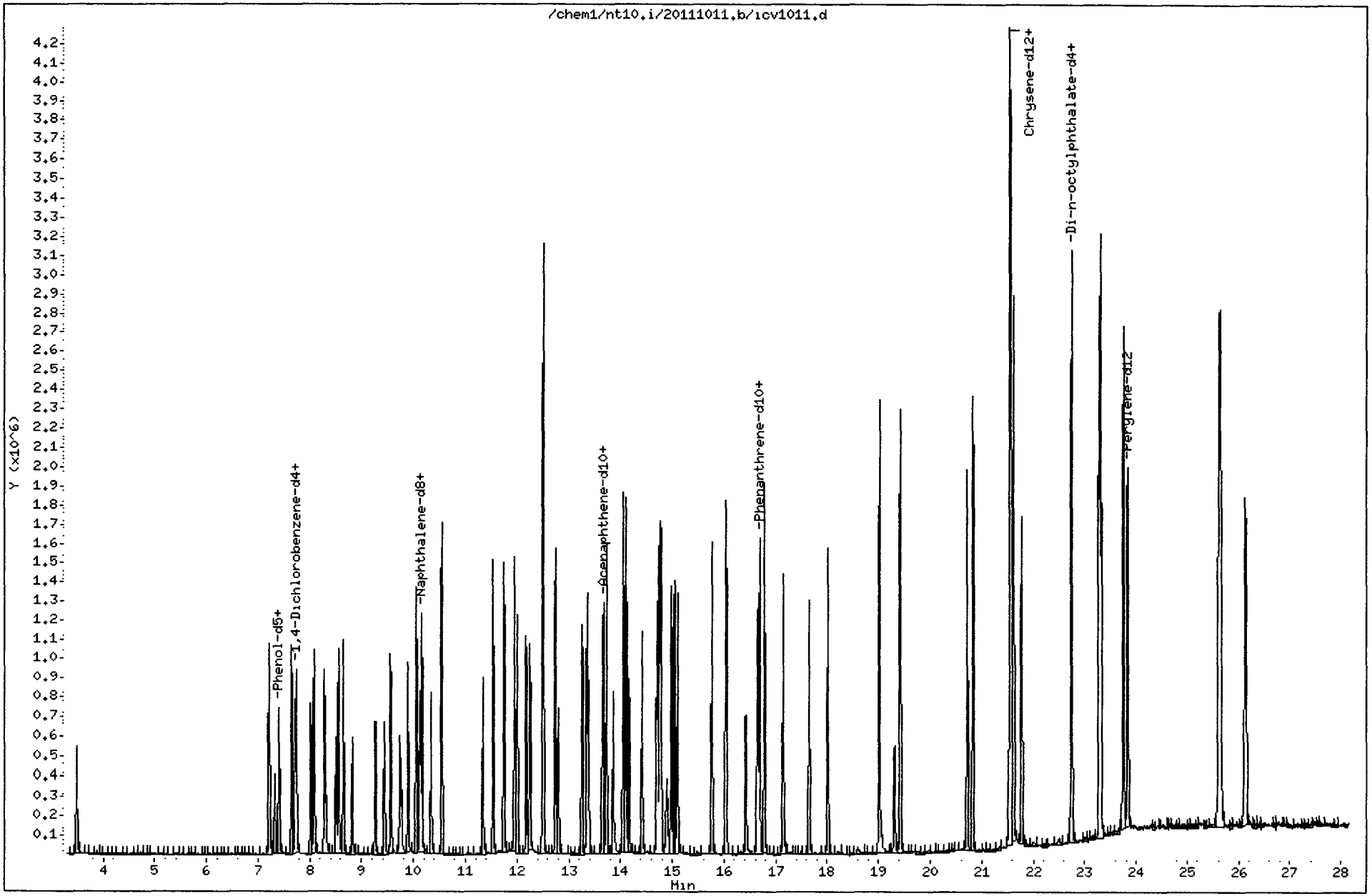
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20111011.b/icv1011.d
Date : 11-OCT-2011 17:48
Client ID:
Sample Info: ICV1011

Instrument: nt10.i

Operator: YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - icv1011.d

Lab ID: ICV1011, Method: ABN.m, Instrument: nt10.i, Date: 11-OCT-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem1/nt10.i/20111011.b/df1011a.d

Date : 11-OCT-2011 12:23

Client ID: DFTPP

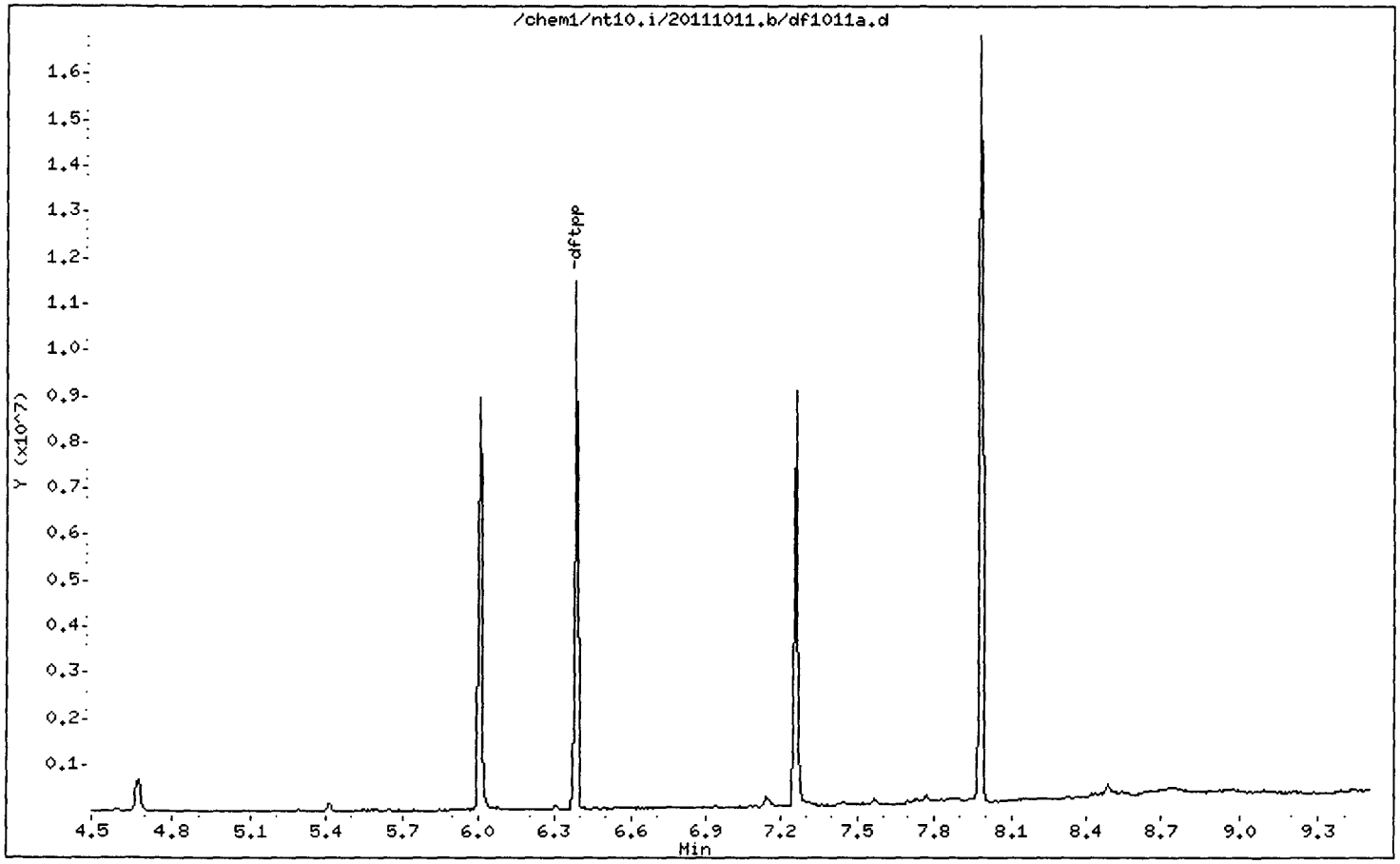
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



TX57:06462

Data File: /chem1/nt10.i/20111011.b/df1011a.d

Date : 11-OCT-2011 12:23

Client ID: DFTPP

Instrument: nt10.i

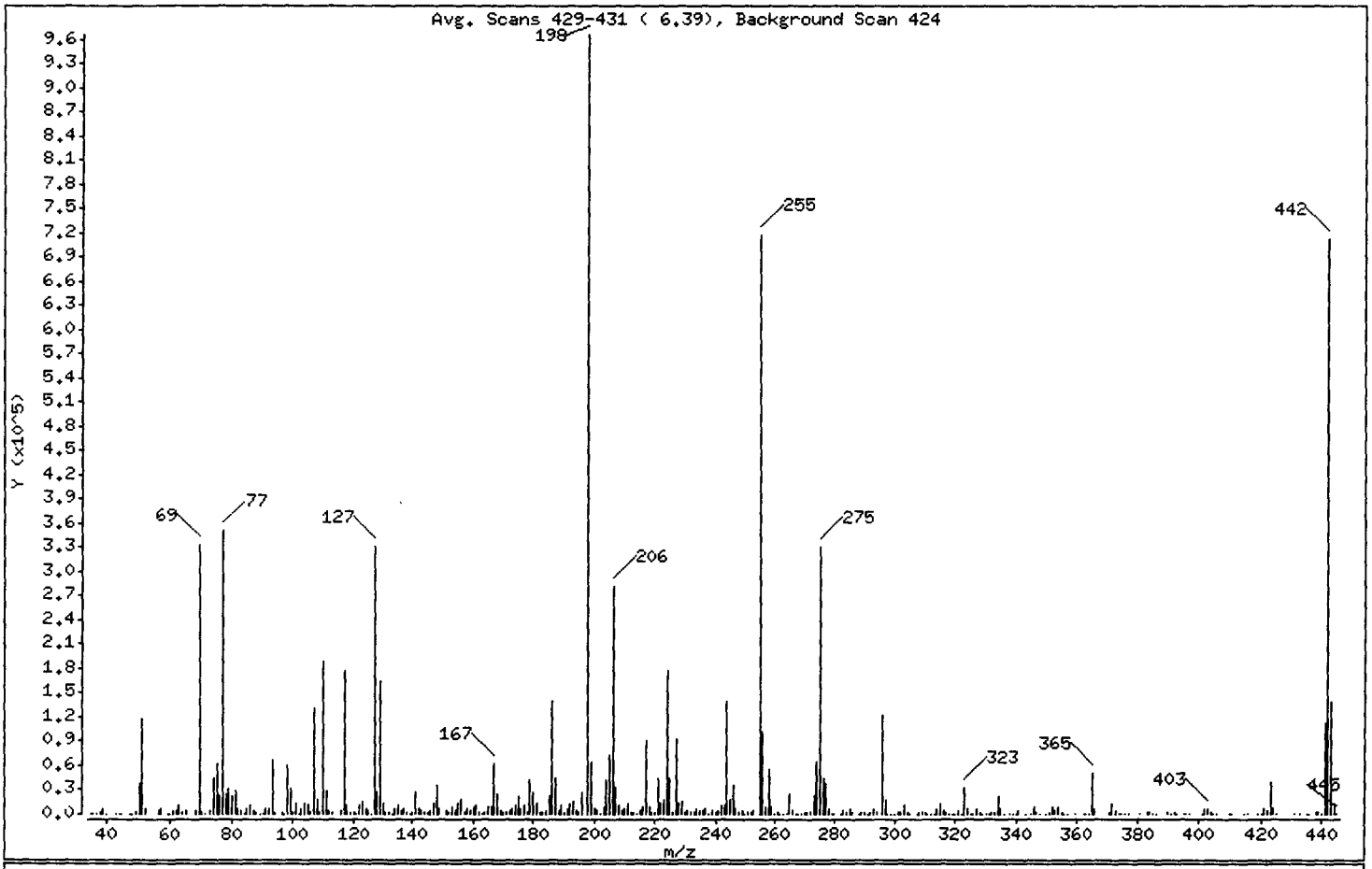
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5ms1

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	12.10
68	Less than 2.00% of mass 69	0.46 (1.34)
69	Mass 69 relative abundance	34.49
70	Less than 2.00% of mass 69	0.23 (0.67)
127	10.00 - 80.00% of mass 198	34.25
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.58
275	10.00 - 60.00% of mass 198	34.35
365	Greater than 1.00% of mass 198	5.25
441	0.01 - 24.00% of mass 442	11.66 (15.82)
442	50.00 - 200.00% of mass 198	73.71
443	15.00 - 24.00% of mass 442	14.58 (19.78)

TX57 00467

Data File: /chem1/nt10.1/20111011.b/df1011a.d

Date : 11-OCT-2011 12:23

Client ID: DFTPP

Instrument: nt10.1

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1011a.d
Spectrum: Avg. Scans 429-431 (6.39), Background Scan 424
Location of Maximum: 198.00
Number of points: 368

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	75	135.00	11985	229.00	16408	326.00	523
36.00	71	136.00	4906	230.00	2376	327.00	7072
37.00	486	137.00	6671	231.00	4984	328.00	3234
38.00	2535	138.00	2084	232.00	1271	329.00	602
39.00	7453	139.00	797	233.00	2181	330.00	447
40.00	209	140.00	3150	234.00	6618	331.00	150
42.00	237	141.00	27208	235.00	5219	332.00	2340
43.00	36	142.00	7231	236.00	3904	333.00	3259
44.00	152	143.00	5225	237.00	6005	334.00	22512
45.00	554	144.00	1586	238.00	1084	335.00	5585
47.00	164	145.00	1551	239.00	4059	336.00	930
48.00	67	146.00	5133	240.00	2810	338.00	62
49.00	2616	147.00	14063	241.00	5061	339.00	931
50.00	37776	148.00	36288	242.00	10813	340.00	188
51.00	116872	149.00	6793	243.00	11708	341.00	3667
52.00	6597	150.00	774	244.00	139968	342.00	1063
53.00	289	151.00	3539	245.00	18720	343.00	270
55.00	747	152.00	2388	246.00	35552	345.00	334
56.00	5300	153.00	9144	247.00	6491	346.00	7818
57.00	7133	154.00	5262	248.00	1965	347.00	1160
59.00	286	155.00	14237	249.00	4081	348.00	110
60.00	516	156.00	17344	250.00	756	350.00	433
61.00	3795	157.00	3218	251.00	1931	351.00	1155
62.00	5006	158.00	6115	252.00	2138	352.00	9823
63.00	10765	159.00	4809	253.00	3998	353.00	4850
64.00	1962	160.00	7822	255.00	717504	354.00	8614
65.00	4036	161.00	11317	256.00	102808	355.00	1315
67.00	512	162.00	3021	257.00	9416	356.00	168
68.00	4449	163.00	811	258.00	55808	357.00	241
69.00	333184	164.00	1792	259.00	8388	359.00	665
70.00	2218	165.00	9205	260.00	1066	361.00	186
71.00	362	166.00	8691	261.00	1906	362.00	150
73.00	4527	167.00	63056	262.00	304	363.00	681
74.00	44904	168.00	25208	263.00	874	364.00	452
75.00	61392	169.00	5238	264.00	887	365.00	50736

Data File: /chem1/nt10.i/20111011.b/df1011a.d

Date : 11-OCT-2011 12:23

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1011a.d
Spectrum: Avg. Scans 429-431 (6.39), Background Scan 424
Location of Maximum: 198.00
Number of points: 368

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	22088	170.00	1283	265.00	23400	366.00	7493
77.00	350272	171.00	2736	266.00	3486	367.00	532
78.00	23832	172.00	4595	267.00	261	370.00	1099
79.00	30688	173.00	5958	268.00	86	371.00	2544
80.00	23144	174.00	10914	269.00	248	372.00	13554
81.00	29568	175.00	21272	270.00	2102	373.00	4306
82.00	6753	176.00	5771	271.00	1551	374.00	247
83.00	4610	177.00	11463	272.00	2317	375.00	385
84.00	580	178.00	3155	273.00	22368	376.00	73
85.00	5791	179.00	43120	274.00	63696	377.00	226
86.00	11808	180.00	25584	275.00	331840	379.00	225
87.00	4111	181.00	13073	276.00	44528	381.00	167
88.00	1566	182.00	2621	277.00	37528	383.00	3283
89.00	424	183.00	1332	278.00	5645	384.00	1241
90.00	199	184.00	3380	279.00	964	385.00	396
91.00	7459	185.00	22584	280.00	334	386.00	54
92.00	7665	186.00	140544	281.00	246	390.00	2425
93.00	67704	187.00	43856	282.00	683	391.00	909
94.00	2706	188.00	4615	283.00	4835	392.00	1383
95.00	558	189.00	11417	284.00	3031	393.00	68
96.00	2022	190.00	1956	285.00	7583	395.00	56
97.00	609	191.00	5822	286.00	1196	396.00	290
98.00	59688	192.00	14077	288.00	1047	397.00	297
99.00	31296	193.00	16047	289.00	1125	401.00	925
100.00	2386	194.00	3354	290.00	1444	402.00	5664
101.00	13745	195.00	1796	291.00	1001	403.00	6466
102.00	523	196.00	27528	292.00	1583	404.00	2986
103.00	5975	198.00	966144	293.00	7295	405.00	258
104.00	12594	199.00	63552	294.00	2297	406.00	64
105.00	11637	200.00	6322	296.00	123096	410.00	94
106.00	2617	201.00	3547	297.00	16968	411.00	190
107.00	131072	202.00	1081	298.00	854	414.00	248
108.00	18080	203.00	9034	299.00	549	415.00	631
109.00	1470	204.00	43008	300.00	333	416.00	229
110.00	188096	205.00	72360	301.00	2601	419.00	188

Data File: /chem1/nt10.1/20111011.b/df1011a.d

Date : 11-OCT-2011 12:23

Client ID: DFTPP

Instrument: nt10.1

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5ms1

Column diameter: 0.25

Data File: df1011a.d
Spectrum: Avg. Scans 429-431 (6.39), Background Scan 424
Location of Maximum: 198.00
Number of points: 368

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	29800	206.00	282496	302.00	2236	420.00	169
112.00	3782	207.00	34104	303.00	12050	421.00	5746
113.00	1651	208.00	11425	304.00	2928	422.00	4832
115.00	1023	209.00	3463	305.00	556	423.00	39776
116.00	4995	210.00	5779	307.00	104	424.00	7743
117.00	177408	211.00	12272	308.00	1496	425.00	501
118.00	11331	212.00	1674	309.00	1160	431.00	219
119.00	1564	213.00	1351	310.00	1531	433.00	118
120.00	2109	214.00	190	311.00	237	435.00	92
121.00	827	215.00	3843	312.00	754	436.00	450
122.00	10938	216.00	8868	313.00	583	437.00	502
123.00	15869	217.00	90584	314.00	5663	438.00	1514
124.00	5969	218.00	9161	315.00	14047	439.00	2427
125.00	5329	219.00	1277	316.00	4867	440.00	738
126.00	736	220.00	1281	317.00	1446	441.00	112672
127.00	330944	221.00	44336	318.00	244	442.00	712128
128.00	26408	222.00	13434	319.00	161	443.00	140864
129.00	165376	223.00	17912	320.00	1025	444.00	12130
130.00	12624	224.00	177856	321.00	3666	445.00	770
131.00	2461	225.00	44024	322.00	597		
132.00	1496	226.00	2969	323.00	34032		
133.00	395	227.00	93352	324.00	5766		
134.00	6429	228.00	13014	325.00	1087		

TX57 00476

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20111011.b/ddt.b/df1011a.d ARI ID: DFTPP
Method: /chem1/nt10.i/20111011.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 11-OCT-2011 12:23 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.007	1048433
Benzidine	7.258	3277209
4,4'-DDE	7.440	8061
4,4'-DDD	7.767	21023
4,4'-DDT	7.981	2794759

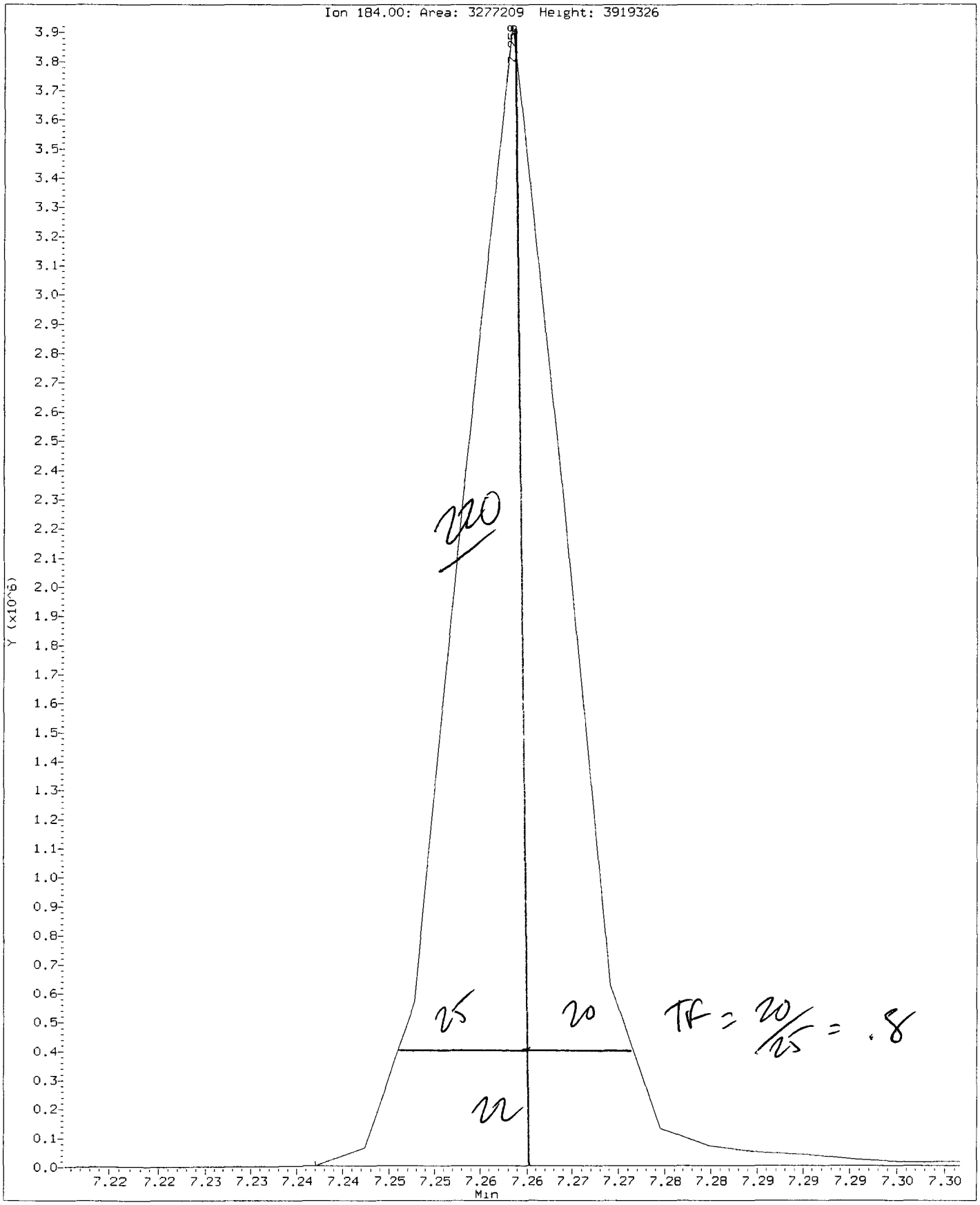
$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 8061 + 21023) * 100}{(\ 8061 + 21023 + 2794759)}$$

DDT Percent Breakdown = 1.0 %

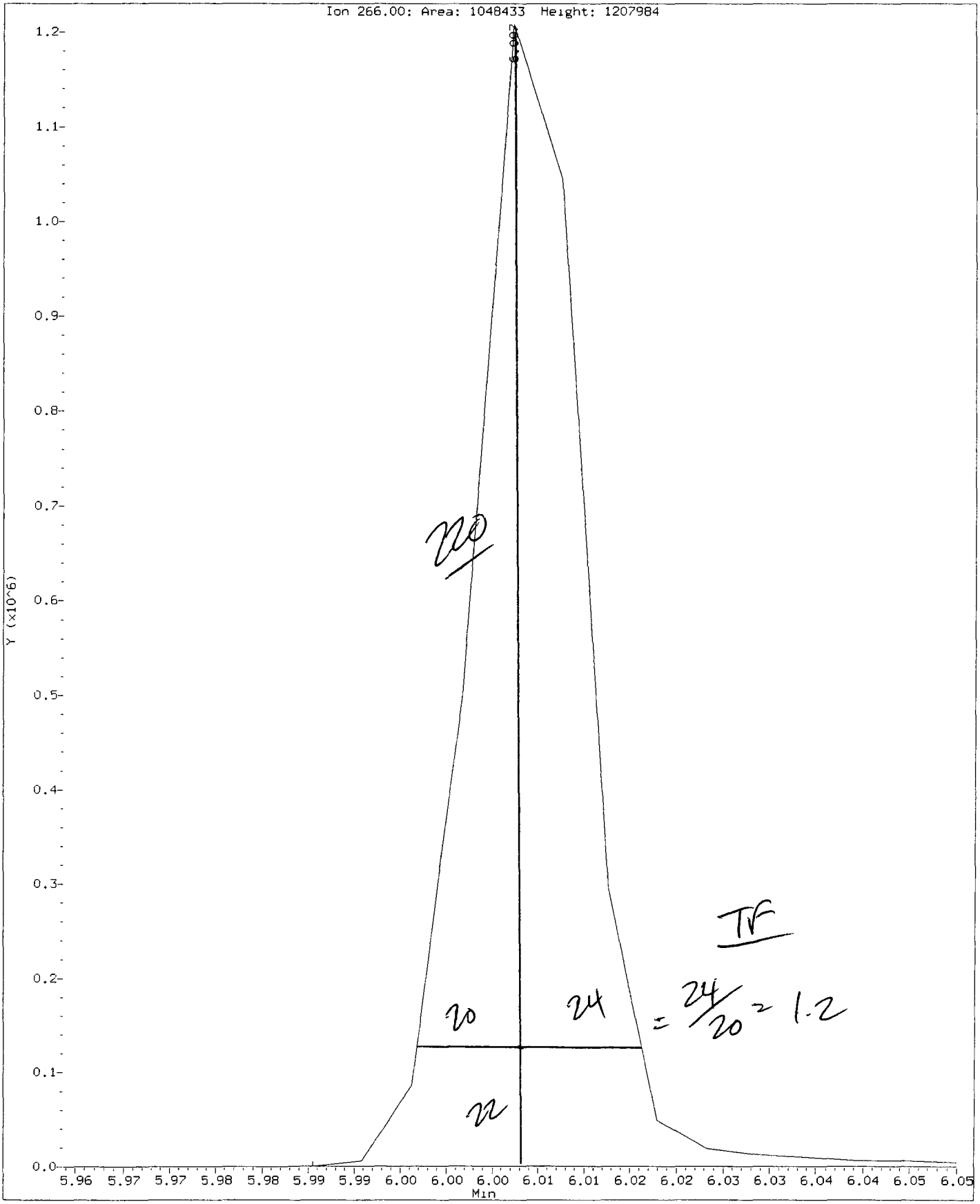
Data File: /chem1/nt10.1/20111011.b/ddt.b/df1011a.d
Injection Date: 11-OCT-2011 12:23
Instrument: nt10.1
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Data File: /chem1/nt10.1/20111011.b/ddt.b/df1011a.d
Injection Date: 11-OCT-2011 12:23
Instrument: nt10.1
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Semivolatile Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: TX57

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: TX57 Client ID: Integral Consulting, Inc

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): 8270

Instrument: NT-2 NT-4 NT-6 NT-8 NT11

Curve Date: 11/24/11 Analysis Start Date: 11/29/11

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	CCal acceptable?	YES / NO
Q flag applied?	YES / NO	Q flag applied?	YES / NO
Surrogate Recovery in Control?	YES / NO	Special Analysis Criteria Met?	YES / NO / NA
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	Yes / NO

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

Samples P or Q + MB/LCS/LCSD

Forms included

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 11/30/11

Reviewer: _____ **Date:** 11/30/11

Analytical Resources Inc.: Organics Instrument Log

NT-6 Serial No.:GC=US00036167, MS=US81221575

Date: 11/29/11 Analysis: 8270 Analyst: JB

GC Program: ABN/VOA2011 Column No: 30648 Column Type: 2B-5MS

Instrument Tune (.U or .CT.): 110419 EM Voltage:

Calibration File: 1129102 Curve Date: 9/21/11 Injection Vol.: 1µl

IS/SS	Ical/Ccal	LCS/ICV
1878-1	1910-1, 1911-1	
	~~1912-1~~, 1913-1	
	~~3614~~, 1907-3	
	1877-4	

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem2/nt6.i/20111129.b

	Time	Filename	LabID	ClientId	DF															
1	1126	11291101 D	DFTPP1129	DFTPP1129	1	NO ISTDS FOUND														
2	1158	11291102 D	CC1129	CC1129	1	8 10	464939	10 15	1747430	13 02	973585	15 41	1384067	19 74	1280022	21 91	1331426	20 88	1629483	
3	1231	11291103 D	TW99MBW1	TW99MBW1	1	8 09	448033	10 15	1624948	13 02	885283	15 41	1230515	19 74	1182700	20 88	1476277	21 90	1245256	
4	1304	11291104 D	TW99LCSW1	TW99LCSW1	1	8 10	535457	10 15	2033611	13 03	1075371	15 41	1456439	19 74	1231378	20 88	1598547	21 90	1379933	
5	1337	11291105 D	TW99LCSDW1	TW99LCSDW1	1	8.10	514026	10 15	1936339	13 03	1049534	15 41	1501430	19 74	1322308	20 88	1722164	21 90	1409684	
6	1410	11291106 D	TW99QLS	TW99QLS	1	8 10	543462	10 15	2016194	13 02	1142671	15 41	1635421	19 73	1483565	20 88	1887523	21 90	1494587	
7	1443	11291107 D	TW99A	IT-SB-8-GW-1	1	8 09	475754	10 15	1688767	13 02	923706	15 41	1347967	19 74	1337144	20 88	1708924	21 90	1295394	
8	1515	11291108 D	TX90A	LS431-W-1117	1	8 09	466631	10 15	1586790	13 02	926584	15 41	1226572	19 73	1178787	20 88	1519277	21 90	1267592	
9	1548	11291109.D	TX90B	KCBYP-W-1117	1	8 09	484771	10 15	1232640	13 02	1001889	15 41	1282274	19 74	1114874	20 88	1451926	21 90	1174241	
10	1621	11291110 D	TX57P	RB0003	1	8 09	567335	10 15	2098683	13 02	1171622	15 41	1602523	19.73	1215271	20 88	1604761	21 90	1283846	
11	1654	11291111 D	TX57Q	WB0002	1	8 10	603848	10 15	2266578	13.02	1271130	15 41	1752279	19 74	1383264	20 88	1819575	21 90	1387856	
12	1727	11291112 D	1917-1	1917-1	5	8.09	513370	10 15	1946788	13 02	1081538	15 41	1542484	19.74	1176501	20 88	1560711	21 90	1214431	
13	1803	11291113 D	I7253	I7253	1	8 09	514103	10 15	1906669	13 02	1023057	15 41	1345215	19.74	1138179	20 88	1414423	21 91	1219189	
14	1836	11291114 D	TX59MBW1	TX59MBW1	1	8 09	499432	10 15	1823820	13 02	1002515	15 41	1343794	19 74	1137649	20 88	1400390	21 90	1252008	
15	1909	11291115 D	TX59LCSW1	TX59LCSW1	1	8 10	554782	10 15	2159469	13 03	1230249	15 41	1692114	19 74	1237354	20 87	1560875	21.91	1319326	
16	1941	11291116 D	TX59LCSDW1	TX59LCSDW1	1	8 09	438739	10 15	1578003	13 02	850971	15 41	1171045	19 74	1136968	20 88	1442385	21 91	1241089	
17	2014	11291117 D	TZ17MBTC1	TZ17MBTC1	1	8.10	506445	10 15	1838360	13 02	973155	15 41	1244541	19 74	1157327	20 87	1403748	21 90	1312982	
18	2047	11291118 D	TZ17LCSTC1	TZ17LCSTC1	1	8 10	494924	10.15	1912273	13 02	1092012	15.41	1493020	19 74	1244498	20 88	1586312	21.90	1348465	
19	2119	11291119 D	TZ17D_TC	SUP_OCCI_SP1	1	8 09	473709	10 15	1776705	13 02	990588	15 41	1343795	19 73	1212408	20 88	1516859	21 90	1280863	
20	2152	11291120 D	TZ17E_TC	SUP_OCCI_SP2	1	8 09	484494	10 15	1856502	13 03	1047734	15 41	1457325	19 74	1292340	20 88	1645235	21 90	1351752	
21	2225	11291121 D	TZ17EMS_TC	SUP_OCCI_SP2	1	8 10	439174	10 15	1619074	13 02	867983	15 41	1217025	19.74	1197218	20 88	1532685	21 90	1277378	
22	2257	11291122 D	TX59A	605711161ICO	1	8.09	486086	10 15	1771724	13 02	996694	15.41	1333405	19 73	1197270	20 88	1573615	21 90	1264781	

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

11/30/11

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/nt6.i/20111129.b

ARI Job No.: CC11 Method: SW846112111.m Instrument: nt6.i Date: 29-NOV-2011

AZ 11/30/11

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1158	11291102.D	CC1129	CC1129	1	NO MANUAL INTEGRATION
1231	11291103.D	TW99MBW1	TW99MBW1	1	NO MANUAL INTEGRATION
1304	11291104.D	TW99LCSW1	TW99LCSW1	1	NO MANUAL INTEGRATION
1337	11291105.D	TW99LCSDW1	TW99LCSDW1	1	NO MANUAL INTEGRATION
1621	11291110.D	TX57P	RB0003	1	NO MANUAL INTEGRATION
1654	11291111.D	TX57Q	WB0002	1	NO MANUAL INTEGRATION

TX57:20477

Q-FLAG SUMMARY FOR DATABATCH - /chem2/nt6.i/20111129.b

Instrument: nt6.i Date: 29-NOV-2011 Method: SW846112111.m

INITIAL CAL: 21-NOV-2011

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 29-NOV-2011

Compound	%D
NO Q-FLAGS	

11/30/11

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt6.i
Lab File ID: 11291102.D
Analysis Type:
Lab Sample ID: CC1129
Method: /chem2/nt6.i/20111129.b/SW846112111.m

Injection Date: 29-NOV-2011 11:58
Init. Cal. Date(s): 21-NOV-2011 21-NOV-2011
Init. Cal. Times: 11:24 17:37
Quant Type: ISTD

11/30/11

COMPOUND	RRF / AMOUNT	RF25	CCAL RRF25	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 1 2-Fluorophenol	1.46266	1.45618	1.45618	0.010	-0.44307	20.00000	Averaged
$ 2 Phenol-d5	1.79972	1.80492	1.80492	0.010	0.28915	20.00000	Averaged
3 Phenol	1.71071	1.74986	1.74986	0.010	2.28829	20.00000	Averaged
$ 5 2-Chlorophenol-d4	1.40835	1.41731	1.41731	0.010	0.63636	20.00000	Averaged
4 Bis(2-Chloroethyl)ether	1.38892	1.41690	1.41690	0.010	2.01461	20.00000	Averaged
6 2-Chlorophenol	1.40290	1.41908	1.41908	0.010	1.15362	20.00000	Averaged
7 1,3-Dichlorobenzene	1.61744	1.63024	1.63024	0.010	0.79164	20.00000	Averaged
9 1,4-Dichlorobenzene	1.60542	1.60821	1.60821	0.010	0.17354	20.00000	Averaged
$ 10 1,2-Dichlorobenzene-d4	0.97398	0.94866	0.94866	0.010	-2.60024	20.00000	Averaged
12 1,2-Dichlorobenzene	1.50830	1.51086	1.51086	0.010	0.16976	20.00000	Averaged
11 Benzyl alcohol	0.85907	0.93128	0.93128	0.010	8.40548	20.00000	Averaged
14 2,2'-oxybis(1-Chloropropane	1.12643	1.15718	1.15718	0.010	2.73003	20.00000	Averaged
13 2-Methylphenol	1.26492	1.31306	1.31306	0.010	3.80643	20.00000	Averaged
17 Hexachloroethane	0.61919	0.62596	0.62596	0.010	1.09369	20.00000	Averaged
16 N-Nitroso-di-n-propylamine	0.93850	0.98807	0.98807	0.005	5.28182	20.00000	Averaged
15 4-Methylphenol	1.28789	1.35145	1.35145	0.010	4.93472	20.00000	Averaged
$ 18 Nitrobenzene-d5	0.41226	0.42702	0.42702	0.010	3.57928	20.00000	Averaged
19 Nitrobenzene	0.39103	0.40394	0.40394	0.010	3.30257	20.00000	Averaged
20 Isophorone	0.58766	0.60944	0.60944	0.010	3.70625	20.00000	Averaged
21 2-Nitrophenol	0.19013	0.19855	0.19855	0.010	4.42941	20.00000	Averaged
22 2,4-Dimethylphenol	0.34542	0.35724	0.35724	0.010	3.42142	20.00000	Averaged
23 Bis(2-Chloroethoxy)methane	0.43074	0.44511	0.44511	0.010	3.33589	20.00000	Averaged
24 Benzoic acid	47.33430	50.00000	0.21725	0.010	-5.33141	20.00000	Linear
25 2,4-Dichlorophenol	0.28880	0.29821	0.29821	0.010	3.25981	20.00000	Averaged
26 1,2,4-Trichlorobenzene	0.32235	0.31907	0.31907	0.010	-1.01834	20.00000	Averaged
28 Naphthalene	0.98267	0.98636	0.98636	0.010	0.37580	20.00000	Averaged
29 4-Chloroaniline	0.39270	0.39686	0.39686	0.010	1.05930	20.00000	Averaged
30 Hexachlorobutadiene	0.17426	0.17202	0.17202	0.010	-1.28496	20.00000	Averaged
31 4-Chloro-3-methylphenol	0.27620	0.29112	0.29112	0.010	5.40160	20.00000	Averaged
32 2-Methylnaphthalene	0.51958	0.52437	0.52437	0.010	0.92344	20.00000	Averaged
33 Hexachlorocyclopentadiene	0.32461	0.32735	0.32735	0.010	0.84526	20.00000	Averaged
34 2,4,6-Trichlorophenol	0.33615	0.35071	0.35071	0.010	4.33190	20.00000	Averaged
35 2,4,5-Trichlorophenol	0.35275	0.36903	0.36903	0.010	4.61565	20.00000	Averaged
$ 36 2-Fluorobiphenyl	1.32953	1.28677	1.28677	0.010	-3.21602	20.00000	Averaged
37 2-Chloronaphthalene	1.08804	1.07170	1.07170	0.010	-1.50120	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt6.i Injection Date: 29-NOV-2011 11:58
Lab File ID: 11291102.D Init. Cal. Date(s): 21-NOV-2011 21-NOV-2011
Analysis Type: Init. Cal. Times: 11:24 17:37
Lab Sample ID: CC1129 Quant Type: ISTD
Method: /chem2/nt6.i/20111129.b/SW846112111.m

COMPOUND	RRF / AMOUNT	RF25	CCAL RRF25	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
38 2-Nitroaniline	0.27201	0.29075	0.29075	0.010	6.88968	20.00000	Averaged
39 Dimethylphthalate	1.14266	1.14771	1.14771	0.010	0.44167	20.00000	Averaged
40 Acenaphthylene	1.62079	1.65078	1.65078	0.010	1.85005	20.00000	Averaged
41 2,6-Dinitrotoluene	0.26027	0.27521	0.27521	0.010	5.73941	20.00000	Averaged
43 3-Nitroaniline	0.26823	0.27375	0.27375	0.010	2.05602	20.00000	Averaged
44 Acenaphthene	1.02817	1.01782	1.01782	0.010	-1.00620	20.00000	Averaged
45 2,4-Dinitrophenol	42.16236	50.00000	0.11829	0.010	-15.67528	20.00000	Quadratic
46 Dibenzofuran	1.42176	1.41364	1.41364	0.010	-0.57104	20.00000	Averaged
47 4-Nitrophenol	0.11109	0.12686	0.12686	0.010	14.20038	20.00000	Averaged
48 2,4-Dinitrotoluene	0.33838	0.36088	0.36088	0.010	6.64986	20.00000	Averaged
50 Diethylphthalate	1.07936	1.09602	1.09602	0.010	1.54360	20.00000	Averaged
49 Fluorene	1.15922	1.17414	1.17414	0.010	1.28746	20.00000	Averaged
51 4-Chlorophenyl-phenylether	0.56636	0.57299	0.57299	0.010	1.17044	20.00000	Averaged
52 4-Nitroaniline	0.25925	0.27316	0.27316	0.010	5.36664	20.00000	Averaged
53 4,6-Dinitro-2-methylphenol	0.13262	0.13309	0.13309	0.010	0.35147	20.00000	Averaged
54 N-Nitrosodiphenylamine	0.60865	0.60761	0.60761	0.010	-0.17048	20.00000	Averaged
$ 55 2,4,6-Tribromophenol	0.13922	0.15010	0.15010	0.010	7.81135	20.00000	Averaged
56 4-Bromophenyl-phenylether	0.21901	0.21621	0.21621	0.010	-1.28045	20.00000	Averaged
57 Hexachlorobenzene	0.23012	0.22889	0.22889	0.010	-0.53562	20.00000	Averaged
58 Pentachlorophenol	0.11459	0.12211	0.12211	0.010	6.56351	20.00000	Averaged
60 Phenanthrene	1.08157	1.08361	1.08361	0.010	0.18914	20.00000	Averaged
61 Anthracene	1.10798	1.13051	1.13051	0.010	2.03370	20.00000	Averaged
62 Carbazole	1.01885	1.05684	1.05684	0.010	3.72905	20.00000	Averaged
63 Di-n-butylphthalate	1.15770	1.23914	1.23914	0.010	7.03490	20.00000	Averaged
64 Fluoranthene	1.02687	1.07815	1.07815	0.010	4.99376	20.00000	Averaged
65 Pyrene	1.23817	1.20411	1.20411	0.010	-2.75078	20.00000	Averaged
$ 66 Terphenyl-d14	0.81141	0.74671	0.74671	0.010	-7.97367	20.00000	Averaged
67 Butylbenzylphthalate	0.53310	0.56447	0.56447	0.010	5.88607	20.00000	Averaged
68 Benzo(a)anthracene	0.97426	0.99666	0.99666	0.010	2.29974	20.00000	Averaged
70 3,3'-Dichlorobenzidine	0.31966	0.34199	0.34199	0.010	6.98568	20.00000	Averaged
71 Chrysene	1.00178	1.00279	1.00279	0.010	0.10165	20.00000	Averaged
72 bis(2-Ethylhexyl)phthalate	0.59104	0.60700	0.60700	0.010	2.70024	20.00000	Averaged
73 Di-n-octylphthalate	1.02572	1.01908	1.01908	0.010	-0.64756	20.00000	Averaged
74 Benzo(b)fluoranthene	1.03053	0.95299	0.95299	0.010	-7.52385	20.00000	Averaged
75 Benzo(k)fluoranthene	1.07522	1.14628	1.14628	0.010	6.60905	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt6.i Injection Date: 29-NOV-2011 11:58
Lab File ID: 11291102.D Init. Cal. Date(s): 21-NOV-2011 21-NOV-2011
Analysis Type: Init. Cal. Times: 11:24 17:37
Lab Sample ID: CC1129 Quant Type: ISTD
Method: /chem2/nt6.i/20111129.b/SW846112111.m

COMPOUND	RRF / AMOUNT	RF25	CCAL RRF25	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
187 Total Benzofluoranthenes	1.00022	1.00041	1.00041	0.010	0.01959	20.00000	Averaged
76 Benzo(a)pyrene	0.92550	0.96247	0.96247	0.010	3.99495	20.00000	Averaged
78 Indeno(1,2,3-cd)pyrene	1.22773	1.25363	1.25363	0.010	2.10928	20.00000	Averaged
79 Dibenzo(a,h)anthracene	1.00943	1.05132	1.05132	0.010	4.15055	20.00000	Averaged
80 Benzo(g,h,i)perylene	1.08460	1.08176	1.08176	0.010	-0.26198	20.00000	Averaged
90 N-Nitrosodimethylamine	0.94770	0.98592	0.98592	0.010	4.03218	20.00000	Averaged
103 Pyridine	1.73462	1.80018	1.80018	0.010	3.77943	20.00000	Averaged
91 Aniline	2.02893	2.01772	2.01772	0.010	-0.55239	20.00000	Averaged
105 1-methylnaphthalene	0.51585	0.52537	0.52537	0.010	1.84468	20.00000	Averaged

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20111129.b/11291102.D
Lab Smp Id: CC1129 Client Smp ID: CC1129
Inj Date : 29-NOV-2011 11:58
Operator : JZ Inst ID: nt6.i
Smp Info : CC1129
Misc Info : 11-
Comment : 1ul Injection
Method : /chem2/nt6.i/20111129.b/SW846112111.m
Meth Date : 30-Nov-2011 13:32 jianqing Quant Type: ISTD
Cal Date : 21-NOV-2011 14:26 Cal File: 11211107.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALA.sub
Target Version: 3.50

11/30/11

AMOUNTS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.132	6.132	(0.757)	846291	25.0000	24.89
$	2 Phenol-d5	99	7.681	7.681	(0.949)	1048972	25.0000	25.07
	3 Phenol	94	7.697	7.697	(0.951)	1016971	25.0000	25.57
$	5 2-Chlorophenol-d4	132	7.799	7.799	(0.963)	823704	25.0000	25.16
	4 Bis(2-Chloroethyl)ether	93	7.767	7.767	(0.959)	823465	25.0000	25.50
	6 2-Chlorophenol	128	7.825	7.825	(0.966)	824733	25.0000	25.29
	7 1,3-Dichlorobenzene	146	8.034	8.034	(0.992)	947454	25.0000	25.20
*	8 1,4-Dichlorobenzene-d4	152	8.098	8.098	(1.000)	464939	20.0000	
	9 1,4-Dichlorobenzene	146	8.119	8.119	(1.003)	934650	25.0000	25.04
$	10 1,2-Dichlorobenzene-d4	152	8.397	8.397	(1.037)	551334	25.0000	24.35
	12 1,2-Dichlorobenzene	146	8.418	8.418	(1.040)	878071	25.0000	25.04
	11 Benzyl alcohol	108	8.381	8.381	(1.035)	541237	25.0000	27.10
	14 2,2'-oxybis(1-Chloropropane)	45	8.643	8.643	(1.067)	672520	25.0000	25.68
	13 2-Methylphenol	108	8.632	8.632	(1.066)	763118	25.0000	25.95
	17 Hexachloroethane	117	8.910	8.910	(1.100)	363793	25.0000	25.27
	16 N-Nitroso-di-n-propylamine	70	8.862	8.862	(1.094)	574242	25.0000	26.32
	15 4-Methylphenol	108	8.862	8.862	(1.094)	785426	25.0000	26.23
$	18 Nitrobenzene-d5	82	9.033	9.033	(0.890)	932724	25.0000	25.89
	19 Nitrobenzene	77	9.059	9.059	(0.892)	882319	25.0000	25.83
	20 Isophorone	82	9.444	9.444	(0.930)	1331202	25.0000	25.93
	21 2-Nitrophenol	139	9.578	9.578	(0.943)	433698	25.0000	26.11
	22 2,4-Dimethylphenol	107	9.701	9.701	(0.955)	780311	25.0000	25.86
	23 Bis(2-Chloroethoxy)methane	93	9.839	9.839	(0.969)	972254	25.0000	25.83
	24 Benzoic acid	105	9.925	9.925	(0.977)	949056	50.0000	47.33
	25 2,4-Dichlorophenol	162	9.973	9.973	(0.982)	651379	25.0000	25.81
	26 1,2,4-Trichlorobenzene	180	10.096	10.096	(0.994)	696935	25.0000	24.75
*	27 Naphthalene-d8	136	10.155	10.155	(1.000)	1747430	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.181	10.181	(1.003)	2154497	25.0000	25.09
	29 4-Chloroaniline	127	10.331	10.331	(1.017)	866853	25.0000	25.26
	30 Hexachlorobutadiene	225	10.507	10.507	(1.035)	375740	25.0000	24.68
	31 4-Chloro-3-methylphenol	107	11.154	11.154	(1.098)	635891	25.0000	26.35
	32 2-Methylnaphthalene	141	11.309	11.309	(1.114)	1145382	25.0000	25.23
	33 Hexachlorocyclopentadiene	237	11.693	11.693	(0.898)	398377	25.0000	25.21
	34 2,4,6-Trichlorophenol	196	11.832	11.832	(0.909)	426807	25.0000	26.08
	35 2,4,5-Trichlorophenol	196	11.891	11.891	(0.913)	449105	25.0000	26.15
$	36 2-Fluorobiphenyl	172	11.955	11.955	(0.918)	1565975	25.0000	24.20
	37 2-Chloronaphthalene	162	12.094	12.094	(0.929)	1304242	25.0000	24.62
	38 2-Nitroaniline	65	12.324	12.324	(0.946)	353842	25.0000	26.72
	39 Dimethylphthalate	163	12.697	12.697	(0.975)	1396743	25.0000	25.11
	40 Acenaphthylene	152	12.772	12.772	(0.981)	2008969	25.0000	25.46
	41 2,6-Dinitrotoluene	165	12.794	12.794	(0.982)	334922	25.0000	26.43
*	42 Acenaphthene-d10	164	13.023	13.023	(1.000)	973585	20.0000	
	43 3-Nitroaniline	138	13.007	13.007	(0.999)	333143	25.0000	25.51
	44 Acenaphthene	153	13.077	13.077	(1.004)	1238669	25.0000	24.75
	45 2,4-Dinitrophenol	184	13.173	13.173	(1.011)	287919	50.0000	42.16
	46 Dibenzofuran	168	13.339	13.339	(1.024)	1720371	25.0000	24.86
	47 4-Nitrophenol	109	13.328	13.328	(1.023)	154391	25.0000	28.55
	48 2,4-Dinitrotoluene	165	13.419	13.419	(1.030)	439183	25.0000	26.66
	50 Diethylphthalate	149	13.857	13.857	(1.064)	1333833	25.0000	25.39
	49 Fluorene	166	13.899	13.899	(1.067)	1428906	25.0000	25.32
	51 4-Chlorophenyl-phenylether	204	13.921	13.921	(1.069)	697320	25.0000	25.29
	52 4-Nitroaniline	138	14.006	14.006	(1.075)	332432	25.0000	26.34
	53 4,6-Dinitro-2-methylphenol	198	14.076	14.076	(0.913)	460502	50.0000	50.18
	54 N-Nitrosodiphenylamine	169	14.129	14.129	(0.917)	1051215	25.0000	24.96
$	55 2,4,6-Tribromophenol	330	14.322	14.322	(1.100)	182664	25.0000	26.95
	56 4-Bromophenyl-phenylether	248	14.706	14.706	(0.954)	374061	25.0000	24.68
	57 Hexachlorobenzene	284	14.931	14.931	(0.969)	395995	25.0000	24.87
	58 Pentachlorophenol	266	15.230	15.230	(0.988)	211268	25.0000	26.64
*	59 Phenanthrene-d10	188	15.411	15.411	(1.000)	1384067	20.0000	
	60 Phenanthrene	178	15.449	15.449	(1.002)	1874744	25.0000	25.05
	61 Anthracene	178	15.518	15.518	(1.007)	1955886	25.0000	25.51
	62 Carbazole	167	15.807	15.807	(1.026)	1828422	25.0000	25.93
	63 Di-n-butylphthalate	149	16.517	16.517	(1.072)	2143815	25.0000	26.76
	64 Fluoranthene	202	17.388	17.388	(1.128)	1865290	25.0000	26.25
	65 Pyrene	202	17.751	17.751	(0.899)	1926603	25.0000	24.31
$	66 Terphenyl-d14	244	18.061	18.061	(0.915)	1194760	25.0000	23.01
	67 Butylbenzylphthalate	149	18.948	18.948	(0.960)	903173	25.0000	26.47
	68 Benzo(a)anthracene	228	19.712	19.712	(0.999)	1594691	25.0000	25.57
*	69 Chrysene-d12	240	19.738	19.738	(1.000)	1280022	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.722	19.722	(0.999)	547195	25.0000	26.75
	71 Chrysene	228	19.781	19.781	(1.002)	1604498	25.0000	25.03
	72 bis(2-Ethylhexyl)phthalate	149	19.947	19.947	(0.955)	1236373	25.0000	25.68
*	134 Di-n-octylphthalate-d4	153	20.882	20.882	(1.000)	1629483	20.0000	
	73 Di-n-octylphthalate	149	20.887	20.887	(1.000)	2075721	25.0000	24.84

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.378	21.378	(0.976)	1586046	25.0000	23.12
75	Benzo(k)fluoranthene	252	21.410	21.410	(0.977)	1907741	25.0000	26.65
187	Total Benzofluoranthenes	252	21.410	21.410	(0.977)	3329936	50.0000	50.01
76	Benzo(a)pyrene	252	21.827	21.827	(0.996)	1601824	25.0000	26.00
* 77	Perylene-d12	264	21.907	21.907	(1.000)	1331426	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.451	23.451	(1.070)	2086392	25.0000	25.53
79	Dibenzo(a,h)anthracene	278	23.473	23.473	(1.071)	1749701	25.0000	26.04
80	Benzo(g,h,i)perylene	276	23.879	23.879	(1.090)	1800359	25.0000	24.93
90	N-Nitrosodimethylamine	74	3.402	3.402	(0.420)	572988	25.0000	26.01
103	Pyridine	79	3.375	3.375	(0.417)	1046219	25.0000	25.94
91	Aniline	93	7.649	7.649	(0.945)	1172647	25.0000	24.86
105	1-methylnaphthalene	141	11.479	11.479	(1.130)	1147552	25.0000	25.46

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 11291102.D
Lab Smp Id: CC1129
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20111129.b/SW846112111.m
Misc Info: 11-

Calibration Date: 29-NOV-2011
Calibration Time: 11:58
Client Smp ID: CC1129
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	393702	196851	787404	464939	18.09
27 Naphthalene-d8	1422023	711012	2844046	1747430	22.88
42 Acenaphthene-d10	754629	377314	1509258	973585	29.02
59 Phenanthrene-d10	1068116	534058	2136232	1384067	29.58
69 Chrysene-d12	993839	496920	1987678	1280022	28.80
134 Di-n-octylphthala	1256584	628292	2513168	1629483	29.68
77 Perylene-d12	976441	488220	1952882	1331426	36.35

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.10	7.60	8.60	8.10	0.00
27 Naphthalene-d8	10.15	9.65	10.65	10.15	0.00
42 Acenaphthene-d10	13.02	12.52	13.52	13.02	0.00
59 Phenanthrene-d10	15.41	14.91	15.91	15.41	0.00
69 Chrysene-d12	19.74	19.24	20.24	19.74	0.00
134 Di-n-octylphthala	20.88	20.38	21.38	20.88	0.00
77 Perylene-d12	21.91	21.41	22.41	21.91	0.00

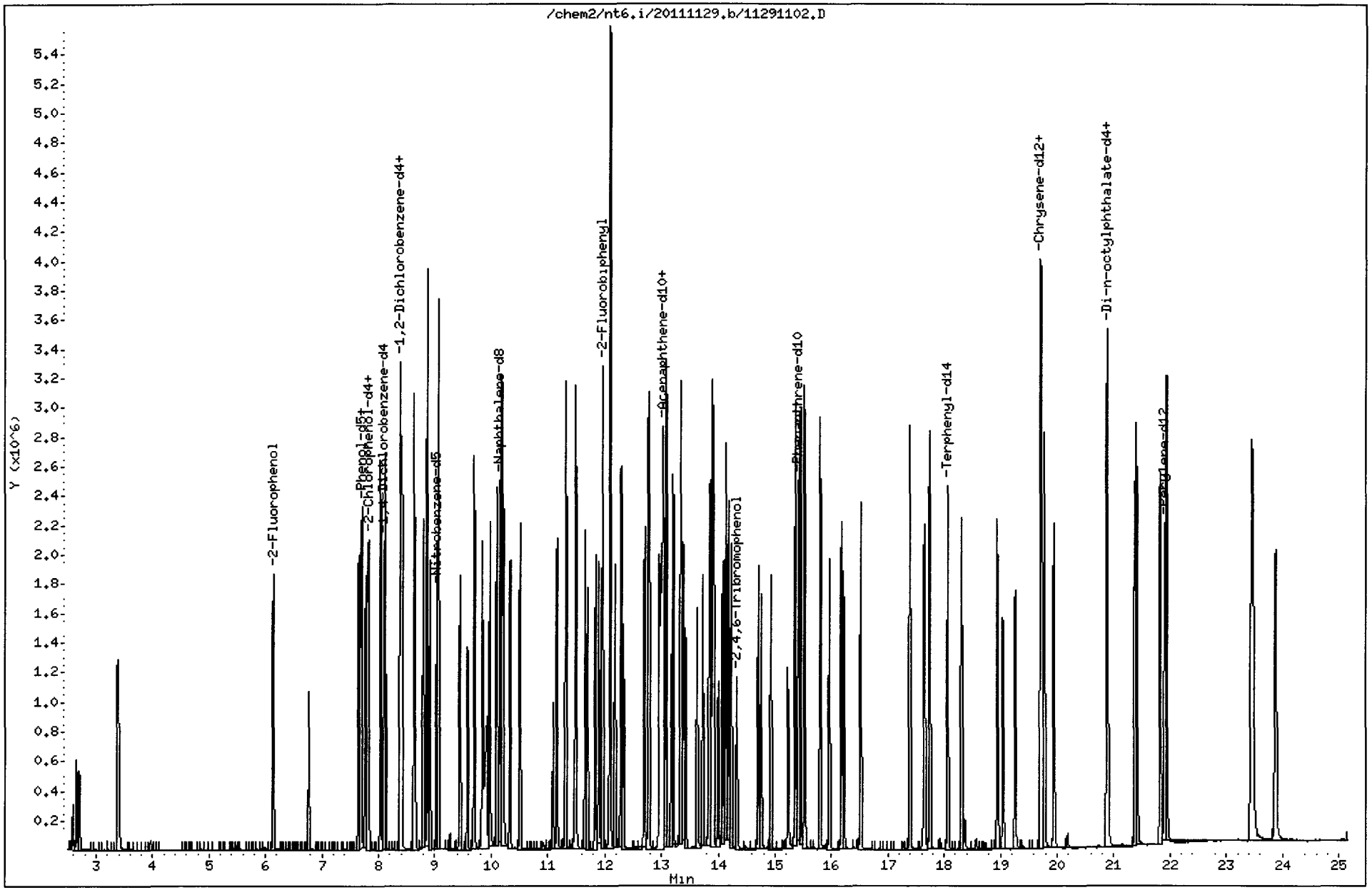
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20111129.b/11291102.D
Date : 29-NOV-2011 11:58
Client ID: CC1129
Sample Info: CC1129

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - 11291102.D

Lab ID: CC1129, Method: SW846112111.m, Instrument: nt6.i, Date: 29-NOV-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem2/nt6.i/20111129.b/tune.b/11291101.D

Date : 29-NOV-2011 11:26

Client ID: DFTPP1129

Instrument: nt6.i

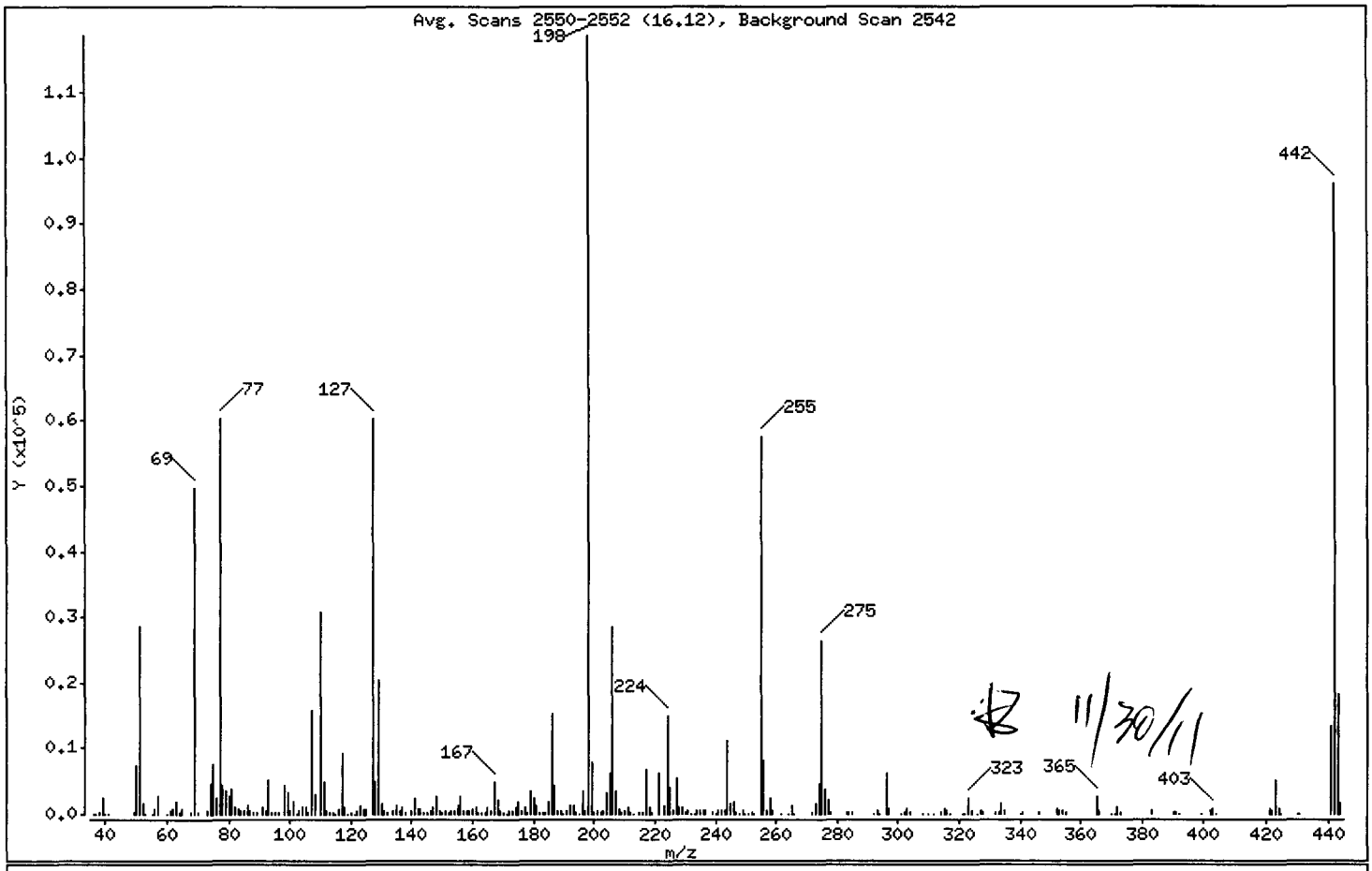
Sample Info: DFTPP1129

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	24.08
68	Less than 2.00% of mass 69	0.26 (0.62)
69	Mass 69 relative abundance	41.90
70	Less than 2.00% of mass 69	0.23 (0.55)
127	10.00 - 80.00% of mass 198	50.92
197	Less than 2.00% of mass 198	0.40
199	5.00 - 9.00% of mass 198	6.73
275	10.00 - 60.00% of mass 198	22.31
365	Greater than 1.00% of mass 198	2.38
441	0.01 - 24.00% of mass 442	11.29 (13.97)
442	50.00 - 200.00% of mass 198	80.87
443	15.00 - 24.00% of mass 442	15.43 (19.07)

11/30/11

Data File: /chem2/nt6.i/20111129.b/tune.b/11291101.D

Date : 29-NOV-2011 11:26

Client ID: DFTPP1129 Instrument: nt6.i

Sample Info: DFTPP1129

Operator: JZ

Column phase: ZB-5msi Column diameter: 0.25

Data File: 11291101.D

Spectrum: Avg. Scans 2550-2552 (16.12), Background Scan 2542

Location of Maximum: 198.00

Number of points: 279

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	118	122.00	597	195.00	69	277.00	2130
37.00	70	123.00	1460	196.00	3475	278.00	217
38.00	392	124.00	718	197.00	477	283.00	188
39.00	2463	125.00	787	198.00	118816	284.00	251
40.00	70	127.00	60496	199.00	7995	285.00	330
41.00	50	128.00	4864	200.00	323	289.00	62
49.00	177	129.00	20592	201.00	560	292.00	55
50.00	7298	130.00	1577	202.00	261	293.00	480
51.00	28608	131.00	434	203.00	596	294.00	136
52.00	1531	132.00	235	204.00	3412	296.00	6174
53.00	69	134.00	494	205.00	6384	297.00	748
55.00	133	135.00	1495	206.00	28632	301.00	54
56.00	789	136.00	664	207.00	3687	302.00	148
57.00	2672	137.00	1160	208.00	824	303.00	698
60.00	107	138.00	189	209.00	286	304.00	182
61.00	442	140.00	433	210.00	661	308.00	97
62.00	803	141.00	2448	211.00	1200	310.00	121
63.00	1835	142.00	863	212.00	354	312.00	55
64.00	140	143.00	726	213.00	101	314.00	339
65.00	698	144.00	258	215.00	314	315.00	755
66.00	68	145.00	178	216.00	285	316.00	511
68.00	307	146.00	526	217.00	6942	317.00	67
69.00	49784	147.00	1164	218.00	975	321.00	129
70.00	276	148.00	2707	219.00	165	322.00	52
73.00	481	149.00	620	221.00	6293	323.00	2341
74.00	4666	150.00	137	223.00	1361	324.00	450
75.00	7621	151.00	596	224.00	15028	326.00	53
76.00	2554	152.00	185	225.00	3974	327.00	449
77.00	60328	153.00	667	226.00	432	328.00	210
78.00	4352	154.00	466	227.00	5382	332.00	398
79.00	3508	155.00	1465	228.00	1004	333.00	225
80.00	2652	156.00	2783	229.00	1189	334.00	1512
81.00	3942	157.00	420	230.00	260	335.00	456
82.00	1185	158.00	448	231.00	529	336.00	122
83.00	945	159.00	462	232.00	120	340.00	58

Data File: /chem2/nt6.i/20111129.b/tune.b/11291101.D

Date : 29-NOV-2011 11:26

Client ID: DFTPP1129 Instrument: nt6.i

Sample Info: DFTPP1129

Operator: JZ

Column phase: ZB-5msi Column diameter: 0.25

Data File: 11291101.D
Spectrum: Avg. Scans 2550-2552 (16.12), Background Scan 2542
Location of Maximum: 198.00
Number of points: 279

m/z	Y	m/z	Y	m/z	Y	m/z	Y
84.00	448	160.00	896	233.00	68	341.00	295
85.00	591	161.00	1208	234.00	428	342.00	93
86.00	1256	162.00	296	235.00	497	346.00	402
87.00	570	163.00	181	236.00	438	352.00	686
88.00	291	164.00	216	237.00	466	353.00	538
89.00	137	165.00	1054	239.00	192	354.00	600
91.00	1013	166.00	640	240.00	58	355.00	141
92.00	662	167.00	4990	241.00	461	365.00	2829
93.00	5187	168.00	2316	242.00	577	366.00	458
94.00	206	169.00	673	243.00	588	370.00	69
95.00	210	170.00	189	244.00	11099	371.00	71
96.00	331	171.00	104	245.00	1540	372.00	1200
98.00	4278	172.00	551	246.00	1852	373.00	318
99.00	3149	173.00	451	247.00	385	383.00	557
100.00	460	174.00	1097	248.00	62	385.00	59
101.00	1964	175.00	1856	249.00	447	390.00	229
102.00	62	176.00	601	250.00	109	391.00	197
103.00	623	177.00	1026	251.00	85	392.00	81
104.00	1003	178.00	267	252.00	193	397.00	54
105.00	1189	179.00	3658	253.00	40	399.00	52
106.00	245	180.00	2436	255.00	57600	402.00	667
107.00	15808	181.00	1446	256.00	8182	403.00	849
108.00	3003	182.00	259	257.00	605	404.00	55
110.00	30736	183.00	145	258.00	2512	421.00	817
111.00	4872	184.00	321	259.00	623	422.00	524
112.00	619	185.00	1839	262.00	53	423.00	5274
113.00	196	186.00	15244	264.00	97	424.00	895
114.00	149	187.00	4342	265.00	1318	425.00	54
115.00	25	188.00	575	266.00	71	430.00	71
116.00	856	189.00	631	268.00	98	431.00	61
117.00	9205	190.00	78	272.00	166	441.00	13419
118.00	998	191.00	413	273.00	1688	442.00	96088
119.00	84	192.00	1402	274.00	4574	443.00	18328
120.00	236	193.00	1471	275.00	26504	444.00	1749
121.00	72	194.00	321	276.00	3779		

Data File: /chem2/nt6.i/20111129.b/tune.b/11291101.D

Date : 29-NOV-2011 11:26

Client ID: DFTPP1129

Instrument: nt6.i

Sample Info: DFTPP1129

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: 11291101.D
Spectrum: Avg. Scans 2550-2552 (16,12), Background Scan 2542
Location of Maximum: 198.00
Number of points: 279

m/z	Y	m/z	Y	m/z	Y	m/z	Y

TX5T.00454

Data File: /chem2/nt6.i/20111129.b/tune.b/11291101.D

Date : 29-NOV-2011 11:26

Client ID: DFTPP1129

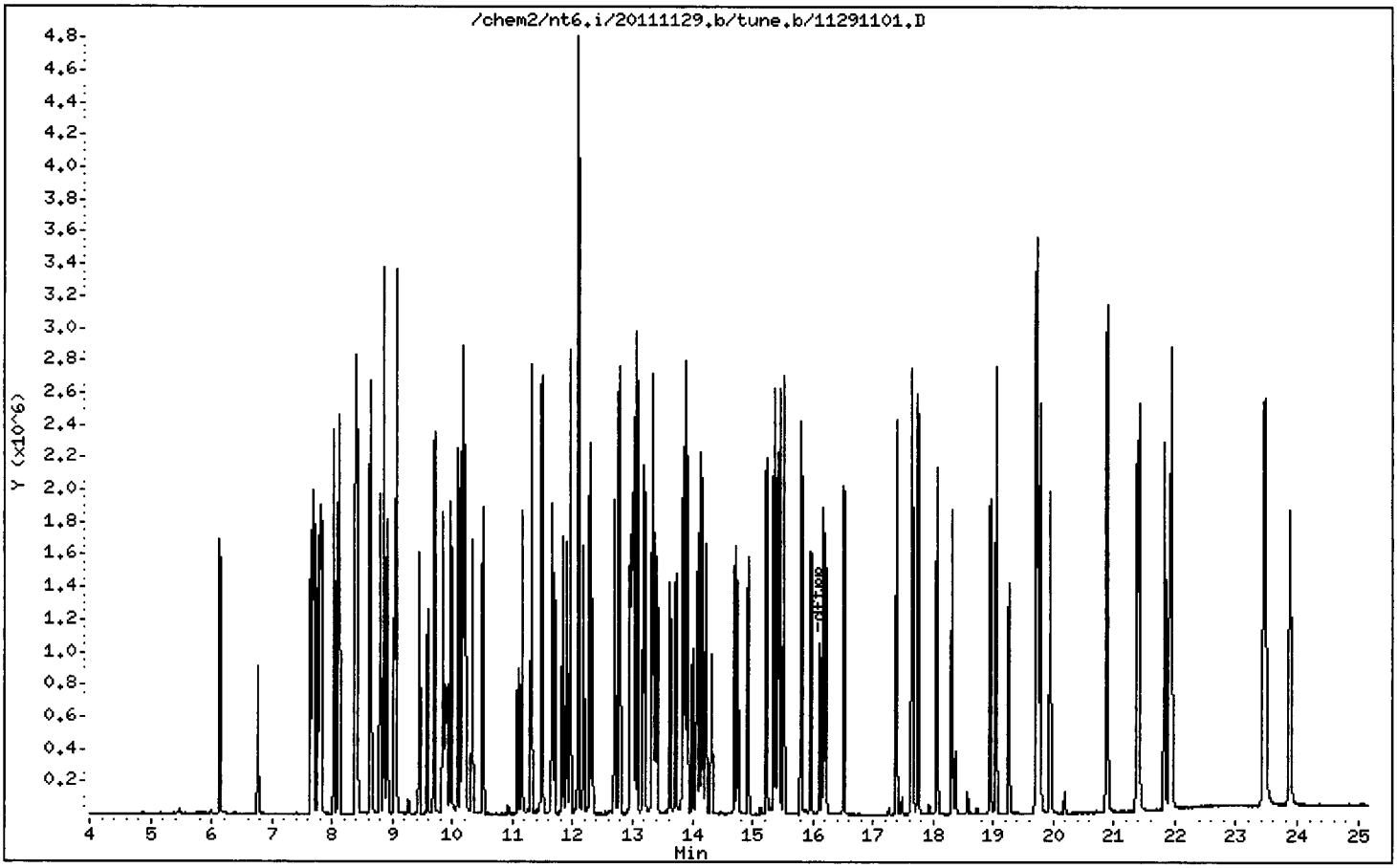
Instrument: nt6.i

Sample Info: DFTPP1129

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.25



TXST 00192

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem2/nt6.i/20111129.b/ddt.b/11291101.D ARI ID: DDT
Method: /chem2/nt6.i/20111129.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 29-NOV-2011 11:26 Instrument: nt6.i

COMPOUND	RT	AREA
Pentachlorophenol	15.229	374351
Benzidine	17.639	1207928
4,4'-DDE	----	----
4,4'-DDD	18.568	37631
4,4'-DDT	19.049	827906

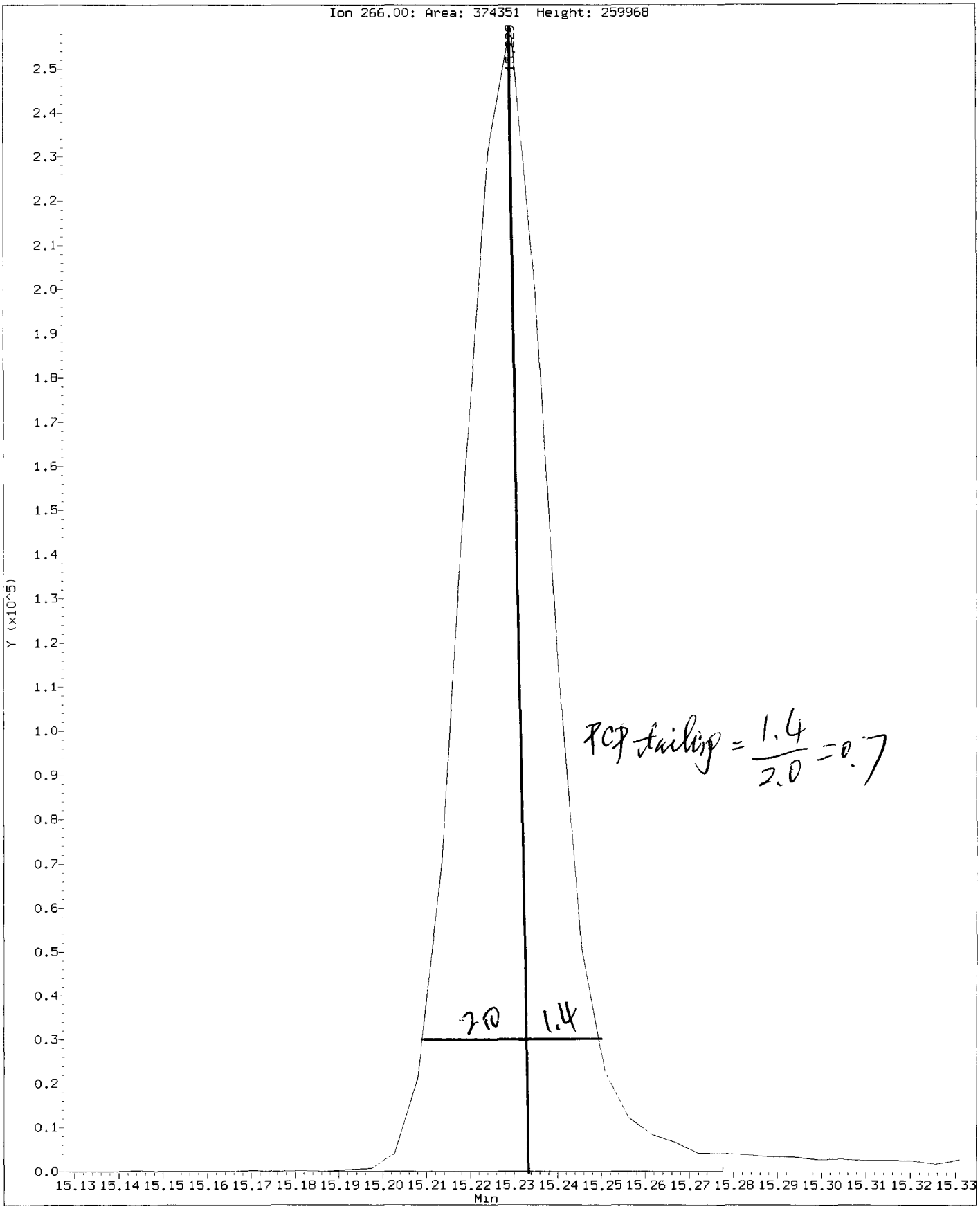
$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(0 + 37631) * 100}{(0 + 37631 + 827906)}$$

DDT Percent Breakdown = 4.3 %

Data File: /chem2/nt6.i/20111129.b/ddt.b/11291101.D
Injection Date: 29-NOV-2011 11:26
Instrument: nt6.i
Client Sample ID: DDT1129

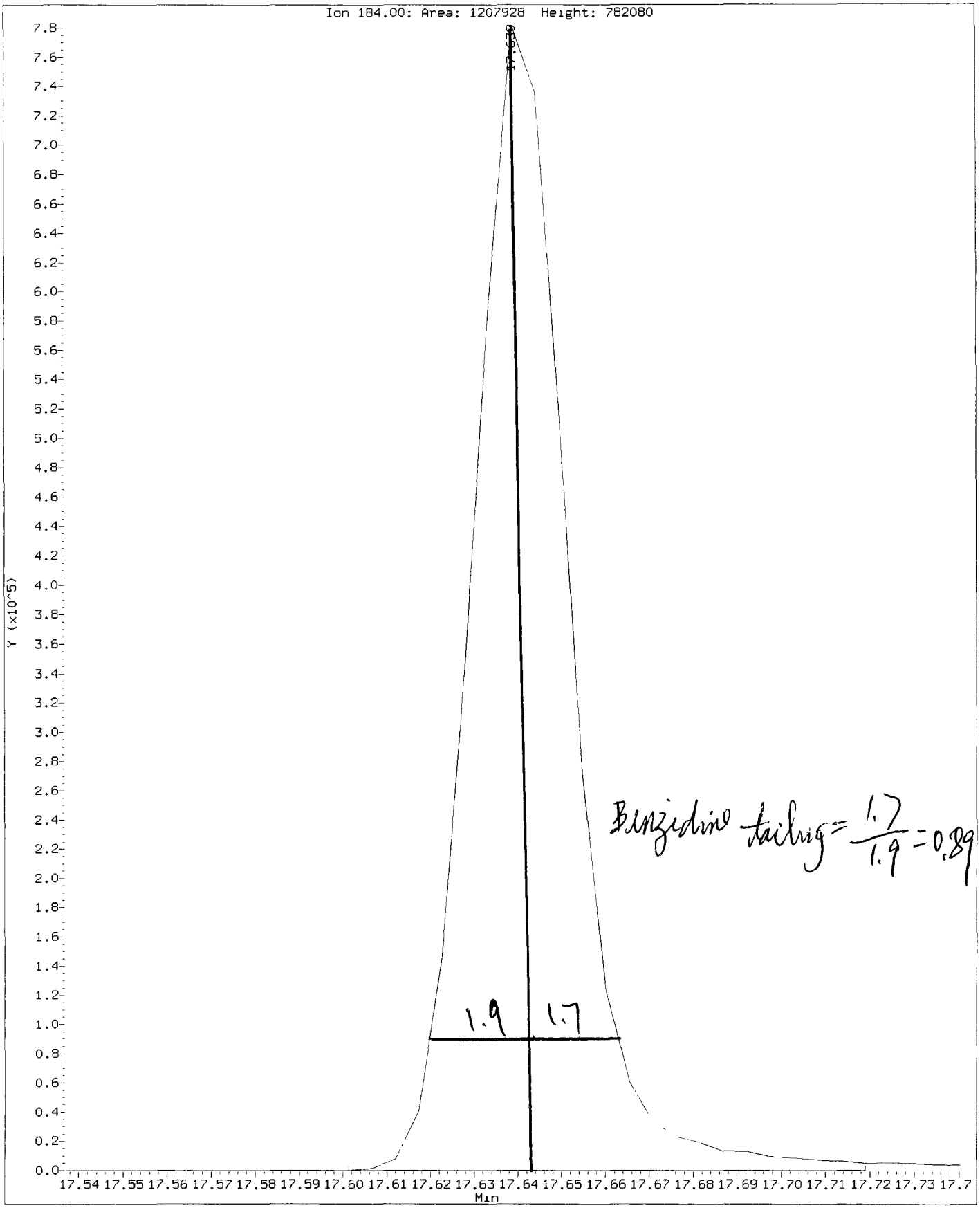
Compound: Pentachlorophenol
CAS Number: 87-86-5



TX57 : 00494

Data File: /chem2/nt6.i/20111129.b/ddt.b/11291101.D
Injection Date: 29-NOV-2011 11:26
Instrument: nt6.i
Client Sample ID: DDT1129

Compound: Benzidine
CAS Number:



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20111129.b/11291103.D
Lab Smp Id: TW99MBW1 TX57MBW1
Inj Date : 29-NOV-2011 12:31
Operator : JZ
Smp Info : TW99MBW1,
Misc Info : 11-26350 11-24139
Comment : 1ul Injection
Method : /chem2/nt6.i/20111129.b/SW846112111.m
Meth Date : 30-Nov-2011 15:51 jianqing
Cal Date : 21-NOV-2011 14:26
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50

Client Smp ID: TW99MBW1
Inst ID: nt6.i
Quant Type: ISTD
Cal File: 11211107.D
QC Sample: BLANK
Compound Sublist: LLMBLCS.sub

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.132	6.132	(0.758)	869420	26.5343	26.53
$ 2	Phenol-d5	99	7.675	7.681	(0.948)	1135045	28.1533	28.15
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.798	7.799	(0.964)	907892	28.7769	28.78
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.092	8.098	(1.000)	448033	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.397	8.397	(1.038)	365999	16.7745	16.77
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					

		QUANT SIG				CONCENTRATIONS	
	Compounds	MASS	RT	EXP RT REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/L)
	15 4-Methylphenol	108	Compound Not Detected.				
$	18 Nitrobenzene-d5	82	9.027	9.033 (0.889)	650151	19.4104	19.41
	19 Nitrobenzene	77	Compound Not Detected.				
	20 Isophorone	82	Compound Not Detected.				
	21 2-Nitrophenol	139	Compound Not Detected.				
	22 2,4-Dimethylphenol	107	Compound Not Detected.				
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.				
	24 Benzoic acid	105	Compound Not Detected.				
	25 2,4-Dichlorophenol	162	Compound Not Detected.				
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.				
*	27 Naphthalene-d8	136	10.149	10.155 (1.000)	1624948	20.0000	
	28 Naphthalene	128	Compound Not Detected.				
	29 4-Chloroaniline	127	Compound Not Detected.				
	30 Hexachlorobutadiene	225	Compound Not Detected.				
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.				
	32 2-Methylnaphthalene	141	Compound Not Detected.				
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.				
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.				
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.				
$	36 2-Fluorobiphenyl	172	11.954	11.955 (0.918)	1081776	18.3818	18.38
	37 2-Chloronaphthalene	162	Compound Not Detected.				
	38 2-Nitroaniline	65	Compound Not Detected.				
	39 Dimethylphthalate	163	Compound Not Detected.				
	40 Acenaphthylene	152	Compound Not Detected.				
	41 2,6-Dinitrotoluene	165	Compound Not Detected.				
*	42 Acenaphthene-d10	164	13.023	13.023 (1.000)	885283	20.0000	
	43 3-Nitroaniline	138	Compound Not Detected.				
	44 Acenaphthene	153	Compound Not Detected.				
	45 2,4-Dinitrophenol	184	Compound Not Detected.				
	46 Dibenzofuran	168	Compound Not Detected.				
	47 4-Nitrophenol	109	Compound Not Detected.				
	48 2,4-Dinitrotoluene	165	Compound Not Detected.				
	50 Diethylphthalate	149	Compound Not Detected.				
	49 Fluorene	166	Compound Not Detected.				
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.				
	52 4-Nitroaniline	138	Compound Not Detected.				
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.				
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.				
$	55 2,4,6-Tribromophenol	330	14.321	14.322 (1.100)	159653	25.9071	25.91
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.				
	57 Hexachlorobenzene	284	Compound Not Detected.				
	58 Pentachlorophenol	266	Compound Not Detected.				
*	59 Phenanthrene-d10	188	15.406	15.411 (1.000)	1230515	20.0000	
	60 Phenanthrene	178	Compound Not Detected.				
	61 Anthracene	178	Compound Not Detected.				
	62 Carbazole	167	Compound Not Detected.				
	63 Di-n-butylphthalate	149	Compound Not Detected.				

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	64 Fluoranthene	202	Compound Not Detected.					
	65 Pyrene	202	Compound Not Detected.					
$	66 Terphenyl-d14	244	18.061	18.061	(0.915)	865132	18.0300	18.03
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	19.738	19.738	(1.000)	1182700	20.0000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134 Di-n-octylphthalate-d4	153	20.876	20.882	(1.000)	1476277	20.0000	
	73 Di-n-octylphthalate	149	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	21.902	21.907	(1.000)	1245256	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.					
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	141	Compound Not Detected.					
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 11291103.D
Lab Smp Id: TW99MBW1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20111129.b/SW846112111.m
Misc Info: 11-26350

Calibration Date: 29-NOV-2011
Calibration Time: 11:58
Client Smp ID: TW99MBW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	393702	196851	787404	448033	13.80
27 Naphthalene-d8	1422023	711012	2844046	1624948	14.27
42 Acenaphthene-d10	754629	377314	1509258	885283	17.31
59 Phenanthrene-d10	1068116	534058	2136232	1230515	15.20
69 Chrysene-d12	993839	496920	1987678	1182700	19.00
134 Di-n-octylphthala	1256584	628292	2513168	1476277	17.48
77 Perylene-d12	976441	488220	1952882	1245256	27.53

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.10	7.60	8.60	8.09	-0.07
27 Naphthalene-d8	10.15	9.65	10.65	10.15	-0.06
42 Acenaphthene-d10	13.02	12.52	13.52	13.02	0.00
59 Phenanthrene-d10	15.41	14.91	15.91	15.41	-0.04
69 Chrysene-d12	19.74	19.24	20.24	19.74	0.00
134 Di-n-octylphthala	20.88	20.38	21.38	20.88	-0.03
77 Perylene-d12	21.91	21.41	22.41	21.90	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Boeing
Client SDG: TW99
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: TW99MBW1
Client Smp ID: TW99MBW1
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: BLANK
SpikeList File: LLLCS.spk
Quant Type: ISTD
Sublist File: LLMBLCS.sub
Method File: /chem2/nt6.i/20111129.b/SW846112111.m
Misc Info: 11-26350

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	37.50	26.53	70.76	46-100
$ 2 Phenol-d5	37.50	28.15	75.08	50-100
$ 5 2-Chlorophenol-d4	37.50	28.78	76.74	53-100
$ 10 1,2-Dichlorobenzen	25.00	16.77	67.10	38-100
$ 18 Nitrobenzene-d5	25.00	19.41	77.64	46-100
$ 36 2-Fluorobiphenyl	25.00	18.38	73.53	49-100
$ 55 2,4,6-Tribromophen	37.50	25.91	69.09	52-123
$ 66 Terphenyl-d14	25.00	18.03	72.12	53-119

Data File: /chem2/nt6.i/20111129.b/11291103.D

Date : 29-NOV-2011 12:31

Client ID: TW99MBW1

Sample Info: TW99MBW1,

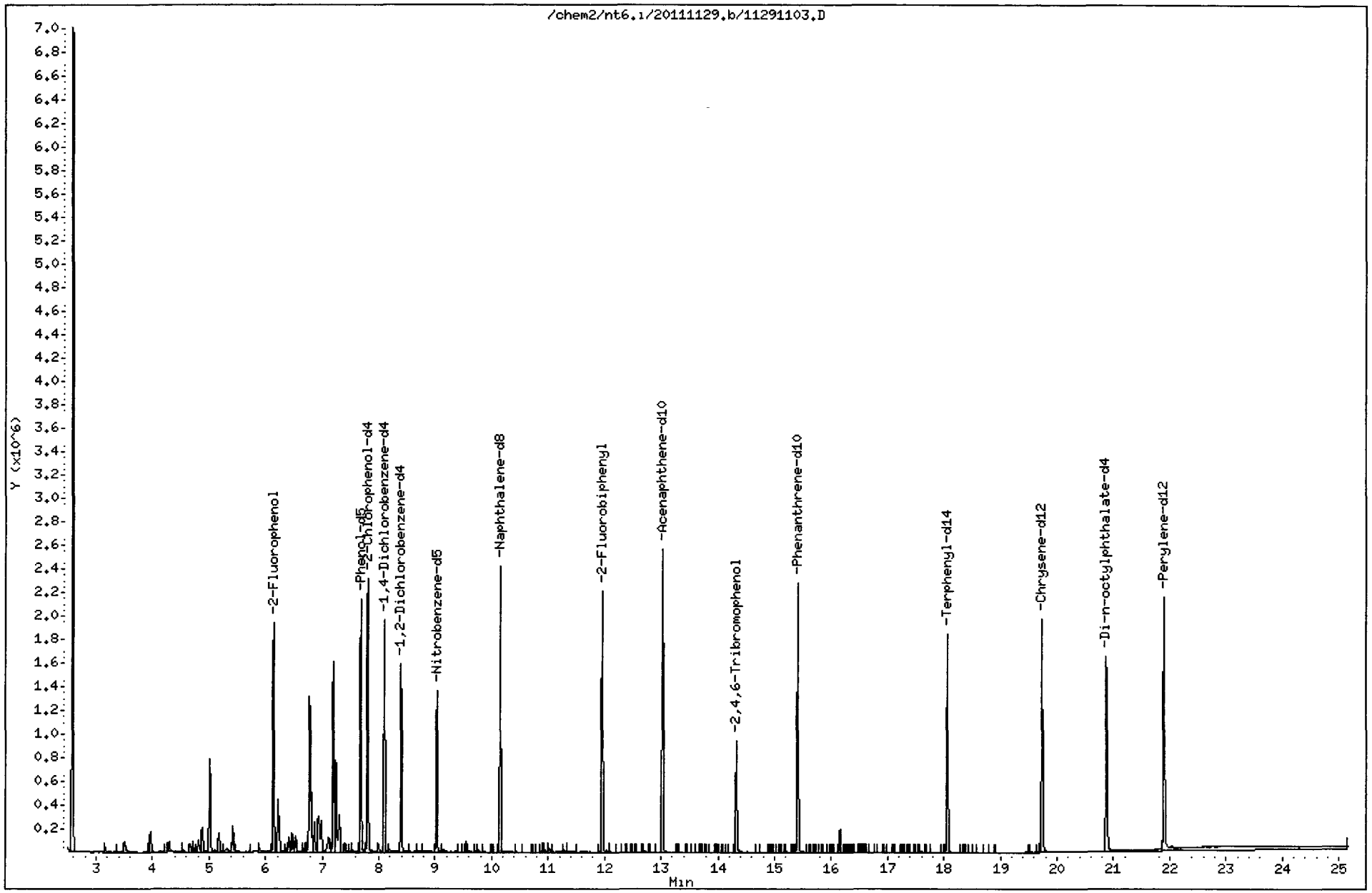
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ

Column diameter: 0.32



TX57 00503

CO-ELUTION SUMMARY FOR FILE - 11291103.D

Lab ID: TW99MBW1, Method: SW846112111.m, Instrument: nt6.i, Date: 29-NOV-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20111129.b/11291104.D
Lab Smp Id: TW99LCSW1 TX57LCSW1 Client Smp ID: TW99LCSW1
Inj Date : 29-NOV-2011 13:04
Operator : JZ Inst ID: nt6.i
Smp Info : TW99LCSW1,
Misc Info : 11-26350 11-26634
Comment : 1ul Injection
Method : /chem2/nt6.i/20111129.b/SW846112111.m
Meth Date : 30-Nov-2011 15:58 jianqing Quant Type: ISTD
Cal Date : 21-NOV-2011 14:26 Cal File: 11211107.D
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: LLMBLCS.sub
Target Version: 3.50

JZ 11/30/11

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.132	6.132	(0.757)	1065434	27.2075	27.21
$ 2	Phenol-d5	99	7.681	7.681	(0.949)	1390095	28.8500	28.85
3	Phenol	94	7.697	7.697	(0.951)	1063134	23.2122	23.21
$ 5	2-Chlorophenol-d4	132	7.799	7.799	(0.963)	1078561	28.6049	28.60
4	Bis(2-Chloroethyl)ether	93	7.767	7.767	(0.959)	822036	22.1065	22.11
6	2-Chlorophenol	128	7.826	7.825	(0.966)	828231	22.0511	22.05
7	1,3-Dichlorobenzene	146	8.034	8.034	(0.992)	741415	17.1214	17.12
* 8	1,4-Dichlorobenzene-d4	152	8.098	8.098	(1.000)	535457	20.0000	
9	1,4-Dichlorobenzene	146	8.119	8.119	(1.003)	765612	17.8125	17.81
$ 10	1,2-Dichlorobenzene-d4	152	8.397	8.397	(1.037)	419338	16.0812	16.08
12	1,2-Dichlorobenzene	146	8.419	8.418	(1.040)	743907	18.4220	18.42
11	Benzyl alcohol	108	8.381	8.381	(1.035)	536683	23.3342	23.33
14	2,2'-oxybis(1-Chloropropane)	45	8.643	8.643	(1.067)	646018	21.4214	21.42
13	2-Methylphenol	108	8.627	8.632	(1.065)	719076	21.2333	21.23
17	Hexachloroethane	117	8.910	8.910	(1.100)	250237	15.0950	15.09
16	N-Nitroso-di-n-propylamine	70	8.857	8.862	(1.094)	505414	20.1148	20.11

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
15	4-Methylphenol	108	8.867	8.862	(1.095)	1475074	42.7798	42.78
$ 18	Nitrobenzene-d5	82	9.033	9.033	(0.890)	772474	18.4279	18.43
19	Nitrobenzene	77	9.060	9.059	(0.892)	864914	21.7536	21.75
20	Isophorone	82	9.450	9.444	(0.931)	1413505	23.6554	23.66
21	2-Nitrophenol	139	9.578	9.578	(0.943)	421264	21.7902	21.79
22	2,4-Dimethylphenol	107	9.701	9.701	(0.955)	1641132	46.7259	46.73
23	Bis(2-Chloroethoxy)methane	93	9.840	9.839	(0.969)	914775	20.8861	20.89
24	Benzoic acid	105	10.011	9.925	(0.986)	2935218	125.793	125.8
25	2,4-Dichlorophenol	162	9.973	9.973	(0.982)	1667329	56.7794	56.78
26	1,2,4-Trichlorobenzene	180	10.096	10.096	(0.994)	596024	18.1844	18.18
* 27	Naphthalene-d8	136	10.155	10.155	(1.000)	2033611	20.0000	
28	Naphthalene	128	10.187	10.181	(1.003)	2101424	21.0314	21.03
29	4-Chloroaniline	127	10.331	10.331	(1.017)	2156309	54.0025	54.00
30	Hexachlorobutadiene	225	10.502	10.507	(1.034)	248009	13.9970	14.00
31	4-Chloro-3-methylphenol	107	11.154	11.154	(1.098)	1786714	63.6197	63.62
32	2-Methylnaphthalene	141	11.309	11.309	(1.114)	1110985	21.0291	21.03
33	Hexachlorocyclopentadiene	237	11.693	11.693	(0.897)	543255	31.1258	31.13
34	2,4,6-Trichlorophenol	196	11.832	11.832	(0.908)	1197339	66.2458	66.25
35	2,4,5-Trichlorophenol	196	11.891	11.891	(0.913)	1266783	66.7892	66.79
$ 36	2-Fluorobiphenyl	172	11.955	11.955	(0.918)	1339893	18.7432	18.74
37	2-Chloronaphthalene	162	12.094	12.094	(0.928)	1300355	22.2275	22.23
38	2-Nitroaniline	65	12.334	12.324	(0.947)	1042297	71.2646	71.26
39	Dimethylphthalate	163	12.703	12.697	(0.975)	1438600	23.4149	23.41
40	Acenaphthylene	152	12.772	12.772	(0.980)	1963619	22.5321	22.53
41	2,6-Dinitrotoluene	165	12.799	12.794	(0.982)	983721	70.2942	70.29
* 42	Acenaphthene-d10	164	13.029	13.023	(1.000)	1075371	20.0000	
43	3-Nitroaniline	138	13.013	13.007	(0.999)	1032331	71.5785	71.58
44	Acenaphthene	153	13.077	13.077	(1.004)	1262226	22.8321	22.83
45	2,4-Dinitrophenol	184	13.178	13.173	(1.011)	935935	114.543	114.5
46	Dibenzofuran	168	13.339	13.339	(1.024)	1757777	22.9938	22.99
47	4-Nitrophenol	109	13.333	13.328	(1.023)	474607	79.4573	79.46
48	2,4-Dinitrotoluene	165	13.430	13.419	(1.031)	1245624	68.4631	68.46
50	Diethylphthalate	149	13.868	13.857	(1.064)	1382578	23.8230	23.82
49	Fluorene	166	13.900	13.899	(1.067)	1490550	23.9141	23.91
51	4-Chlorophenyl-phenylether	204	13.921	13.921	(1.068)	685831	22.5213	22.52
52	4-Nitroaniline	138	14.017	14.006	(1.076)	970644	69.6330	69.63
53	4,6-Dinitro-2-methylphenol	198	14.087	14.076	(0.914)	1267059	131.197	131.2
54	N-Nitrosodiphenylamine	169	14.129	14.129	(0.917)	866566	19.5512	19.55
$ 55	2,4,6-Tribromophenol	330	14.327	14.322	(1.100)	249976	33.3936	33.39
56	4-Bromophenyl-phenylether	248	14.706	14.706	(0.954)	376067	23.5793	23.58
57	Hexachlorobenzene	284	14.931	14.931	(0.969)	400844	23.9198	23.92
58	Pentachlorophenol	266	15.230	15.230	(0.988)	662782	79.4237	79.42
* 59	Phenanthrene-d10	188	15.411	15.411	(1.000)	1456439	20.0000	
60	Phenanthrene	178	15.449	15.449	(1.002)	1897497	24.0916	24.09
61	Anthracene	178	15.518	15.518	(1.007)	1815039	22.4953	22.50
62	Carbazole	167	15.801	15.807	(1.025)	1722241	23.2126	23.21
63	Di-n-butylphthalate	149	16.517	16.517	(1.072)	2088001	24.7670	24.77

TX57 : 20504

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
	64 Fluoranthene	202	17.388	17.388	(1.128)	1864303	24.9309	24.93
	65 Pyrene	202	17.746	17.751	(0.899)	1869936	24.5294	24.53
$	66 Terphenyl-d14	244	18.061	18.061	(0.915)	993062	19.8781	19.88
	67 Butylbenzylphthalate	149	18.943	18.948	(0.960)	831883	25.3452	25.35
	68 Benzo(a)anthracene	228	19.712	19.712	(0.999)	1466449	24.4473	24.45
*	69 Chrysene-d12	240	19.739	19.738	(1.000)	1231378	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.723	19.722	(0.999)	1002240	50.9238	50.92
	71 Chrysene	228	19.776	19.781	(1.002)	1534987	24.8870	24.89
	72 bis(2-Ethylhexyl)phthalate	149	19.942	19.947	(0.955)	1144198	24.2207	24.22
*	134 Di-n-octylphthalate-d4	153	20.876	20.882	(1.000)	1598547	20.0000	
	73 Di-n-octylphthalate	149	20.887	20.887	(1.000)	1819648	22.1953	22.20
	74 Benzo(b)fluoranthene	252	21.373	21.378	(0.976)	1697737	23.8772	23.88
	75 Benzo(k)fluoranthene	252	21.405	21.410	(0.977)	1799918	24.2620	24.26
	76 Benzo(a)pyrene	252	21.822	21.827	(0.996)	1363057	21.3457	21.35
*	77 Perylene-d12	264	21.902	21.907	(1.000)	1379933	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	23.451	23.451	(1.071)	2145766	25.3309	25.33
	79 Dibenzo(a,h)anthracene	278	23.473	23.473	(1.072)	1808558	25.9675	25.97
	80 Benzo(g,h,i)perylene	276	23.879	23.879	(1.090)	1935773	25.8675	25.87
	90 N-Nitrosodimethylamine	74	3.418	3.402	(0.422)	1429359	56.3346	56.33
	91 Aniline	93	7.649	7.649	(0.945)	723070	13.3112	13.31
	93 Benzidine	184	13.178	13.173	(0.668)	935935	61.8296	61.83
	103 Pyridine	79	3.397	3.375	(0.419)	55047	1.18532	1.185
	105 1-methylnaphthalene	141	11.485	11.479	(1.131)	1144664	21.8231	21.82
	111 Azobenzene (1,2-DP-Hydrazine)	77	14.177	14.172	(1.088)	1554624	23.6064	23.61
	187 Total Benzofluoranthenes	252	21.405	21.410	(0.977)	3326221	48.1981	48.20

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 11291104.D
Lab Smp Id: TW99LCSW1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20111129.b/SW846112111.m
Misc Info: 11-26350

Calibration Date: 29-NOV-2011
Calibration Time: 11:58
Client Smp ID: TW99LCSW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	393702	196851	787404	535457	36.01
27 Naphthalene-d8	1422023	711012	2844046	2033611	43.01
42 Acenaphthene-d10	754629	377314	1509258	1075371	42.50
59 Phenanthrene-d10	1068116	534058	2136232	1456439	36.36
69 Chrysene-d12	993839	496920	1987678	1231378	23.90
134 Di-n-octylphthala	1256584	628292	2513168	1598547	27.21
77 Perylene-d12	976441	488220	1952882	1379933	41.32

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.10	7.60	8.60	8.10	0.00
27 Naphthalene-d8	10.15	9.65	10.65	10.15	0.00
42 Acenaphthene-d10	13.02	12.52	13.52	13.03	0.04
59 Phenanthrene-d10	15.41	14.91	15.91	15.41	0.00
69 Chrysene-d12	19.74	19.24	20.24	19.74	0.00
134 Di-n-octylphthala	20.88	20.38	21.38	20.88	-0.02
77 Perylene-d12	21.91	21.41	22.41	21.90	-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: Boeing
Sample Matrix: LIQUID
Lab Smp Id: TW99LCSW1
Level: LOW
Data Type: MS DATA
SpikeList File: LLLCS.spk
Sublist File: LLMBLCS.sub
Method File: /chem2/nt6.i/20111129.b/SW846112111.m
Misc Info: 11-26350

Client SDG: TW99
Fraction: SV
Client Smp ID: TW99LCSW1
Operator: JZ
SampleType: LCS
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
3	Phenol	25.00	23.21	92.85	50-100
4	Bis(2-Chloroethyl)	25.00	22.11	88.43	52-100
6	2-Chlorophenol	25.00	22.05	88.20	56-100
7	1,3-Dichlorobenzen	25.00	17.12	68.49	23-100
9	1,4-Dichlorobenzen	25.00	17.81	71.25	25-100
11	Benzyl alcohol	25.00	23.33	93.34	19-100
12	1,2-Dichlorobenzen	25.00	18.42	73.69	30-100
13	2-Methylphenol	25.00	21.23	84.93	52-100
14	2,2'-oxybis(1-Chlo	25.00	21.42	85.69	32-111
15	4-Methylphenol	50.00	42.78	85.56	53-102
16	N-Nitroso-di-n-pro	25.00	20.11	80.46	43-104
17	Hexachloroethane	25.00	15.09	60.38	12-100
19	Nitrobenzene	25.00	21.75	87.01	33-125
20	Isophorone	25.00	23.66	94.62	57-115
21	2-Nitrophenol	25.00	21.79	87.16	56-102
22	2,4-Dimethylphenol	75.00	46.73	62.30	29-100
23	Bis(2-Chloroethoxy	25.00	20.89	83.54	54-101
24	Benzoic acid	137.5	125.8	91.49	10-131
25	2,4-Dichlorophenol	75.00	56.78	75.71	56-104
26	1,2,4-Trichloroben	25.00	18.18	72.74	27-100
28	Naphthalene	25.00	21.03	84.13	45-100
29	4-Chloroaniline	75.00	54.00	72.00	10-139
30	Hexachlorobutadien	25.00	14.00	55.99	10-100
31	4-Chloro-3-methylp	75.00	63.62	84.83	53-109
32	2-Methylnaphthalen	25.00	21.03	84.12	46-100
33	Hexachlorocyclopen	75.00	31.13	41.50	10-100
34	2,4,6-Trichlorophe	75.00	66.25	88.33	58-108
35	2,4,5-Trichlorophe	75.00	66.79	89.05	58-107
37	2-Chloronaphthalen	25.00	22.23	88.91	56-104
38	2-Nitroaniline	75.00	71.26	95.02	50-107
39	Dimethylphthalate	25.00	23.41	93.66	58-107
40	Acenaphthylene	25.00	22.53	90.13	57-100
41	2,6-Dinitrotoluene	75.00	70.29	93.73	58-112

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43 3-Nitroaniline	75.00	71.58	95.44	21-150
44 Acenaphthene	25.00	22.83	91.33	51-100
45 2,4-Dinitrophenol	137.5	114.5	83.30	12-169
46 Dibenzofuran	25.00	22.99	91.98	57-100
47 4-Nitrophenol	75.00	79.46	105.94	35-119
48 2,4-Dinitrotoluene	75.00	68.46	91.28	58-117
49 Fluorene	25.00	23.91	95.66	56-104
50 Diethylphthalate	25.00	23.82	95.29	52-111
51 4-Chlorophenyl-phe	25.00	22.52	90.09	55-104
52 4-Nitroaniline	75.00	69.63	92.84	49-112
53 4,6-Dinitro-2-meth	137.5	131.2	95.42	13-139
54 N-Nitrosodiphenyla	25.00	19.55	78.20	60-136
56 4-Bromophenyl-phen	25.00	23.58	94.32	50-103
57 Hexachlorobenzene	25.00	23.92	95.68	54-106
58 Pentachlorophenol	75.00	79.42	105.90	46-114
60 Phenanthrene	25.00	24.09	96.37	56-102
61 Anthracene	25.00	22.50	89.98	56-101
62 Carbazole	25.00	23.21	92.85	60-108
63 Di-n-butylphthalat	25.00	24.77	99.07	56-112
64 Fluoranthene	25.00	24.93	99.72	57-110
65 Pyrene	25.00	24.53	98.12	48-119
67 Butylbenzylphthala	25.00	25.35	101.38	51-114
68 Benzo(a)anthracene	25.00	24.45	97.79	55-105
70 3,3'-Dichlorobenzi	75.00	50.92	67.90	10-128
71 Chrysene	25.00	24.89	99.55	55-104
72 bis(2-Ethylhexyl)p	25.00	24.22	96.88	28-164
73 Di-n-octylphthalat	25.00	22.20	88.78	57-107
74 Benzo(b)fluoranthe	25.00	23.88	95.51	53-112
75 Benzo(k)fluoranthe	25.00	24.26	97.05	50-116
76 Benzo(a)pyrene	25.00	21.35	85.38	45-103
78 Indeno(1,2,3-cd)py	25.00	25.33	101.32	35-118
79 Dibenzo(a,h)anthra	25.00	25.97	103.87	42-119
80 Benzo(g,h,i)peryle	25.00	25.87	103.47	39-123
91 Aniline	25.00	13.31	53.24	10-100
111 Azobenzene (1,2-DP	25.00	23.61	94.43	57-109
90 N-Nitrosodimethyla	75.00	56.33	75.11	49-100
105 1-methylnaphthalen	25.00	21.82	87.29	46-100
144 alpha-Terpineol	25.00	0.000	NC *	30-160
187 Total Benzofluoran	50.00	48.20	96.40	30-160

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	37.50	27.21	72.55	46-100

11/30/11

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 2 Phenol-d5	37.50	28.85	76.93	50-100
$ 5 2-Chlorophenol-d4	37.50	28.60	76.28	53-100
$ 10 1,2-Dichlorobenzen	25.00	16.08	64.32	38-100
$ 18 Nitrobenzene-d5	25.00	18.43	73.71	46-100
$ 36 2-Fluorobiphenyl	25.00	18.74	74.97	49-100
$ 55 2,4,6-Tribromophen	37.50	33.39	89.05	52-123
$ 66 Terphenyl-d14	25.00	19.88	79.51	53-119

Data File: /chem2/nt6.i/20111129.b/11291104.D

Date : 29-NOV-2011 13:04

Client ID: TW99LCSW1

Sample Info: TW99LCSW1,

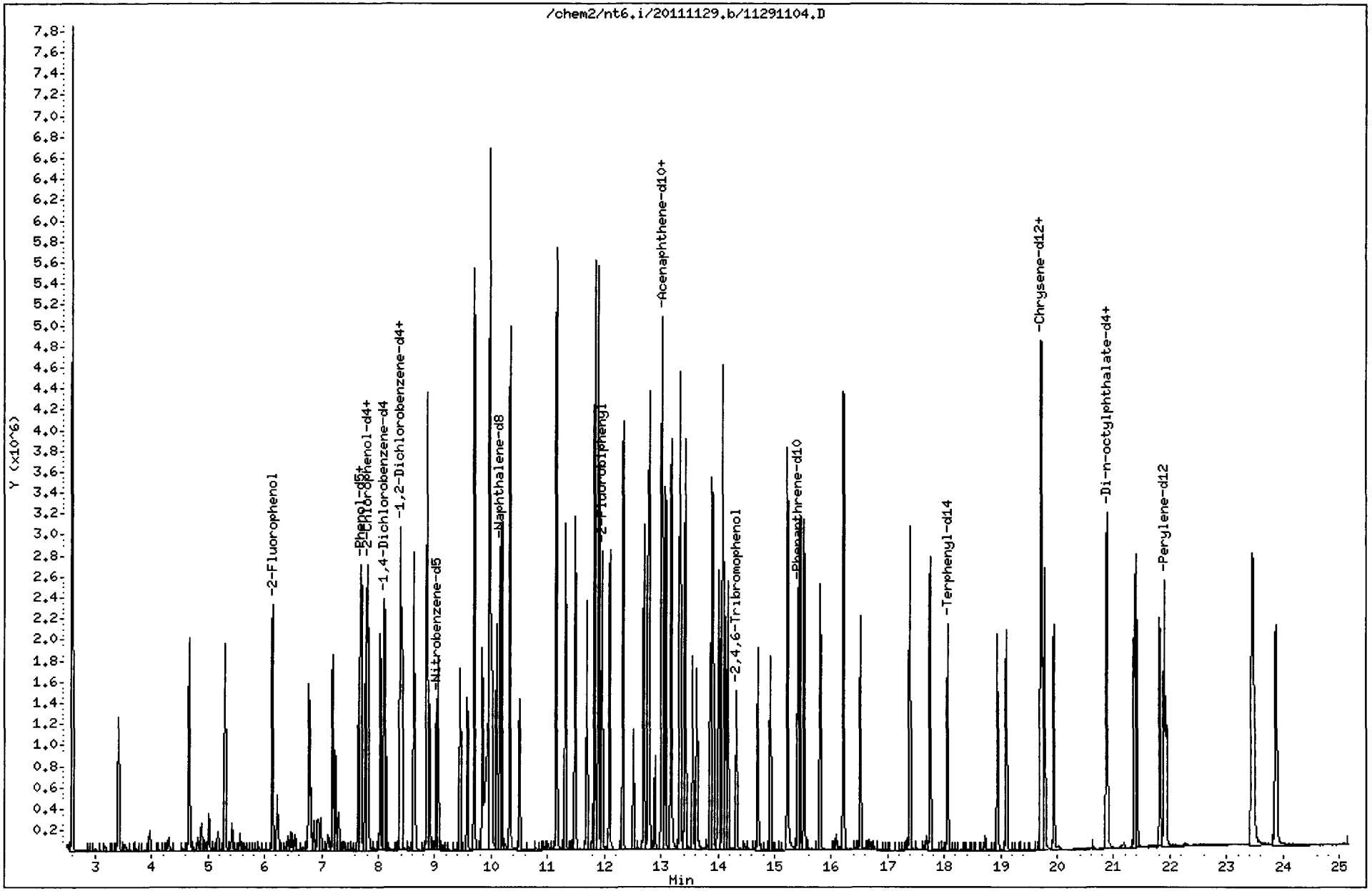
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ

Column diameter: 0.32



TX57.00510

CO-ELUTION SUMMARY FOR FILE - 11291104.D

Lab ID: TW99LCSW1, Method: SW846112111.m, Instrument: nt6.i, Date: 29-NOV-201

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20111129.b/11291105.D
Lab Smp Id: TW99LCSDW1 TX57LCSDW1 Client Smp ID: TW99LCSDW1
Inj Date : 29-NOV-2011 13:37
Operator : JZ Inst ID: nt6.i
Smp Info : TW99LCSDW1,
Misc Info : 11-26350 11-26634
Comment : 1ul Injection
Method : /chem2/nt6.i/20111129.b/SW846112111.m
Meth Date : 30-Nov-2011 15:58 jianqing Quant Type: ISTD
Cal Date : 21-NOV-2011 14:26 Cal File: 11211107.D
Als bottle: 5 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: LLMBLCS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable 4/30/11

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.132	6.132	(0.757)	945562	25.1531	25.15
$ 2	Phenol-d5	99	7.681	7.681	(0.949)	1259209	27.2232	27.22
3	Phenol	94	7.697	7.697	(0.951)	944241	21.4759	21.48
$ 5	2-Chlorophenol-d4	132	7.799	7.799	(0.963)	966489	26.7013	26.70
4	Bis(2-Chloroethyl)ether	93	7.767	7.767	(0.959)	724574	20.2979	20.30
6	2-Chlorophenol	128	7.820	7.825	(0.966)	738305	20.4764	20.48
7	1,3-Dichlorobenzene	146	8.034	8.034	(0.992)	635839	15.2955	15.30
* 8	1,4-Dichlorobenzene-d4	152	8.098	8.098	(1.000)	514026	20.0000	
9	1,4-Dichlorobenzene	146	8.119	8.119	(1.003)	653469	15.8373	15.84
$ 10	1,2-Dichlorobenzene-d4	152	8.397	8.397	(1.037)	365680	14.6081	14.61
12	1,2-Dichlorobenzene	146	8.418	8.418	(1.040)	648539	16.7299	16.73
11	Benzyl alcohol	108	8.381	8.381	(1.035)	493904	22.3695	22.37
14	2,2'-oxybis(1-Chloropropane)	45	8.643	8.643	(1.067)	566832	19.5793	19.58
13	2-Methylphenol	108	8.627	8.632	(1.065)	650873	20.0207	20.02
17	Hexachloroethane	117	8.910	8.910	(1.100)	209189	13.1449	13.14
16	N-Nitroso-di-n-propylamine	70	8.856	8.862	(1.094)	455776	18.8956	18.90

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	15 4-Methylphenol	108	8.867	8.862	(1.095)	1342254	40.5508	40.55
$	18 Nitrobenzene-d5	82	9.033	9.033	(0.890)	699792	17.5326	17.53
	19 Nitrobenzene	77	9.059	9.059	(0.892)	761548	20.1160	20.12
	20 Isophorone	82	9.449	9.444	(0.931)	1317838	23.1623	23.16
	21 2-Nitrophenol	139	9.578	9.578	(0.943)	382985	20.8054	20.81
	22 2,4-Dimethylphenol	107	9.700	9.701	(0.955)	1416649	42.3607	42.36
	23 Bis(2-Chloroethoxy)methane	93	9.845	9.839	(0.969)	843394	20.2237	20.22
	24 Benzoic acid	105	10.010	9.925	(0.986)	1330908	59.9033	59.90
	25 2,4-Dichlorophenol	162	9.973	9.973	(0.982)	1557659	55.7094	55.71
	26 1,2,4-Trichlorobenzene	180	10.096	10.096	(0.994)	516150	16.5385	16.54
*	27 Naphthalene-d8	136	10.154	10.155	(1.000)	1936339	20.0000	
	28 Naphthalene	128	10.187	10.181	(1.003)	1898784	19.9580	19.96
	29 4-Chloroaniline	127	10.331	10.331	(1.017)	1945520	51.1711	51.17
	30 Hexachlorobutadiene	225	10.507	10.507	(1.035)	209228	12.4015	12.40
	31 4-Chloro-3-methylphenol	107	11.153	11.154	(1.098)	1676742	62.7031	62.70
	32 2-Methylnaphthalene	141	11.314	11.309	(1.114)	1020280	20.2824	20.28
	33 Hexachlorocyclopentadiene	237	11.693	11.693	(0.897)	497599	29.2118	29.21
	34 2,4,6-Trichlorophenol	196	11.832	11.832	(0.908)	1139354	64.5894	64.59
	35 2,4,5-Trichlorophenol	196	11.891	11.891	(0.913)	1225817	66.2204	66.22
$	36 2-Fluorobiphenyl	172	11.955	11.955	(0.918)	1270671	18.2125	18.21
	37 2-Chloronaphthalene	162	12.094	12.094	(0.928)	1206303	21.1274	21.13
	38 2-Nitroaniline	65	12.334	12.324	(0.947)	1013105	70.9739	70.97
	39 Dimethylphthalate	163	12.703	12.697	(0.975)	1377068	22.9652	22.97
	40 Acenaphthylene	152	12.772	12.772	(0.980)	1850534	21.7572	21.76
	41 2,6-Dinitrotoluene	165	12.799	12.794	(0.982)	935086	68.4638	68.46
*	42 Acenaphthene-d10	164	13.029	13.023	(1.000)	1049534	20.0000	
	43 3-Nitroaniline	138	13.013	13.007	(0.999)	1009602	71.7258	71.73
	44 Acenaphthene	153	13.077	13.077	(1.004)	1176311	21.8018	21.80
	45 2,4-Dinitrophenol	184	13.178	13.173	(1.011)	946484	118.144	118.1
	46 Dibenzofuran	168	13.344	13.339	(1.024)	1673857	22.4350	22.44
	47 4-Nitrophenol	109	13.333	13.328	(1.023)	480282	82.3869	82.39
	48 2,4-Dinitrotoluene	165	13.429	13.419	(1.031)	1227811	69.1454	69.15
	50 Diethylphthalate	149	13.867	13.857	(1.064)	1333303	23.5395	23.54
	49 Fluorene	166	13.899	13.899	(1.067)	1419630	23.3370	23.34
	51 4-Chlorophenyl-phenylether	204	13.926	13.921	(1.069)	658900	22.1696	22.17
	52 4-Nitroaniline	138	14.022	14.006	(1.076)	979414	71.9918	71.99
	53 4,6-Dinitro-2-methylphenol	198	14.092	14.076	(0.914)	1303037	130.879	130.9
	54 N-Nitrosodiphenylamine	169	14.129	14.129	(0.917)	798078	17.4665	17.47
$	55 2,4,6-Tribromophenol	330	14.327	14.322	(1.100)	244374	33.4489	33.45
	56 4-Bromophenyl-phenylether	248	14.706	14.706	(0.954)	367182	22.3323	22.33
	57 Hexachlorobenzene	284	14.930	14.931	(0.969)	390484	22.6034	22.60
	58 Pentachlorophenol	266	15.229	15.230	(0.988)	659276	76.6362	76.64
*	59 Phenanthrene-d10	188	15.411	15.411	(1.000)	1501430	20.0000	
	60 Phenanthrene	178	15.449	15.449	(1.002)	1906604	23.4818	23.48
	61 Anthracene	178	15.518	15.518	(1.007)	1817054	21.8454	21.85
	62 Carbazole	167	15.806	15.807	(1.026)	1750709	22.8892	22.89
	63 Di-n-butylphthalate	149	16.517	16.517	(1.072)	2117742	24.3671	24.37

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	64 Fluoranthene	202	17.393	17.388	(1.129)	1913403	24.8208	24.82
	65 Pyrene	202	17.746	17.751	(0.899)	1940803	23.7083	23.71
$	66 Terphenyl-d14	244	18.061	18.061	(0.915)	1028902	19.1792	19.18
	67 Butylbenzylphthalate	149	18.942	18.948	(0.960)	861716	24.4488	24.45
	68 Benzo(a)anthracene	228	19.712	19.712	(0.999)	1525482	23.6826	23.68
*	69 Chrysene-d12	240	19.738	19.738	(1.000)	1322308	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.722	19.722	(0.999)	1039691	49.1940	49.19
	71 Chrysene	228	19.781	19.781	(1.002)	1588002	23.9761	23.98
	72 bis(2-Ethylhexyl)phthalate	149	19.941	19.947	(0.955)	1200389	23.5863	23.59
*	134 Di-n-octylphthalate-d4	153	20.876	20.882	(1.000)	1722164	20.0000	
	73 Di-n-octylphthalate	149	20.887	20.887	(1.000)	1900855	21.5216	21.52
	74 Benzo(b)fluoranthene	252	21.373	21.378	(0.976)	1677578	23.0958	23.10
	75 Benzo(k)fluoranthene	252	21.410	21.410	(0.978)	1890881	24.9502	24.95
	76 Benzo(a)pyrene	252	21.827	21.827	(0.997)	1369163	20.9888	20.99
*	77 Perylene-d12	264	21.902	21.907	(1.000)	1409684	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	23.451	23.451	(1.071)	2043436	23.6138	23.61
	79 Dibenzo(a,h)anthracene	278	23.472	23.473	(1.072)	1706554	23.9857	23.99
	80 Benzo(g,h,i)perylene	276	23.878	23.879	(1.090)	1735085	22.6964	22.70
	90 N-Nitrosodimethylamine	74	3.407	3.402	(0.421)	1243879	51.0683	51.07
	91 Aniline	93	7.649	7.649	(0.945)	538084	10.3188	10.32
	93 Benzidine	184	13.178	13.173	(0.668)	946484	58.2268	58.23
	103 Pyridine	79	3.386	3.375	(0.418)	49582	1.11215	1.112
	105 1-methylnaphthalene	141	11.485	11.479	(1.131)	1058904	21.2022	21.20
	111 Azobenzene (1,2-DP-Hydrazine)	77	14.177	14.172	(1.088)	1476145	22.9665	22.97
	187 Total Benzofluoranthenes	252	21.410	21.410	(0.978)	3382175	47.9745	47.97

TX57 0051

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 11291105.D
Lab Smp Id: TW99LCSDW1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20111129.b/SW846112111.m
Misc Info: 11-26350

Calibration Date: 29-NOV-2011
Calibration Time: 11:58
Client Smp ID: TW99LCSDW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	393702	196851	787404	514026	30.56
27 Naphthalene-d8	1422023	711012	2844046	1936339	36.17
42 Acenaphthene-d10	754629	377314	1509258	1049534	39.08
59 Phenanthrene-d10	1068116	534058	2136232	1501430	40.57
69 Chrysene-d12	993839	496920	1987678	1322308	33.05
134 Di-n-octylphthala	1256584	628292	2513168	1722164	37.05
77 Perylene-d12	976441	488220	1952882	1409684	44.37

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.10	7.60	8.60	8.10	0.00
27 Naphthalene-d8	10.15	9.65	10.65	10.15	0.00
42 Acenaphthene-d10	13.02	12.52	13.52	13.03	0.04
59 Phenanthrene-d10	15.41	14.91	15.91	15.41	0.00
69 Chrysene-d12	19.74	19.24	20.24	19.74	0.00
134 Di-n-octylphthala	20.88	20.38	21.38	20.88	-0.03
77 Perylene-d12	21.91	21.41	22.41	21.90	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Boeing
Sample Matrix: LIQUID
Lab Smp Id: TW99LCSDW1
Level: LOW
Data Type: MS DATA
SpikeList File: LLLCS.spk
Sublist File: LLMBLCS.sub
Method File: /chem2/nt6.i/20111129.b/SW846112111.m
Misc Info: 11-26350

Client SDG: TW99
Fraction: SV
Client Smp ID: TW99LCSDW1
Operator: JZ
SampleType: LCSD
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
3	Phenol	25.00	21.48	85.90	50-100
4	Bis(2-Chloroethyl)	25.00	20.30	81.19	52-100
6	2-Chlorophenol	25.00	20.48	81.91	56-100
7	1,3-Dichlorobenzen	25.00	15.30	61.18	23-100
9	1,4-Dichlorobenzen	25.00	15.84	63.35	25-100
11	Benzyl alcohol	25.00	22.37	89.48	19-100
12	1,2-Dichlorobenzen	25.00	16.73	66.92	30-100
13	2-Methylphenol	25.00	20.02	80.08	52-100
14	2,2'-oxybis(1-Chlo	25.00	19.58	78.32	32-111
15	4-Methylphenol	50.00	40.55	81.10	53-102
16	N-Nitroso-di-n-pro	25.00	18.90	75.58	43-104
17	Hexachloroethane	25.00	13.14	52.58	12-100
19	Nitrobenzene	25.00	20.12	80.46	33-125
20	Isophorone	25.00	23.16	92.65	57-115
21	2-Nitrophenol	25.00	20.81	83.22	56-102
22	2,4-Dimethylphenol	75.00	42.36	56.48	29-100
23	Bis(2-Chloroethoxy	25.00	20.22	80.89	54-101
24	Benzoic acid	137.5	59.90	43.57	10-131
25	2,4-Dichlorophenol	75.00	55.71	74.28	56-104
26	1,2,4-Trichloroben	25.00	16.54	66.15	27-100
28	Naphthalene	25.00	19.96	79.83	45-100
29	4-Chloroaniline	75.00	51.17	68.23	10-139
30	Hexachlorobutadien	25.00	12.40	49.61	10-100
31	4-Chloro-3-methylp	75.00	62.70	83.60	53-109
32	2-Methylnaphthalen	25.00	20.28	81.13	46-100
33	Hexachlorocyclopen	75.00	29.21	38.95	10-100
34	2,4,6-Trichlorophe	75.00	64.59	86.12	58-108
35	2,4,5-Trichlorophe	75.00	66.22	88.29	58-107
37	2-Chloronaphthalen	25.00	21.13	84.51	56-104
38	2-Nitroaniline	75.00	70.97	94.63	50-107
39	Dimethylphthalate	25.00	22.97	91.86	58-107
40	Acenaphthylene	25.00	21.76	87.03	57-100
41	2,6-Dinitrotoluene	75.00	68.46	91.29	58-112

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43	3-Nitroaniline	75.00	71.73	95.63	21-150
44	Acenaphthene	25.00	21.80	87.21	51-100
45	2,4-Dinitrophenol	137.5	118.1	85.92	12-169
46	Dibenzofuran	25.00	22.44	89.74	57-100
47	4-Nitrophenol	75.00	82.39	109.85	35-119
48	2,4-Dinitrotoluene	75.00	69.15	92.19	58-117
49	Fluorene	25.00	23.34	93.35	56-104
50	Diethylphthalate	25.00	23.54	94.16	52-111
51	4-Chlorophenyl-phe	25.00	22.17	88.68	55-104
52	4-Nitroaniline	75.00	71.99	95.99	49-112
53	4,6-Dinitro-2-meth	137.5	130.9	95.18	13-139
54	N-Nitrosodiphenyla	25.00	17.47	69.87	60-136
56	4-Bromophenyl-phen	25.00	22.33	89.33	50-103
57	Hexachlorobenzene	25.00	22.60	90.41	54-106
58	Pentachlorophenol	75.00	76.64	102.18	46-114
60	Phenanthrene	25.00	23.48	93.93	56-102
61	Anthracene	25.00	21.85	87.38	56-101
62	Carbazole	25.00	22.89	91.56	60-108
63	Di-n-butylphthalat	25.00	24.37	97.47	56-112
64	Fluoranthene	25.00	24.82	99.28	57-110
65	Pyrene	25.00	23.71	94.83	48-119
67	Butylbenzylphthala	25.00	24.45	97.80	51-114
68	Benzo(a)anthracene	25.00	23.68	94.73	55-105
70	3,3'-Dichlorobenzi	75.00	49.19	65.59	10-128
71	Chrysene	25.00	23.98	95.90	55-104
72	bis(2-Ethylhexyl)p	25.00	23.59	94.35	28-164
73	Di-n-octylphthalat	25.00	21.52	86.09	57-107
74	Benzo(b)fluoranthe	25.00	23.10	92.38	53-112
75	Benzo(k)fluoranthe	25.00	24.95	99.80	50-116
76	Benzo(a)pyrene	25.00	20.99	83.96	45-103
78	Indeno(1,2,3-cd)py	25.00	23.61	94.46	35-118
79	Dibenzo(a,h)anthra	25.00	23.99	95.94	42-119
80	Benzo(g,h,i)peryle	25.00	22.70	90.79	39-123
91	Aniline	25.00	10.32	41.28	10-100
111	Azobenzene (1,2-DP	25.00	22.97	91.87	57-109
90	N-Nitrosodimethyla	75.00	51.07	68.09	49-100
105	1-methylnaphthalen	25.00	21.20	84.81	46-100
144	alpha-Terpineol	25.00	0.000	*	30-160
187	Total Benzofluoran	50.00	47.97	95.95	30-160

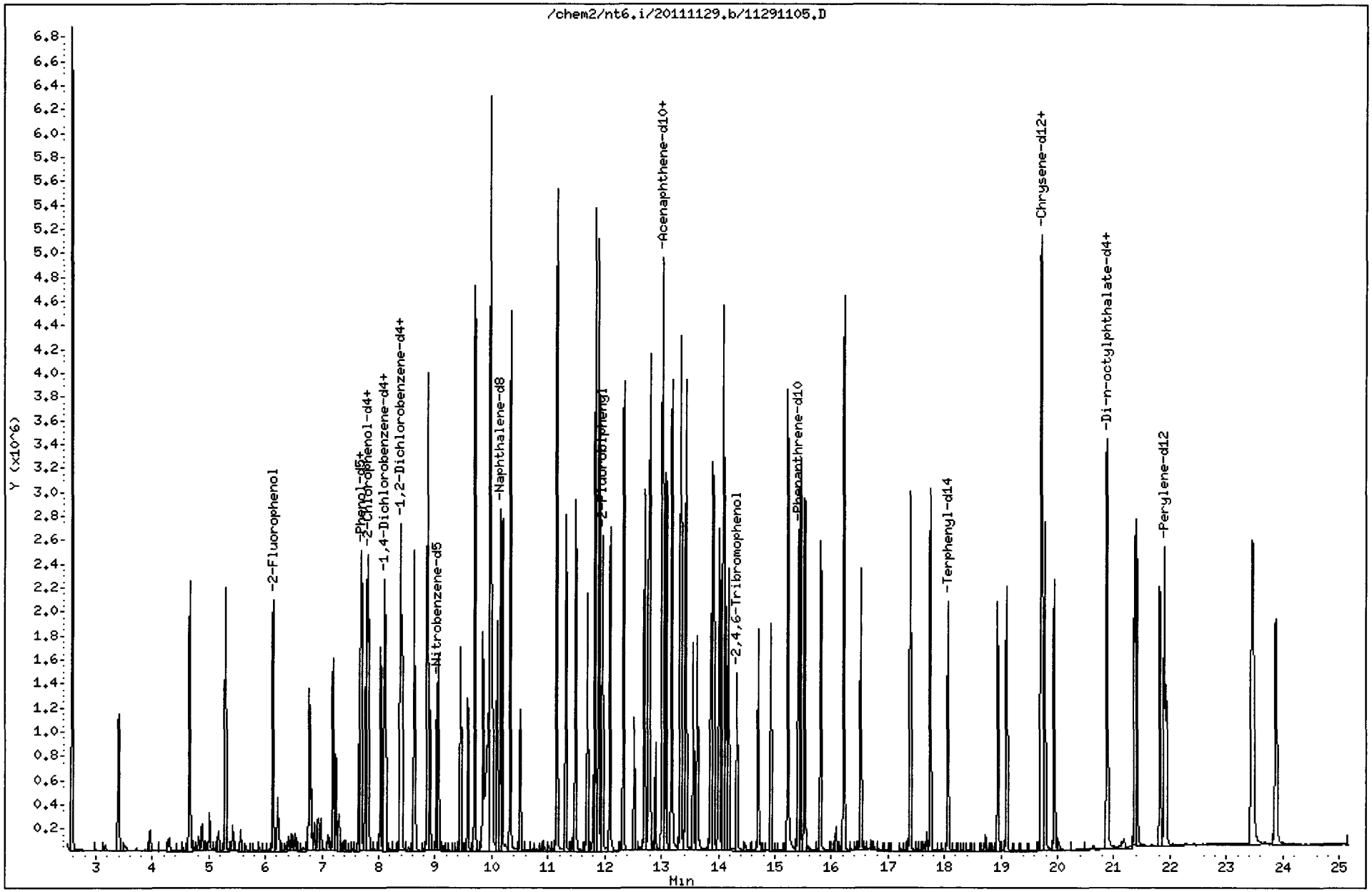
SURROGATE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	37.50	25.15	67.08	46-100

11/30/11

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 2 Phenol-d5	37.50	27.22	72.60	50-100
$ 5 2-Chlorophenol-d4	37.50	26.70	71.20	53-100
$ 10 1,2-Dichlorobenzen	25.00	14.61	58.43	38-100
$ 18 Nitrobenzene-d5	25.00	17.53	70.13	46-100
$ 36 2-Fluorobiphenyl	25.00	18.21	72.85	49-100
$ 55 2,4,6-Tribromophen	37.50	33.45	89.20	52-123
$ 66 Terphenyl-d14	25.00	19.18	76.72	53-119

Data File: /chem2/nt6.i/20111129.b/11291105.D
Date : 29-NOV-2011 13:37
Client ID: TW99LCSDW1
Sample Info: TW99LCSDW1,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



TX57 00515

CO-ELUTION SUMMARY FOR FILE - 11291105.D

Lab ID: TW99LCSDW1, Method: SW846112111.m, Instrument: nt6.i, Date: 29-NOV-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20111129.b/11291110.D
Lab Smp Id: TX57P Client Smp ID: RB0003
Inj Date : 29-NOV-2011 16:21
Operator : JZ Inst ID: nt6.i
Smp Info : TX57P
Misc Info : 11-26634
Comment : 1ul Injection
Method : /chem2/nt6.i/20111129.b/SW846112111.m
Meth Date : 30-Nov-2011 15:51 jianqing Quant Type: ISTD
Cal Date : 21-NOV-2011 14:26 Cal File: 11211107.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: LL.sub
Target Version: 3.50

11/30/11

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
$	1	2-Fluorophenol	112	6.133	6.132	(0.758)	844691	20.3585	20.36
$	2	Phenol-d5	99	7.677	7.681	(0.948)	1124141	22.0195	22.02
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	7.800	7.799	(0.964)	889493	22.2650	22.27
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.093	8.098	(1.000)	567335	20.0000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.393	8.397	(1.037)	366887	13.2792	13.28
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.028	9.033	(0.889)	635095	14.6808	14.68
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.150	10.155	(1.000)	2098683	20.0000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	141	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	11.956	11.955	(0.918)	1129906	14.5073	14.51
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	13.024	13.023	(1.000)	1171622	20.0000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	14.322	14.322	(1.100)	211510	25.9338	25.93
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	15.412	15.411	(1.000)	1602523	20.0000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	Compound Not Detected.					
	62 Carbazole	167	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	64 Fluoranthene	202	Compound Not Detected.					
	65 Pyrene	202	Compound Not Detected.					
$	66 Terphenyl-d14	244	18.062	18.061	(0.915)	969876	19.6713	19.67
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	19.734	19.738	(1.000)	1215271	20.0000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	19.942	19.947	(0.955)	69631	1.46826	1.468
*	134 Di-n-octylphthalate-d4	153	20.877	20.882	(1.000)	1604761	20.0000	
	73 Di-n-octylphthalate	149	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	21.903	21.907	(1.000)	1283846	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.					
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	141	Compound Not Detected.					
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 11291110.D
Lab Smp Id: TX57P
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20111129.b/SW846112111.m
Misc Info: 11-26634

Calibration Date: 29-NOV-2011
Calibration Time: 11:58
Client Smp ID: RB0003
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	393702	196851	787404	567335	44.10
27 Naphthalene-d8	1422023	711012	2844046	2098683	47.58
42 Acenaphthene-d10	754629	377314	1509258	1171622	55.26
59 Phenanthrene-d10	1068116	534058	2136232	1602523	50.03
69 Chrysene-d12	993839	496920	1987678	1215271	22.28
134 Di-n-octylphthala	1256584	628292	2513168	1604761	27.71
77 Perylene-d12	976441	488220	1952882	1283846	31.48

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.10	7.60	8.60	8.09	-0.05
27 Naphthalene-d8	10.15	9.65	10.65	10.15	-0.04
42 Acenaphthene-d10	13.02	12.52	13.52	13.02	0.01
59 Phenanthrene-d10	15.41	14.91	15.91	15.41	0.01
69 Chrysene-d12	19.74	19.24	20.24	19.73	-0.02
134 Di-n-octylphthala	20.88	20.38	21.38	20.88	-0.02
77 Perylene-d12	21.91	21.41	22.41	21.90	-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: INTEGRAL
Sample Matrix: LIQUID
Lab Smp Id: TX57P
Level: LOW
Data Type: MS DATA
SpikeList File: LLLCS.spk
Sublist File: LL.sub
Method File: /chem2/nt6.i/20111129.b/SW846112111.m
Misc Info: 11-26634

Client SDG: TX57
Fraction: SV
Client Smp ID: RB0003
Operator: JZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	37.50	20.36	54.29	38-100
$ 2 Phenol-d5	37.50	22.02	58.72	41-100
$ 5 2-Chlorophenol-d4	37.50	22.27	59.37	44-100
$ 10 1,2-Dichlorobenzen	25.00	13.28	53.12	32-100
$ 18 Nitrobenzene-d5	25.00	14.68	58.72	39-100
$ 36 2-Fluorobiphenyl	25.00	14.51	58.03	42-100
$ 55 2,4,6-Tribromophen	37.50	25.93	69.16	48-118
$ 66 Terphenyl-d14	25.00	19.67	78.69	28-121

Data File: /chem2/nt6.i/20111129.b/11291110.D

Date : 29-NOV-2011 16:21

Client ID: RB0003

Sample Info: TX57P

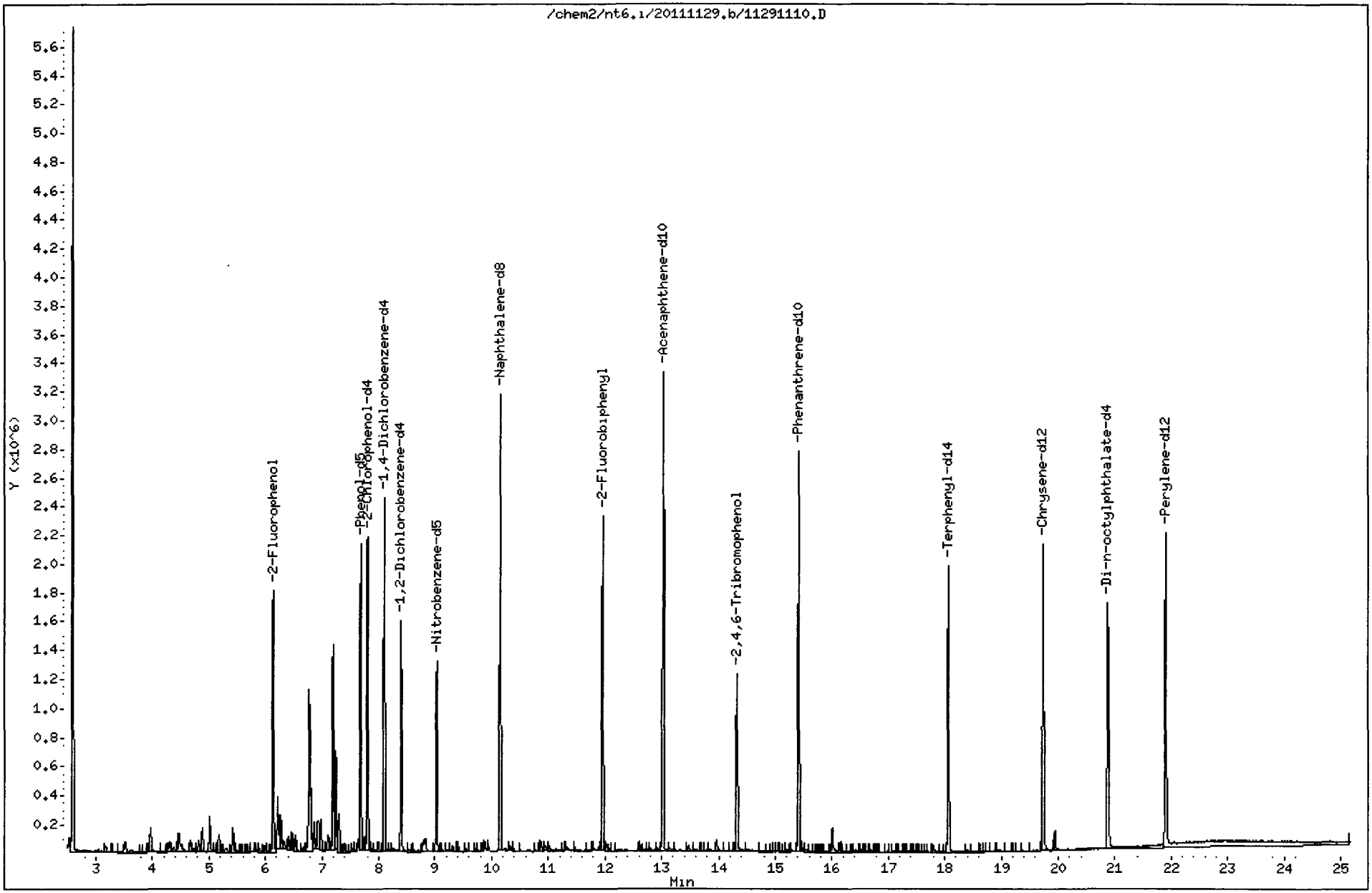
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ

Column diameter: 0.32



TX57 00526

Data File: /chem2/nt6.i/20111129.b/11291110.D

Date : 29-NOV-2011 16:21

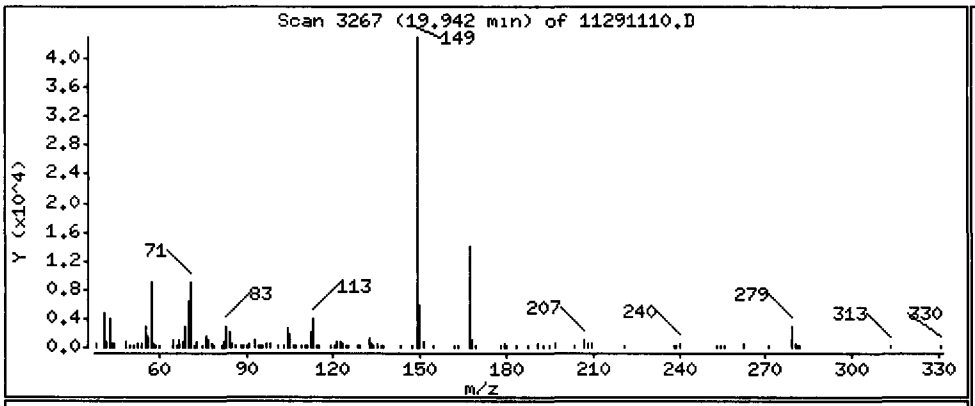
Client ID: RB0003 Instrument: nt6.i

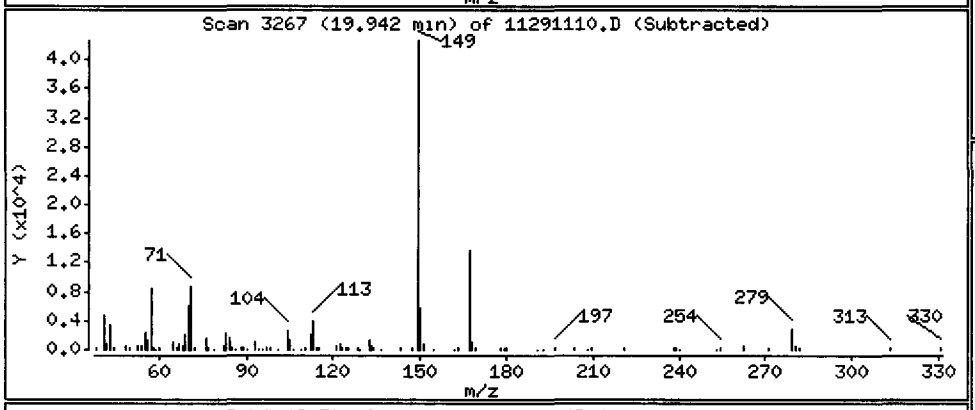
Sample Info: TX57P

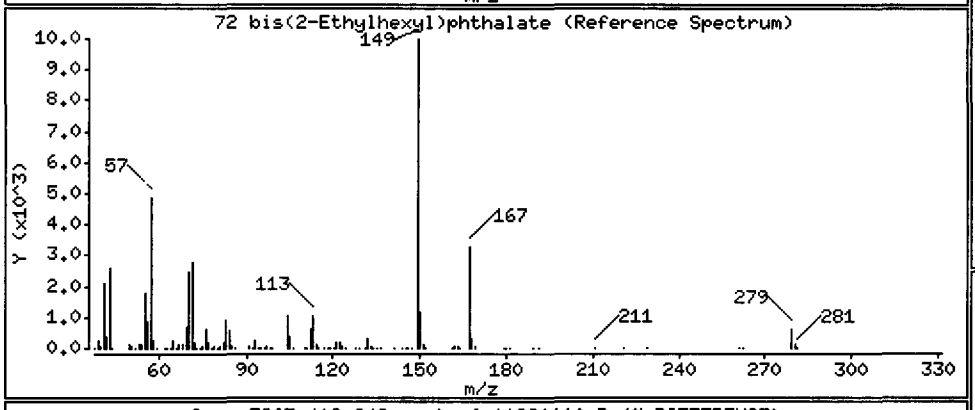
Volume Injected (uL): 1.0 Operator: JZ

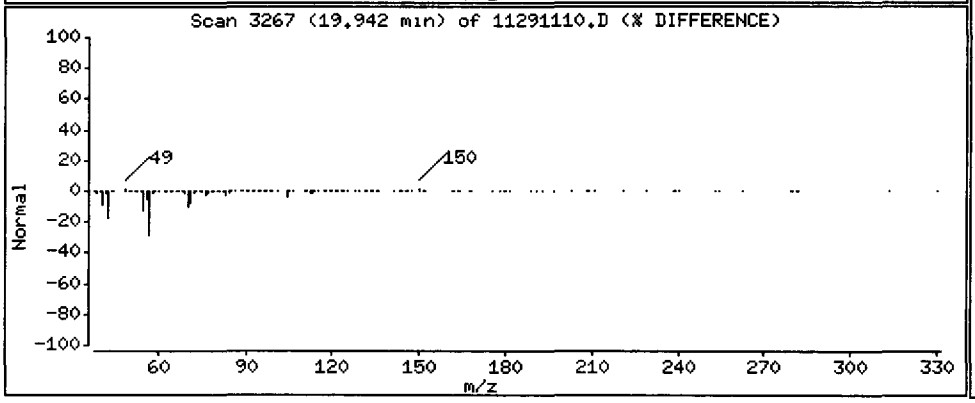
Column phase: ZB-5msi Column diameter: 0.32

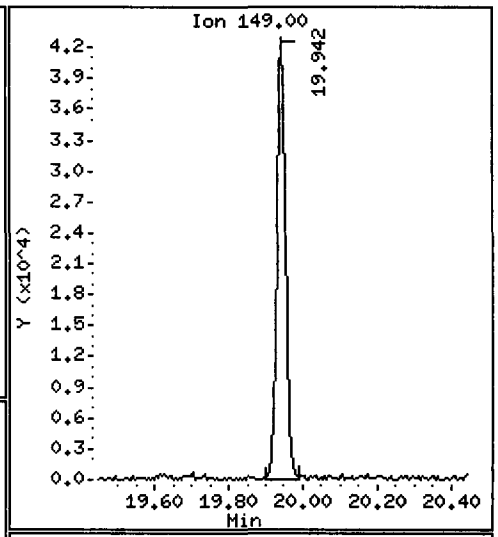
72 bis(2-Ethylhexyl)phthalate Concentration: 1.468 ug/L

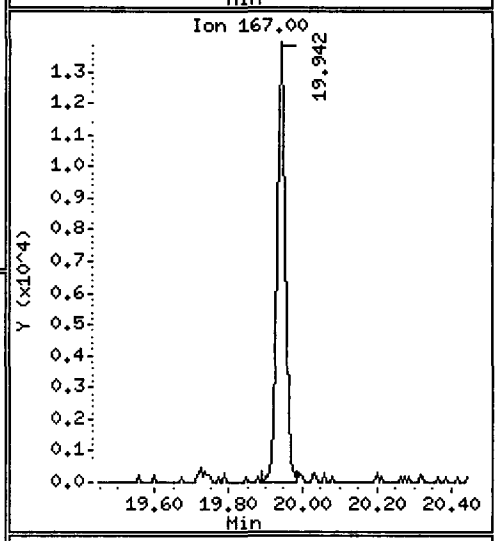


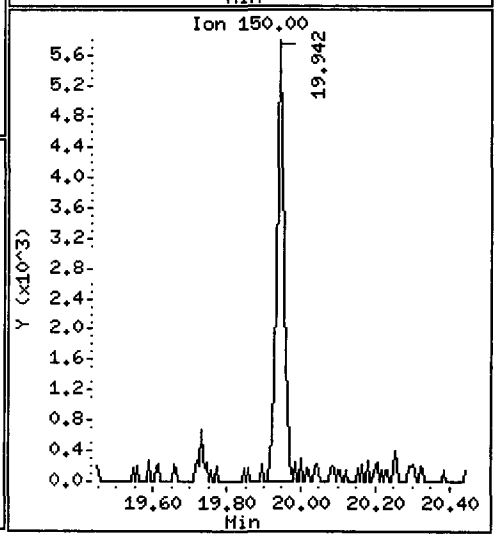












CO-ELUTION SUMMARY FOR FILE - 11291110.D

Lab ID: TX57P, Method: SW846112111.m, Instrument: nt6.i, Date: 29-NOV-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20111129.b/11291111.D
Lab Smp Id: TX57Q Client Smp ID: WB0002
Inj Date : 29-NOV-2011 16:54
Operator : JZ Inst ID: nt6.i
Smp Info : TX57Q
Misc Info : 11-26635
Comment : 1ul Injection
Method : /chem2/nt6.i/20111129.b/SW846112111.m
Meth Date : 30-Nov-2011 15:51 jianqing Quant Type: ISTD
Cal Date : 21-NOV-2011 14:26 Cal File: 11211107.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: LL.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.131	6.132	(0.757)	1119290	25.3456	25.35
$ 2	Phenol-d5	99	7.681	7.681	(0.949)	1512372	27.8328	27.83
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.798	7.799	(0.963)	1157031	27.2105	27.21
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.097	8.098	(1.000)	603848	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.397	8.397	(1.037)	479316	16.2995	16.30
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.027	9.033	(0.889)	861079	18.4303	18.43
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.149	10.155	(1.000)	2266578	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					
34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$ 36	2-Fluorobiphenyl	172	11.954	11.955	(0.918)	1468670	17.3807	17.38
37	2-Chloronaphthalene	162	Compound Not Detected.					
38	2-Nitroaniline	65	Compound Not Detected.					
39	Dimethylphthalate	163	Compound Not Detected.					
40	Acenaphthylene	152	Compound Not Detected.					
41	2,6-Dinitrotoluene	165	Compound Not Detected.					
* 42	Acenaphthene-d10	164	13.023	13.023	(1.000)	1271130	20.0000	
43	3-Nitroaniline	138	Compound Not Detected.					
44	Acenaphthene	153	Compound Not Detected.					
45	2,4-Dinitrophenol	184	Compound Not Detected.					
46	Dibenzofuran	168	Compound Not Detected.					
47	4-Nitrophenol	109	Compound Not Detected.					
48	2,4-Dinitrotoluene	165	Compound Not Detected.					
50	Diethylphthalate	149	Compound Not Detected.					
49	Fluorene	166	Compound Not Detected.					
51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
52	4-Nitroaniline	138	Compound Not Detected.					
53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$ 55	2,4,6-Tribromophenol	330	14.321	14.322	(1.100)	257703	29.1241	29.12
56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
57	Hexachlorobenzene	284	Compound Not Detected.					
58	Pentachlorophenol	266	Compound Not Detected.					
* 59	Phenanthrene-d10	188	15.405	15.411	(1.000)	1752279	20.0000	
60	Phenanthrene	178	Compound Not Detected.					
61	Anthracene	178	Compound Not Detected.					
62	Carbazole	167	Compound Not Detected.					
63	Di-n-butylphthalate	149	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	64 Fluoranthene	202	Compound Not Detected.					
	65 Pyrene	202	Compound Not Detected.					
$	66 Terphenyl-d14	244	18.060	18.061	(0.915)	1148841	20.4712	20.47
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	19.738	19.738	(1.000)	1383264	20.0000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134 Di-n-octylphthalate-d4	153	20.876	20.882	(1.000)	1819575	20.0000	
	73 Di-n-octylphthalate	149	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	21.901	21.907	(1.000)	1387856	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.					
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	141	Compound Not Detected.					
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 11291111.D
Lab Smp Id: TX57Q
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20111129.b/SW846112111.m
Misc Info: 11-26635

Calibration Date: 29-NOV-2011
Calibration Time: 11:58
Client Smp ID: WB0002
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	393702	196851	787404	603848	53.38
27 Naphthalene-d8	1422023	711012	2844046	2266578	59.39
42 Acenaphthene-d10	754629	377314	1509258	1271130	68.44
59 Phenanthrene-d10	1068116	534058	2136232	1752279	64.05
69 Chrysene-d12	993839	496920	1987678	1383264	39.18
134 Di-n-octylphthala	1256584	628292	2513168	1819575	44.80
77 Perylene-d12	976441	488220	1952882	1387856	42.13

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.10	7.60	8.60	8.10	-0.01
27 Naphthalene-d8	10.15	9.65	10.65	10.15	-0.06
42 Acenaphthene-d10	13.02	12.52	13.52	13.02	0.00
59 Phenanthrene-d10	15.41	14.91	15.91	15.41	-0.04
69 Chrysene-d12	19.74	19.24	20.24	19.74	0.00
134 Di-n-octylphthala	20.88	20.38	21.38	20.88	-0.03
77 Perylene-d12	21.91	21.41	22.41	21.90	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

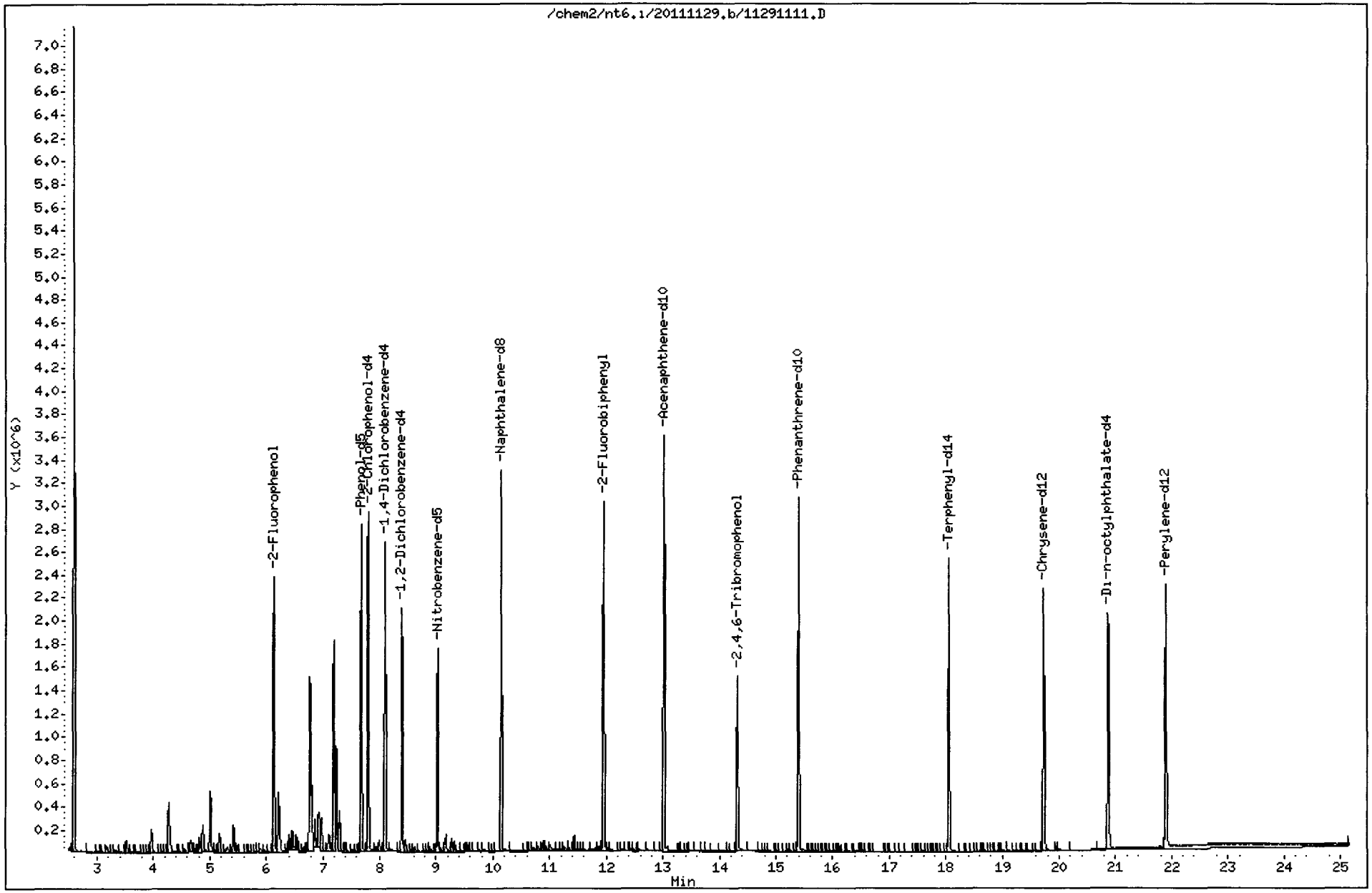
RECOVERY REPORT

Client Name: INTEGRAL
Client SDG: TX57
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: TX57Q
Client Smp ID: WB0002
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: LLLCS.spk
Quant Type: ISTD
Sublist File: LL.sub
Method File: /chem2/nt6.i/20111129.b/SW846112111.m
Misc Info: 11-26635

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	37.50	25.35	67.59	38-100
$ 2 Phenol-d5	37.50	27.83	74.22	41-100
$ 5 2-Chlorophenol-d4	37.50	27.21	72.56	44-100
$ 10 1,2-Dichlorobenzen	25.00	16.30	65.20	32-100
$ 18 Nitrobenzene-d5	25.00	18.43	73.72	39-100
$ 36 2-Fluorobiphenyl	25.00	17.38	69.52	42-100
$ 55 2,4,6-Tribromophen	37.50	29.12	77.66	48-118
$ 66 Terphenyl-d14	25.00	20.47	81.88	28-121

Data File: /chem2/nt6.i/20111129.b/11291111.D
Date : 29-NOV-2011 16:54
Client ID: WB0002
Sample Info: TX57Q
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



CO-ELUTION SUMMARY FOR FILE - 11291111.D

Lab ID: TX57Q, Method: SW846112111.m, Instrument: nt6.i, Date: 29-NOV-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: TX57 Client ID: Integral Consulting

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): SVOA Reddle

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date: ~~12/8/11~~ 10/11/11 Analysis Start Date: 12/6/11

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	CCal acceptable?	YES / NO
Q flag applied?	YES / NO	Q flag applied?	YES / NO
Surrogate Recovery in Control?	YES / NO	Special Analysis Criteria Met?	YES / NO / NA
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	Yes / NO

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

- Samples E, H, I, J, D, L, O were run at dilution, beef matrix, dark colour of the extracts.
- Sample "G": d-4-2-Chlorophenol, 2,4,6 Tribromophenol surrogates recoveries are below QC.

Additional Details on Reverse: Yes / No

Analyst: YZ **Date:** 12/9/11

Reviewer: [signature] **Date:** 12/9/11

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 12/06/11 Analysis: 8BN Analyst: YZ

GC Program: ABN2 Column No: 227807 Column Type: ZB5ms

Instrument Tune (.U or .CT.): 111007.U EM Voltage: 2400

Calibration File: DF1206A Curve Date: 10/4/11 Injection Vol.: 1ul

IS/SS	Ical/Ccal	LCS/ICV
1875-1	1890-1 1891-1	
	1891-2 1892-1	

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20111206.b

	Time	Filename	LabID	ClientId	DF															
1	1345	df1206a.d	DFTPP	DFTPP	1	NO ISTDS FOUND														
2	1400	cc1206.d	CC1206		1	8	18	219718	10	60	736249	14	13	609934	17	11	1225974	21.96	1653515	24	23	1658921	23.05	1402440
3	1434	tw89a2.d	TW89A	IT-MW-13B(6	2	8	18	192239	10.60		729956	14	13	506321	17	11	1087655	21	97	1708075	24	26	1729577	23	06	1379003
4	1508	tx57mb.d	TX57MBS1	TX57MBS1	1	8	18	177732	10	60	598658	14	13	480560	17	10	1021560	21.96	1202386	24	23	1315981	23	05	987795
5	1543	tx57sb.d	TX57LCSS1	TX57LCSS1	1	8	17	183200	10	59	683714	14	13	556073	17	11	1110987	21.96	1457352	24	23	1518674	23.05	1230802
6	1617	tx57a.d	TX57A	SD0012	1	8	18	193167	10	60	710987	14	13	499082	17	11	1027336	21.96	1587333	24	25	1684808	23	06	1354819
7	1651	tw89a20.d	TW89A	IT-MW-13B(6	20	8	18	186070	10	60	662243	14	14	496266	17	11	995250	21.96	1422760	24	24	1560064	23	06	1189104
8	1725	tx57b.d	TX57B	SD0013	1	8	18	186305	10	60	669543	14	13	466692	17	11	972614	21	96	1556369	24	26	1627525	23.06	1311247
9	1759	tx57c.d	TX57C	SD0014	1	8	18	195487	10	60	677257	14	14	479535	17	11	1041839	21.97	1596972	24	26	1688505	23.06	1339082
10	1834	tx57d.d	TX57D	SD0015	1	8	18	189718	10	60	622392	14	14	468483	17	13	1146441	21	99	1827108	24	29	1742143	23.08	1602316
11	1908	tx57dms.d	TX57DMS	SD0015 MS	1	8	18	191255	10	61	628932	14	14	507095	17	13	1159255	22.01	1883863	24	32	1806878	23	09	1847892
12	1942	tx57dmsd.d	TX57DMSD	SD0015 MSD	1	8	18	182229	10	61	597207	14	14	466118	17	14	1187263	22	01	1813238	24	32	1606636	23.09	1752079
13	2016	tx57e.d	TX57E	SD0016	3	8	18	200088	10	60	674067	14	14	465230	17	12	977321	21	98	1629941	24	28	1576818	23	07	1540293
14	2050	tx57f.d	TX57F	SD0017	1	8	18	186745	10.61		649840	14	14	473107	17	12	983239	21	97	1556491	24	26	1471800	23	07	1319715
15	2124	tx57g.d	TX57G	SD0018	1	8	18	182024	10	60	622988	14.14		501203	17	12	1077078	21	97	1460641	24	25	1415715	23.06	1193476
16	2158	tx57h.d	TX57H	SD0019	3	8	18	169600	10	60	580460	14.14		432785	17.12		909892	21	97	1402473	24	28	1195073	23	07	1187443
17	2232	tx57i.d	TX57I	SD0020	3	8	18	198076	10	61	660335	14.14		450383	17	13	969507	21	98	1544733	24	28	1457386	23	07	1471823
18	2306	tx57j.d	TX57J	SD0021	3	8	18	198992	10	61	725337	14.14		517098	17	12	1000723	21	98	1681864	24	28	1456035	23	07	1454966
19	2340	tx57k.d	TX57K	SD0022	1	8	18	190439	10	60	680811	14.14		523448	17	12	1061162	21	97	1536014	24.26		1406700	23.06		1271804
20	0014	tx57l.d	TX57L	SD0023	1	8	18	178371	10	61	612806	14	14	466700	17.13		851309	21	98	1459310	24	27	1324024	23.07		1187807
21	0048	tx57m.d	TX57M	SD0024	1	8	18	186410	10	61	624489	14.14		438423	17	12	884829	21	97	1417823	24	26	1227059	23	06	1203660
22	0122	tx57n.d	TX57N	SD0011	1	8	18	181658	10	61	613576	14.14		423970	17	13	1023816	21	99	1605041	24	28	1452118	23	08	1408505

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

YZ 12/7/11

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt10.i/20111206.b

ARI Job No.: TX57 Method: ABN.m Instrument: nt10.i Date: 06-DEC-2011

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1508	tx57mb.d	TX57MBS1	TX57MBS1	1	NO MANUAL INTEGRATION
1543	tx57sb.d	TX57LCSS1	TX57LCSS1	1	NO MANUAL INTEGRATION
1617	tx57a.d	TX57A	SD0012	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,
1725	tx57b.d	TX57B	SD0013	1	Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,
1759	tx57c.d	TX57C	SD0014	1	Benzo(k)fluoranthene,
1908	tx57dms.d	TX57DMS	SD0015 MS	1	Dibenzo(a,h)anthracene,
1942	tx57dmsd.d	TX57DMSD	SD0015 MSD	1	4-Nitrophenol, Fluoranthene, Aniline, Azobenzene (1,2-DP-Hydrazine),
2016	tx57e.d	TX57E	SD0016	3	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Total Benzofluoranthenes,
2050	tx57f.d	TX57F	SD0017	1	Total Benzofluoranthenes,
2124	tx57g.d	TX57G	SD0018	1	Total Benzofluoranthenes,
2158	tx57h.d	TX57H	SD0019	3	Benzo(b)fluoranthene,
2232	tx57i.d	TX57I	SD0020	3	NO MANUAL INTEGRATION
2306	tx57j.d	TX57J	SD0021	3	Benzo(a)pyrene,
2340	tx57k.d	TX57K	SD0022	1	NO MANUAL INTEGRATION
2048	tx57m.d	TX57M	SD0024	1	Benzo(k)fluoranthene, Total Benzofluoranthenes,
0122	tx57n.d	TX57N	SD0011	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)perylene,
1233	tx57d3.d	TX57D	SD0015	3	N-Nitrosodiphenylamine,
1307	tx57l3.d	TX57L	SD0023	3	Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,
1341	tx57o3.d	TX57O	SD0010	3	Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20111206.b

Instrument: nt10.i Date: 06-DEC-2011 Method: ABN.m

INITIAL CAL: 11-OCT-2011

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 06-DEC-2011

Compound	%D
~~2,4-Dinitrophenol~~	~~27.2~~
~~4-Chlorophenyl-phenylether~~	~~26.3~~
Nitrobenzene-d5	25.6

Data File: /chem1/nt10.i/20111206.b/df1206a.d

Date : 06-DEC-2011 13:45

Client ID: DFTPP

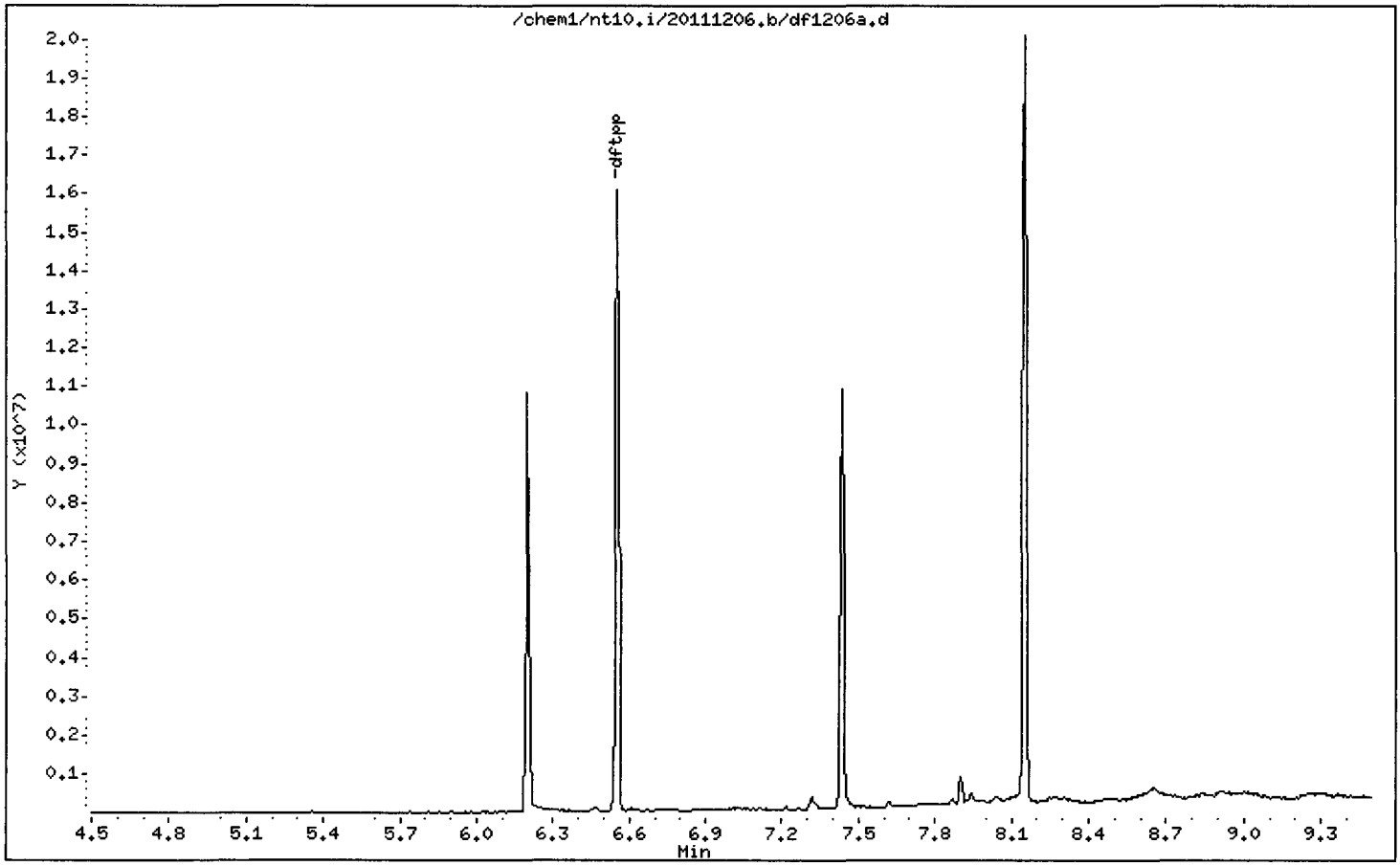
Instrument: nt10.i

Sample Info: DFTPP

Operator: JZ

Column phase: ZB-5ms1

Column diameter: 0.25



TX57.00510

Data File: /chem1/nt10.i/20111206.b/df1206a.d

Date : 06-DEC-2011 13:45

Client ID: DFTPP

Instrument: nt10.i

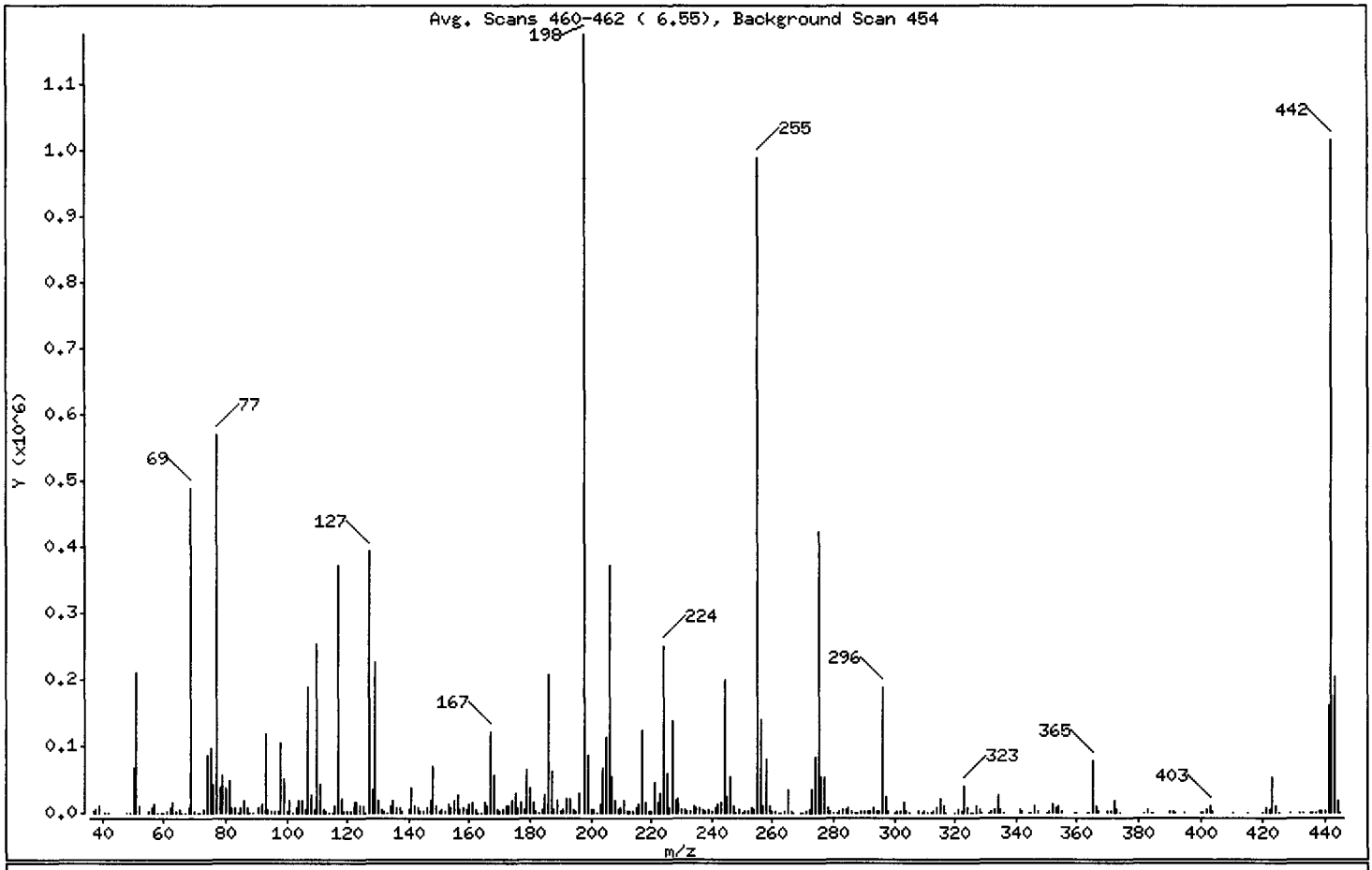
Sample Info: DFTPP

Operator: JZ

Column phase: ZB-5ms1

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	17.90
68	Less than 2.00% of mass 69	0.60 (1.45)
69	Mass 69 relative abundance	41.58
70	Less than 2.00% of mass 69	0.33 (0.80)
127	10.00 - 80.00% of mass 198	33.56
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.35
275	10.00 - 60.00% of mass 198	36.21
365	Greater than 1.00% of mass 198	6.65
441	0.01 - 24.00% of mass 442	13.71 (15.85)
442	50.00 - 200.00% of mass 198	86.50
443	15.00 - 24.00% of mass 442	17.49 (20.22)

TX57:00542

Data File: /chem1/nt10.i/20111206.b/df1206a.d

Date : 06-DEC-2011 13:45

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: JZ

Column phase: ZB-5ms1

Column diameter: 0.25

Data File: df1206a.d

Spectrum: Avg. Scans 460-462 (6.55), Background Scan 454

Location of Maximum: 198.00

Number of points: 349

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	2575	134.00	9678	223.00	30056	315.00	21552
38.00	5386	135.00	18000	224.00	252608	316.00	10439
39.00	10130	136.00	8238	225.00	59432	317.00	421
41.00	515	137.00	8820	226.00	7282	320.00	240
42.00	238	138.00	2368	227.00	138304	321.00	4631
48.00	594	139.00	1165	228.00	17984	322.00	2276
49.00	1301	140.00	4146	229.00	21432	323.00	41648
50.00	67896	141.00	37504	230.00	4785	324.00	7696
51.00	210752	142.00	10464	231.00	5750	325.00	986
52.00	11314	143.00	8388	232.00	1477	326.00	942
55.00	1574	144.00	2055	233.00	3243	327.00	9663
56.00	6905	145.00	1910	234.00	10390	328.00	5714
57.00	13296	146.00	7472	235.00	8893	329.00	424
58.00	700	147.00	18240	236.00	6968	330.00	495
59.00	385	148.00	69360	237.00	5739	331.00	258
60.00	1318	149.00	9492	238.00	1953	332.00	2565
61.00	3161	150.00	3020	239.00	5869	333.00	5866
62.00	8119	151.00	5335	240.00	3491	334.00	27832
63.00	15613	152.00	3501	241.00	8281	335.00	6485
64.00	2063	153.00	13589	242.00	14083	336.00	1020
65.00	4503	154.00	7794	243.00	15640	337.00	57
66.00	1133	155.00	20176	244.00	199424	340.00	253
67.00	1218	156.00	27288	245.00	24400	341.00	4776
68.00	7104	157.00	4418	246.00	53248	342.00	1869
69.00	489408	158.00	7613	247.00	11594	343.00	215
70.00	3899	159.00	5103	248.00	1337	344.00	75
71.00	499	160.00	13835	249.00	5798	345.00	877
72.00	400	161.00	17008	250.00	1286	346.00	11366
73.00	6639	162.00	5785	251.00	3336	347.00	1424
74.00	87384	163.00	1082	252.00	3080	350.00	818
75.00	96984	164.00	911	253.00	8047	351.00	1661
76.00	43488	165.00	15421	254.00	4885	352.00	14560
77.00	571264	166.00	11199	255.00	989568	353.00	8929
78.00	36896	167.00	121624	256.00	141248	354.00	10368
79.00	56272	168.00	57416	257.00	12052	355.00	2571

TX57 - 60542

Data File: /chem1/nt10.i/20111206.b/df1206a.d

Date : 06-DEC-2011 13:45

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1206a.d
Spectrum: Avg. Scans 460-462 (6.55), Background Scan 454
Location of Maximum: 198.00
Number of points: 349

m/z	Y	m/z	Y	m/z	Y	m/z	Y
80.00	37312	169.00	6742	258.00	82032	359.00	1091
81.00	47464	170.00	3264	259.00	11421	360.00	162
82.00	9032	171.00	4864	260.00	2426	361.00	534
83.00	7287	172.00	9954	261.00	1863	363.00	157
84.00	582	173.00	10803	262.00	53	364.00	687
85.00	8389	174.00	18680	263.00	741	365.00	78256
86.00	18328	175.00	30832	264.00	2429	366.00	11861
87.00	7032	176.00	8736	265.00	35504	367.00	1370
88.00	1253	177.00	15027	266.00	2225	368.00	175
89.00	506	178.00	6626	267.00	474	370.00	1707
91.00	9423	179.00	65624	269.00	373	371.00	2968
92.00	12459	180.00	36904	270.00	1330	372.00	19584
93.00	118168	181.00	15271	271.00	2730	373.00	4819
94.00	4878	182.00	3144	272.00	4442	374.00	408
95.00	1660	183.00	1139	273.00	34968	377.00	914
96.00	3435	184.00	5113	274.00	84200	382.00	536
97.00	1919	185.00	26640	275.00	426176	383.00	5828
98.00	104840	186.00	208704	276.00	53320	384.00	1260
99.00	51472	187.00	62848	277.00	52912	385.00	121
100.00	3971	188.00	4621	278.00	6886	390.00	3474
101.00	19344	189.00	20016	279.00	2390	391.00	1568
102.00	751	190.00	3552	280.00	322	392.00	1086
103.00	7293	191.00	6321	281.00	64	395.00	278
104.00	18120	192.00	22928	282.00	2442	400.00	164
105.00	18056	193.00	21360	283.00	5396	401.00	623
106.00	4561	194.00	5774	284.00	4340	402.00	6637
107.00	189120	195.00	2334	285.00	7404	403.00	9492
108.00	27216	196.00	30104	286.00	1996	404.00	4031
109.00	4327	198.00	1177088	287.00	600	410.00	103
110.00	254784	199.00	86528	288.00	168	415.00	255
111.00	43992	200.00	5257	289.00	1964	420.00	184
112.00	6652	201.00	5439	290.00	1833	421.00	7509
113.00	1999	202.00	1104	291.00	2019	422.00	5846
114.00	312	203.00	14346	292.00	3356	423.00	54432
115.00	712	204.00	68584	293.00	9185	424.00	11893

TX57 : 00545

Data File: /chem1/nt10.i/20111206.b/df1206a.d

Date : 06-DEC-2011 13:45

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: JZ

Column phase: ZB-5ms1

Column diameter: 0.25

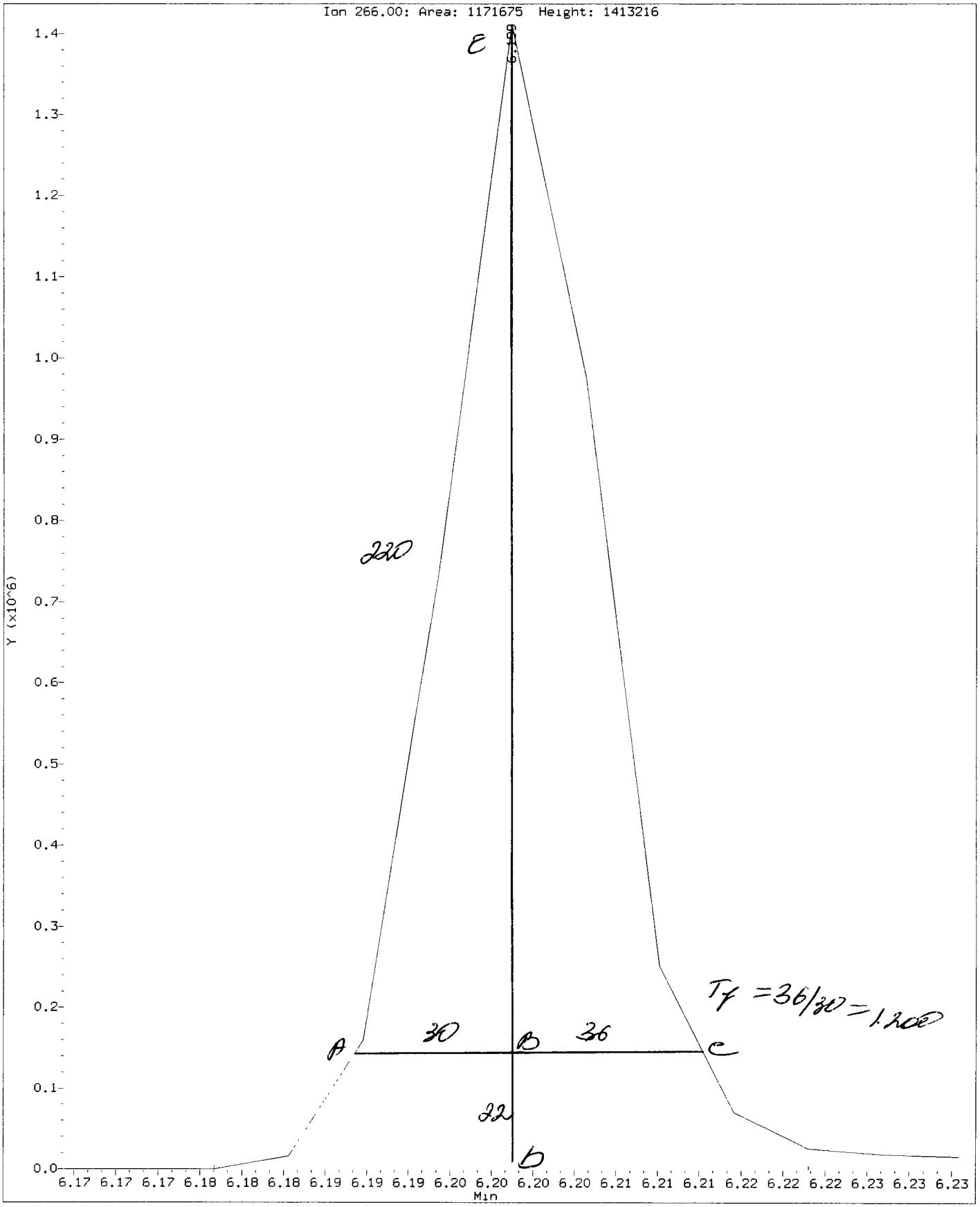
Data File: df1206a.d
Spectrum: Avg. Scans 460-462 (6.55), Background Scan 454
Location of Maximum: 198.00
Number of points: 349

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	12071	205.00	112968	294.00	3177	425.00	360
117.00	373888	206.00	373056	295.00	3616	429.00	272
118.00	21848	207.00	55048	296.00	188928	432.00	344
119.00	2647	208.00	19088	297.00	24704	433.00	506
120.00	2895	209.00	4724	298.00	2189	435.00	359
121.00	1571	210.00	9034	300.00	93	436.00	1107
122.00	15928	211.00	18416	301.00	2578	437.00	237
123.00	17184	212.00	1738	302.00	2750	438.00	1524
124.00	10932	213.00	1559	303.00	17280	439.00	2183
125.00	10537	214.00	1869	304.00	3713	440.00	1676
126.00	579	215.00	7537	305.00	169	441.00	161408
127.00	395072	216.00	13196	308.00	2806	442.00	1018176
128.00	34304	217.00	124624	309.00	1324	443.00	205888
129.00	226688	218.00	16568	310.00	2350	444.00	18264
130.00	18856	219.00	2049	311.00	693	445.00	1307
131.00	4985	220.00	1725	312.00	1097		
132.00	3579	221.00	45648	313.00	2152		
133.00	354	222.00	17208	314.00	8891		

TX57 · 005424

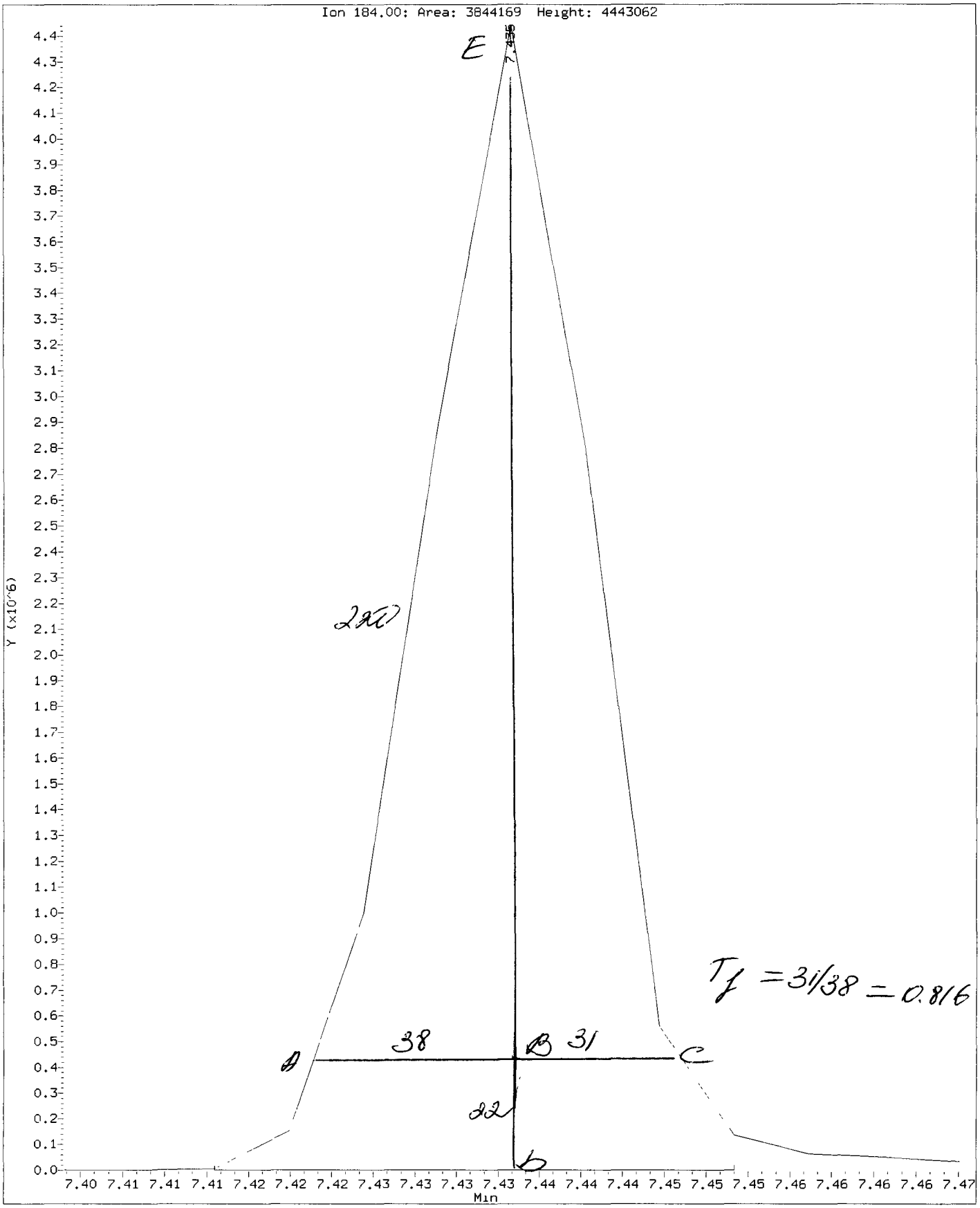
Data File: /chem1/nt10.1/20111206.b/ddt.b/df1206a.d
Injection Date: 06-DEC-2011 13:45
Instrument: nt10.1
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.i/20111206.b/ddt.b/df1206a.d
Injection Date: 06-DEC-2011 13:45
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



TX57 : 00546

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20111206.b/ddt.b/df1206a.d ARI ID: DFTPP
Method: /chem1/nt10.i/20111206.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 06-DEC-2011 13:45 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.199	1171675
Benzidine	7.435	3844169
4,4'-DDE	7.617	14471
4,4'-DDD	7.900	122525
4,4'-DDT	8.152	3122707

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

$$\text{DDT Percent Breakdown} = \frac{(14471 + 122525) * 100}{(14471 + 122525 + 3122707)}$$

DDT Percent Breakdown = 4.2 %

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 06-DEC-2011 14:00
Lab File ID: cc1206.d Init. Cal. Date(s): 11-OCT-2011 21-OCT-2011
Analysis Type: Init. Cal. Times: 12:37 15:42
Lab Sample ID: CC1206 Quant Type: ISTD
Method: /chem1/nt10.i/20111206.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 2-Fluorophenol	0.97809	0.98956	0.98956	0.010	1.17312	20.00000	Averaged	
$ 2 Phenol-d5	1.25614	1.43730	1.43730	0.010	14.42231	20.00000	Averaged	
3 Phenol	1.54900	1.58689	1.58689	0.100	2.44643	20.00000	Averaged	
$ 5 2-Chlorophenol-d4	1.13674	1.26045	1.26045	0.010	10.88290	20.00000	Averaged	
4 Bis(2-Chloroethyl)ether	0.93959	0.92286	0.92286	0.700	-1.78093	20.00000	Averaged	
6 2-Chlorophenol	1.20742	1.13630	1.13630	0.800	-5.89075	20.00000	Averaged	
7 1,3-Dichlorobenzene	1.56249	1.64307	1.64307	0.010	5.15664	20.00000	Averaged	
9 1,4-Dichlorobenzene	1.59650	1.61277	1.61277	0.010	1.01899	20.00000	Averaged	
$ 10 1,2-Dichlorobenzene-d4	0.98635	1.07249	1.07249	0.010	8.73317	20.00000	Averaged	
12 1,2-Dichlorobenzene	1.46522	1.52766	1.52766	0.010	4.26147	20.00000	Averaged	
11 Benzyl alcohol	0.71756	0.66165	0.66165	0.010	-7.79193	20.00000	Averaged	
14 2,2'-oxybis(1-Chloropropane	0.38858	0.41391	0.41391	0.010	6.51884	20.00000	Averaged	
13 2-Methylphenol	0.99793	0.99259	0.99259	0.700	-0.53572	20.00000	Averaged	
17 Hexachloroethane	0.63062	0.66703	0.66703	0.300	5.77440	20.00000	Averaged	
16 N-Nitroso-di-n-propylamine	0.87177	0.88384	0.88384	0.500	1.38503	20.00000	Averaged	
15 4-Methylphenol	1.08588	1.02401	1.02401	0.600	-5.69750	20.00000	Averaged	
$ 18 Nitrobenzene-d5	0.42518	0.53416	0.53416	0.010	25.63233	20.00000	Averaged	<-
19 Nitrobenzene	0.41040	0.48838	0.48838	0.200	19.00062	20.00000	Averaged	
20 Isophorone	0.68055	0.68795	0.68795	0.300	1.08676	20.00000	Averaged	
21 2-Nitrophenol	0.21253	0.21812	0.21812	0.100	2.63104	20.00000	Averaged	
22 2,4-Dimethylphenol	0.39727	0.43026	0.43026	0.200	8.30317	20.00000	Averaged	
23 Bis(2-Chloroethoxy)methane	0.32292	0.34417	0.34417	0.050	6.57903	20.00000	Averaged	
24 Benzoic acid	18.14636	20.00000	0.23592	0.010	-9.26820	20.00000	Quadratic	
25 2,4-Dichlorophenol	0.39402	0.40537	0.40537	0.100	2.87991	20.00000	Averaged	
26 1,2,4-Trichlorobenzene	0.51046	0.54388	0.54388	0.010	6.54717	20.00000	Averaged	
28 Naphthalene	0.96846	1.05932	1.05932	0.100	9.38145	20.00000	Averaged	
29 4-Chloroaniline	0.39469	0.41160	0.41160	0.010	4.28587	20.00000	Averaged	
30 Hexachlorobutadiene	0.45340	0.50834	0.50834	0.010	12.11662	20.00000	Averaged	
31 4-Chloro-3-methylphenol	0.36318	0.36274	0.36274	0.200	-0.12160	20.00000	Averaged	
32 2-Methylnaphthalene	0.72662	0.81891	0.81891	0.300	12.70230	20.00000	Averaged	
33 Hexachlorocyclopentadiene	8.03360	10.00000	0.52327	0.001	-19.66398	20.00000	Quadratic	
34 2,4,6-Trichlorophenol	0.51233	0.51890	0.51890	0.200	1.28257	20.00000	Averaged	
35 2,4,5-Trichlorophenol	0.52115	0.53202	0.53202	0.200	2.08631	20.00000	Averaged	
$ 36 2-Fluorobiphenyl	1.44615	1.60795	1.60795	0.010	11.18821	20.00000	Averaged	
37 2-Chloronaphthalene	1.15251	1.18740	1.18740	0.700	3.02672	20.00000	Averaged	

TX57 : 005146

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 06-DEC-2011 14:00
Lab File ID: cc1206.d Init. Cal. Date(s): 11-OCT-2011 21-OCT-2011
Analysis Type: Init. Cal. Times: 12:37 15:42
Lab Sample ID: CC1206 Quant Type: ISTD
Method: /chem1/nt10.i/20111206.b/ABN.m

COMPOUND	RRF / AMOUNT	RFS	CCAL RRFS	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
38 2-Nitroaniline	0.28387	0.30683	0.30683	0.010	8.08784	20.00000	Averaged	
39 Dimethylphthalate	1.59356	1.45563	1.45563	0.010	-8.65554	20.00000	Averaged	
40 Acenaphthylene	1.68057	1.65388	1.65388	0.900	-1.58772	20.00000	Averaged	
41 2,6-Dinitrotoluene	0.31893	0.30215	0.30215	0.100	-5.26164	20.00000	Averaged	
43 3-Nitroaniline	0.22541	0.25495	0.25495	0.010	13.10507	20.00000	Averaged	
44 Acenaphthene	1.04914	1.07568	1.07568	0.100	2.52972	20.00000	Averaged	
45 2,4-Dinitrophenol	14.56574	20.00000	0.17523	0.030	-27.17132	20.00000	Quadratic	<-
46 Dibenzofuran	1.68212	1.66962	1.66962	0.800	-0.74298	20.00000	Averaged	
47 4-Nitrophenol	9.80303	10.00000	0.28851	0.010	-1.96966	20.00000	Quadratic	
48 2,4-Dinitrotoluene	0.42646	0.43598	0.43598	0.200	2.23418	20.00000	Averaged	
50 Diethylphthalate	1.37615	1.33763	1.33763	0.010	-2.79913	20.00000	Averaged	
49 Fluorene	1.32507	1.31858	1.31858	0.100	-0.48994	20.00000	Averaged	
51 4-Chlorophenyl-phenylether	0.93583	1.18208	1.18208	0.100	26.31294	20.00000	Averaged	<-
52 4-Nitroaniline	0.22849	0.20043	0.20043	0.010	-12.28054	20.00000	Averaged	
53 4,6-Dinitro-2-methylphenol	0.17788	0.17108	0.17108	0.001	-3.82244	20.00000	Averaged	
54 N-Nitrosodiphenylamine	0.49114	0.47613	0.47613	0.010	-3.05715	20.00000	Averaged	
$ 55 2,4,6-Tribromophenol	0.35238	0.38535	0.38535	0.010	9.35486	20.00000	Averaged	
56 4-Bromophenyl-phenylether	0.32222	0.34156	0.34156	0.100	6.00213	20.00000	Averaged	
57 Hexachlorobenzene	0.46628	0.40702	0.40702	0.100	-12.70883	20.00000	Averaged	
58 Pentachlorophenol	9.54504	10.00000	0.17140	0.010	-4.54962	20.00000	Quadratic	
60 Phenanthrene	1.02967	1.02888	1.02888	0.700	-0.07720	20.00000	Averaged	
61 Anthracene	1.03724	1.07309	1.07309	0.700	3.45605	20.00000	Averaged	
62 Carbazole	0.77935	0.72178	0.72178	0.010	-7.38591	20.00000	Averaged	
63 Di-n-butylphthalate	1.13559	1.12026	1.12026	0.010	-1.34986	20.00000	Averaged	
64 Fluoranthene	1.41890	1.43452	1.43452	0.600	1.10120	20.00000	Averaged	
65 Pyrene	0.96734	1.02828	1.02828	0.600	6.29931	20.00000	Averaged	
$ 66 Terphenyl-d14	0.79724	0.89404	0.89404	0.010	12.14240	20.00000	Averaged	
67 Butylbenzylphthalate	0.35201	0.35001	0.35001	0.010	-0.56834	20.00000	Averaged	
68 Benzo(a)anthracene	1.08863	1.09280	1.09280	0.700	0.38312	20.00000	Averaged	
70 3,3'-Dichlorobenzidine	0.57099	0.56999	0.56999	0.010	-0.17585	20.00000	Averaged	
71 Chrysene	0.98180	1.00172	1.00172	0.700	2.02863	20.00000	Averaged	
72 bis(2-Ethylhexyl)phthalate	0.56887	0.59634	0.59634	0.010	4.82887	20.00000	Averaged	
73 Di-n-octylphthalate	0.96472	0.96734	0.96734	0.010	0.27202	20.00000	Averaged	
74 Benzo(b)fluoranthene	1.21840	1.26845	1.26845	0.700	4.10808	20.00000	Averaged	
75 Benzo(k)fluoranthene	1.26271	1.37711	1.37711	0.700	9.06013	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 06-DEC-2011 14:00
Lab File ID: cc1206.d Init. Cal. Date(s): 11-OCT-2011 21-OCT-2011
Analysis Type: Init. Cal. Times: 12:37 15:42
Lab Sample ID: CC1206 Quant Type: ISTD
Method: /chem1/nt10.i/20111206.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
76 Benzo(a)pyrene	1.00042	1.04211	1.04211	0.700	4.16767	20.00000	Averaged
78 Indeno(1,2,3-cd)pyrene	1.36330	1.43940	1.43940	0.500	5.58196	20.00000	Averaged
79 Dibenzo(a,h)anthracene	1.14057	1.19902	1.19902	0.400	5.12437	20.00000	Averaged
80 Benzo(g,h,i)perylene	1.14714	1.25580	1.25580	0.500	9.47245	20.00000	Averaged
90 N-Nitrosodimethylamine	0.63235	0.63209	0.63209	0.010	-0.04092	20.00000	Averaged
91 Aniline	3.15204	3.18222	3.18222	0.010	0.95749	20.00000	Averaged
93 Benzidine	9.19929	10.00000	0.19079	0.010	-8.00714	20.00000	Quadratic
103 Pyridine	0.58873	0.49941	0.49941	0.010	-15.17201	20.00000	Averaged
105 1-methylnaphthalene	0.74587	0.79397	0.79397	0.010	6.44861	20.00000	Averaged
111 Azobenzene (1,2-DP-Hydrazin	1.33762	1.54403	1.54403	0.010	15.43116	20.00000	Averaged
187 Total Benzofluoranthenes	1.17380	1.23832	1.23832	0.010	5.49659	20.00000	Averaged
99 Perylene	0.98747	1.00715	1.00715	0.010	1.99310	20.00000	Averaged

TX57.00552

Analytical Resources, Inc.

YZ 12/9/11

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111206.b/cc1206.d
Lab Smp Id: CC1206
Inj Date : 06-DEC-2011 14:00
Operator : YZ Inst ID: nt10.i
Smp Info : CC1206
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 09-Dec-2011 10:00 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.043	6.043	(0.739)	271781	5.00000	5.059
$	2	Phenol-d5	99	7.612	7.612	(0.931)	394751	5.00000	5.721
	3	Phenol	94	7.635	7.635	(0.934)	435836	5.00000	5.122
$	5	2-Chlorophenol-d4	132	7.828	7.828	(0.957)	346179	5.00000	5.544
	4	Bis(2-Chloroethyl)ether	93	7.759	7.759	(0.949)	253461	5.00000	4.911
	6	2-Chlorophenol	128	7.851	7.851	(0.960)	312081	5.00000	4.705
	7	1,3-Dichlorobenzene	146	8.107	8.107	(0.991)	451264	5.00000	5.258
*	8	1,4-Dichlorobenzene-d4	152	8.177	8.177	(1.000)	219718	4.00000	
	9	1,4-Dichlorobenzene	146	8.200	8.200	(1.003)	442942	5.00000	5.051
$	10	1,2-Dichlorobenzene-d4	152	8.518	8.518	(1.042)	294558	5.00000	5.437
	12	1,2-Dichlorobenzene	146	8.549	8.549	(1.046)	419569	5.00000	5.213
	11	Benzyl alcohol	108	8.464	8.464	(1.035)	181721	5.00000	4.610
	14	2,2'-oxybis(1-Chloropropane)	121	8.767	8.767	(1.072)	113679	5.00000	5.326
	13	2-Methylphenol	108	8.712	8.712	(1.065)	272611	5.00000	4.973
	17	Hexachloroethane	117	9.116	9.116	(1.115)	183199	5.00000	5.289
	16	N-Nitroso-di-n-propylamine	70	9.015	9.015	(1.103)	242745	5.00000	5.069
	15	4-Methylphenol	108	8.984	8.984	(1.099)	281243	5.00000	4.715
$	18	Nitrobenzene-d5	82	9.248	9.248	(0.872)	491598	5.00000	6.282
	19	Nitrobenzene	77	9.279	9.279	(0.875)	449465	5.00000	5.950
	20	Isophorone	82	9.729	9.729	(0.918)	633128	5.00000	5.054
	21	2-Nitrophenol	139	9.899	9.899	(0.934)	200738	5.00000	5.132
	22	2,4-Dimethylphenol	107	9.999	9.999	(0.943)	791941	10.0000	10.83
	23	Bis(2-Chloroethoxy)methane	93	10.176	10.176	(0.960)	316740	5.00000	5.329
	24	Benzoic acid	105	10.246	10.246	(0.967)	868482	20.0000	18.15
	25	2,4-Dichlorophenol	162	10.361	10.361	(0.977)	746132	10.0000	10.29
	26	1,2,4-Trichlorobenzene	180	10.523	10.523	(0.993)	500540	5.00000	5.327
*	27	Naphthalene-d8	136	10.600	10.600	(1.000)	736249	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.639	10.639	(1.004)	974903	5.00000	5.469
	29 4-Chloroaniline	127	10.793	10.793	(1.018)	757602	10.0000	10.43
	30 Hexachlorobutadiene	225	11.010	11.010	(1.039)	467827	5.00000	5.606
	31 4-Chloro-3-methylphenol	107	11.768	11.768	(1.110)	667668	10.0000	9.988
	32 2-Methylnaphthalene	142	12.008	12.008	(1.133)	753654	5.00000	5.635
	33 Hexachlorocyclopentadiene	237	12.465	12.465	(0.882)	797901	10.0000	8.034
	34 2,4,6-Trichlorophenol	196	12.635	12.635	(0.894)	791231	10.0000	10.13
	35 2,4,5-Trichlorophenol	196	12.705	12.705	(0.899)	811247	10.0000	10.21
$	36 2-Fluorobiphenyl	172	12.782	12.782	(0.905)	1225928	5.00000	5.559
	37 2-Chloronaphthalene	162	12.968	12.968	(0.918)	905293	5.00000	5.151
	38 2-Nitroaniline	65	13.246	13.246	(0.938)	467862	10.0000	10.81
	39 Dimethylphthalate	163	13.695	13.695	(0.969)	1109800	5.00000	4.567
	40 Acenaphthylene	152	13.819	13.819	(0.978)	1260949	5.00000	4.921
	41 2,6-Dinitrotoluene	165	13.819	13.819	(0.978)	460727	10.0000	9.474
*	42 Acenaphthene-d10	164	14.129	14.129	(1.000)	609934	4.00000	
	43 3-Nitroaniline	138	14.090	14.090	(0.997)	388757	10.0000	11.31
	44 Acenaphthene	153	14.198	14.198	(1.005)	820116	5.00000	5.126
	45 2,4-Dinitrophenol	184	14.306	14.306	(1.013)	534379	20.0000	14.57
	46 Dibenzofuran	168	14.523	14.523	(1.028)	1272951	5.00000	4.963
	47 4-Nitrophenol	109	14.461	14.461	(1.024)	439937	10.0000	9.803
	48 2,4-Dinitrotoluene	165	14.616	14.616	(1.034)	664804	10.0000	10.22
	50 Diethylphthalate	149	15.134	15.134	(1.071)	1019831	5.00000	4.860
	49 Fluorene	166	15.219	15.219	(1.077)	1005305	5.00000	4.976
	51 4-Chlorophenyl-phenylether	204	15.234	15.234	(1.078)	901236	5.00000	6.316
	52 4-Nitroaniline	138	15.335	15.335	(1.085)	305622	10.0000	8.772
	53 4,6-Dinitro-2-methylphenol	198	15.435	15.435	(0.902)	1048714	20.0000	19.24
	54 N-Nitrosodiphenylamine	169	15.489	15.489	(0.905)	729651	5.00000	4.847
$	55 2,4,6-Tribromophenol	330	15.751	15.751	(1.115)	293794	5.00000	5.468
	56 4-Bromophenyl-phenylether	248	16.214	16.214	(0.948)	523424	5.00000	5.300
	57 Hexachlorobenzene	284	16.507	16.507	(0.965)	623750	5.00000	4.365
	58 Pentachlorophenol	266	16.871	16.871	(0.986)	525343	10.0000	9.545
*	59 Phenanthrene-d10	188	17.111	17.111	(1.000)	1225974	4.00000	
	60 Phenanthrene	178	17.157	17.157	(1.003)	1576721	5.00000	4.996
	61 Anthracene	178	17.242	17.242	(1.008)	1644471	5.00000	5.173
	62 Carbazole	167	17.583	17.583	(1.028)	1106112	5.00000	4.631
	63 Di-n-butylphthalate	149	18.403	18.403	(1.075)	1716769	5.00000	4.933
	64 Fluoranthene	202	19.432	19.432	(1.136)	2198357	5.00000	5.055
	65 Pyrene	202	19.834	19.834	(0.903)	2125343	5.00000	5.315
$	66 Terphenyl-d14	244	20.152	20.152	(0.918)	1847892	5.00000	5.607
	67 Butylbenzylphthalate	149	21.073	21.073	(0.960)	723440	5.00000	4.972
	68 Benzo(a)anthracene	228	21.932	21.932	(0.999)	2258704	5.00000	5.019
*	69 Chrysene-d12	240	21.956	21.956	(1.000)	1653515	4.00000	
	70 3,3'-Dichlorobenzidine	252	21.917	21.917	(0.998)	2356206	10.0000	9.982
	71 Chrysene	228	22.002	22.002	(1.002)	2070448	5.00000	5.101
	72 bis(2-Ethylhexyl)phthalate	149	22.095	22.095	(0.959)	1045413	5.00000	5.241
*	134 Di-n-octylphthalate-d4	153	23.047	23.047	(1.000)	1402440	4.00000	
	73 Di-n-octylphthalate	149	23.063	23.063	(1.001)	1695798	5.00000	5.014

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74 Benzo(b)fluoranthene	252	23.651	23.651	(0.976)	2630324	5.00000	5.205
75 Benzo(k)fluoranthene	252	23.690	23.690	(0.978)	2855645	5.00000	5.453(H)
76 Benzo(a)pyrene	252	24.147	24.147	(0.996)	2160974	5.00000	5.208
* 77 Perylene-d12	264	24.232	24.232	(1.000)	1658921	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	26.216	26.216	(1.082)	2984808	5.00000	5.279
79 Dibenzo(a,h)anthracene	278	26.239	26.239	(1.083)	2486342	5.00000	5.256
80 Benzo(g,h,i)perylene	276	26.798	26.798	(1.106)	2604100	5.00000	5.474
90 N-Nitrosodimethylamine	74	3.920	3.920	(0.479)	347203	10.0000	9.996
91 Aniline	93	7.658	7.658	(0.937)	873988	5.00000	5.048
93 Benzidine	184	19.695	19.695	(0.897)	788666	10.0000	9.199
103 Pyridine	79	3.920	3.920	(0.479)	274323	10.0000	8.483
105 1-methylnaphthalene	142	12.217	12.217	(1.153)	730700	5.00000	5.322
111 Azobenzene (1,2-DP-Hydrazine)	77	15.551	15.551	(1.101)	1177194	5.00000	5.772
187 Total Benzofluoranthenes	252	23.690	23.690	(0.978)	5135681	10.0000	10.55
99 Perylene	252	24.278	24.278	(1.002)	2088474	5.00000	5.100

QC Flag Legend

H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc1206.d
Lab Smp Id: CC1206
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info:

Calibration Date: 06-DEC-2011
Calibration Time: 12:36

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	219718	27.11
27 Naphthalene-d8	574010	287005	1148020	736249	28.26
42 Acenaphthene-d10	467963	233982	935926	609934	30.34
59 Phenanthrene-d10	976150	488075	1952300	1225974	25.59
69 Chrysene-d12	1397129	698564	2794258	1653515	18.35
134 Di-n-octylphthala	1264537	632268	2529074	1402440	10.91
77 Perylene-d12	1407308	703654	2814616	1658921	17.88

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.60	0.00
42 Acenaphthene-d10	14.13	13.63	14.63	14.13	0.00
59 Phenanthrene-d10	17.11	16.61	17.61	17.11	0.00
69 Chrysene-d12	21.96	21.46	22.46	21.96	0.00
134 Di-n-octylphthala	23.05	22.55	23.55	23.05	0.00
77 Perylene-d12	24.23	23.73	24.73	24.23	0.00

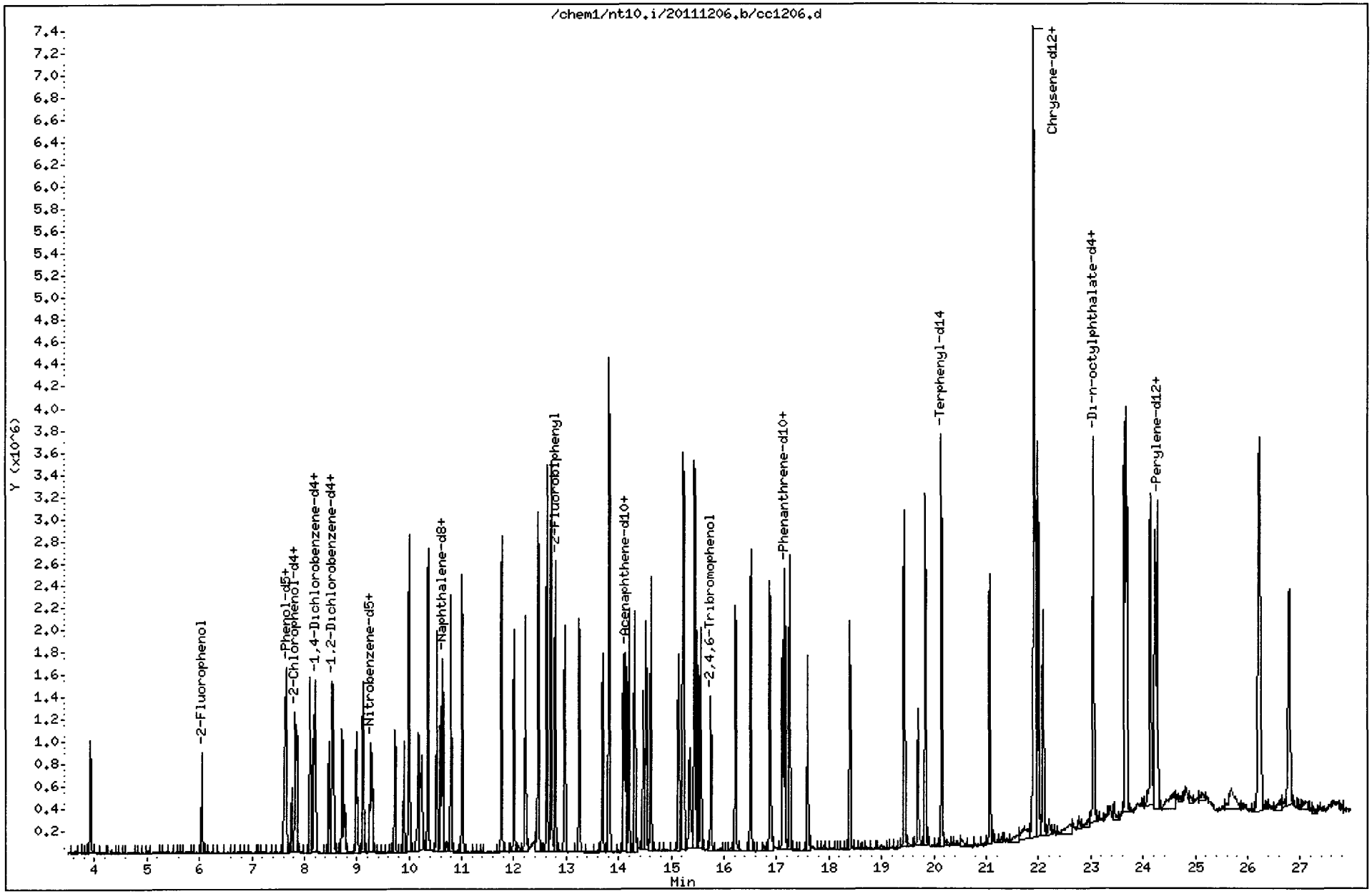
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20111206.b/cc1206.d
Date : 06-DEC-2011 14:00
Client ID:
Sample Info: CC1206

Instrument: nt10.i

Operator: YZ
Column diameter: 0.25

Column phase: ZB-5ms1



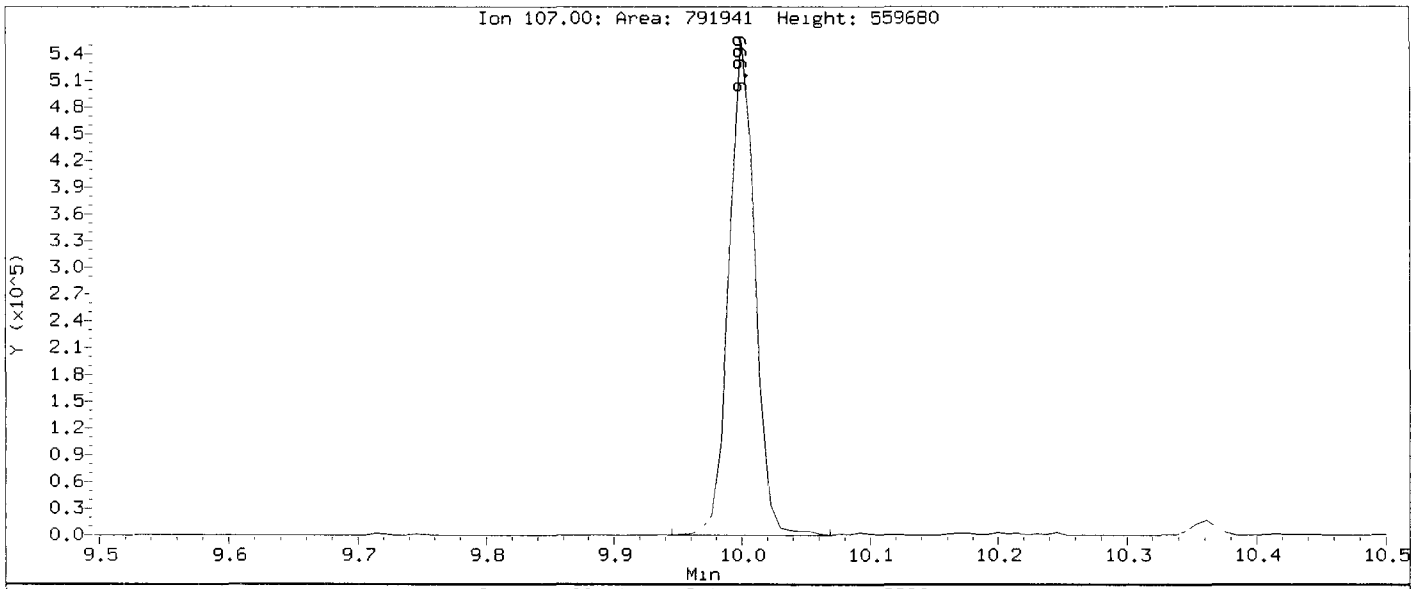
CO-ELUTION SUMMARY FOR FILE - cc1206.d

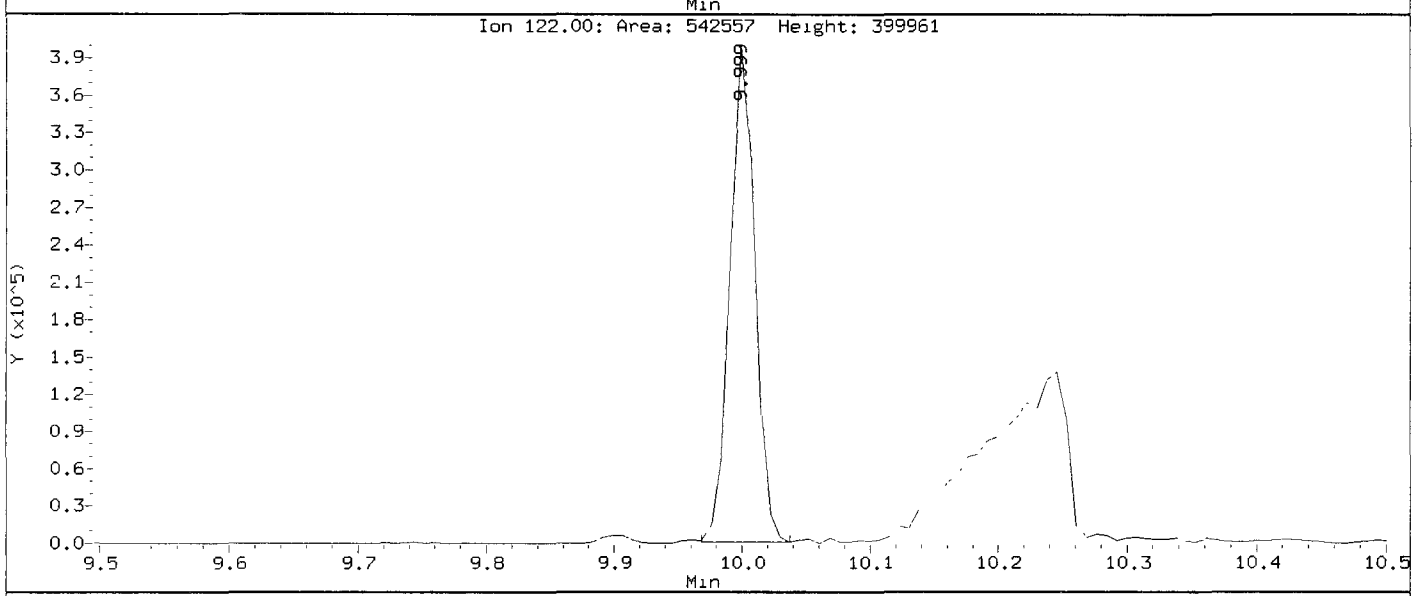
Lab ID: CC1206, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

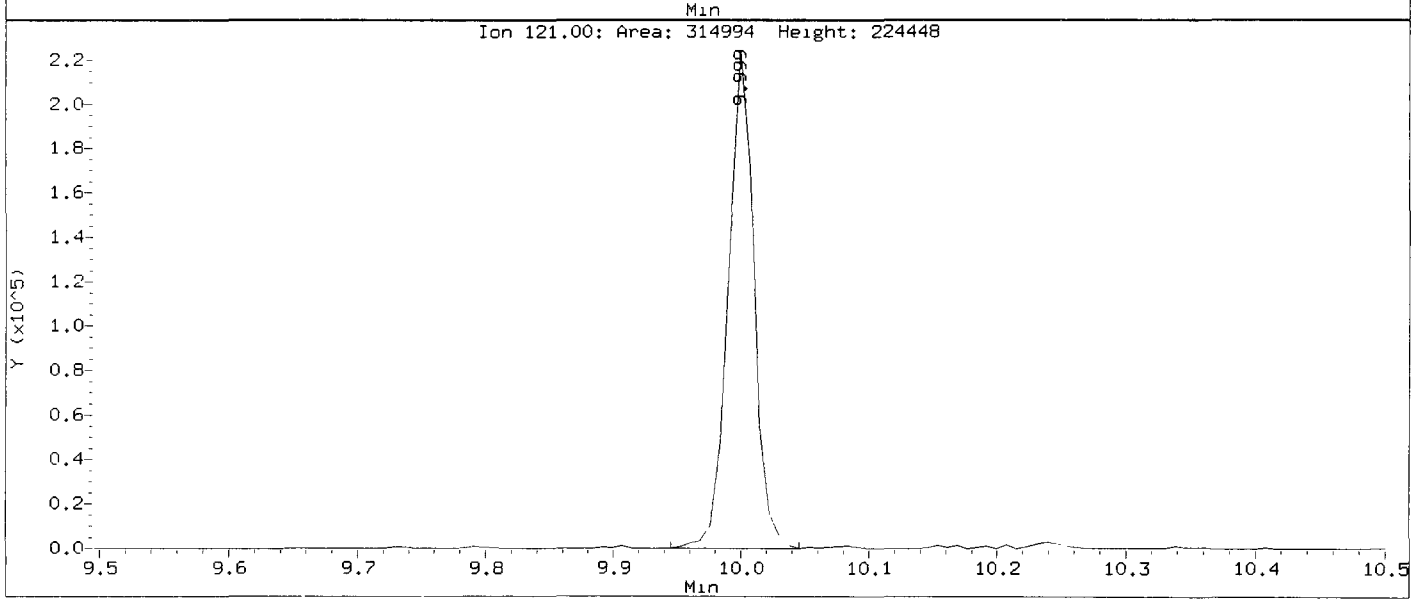
RT	CO-ELUTION COMPOUNDS
13.819	Acenaphthylene and 2,6-Dinitrotoluene

Data File: /chem1/nt10.i/20111206.b/cc1206.d
Injection Date: 06-DEC-2011 14:00
Instrument: nt10.i
Client Sample ID:

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9

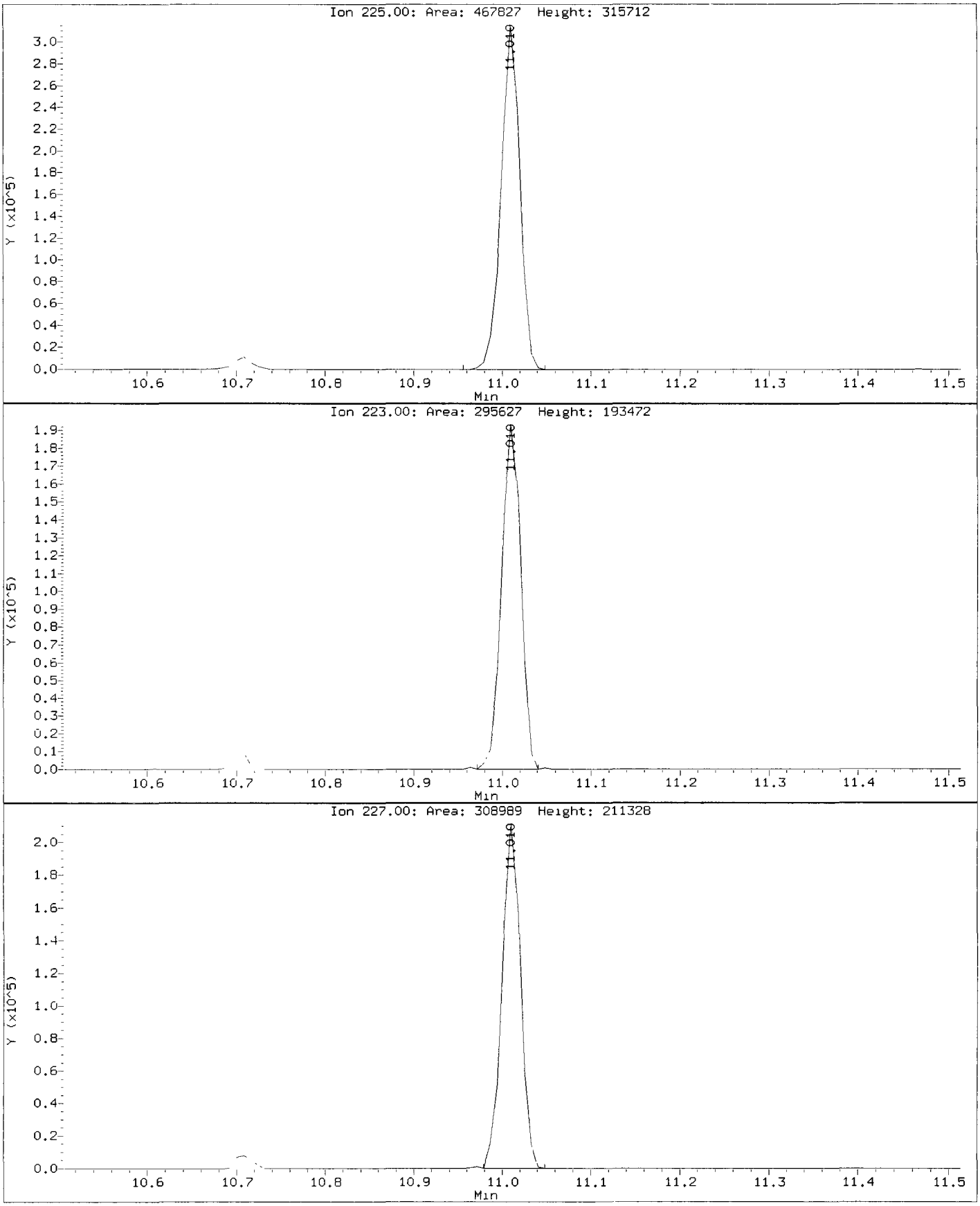






Data File: /chem1/nt10.1/20111206.b/cc1206.d
Injection Date: 06-DEC-2011 14:00
Instrument: nt10.1
Client Sample ID:

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 12/9/11

Data file : /chem1/nt10.i/20111206.b/tx57mb.d
Lab Smp Id: TX57MBS1 Client Smp ID: TX57MBS1
Inj Date : 06-DEC-2011 15:08
Operator : YZ Inst ID: nt10.i
Smp Info : TX57MBS1
Misc Info : 11-26622
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 07-Dec-2011 08:43 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	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)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.051	6.043	(0.740)	238666	5.49170	549.2
$ 2	Phenol-d5	99	7.612	7.612	(0.931)	304022	5.44706	544.7
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.828	7.828	(0.957)	295946	5.85931	585.9
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.177	8.177	(1.000)	177732	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.518	8.518	(1.042)	144024	3.28622	328.6
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.248	9.248	(0.872)	261278	4.10592	410.6
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.601	10.600	(1.000)	598658	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.782	12.782	(0.905)	699161	4.02417	402.4
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.129	14.129	(1.000)	480560	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.134	15.134	(1.071)	42307	0.25589	25.59(R)
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.751	15.751	(1.115)	245911	5.80869	580.9
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.103	17.111	(1.000)	1021560	4.00000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	62 Carbazole	167	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					
	64 Fluoranthene	202	Compound Not Detected.					
	65 Pyrene	202	Compound Not Detected.					
$	66 Terphenyl-d14	244	20.152	20.152	(0.918)	1196080	4.99100	499.1
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	21.956	21.956	(1.000)	1202386	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	22.087	22.095	(0.958)	30621	0.21797	21.80(R)
*	134 Di-n-octylphthalate-d4	153	23.047	23.047	(1.000)	987795	4.00000	
	73 Di-n-octylphthalate	149	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	24.232	24.232	(1.000)	1315981	4.00000	
	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.					
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	Compound Not Detected.					
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	Compound Not Detected.					
	99 Perylene	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57mb.d
Lab Smp Id: TX57MBS1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26622

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: TX57MBS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	177732	2.82
27 Naphthalene-d8	574010	287005	1148020	598658	4.29
42 Acenaphthene-d10	467963	233982	935926	480560	2.69
59 Phenanthrene-d10	976150	488075	1952300	1021560	4.65
69 Chrysene-d12	1397129	698564	2794258	1202386	-13.94
134 Di-n-octylphthala	1264537	632268	2529074	987795	-21.88
77 Perylene-d12	1407308	703654	2814616	1315981	-6.49

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.60	0.00
42 Acenaphthene-d10	14.13	13.63	14.63	14.13	0.00
59 Phenanthrene-d10	17.11	16.61	17.61	17.10	-0.04
69 Chrysene-d12	21.96	21.46	22.46	21.96	0.00
134 Di-n-octylphthala	23.05	22.55	23.55	23.05	0.00
77 Perylene-d12	24.23	23.73	24.73	24.23	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.

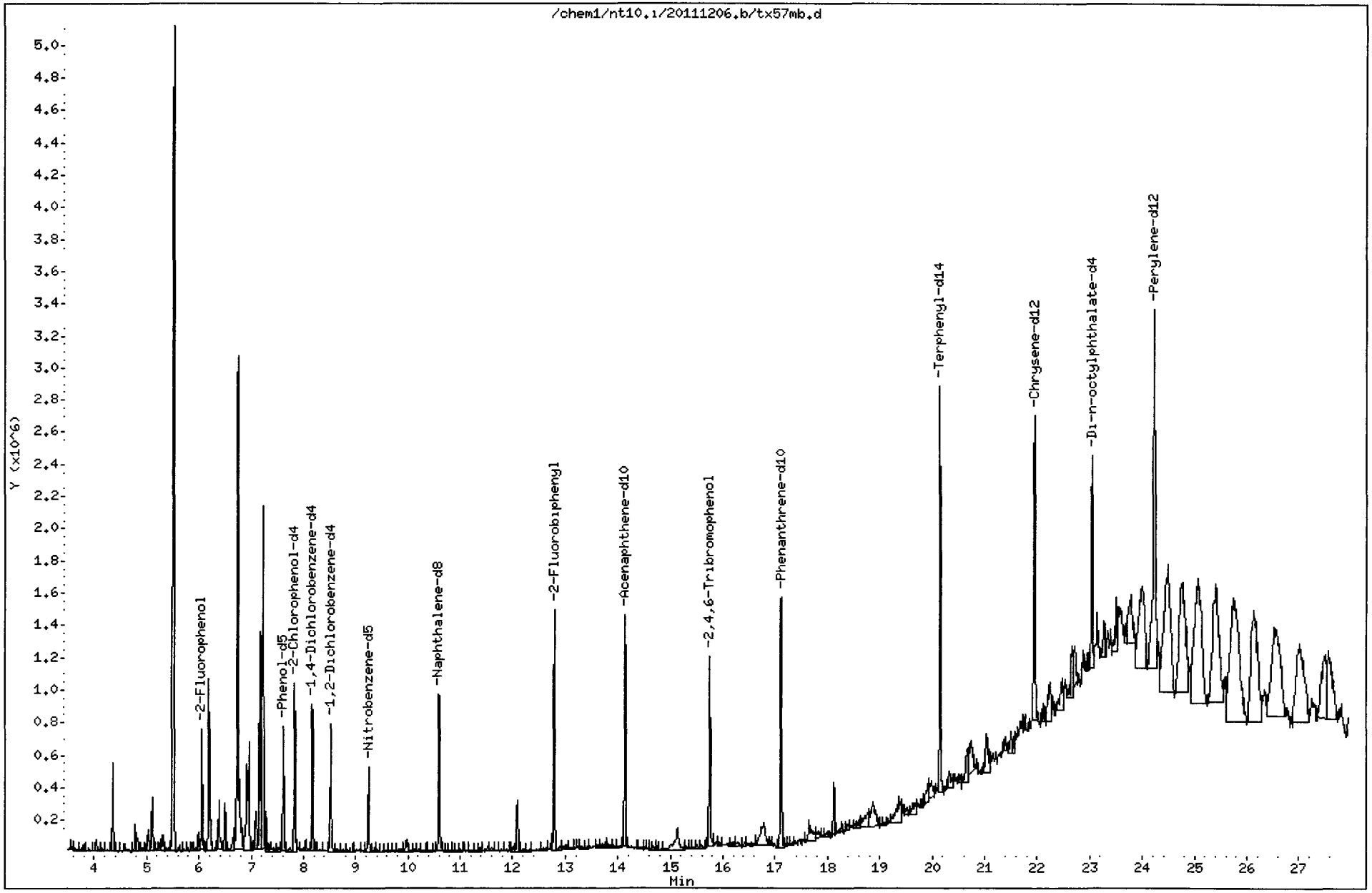
SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	500.0	0.000	*	30-160
78 Indeno(1,2,3-cd)p	500.0	0.000	*	30-160
79 Dibenzo(a,h)anthr	500.0	0.000	*	30-160
80 Benzo(g,h,i)peryl	500.0	0.000	*	30-160
105 1-methylnaphthale	500.0	0.000	*	30-160
187 Total Benzofluora	1000	0.000	*	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.0	549.2	73.22	30-160
$ 2 Phenol-d5	750.0	544.7	72.63	30-160
$ 5 2-Chlorophenol-d4	750.0	585.9	78.12	30-160
$ 10 1,2-Dichlorobenzen	500.0	328.6	65.72	30-160
$ 18 Nitrobenzene-d5	500.0	410.6	82.12	30-160
$ 36 2-Fluorobiphenyl	500.0	402.4	80.48	30-160
$ 55 2,4,6-Tribromophen	750.0	580.9	77.45	30-160
$ 66 Terphenyl-d14	500.0	499.1	99.82	30-160

Data File: /chem1/nt10.i/20111206.b/tx57mb.d
Date : 06-DEC-2011 15:08
Client ID: TX57MBS1
Sample Info: TX57MBS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i

Operator: YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20111206.b/tx57mb.d

Date : 06-DEC-2011 15:08

Client ID: TX57MBS1

Instrument: nt10.i

Sample Info: TX57MBS1

Volume Injected (uL): 1.0

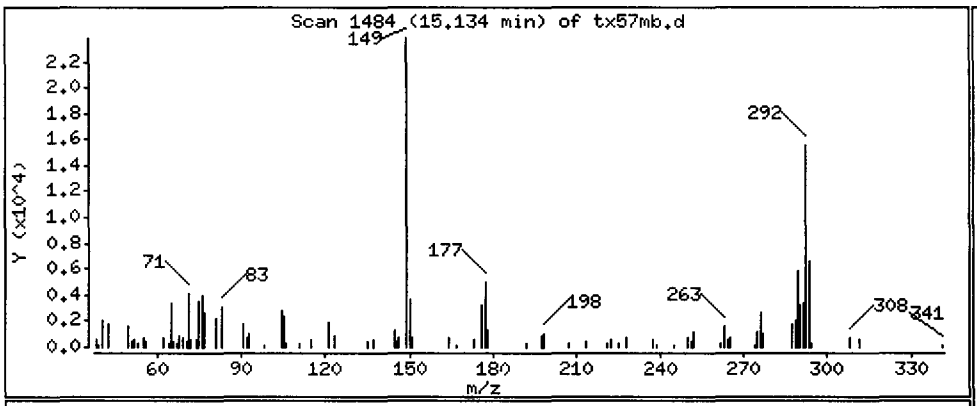
Operator: YZ

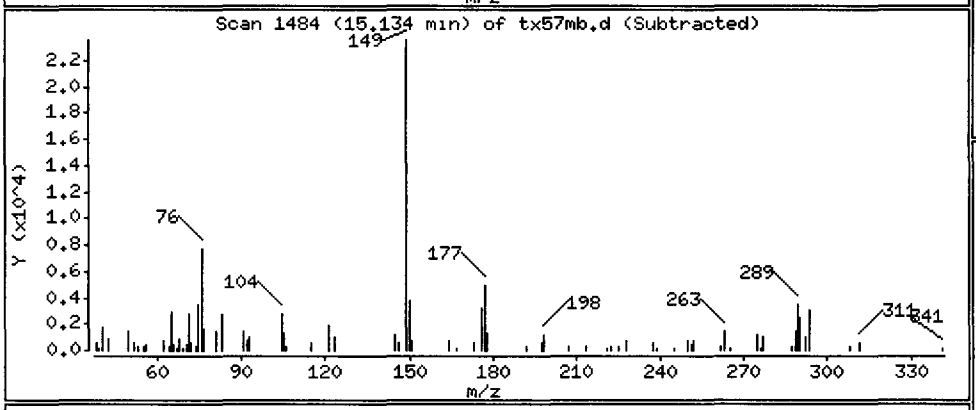
Column phase: ZB-5msi

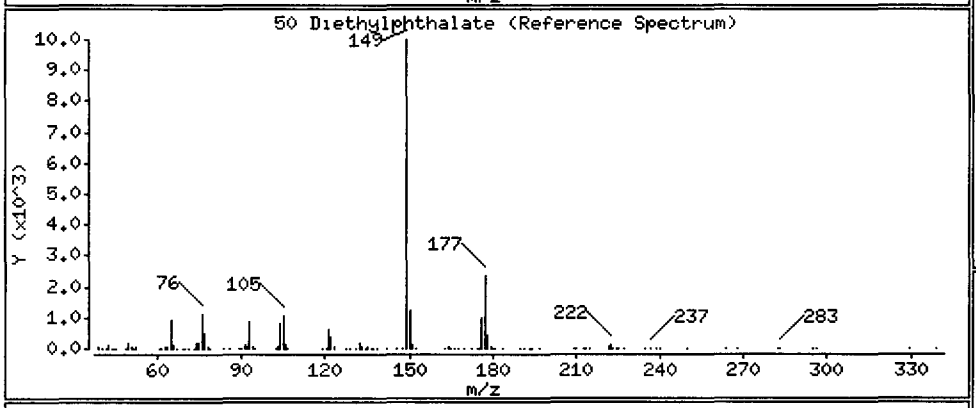
Column diameter: 0.25

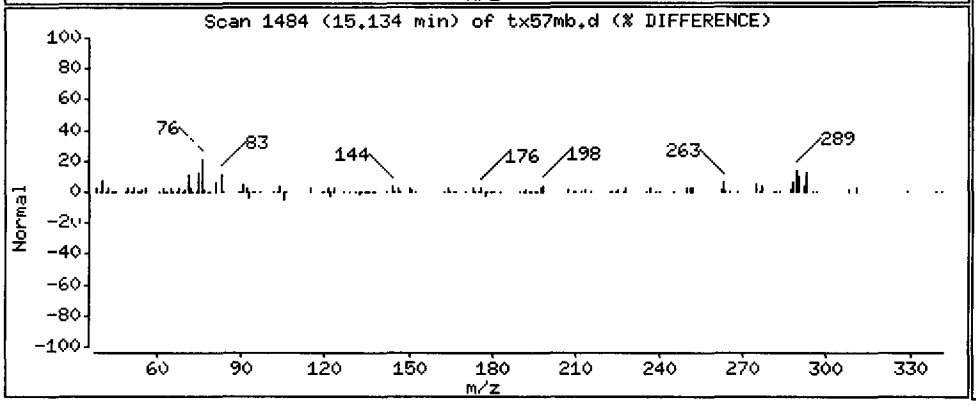
50 Diethylphthalate

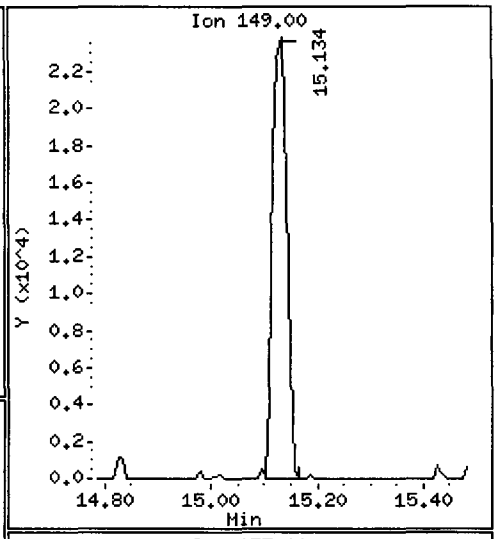
Concentration: 25.59 ug/kg

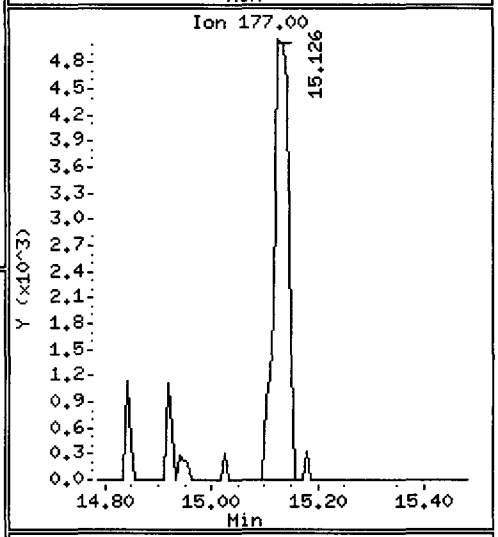


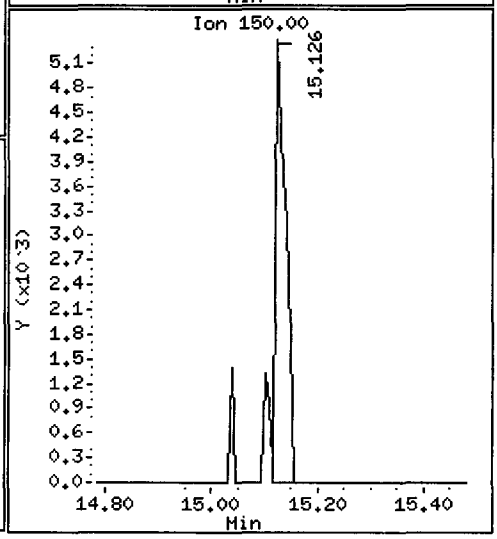












Data File: /chem1/nt10.i/20111206.b/tx57mb.d

Date : 06-DEC-2011 15:08

Client ID: TX57MBS1

Instrument: nt10.i

Sample Info: TX57MBS1

Volume Injected (uL): 1.0

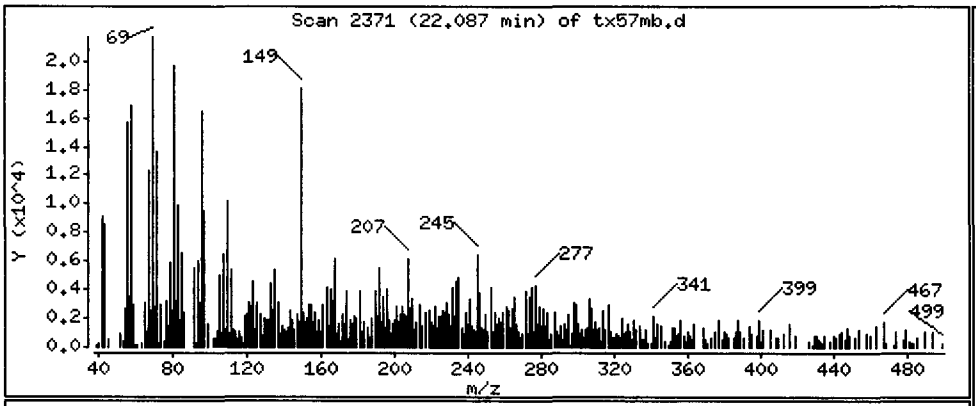
Operator: YZ

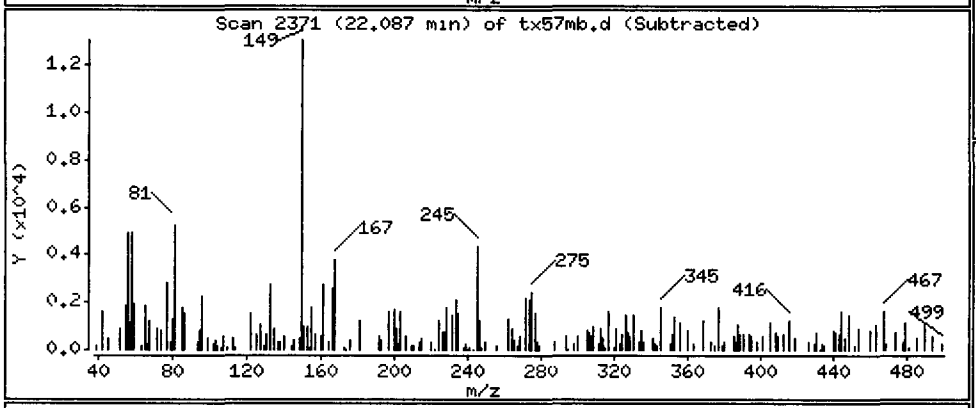
Column phase: ZB-5ms1

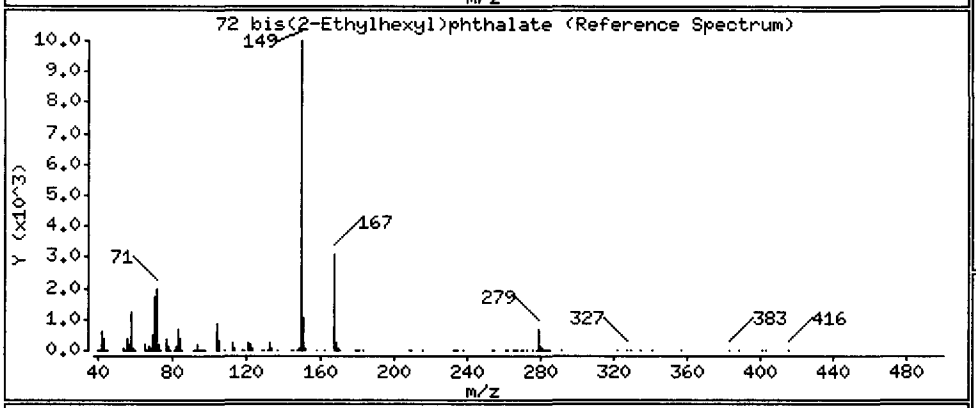
Column diameter: 0.25

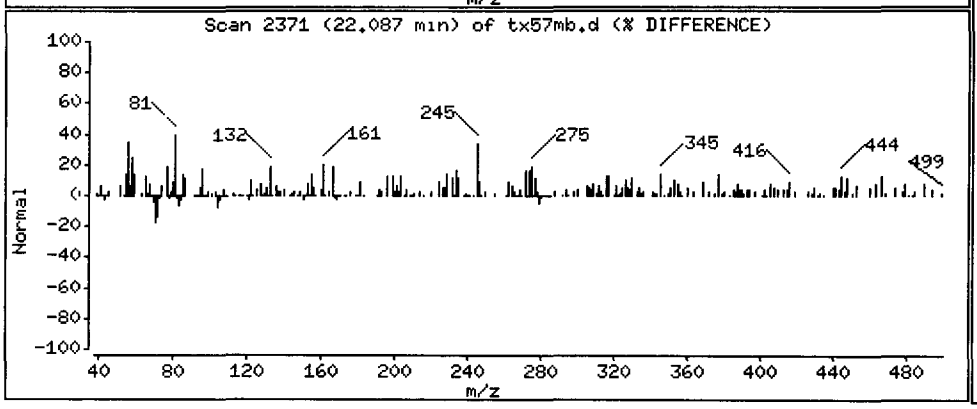
72 bis(2-Ethylhexyl)phthalate

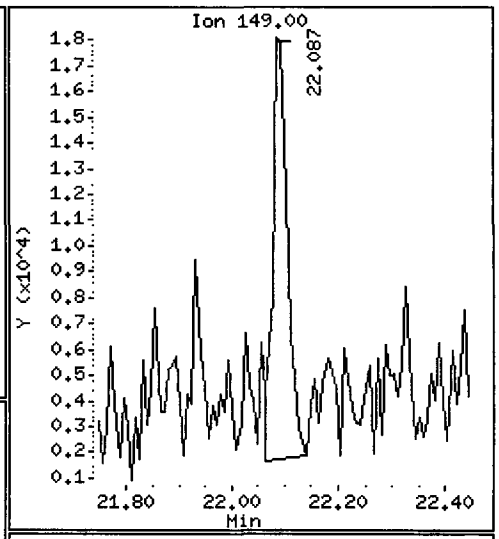
Concentration: 21.80 ug/kg

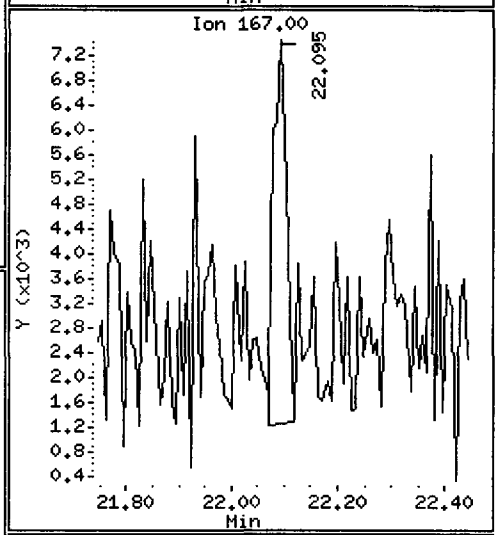


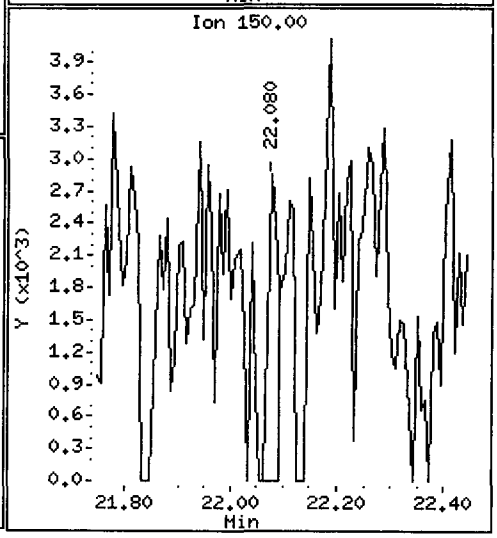












TX57.00556

CO-ELUTION SUMMARY FOR FILE - tx57mb.d

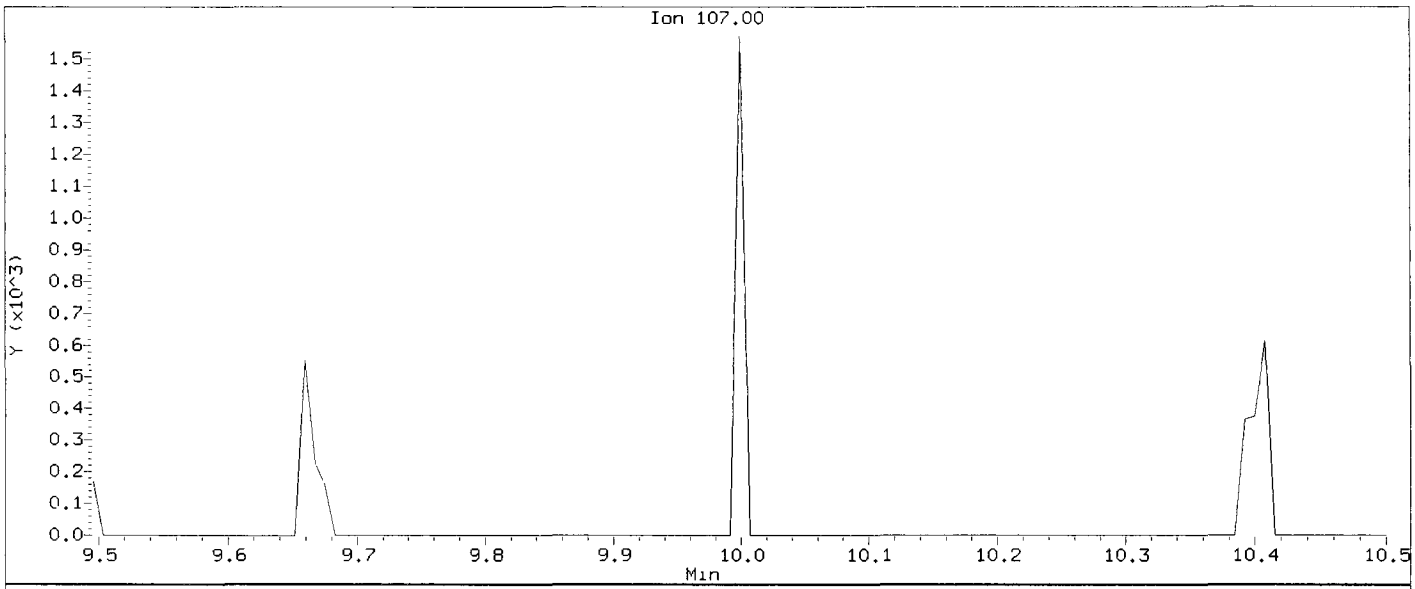
Lab ID: TX57MBS1, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

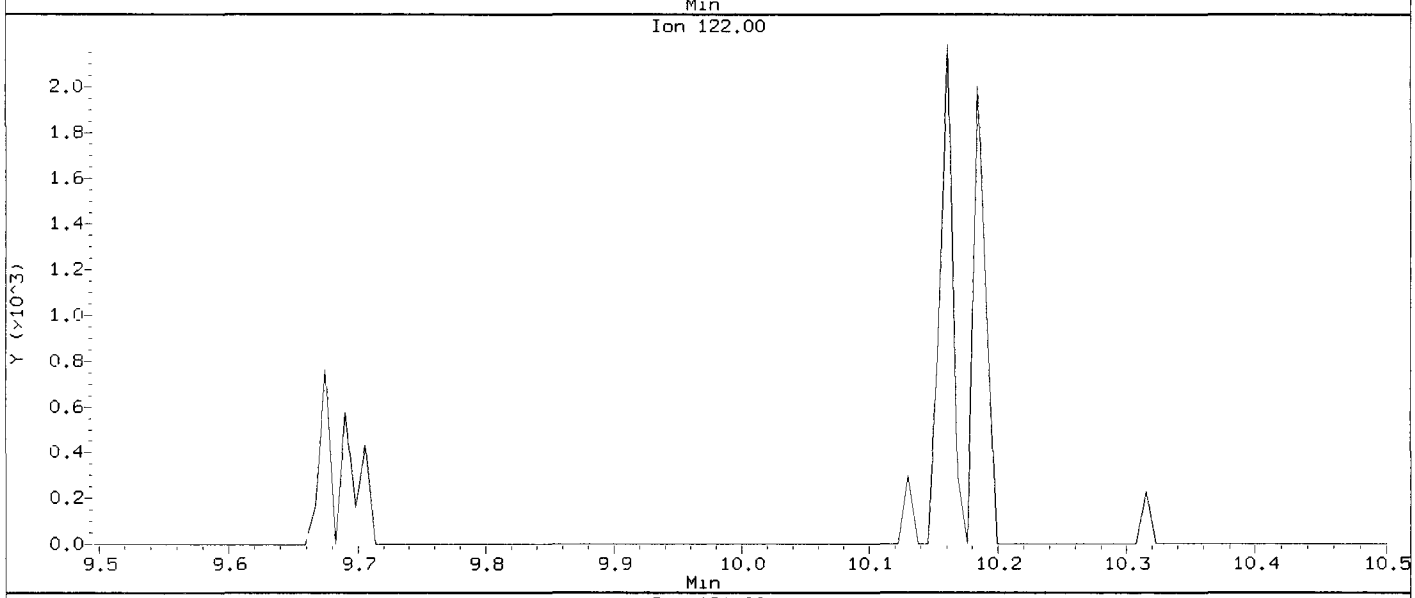
RT	CO-ELUTION COMPOUNDS

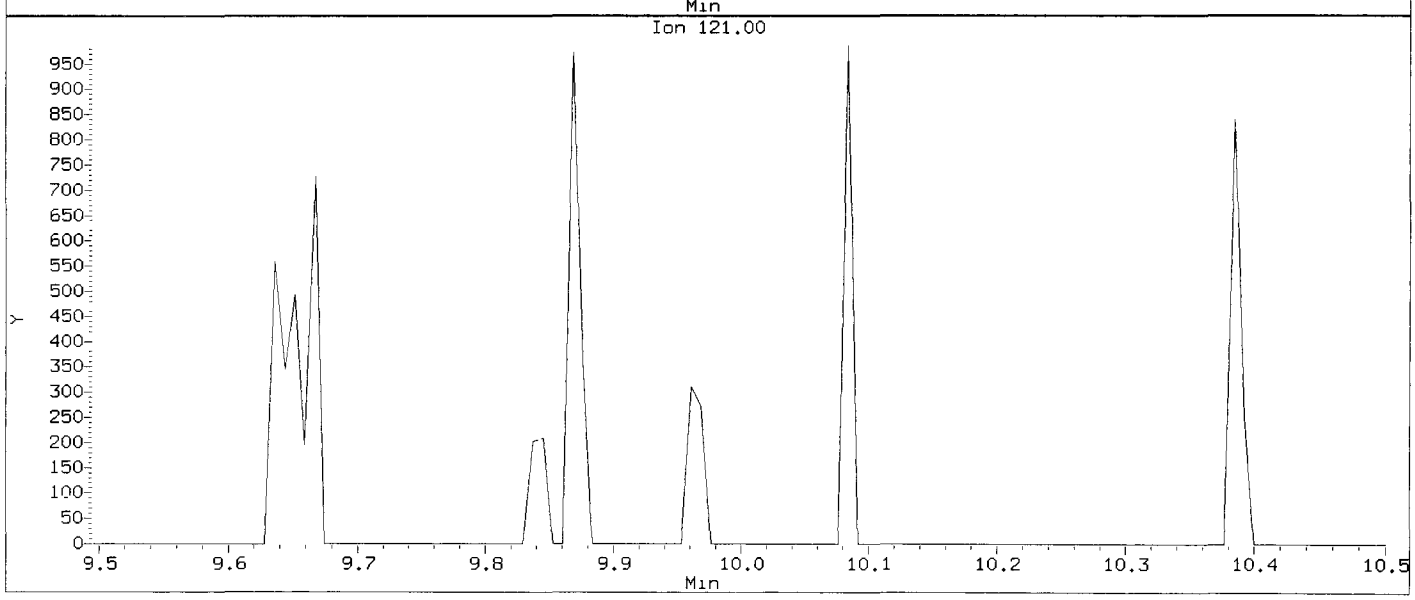
NO CO-ELUTIONS

Data File: /chem1/nt10.i/20111206.b/tx57mb.d
Injection Date: 06-DEC-2011 15:08
Instrument: nt10.i
Client Sample ID: TX57MBS1

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9

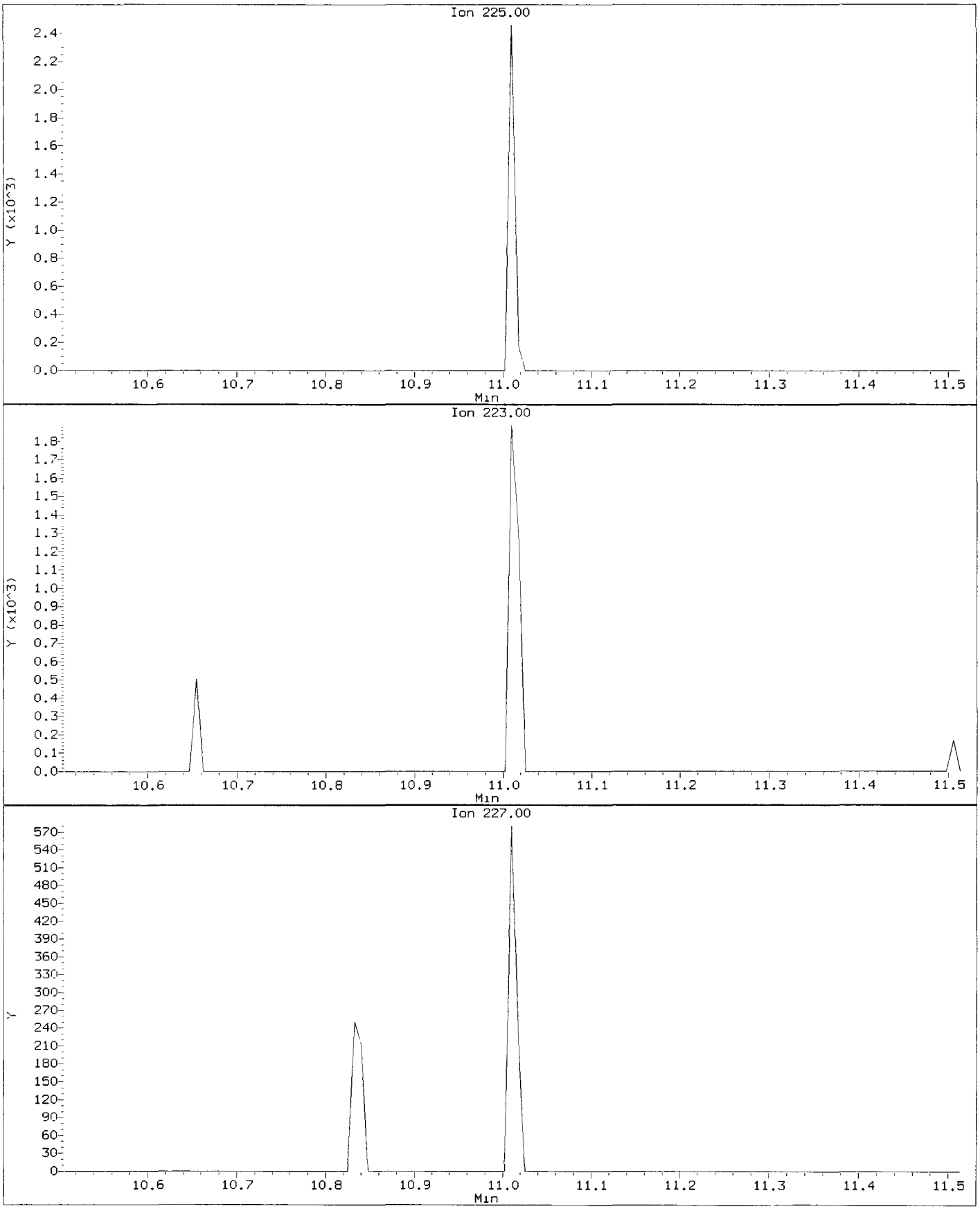






Data File: /chem1/nt10.1/20111206.b/tx57mb.d
Injection Date: 06-DEC-2011 15:08
Instrument: nt10.1
Client Sample ID: TX57MBS1

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

YZ 12/9/11

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111206.b/tx57sb.d
Lab Smp Id: TX57LCSS1 Client Smp ID: TX57LCSS1
Inj Date : 06-DEC-2011 15:43
Operator : YZ Inst ID: nt10.i
Smp Info : TX57LCSS1
Misc Info : 11-26622
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 09-Dec-2011 09:12 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	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)
$	1 2-Fluorophenol	112	6.051	6.043	(0.741)	236196	5.27265	527.3
$	2 Phenol-d5	99	7.620	7.612	(0.933)	306033	5.31944	531.9
	3 Phenol	94	7.636	7.635	(0.935)	261872	3.69125	369.1
$	5 2-Chlorophenol-d4	132	7.829	7.828	(0.958)	284471	5.46402	546.4
	4 Bis(2-Chloroethyl)ether	93	7.759	7.759	(0.950)	153255	3.56131	356.1
	6 2-Chlorophenol	128	7.860	7.851	(0.962)	200783	3.63080	363.1
	7 1,3-Dichlorobenzene	146	8.107	8.107	(0.992)	268724	3.75511	375.5
*	8 1,4-Dichlorobenzene-d4	152	8.169	8.177	(1.000)	183200	4.00000	
	9 1,4-Dichlorobenzene	146	8.200	8.200	(1.004)	246570	3.37215	337.2
$	10 1,2-Dichlorobenzene-d4	152	8.518	8.518	(1.043)	165584	3.66539	366.5
	12 1,2-Dichlorobenzene	146	8.542	8.549	(1.046)	243426	3.62742	362.7
	11 Benzyl alcohol	108	8.464	8.464	(1.036)	125082	3.80600	380.6
	14 2,2'-oxybis(1-Chloropropane)	121	8.759	8.767	(1.072)	59726	3.35598	335.6
	13 2-Methylphenol	108	8.713	8.712	(1.066)	167432	3.66330	366.3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	9.116	9.116	(1.116)	110003	3.80866	380.9
	16 N-Nitroso-di-n-propylamine	70	9.008	9.015	(1.103)	146461	3.66822	366.8
	15 4-Methylphenol	108	8.992	8.984	(1.101)	363714	7.31327	731.3
$	18 Nitrobenzene-d5	82	9.240	9.248	(0.872)	279347	3.84375	384.4
	19 Nitrobenzene	77	9.279	9.279	(0.876)	253378	3.61196	361.2
	20 Isophorone	82	9.721	9.729	(0.918)	450083	3.86915	386.9
	21 2-Nitrophenol	139	9.899	9.899	(0.934)	137121	3.77462	377.5
	22 2,4-Dimethylphenol	107	9.999	9.999	(0.944)	488623	7.19569	719.6
	23 Bis(2-Chloroethoxy)methane	93	10.177	10.176	(0.961)	195251	3.53739	353.7
	24 Benzoic acid	105	10.223	10.246	(0.965)	542399	12.3665	1237
	25 2,4-Dichlorophenol	162	10.354	10.361	(0.977)	732807	10.8806	1088
	26 1,2,4-Trichlorobenzene	180	10.524	10.523	(0.993)	316350	3.62569	362.6
*	27 Naphthalene-d8	136	10.593	10.600	(1.000)	683714	4.00000	
	28 Naphthalene	128	10.639	10.639	(1.004)	603587	3.64622	364.6
	29 4-Chloroaniline	127	10.794	10.793	(1.019)	538740	7.98572	798.6
	30 Hexachlorobutadiene	225	11.010	11.010	(1.039)	282655	3.64722	364.7
	31 4-Chloro-3-methylphenol	107	11.769	11.768	(1.111)	649483	10.4623	1046
	32 2-Methylnaphthalene	142	12.008	12.008	(1.134)	484903	3.90423	390.4
	33 Hexachlorocyclopentadiene	237	12.465	12.465	(0.882)	658876	7.28931	728.9
	34 2,4,6-Trichlorophenol	196	12.635	12.635	(0.894)	760892	10.6833	1068
	35 2,4,5-Trichlorophenol	196	12.705	12.705	(0.899)	815695	11.2588	1126
$	36 2-Fluorobiphenyl	172	12.782	12.782	(0.905)	701911	3.49138	349.1
	37 2-Chloronaphthalene	162	12.968	12.968	(0.918)	586203	3.65873	365.9
	38 2-Nitroaniline	65	13.247	13.246	(0.938)	500753	12.6892	1269
	39 Dimethylphthalate	163	13.696	13.695	(0.969)	812871	3.66927	366.9
	40 Acenaphthylene	152	13.820	13.819	(0.978)	854496	3.65749	365.7
	41 2,6-Dinitrotoluene	165	13.827	13.819	(0.979)	491467	11.0848	1108
*	42 Acenaphthene-d10	164	14.129	14.129	(1.000)	556073	4.00000	
	43 3-Nitroaniline	138	14.098	14.090	(0.998)	300331	9.58418	958.4
	44 Acenaphthene	153	14.199	14.198	(1.005)	543860	3.72892	372.9
	45 2,4-Dinitrophenol	184	14.307	14.306	(1.013)	426033	12.7753	1278
	46 Dibenzofuran	168	14.523	14.523	(1.028)	888804	3.80081	380.1
	47 4-Nitrophenol	109	14.469	14.461	(1.024)	465916	11.3654	1137
	48 2,4-Dinitrotoluene	165	14.616	14.616	(1.034)	702493	11.8494	1185
	50 Diethylphthalate	149	15.142	15.134	(1.072)	797971	4.17109	417.1
	49 Fluorene	166	15.219	15.219	(1.077)	725636	3.93921	393.9
	51 4-Chlorophenyl-phenylether	204	15.235	15.234	(1.078)	562645	4.32479	432.5
	52 4-Nitroaniline	138	15.335	15.335	(1.085)	349772	11.0115	1101
	53 4,6-Dinitro-2-methylphenol	198	15.435	15.435	(0.902)	939786	19.0216	1902
	54 N-Nitrosodiphenylamine	169	15.489	15.489	(0.905)	549841	4.03070	403.1
$	55 2,4,6-Tribromophenol	330	15.744	15.751	(1.114)	284013	5.79768	579.8
	56 4-Bromophenyl-phenylether	248	16.214	16.214	(0.948)	391087	4.36995	437.0
	57 Hexachlorobenzene	284	16.508	16.507	(0.965)	417437	3.22324	322.3
	58 Pentachlorophenol	266	16.871	16.871	(0.986)	579627	11.5279	1153
*	59 Phenanthrene-d10	188	17.111	17.111	(1.000)	1110987	4.00000	
	60 Phenanthrene	178	17.150	17.157	(1.002)	1157096	4.04596	404.6
	61 Anthracene	178	17.243	17.242	(1.008)	1131522	3.92767	392.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62 Carbazole	167	17.583	17.583	(1.028)	951598	4.39616	439.6
63 Di-n-butylphthalate	149	18.403	18.403	(1.075)	1271982	4.03282	403.3
64 Fluoranthene	202	19.432	19.432	(1.136)	1648595	4.18326	418.3
65 Pyrene	202	19.835	19.834	(0.903)	1644487	4.66601	466.6
$ 66 Terphenyl-d14	244	20.152	20.152	(0.918)	1238676	4.26447	426.4
67 Butylbenzylphthalate	149	21.073	21.073	(0.960)	537848	4.19368	419.4
68 Benzo(a)anthracene	228	21.933	21.932	(0.999)	1755540	4.42615	442.6
* 69 Chrysene-d12	240	21.956	21.956	(1.000)	1457352	4.00000	
70 3,3'-Dichlorobenzidine	252	21.917	21.917	(0.998)	1248680	6.00229	600.2
71 Chrysene	228	22.002	22.002	(1.002)	1602805	4.48076	448.1
72 bis(2-Ethylhexyl)phthalate	149	22.095	22.095	(0.959)	563402	3.21868	321.9
* 134 Di-n-octylphthalate-d4	153	23.048	23.047	(1.000)	1230802	4.00000	
73 Di-n-octylphthalate	149	23.063	23.063	(1.001)	785084	2.64477	264.5
74 Benzo(b)fluoranthene	252	23.651	23.651	(0.976)	2083141	4.50324	450.3
75 Benzo(k)fluoranthene	252	23.682	23.690	(0.977)	2094186	4.36826	436.8
76 Benzo(a)pyrene	252	24.147	24.147	(0.996)	1581539	4.16384	416.4
* 77 Perylene-d12	264	24.232	24.232	(1.000)	1518674	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	26.224	26.216	(1.082)	2308931	4.46083	446.1
79 Dibenzo(a,h)anthracene	278	26.239	26.239	(1.083)	1894365	4.37459	437.5
80 Benzo(g,h,i)perylene	276	26.799	26.798	(1.106)	1971731	4.52716	452.7
90 N-Nitrosodimethylamine	74	3.959	3.920	(0.485)	263611	9.10212	910.2
91 Aniline	93	7.659	7.658	(0.938)	510411	3.53560	353.6
93 Benzidine	184	Compound Not Detected.					
103 Pyridine	79	3.966	3.920	(0.486)	355817	13.1960	1320
105 1-methylnaphthalene	142	12.217	12.217	(1.153)	462585	3.62838	362.8
111 Azobenzene (1,2-DP-Hydrazine)	77	15.551	15.551	(1.101)	822863	4.42510	442.5
187 Total Benzofluoranthenes	252	23.651	23.690	(0.976)	3867431	8.67809	867.8
99 Perylene	252	24.279	24.278	(1.002)	847132	2.25956	226.0

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57sb.d
Lab Smp Id: TX57LCSS1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26622

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: TX57LCSS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	183200	5.98
27 Naphthalene-d8	574010	287005	1148020	683714	19.11
42 Acenaphthene-d10	467963	233982	935926	556073	18.83
59 Phenanthrene-d10	976150	488075	1952300	1110987	13.81
69 Chrysene-d12	1397129	698564	2794258	1457352	4.31
134 Di-n-octylphthala	1264537	632268	2529074	1230802	-2.67
77 Perylene-d12	1407308	703654	2814616	1518674	7.91

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.17	-0.09
27 Naphthalene-d8	10.60	10.10	11.10	10.59	-0.07
42 Acenaphthene-d10	14.13	13.63	14.63	14.13	0.00
59 Phenanthrene-d10	17.11	16.61	17.61	17.11	0.00
69 Chrysene-d12	21.96	21.46	22.46	21.96	0.00
134 Di-n-octylphthala	23.05	22.55	23.55	23.05	0.00
77 Perylene-d12	24.23	23.73	24.73	24.23	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: INTEGRAL
Sample Matrix: SOLID
Lab Smp Id: TX57LCSS1
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26622

Client SDG: TX57
Fraction: SV
Client Smp ID: TX57LCSS1
Operator: YZ
SampleType: LCS
Quant Type: ISTD

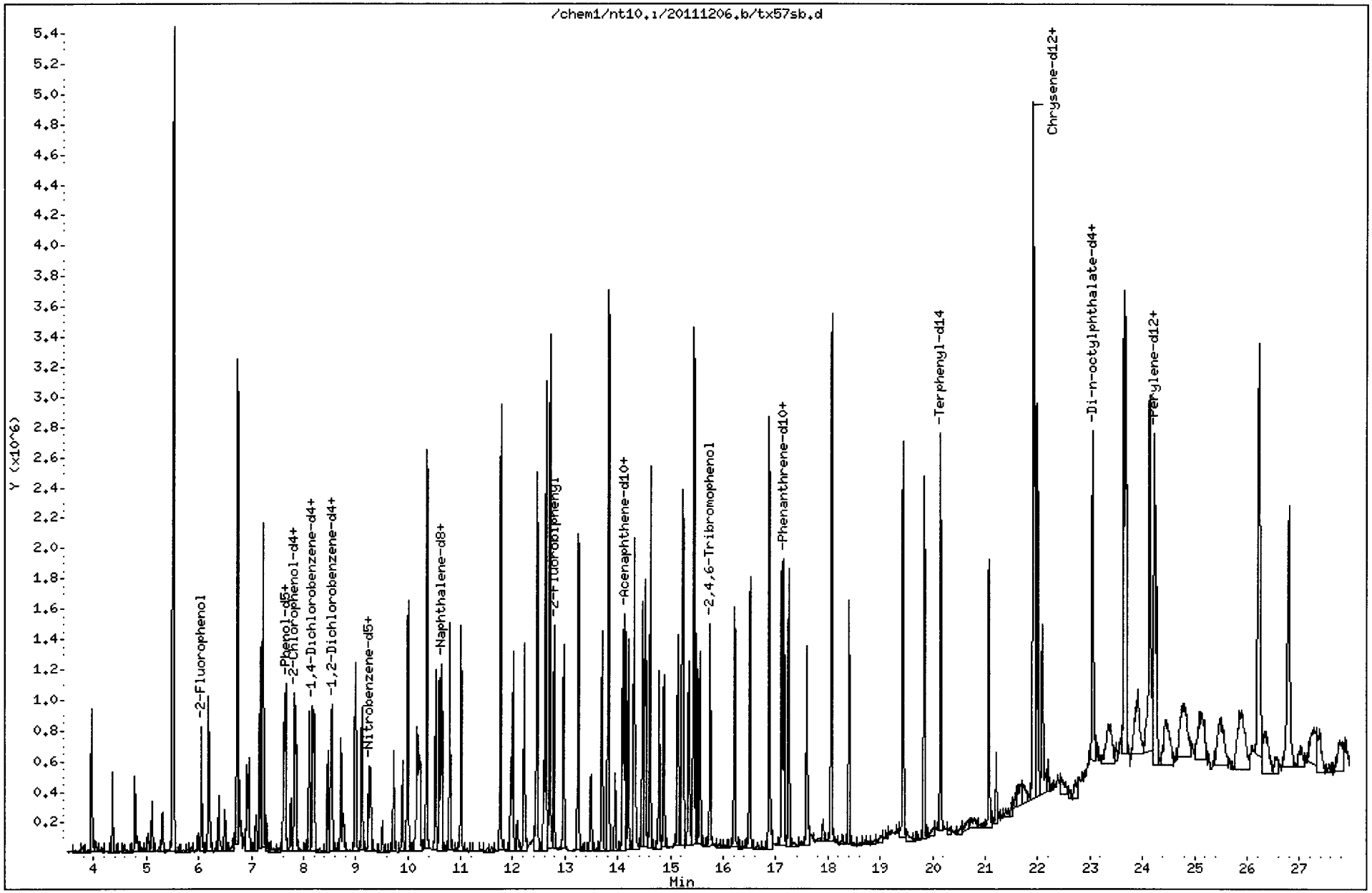
SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	500.0	369.1	73.82	30-160
7	1,3-Dichlorobenzen	500.0	375.5	75.10	30-160
9	1,4-Dichlorobenzen	500.0	337.2	67.44	30-160
11	Benzyl alcohol	500.0	380.6	76.12	30-160
12	1,2-Dichlorobenzen	500.0	362.7	72.55	30-160
13	2-Methylphenol	500.0	366.3	73.27	30-160
15	4-Methylphenol	1000	731.3	73.13	30-160
17	Hexachloroethane	500.0	380.9	76.17	30-160
22	2,4-Dimethylphenol	1500	719.6	47.97	30-160
24	Benzoic acid	2750	1237	44.97	30-160
26	1,2,4-Trichloroben	500.0	362.6	72.51	30-160
28	Naphthalene	500.0	364.6	72.92	30-160
30	Hexachlorobutadien	500.0	364.7	72.94	30-160
32	2-Methylnaphthalen	500.0	390.4	78.08	30-160
39	Dimethylphthalate	500.0	366.9	73.39	30-160
40	Acenaphthylene	500.0	365.7	73.15	30-160
44	Acenaphthene	500.0	372.9	74.58	30-160
46	Dibenzofuran	500.0	380.1	76.02	30-160
49	Fluorene	500.0	393.9	78.78	30-160
50	Diethylphthalate	500.0	417.1	83.42	30-160
54	N-Nitrosodiphenyla	500.0	403.1	80.61	30-160
57	Hexachlorobenzene	500.0	322.3	64.46	30-160
58	Pentachlorophenol	1500	1153	76.85	30-160
60	Phenanthrene	500.0	404.6	80.92	30-160
61	Anthracene	500.0	392.8	78.55	30-160
63	Di-n-butylphthalat	500.0	403.3	80.66	30-160
64	Fluoranthene	500.0	418.3	83.67	30-160
65	Pyrene	500.0	466.6	93.32	30-160
67	Butylbenzylphthala	500.0	419.4	83.87	30-160
68	Benzo(a)anthracene	500.0	442.6	88.52	30-160
71	Chrysene	500.0	448.1	89.62	30-160
72	bis(2-Ethylhexyl)p	500.0	321.9	64.37	30-160
73	Di-n-octylphthalat	500.0	264.5	52.90	30-160

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	500.0	416.4	83.28	30-160
78 Indeno(1,2,3-cd)py	500.0	446.1	89.22	30-160
79 Dibenzo(a,h)anthra	500.0	437.5	87.49	30-160
80 Benzo(g,h,i)peryle	500.0	452.7	90.54	30-160
105 1-methylnaphthalen	500.0	362.8	72.57	30-160
187 Total Benzofluoran	1000	867.8	86.78	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.0	527.3	70.30	30-160
$ 2 Phenol-d5	750.0	531.9	70.93	30-160
$ 5 2-Chlorophenol-d4	750.0	546.4	72.85	30-160
$ 10 1,2-Dichlorobenzen	500.0	366.5	73.31	30-160
$ 18 Nitrobenzene-d5	500.0	384.4	76.88	30-160
$ 36 2-Fluorobiphenyl	500.0	349.1	69.83	30-160
$ 55 2,4,6-Tribromophen	750.0	579.8	77.30	30-160
$ 66 Terphenyl-d14	500.0	426.4	85.29	30-160

Data File: /chem1/nt10.i/20111206.b/tx57sb.d
Date : 06-DEC-2011 15:43
Client ID: TX57LCSS1
Sample Info: TX57LCSS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - tx57sb.d

Lab ID: TX57LCSS1, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 12/9/11

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111206.b/tx57a.d
Lab Smp Id: TX57A Client Smp ID: SD0012
Inj Date : 06-DEC-2011 16:17
Operator : YZ Inst ID: nt10.i
Smp Info : TX57A
Misc Info : 11-26619
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 07-Dec-2011 08:43 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	13.20000	Weight of sample extracted (g)
M	19.60000	% 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)
$ 1	2-Fluorophenol	112	6.059	6.043	(0.741)	208452	4.41321	415.8
$ 2	Phenol-d5	99	7.620	7.612	(0.932)	294825	4.86020	458.0
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.828	7.828	(0.957)	254130	4.62938	436.2
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.176	8.177	(1.000)	193167	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.518	8.518	(1.042)	143320	3.00885	283.5
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.248	9.248	(0.872)	233479	3.08939	291.1
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.600	10.600	(1.000)	710987	4.00000	
	28 Naphthalene	128	10.639	10.639	(1.004)	32907	0.19116 J	18.01
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	12.008	12.008	(1.133)	22384	0.17331	16.33
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.782	12.782	(0.905)	641259	3.55392	334.9
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	13.819	13.819	(0.978)	21439	0.10224 J	9.634
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.129	14.129	(1.000)	499082	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.190	14.198	(1.004)	35991	0.27495	25.91
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.523	14.523	(1.028)	37346	0.17794 J	16.77
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.126	15.134	(1.071)	42058	0.24495	23.08
	49 Fluorene	166	15.211	15.219	(1.077)	35104	0.21233	20.01
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.743	15.751	(1.114)	219931	5.00222	471.3
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.111	17.111	(1.000)	1027336	4.00000	
	60 Phenanthrene	178	17.150	17.157	(1.002)	318265	1.20348	113.4
	61 Anthracene	178	17.242	17.242	(1.008)	98196	0.36861	34.73

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62 Carbazole	167	17.583	17.583	(1.028)	38246	0.19107 J	18.00
63 Di-n-butylphthalate	149	Compound Not Detected.					
64 Fluoranthene	202	19.432	19.432	(1.136)	623326	1.71046	161.2
65 Pyrene	202	19.834	19.834	(0.903)	581583	1.51504	142.8
$ 66 Terphenyl-d14	244	20.152	20.152	(0.918)	1088111	3.43935	324.1
67 Butylbenzylphthalate	149	Compound Not Detected.					
68 Benzo(a)anthracene	228	21.940	21.932	(0.999)	298312	0.69053	65.07
* 69 Chrysene-d12	240	21.963	21.956	(1.000)	1587333	4.00000	
70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71 Chrysene	228	22.002	22.002	(1.002)	380507	0.97663	92.02
72 bis(2-Ethylhexyl)phthalate	149	22.110	22.095	(0.959)	80630	0.41847	39.43
* 134 Di-n-octylphthalate-d4	153	23.063	23.047	(1.000)	1354819	4.00000	
73 Di-n-octylphthalate	149	Compound Not Detected.					
74 Benzo(b)fluoranthene	252	23.666	23.651	(0.976)	563760	1.09854 NFA	103.5(M)
75 Benzo(k)fluoranthene	252	23.666	23.690	(0.976)	572652	1.07671	101.5(M)
76 Benzo(a)pyrene	252	24.162	24.147	(0.996)	308955	0.73320	69.09
* 77 Perylene-d12	264	24.255	24.232	(1.000)	1684808	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	26.270	26.216	(1.083)	241090	0.41985	39.56
79 Dibenzo(a,h)anthracene	278	26.293	26.239	(1.084)	71549	0.14893	14.03(M)
80 Benzo(g,h,i)perylene	276	26.853	26.798	(1.107)	294972	0.61048	57.52
90 N-Nitrosodimethylamine	74	Compound Not Detected.					
91 Aniline	93	Compound Not Detected.					
93 Benzidine	184	Compound Not Detected.					
103 Pyridine	79	Compound Not Detected.					
105 1-methylnaphthalene	142	12.217	12.217	(1.153)	16589	0.12513	11.79
111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187 Total Benzofluoranthenes	252	23.666	23.690	(0.976)	548940	1.11030	104.6
99 Perylene	252	24.301	24.278	(1.002)	247964	0.59618	56.18(H)

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57a.d
Lab Smp Id: TX57A
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26619

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: SD0012
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	193167	11.75
27 Naphthalene-d8	574010	287005	1148020	710987	23.86
42 Acenaphthene-d10	467963	233982	935926	499082	6.65
59 Phenanthrene-d10	976150	488075	1952300	1027336	5.24
69 Chrysene-d12	1397129	698564	2794258	1587333	13.61
134 Di-n-octylphthala	1264537	632268	2529074	1354819	7.14
77 Perylene-d12	1407308	703654	2814616	1684808	19.72

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.60	0.00
42 Acenaphthene-d10	14.13	13.63	14.63	14.13	0.00
59 Phenanthrene-d10	17.11	16.61	17.61	17.11	0.00
69 Chrysene-d12	21.96	21.46	22.46	21.96	0.03
134 Di-n-octylphthala	23.05	22.55	23.55	23.06	0.07
77 Perylene-d12	24.23	23.73	24.73	24.25	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: INTEGRAL
Sample Matrix: SOLID
Lab Smp Id: TX57A
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26619

Client SDG: TX57
Fraction: SV
Client Smp ID: SD0012
Operator: YZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	706.7	415.8	58.84	30-160
$ 2 Phenol-d5	706.7	458.0	64.80	30-160
$ 5 2-Chlorophenol-d4	706.7	436.2	61.73	30-160
$ 10 1,2-Dichlorobenzen	471.1	283.5	60.18	30-160
$ 18 Nitrobenzene-d5	471.1	291.1	61.79	30-160
$ 36 2-Fluorobiphenyl	471.1	334.9	71.08	30-160
$ 55 2,4,6-Tribromophen	706.7	471.3	66.70	30-160
$ 66 Terphenyl-d14	471.1	324.1	68.79	30-160

Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

Client ID: SD0012

Sample Info: TX57A

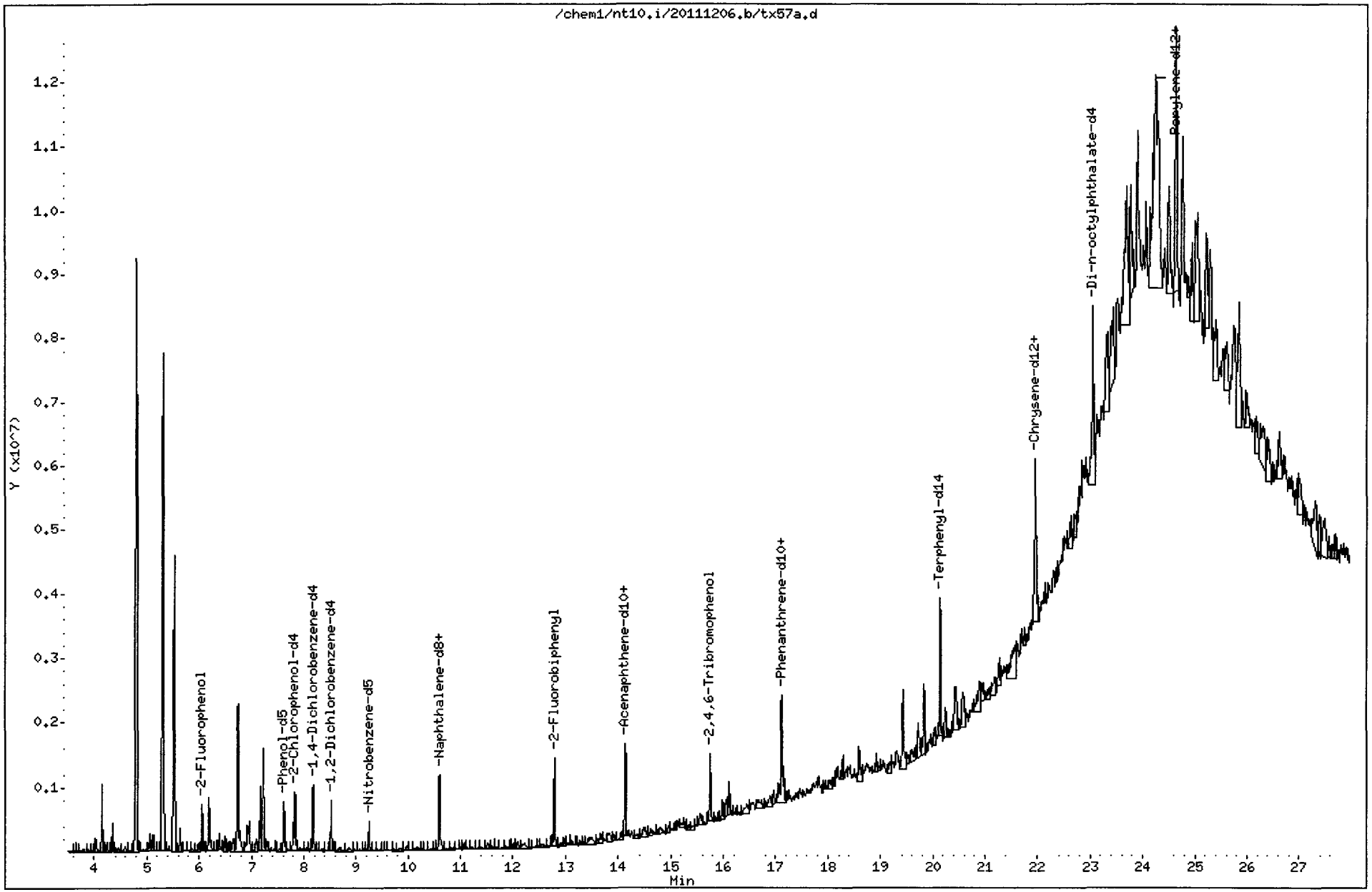
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: YZ

Column diameter: 0.25



TX57 00583

Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

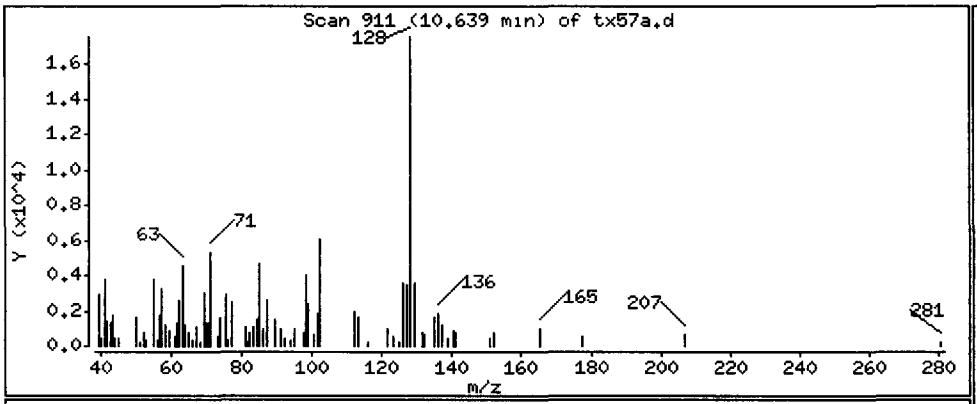
Client ID: SD0012 Instrument: nt10.i

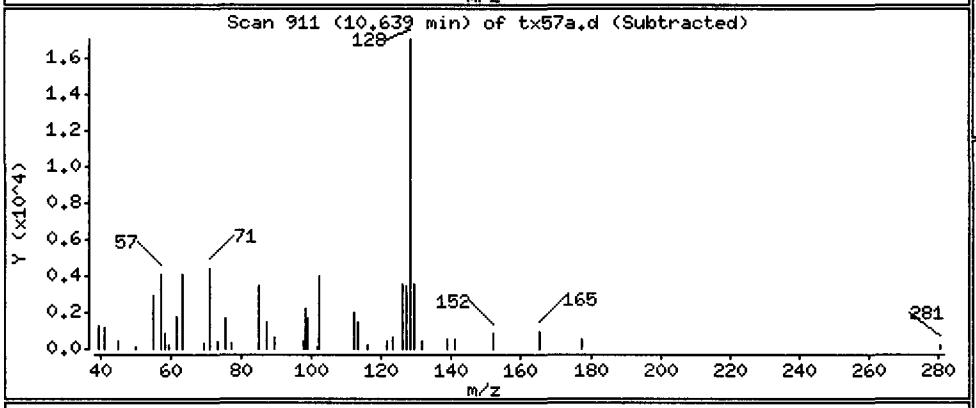
Sample Info: TX57A

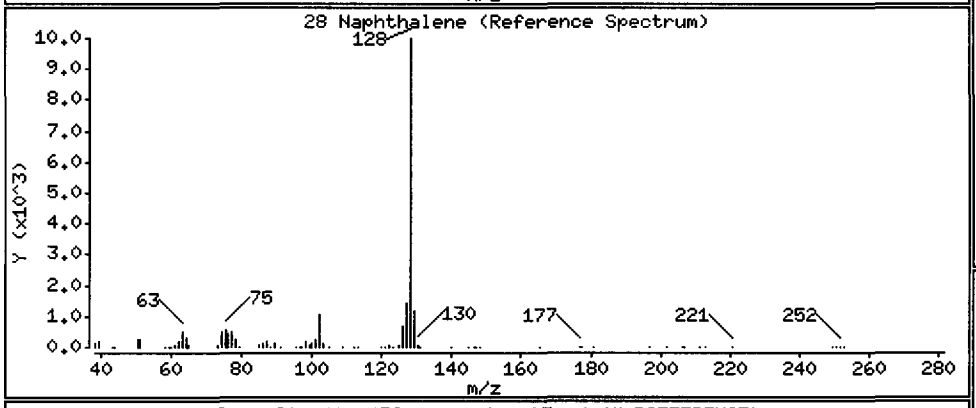
Volume Injected (uL): 1.0 Operator: YZ

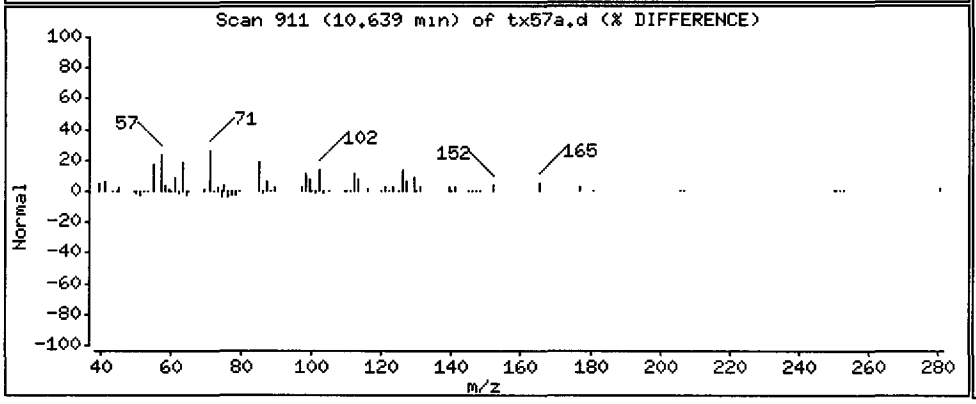
Column phase: ZB-5msi Column diameter: 0.25

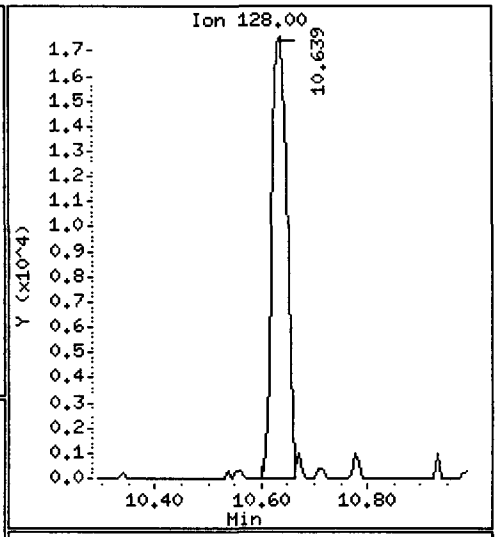
28 Naphthalene Concentration: 18.01 ug/kg

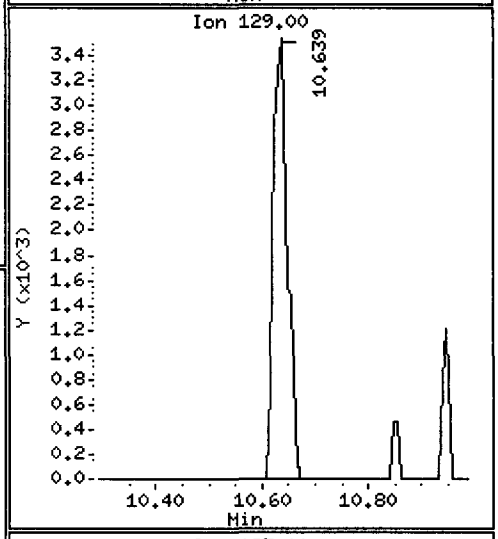


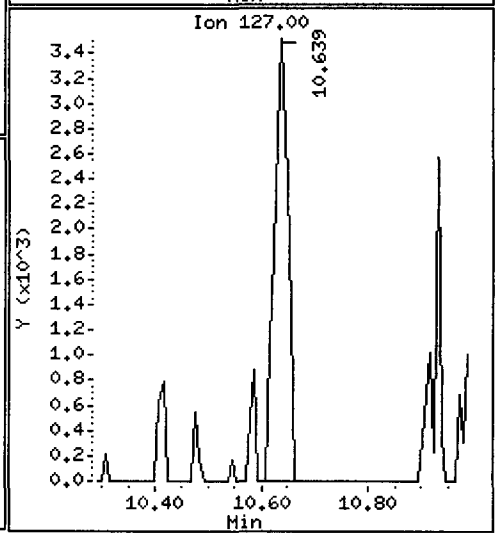












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

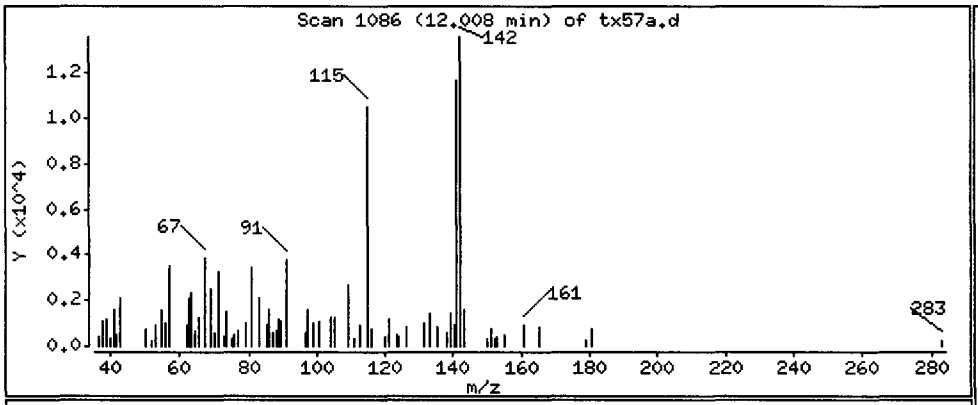
Client ID: SD0012 Instrument: nt10.i

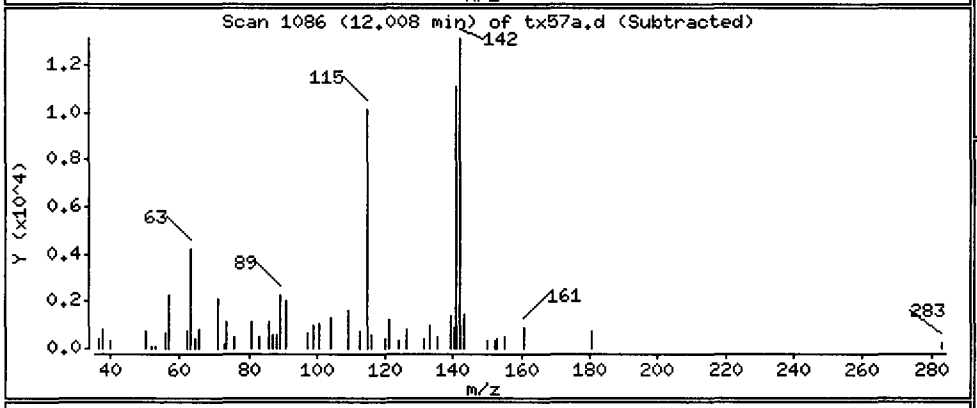
Sample Info: TX57A

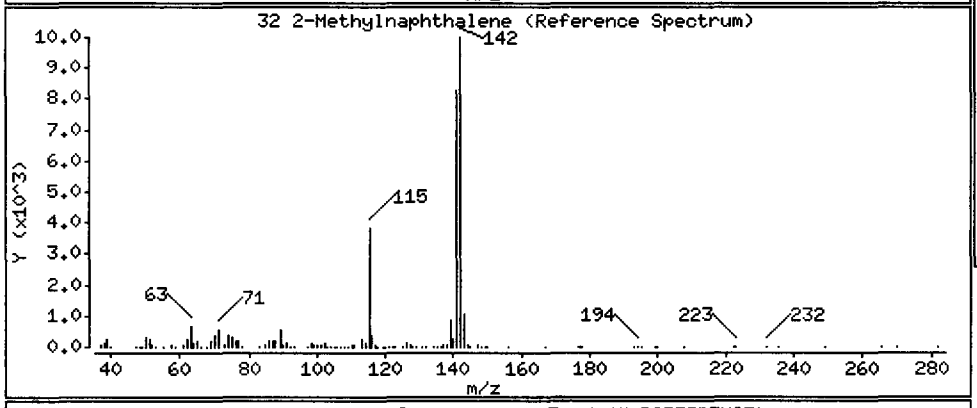
Volume Injected (uL): 1.0 Operator: YZ

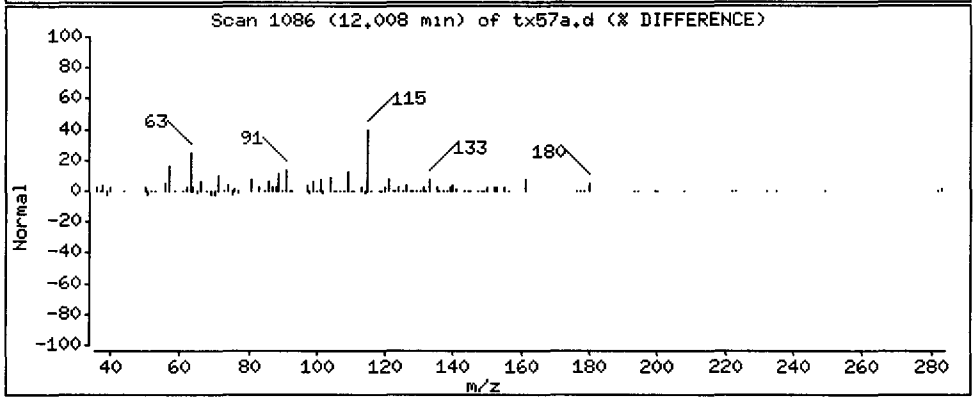
Column phase: ZB-5msi Column diameter: 0.25

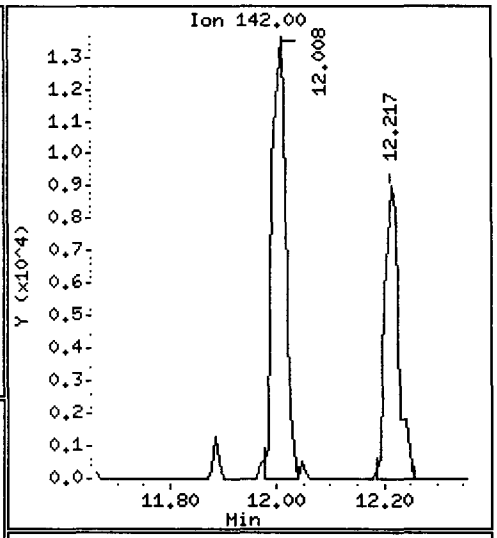
32 2-Methylnaphthalene Concentration: 16.33 ug/kg

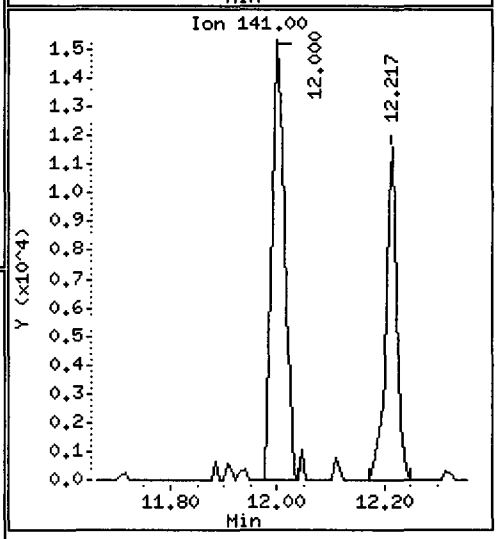












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

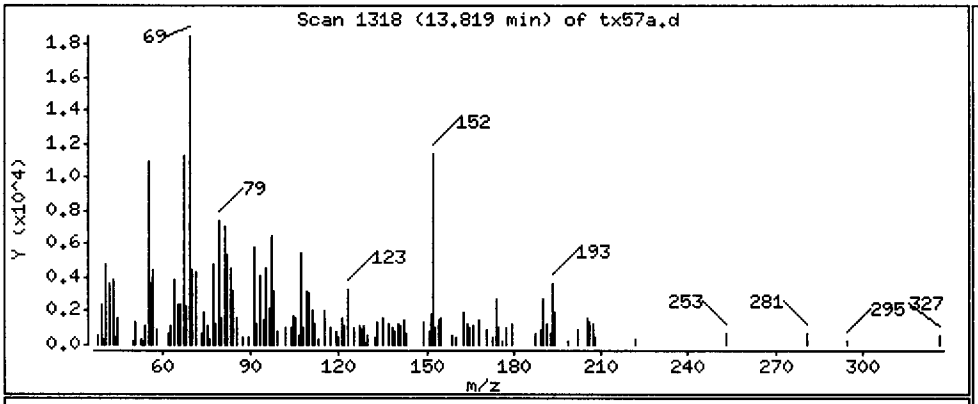
Client ID: SD0012 Instrument: nt10.i

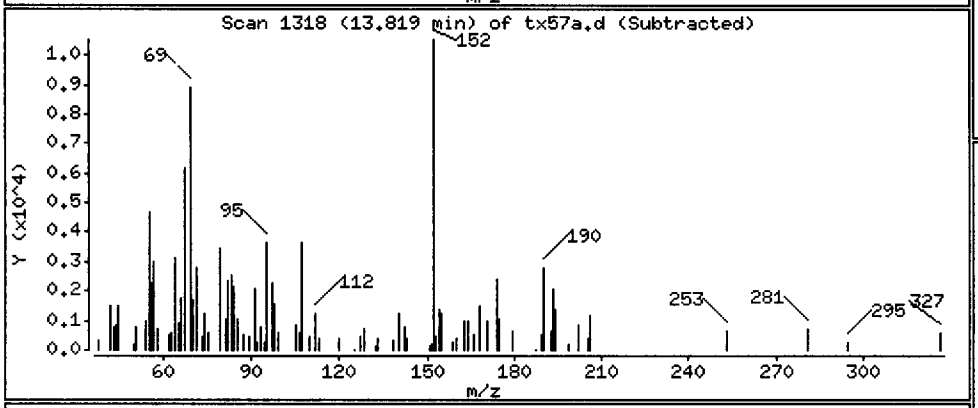
Sample Info: TX57A

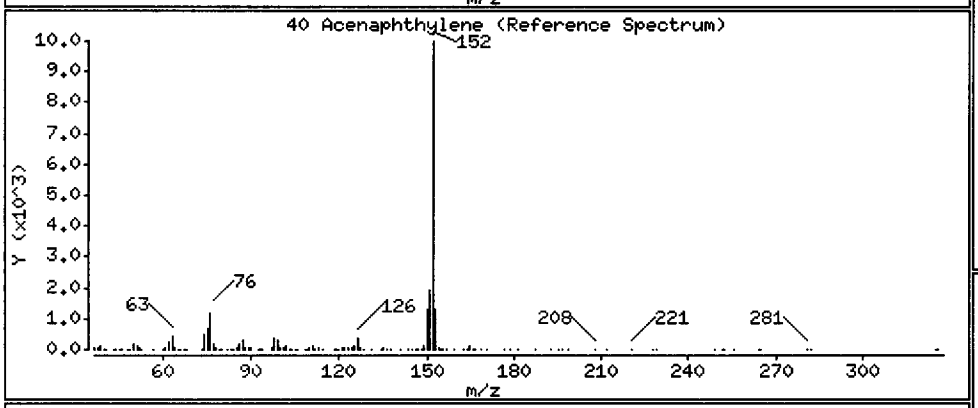
Volume Injected (uL): 1.0 Operator: YZ

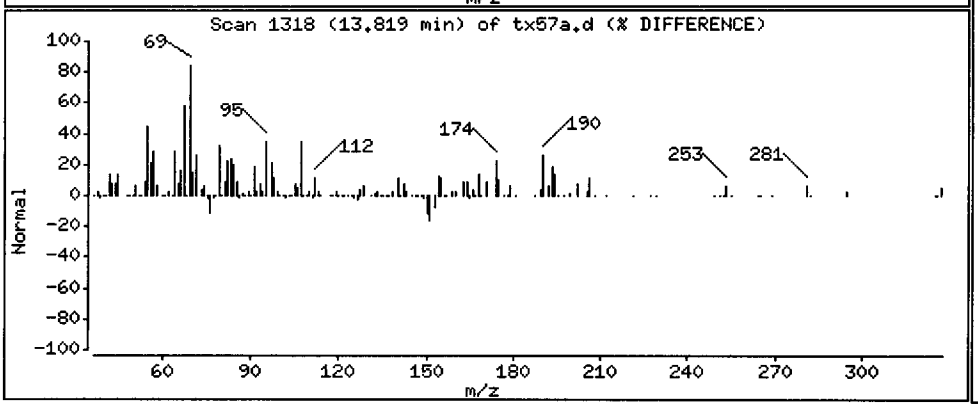
Column phase: ZB-5msi Column diameter: 0.25

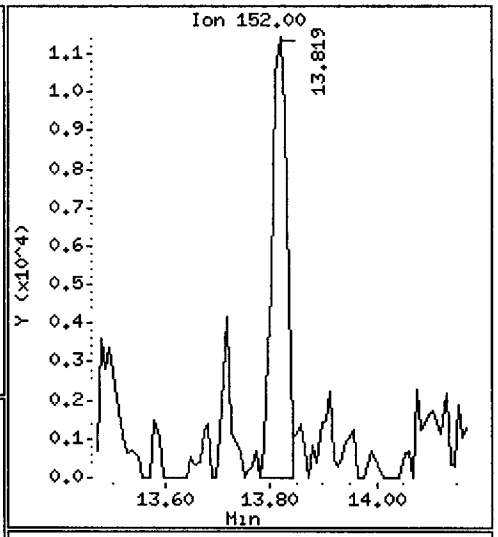
40 Acenaphthylene Concentration: 9.634 ug/kg

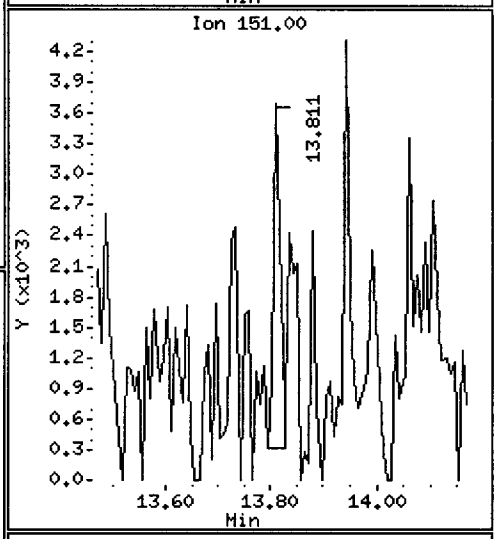


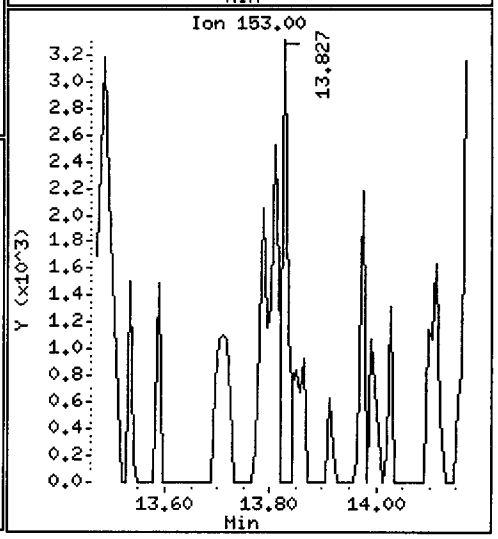












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

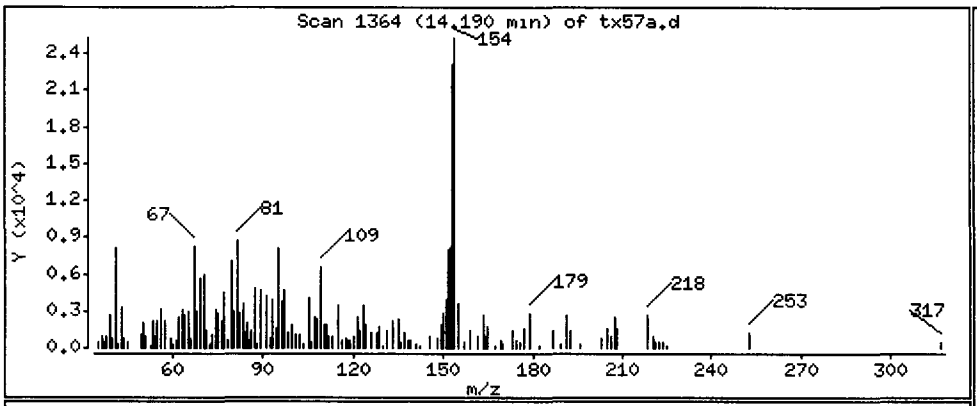
Client ID: SD0012 Instrument: nt10.i

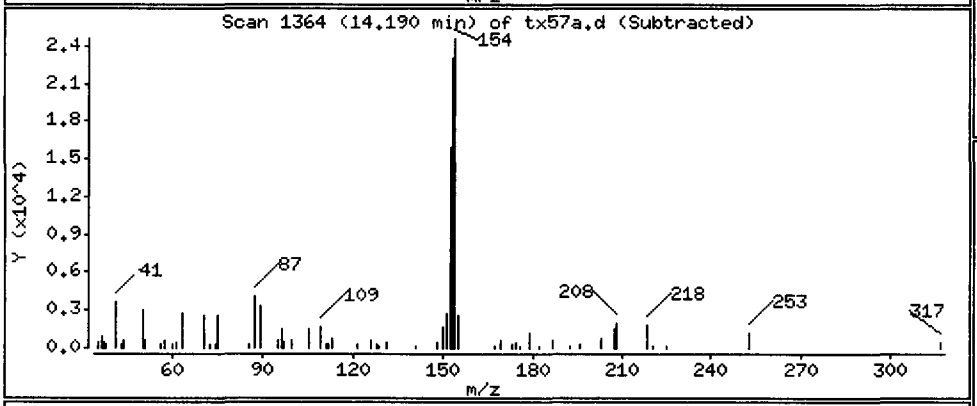
Sample Info: TX57A

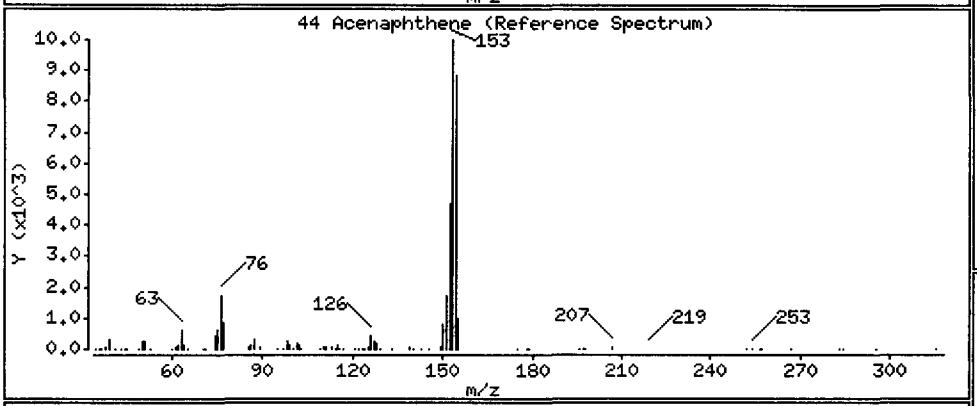
Volume Injected (uL): 1.0 Operator: YZ

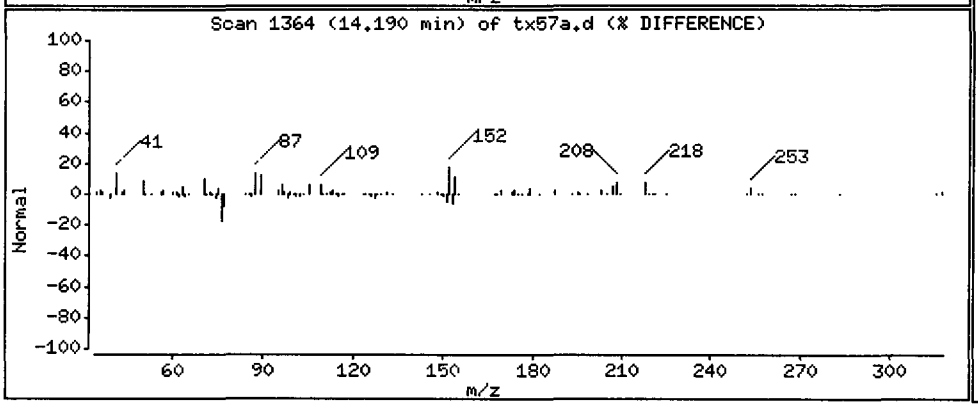
Column phase: ZB-5msi Column diameter: 0.25

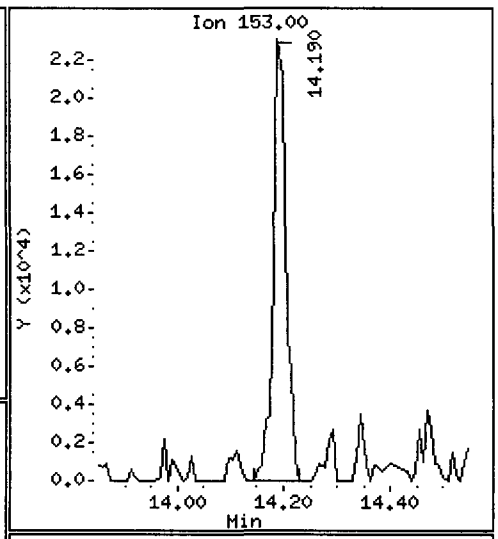
44 Acenaphthene Concentration: 25.91 ug/kg

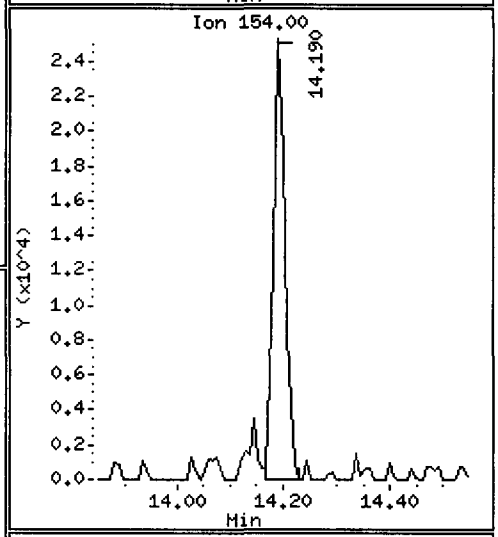


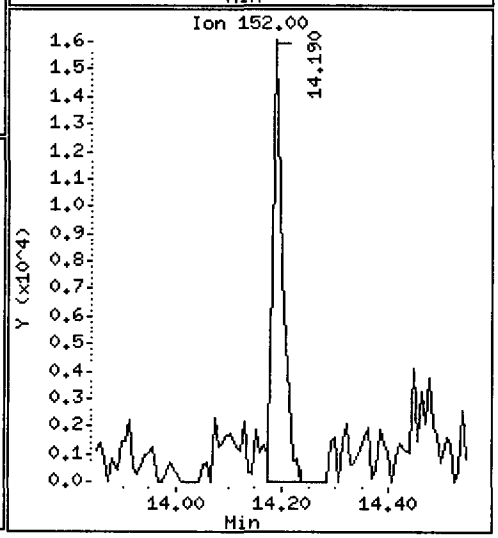












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

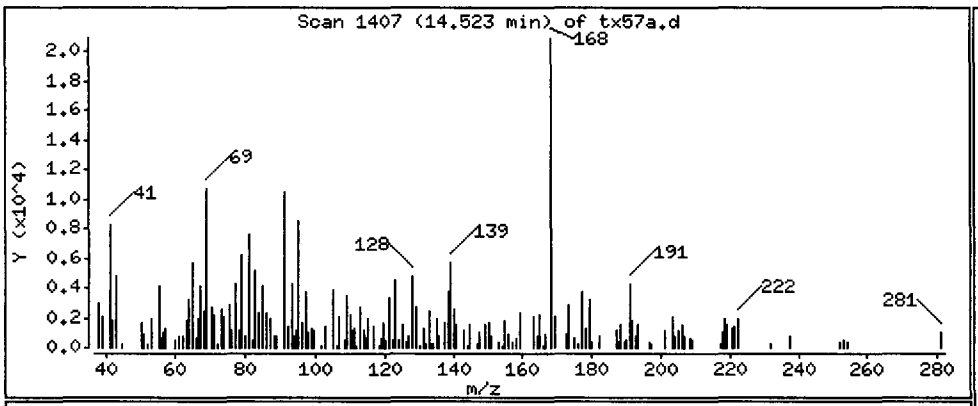
Client ID: SD0012 Instrument: nt10.i

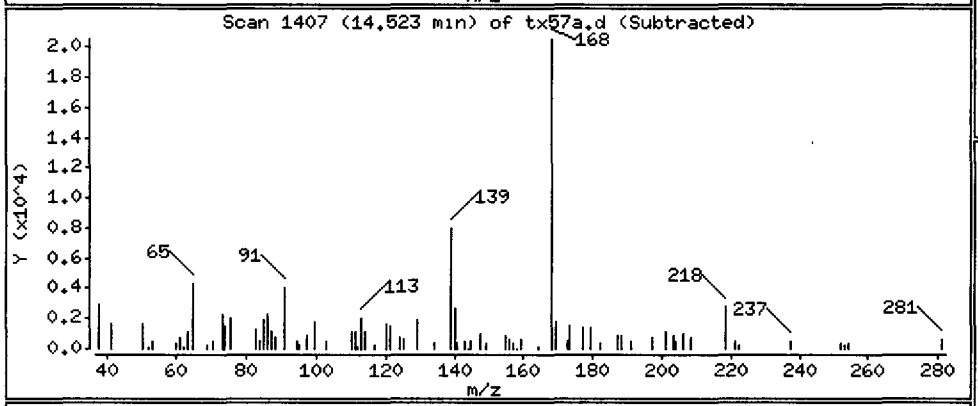
Sample Info: TX57A

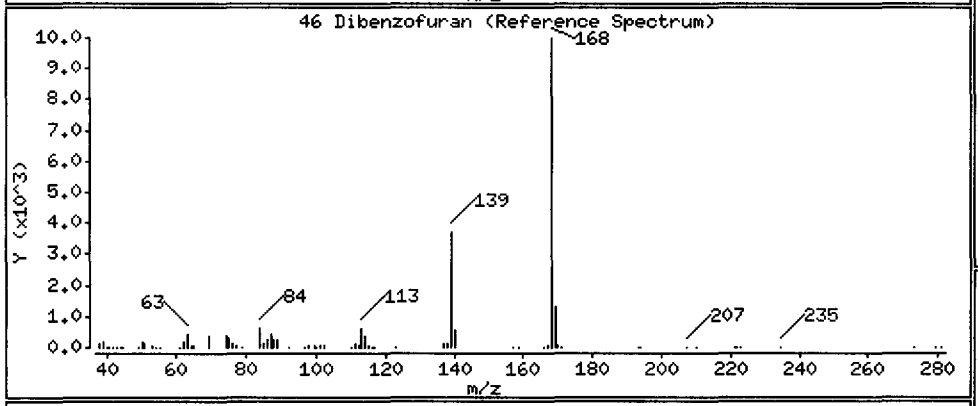
Volume Injected (uL): 1.0 Operator: YZ

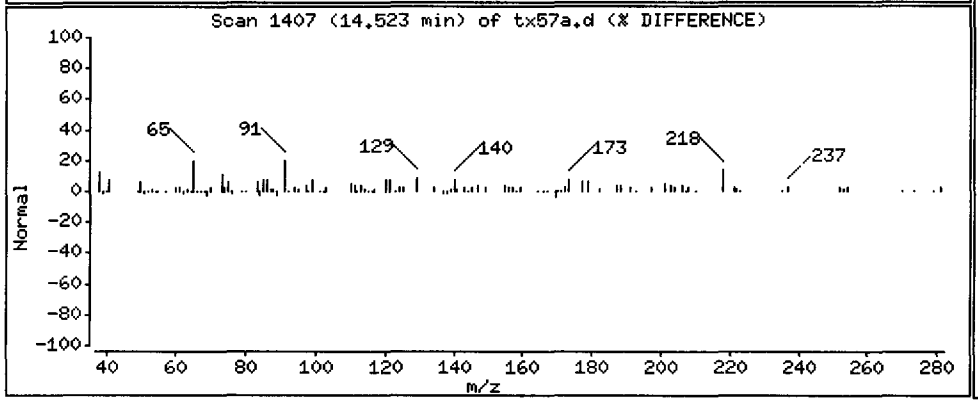
Column phase: ZB-5ms1 Column diameter: 0.25

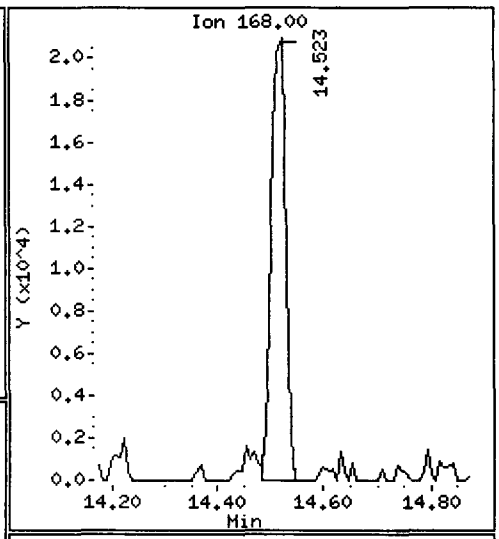
46 Dibenzofuran Concentration: 16.77 ug/kg

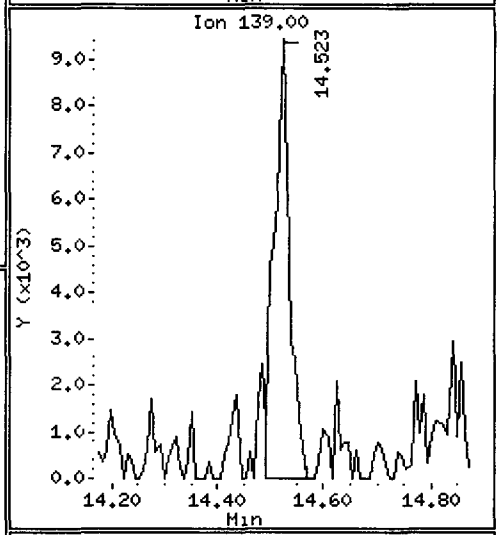


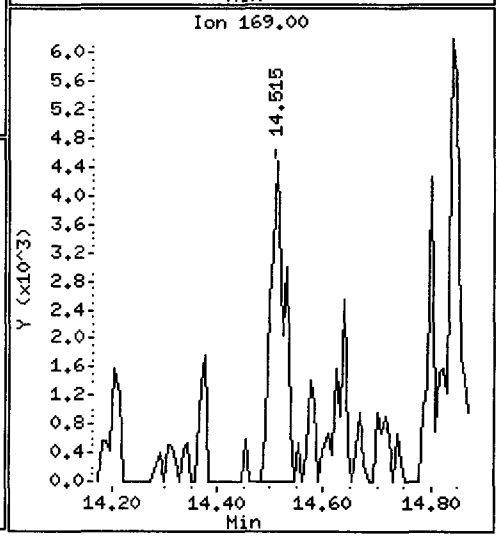












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

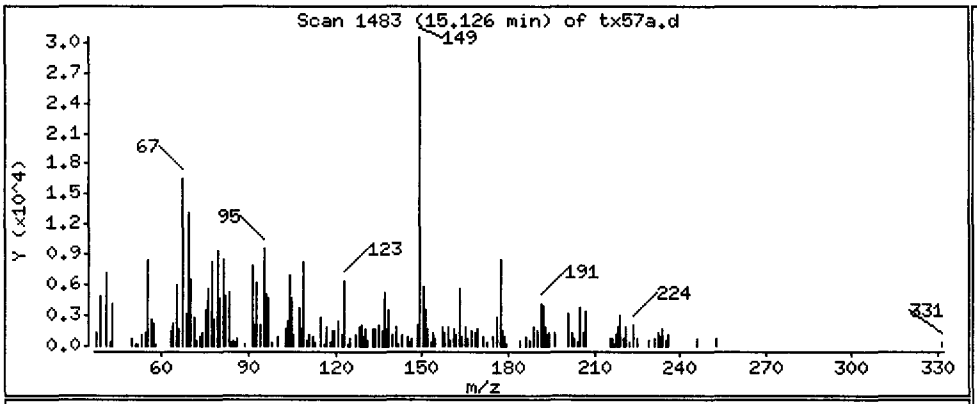
Client ID: SD0012 Instrument: nt10.i

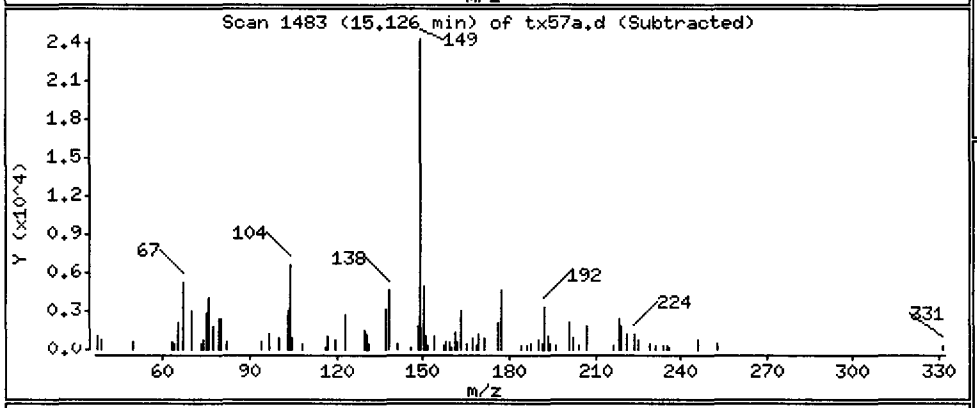
Sample Info: TX57A

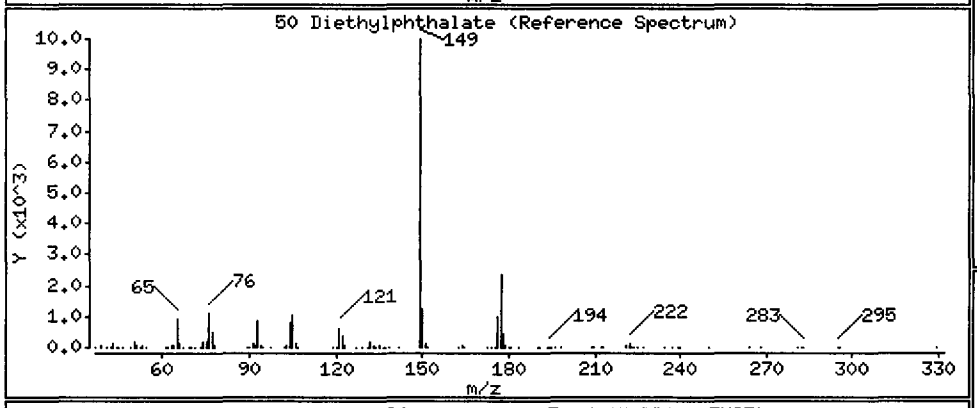
Volume Injected (uL): 1.0 Operator: YZ

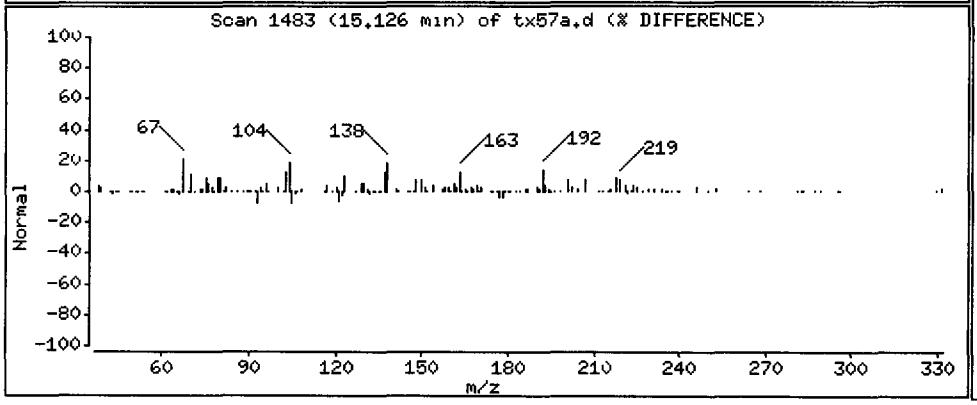
Column phase: ZB-5msi Column diameter: 0.25

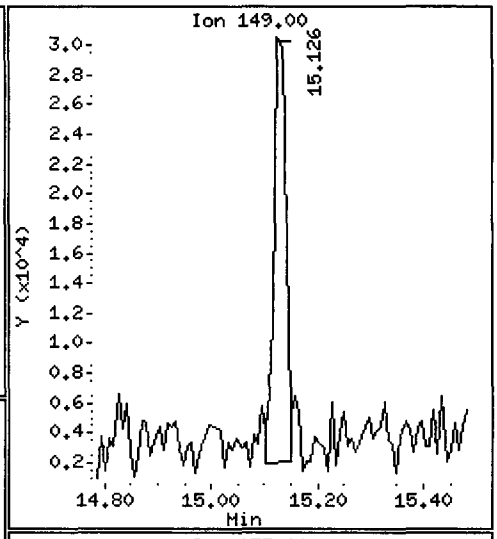
50 Diethylphthalate Concentration: 23.08 ug/kg

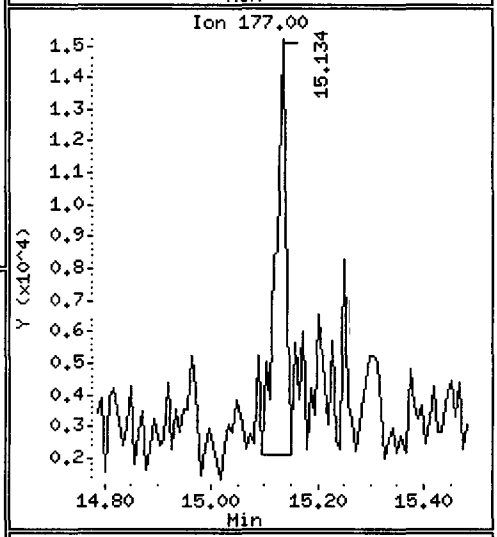


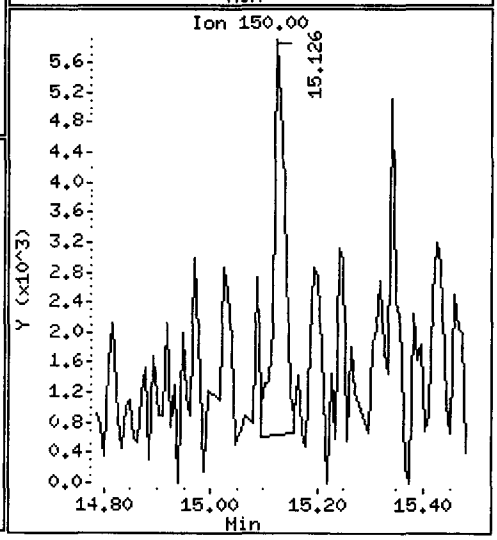












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

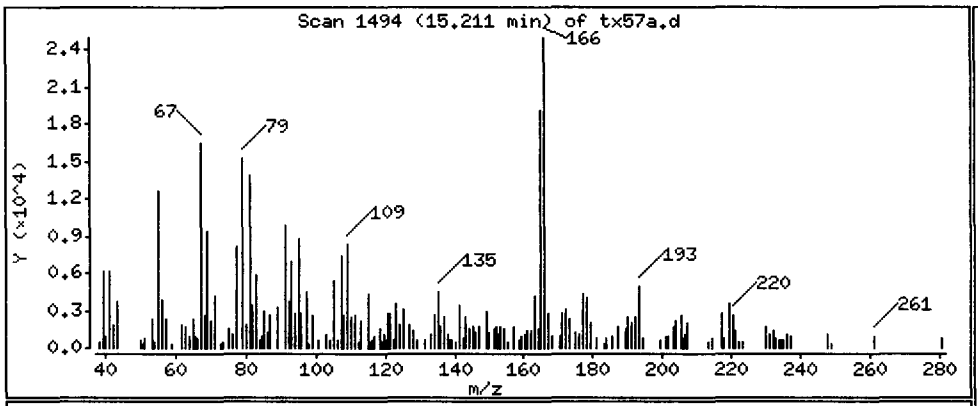
Client ID: SD0012 Instrument: nt10.i

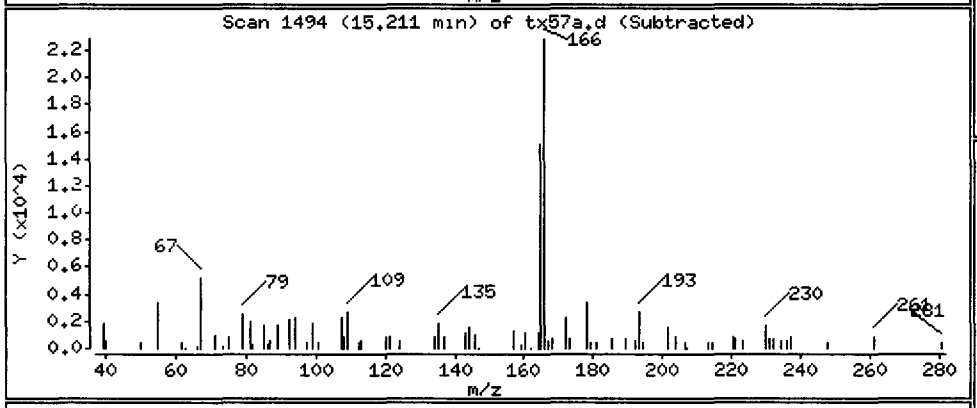
Sample Info: TX57A

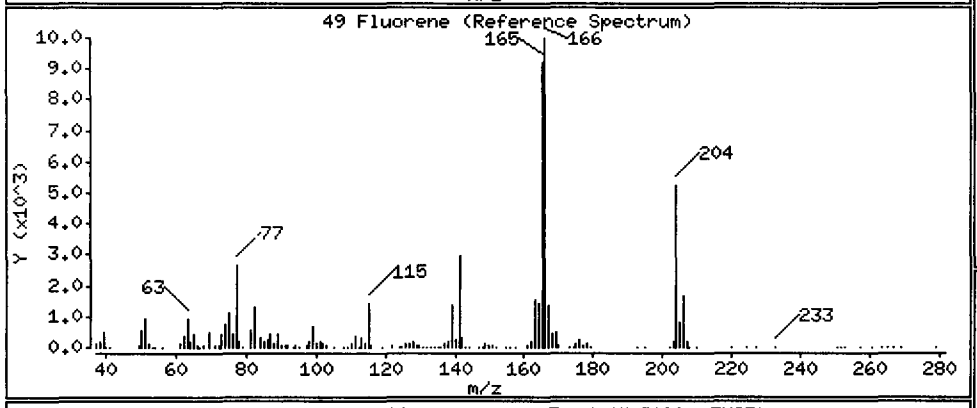
Volume Injected (uL): 1.0 Operator: YZ

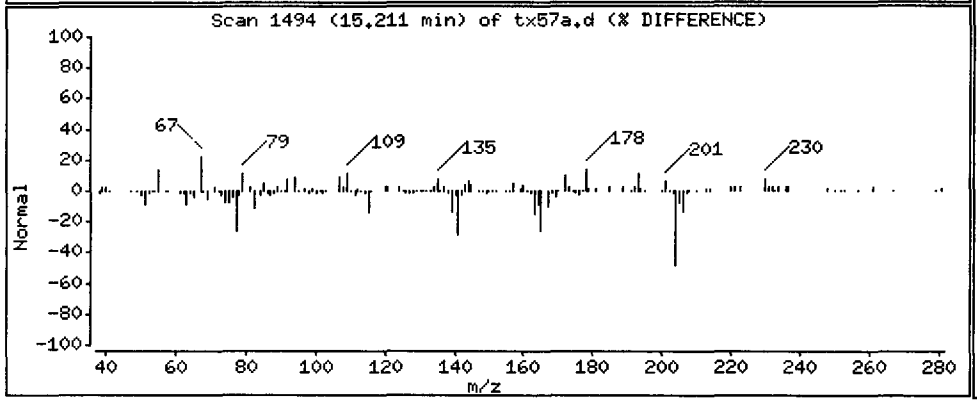
Column phase: ZB-5msi Column diameter: 0.25

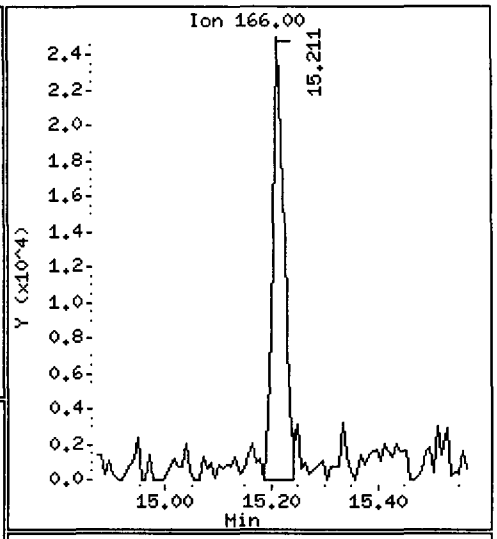
49 Fluorene Concentration: 20.01 ug/kg

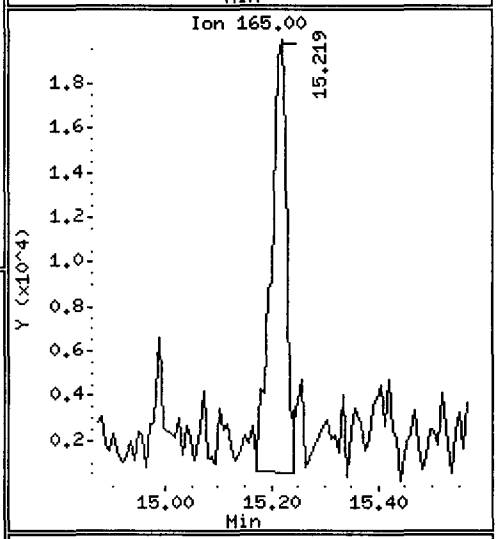


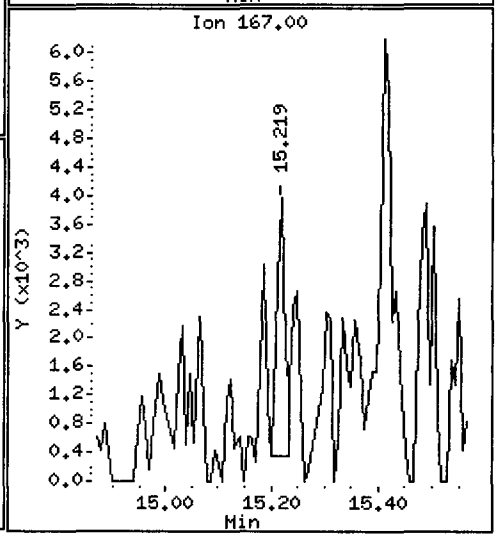












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

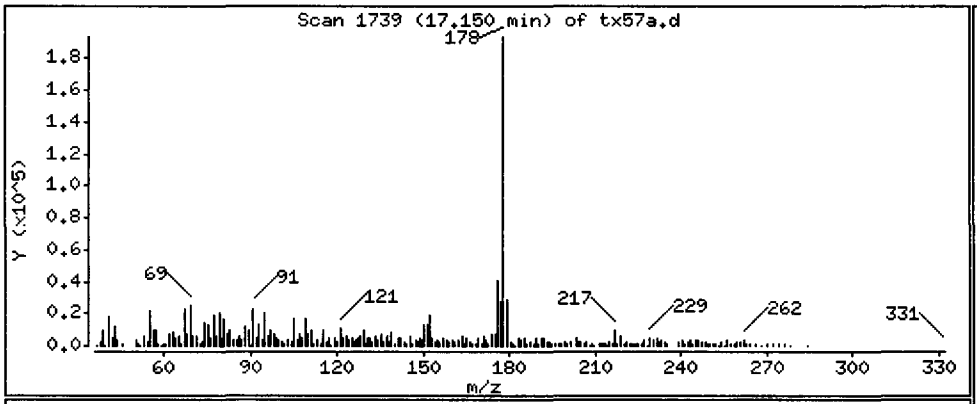
Client ID: SD0012 Instrument: nt10.i

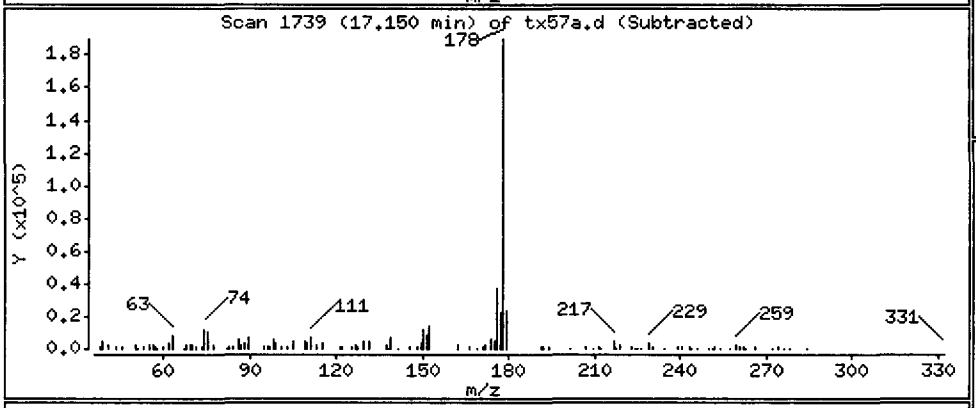
Sample Info: TX57A

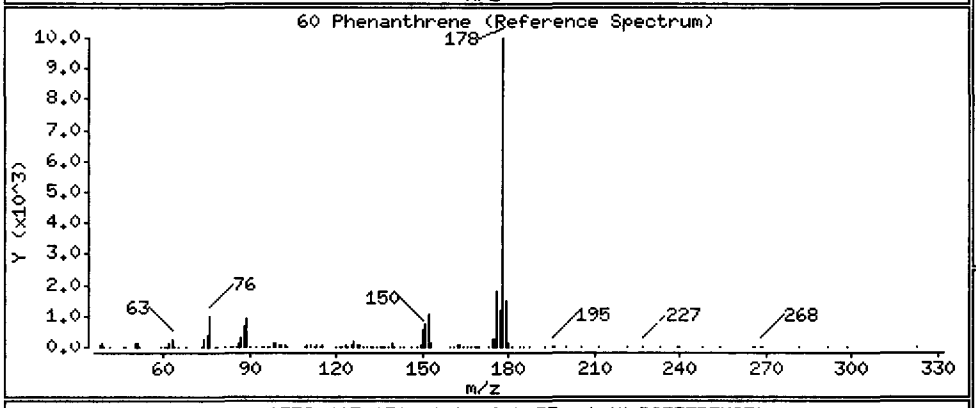
Volume Injected (uL): 1.0 Operator: YZ

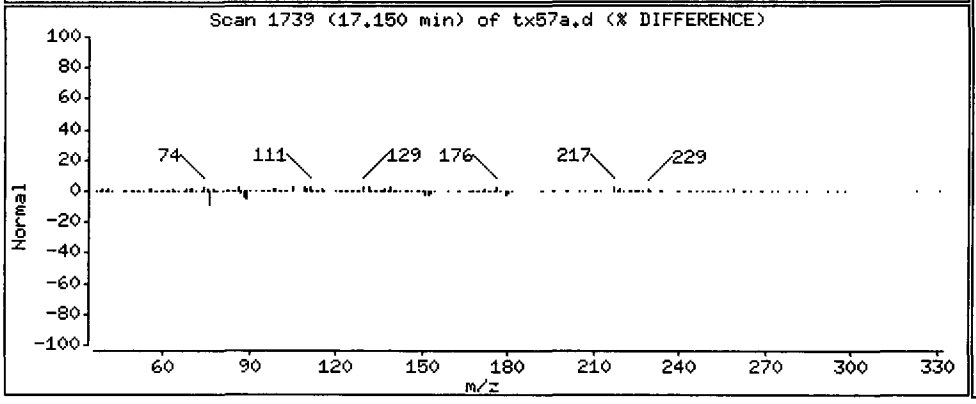
Column phase: ZB-5msi Column diameter: 0.25

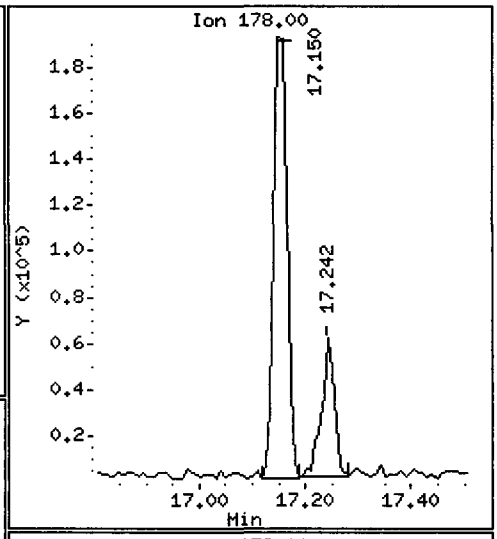
60 Phenanthrene Concentration: 113.4 ug/kg

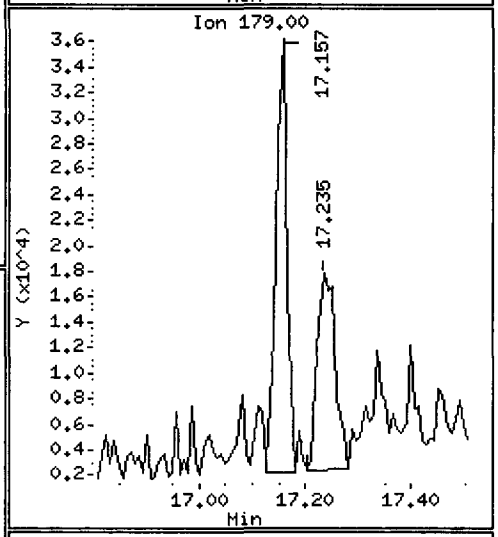


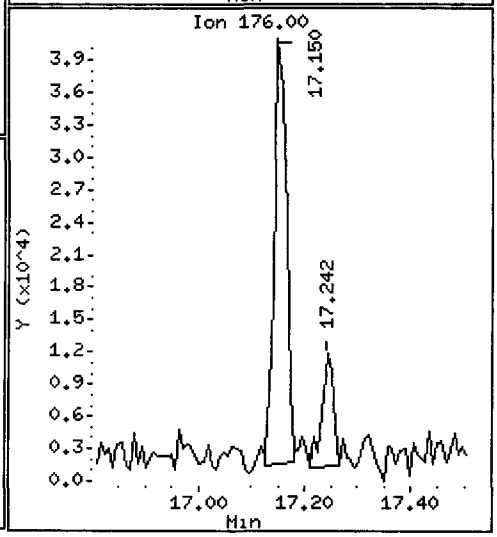












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

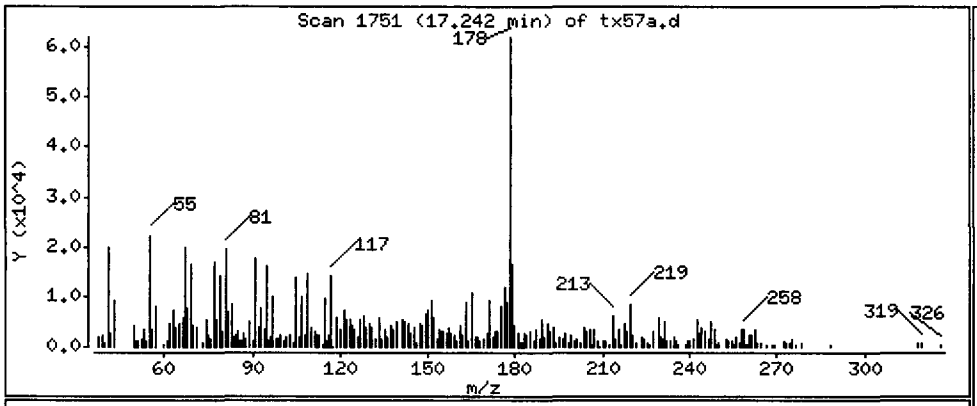
Client ID: SD0012 Instrument: nt10.i

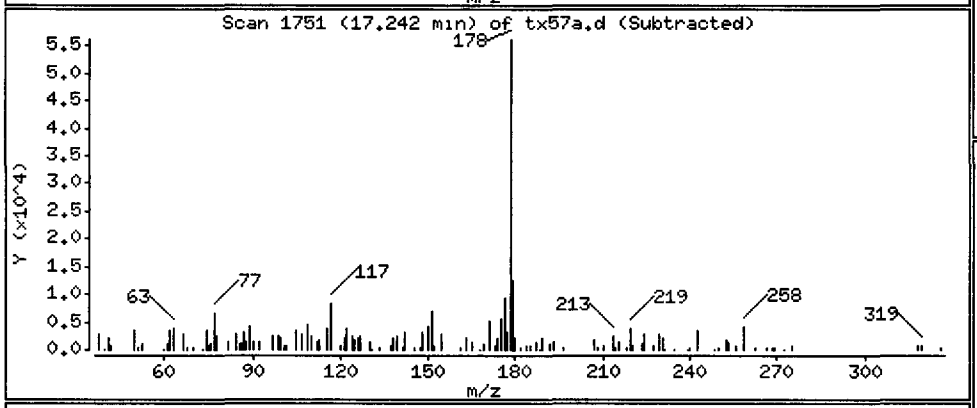
Sample Info: TX57A

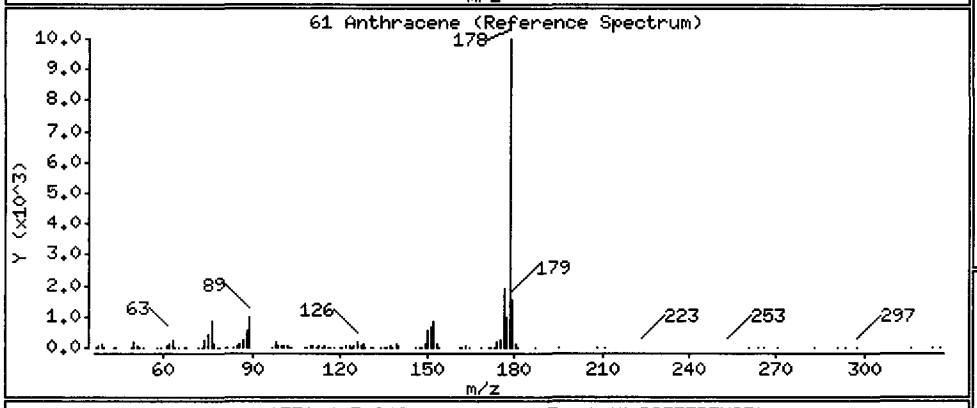
Volume Injected (uL): 1.0 Operator: YZ

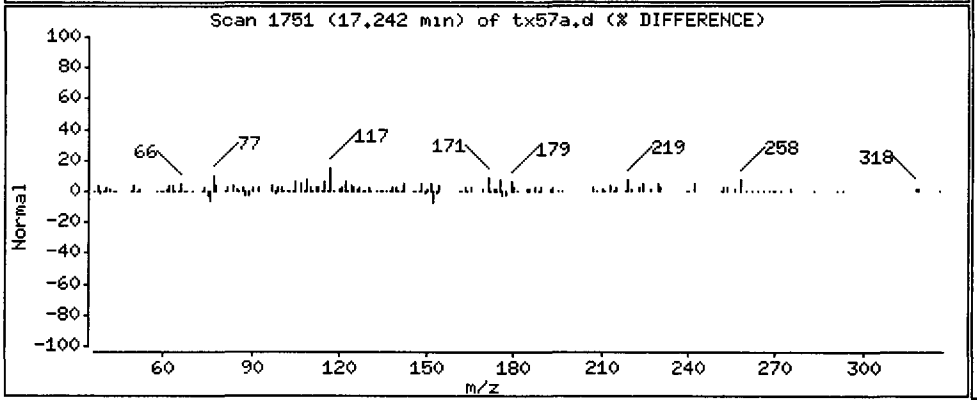
Column phase: ZB-5ms1 Column diameter: 0.25

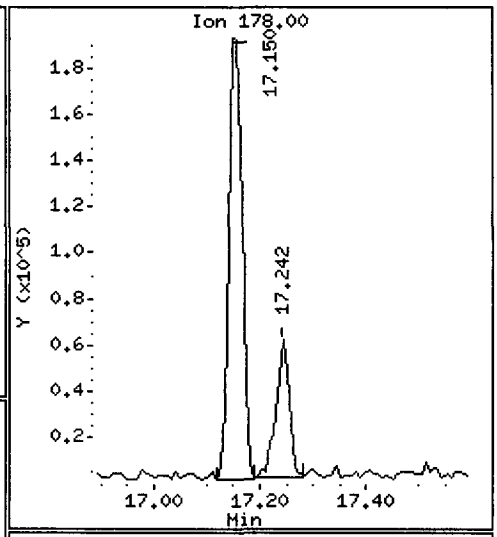
61 Anthracene Concentration: 34.73 ug/kg

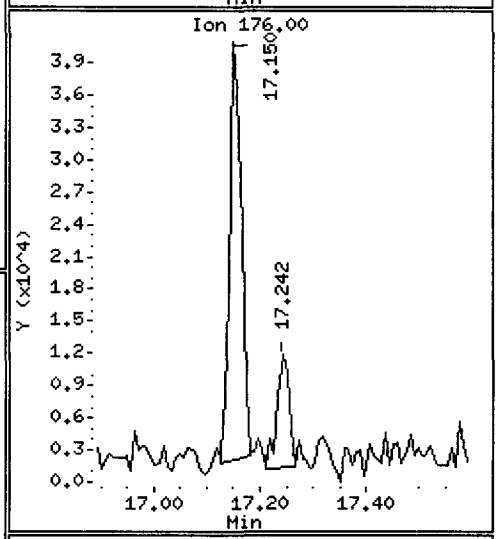


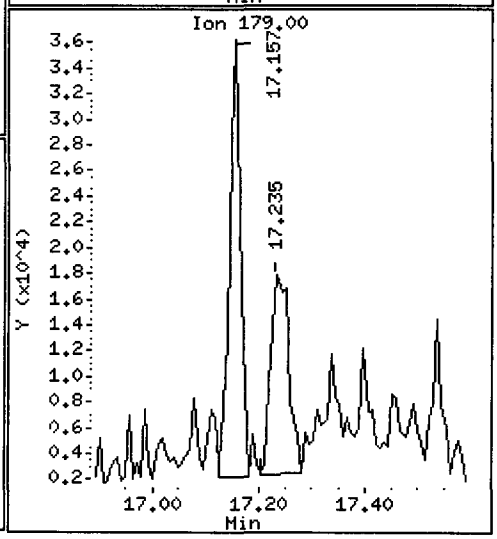












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

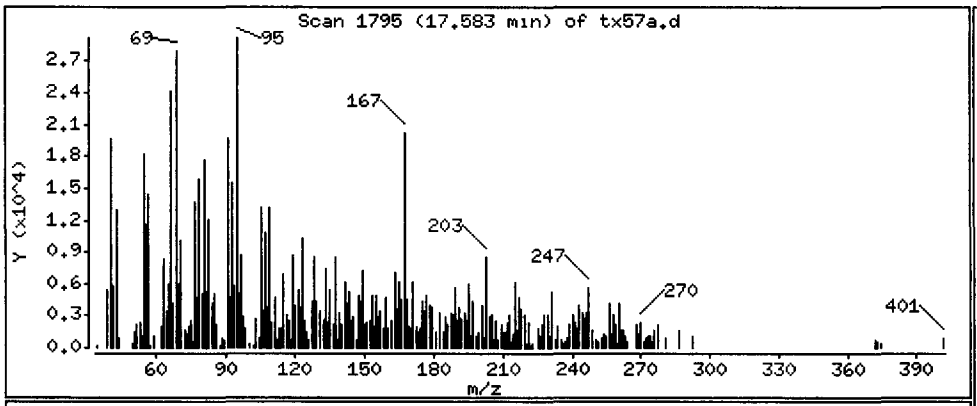
Client ID: SD0012 Instrument: nt10.i

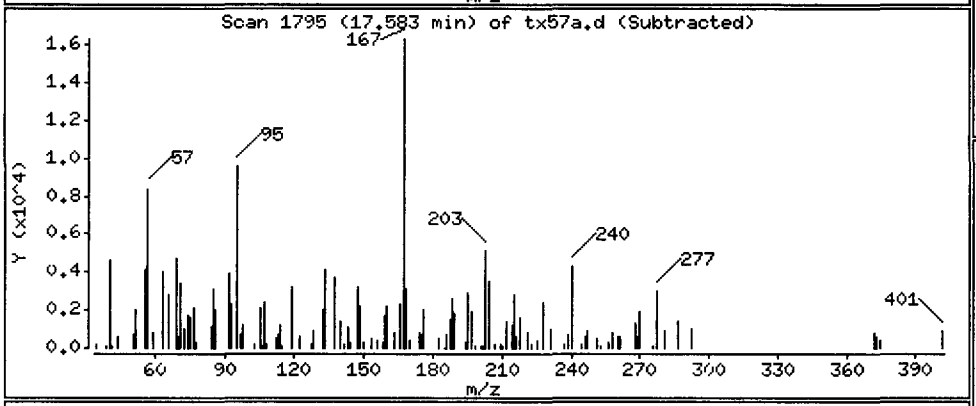
Sample Info: TX57A

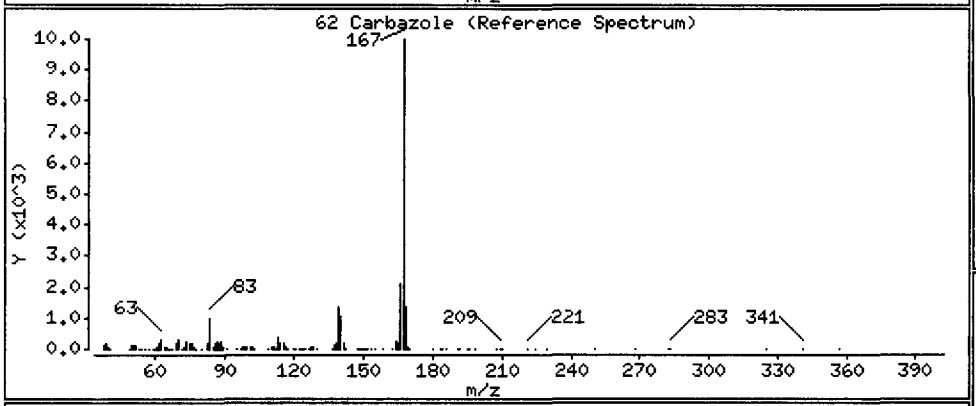
Volume Injected (uL): 1.0 Operator: YZ

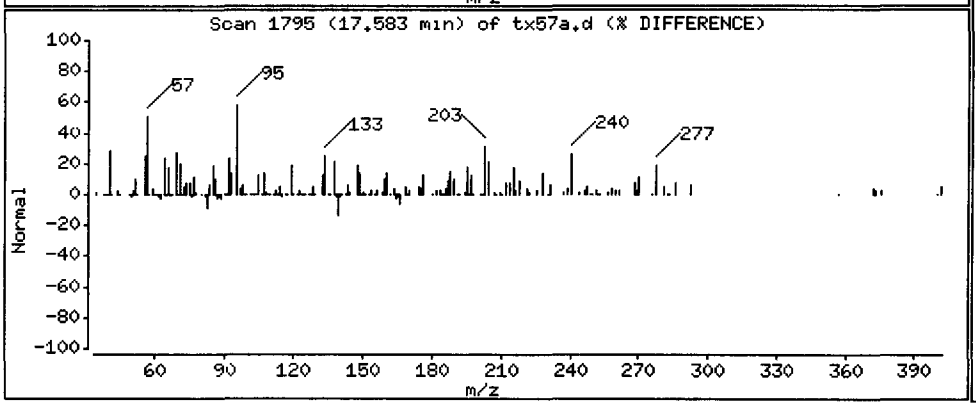
Column phase: ZB-5msi Column diameter: 0.25

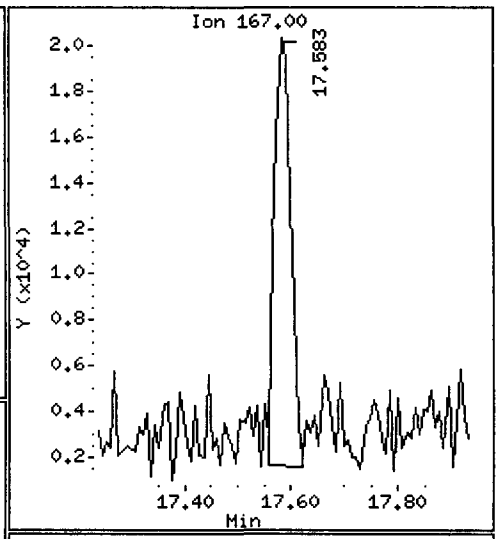
62 Carbazole Concentration: 18.00 ug/kg

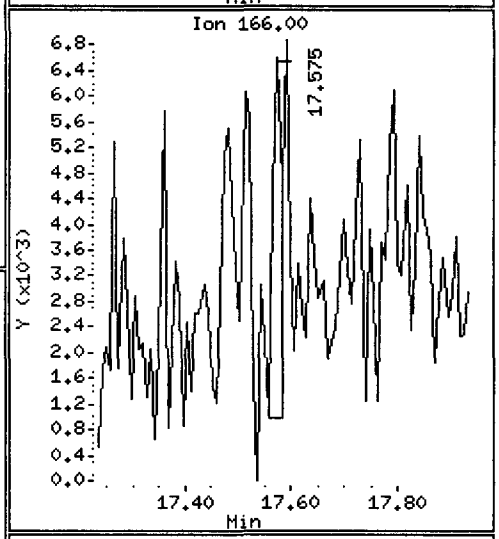


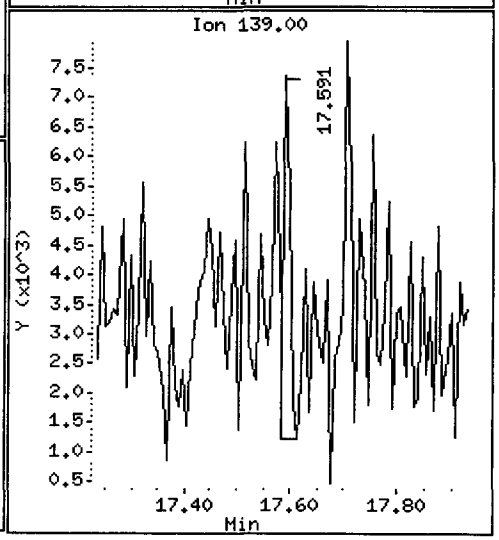












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

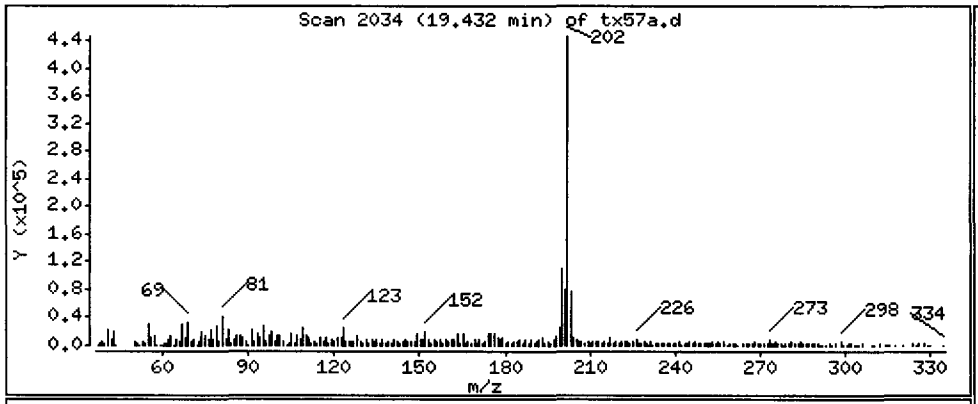
Client ID: SD0012 Instrument: nt10.i

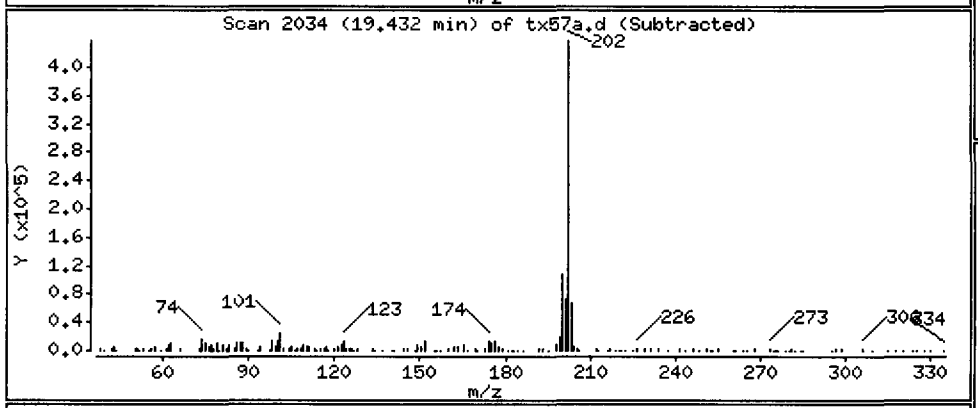
Sample Info: TX57A

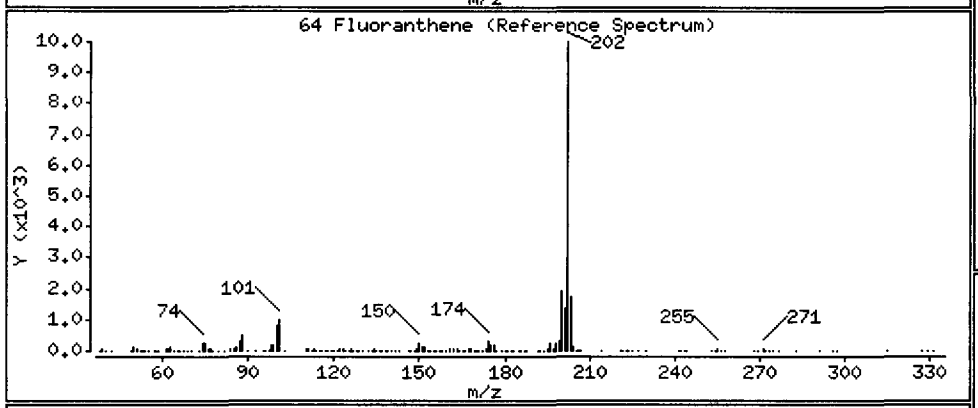
Volume Injected (uL): 1.0 Operator: YZ

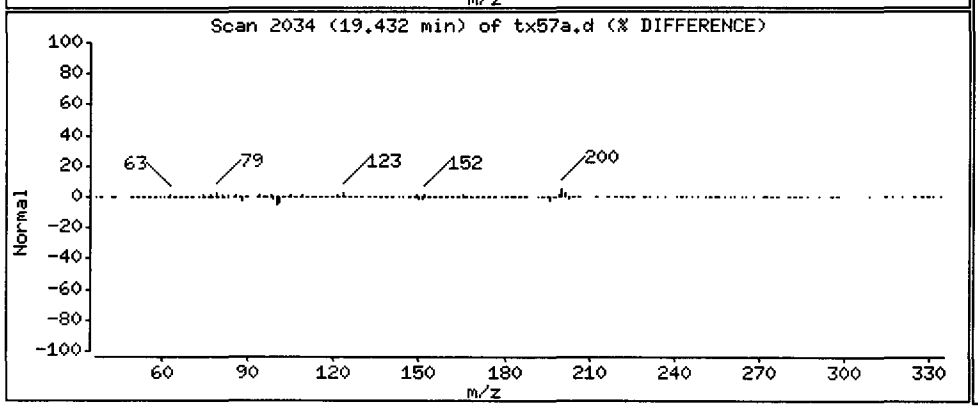
Column phase: ZB-5msi Column diameter: 0.25

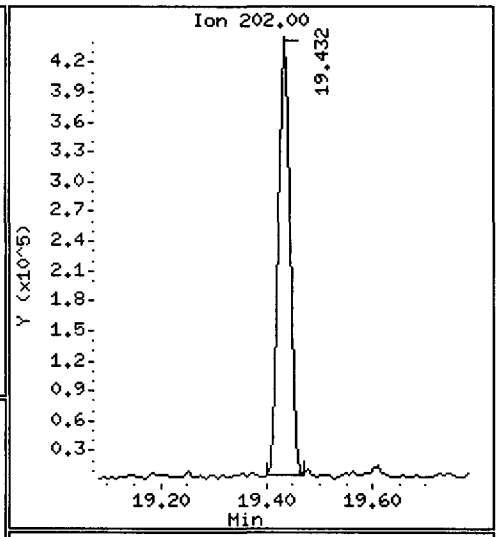
64 Fluoranthene Concentration: 161.2 ug/kg

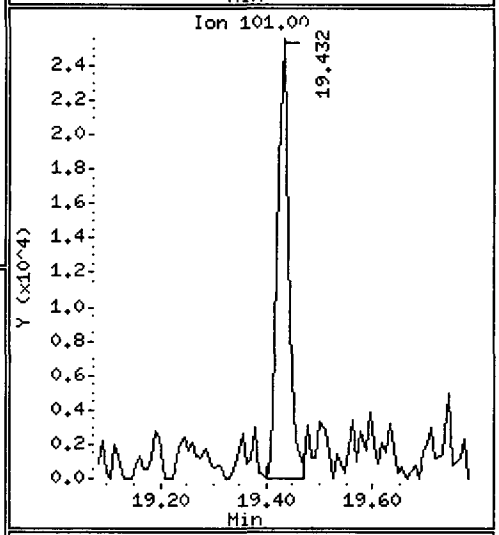


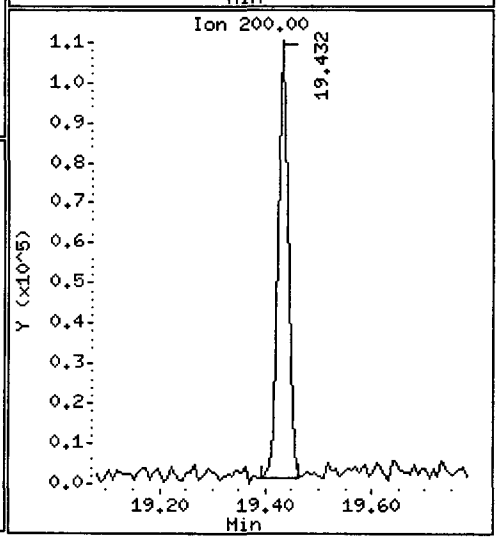












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

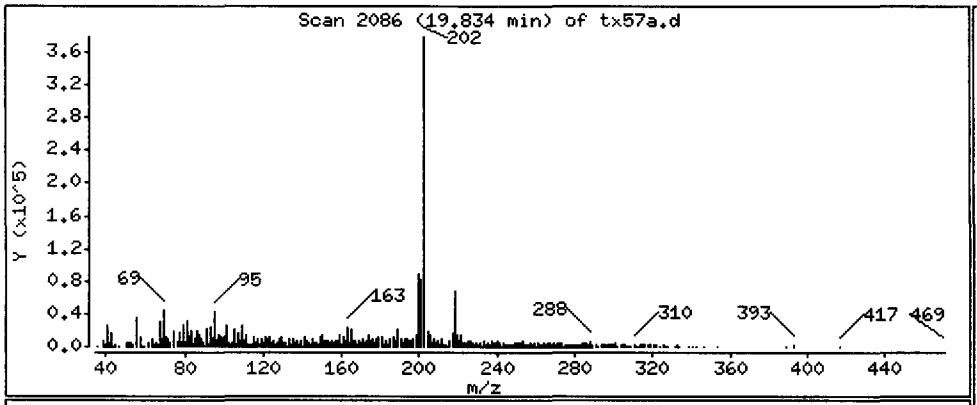
Client ID: SD0012 Instrument: nt10.i

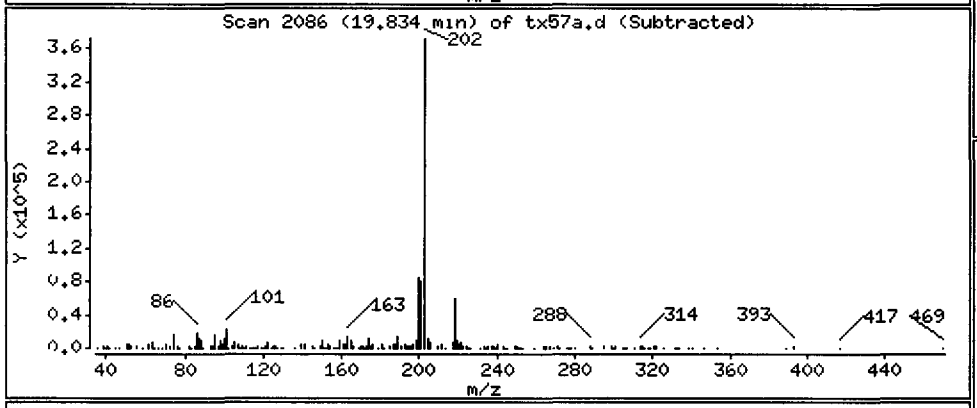
Sample Info: TX57A

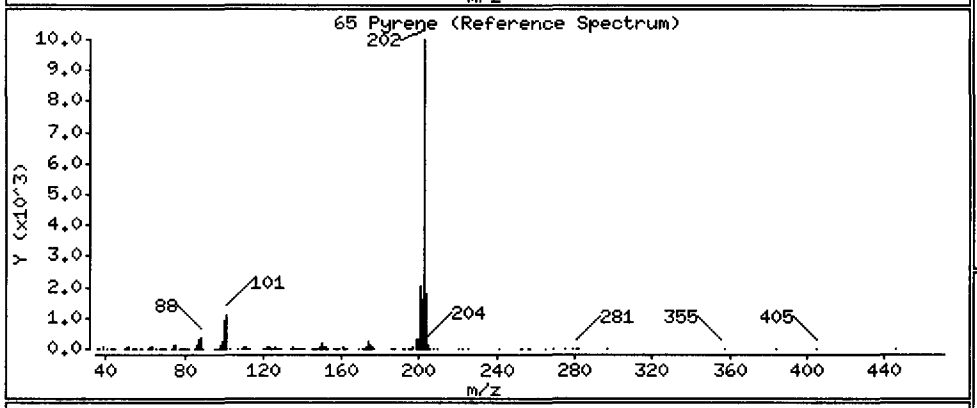
Volume Injected (uL): 1.0 Operator: YZ

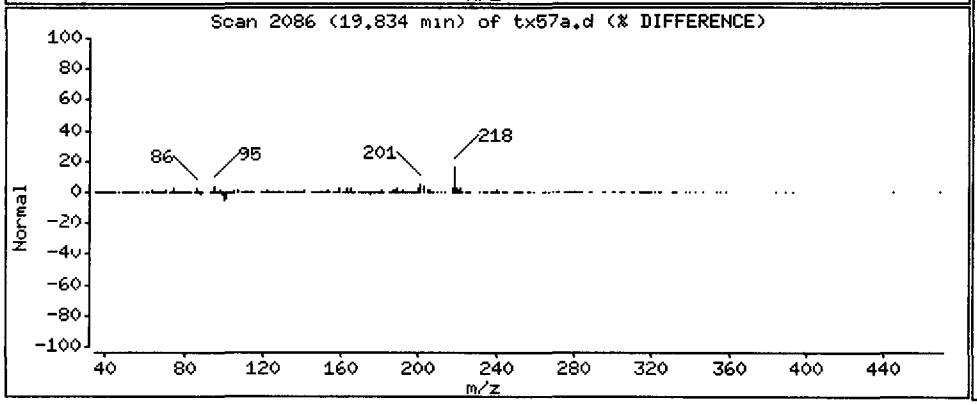
Column phase: ZB-5msi Column diameter: 0.25

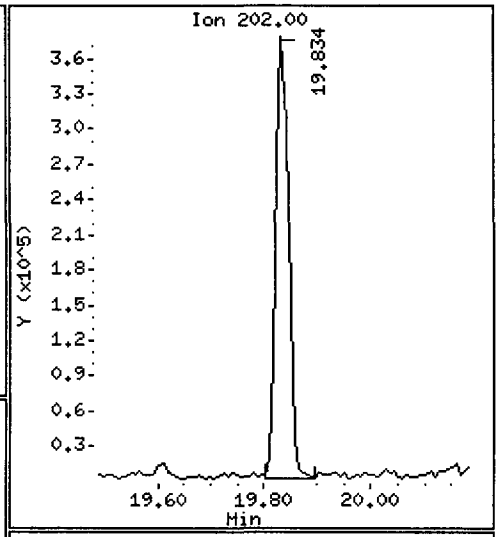
65 Pyrene Concentration: 142.8 ug/kg

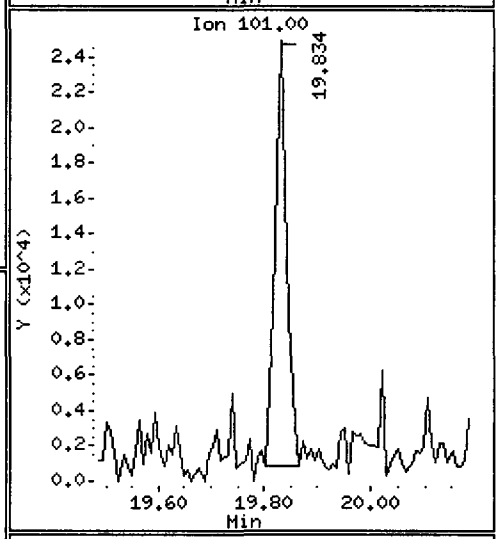


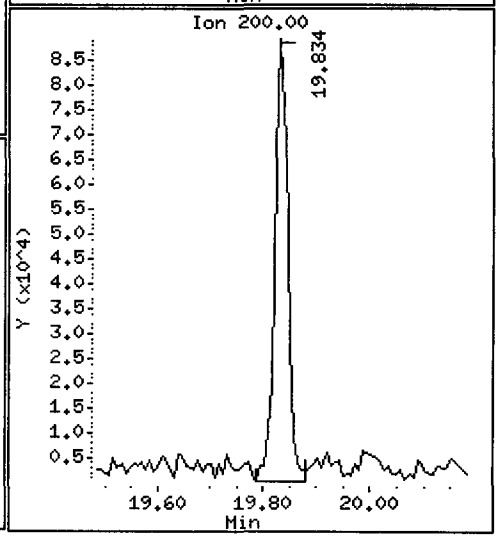












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

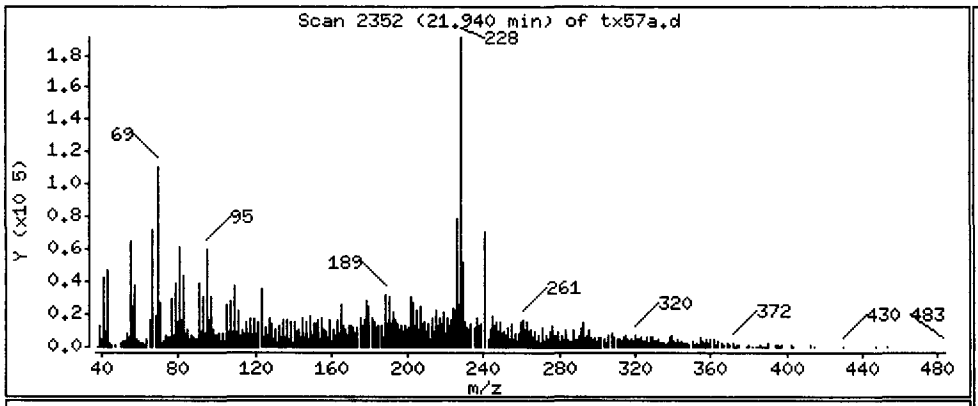
Client ID: SD0012 Instrument: nt10.i

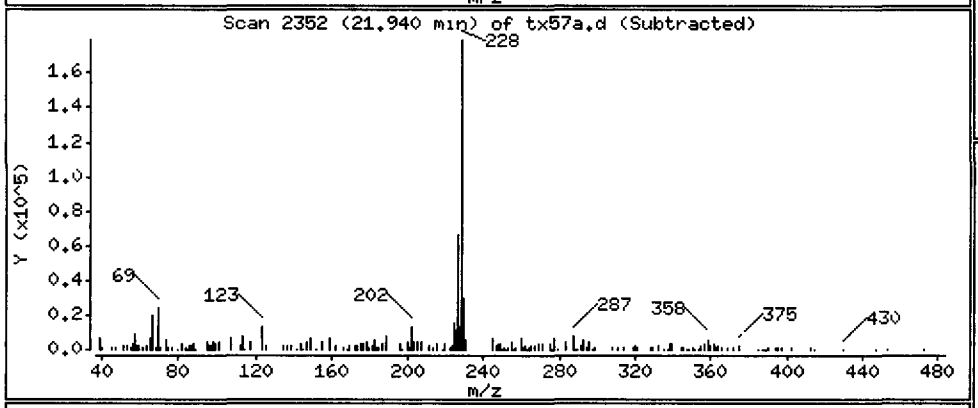
Sample Info: TX57A

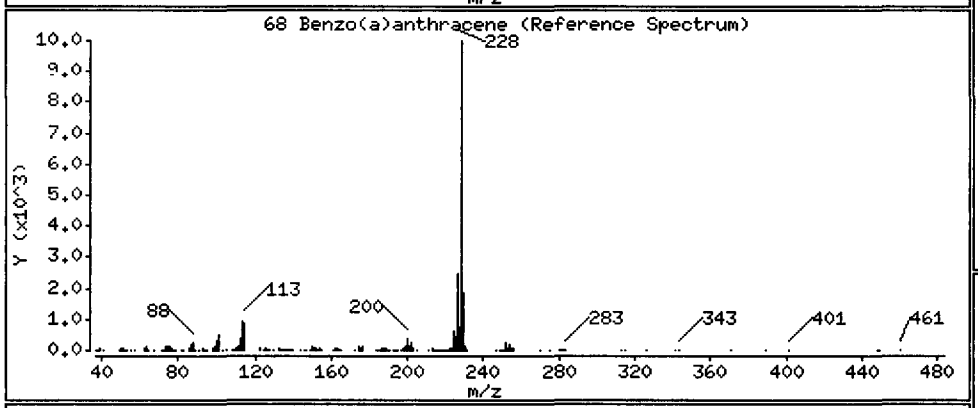
Volume Injected (uL): 1.0 Operator: YZ

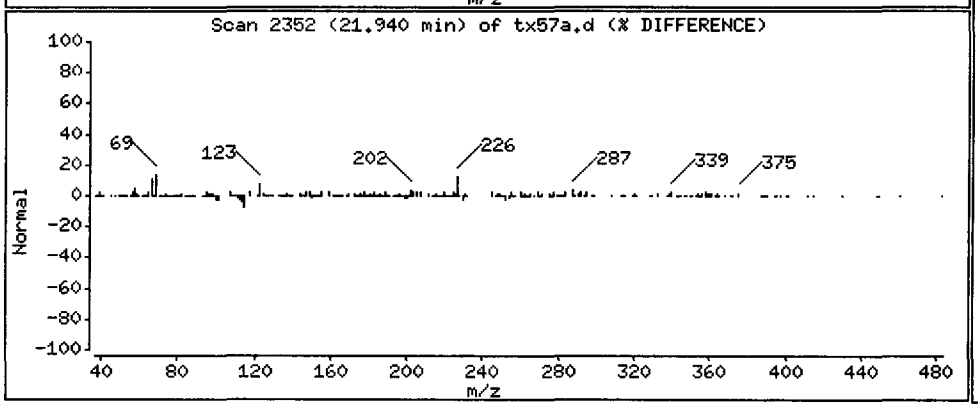
Column phase: ZB-5msi Column diameter: 0.25

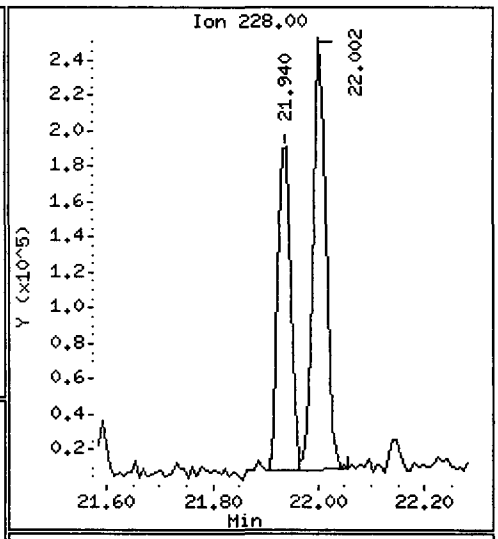
68 Benzo(a)anthracene Concentration: 65.07 ug/kg

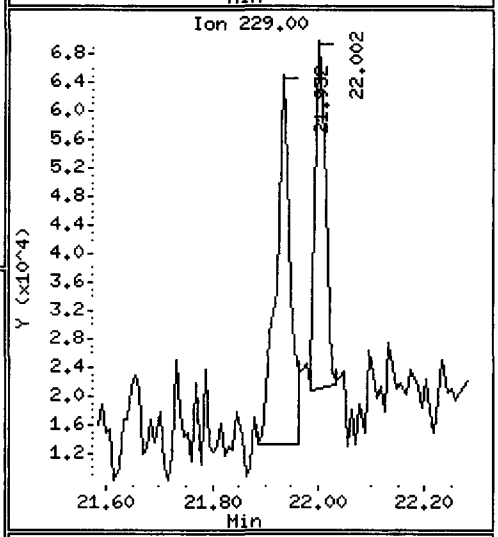


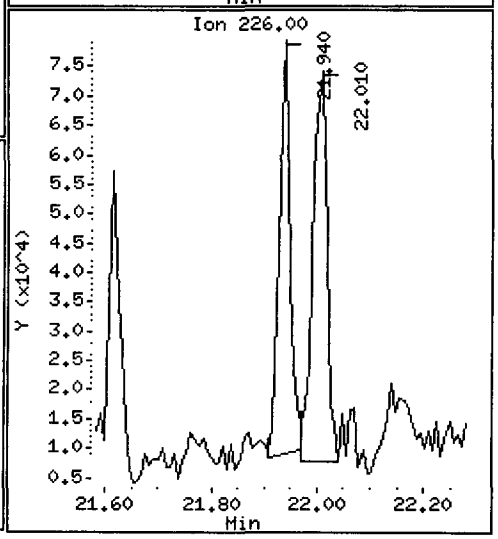












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

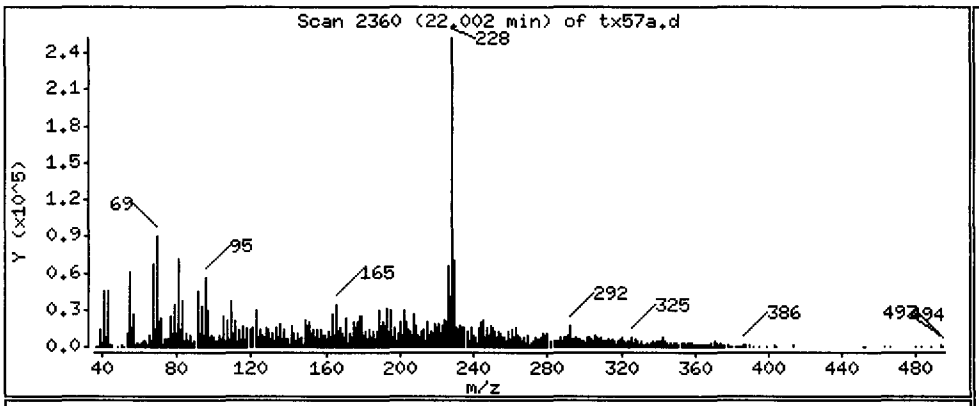
Client ID: SD0012 Instrument: nt10.i

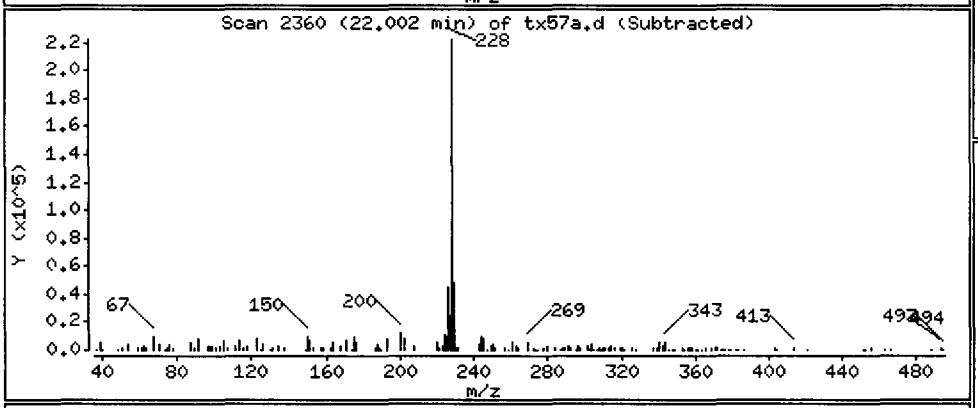
Sample Info: TX57A

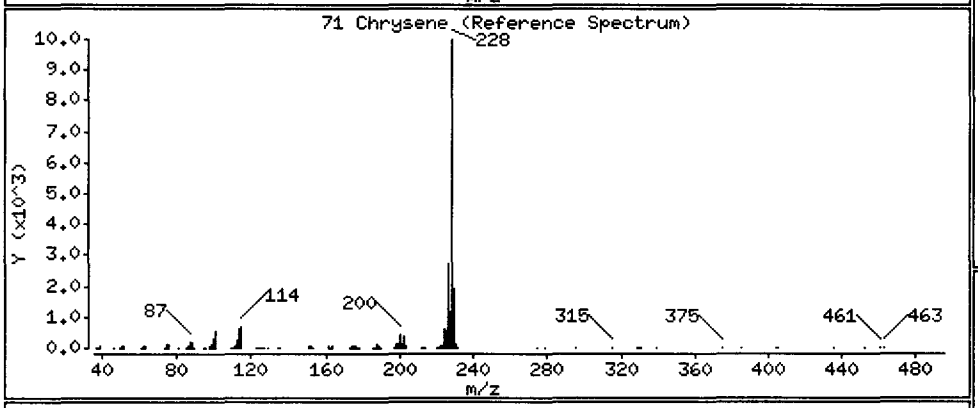
Volume Injected (uL): 1.0 Operator: YZ

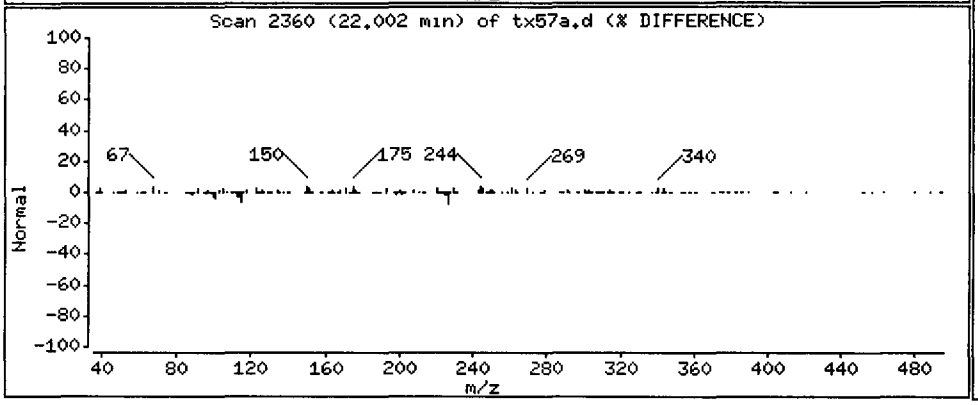
Column phase: ZB-5ms1 Column diameter: 0.25

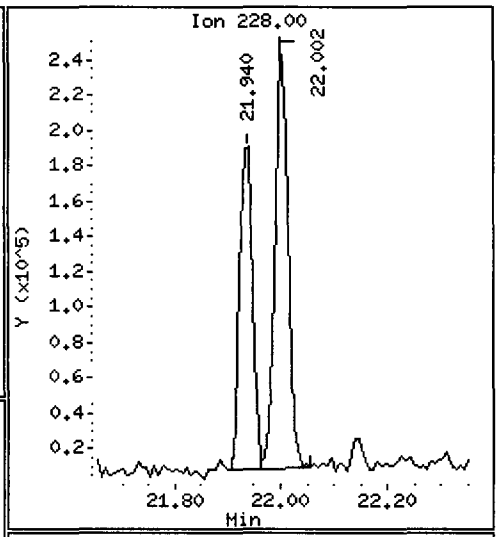
71 Chrysene Concentration: 92.02 ug/kg

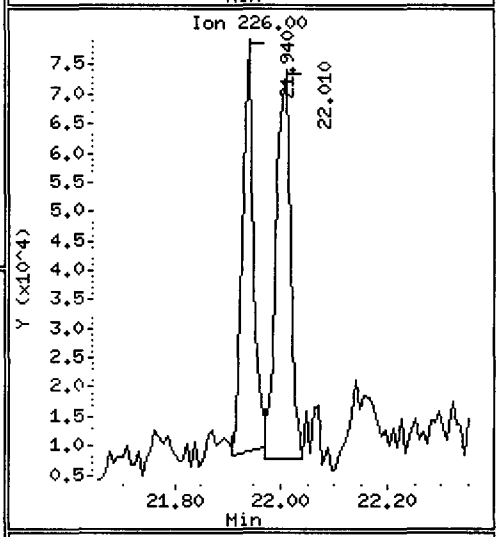


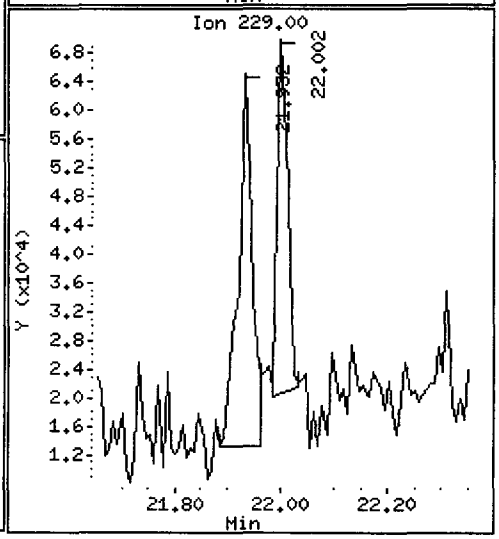












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

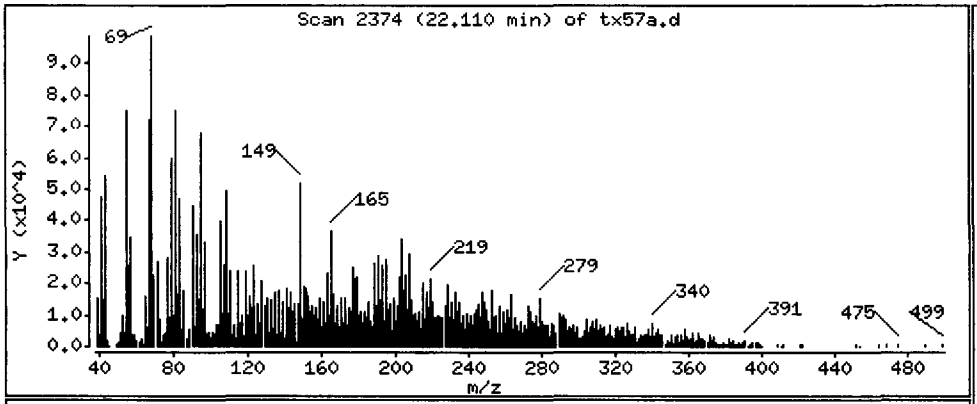
Client ID: SD0012 Instrument: nt10.i

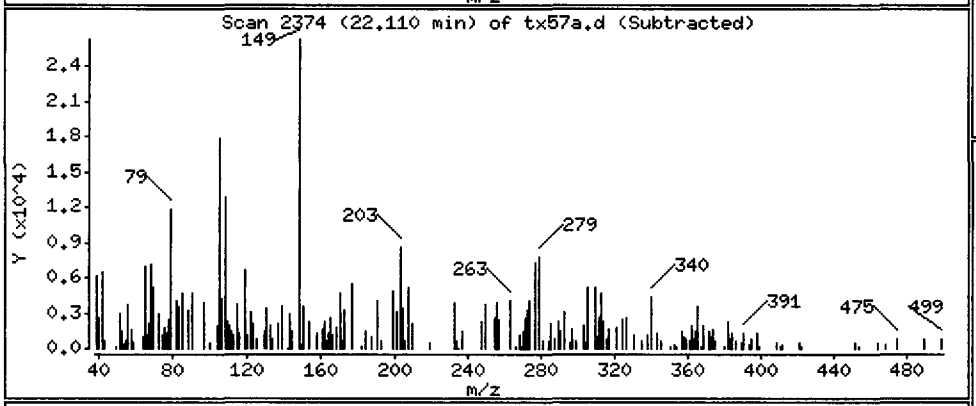
Sample Info: TX57A

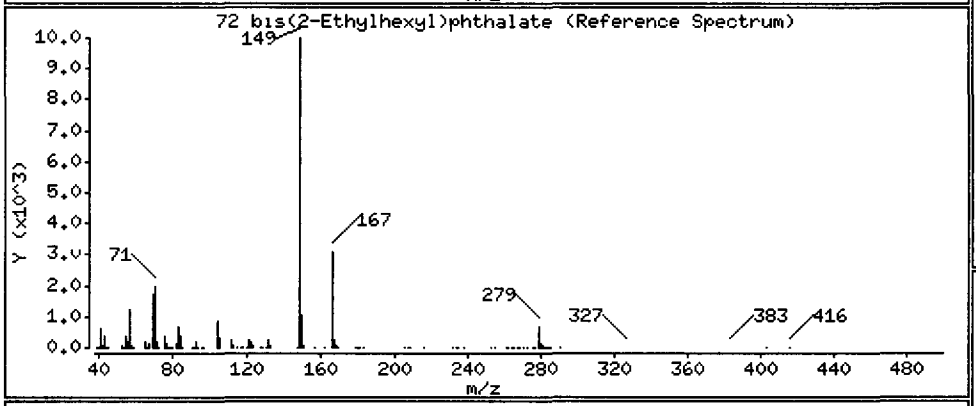
Volume Injected (uL): 1.0 Operator: YZ

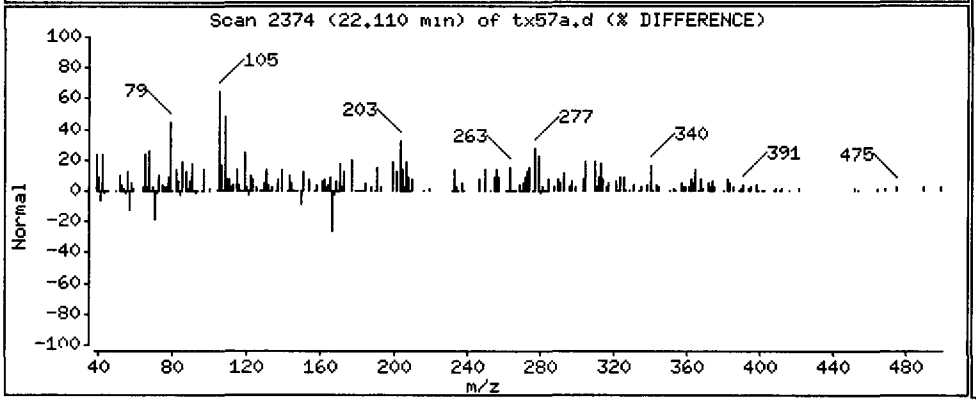
Column phase: ZB-5msi Column diameter: 0.25

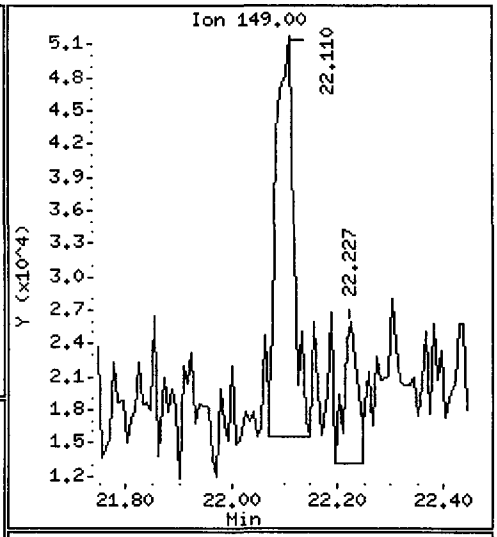
72 bis(2-Ethylhexyl)phthalate Concentration: 39.43 ug/kg

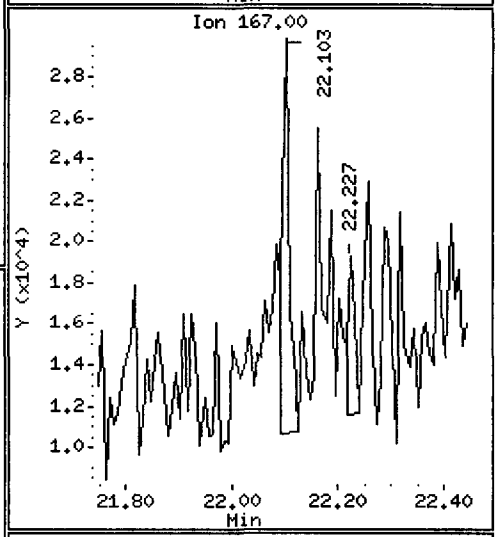


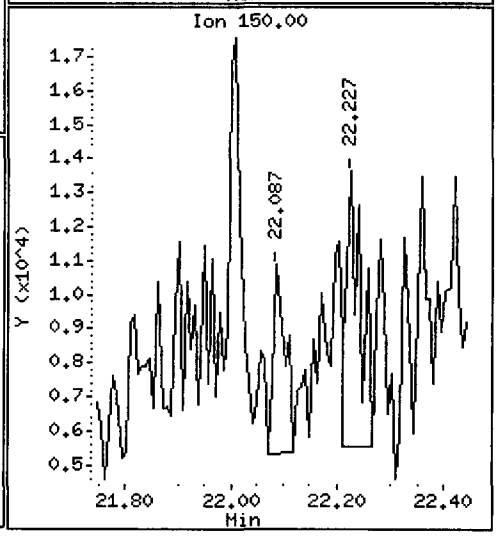












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

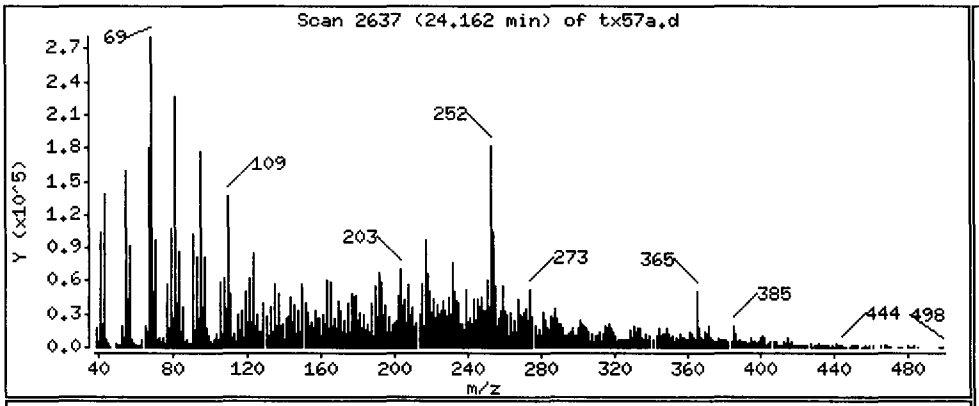
Client ID: SD0012 Instrument: nt10.i

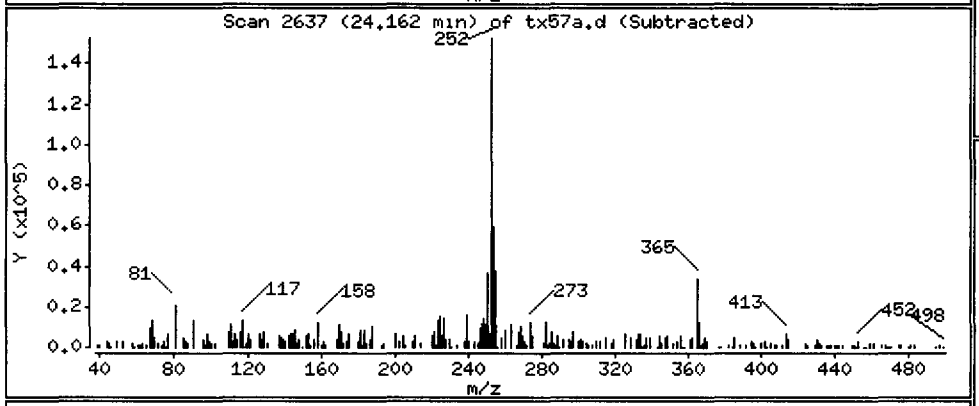
Sample Info: TX57A

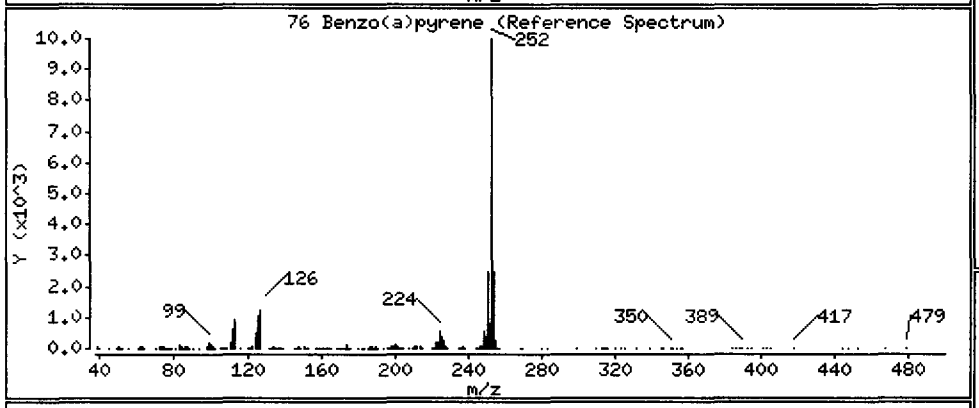
Volume Injected (uL): 1.0 Operator: YZ

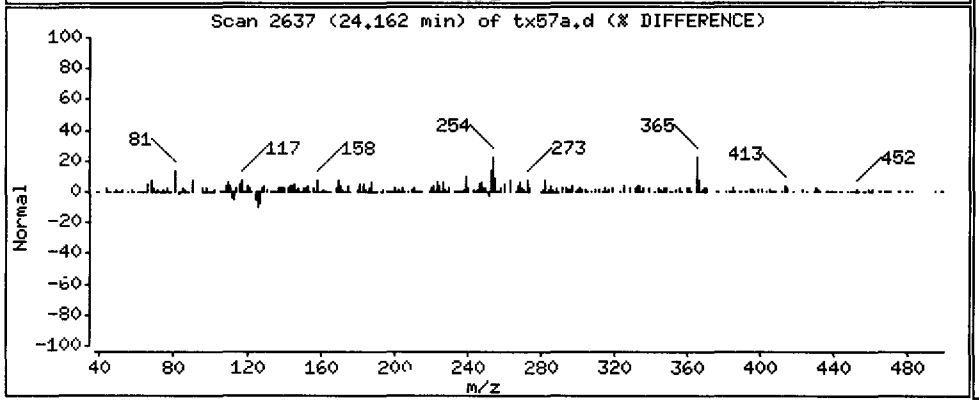
Column phase: ZB-5ms1 Column diameter: 0.25

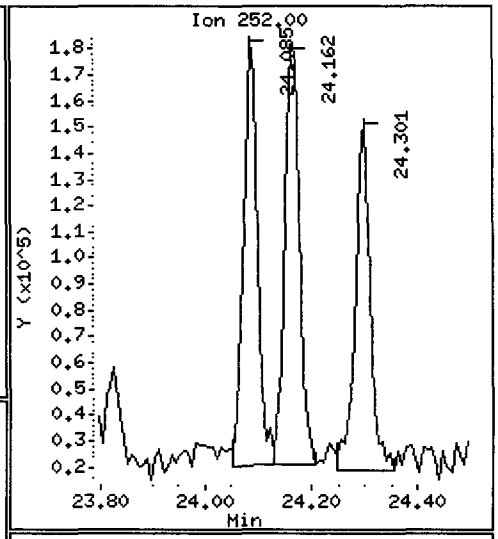
76 Benzo(a)pyrene Concentration: 69.09 ug/kg

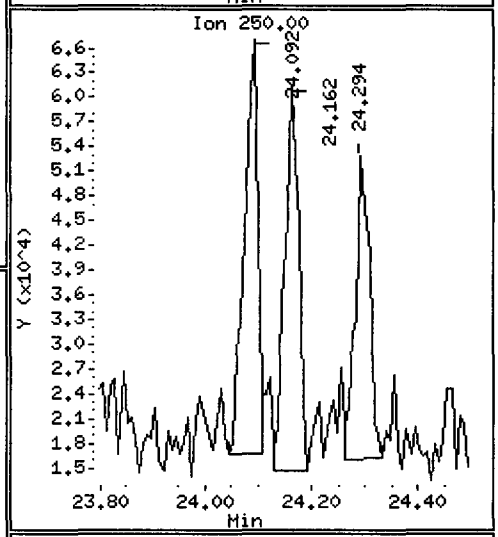


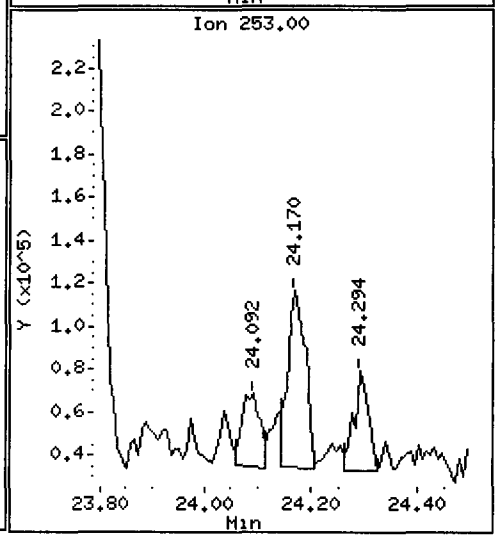












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

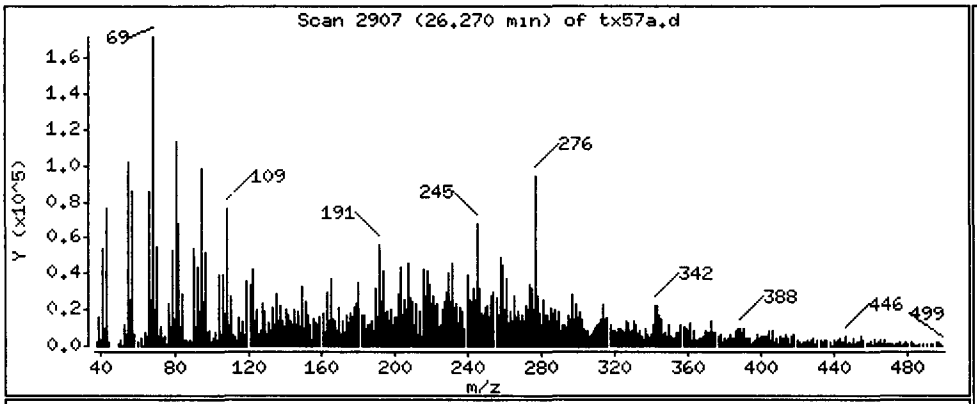
Client ID: SD0012 Instrument: nt10.i

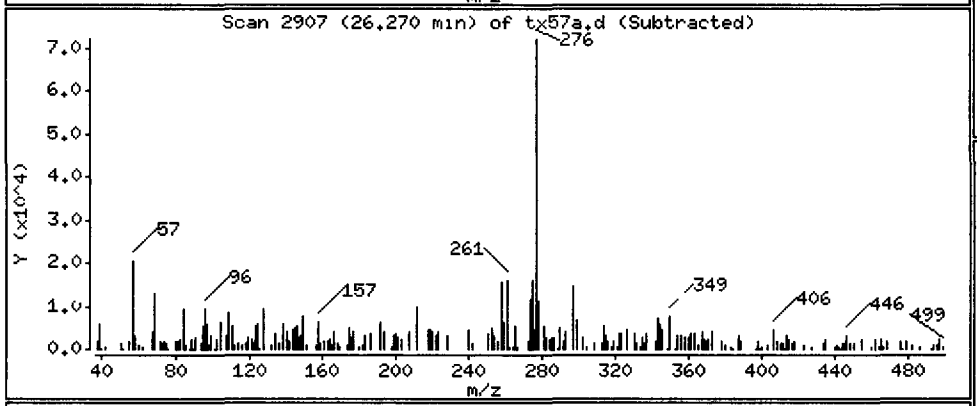
Sample Info: TX57A

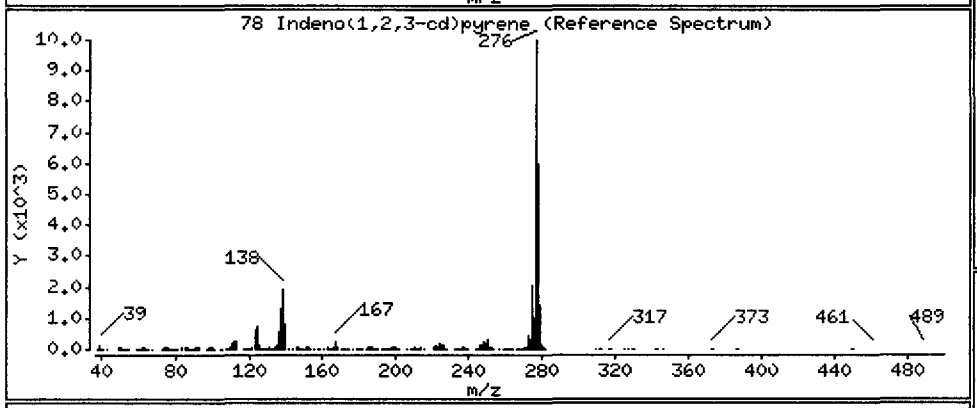
Volume Injected (uL): 1.0 Operator: YZ

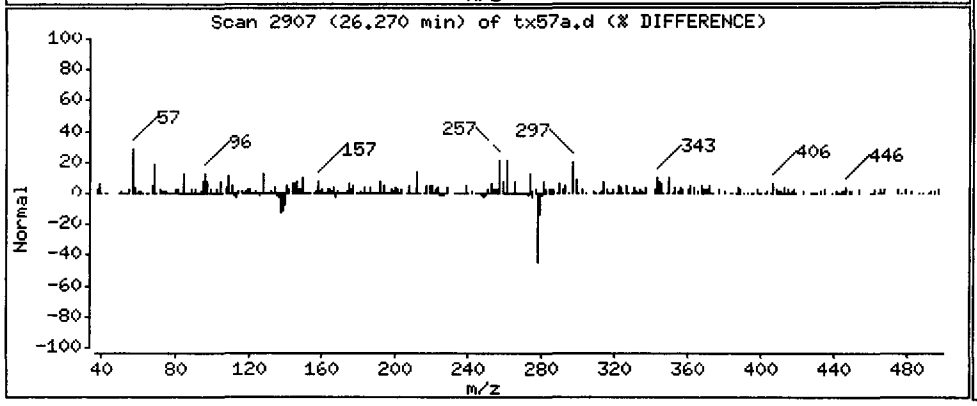
Column phase: ZB-5msi Column diameter: 0.25

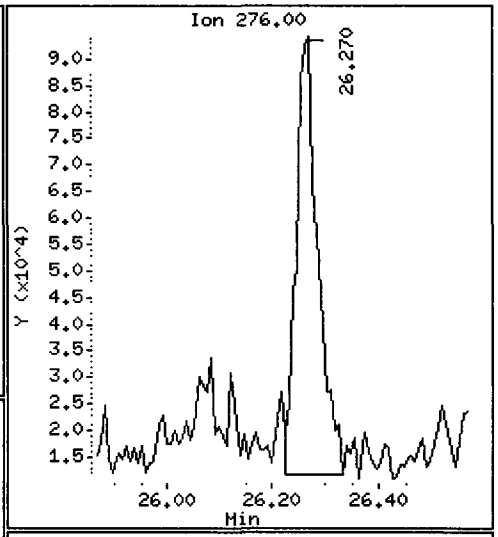
78 Indeno(1,2,3-cd)pyrene Concentration: 39.56 ug/kg

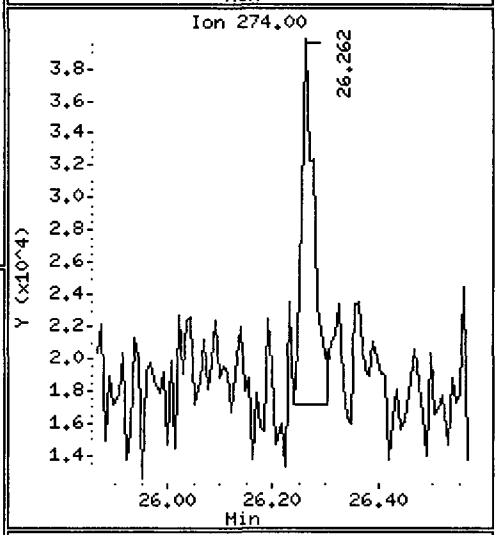


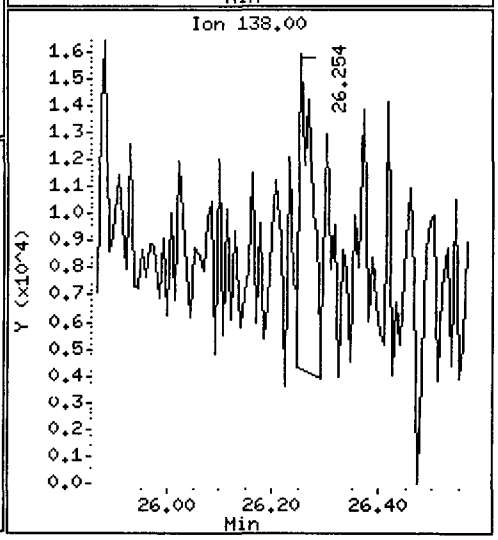












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

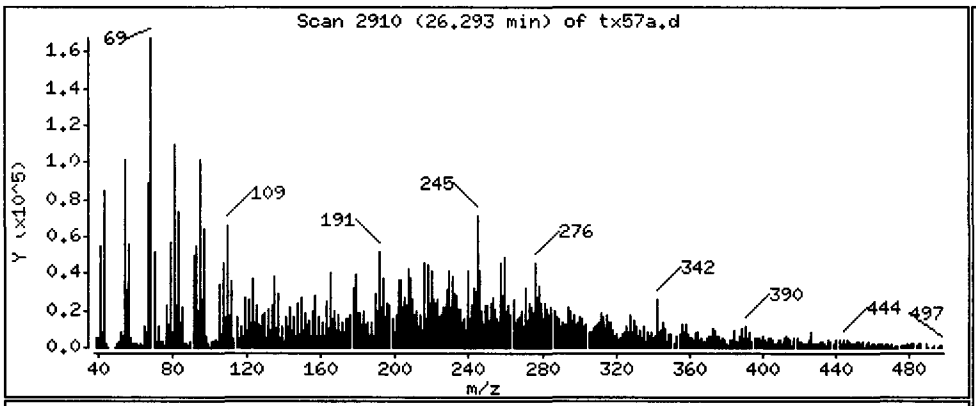
Client ID: SD0012 Instrument: nt10.i

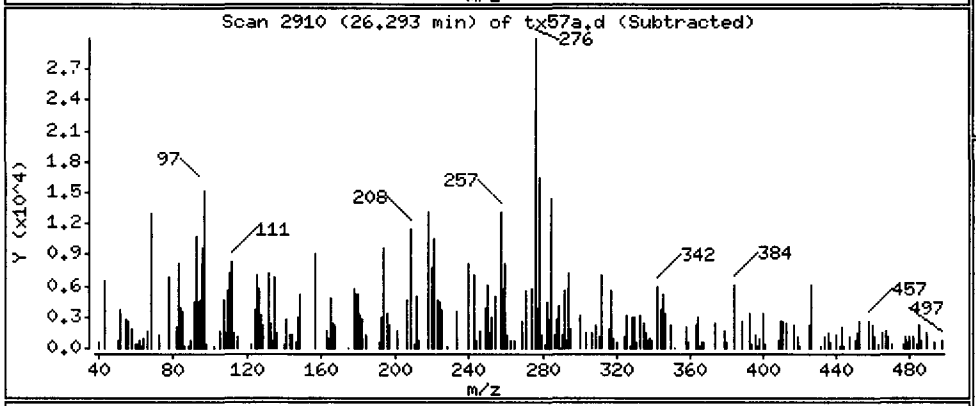
Sample Info: TX57A

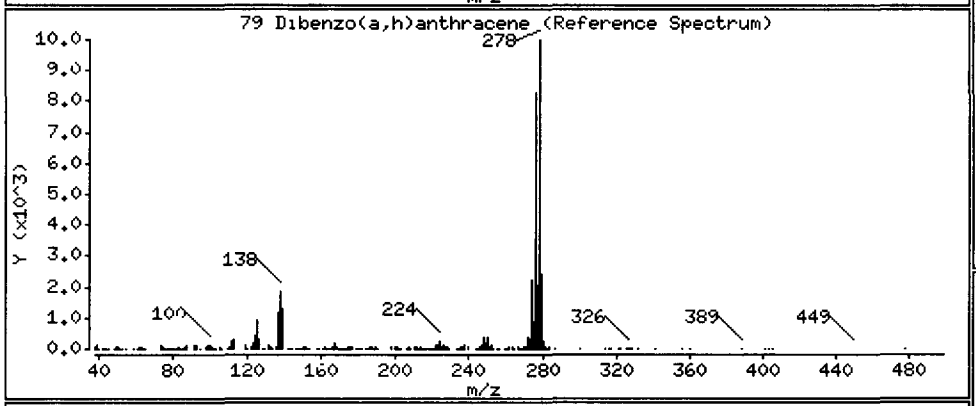
Volume Injected (uL): 1.0 Operator: YZ

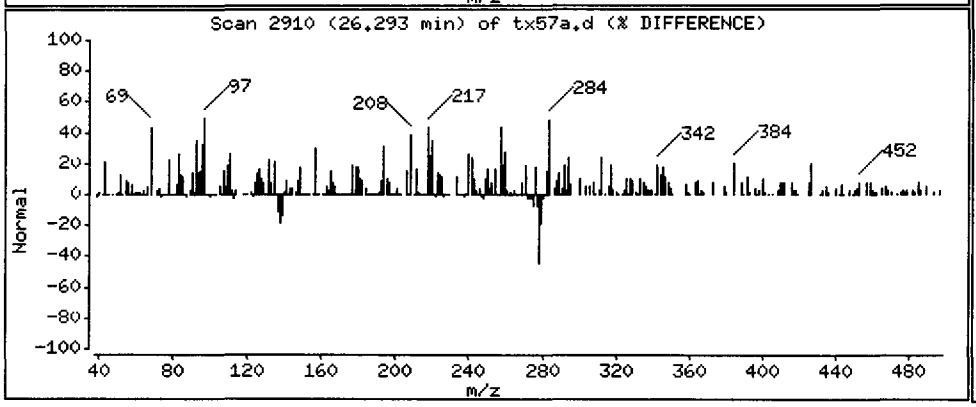
Column phase: ZB-5msi Column diameter: 0.25

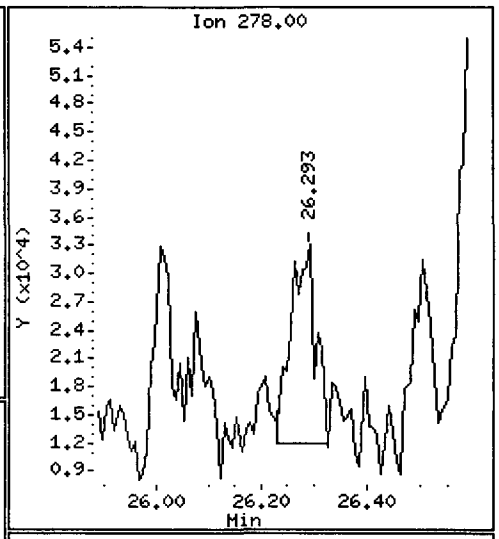
79 Dibenzo(a,h)anthracene Concentration: 14.03 ug/kg

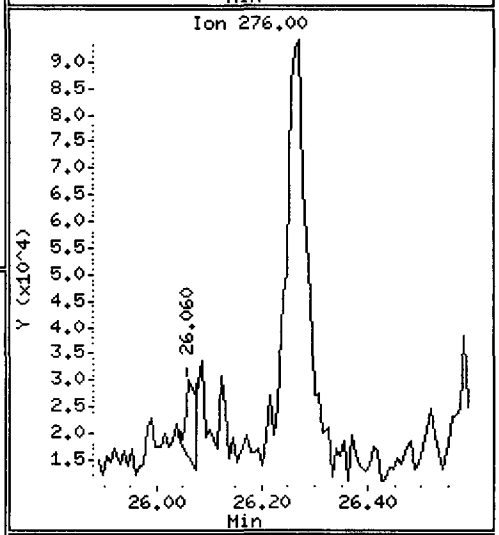


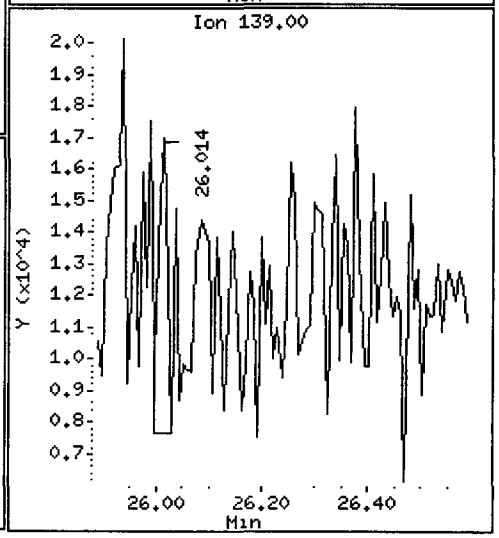












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

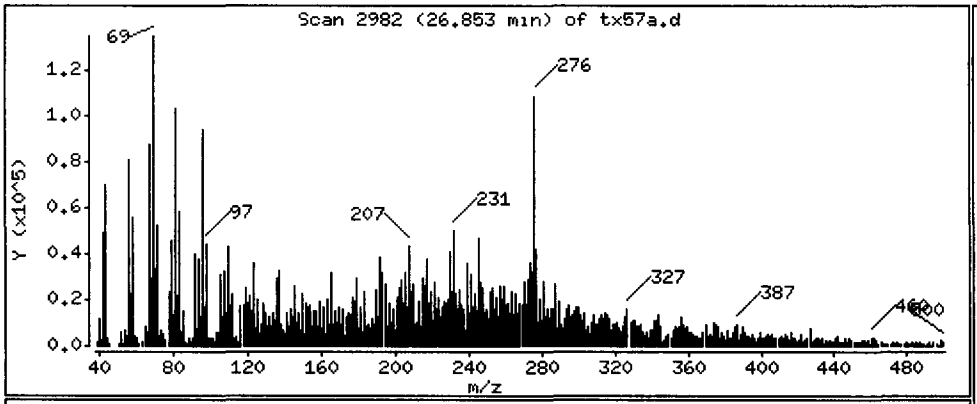
Client ID: SD0012 Instrument: nt10.i

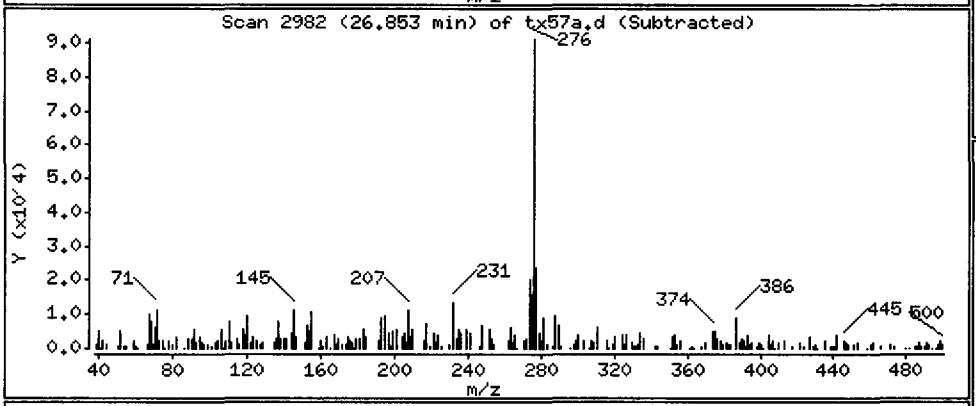
Sample Info: TX57A

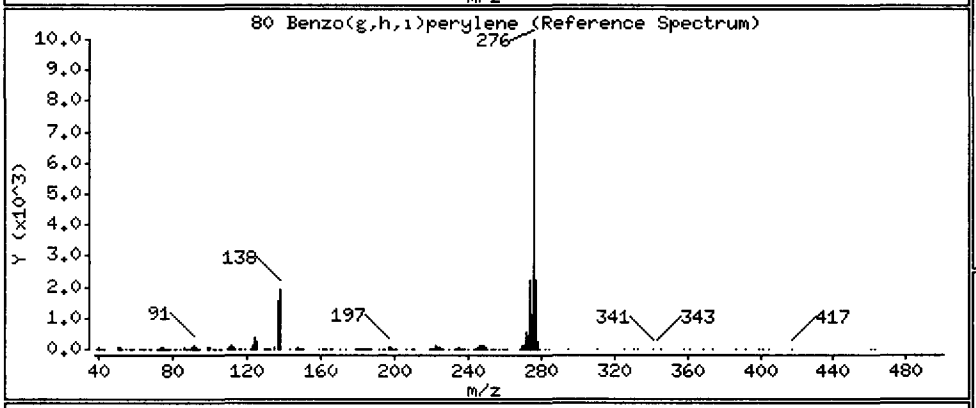
Volume Injected (uL): 1.0 Operator: YZ

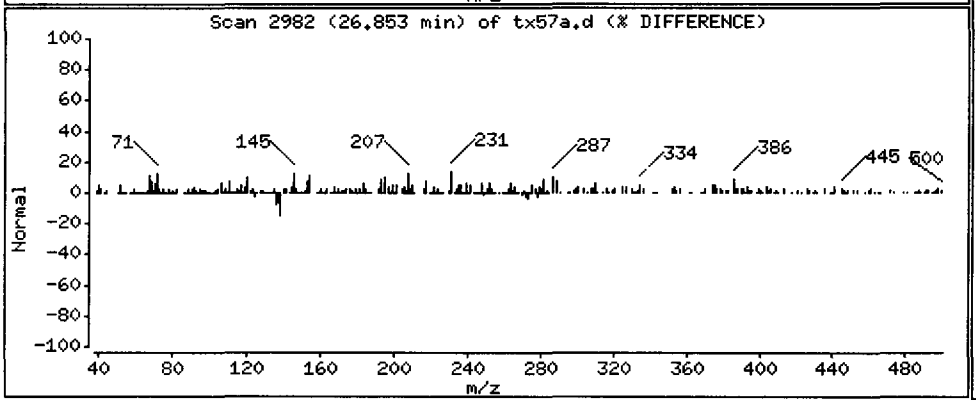
Column phase: ZB-5ms1 Column diameter: 0.25

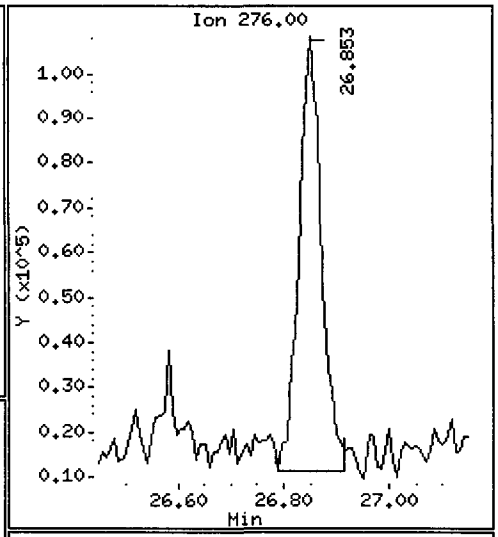
80 Benzo(g,h,i)perylene Concentration: 57.52 ug/kg

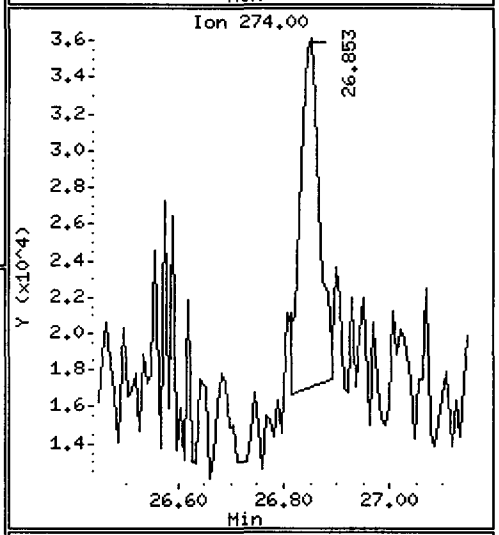


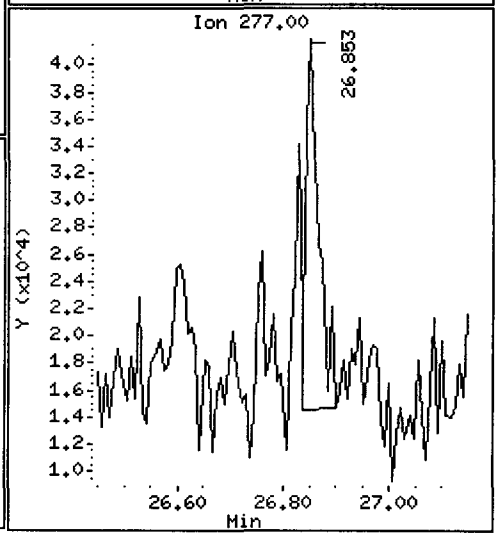












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

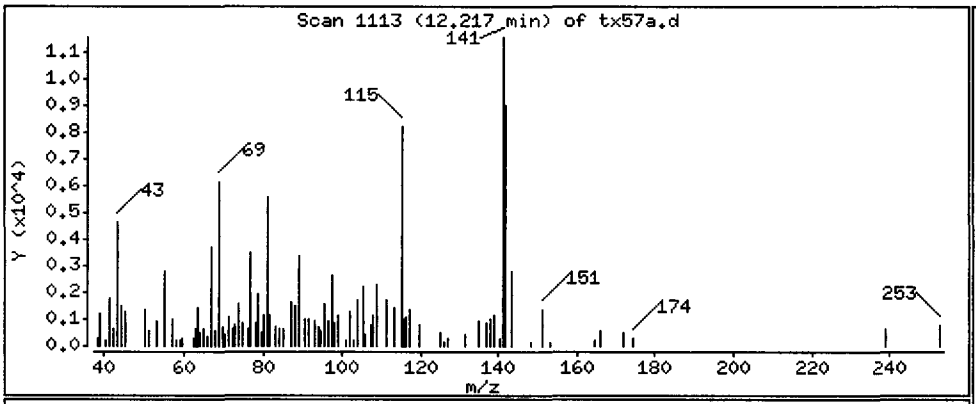
Client ID: SD0012 Instrument: nt10.i

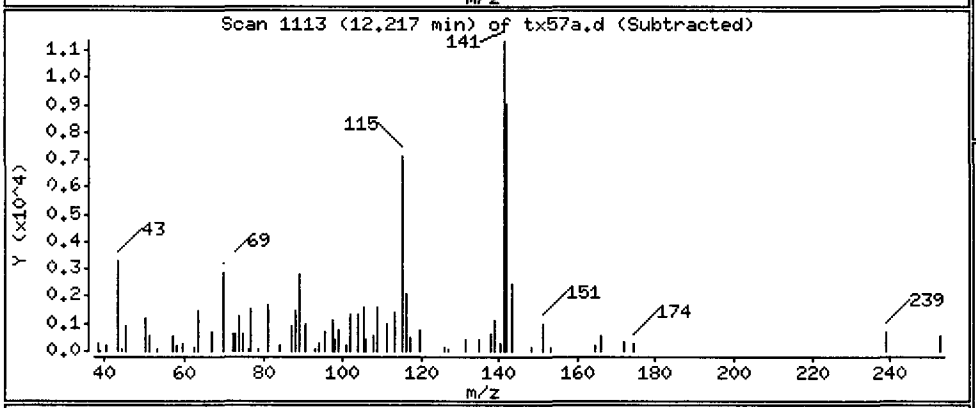
Sample Info: TX57A

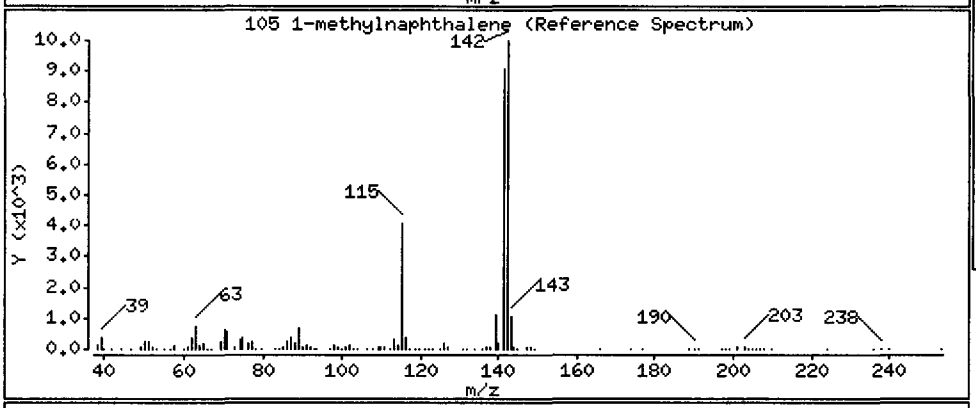
Volume Injected (uL): 1.0 Operator: YZ

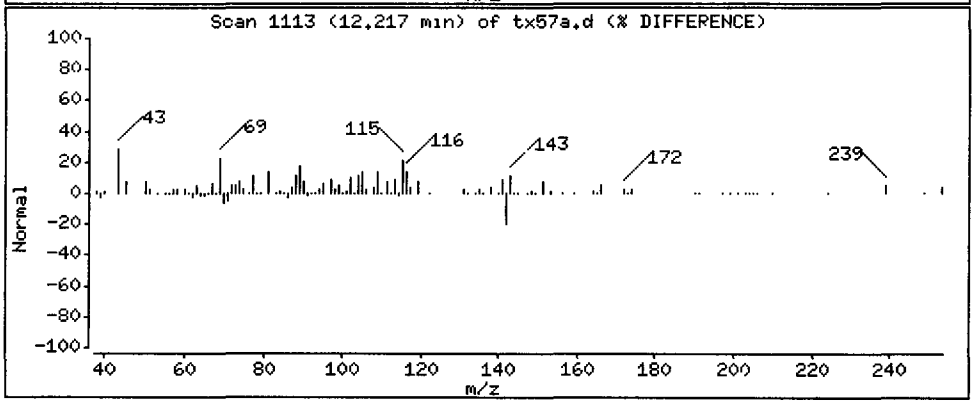
Column phase: ZB-5ms1 Column diameter: 0.25

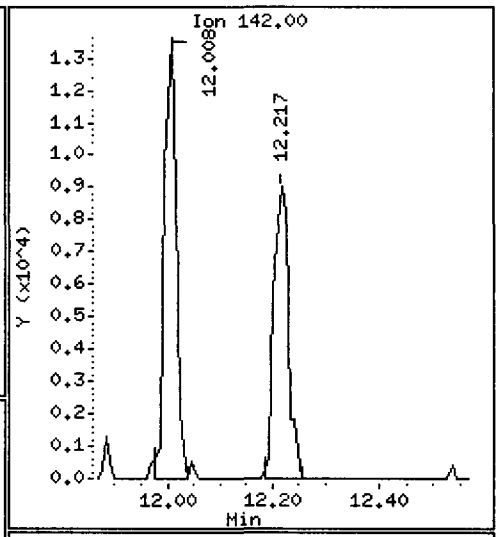
105 1-methylnaphthalene Concentration: 11.79 ug/kg

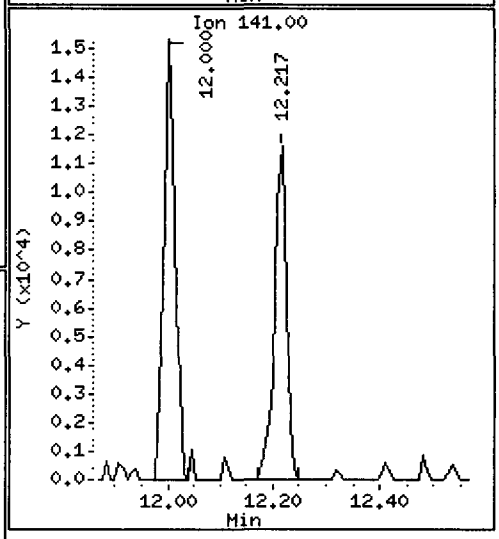












Data File: /chem1/nt10.i/20111206.b/tx57a.d

Date : 06-DEC-2011 16:17

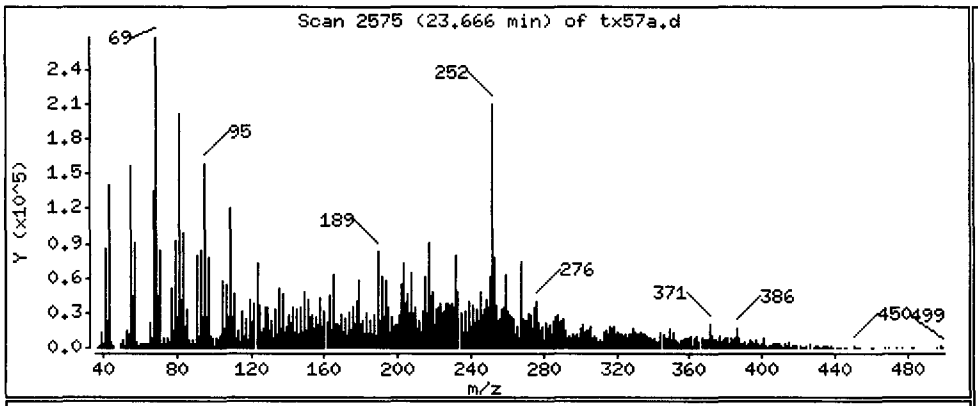
Client ID: SD0012 Instrument: nt10.i

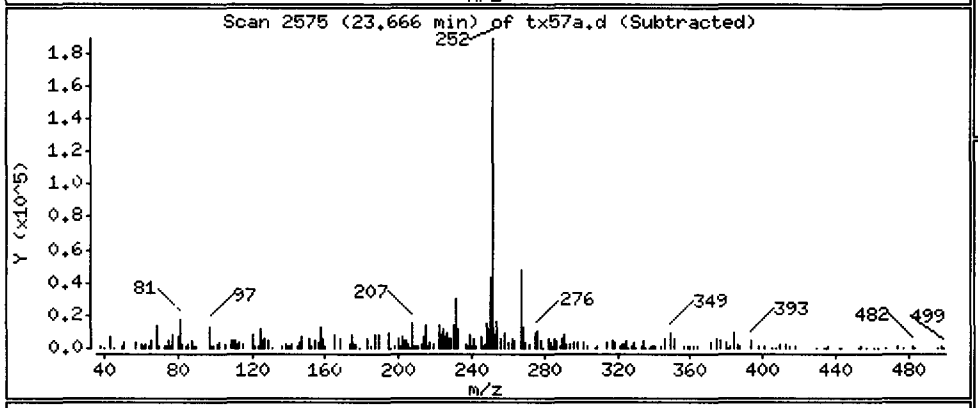
Sample Info: TX57A

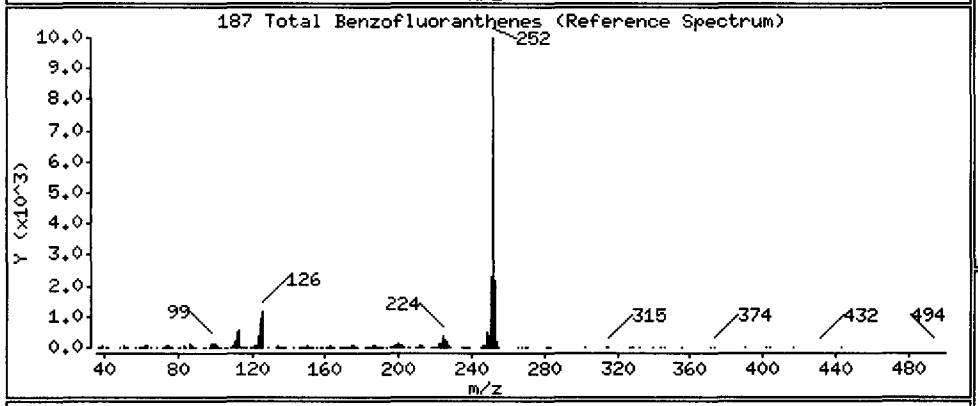
Volume Injected (uL): 1.0 Operator: YZ

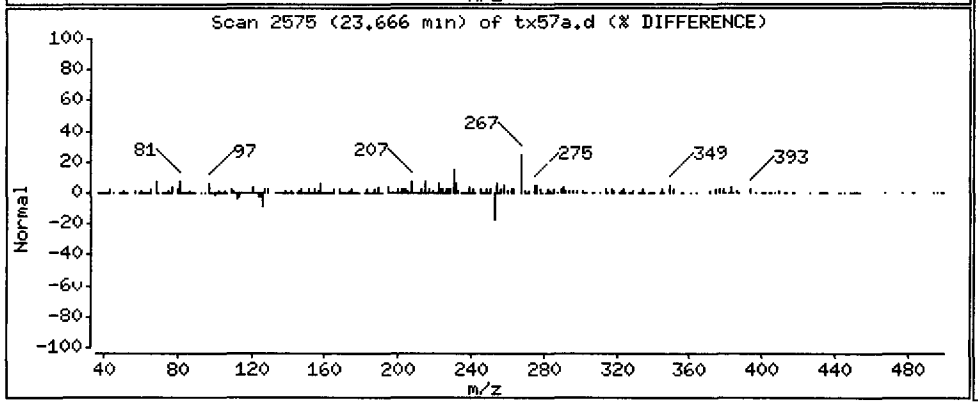
Column phase: ZB-5msi Column diameter: 0.25

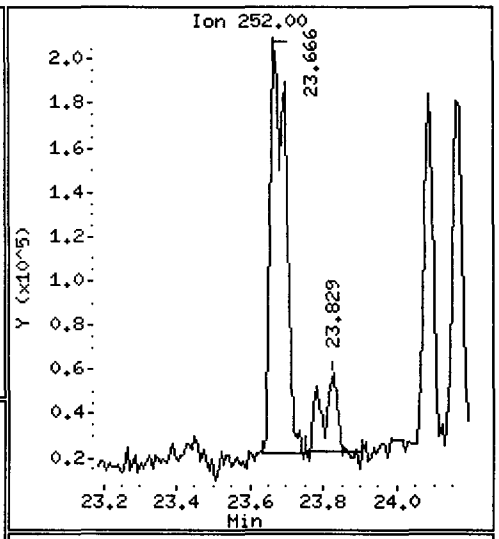
187 Total Benzofluoranthenes Concentration: 104.6 ug/kg

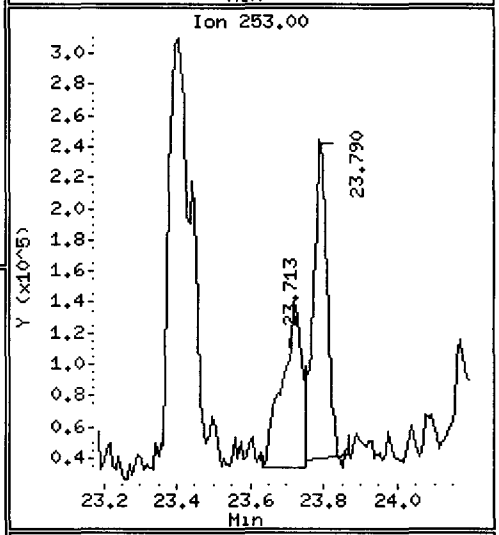


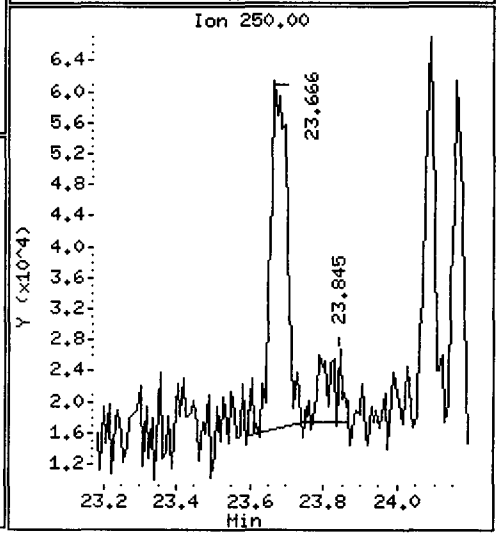






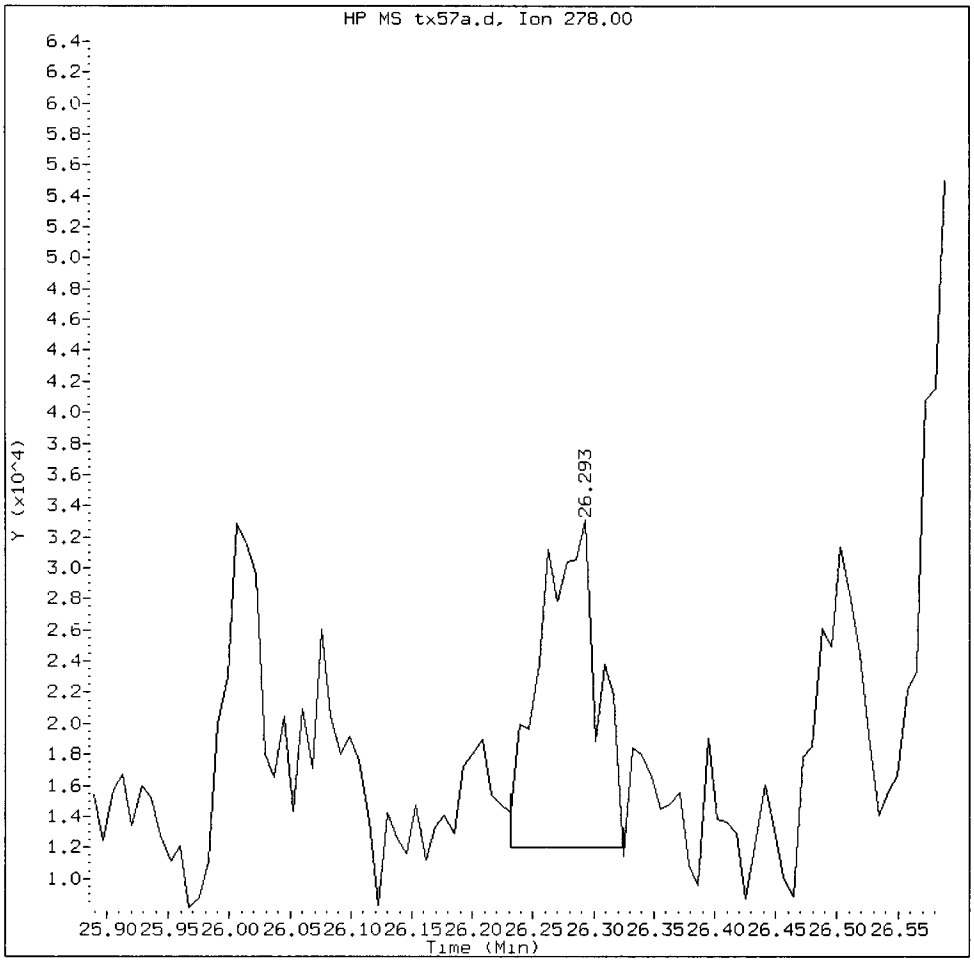






TX57A, /chem1/nt10.i/20111206.b/tx57a.d

Dibenzo(a,h)anthracene Amount: 0.15 Area: 71549



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: JZ Date: 12/9/11

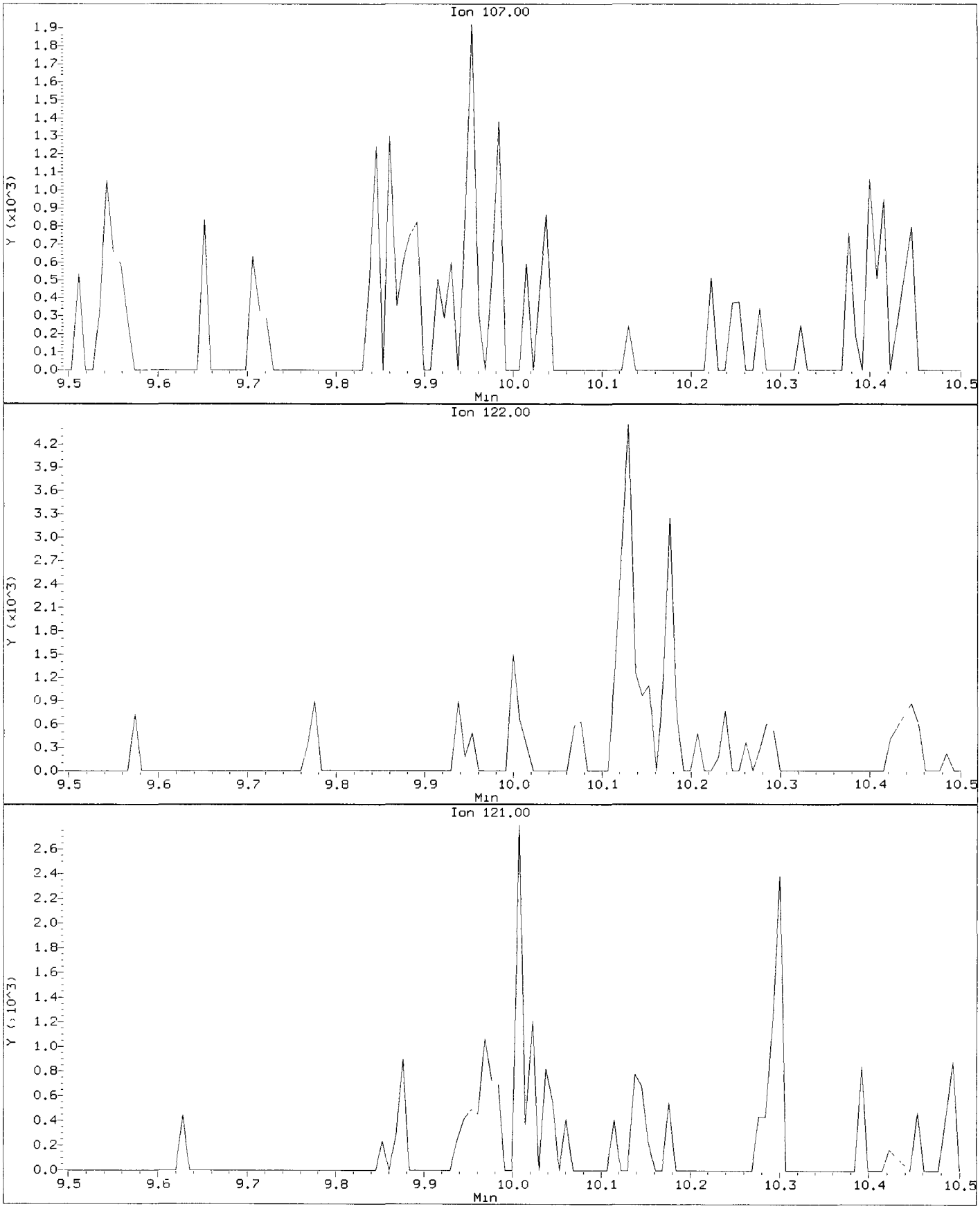
CO-ELUTION SUMMARY FOR FILE - tx57a.d

Lab ID: TX57A, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

RT	CO-ELUTION COMPOUNDS
23.666	Benzo(k)fluoranthene and Benzo(b)fluoranthene

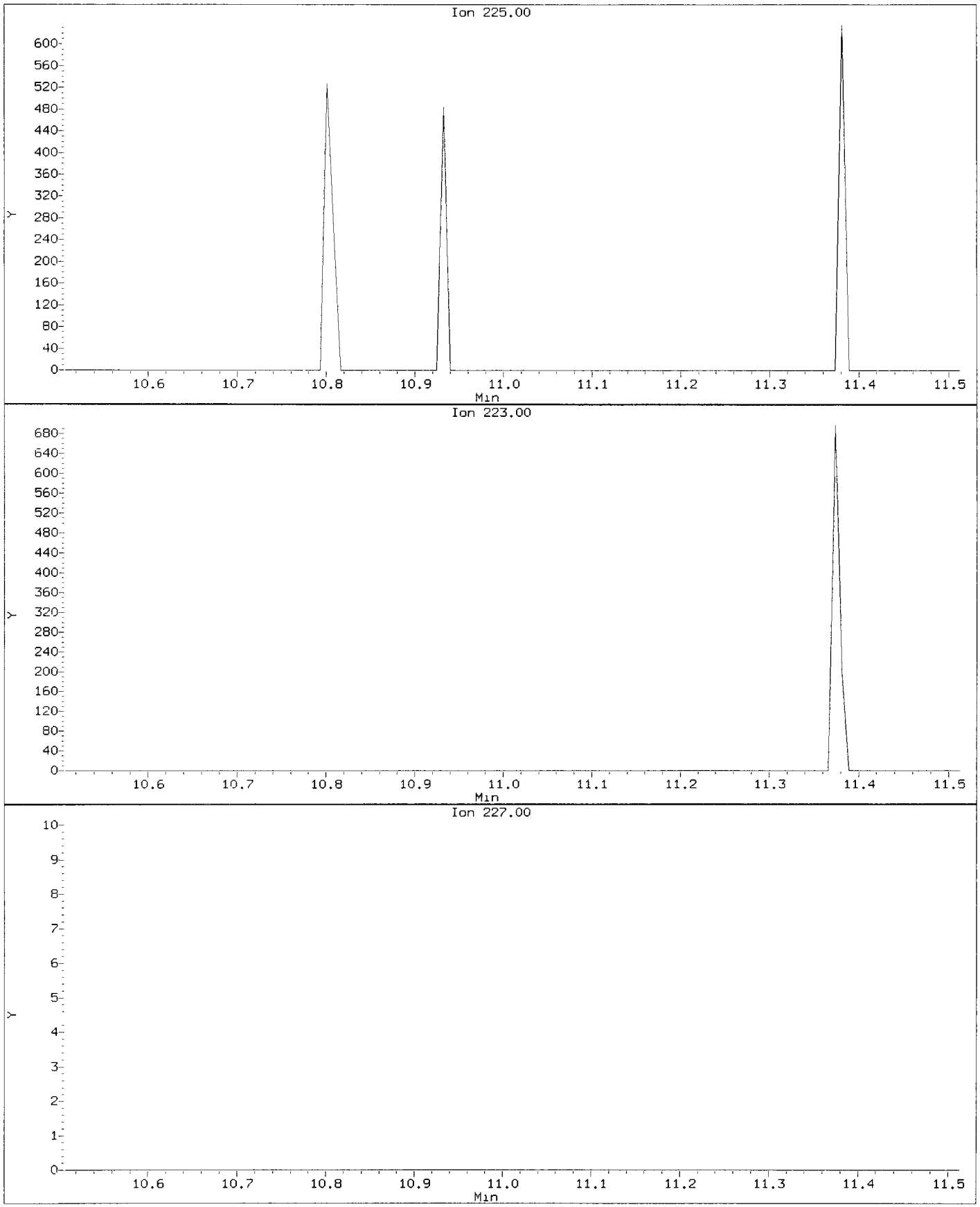
Data File: /chem1/nt10.1/20111206.b/tx57a.d
Injection Date: 06-DEC-2011 16:17
Instrument: nt10.1
Client Sample ID: SD0012

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



Data File: /chem1/nt10.1/20111206.b/tx57a.d
Injection Date: 06-DEC-2011 16:17
Instrument: nt10.1
Client Sample ID: SD0012

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

YZ 12/9/11

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111206.b/tx57b.d
Lab Smp Id: TX57B Client Smp ID: SD0013
Inj Date : 06-DEC-2011 17:25
Operator : YZ Inst ID: nt10.i
Smp Info : TX57B
Misc Info : 11-26620
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 07-Dec-2011 08:43 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	13.30000	Weight of sample extracted (g)
M	18.80000	% 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)
$ 1	2-Fluorophenol	112	6.059	6.043	(0.741)	213892	4.69517	434.8
$ 2	Phenol-d5	99	7.620	7.612	(0.932)	293225	5.01187	464.1
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.828	7.828	(0.957)	264835	5.00208	463.2
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.177	8.177	(1.000)	186305	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.518	8.518	(1.042)	151593	3.29975	305.5
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.248	9.248	(0.872)	241088	3.38753	313.7
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.601	10.600	(1.000)	669543	4.00000	
	28 Naphthalene	128	10.632	10.639	(1.003)	27110	0.16724 J	15.49
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	12.001	12.008	(1.132)	19806	0.16284 J	15.08
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.790	12.782	(0.905)	655694	3.88613	359.8
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	13.812	13.819	(0.978)	20054	0.10228 J	9.470
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.129	14.129	(1.000)	466692	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.191	14.198	(1.004)	32331	0.26413	24.46
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.515	14.523	(1.027)	32971	0.16800 J	15.56
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.142	15.134	(1.072)	103752	0.64619	59.83
	49 Fluorene	166	15.219	15.219	(1.077)	30500	0.19728 J	18.27
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.751	15.751	(1.115)	231104	5.62115	520.5
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.111	17.111	(1.000)	972614	4.00000	
	60 Phenanthrene	178	17.158	17.157	(1.003)	258062	1.03073	95.44
	61 Anthracene	178	17.250	17.242	(1.008)	71341	0.28287	26.19

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	62 Carbazole	167	17.591	17.583	(1.028)	33199	0.17519 J	16.22
	63 Di-n-butylphthalate	149	18.411	18.403	(1.076)	34063	0.12336	11.42
	64 Fluoranthene	202	19.440	19.432	(1.136)	590590	1.71181	158.5
	65 Pyrene	202	19.835	19.834	(0.903)	553862	1.47153	136.3
$	66 Terphenyl-d14	244	20.152	20.152	(0.918)	1089539	3.51238	325.2
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	21.940	21.932	(0.999)	290037	0.68473	63.40
*	69 Chrysene-d12	240	21.964	21.956	(1.000)	1556369	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	22.002	22.002	(1.002)	325638	0.85243	78.93
	72 bis(2-Ethylhexyl)phthalate	149	22.103	22.095	(0.958)	88972	0.47711	44.18
*	134 Di-n-octylphthalate-d4	153	23.063	23.047	(1.000)	1311247	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	23.667	23.651	(0.975)	401635	0.81017	75.02
	75 Benzo(k)fluoranthene	252	23.698	23.690	(0.977)	248442	0.48356	44.78(M)
	76 Benzo(a)pyrene	252	24.170	24.147	(0.996)	331462	0.81430	75.40
*	77 Perylene-d12	264	24.263	24.232	(1.000)	1627525	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	26.278	26.216	(1.083)	220469	0.39746	36.80
	79 Dibenzo(a,h)anthracene	278	26.278	26.239	(1.083)	71498	0.15407 J	14.27(M)
	80 Benzo(g,h,i)perylene	276	26.853	26.798	(1.107)	279493	0.59881	55.45
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	12.217	12.217	(1.153)	16109	0.12903 J	11.95
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	23.667	23.690	(0.975)	633262	1.32593	122.8
	99 Perylene	252	24.302	24.278	(1.002)	245431	0.61086	56.56

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57b.d
Lab Smp Id: TX57B
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26620

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: SD0013
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	186305	7.78
27 Naphthalene-d8	574010	287005	1148020	669543	16.64
42 Acenaphthene-d10	467963	233982	935926	466692	-0.27
59 Phenanthrene-d10	976150	488075	1952300	972614	-0.36
69 Chrysene-d12	1397129	698564	2794258	1556369	11.40
134 Di-n-octylphthala	1264537	632268	2529074	1311247	3.69
77 Perylene-d12	1407308	703654	2814616	1627525	15.65

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.60	0.00
42 Acenaphthene-d10	14.13	13.63	14.63	14.13	0.00
59 Phenanthrene-d10	17.11	16.61	17.61	17.11	0.00
69 Chrysene-d12	21.96	21.46	22.46	21.96	0.04
134 Di-n-octylphthala	23.05	22.55	23.55	23.06	0.07
77 Perylene-d12	24.23	23.73	24.73	24.26	0.13

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

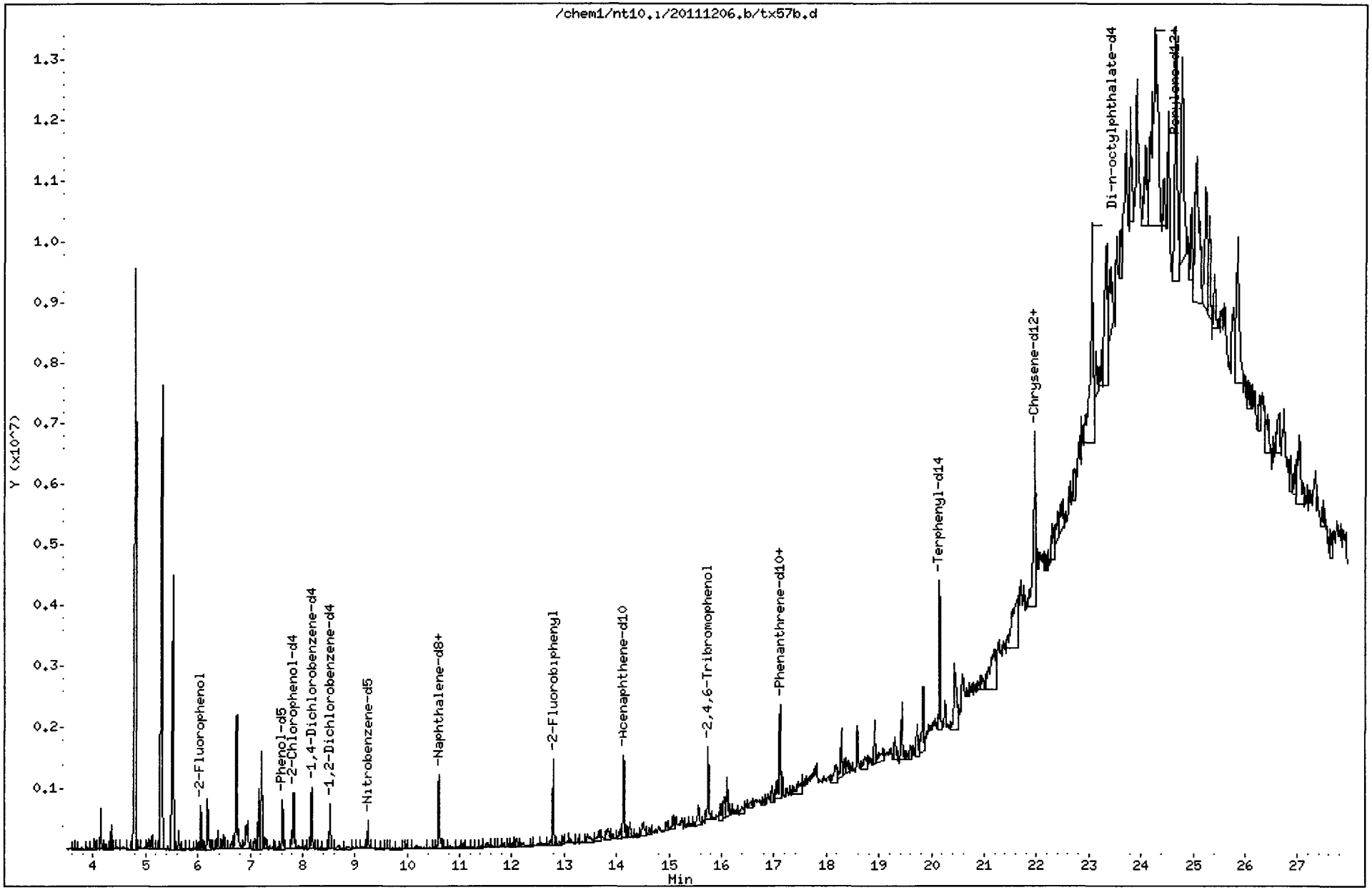
Client Name: INTEGRAL
Sample Matrix: SOLID
Lab Smp Id: TX57B
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26620

Client SDG: TX57
Fraction: SV
Client Smp ID: SD0013
Operator: YZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	694.5	434.8	62.60	30-160
$ 2 Phenol-d5	694.5	464.1	66.82	30-160
$ 5 2-Chlorophenol-d4	694.5	463.2	66.69	30-160
$ 10 1,2-Dichlorobenzen	463.0	305.5	66.00	30-160
$ 18 Nitrobenzene-d5	463.0	313.7	67.75	30-160
$ 36 2-Fluorobiphenyl	463.0	359.8	77.72	30-160
$ 55 2,4,6-Tribromophen	694.5	520.5	74.95	30-160
$ 66 Terphenyl-d14	463.0	325.2	70.25	30-160

Data File: /chem1/nt10.i/20111206.b/tx57b.d
Date : 06-DEC-2011 17:25
Client ID: SD0013
Sample Info: TX57B
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



TX57.00614

Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

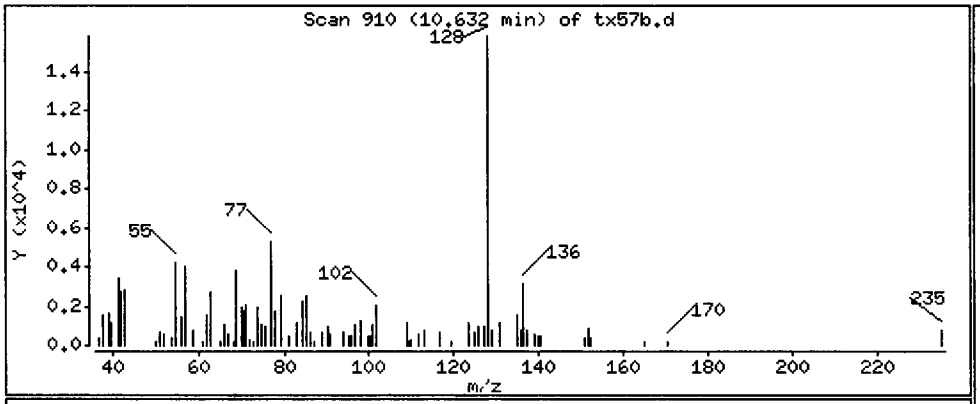
Client ID: SD0013 Instrument: nt10.i

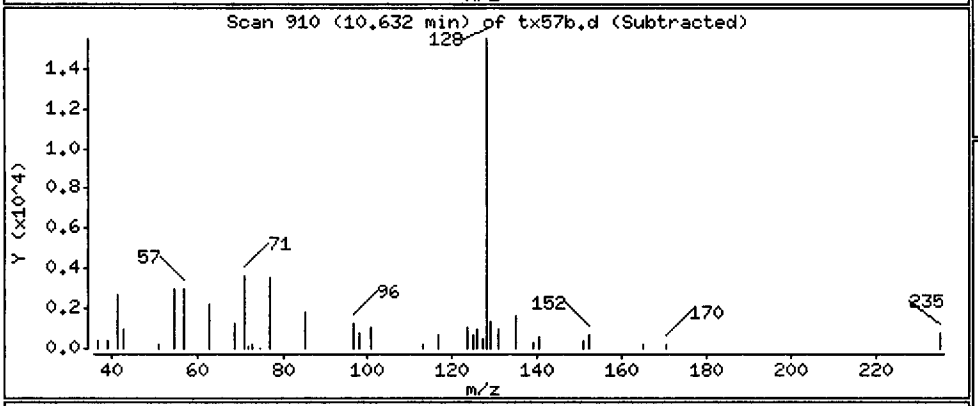
Sample Info: TX57B

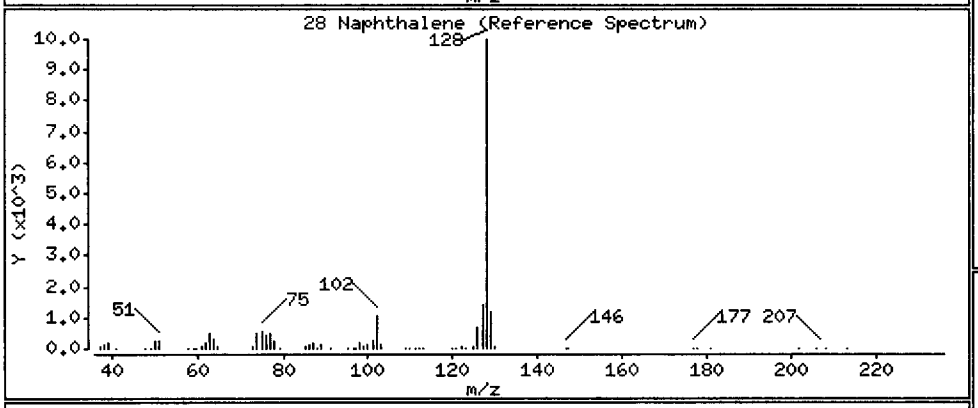
Volume Injected (uL): 1.0 Operator: YZ

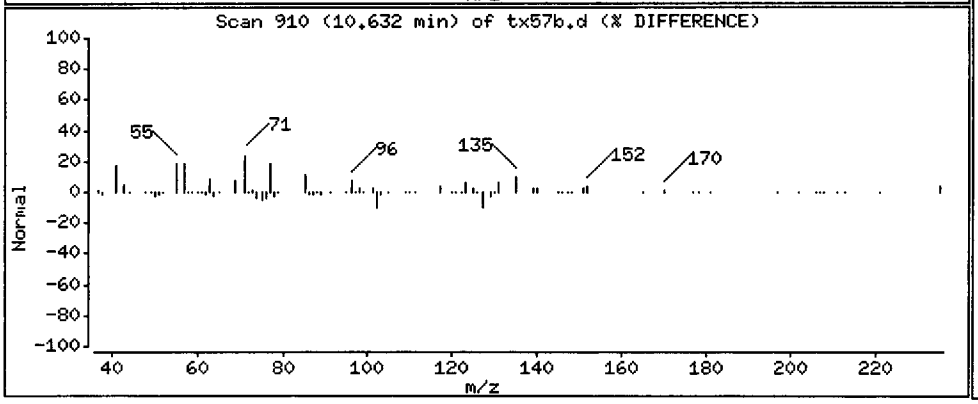
Column phase: ZB-5msi Column diameter: 0.25

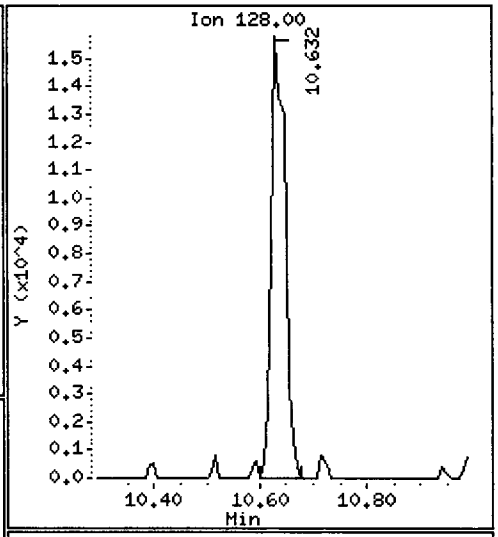
28 Naphthalene Concentration: 15.49 ug/kg

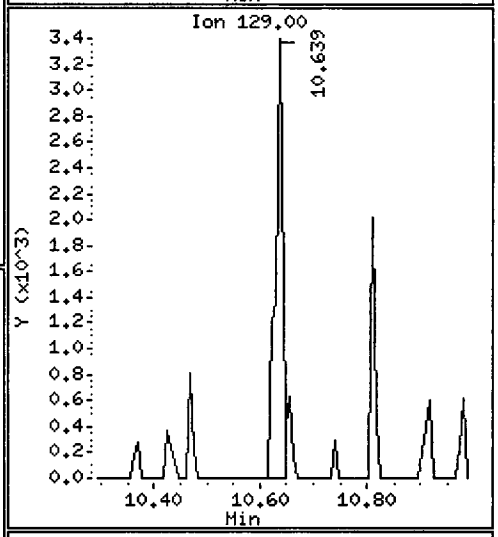


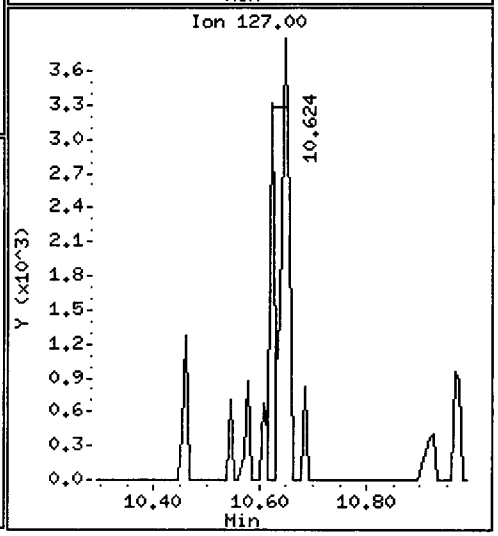












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

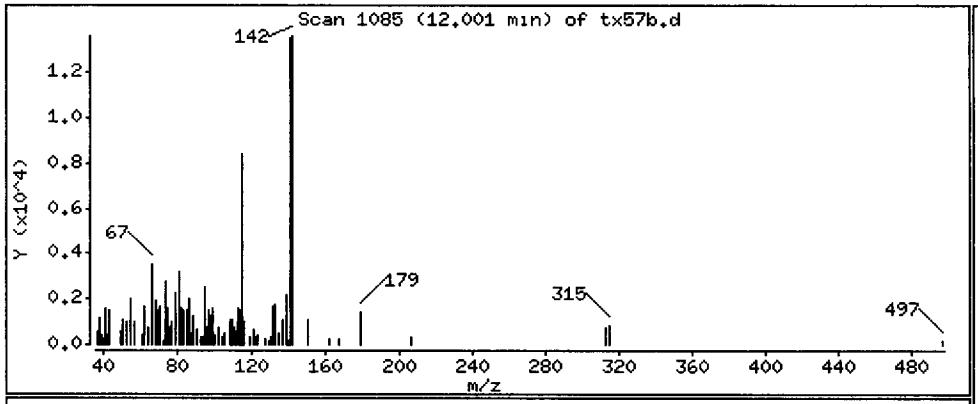
Client ID: SD0013 Instrument: nt10.i

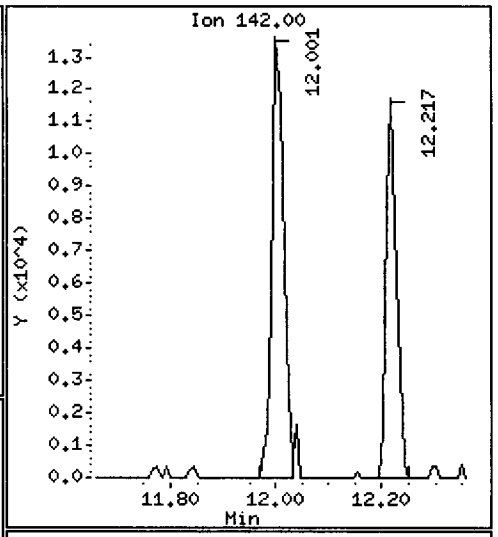
Sample Info: TX57B

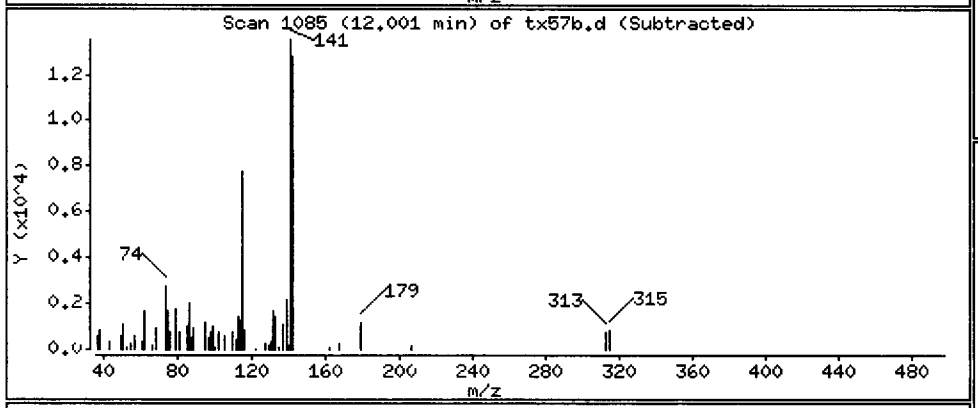
Volume Injected (uL): 1.0 Operator: YZ

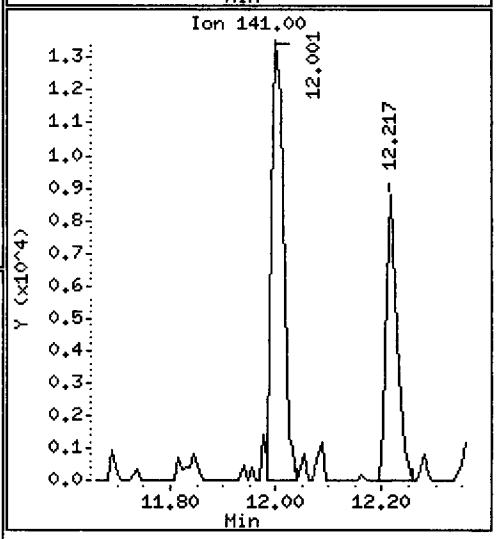
Column phase: ZB-5msi Column diameter: 0.25

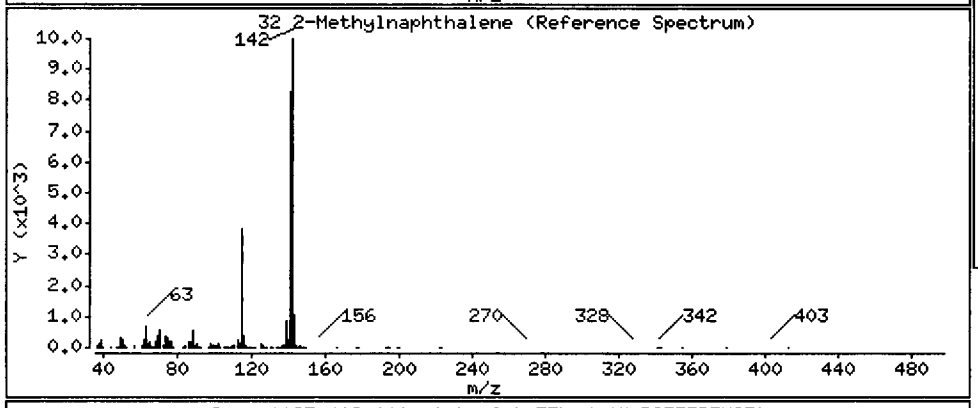
32 2-Methylnaphthalene Concentration: 15.08 ug/kg

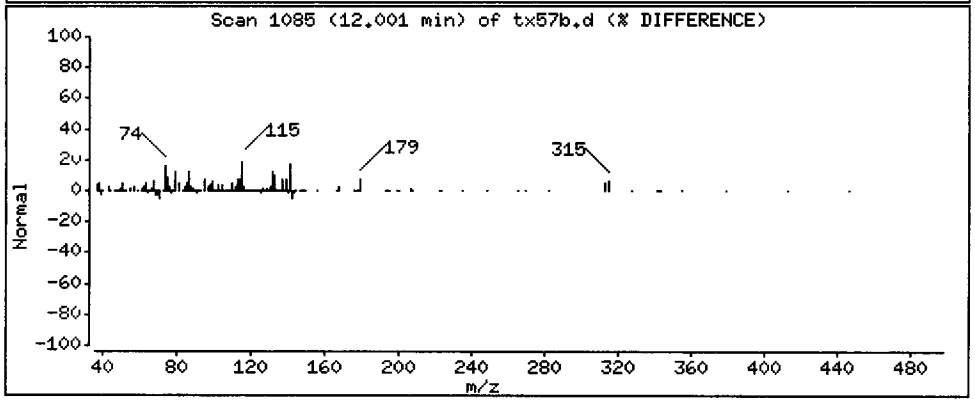












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

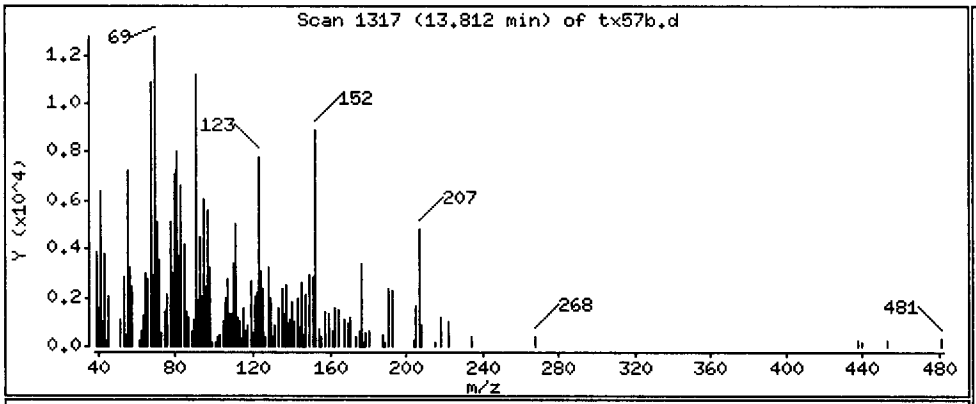
Client ID: SD0013 Instrument: nt10.i

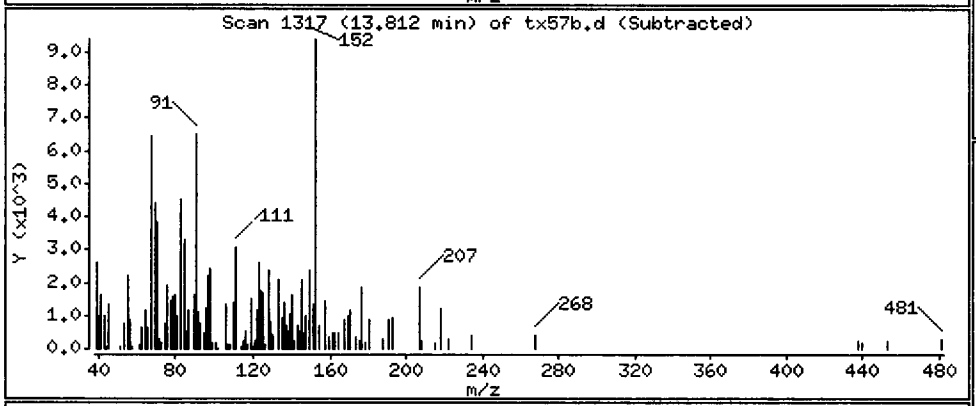
Sample Info: TX57B

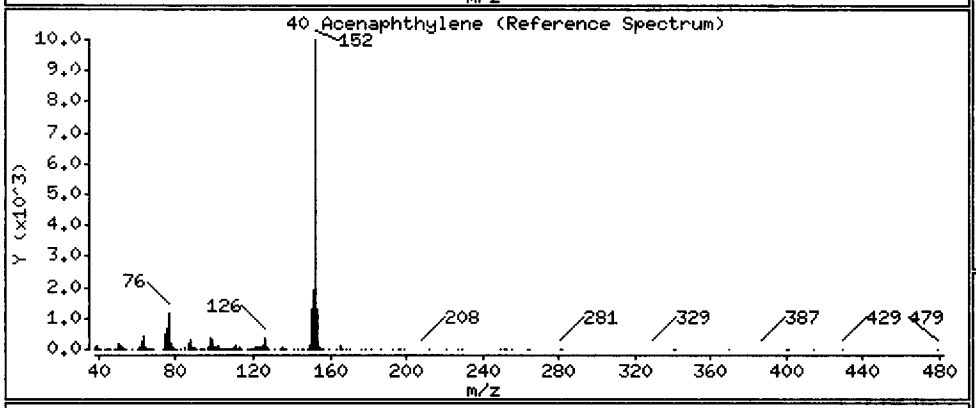
Volume Injected (uL): 1.0 Operator: YZ

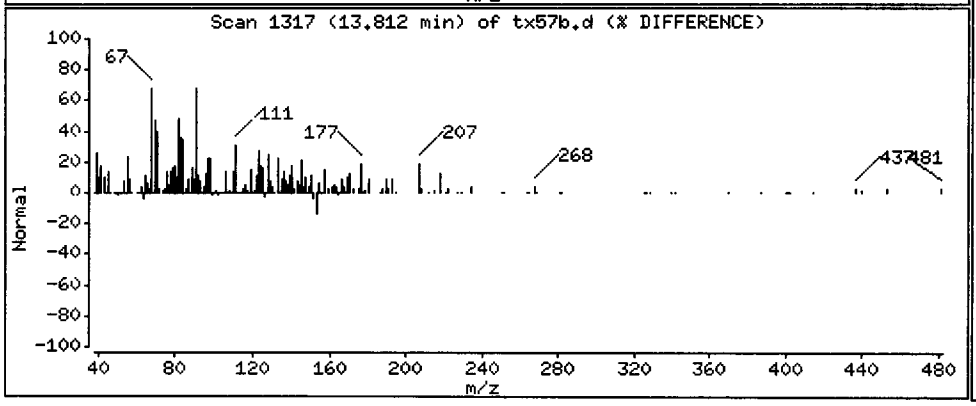
Column phase: ZB-5ms1 Column diameter: 0.25

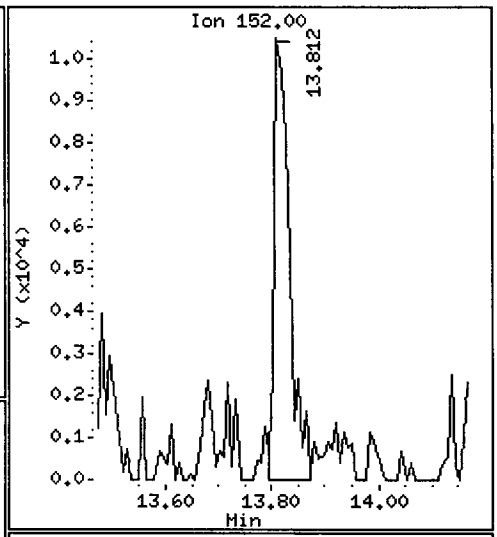
40 Acenaphthylene Concentration: 9.470 ug/kg

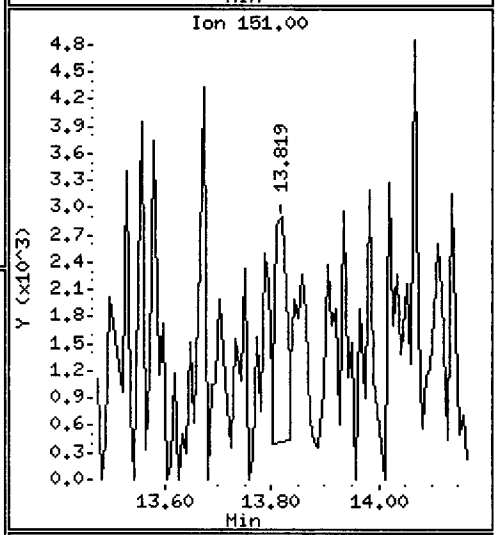


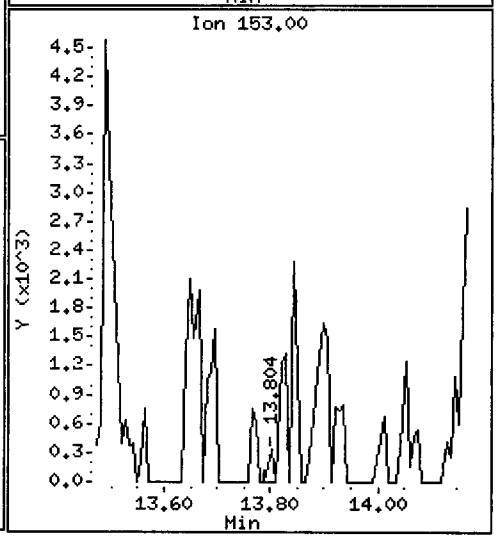












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

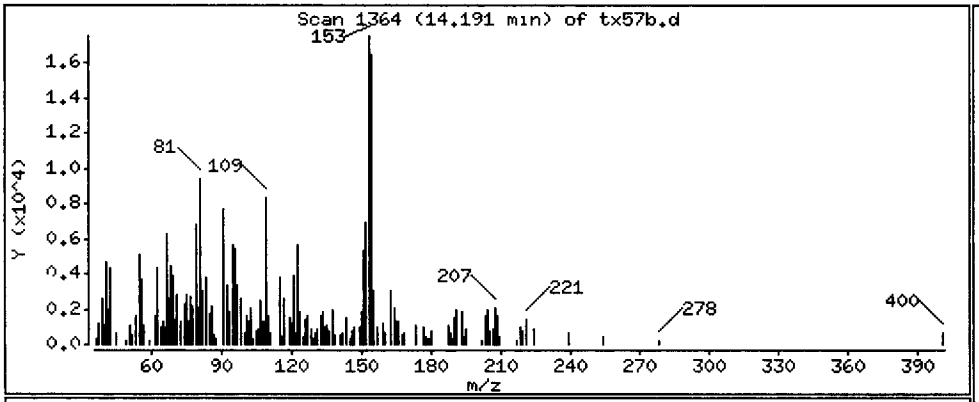
Client ID: SD0013 Instrument: nt10.i

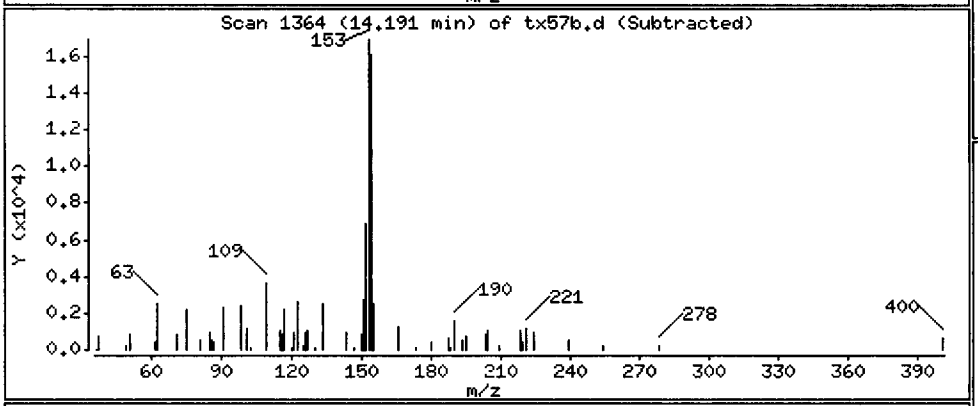
Sample Info: TX57B

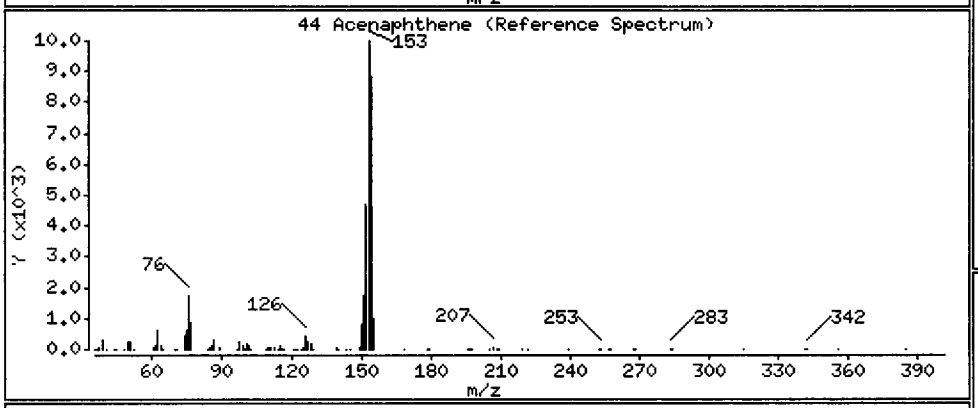
Volume Injected (uL): 1.0 Operator: YZ

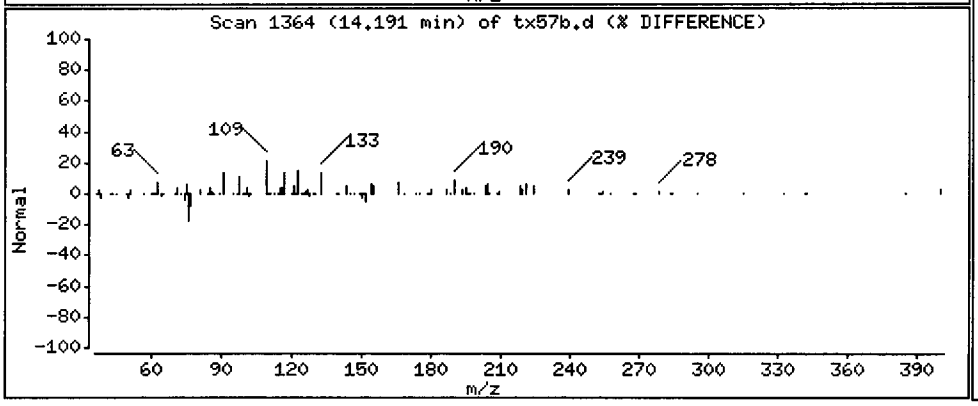
Column phase: ZB-5msi Column diameter: 0.25

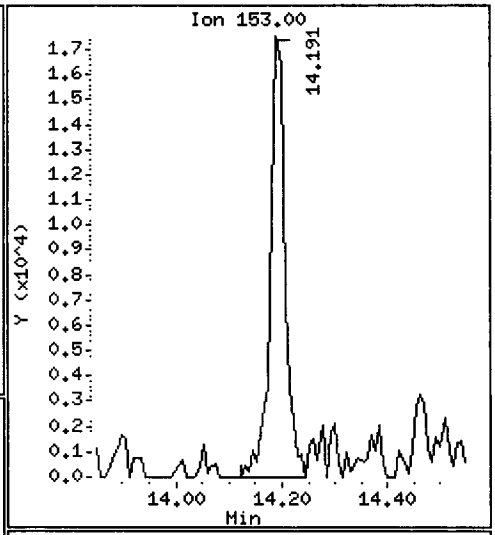
44 Acenaphthene Concentration: 24.46 ug/kg

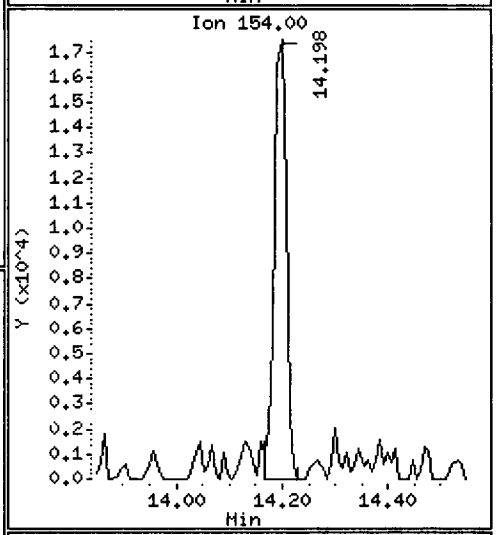


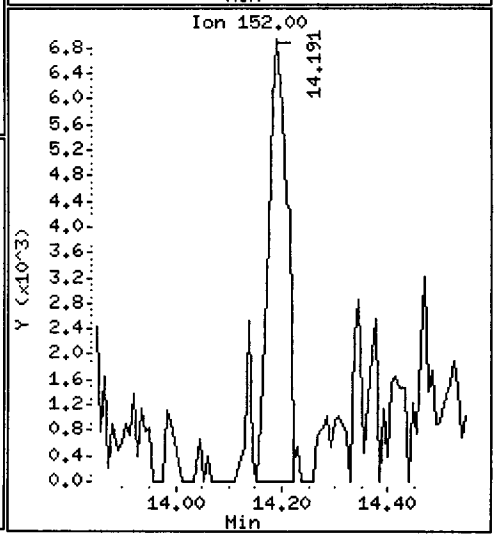












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

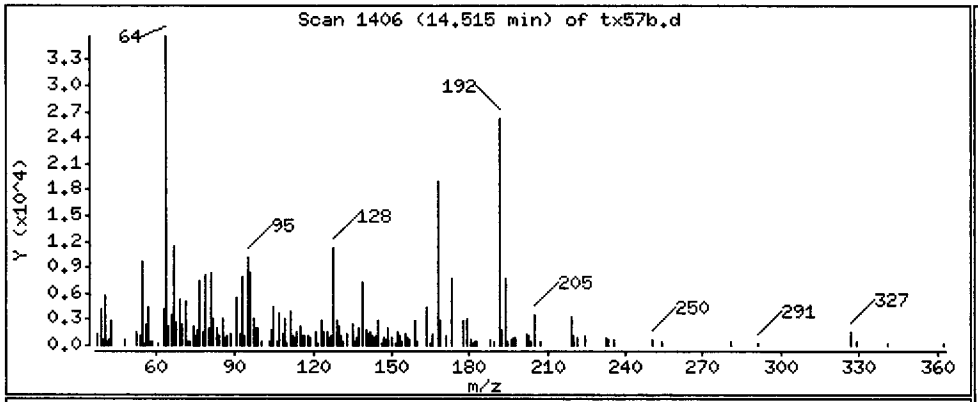
Client ID: SD0013 Instrument: nt10.i

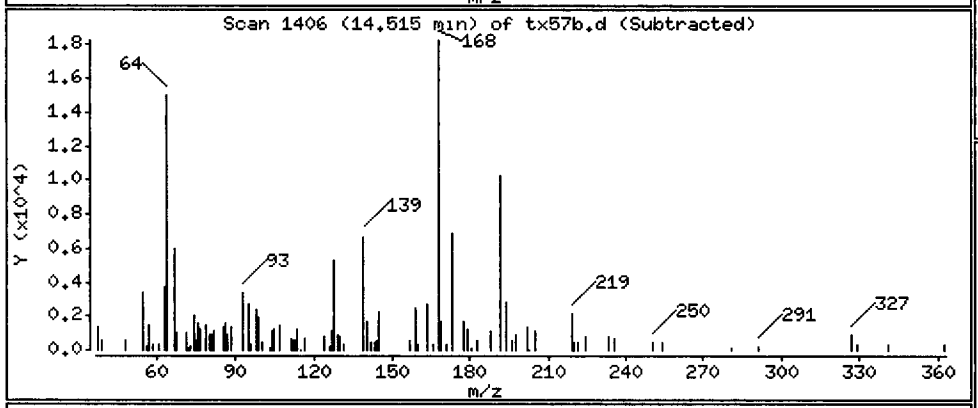
Sample Info: TX57B

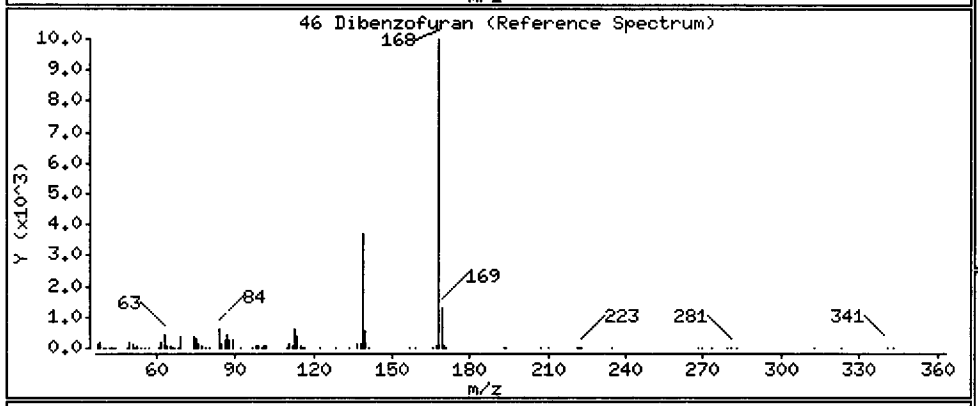
Volume Injected (uL): 1.0 Operator: YZ

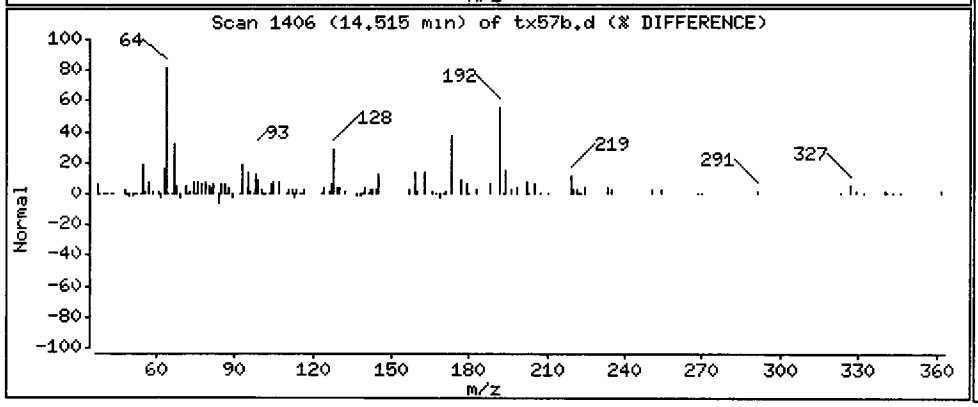
Column phase: ZB-5ms1 Column diameter: 0.25

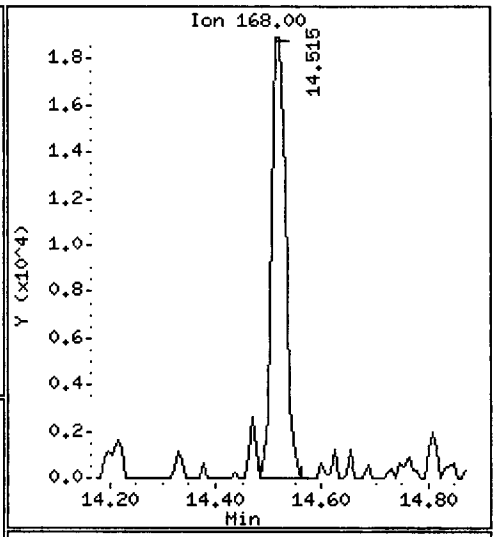
46 Dibenzofuran Concentration: 15.56 ug/kg

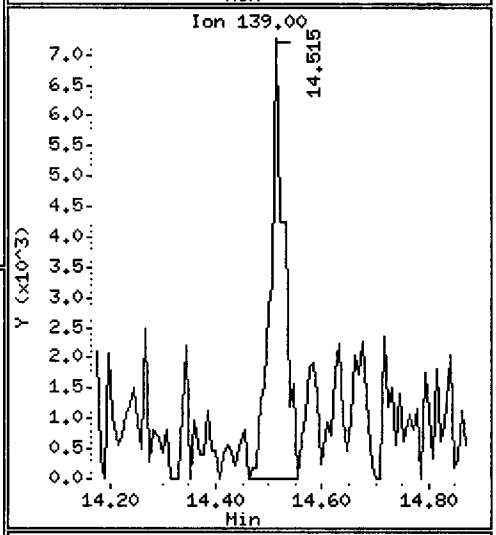


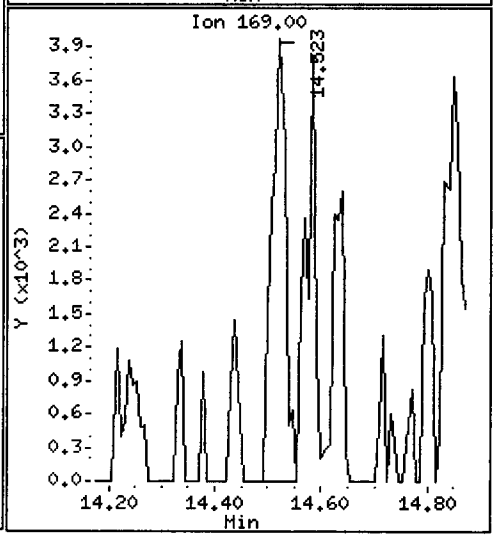












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

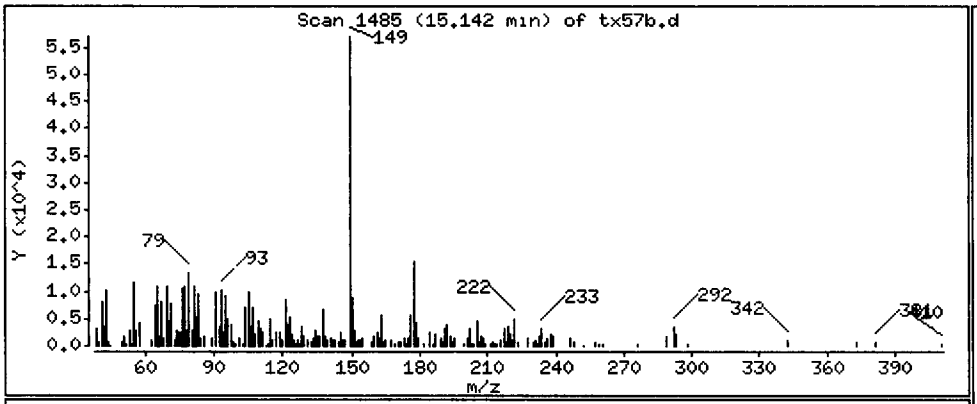
Client ID: SD0013 Instrument: nt10.i

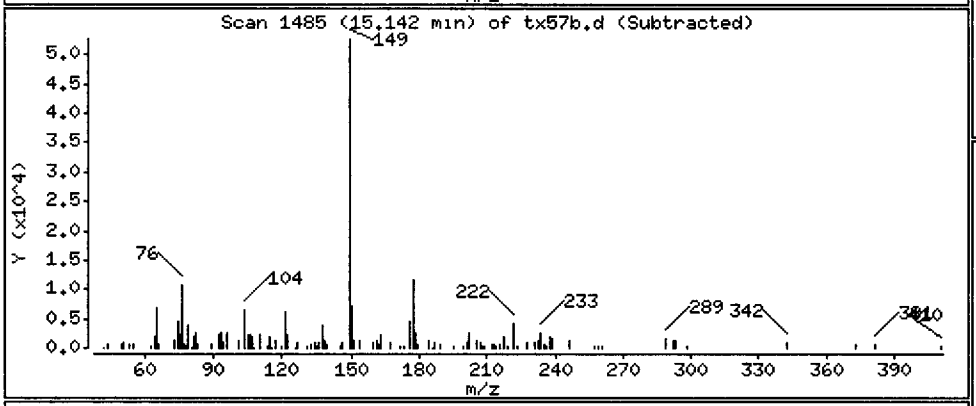
Sample Info: TX57B

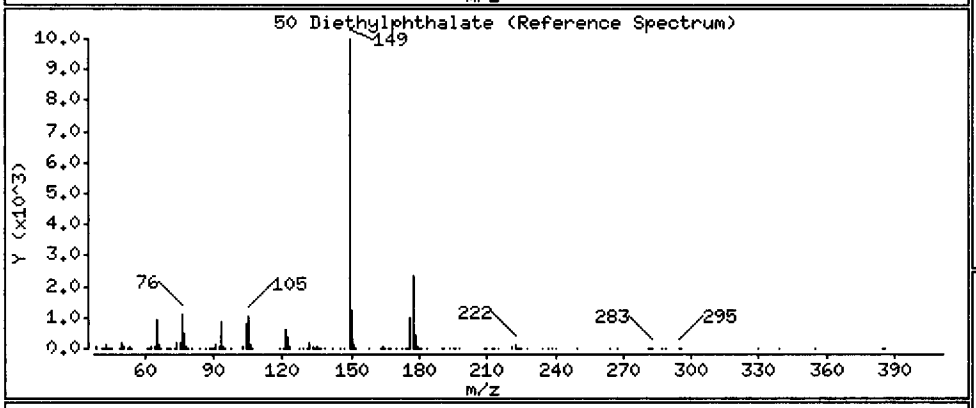
Volume Injected (uL): 1.0 Operator: YZ

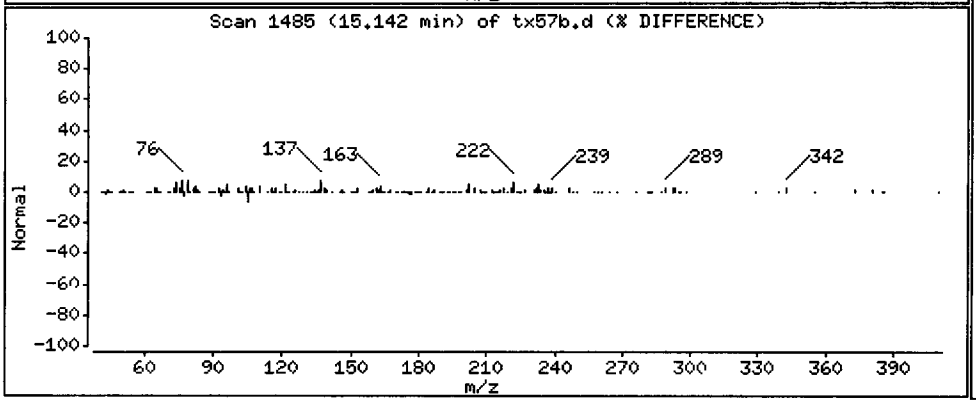
Column phase: ZB-5msi Column diameter: 0.25

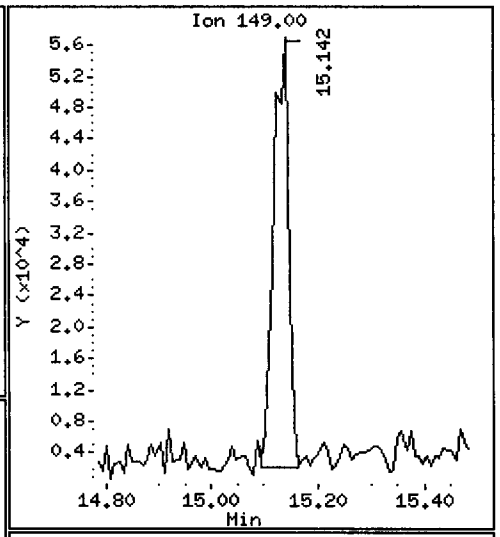
50 Diethylphthalate Concentration: 59.83 ug/kg

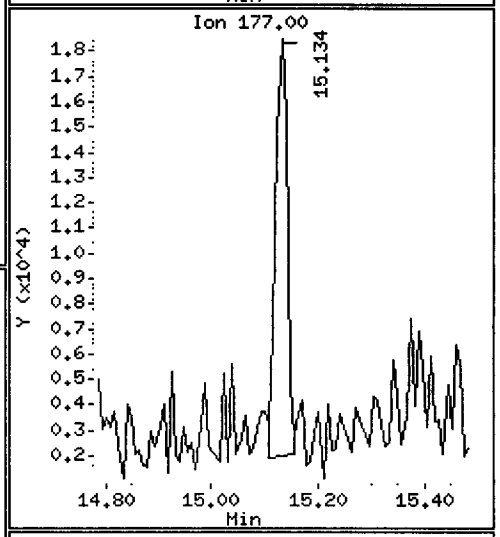


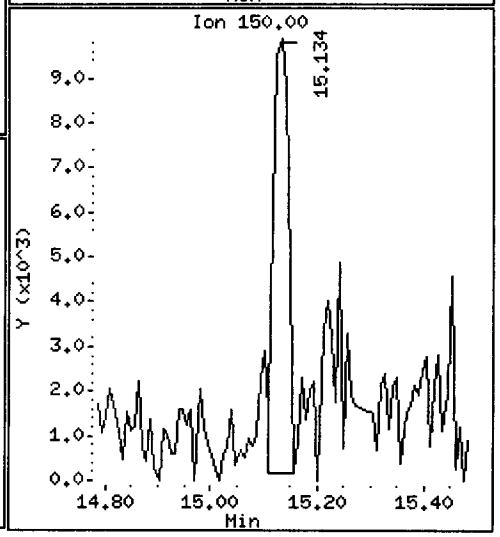












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

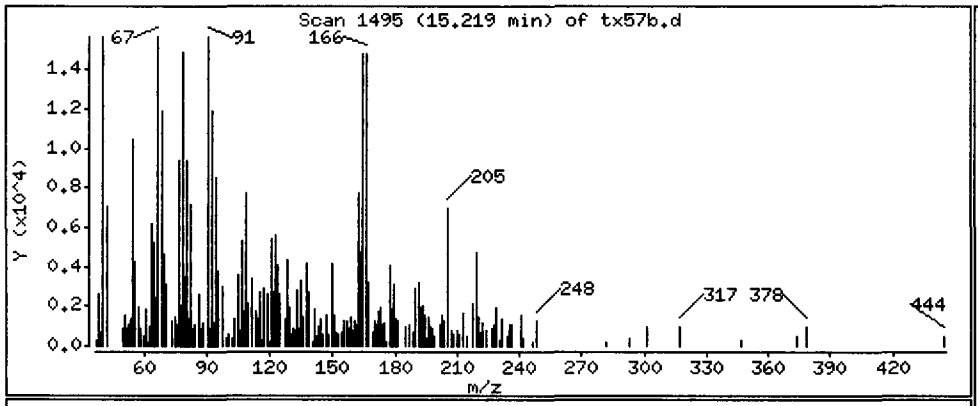
Client ID: SD0013 Instrument: nt10.i

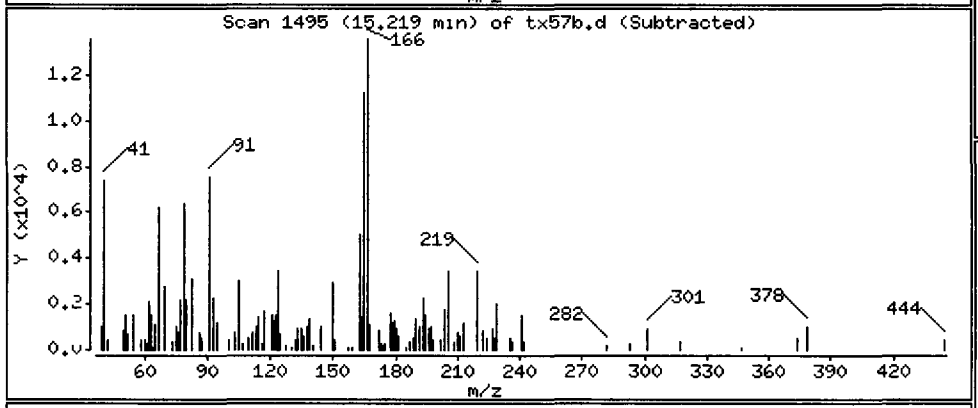
Sample Info: TX57B

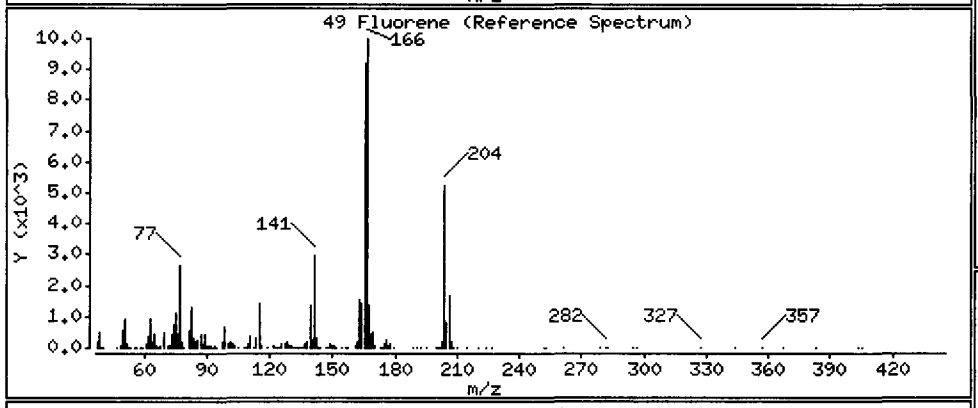
Volume Injected (uL): 1.0 Operator: YZ

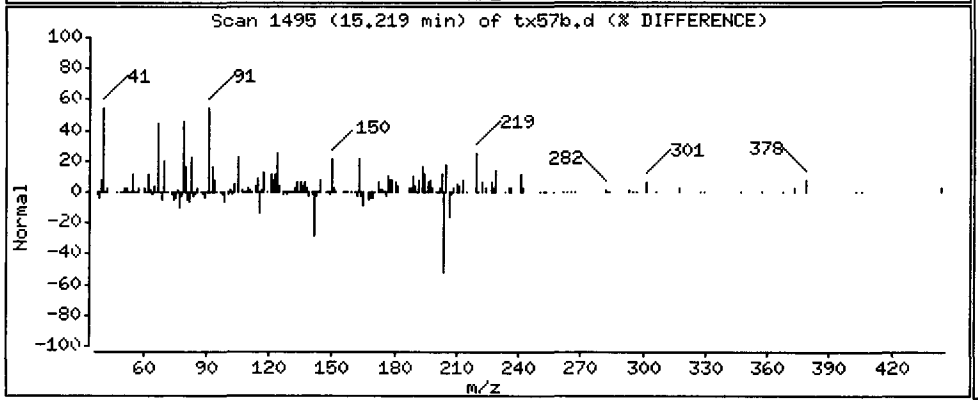
Column phase: ZB-5msi Column diameter: 0.25

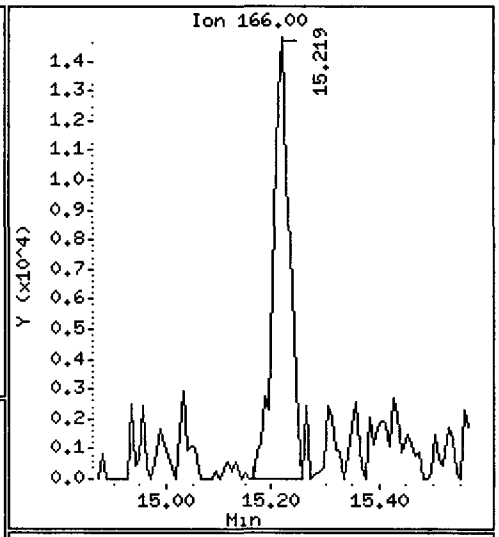
49 Fluorene Concentration: 18.27 ug/kg

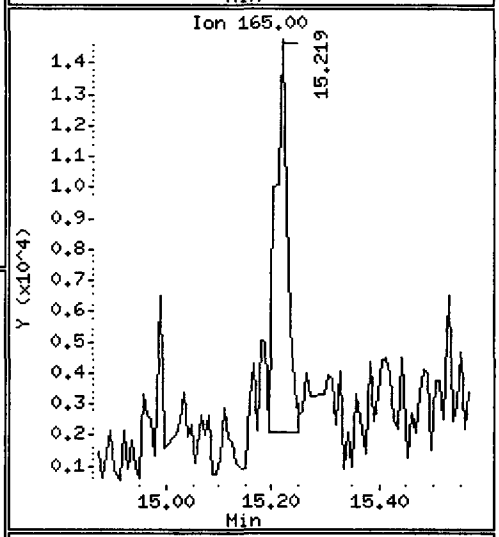


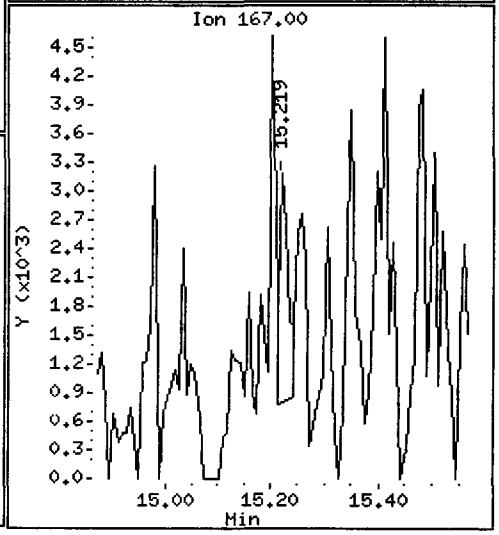












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

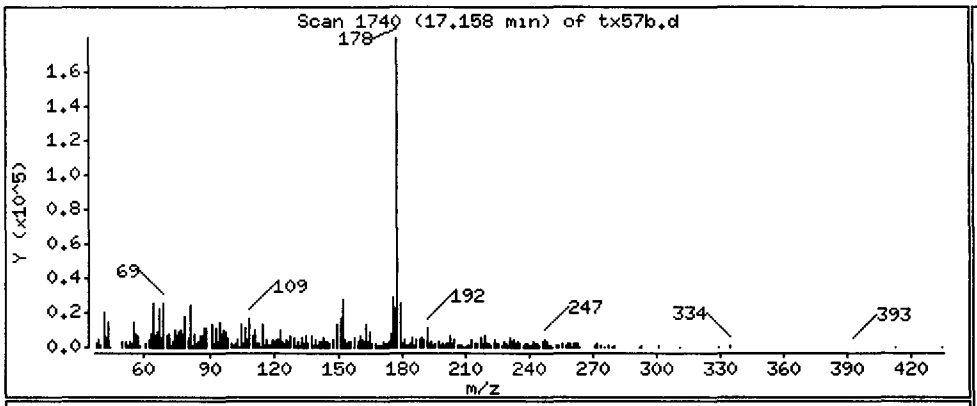
Client ID: SD0013 Instrument: nt10.i

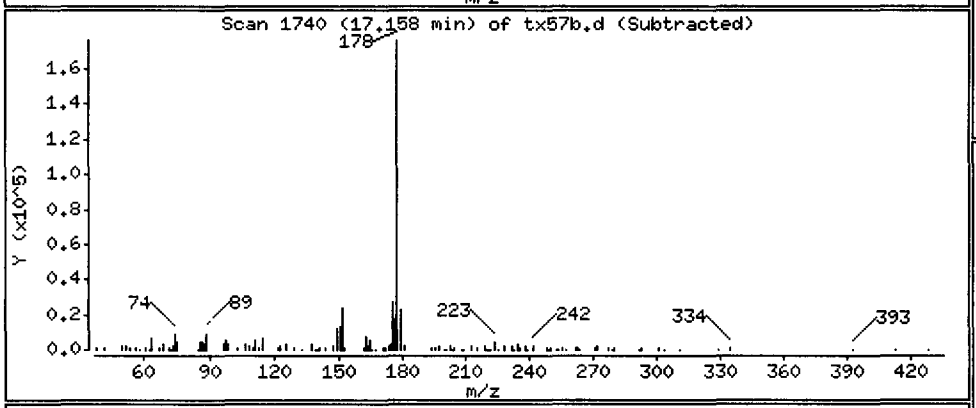
Sample Info: TX57B

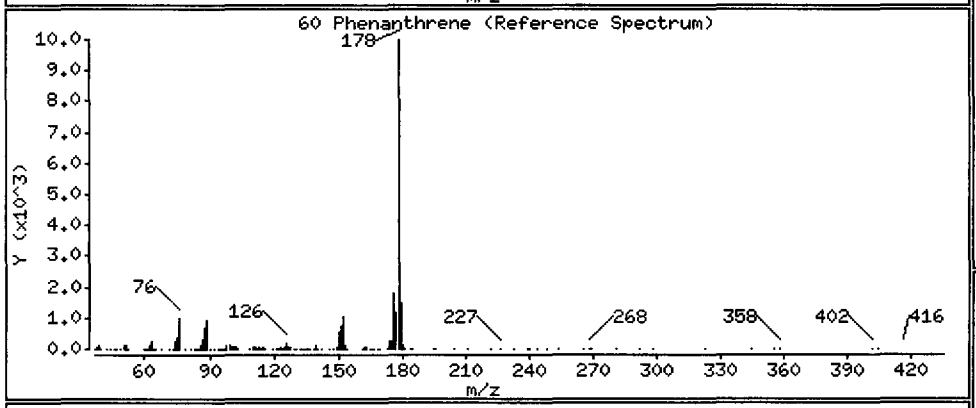
Volume Injected (uL): 1.0 Operator: YZ

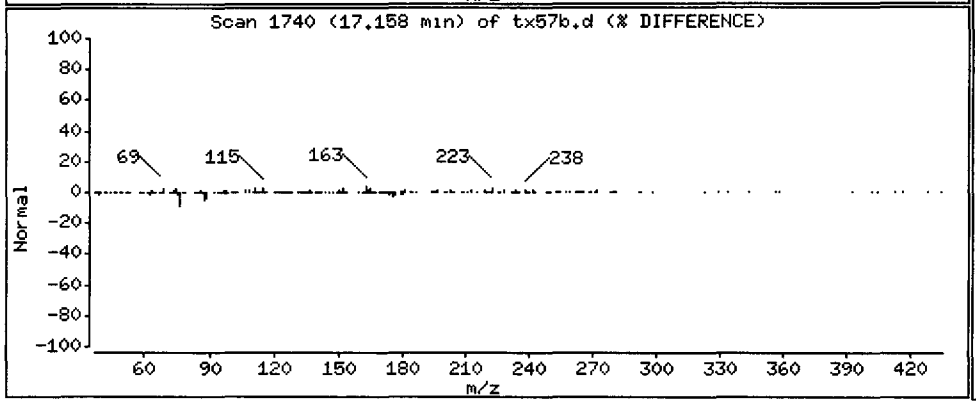
Column phase: ZB-5msi Column diameter: 0.25

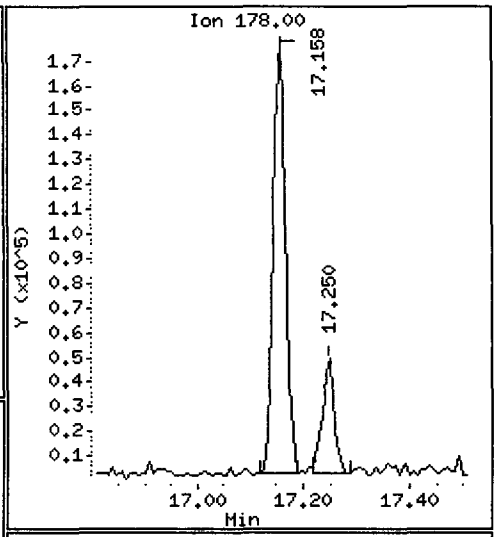
60 Phenanthrene Concentration: 95.44 ug/kg

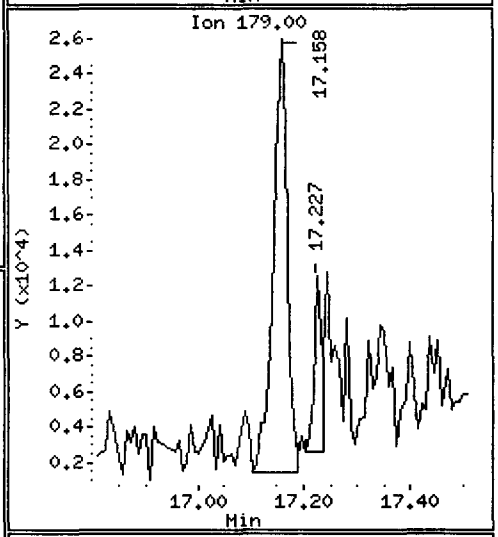


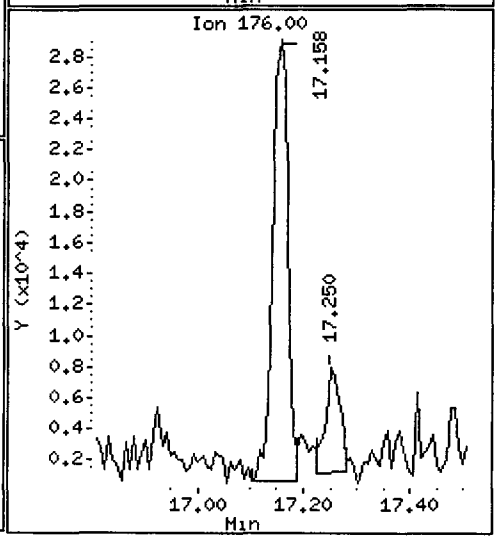












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

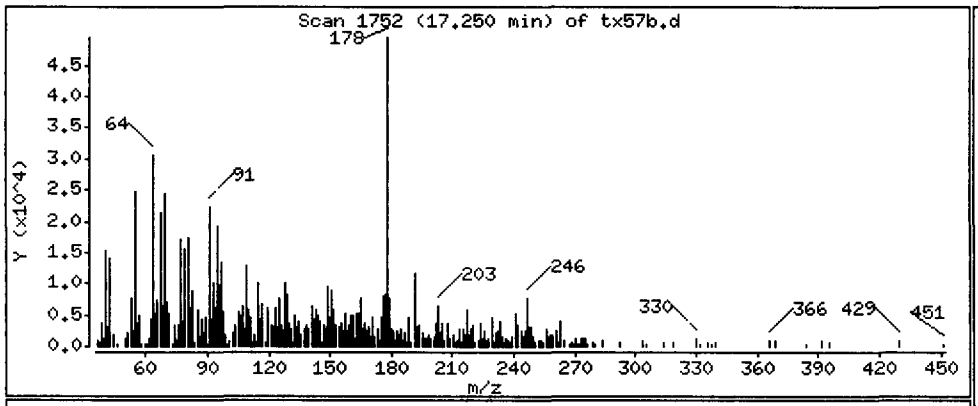
Client ID: SD0013 Instrument: nt10.i

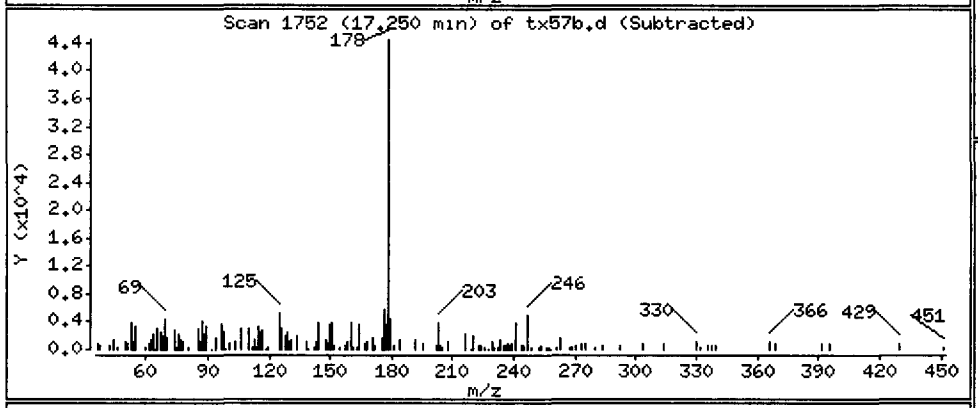
Sample Info: TX57B

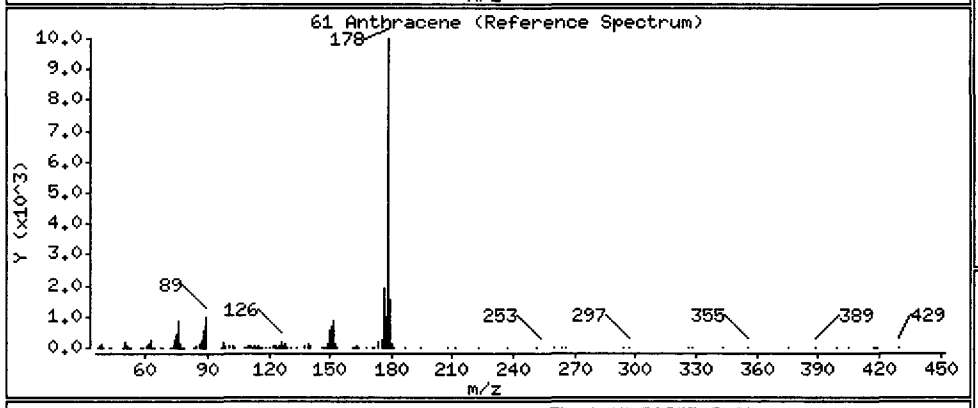
Volume Injected (uL): 1.0 Operator: YZ

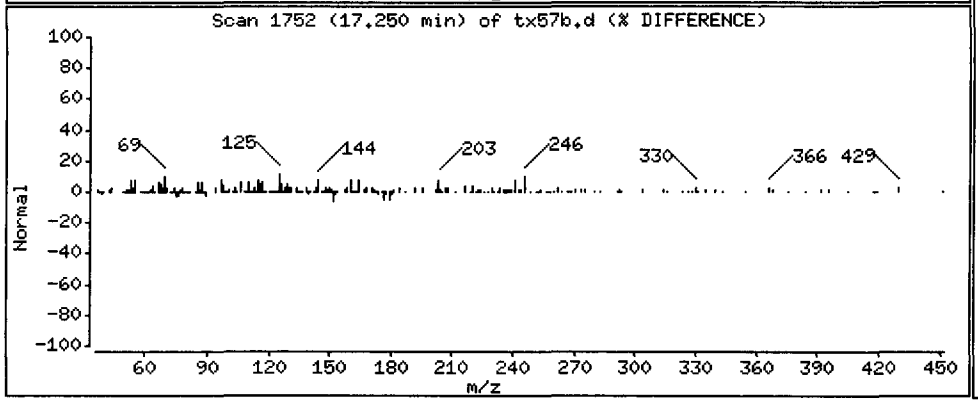
Column phase: ZB-5ms1 Column diameter: 0.25

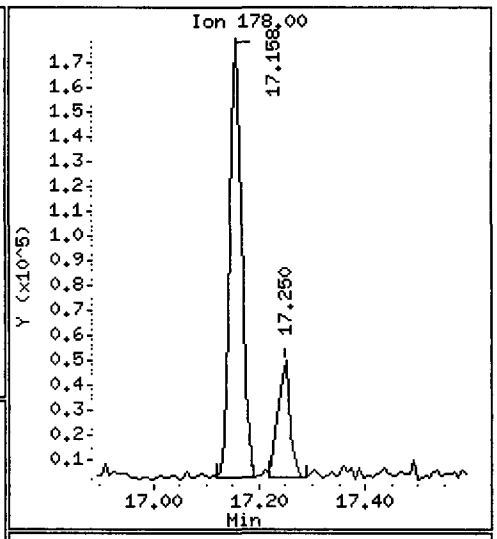
61 Anthracene Concentration: 26.19 ug/kg

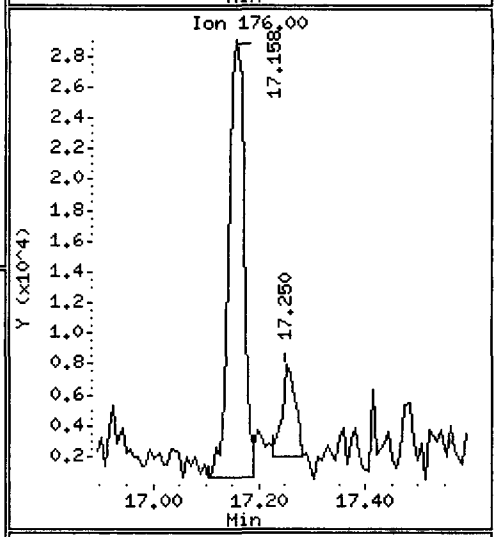


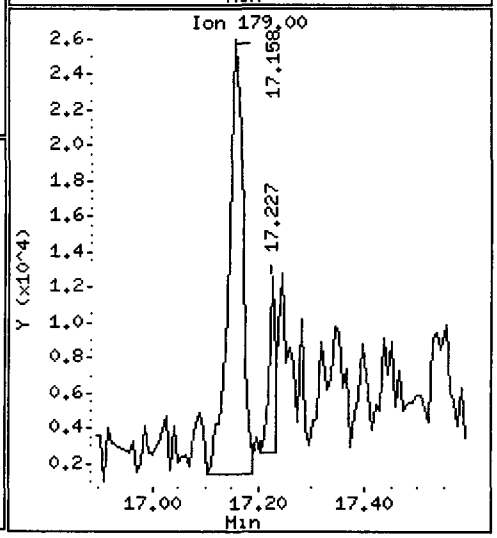












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

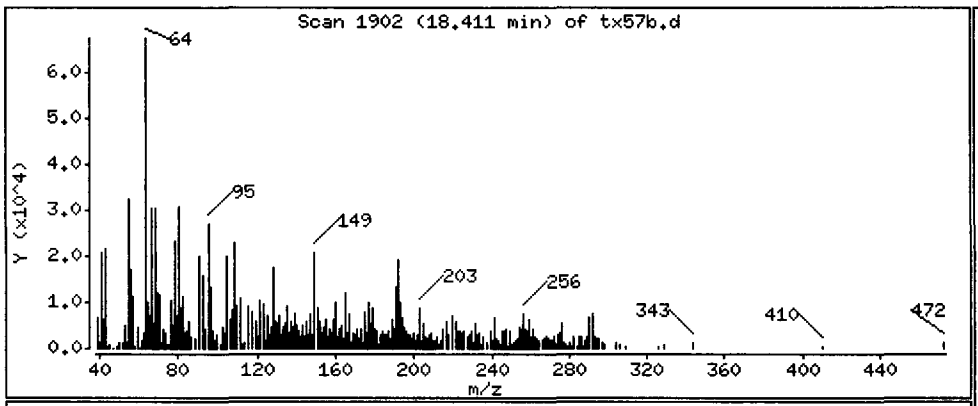
Client ID: SD0013 Instrument: nt10.i

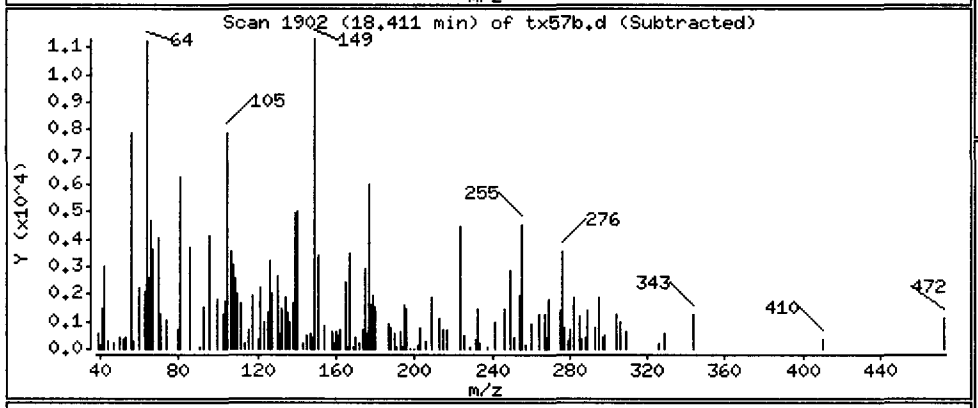
Sample Info: TX57B

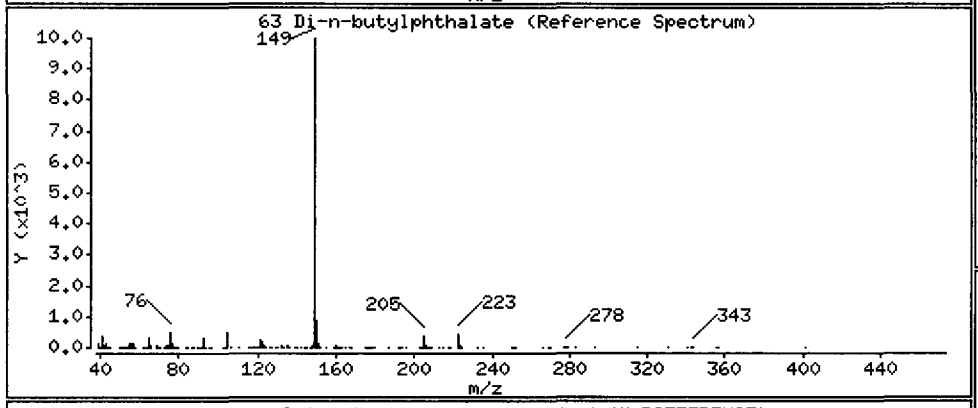
Volume Injected (uL): 1.0 Operator: YZ

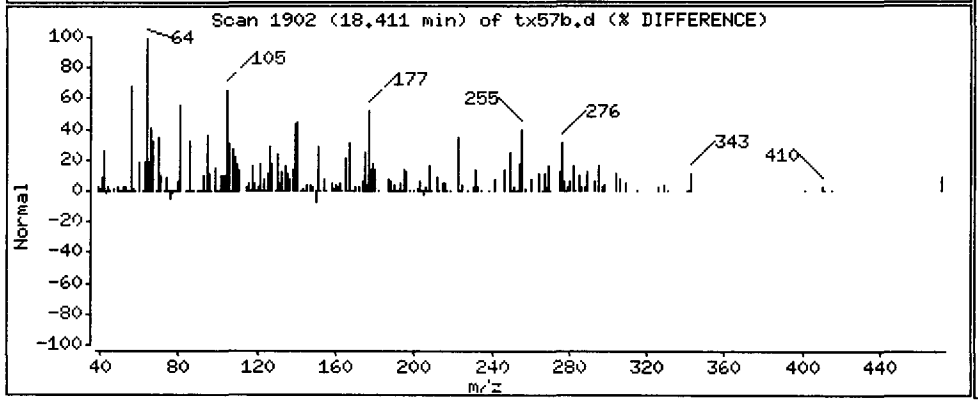
Column phase: ZB-5msi Column diameter: 0.25

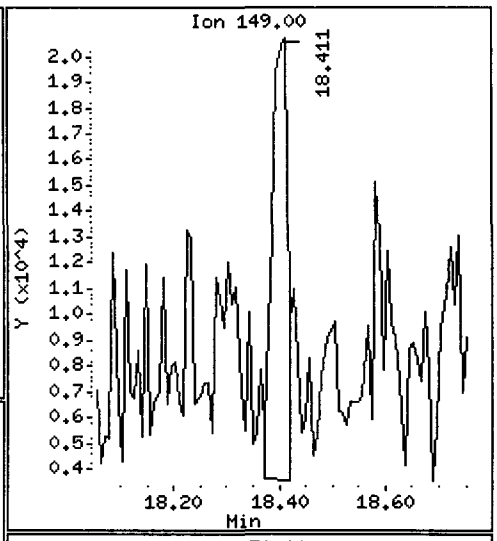
63 Di-n-butylphthalate Concentration: 11.42 ug/kg

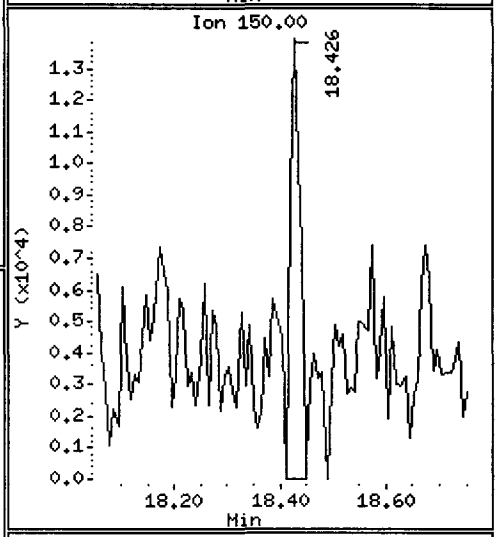


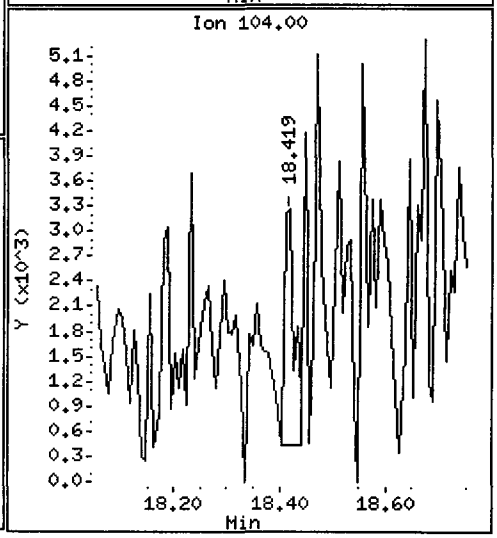












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

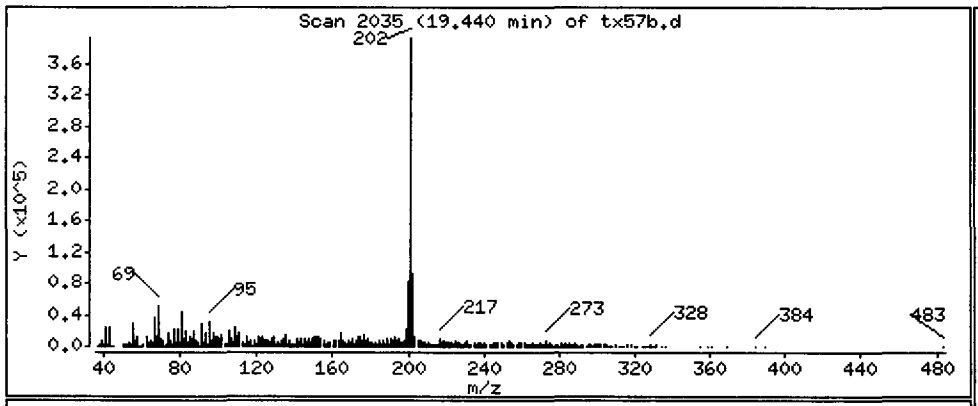
Client ID: SD0013 Instrument: nt10.i

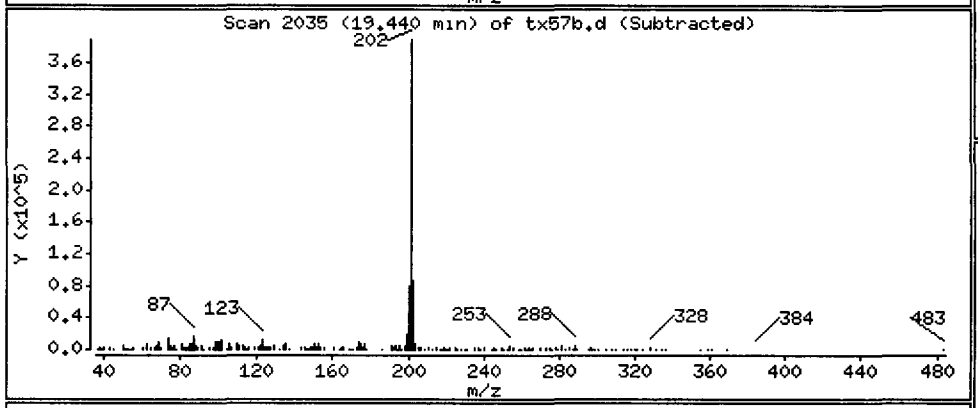
Sample Info: TX57B

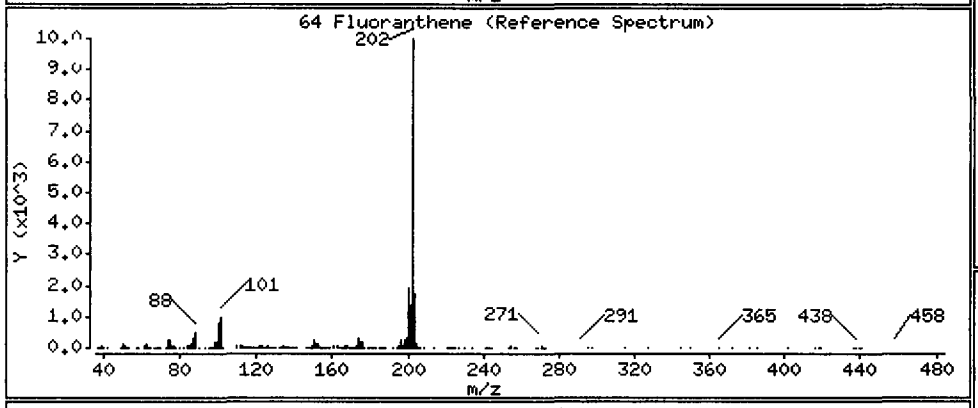
Volume Injected (uL): 1.0 Operator: YZ

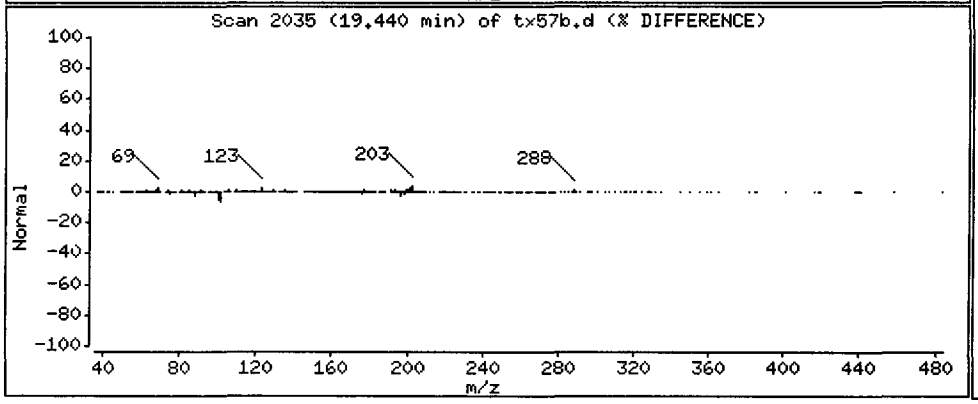
Column phase: ZB-5msi Column diameter: 0.25

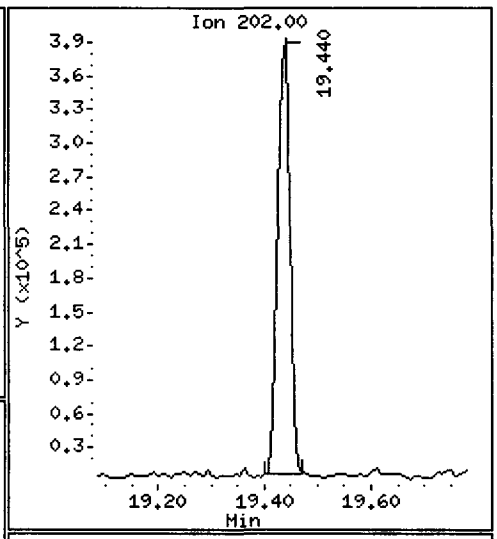
64 Fluoranthene Concentration: 158.5 ug/kg

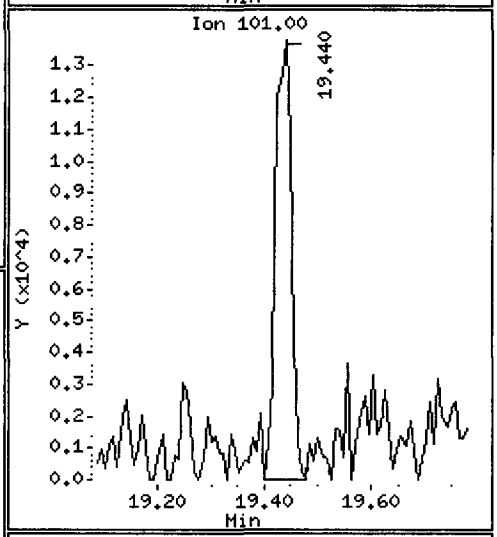


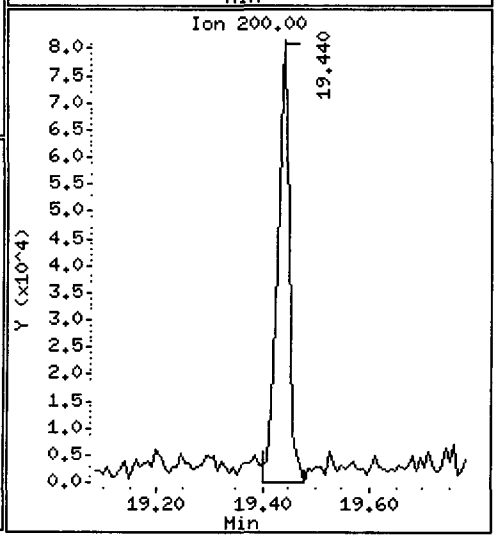












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

Client ID: SD0013

Instrument: nt10.i

Sample Info: TX57B

Volume Injected (uL): 1.0

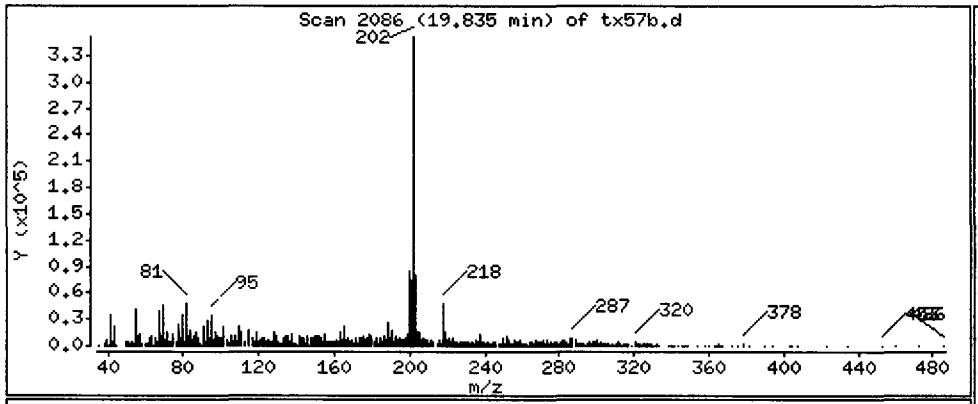
Operator: YZ

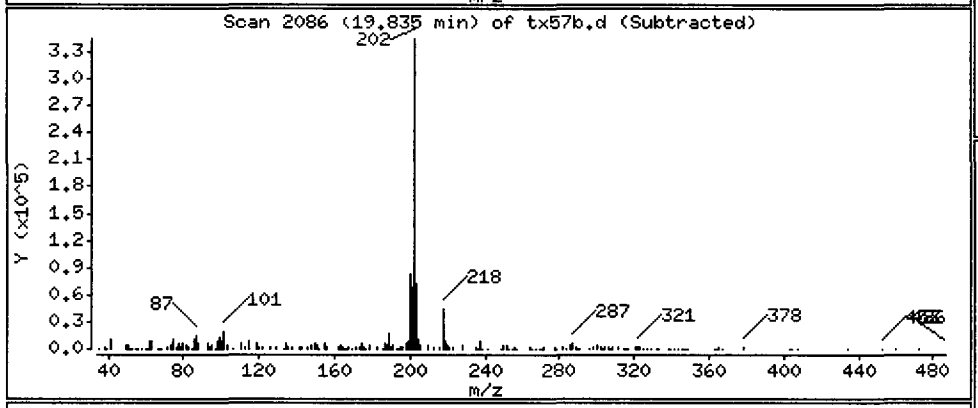
Column phase: ZB-5msi

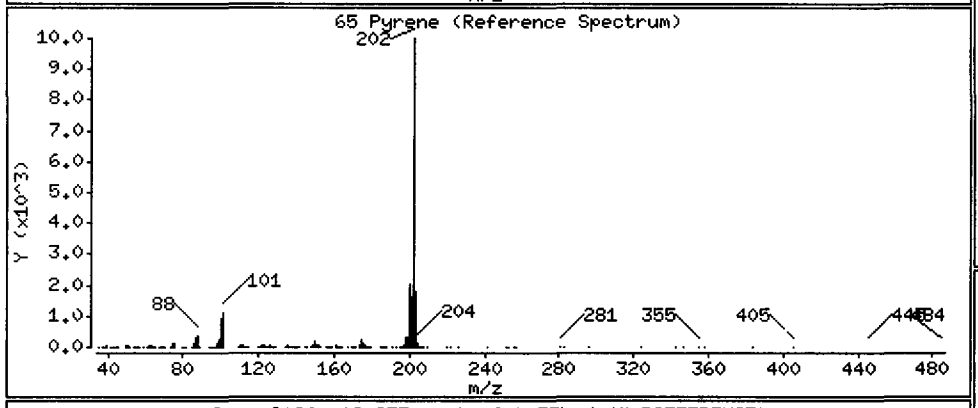
Column diameter: 0.25

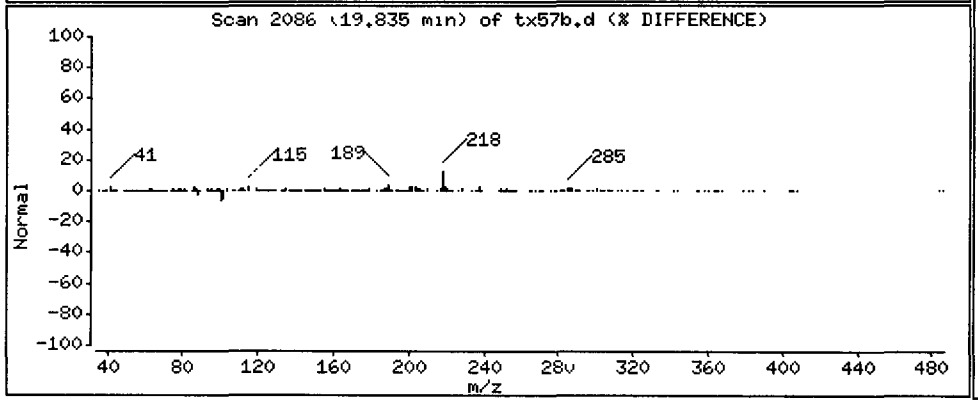
65 Pyrene

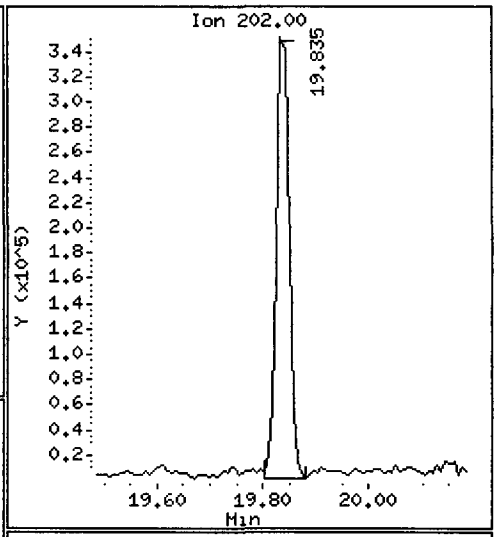
Concentration: 136.3 ug/kg

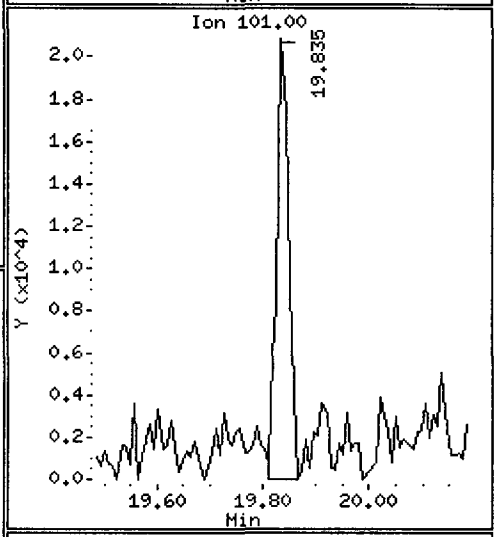


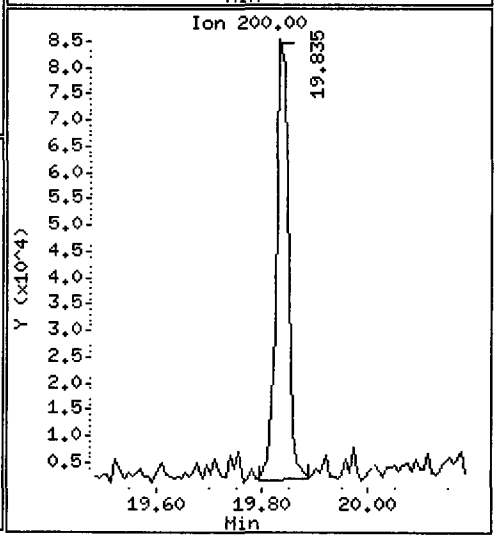












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

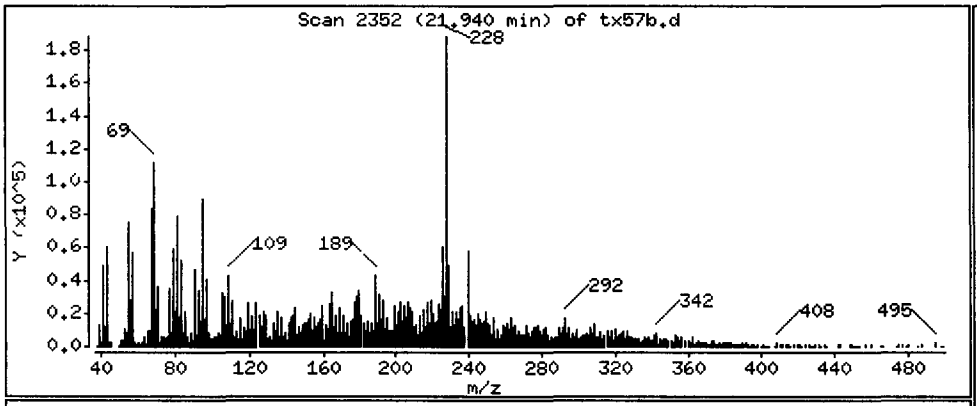
Client ID: SD0013 Instrument: nt10.i

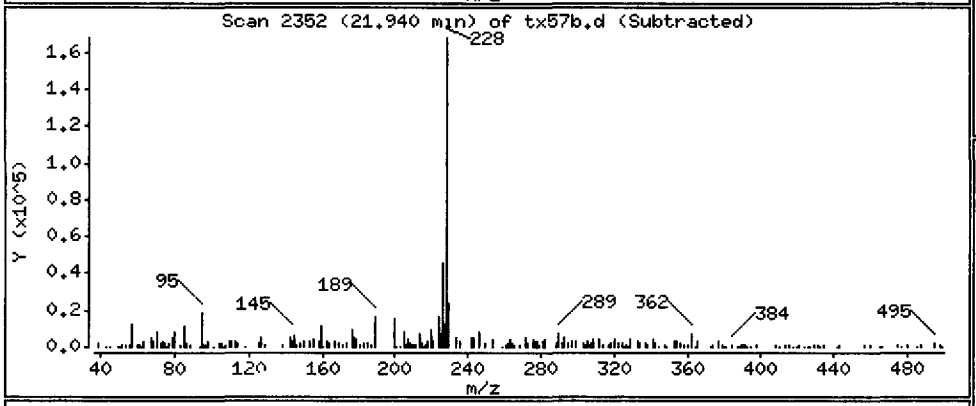
Sample Info: TX57B

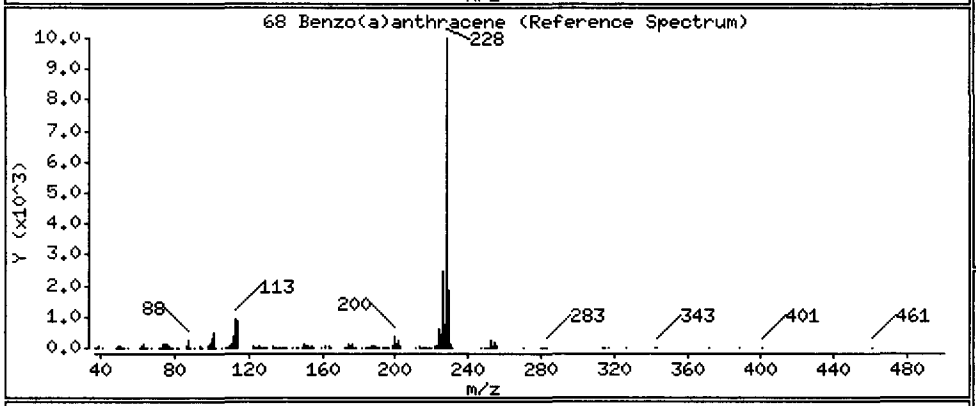
Volume Injected (uL): 1.0 Operator: YZ

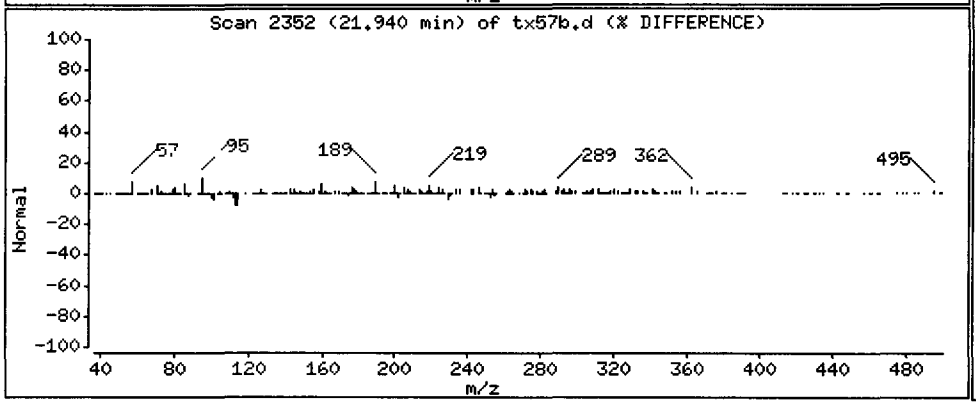
Column phase: ZB-5ms1 Column diameter: 0.25

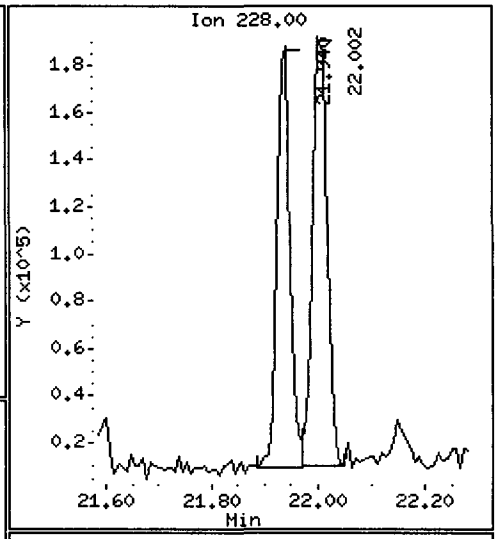
68 Benzo(a)anthracene Concentration: 63.40 ug/kg

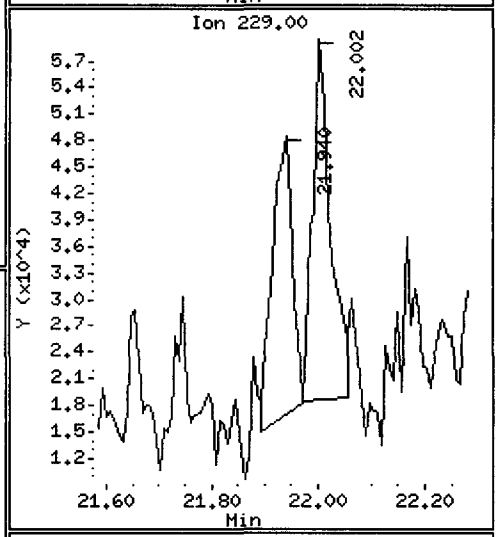


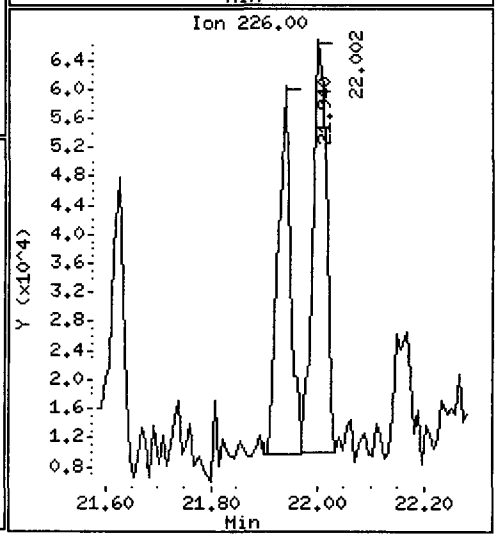












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

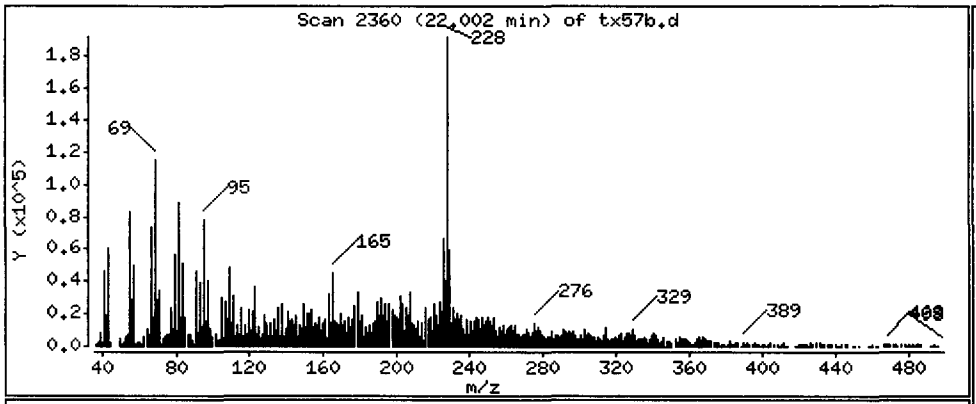
Client ID: SD0013 Instrument: nt10.i

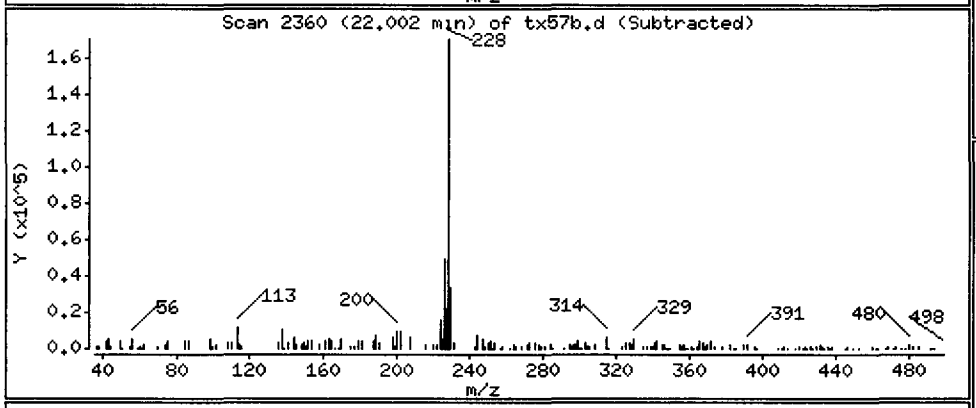
Sample Info: TX57B

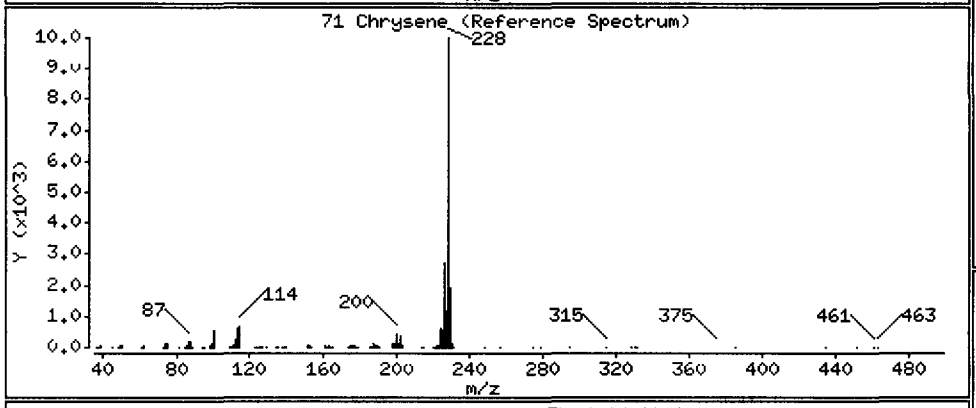
Volume Injected (uL): 1.0 Operator: YZ

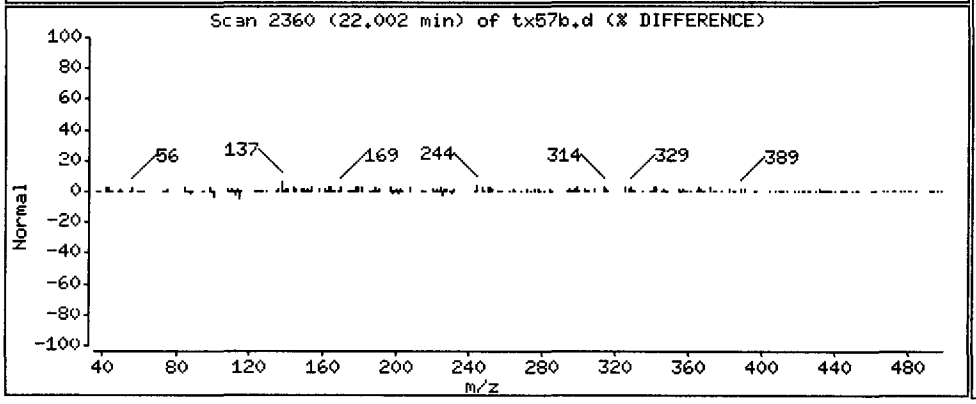
Column phase: ZB-5msi Column diameter: 0.25

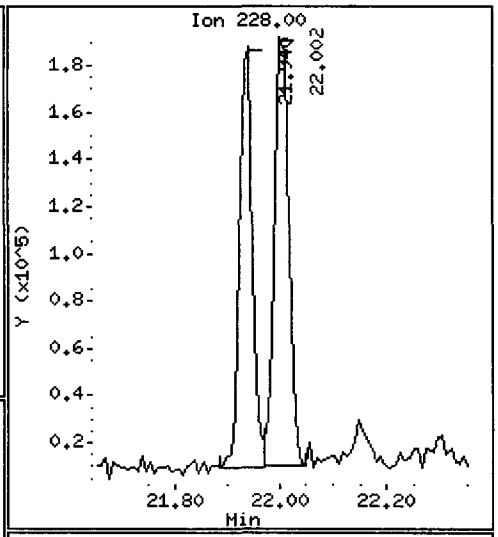
71 Chrysene Concentration: 78.93 ug/kg

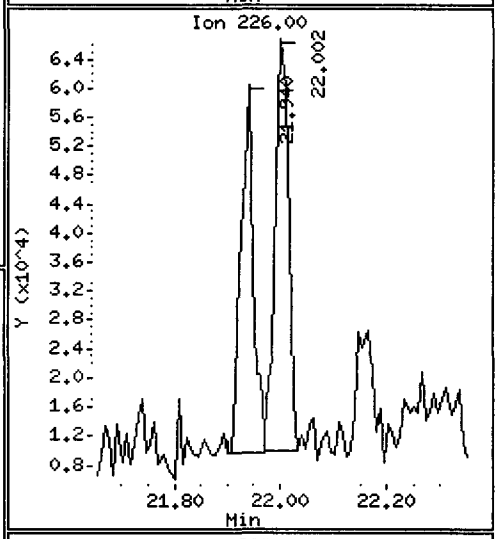


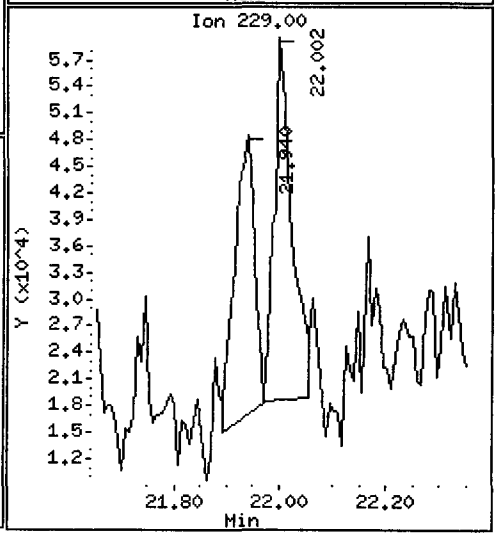












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

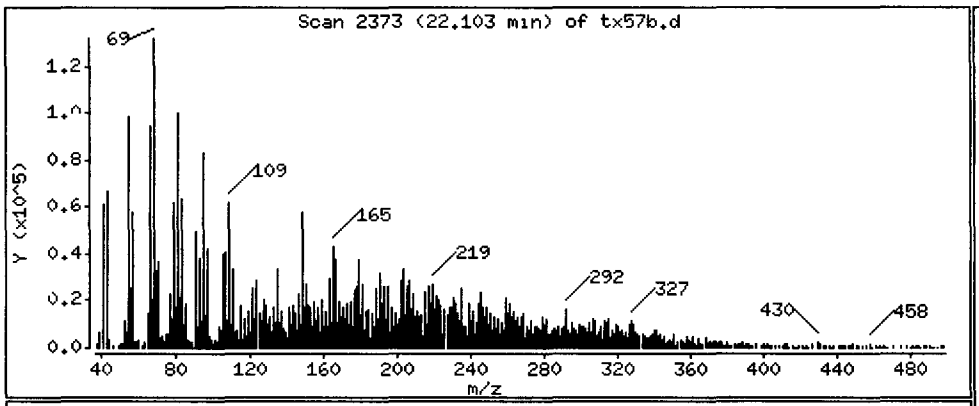
Client ID: SD0013 Instrument: nt10.i

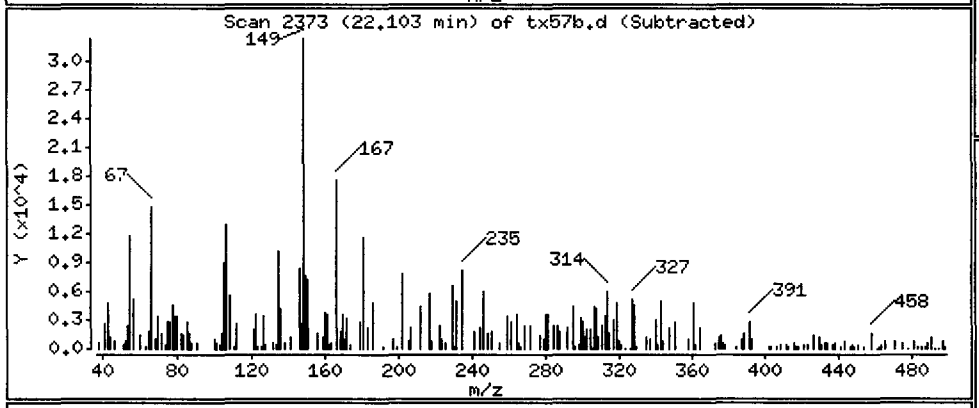
Sample Info: TX57B

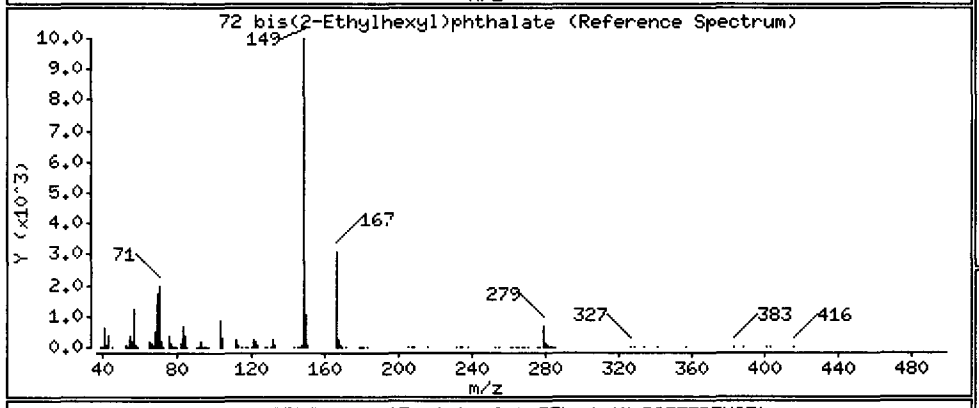
Volume Injected (uL): 1.0 Operator: YZ

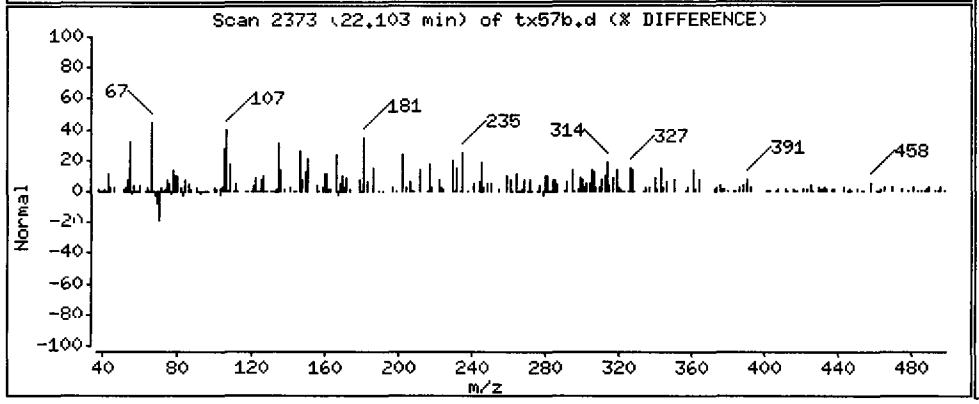
Column phase: ZB-5msi Column diameter: 0.25

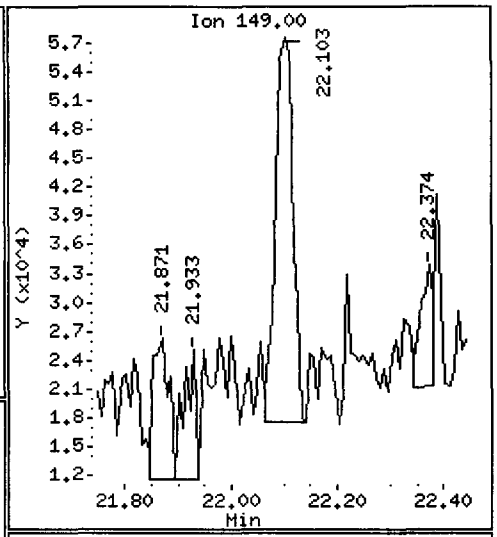
72 bis(2-Ethylhexyl)phthalate Concentration: 44.18 ug/kg

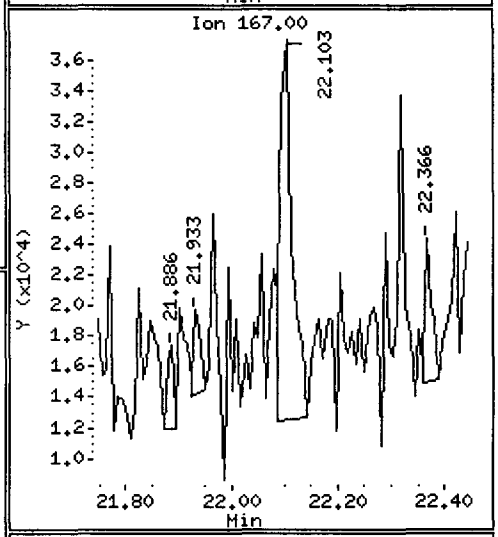


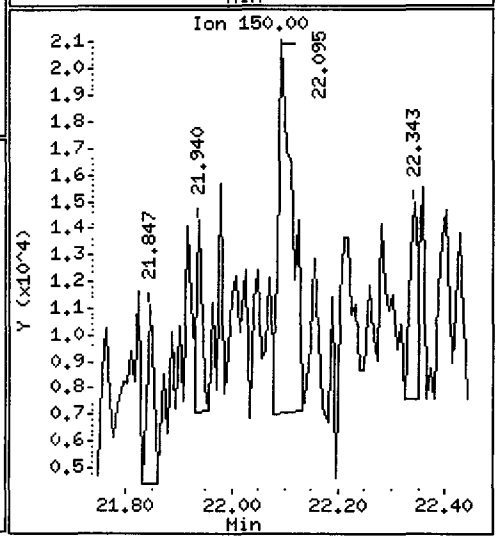












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

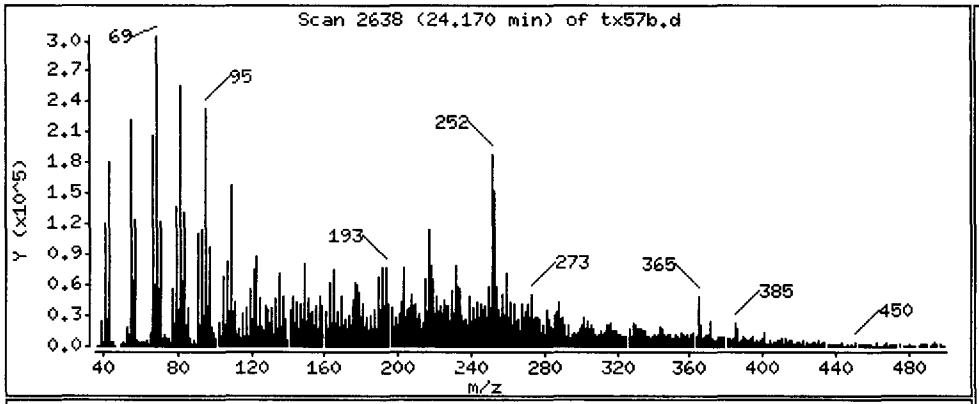
Client ID: SD0013 Instrument: nt10.i

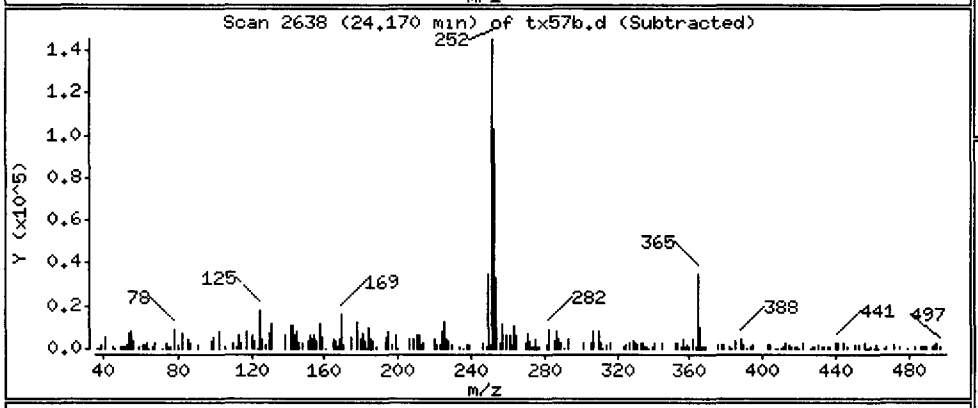
Sample Info: TX57B

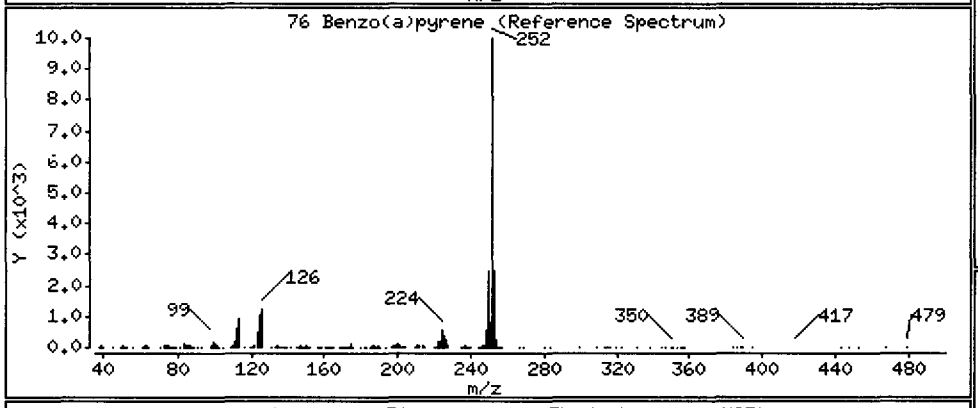
Volume Injected (uL): 1.0 Operator: YZ

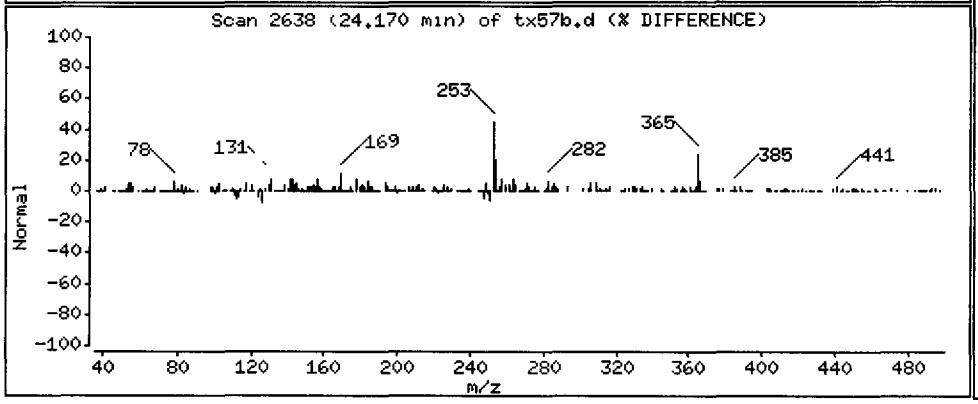
Column phase: ZB-5ms1 Column diameter: 0.25

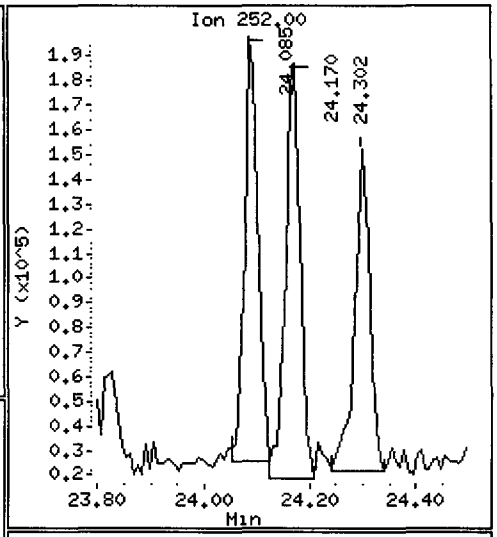
76 Benzo(a)pyrene Concentration: 75.40 ug/kg

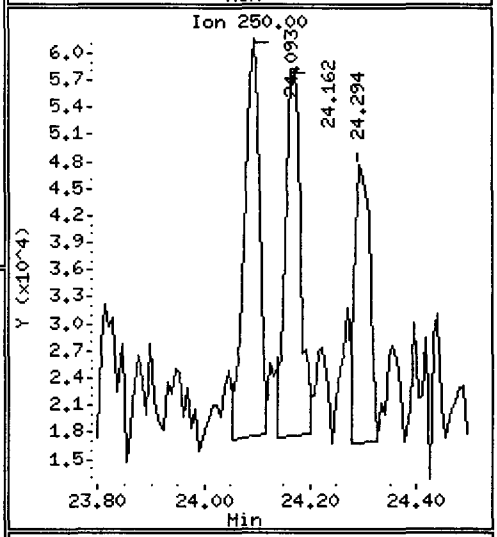


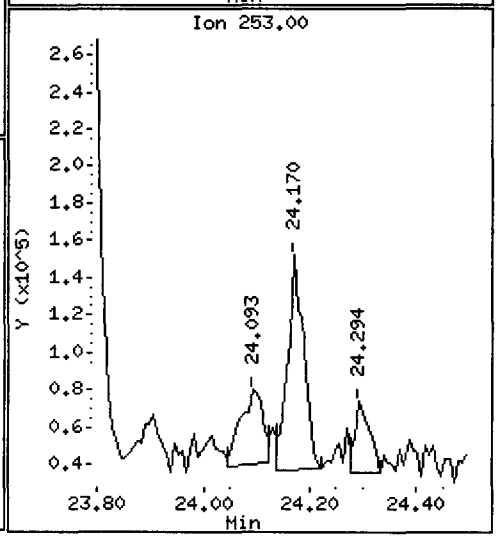












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

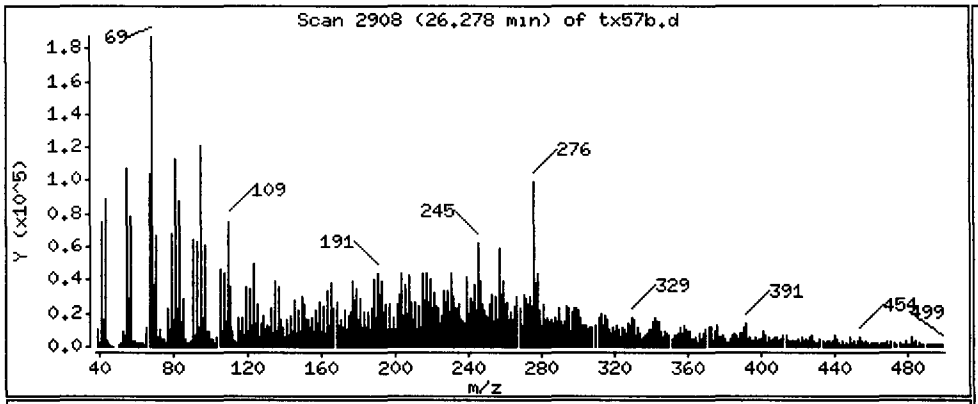
Client ID: SD0013 Instrument: nt10.i

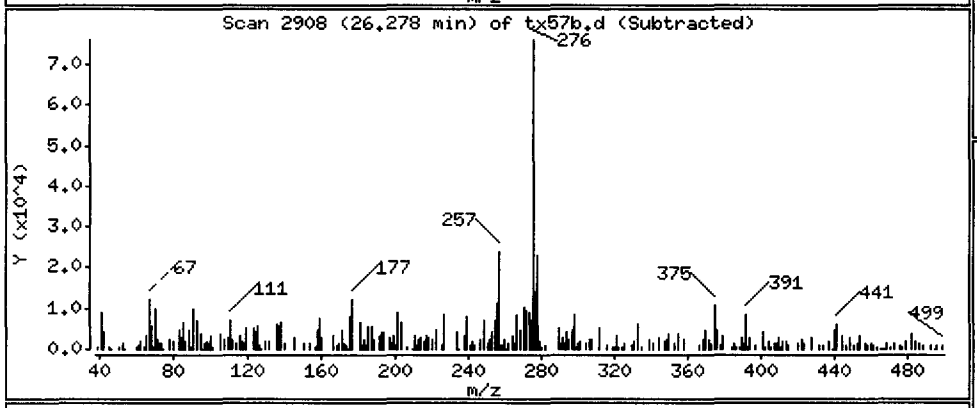
Sample Info: TX57B

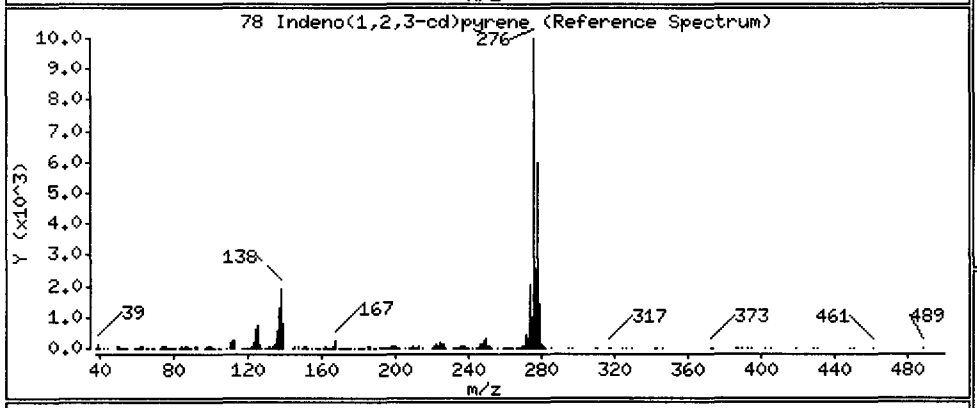
Volume Injected (uL): 1.0 Operator: YZ

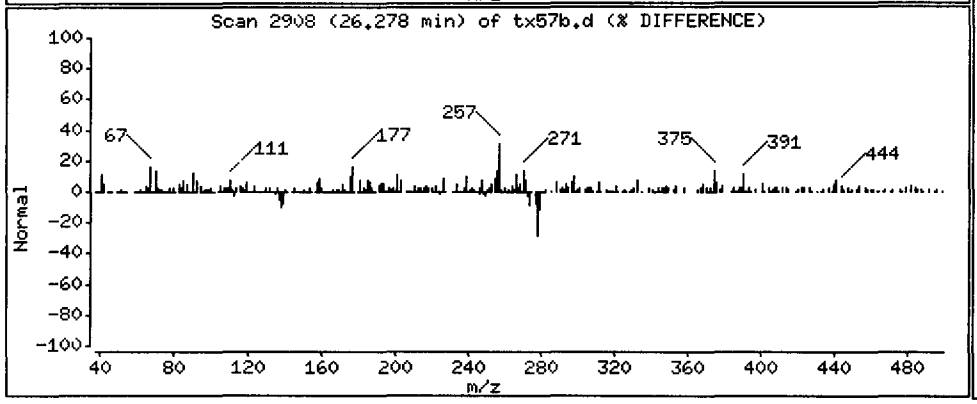
Column phase: ZB-5msi Column diameter: 0.25

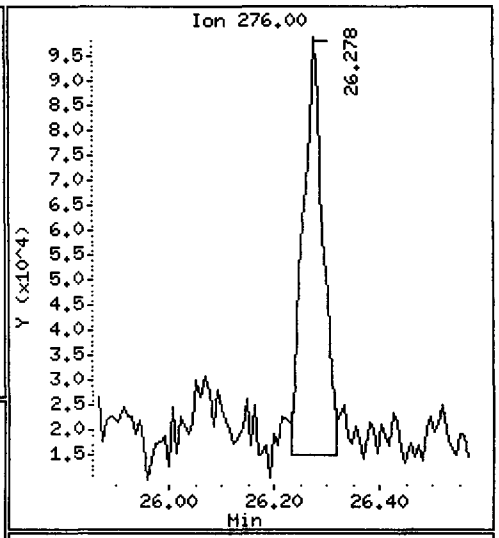
78 Indeno(1,2,3-cd)pyrene Concentration: 36.80 ug/kg

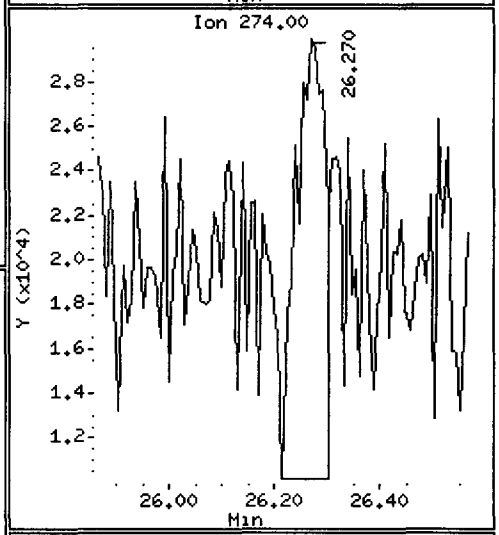


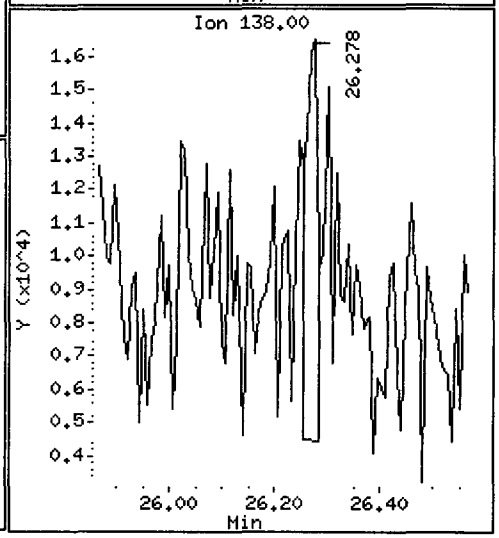












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

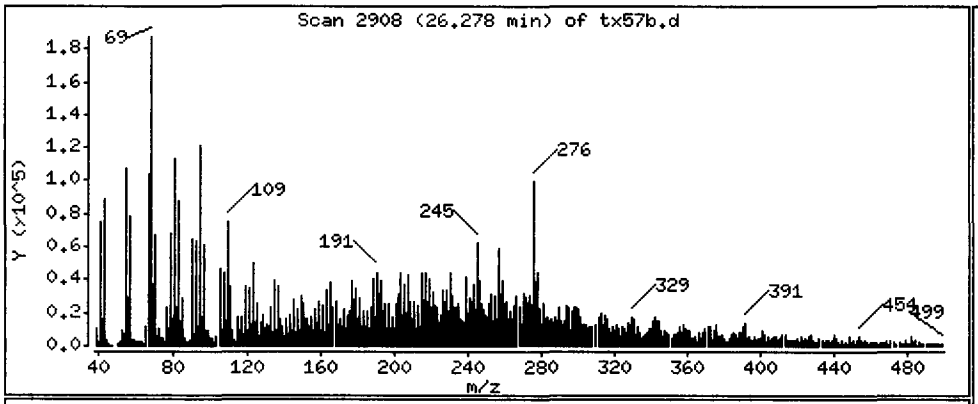
Client ID: SD0013 Instrument: nt10.i

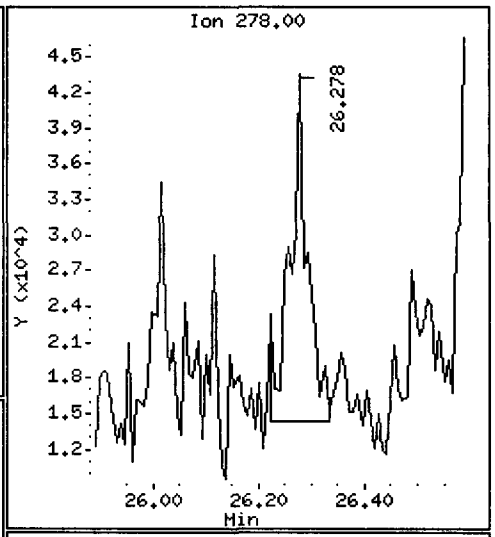
Sample Info: TX57B

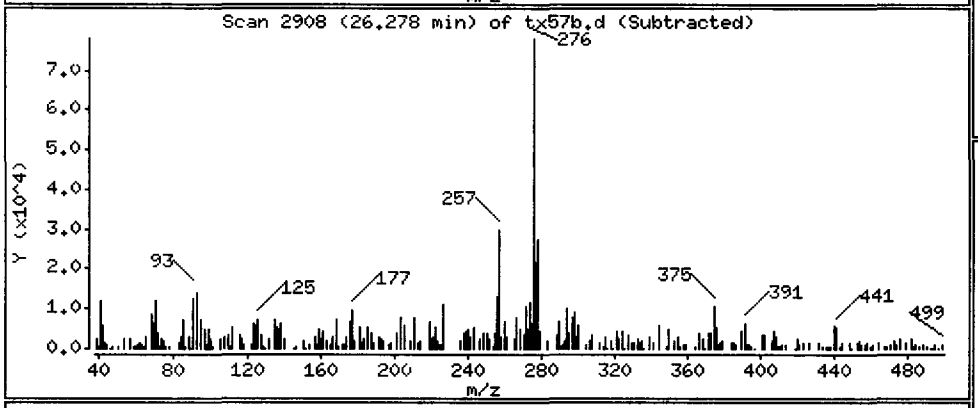
Volume Injected (uL): 1.0 Operator: YZ

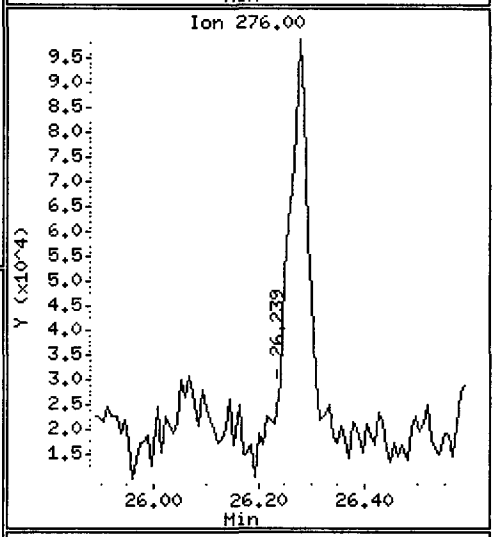
Column phase: ZB-5msi Column diameter: 0.25

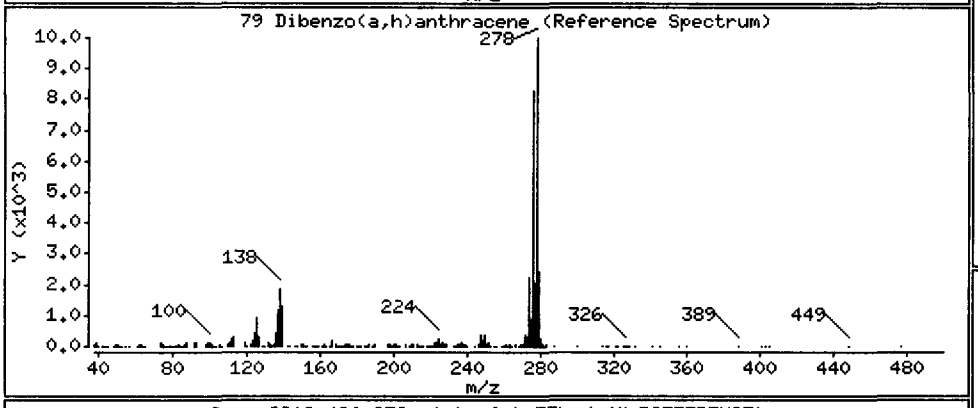
79 Dibenzo(a,h)anthracene Concentration: 14.27 ug/kg

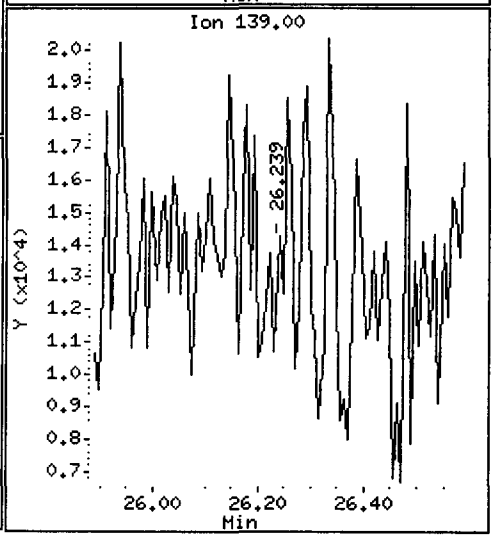


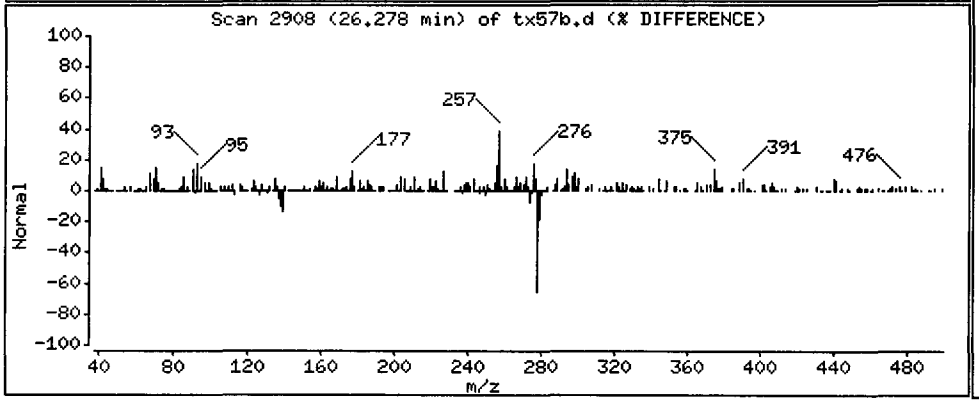












Data File: /chem1/nt10.1/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

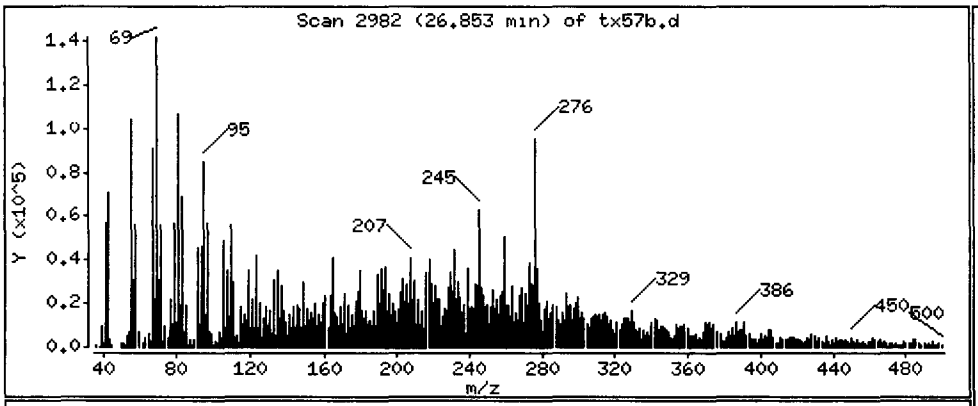
Client ID: SD0013 Instrument: nt10.1

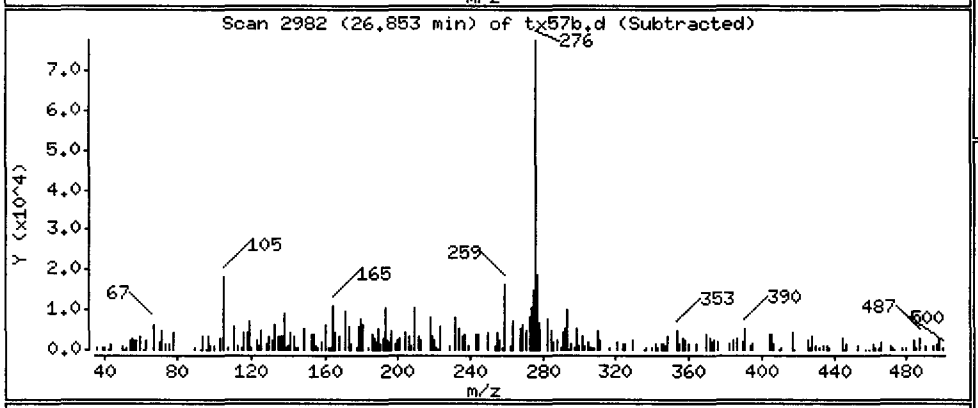
Sample Info: TX57B

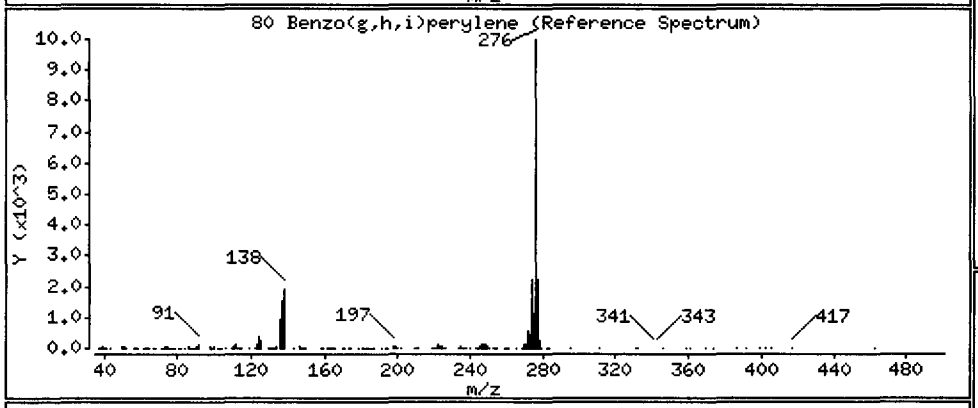
Volume Injected (uL): 1.0 Operator: YZ

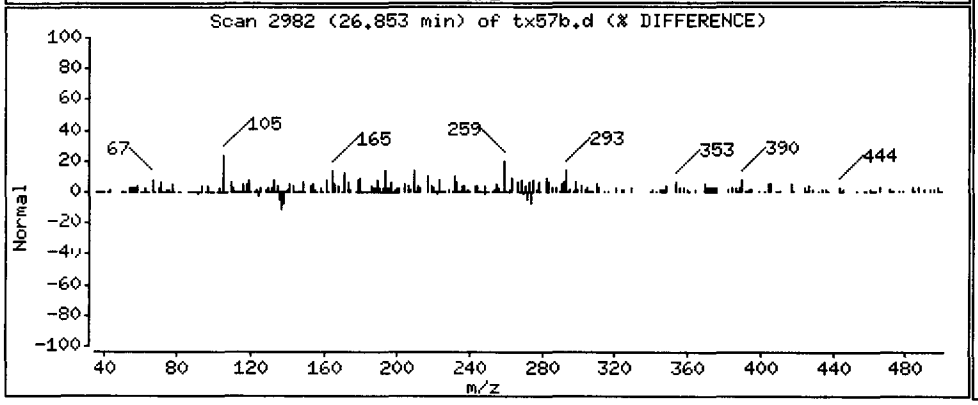
Column phase: ZB-5ms1 Column diameter: 0.25

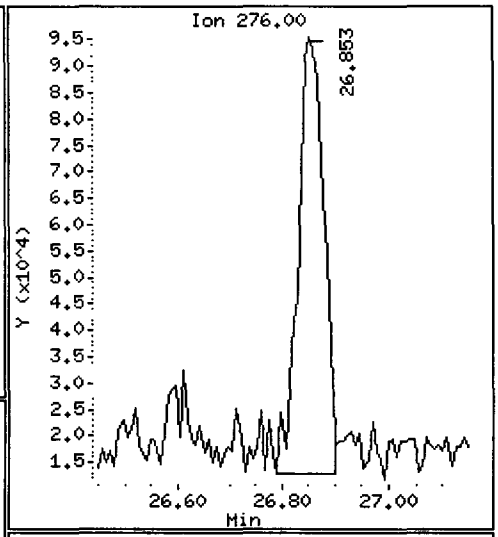
80 Benzo(g,h,i)perylene Concentration: 55.45 ug/kg

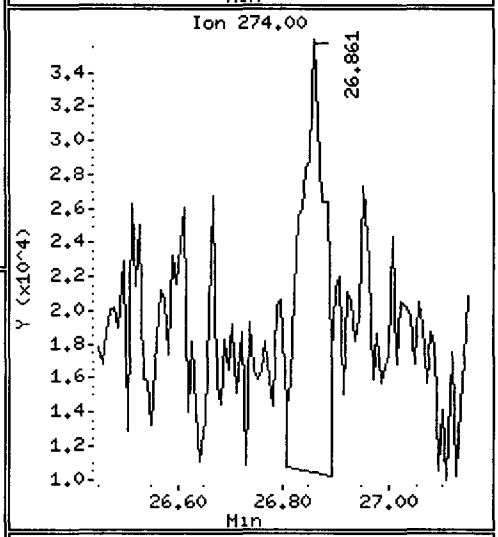


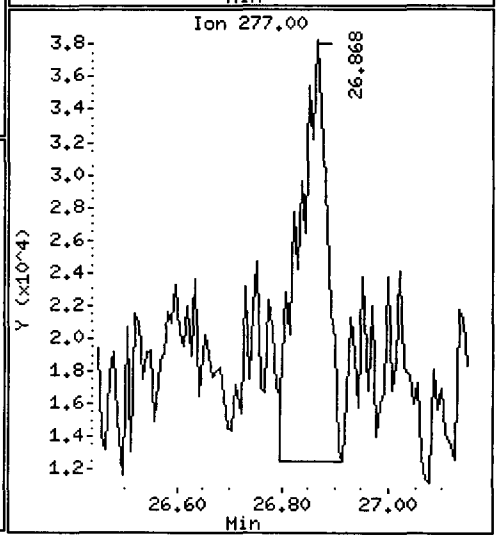












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

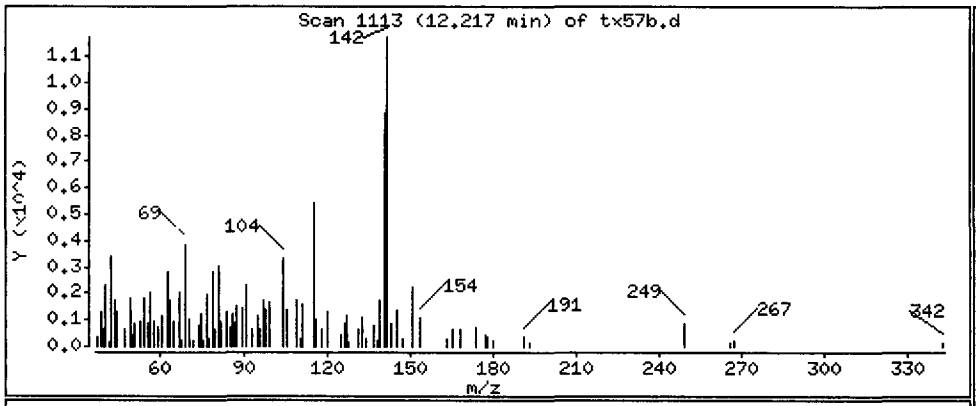
Client ID: SD0013 Instrument: nt10.i

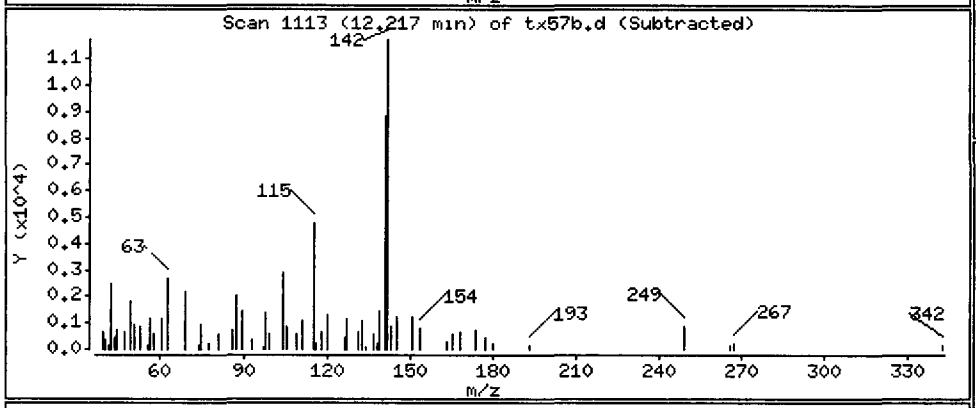
Sample Info: TX57B

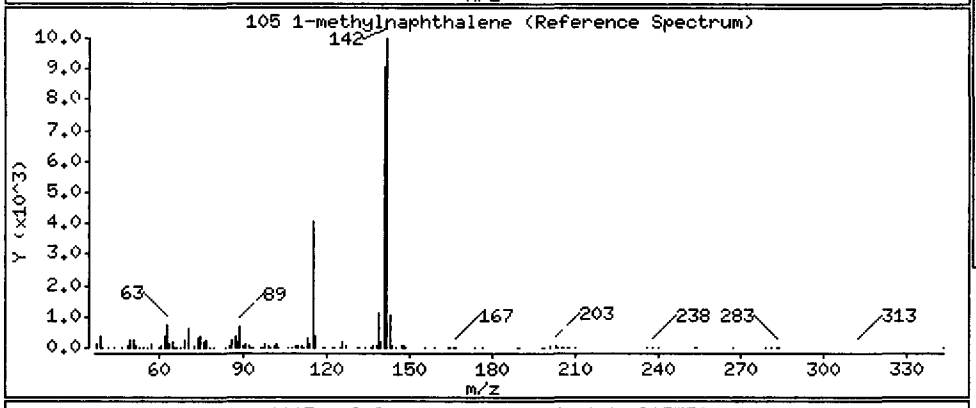
Volume Injected (uL): 1.0 Operator: YZ

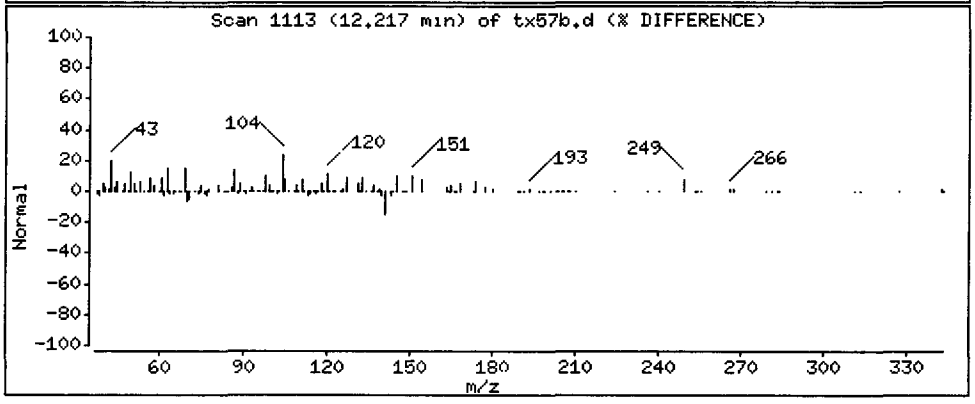
Column phase: ZB-5msi Column diameter: 0.25

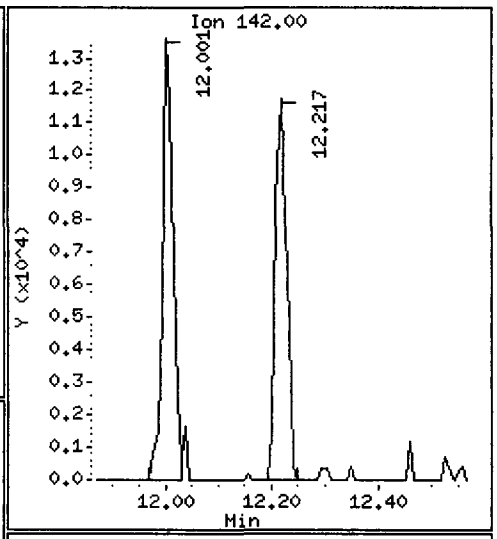
105 1-methylnaphthalene Concentration: 11.95 ug/kg

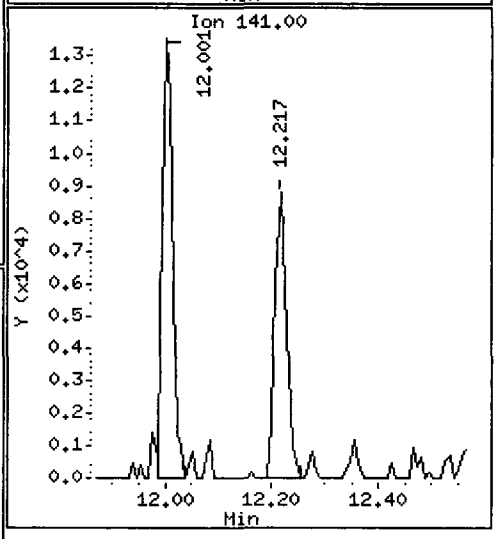












Data File: /chem1/nt10.i/20111206.b/tx57b.d

Date : 06-DEC-2011 17:25

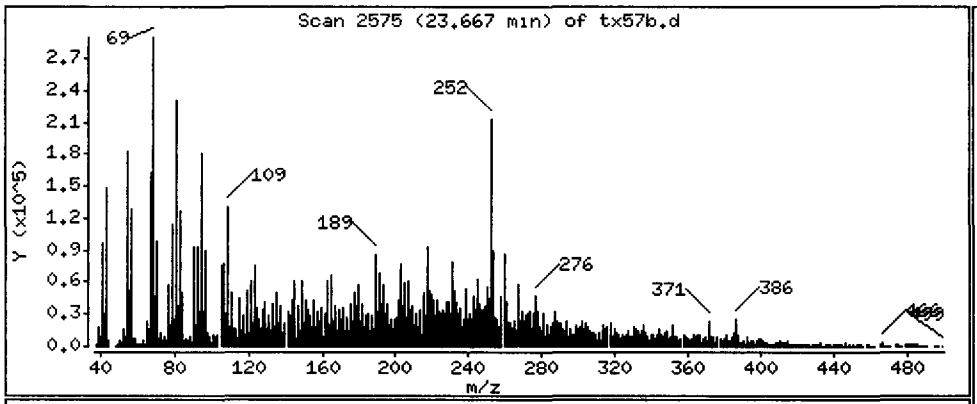
Client ID: SD0013 Instrument: nt10.i

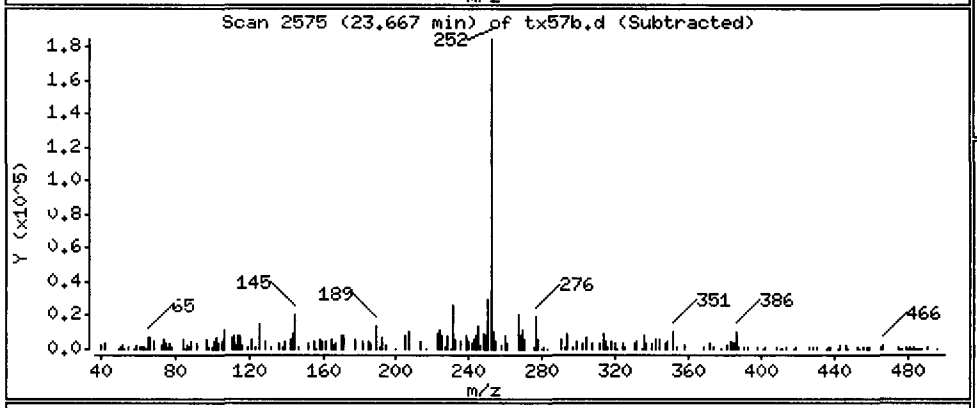
Sample Info: TX57B

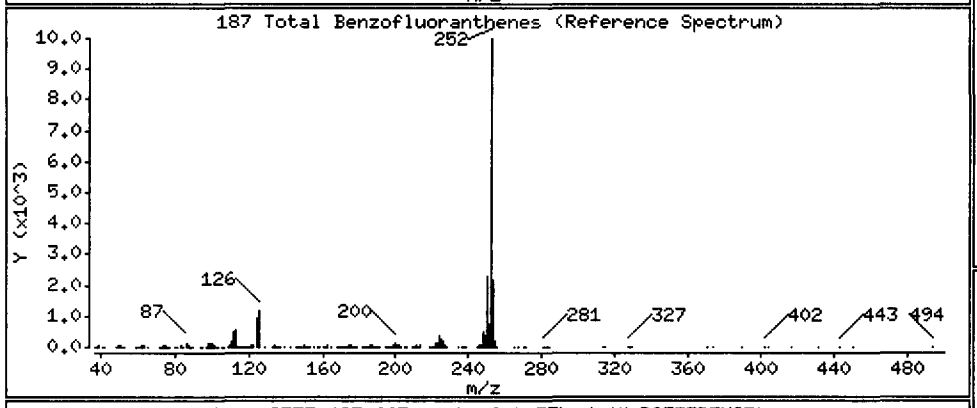
Volume Injected (uL): 1.0 Operator: YZ

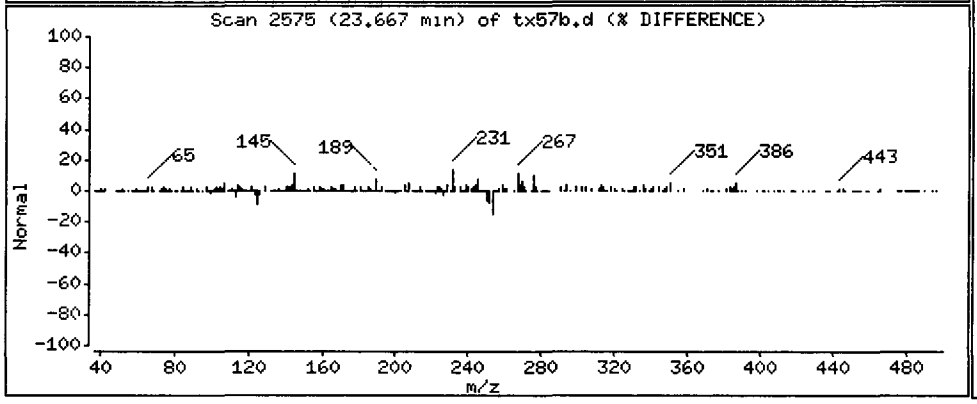
Column phase: ZB-5msi Column diameter: 0.25

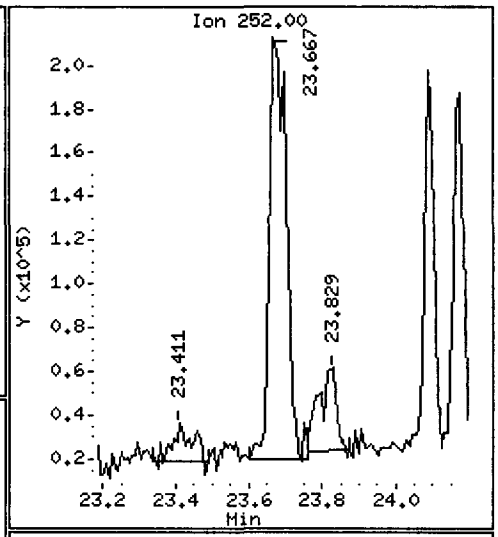
187 Total Benzofluoranthenes Concentration: 122.8 ug/kg

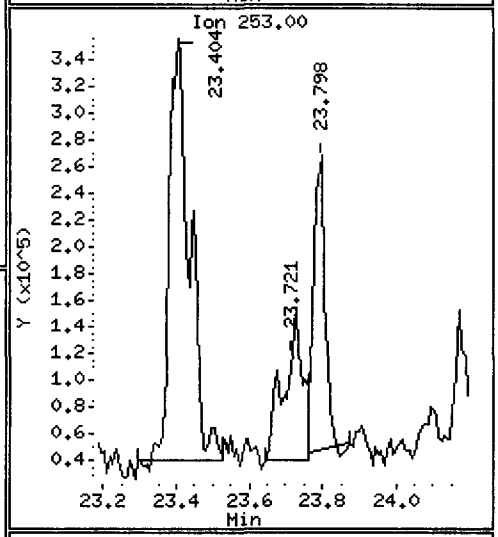


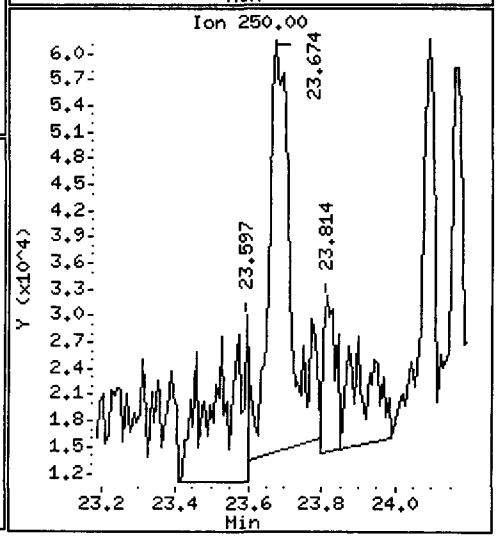






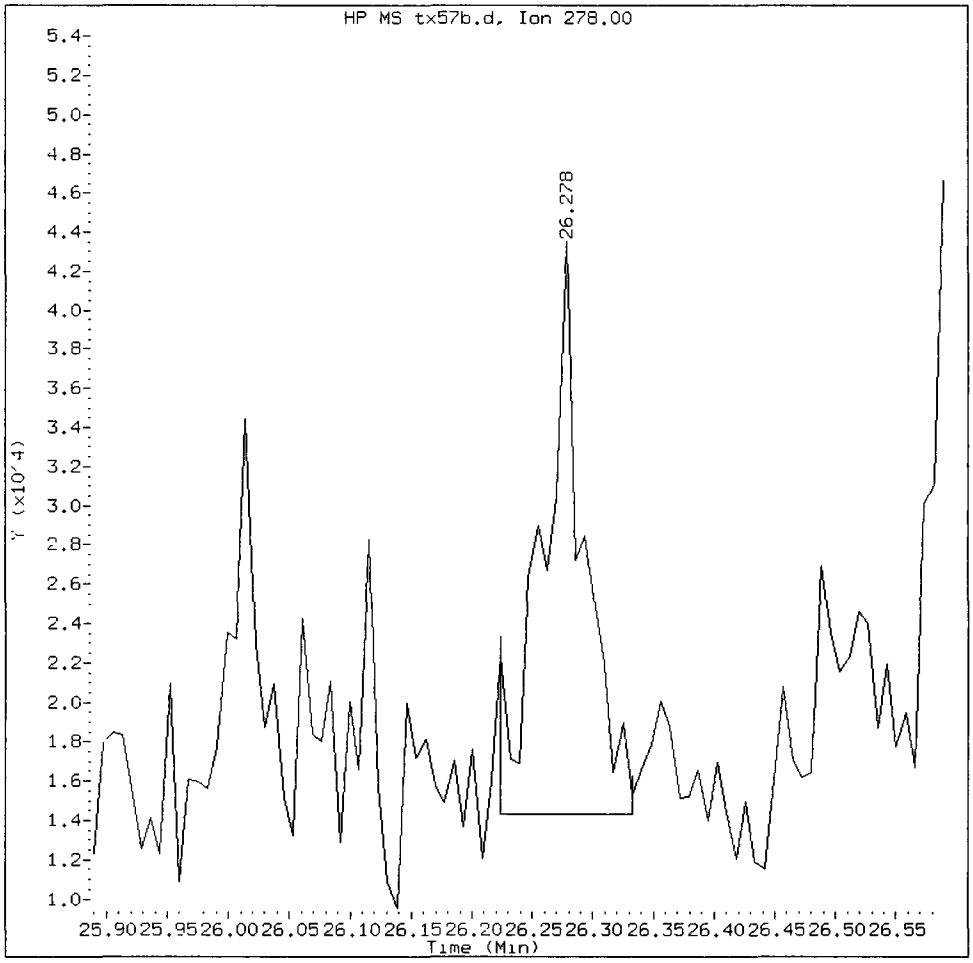






TX57B, /chem1/nt10.i/20111206.b/tx57b.d

Dibenzo(a,h)anthracene Amount: 0.15 Area: 71498



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

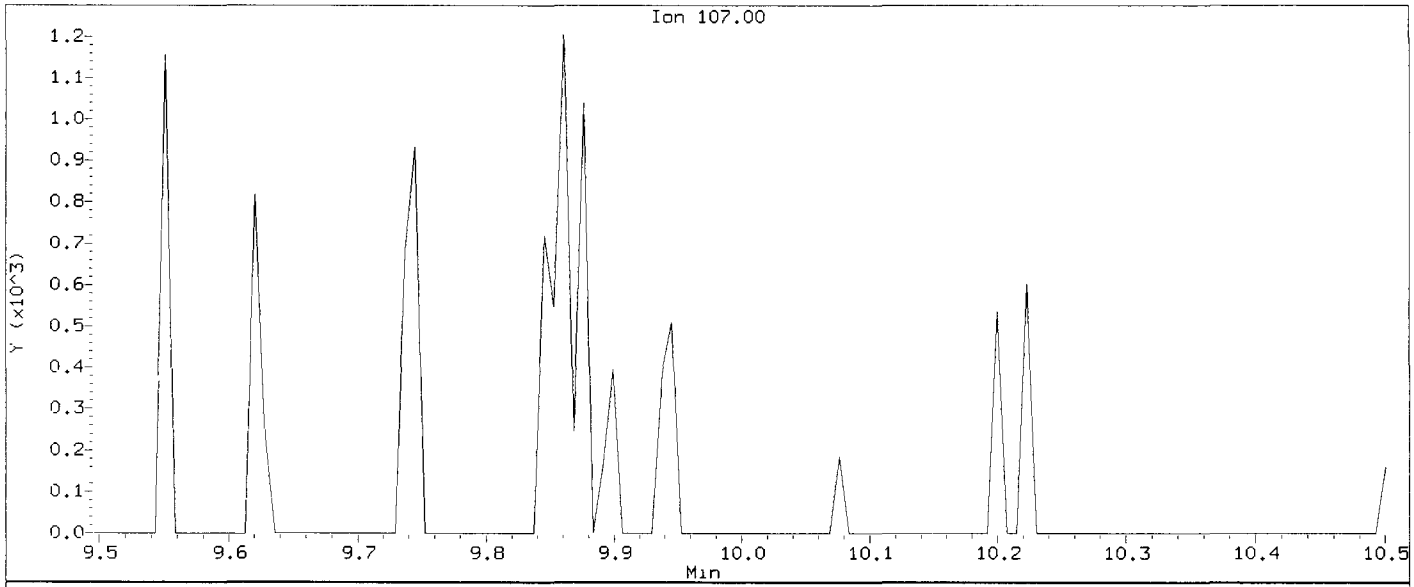
CO-ELUTION SUMMARY FOR FILE - tx57b.d

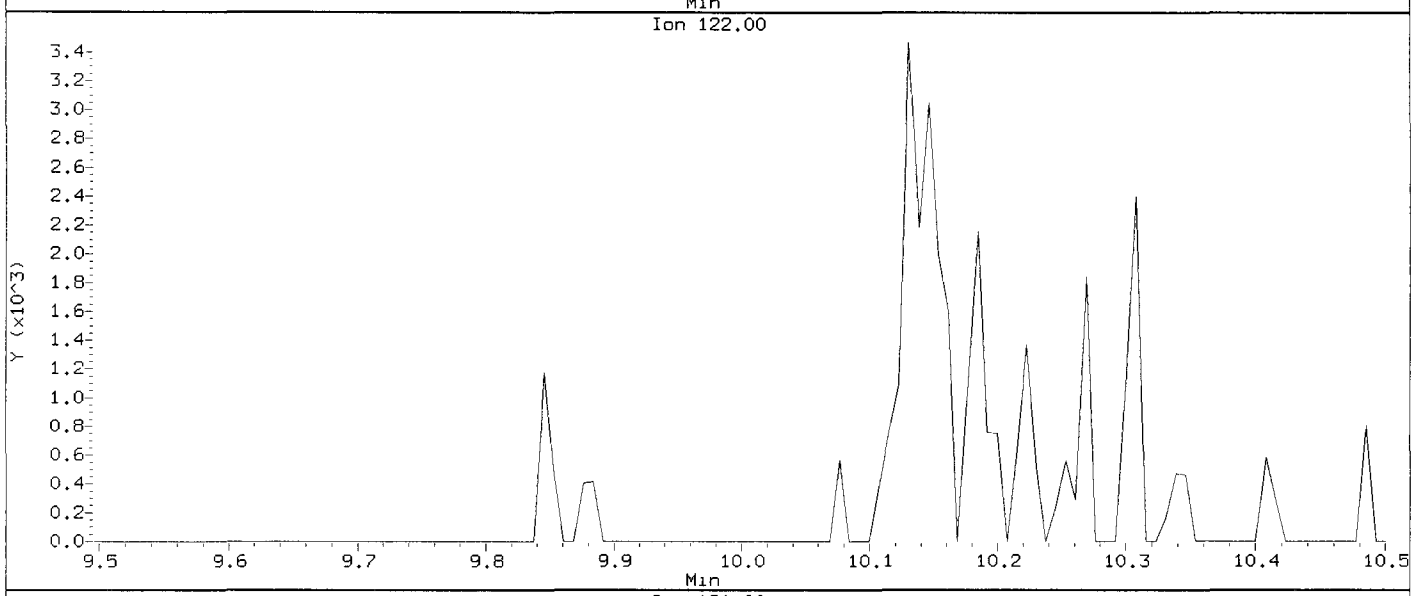
Lab ID: TX57B, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

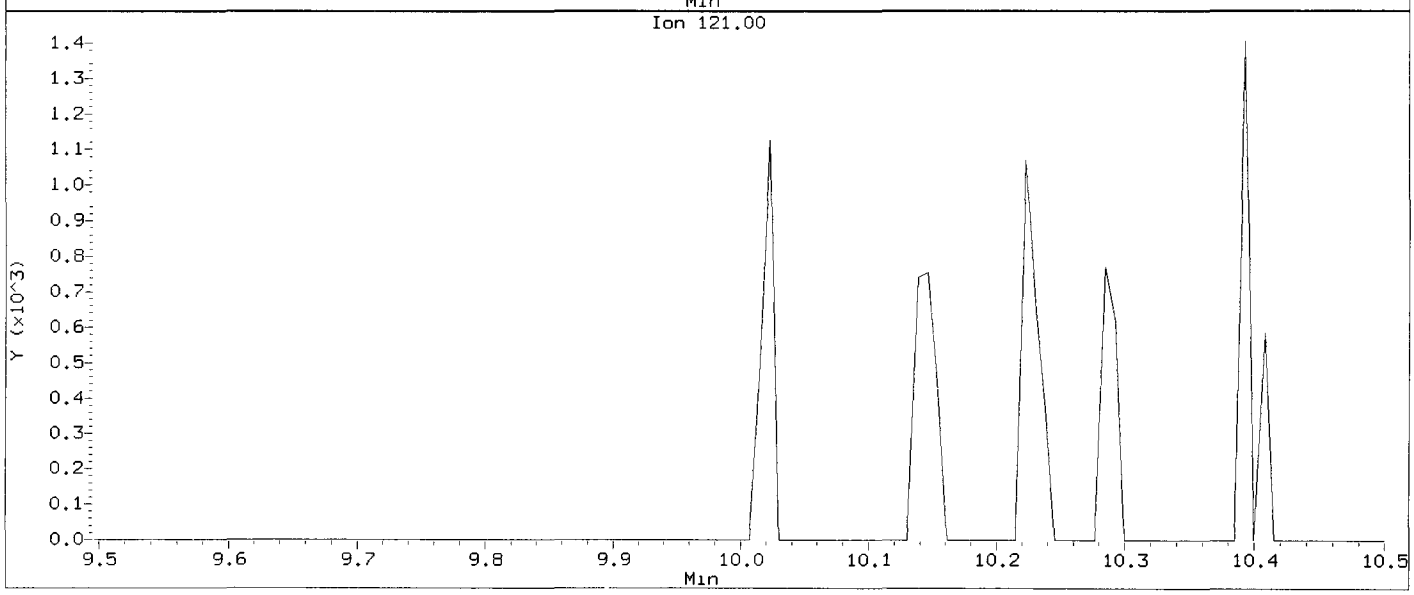
RT	CO-ELUTION COMPOUNDS
26.278	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
26.278	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Data File: /chem1/nt10.i/20111206.b/tx57b.d
Injection Date: 06-DEC-2011 17:25
Instrument: nt10.i
Client Sample ID: SD0013

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9

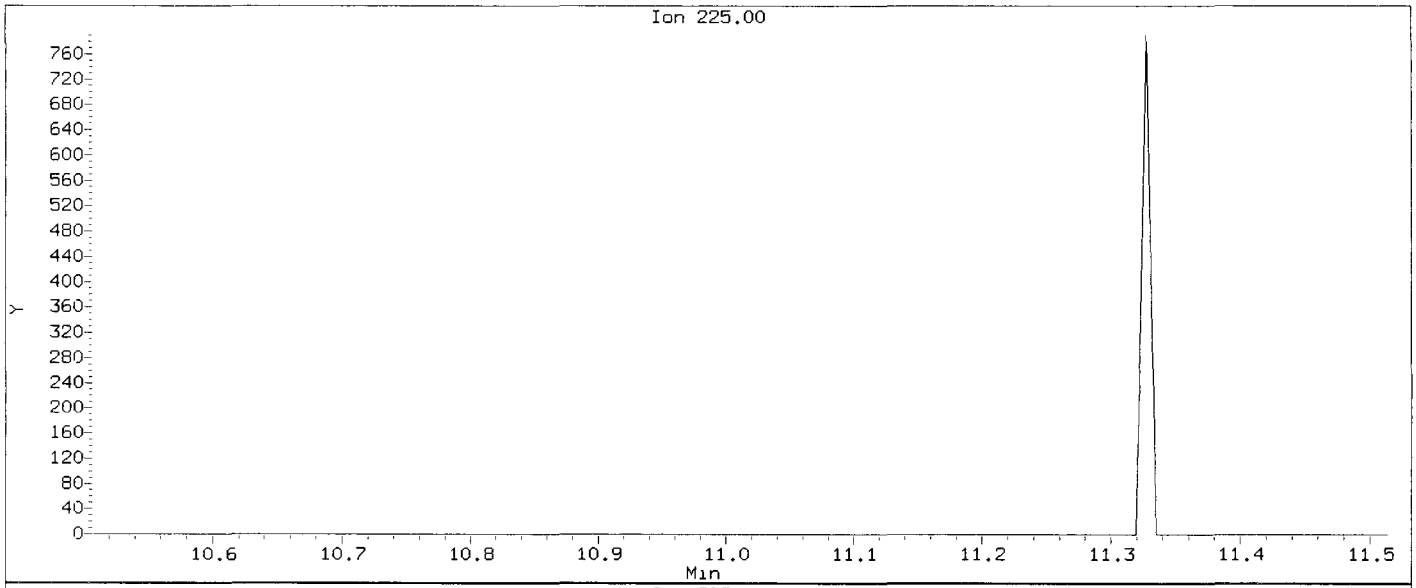


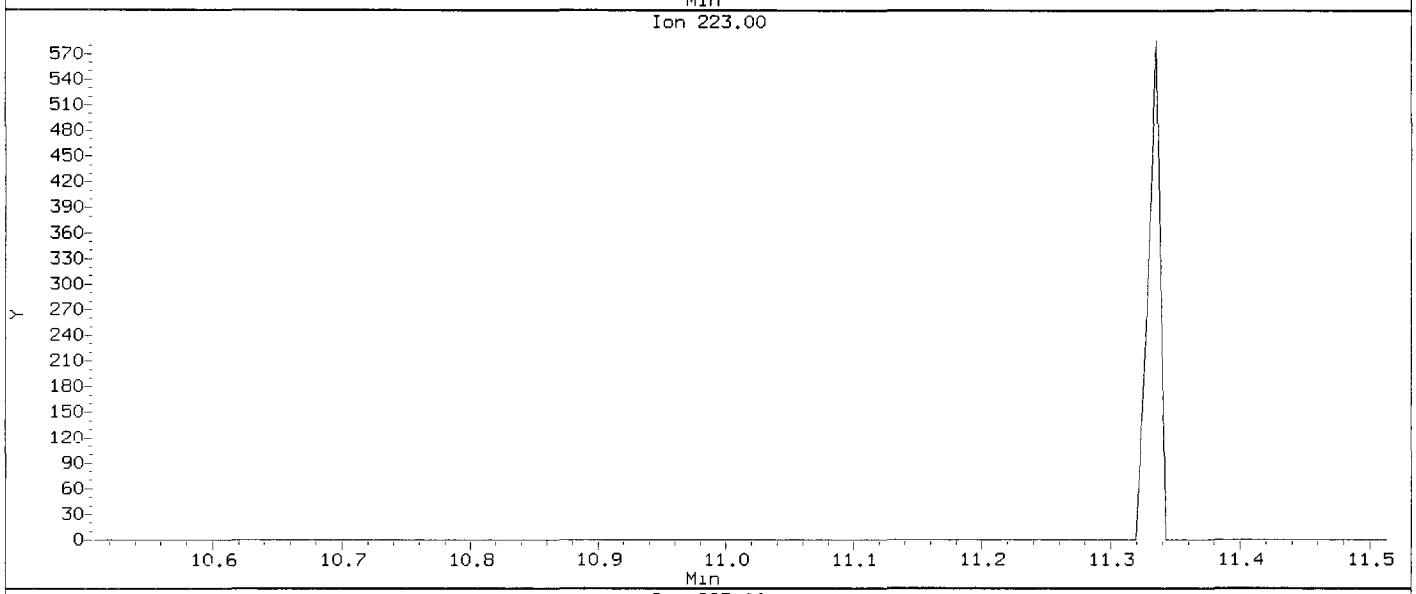


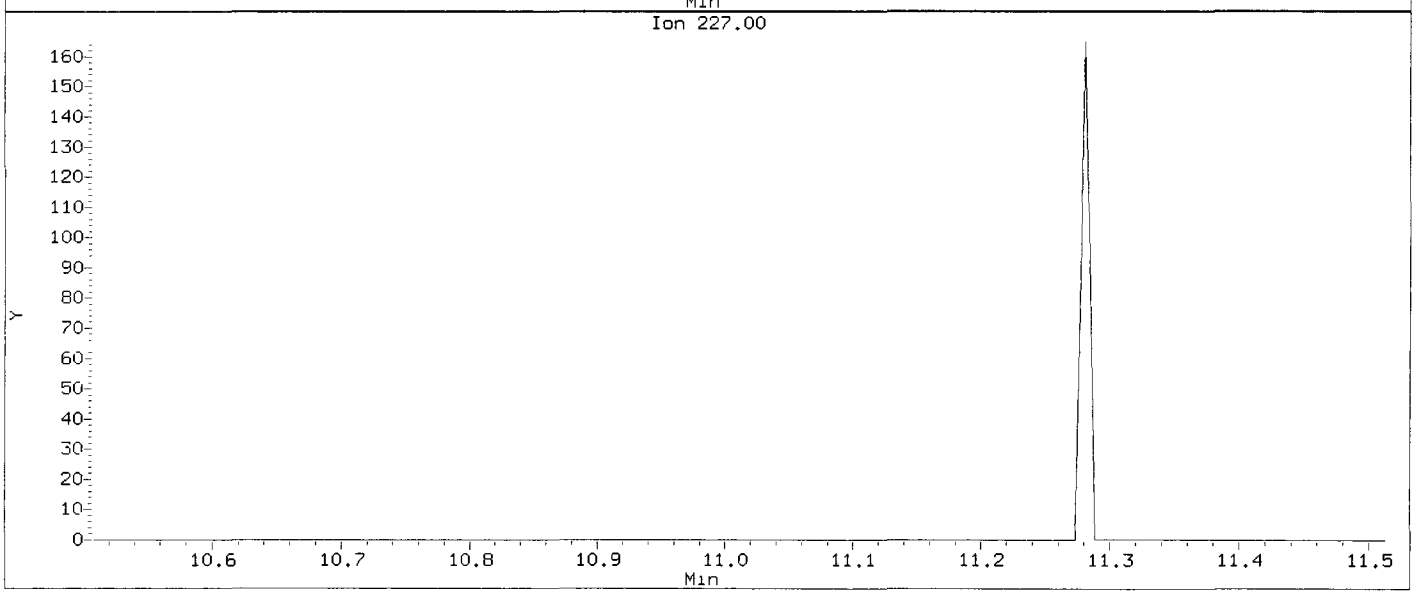


Data File: /chem1/nt10.i/20111206.b/tx57b.d
Injection Date: 06-DEC-2011 17:25
Instrument: nt10.i
Client Sample ID: SD0013

Compound: Hexachlorobutadiene
CAS Number: 87-68-3







Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 12/8/11

Data file : /chem1/nt10.i/20111206.b/tx57c.d
Lab Smp Id: TX57C Client Smp ID: SD0014
Inj Date : 06-DEC-2011 17:59
Operator : YZ Inst ID: nt10.i
Smp Info : TX57C
Misc Info : 11-26621
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 07-Dec-2011 08:43 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	14.60000	Weight of sample extracted (g)
M	25.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.059	6.043	(0.741)	214386	4.48498	410.1
$ 2	Phenol-d5	99	7.620	7.612	(0.932)	247187	4.02653	368.2
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.836	7.828	(0.958)	247767	4.45990	407.8
4	Bis(2-Chloroethyllether	93	7.697	7.759	(0.941)	10829	0.23583	21.57
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.177	8.177	(1.000)	195487	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.526	8.518	(1.043)	134543	2.79107	255.2
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	8.518	8.464	(1.042)	5302	0.15119	13.83
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.248	9.248	(0.872)	232682	3.23218	295.6
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.600	10.600	(1.000)	677257	4.00000	
	28 Naphthalene	128	10.639	10.639	(1.004)	24625	0.15018 J	13.73
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	12.000	12.008	(1.132)	18263	0.14845 J	13.57
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.790	12.782	(0.905)	574643	3.31455	303.1
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.136	14.129	(1.000)	479535	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.198	14.198	(1.004)	32949	0.26197	23.96
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.523	14.523	(1.027)	34797	0.17255 J	15.78
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.134	15.134	(1.071)	120207	0.72863	66.63
	49 Fluorene	166	15.219	15.219	(1.077)	41838	0.26337	24.08
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.751	15.751	(1.114)	223320	5.28634	483.4
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.111	17.111	(1.000)	1041839	4.00000	
	60 Phenanthrene	178	17.157	17.157	(1.003)	237565	0.88581	81.00
	61 Anthracene	178	17.250	17.242	(1.008)	54756	0.20268	18.53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	17.591	17.583	(1.028)	25240	0.12434 J	11.37
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	19.447	19.432	(1.137)	439744	1.18990	108.8
65	Pyrene	202	19.842	19.834	(0.903)	410740	1.06353	97.26
$ 66	Terphenyl-d14	244	20.159	20.152	(0.918)	1036953	3.25787	297.9
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	21.940	21.932	(0.999)	174127	0.40063	36.64
* 69	Chrysene-d12	240	21.971	21.956	(1.000)	1596972	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.010	22.002	(1.002)	269121	0.68657	62.78
72	bis(2-Ethylhexyl)phthalate	149	22.103	22.095	(0.958)	95210	0.49995	45.72
* 134	Di-n-octylphthalate-d4	153	23.063	23.047	(1.000)	1339082	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	23.667	23.651	(0.976)	218567	0.42496	38.86
75	Benzo(k)fluoranthene	252	23.698	23.690	(0.977)	204871	0.38436	35.15(M)
76	Benzo(a)pyrene	252	24.162	24.147	(0.996)	202160	0.47871	43.78
* 77	Perylene-d12	264	24.255	24.232	(1.000)	1688505	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.262	26.216	(1.083)	109564	0.19039 J	17.41
79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276	26.837	26.798	(1.106)	129937	0.26833	24.54
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	23.667	23.690	(0.976)	419618	0.84687	77.44
99	Perylene	252	24.302	24.278	(1.002)	1284467	3.08147	281.8

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57c.d
Lab Smp Id: TX57C
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26621

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: SD0014
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	195487	13.09
27 Naphthalene-d8	574010	287005	1148020	677257	17.99
42 Acenaphthene-d10	467963	233982	935926	479535	2.47
59 Phenanthrene-d10	976150	488075	1952300	1041839	6.73
69 Chrysene-d12	1397129	698564	2794258	1596972	14.30
134 Di-n-octylphthala	1264537	632268	2529074	1339082	5.90
77 Perylene-d12	1407308	703654	2814616	1688505	19.98

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.60	0.00
42 Acenaphthene-d10	14.13	13.63	14.63	14.14	0.05
59 Phenanthrene-d10	17.11	16.61	17.61	17.11	0.00
69 Chrysene-d12	21.96	21.46	22.46	21.97	0.07
134 Di-n-octylphthala	23.05	22.55	23.55	23.06	0.07
77 Perylene-d12	24.23	23.73	24.73	24.26	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: INTEGRAL
Client SDG: TX57
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: TX57C
Client Smp ID: SD0014
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26621

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	685.8	410.1	59.80	30-160
$ 2 Phenol-d5	685.8	368.2	53.69	30-160
$ 5 2-Chlorophenol-d4	685.8	407.8	59.47	30-160
$ 10 1,2-Dichlorobenzen	457.2	255.2	55.82	30-160
$ 18 Nitrobenzene-d5	457.2	295.6	64.64	30-160
$ 36 2-Fluorobiphenyl	457.2	303.1	66.29	30-160
$ 55 2,4,6-Tribromophen	685.8	483.4	70.48	30-160
$ 66 Terphenyl-d14	457.2	297.9	65.16	30-160

Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

Client ID: SD0014

Sample Info: TX57C

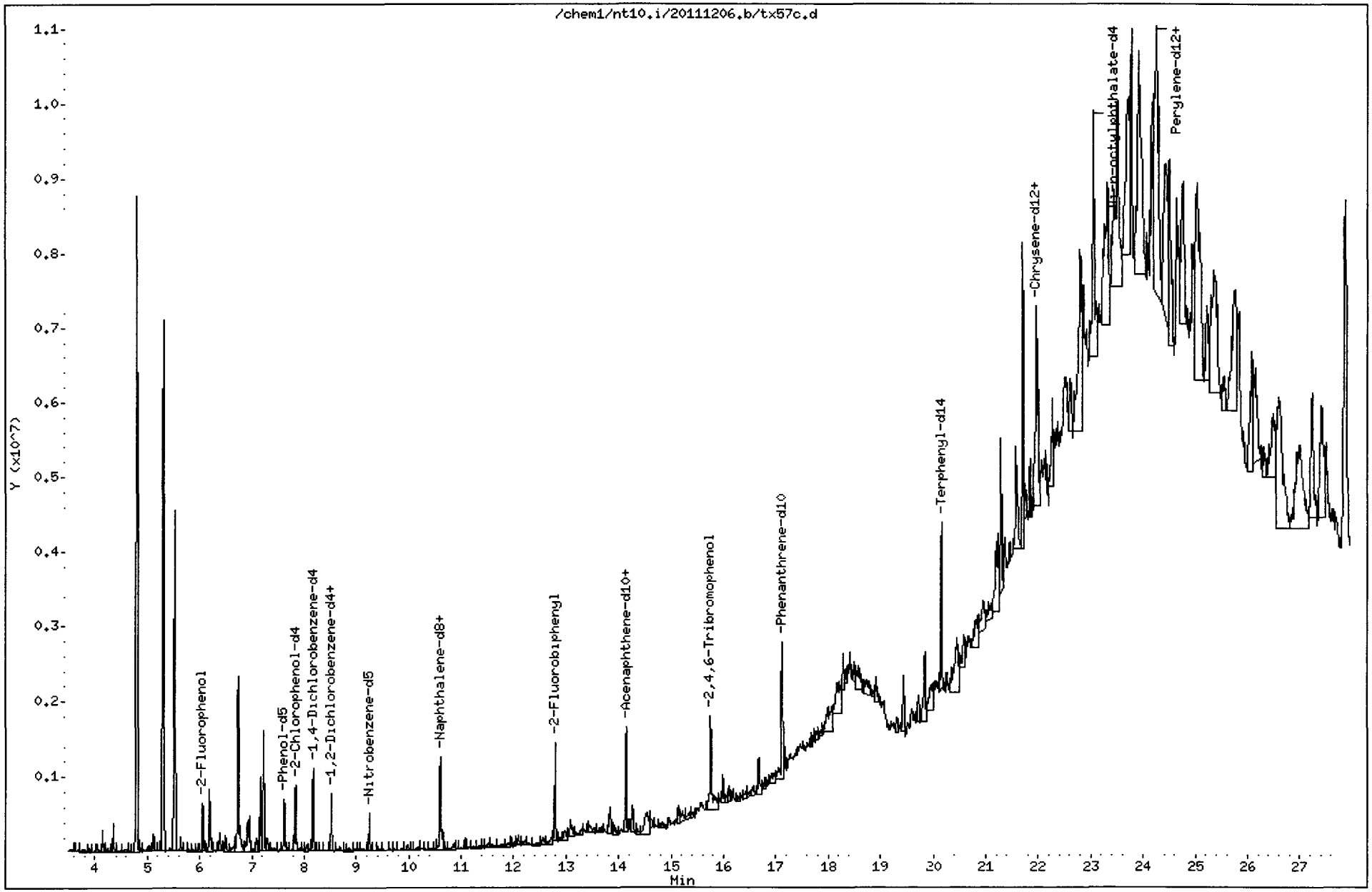
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: YZ

Column diameter: 0.25



TX57 - 00645

Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

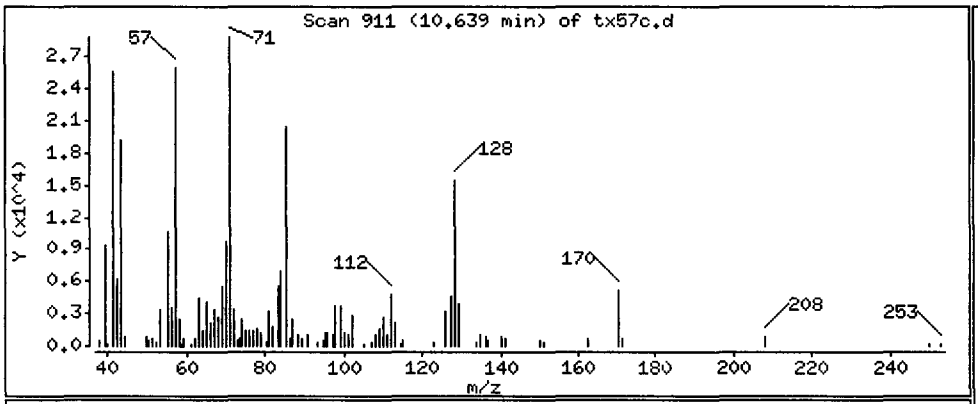
Client ID: SD0014 Instrument: nt10.i

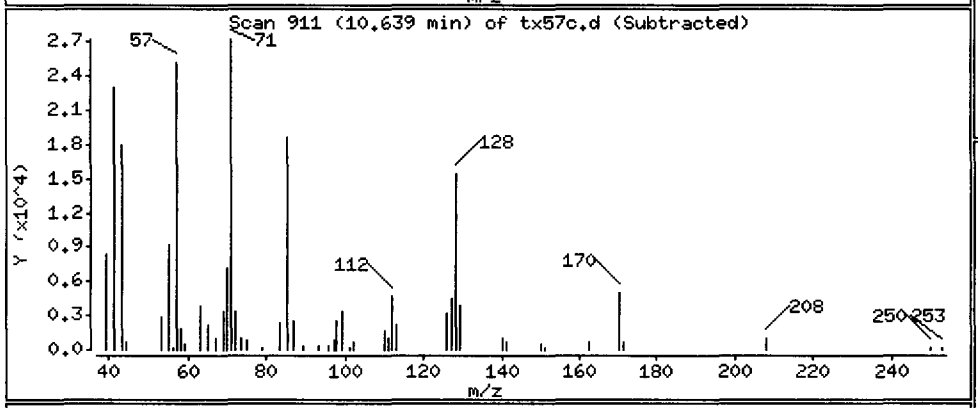
Sample Info: TX57C

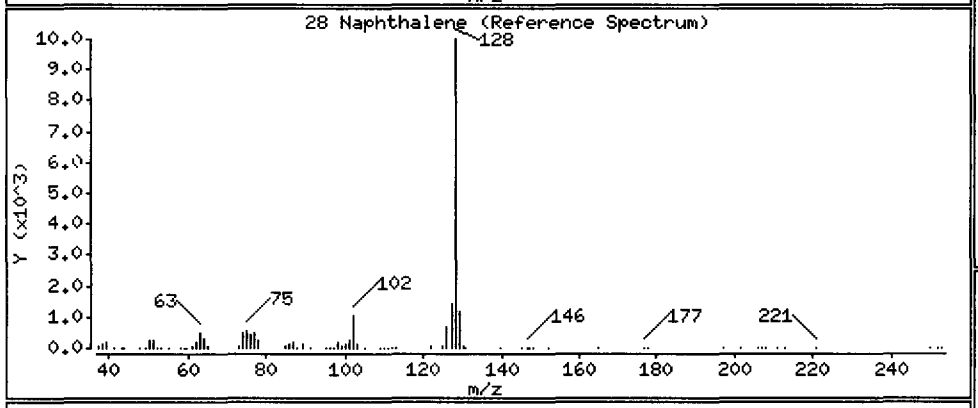
Volume Injected (uL): 1.0 Operator: YZ

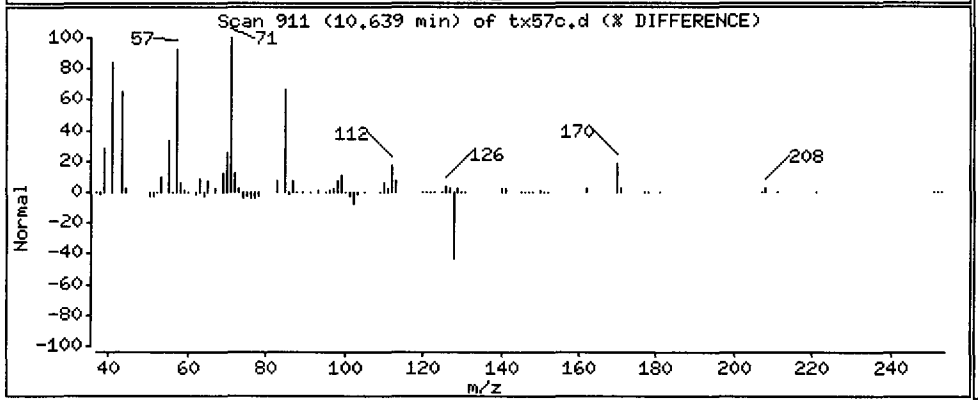
Column phase: ZB-5ms1 Column diameter: 0.25

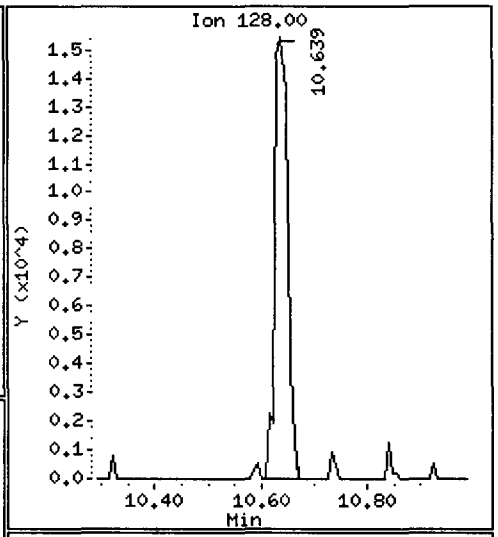
28 Naphthalene Concentration: 13.73 ug/kg

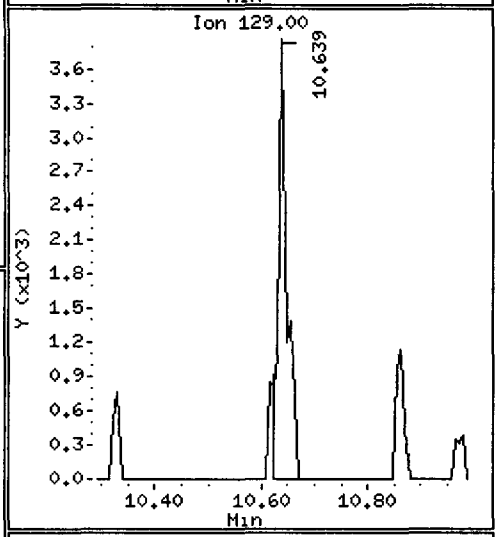


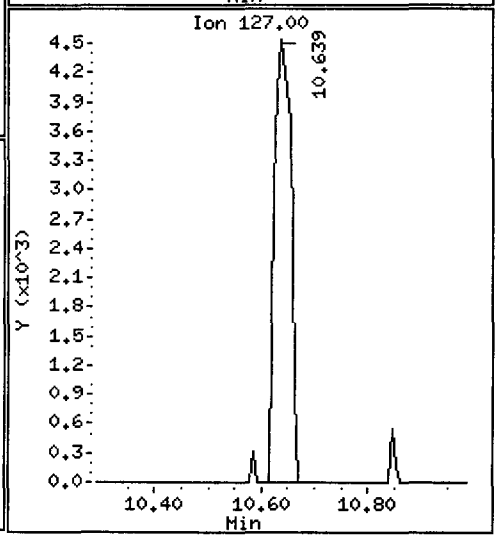












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

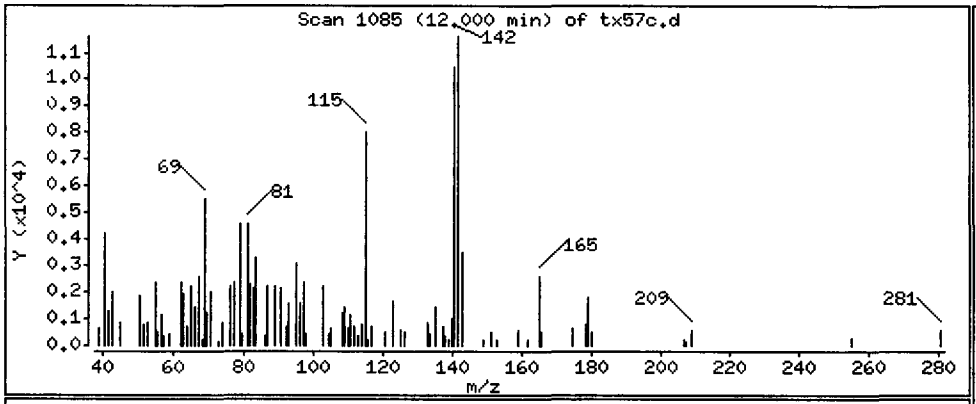
Client ID: SD0014 Instrument: nt10.i

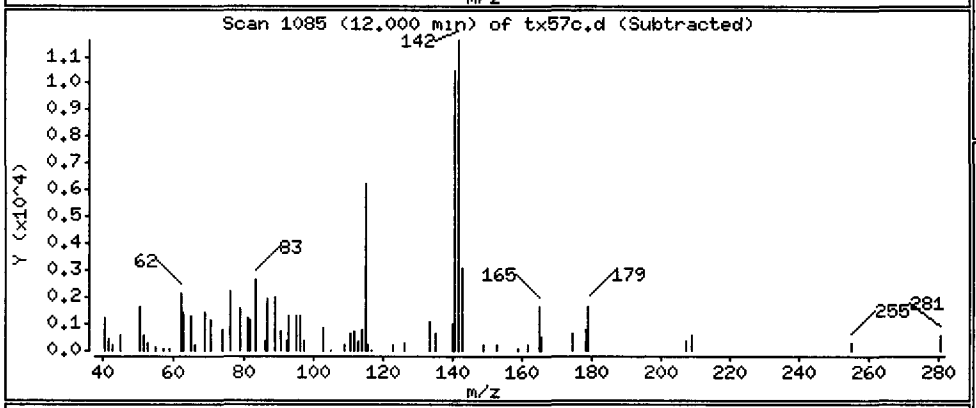
Sample Info: TX57C

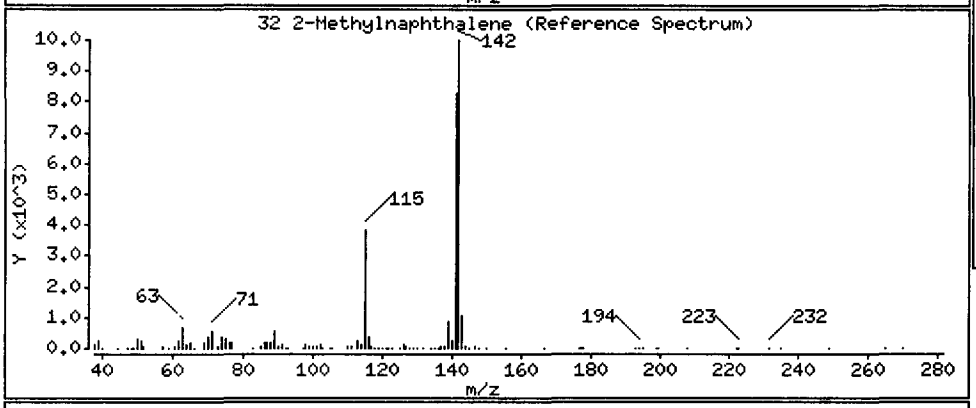
Volume Injected (uL): 1.0 Operator: YZ

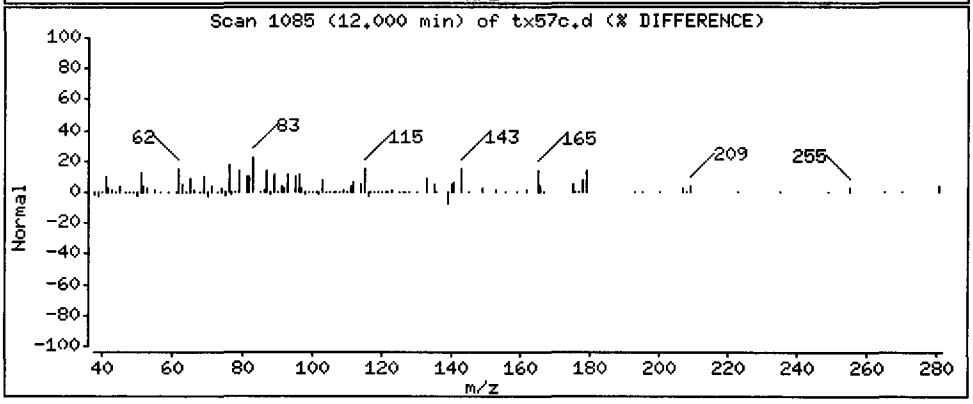
Column phase: ZB-5msi Column diameter: 0.25

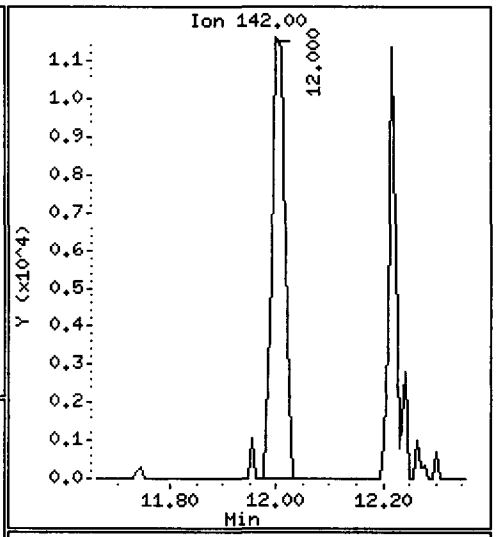
32 2-Methylnaphthalene Concentration: 13.57 ug/kg

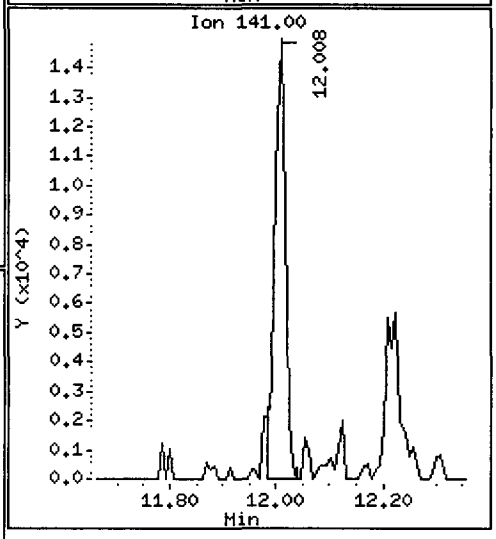












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

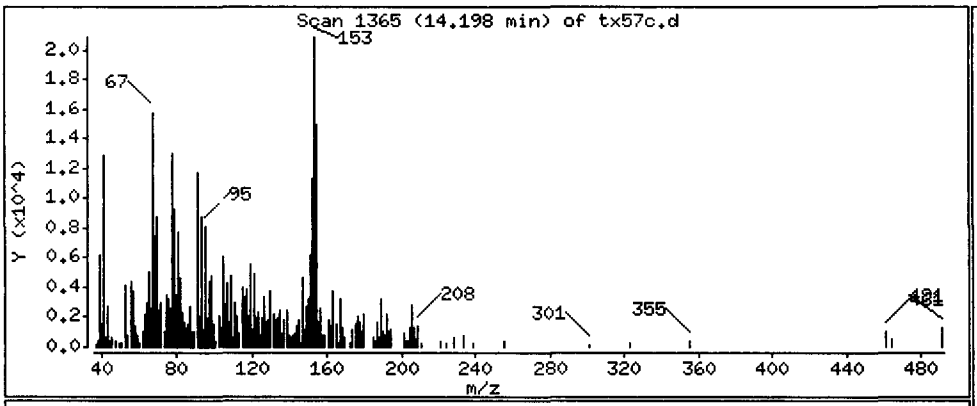
Client ID: SD0014 Instrument: nt10.i

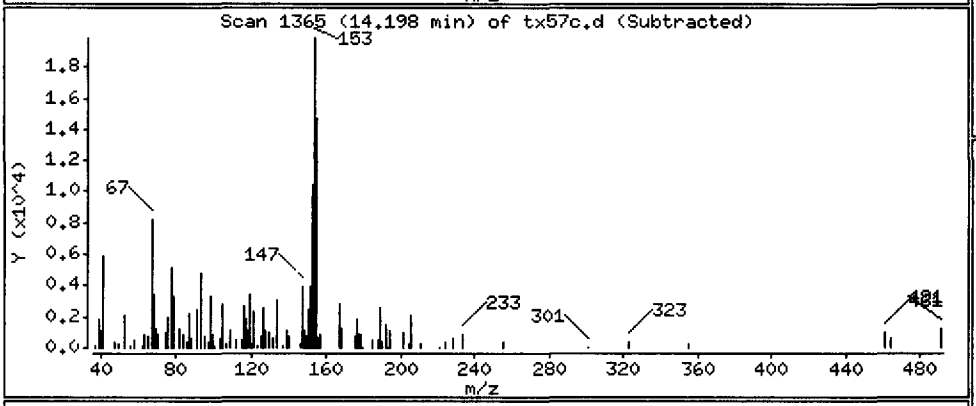
Sample Info: TX57C

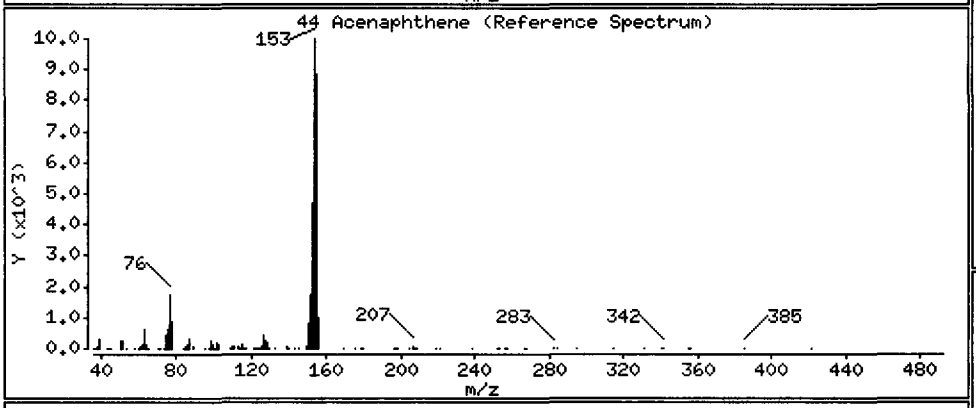
Volume Injected (uL): 1.0 Operator: YZ

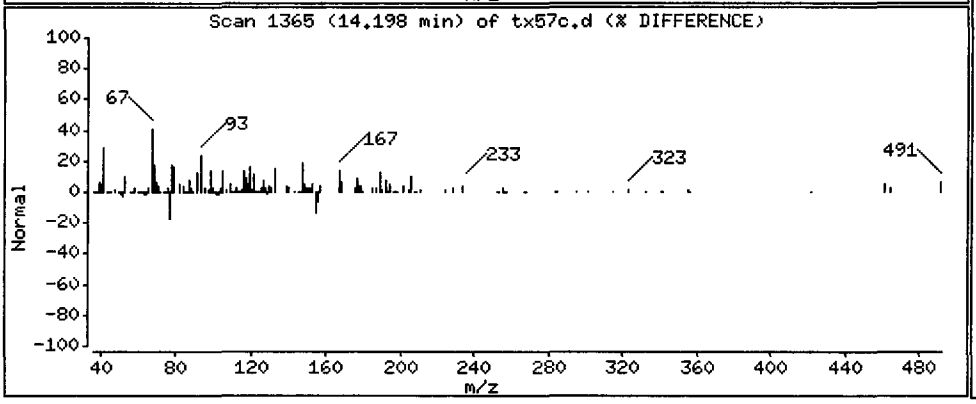
Column phase: ZB-5ms1 Column diameter: 0.25

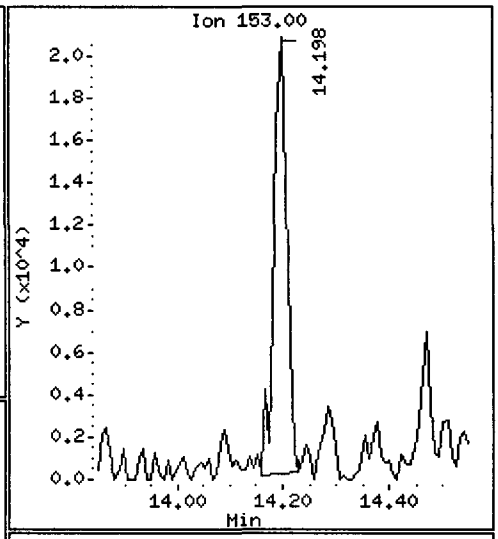
44 Acenaphthene Concentration: 23.96 ug/kg

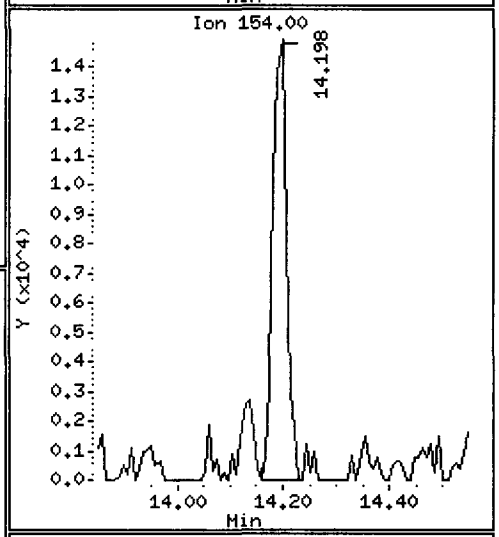


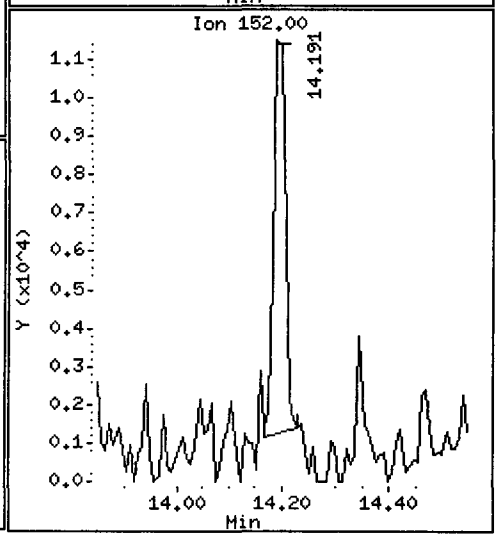












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

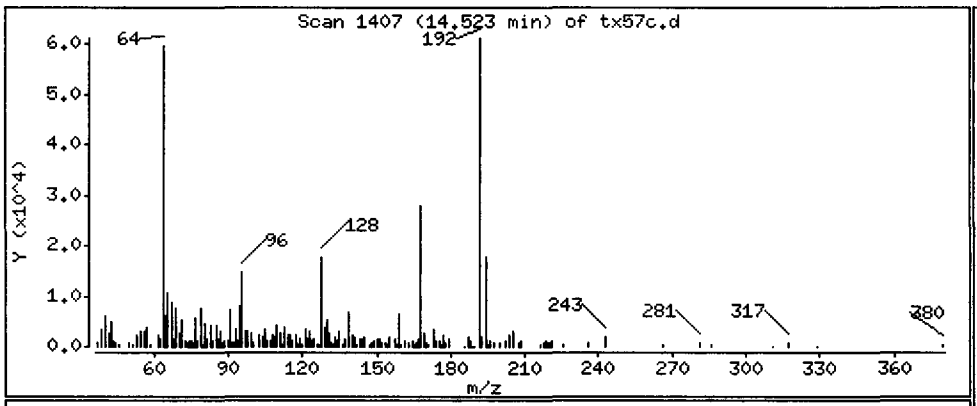
Client ID: SD0014 Instrument: nt10.i

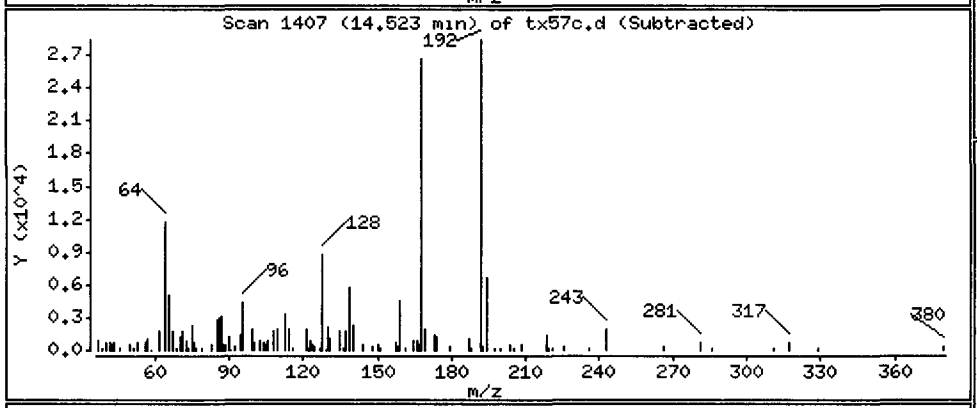
Sample Info: TX57C

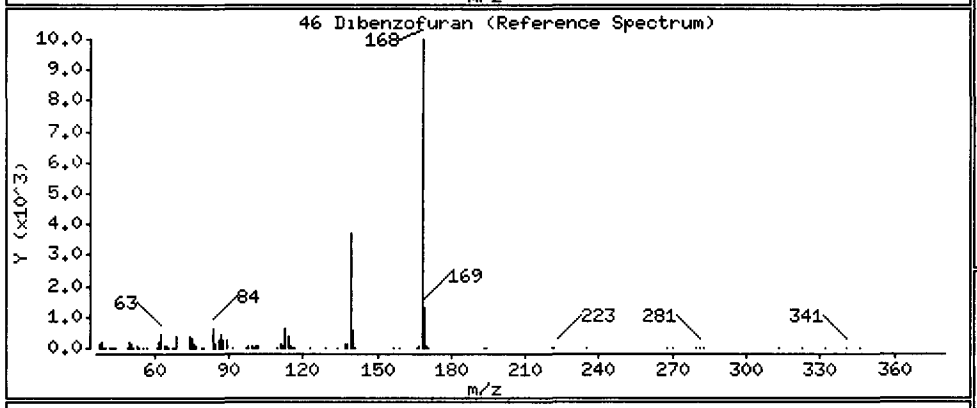
Volume Injected (uL): 1.0 Operator: YZ

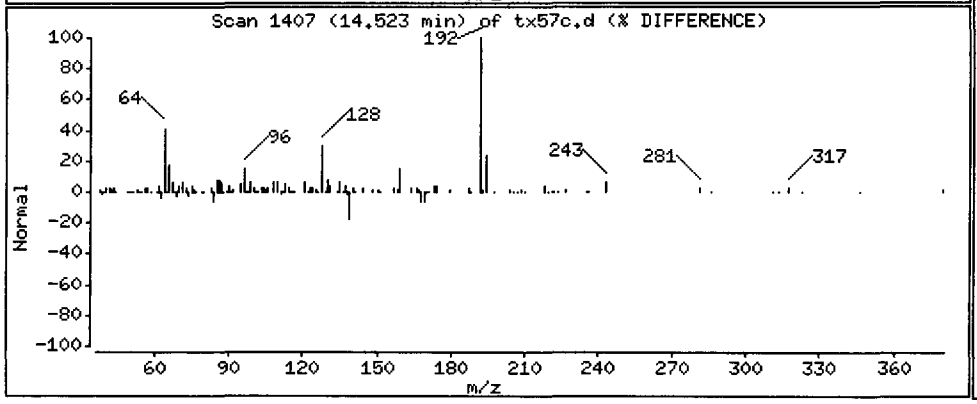
Column phase: ZB-5msi Column diameter: 0.25

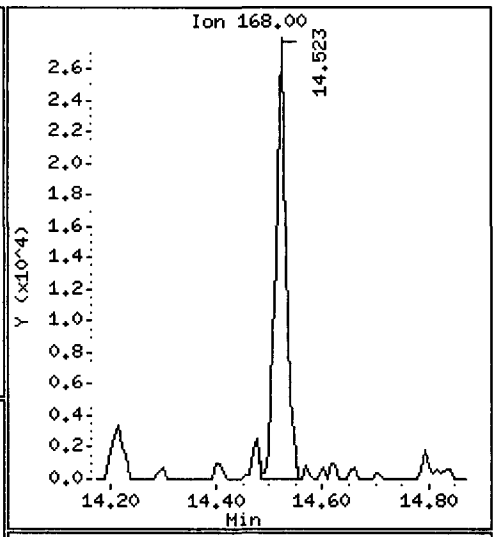
46 Dibenzofuran Concentration: 15.78 ug/kg

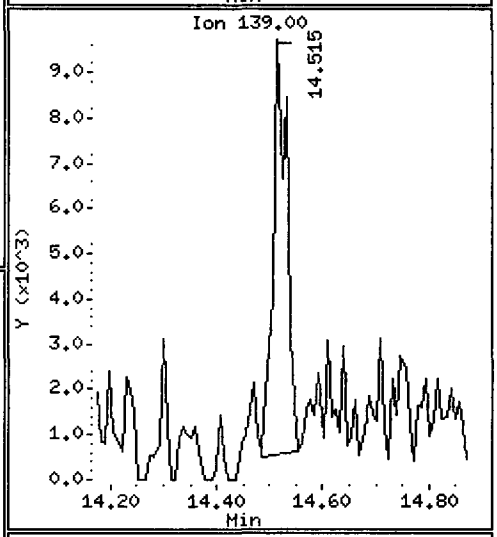


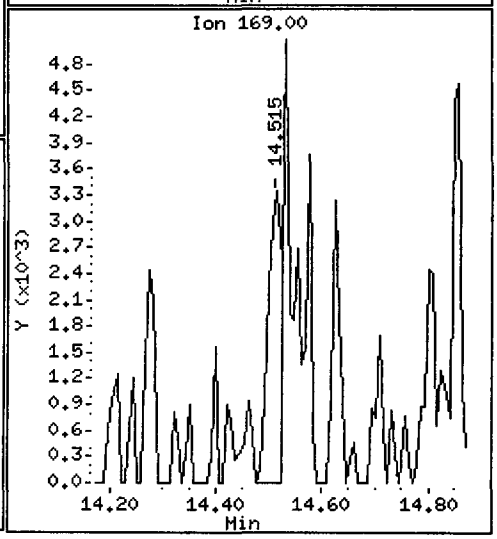












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

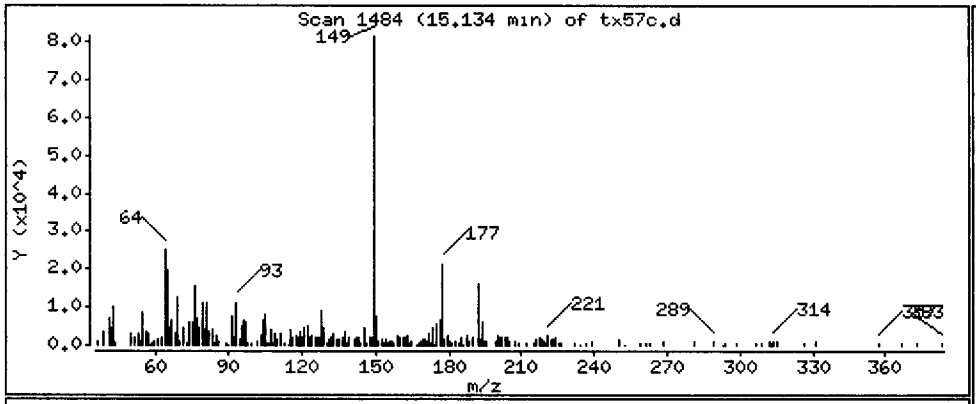
Client ID: SD0014 Instrument: nt10.i

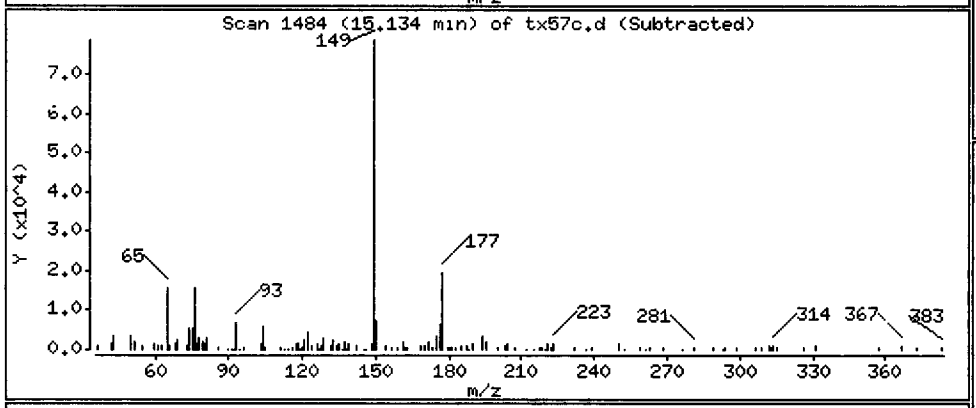
Sample Info: TX57C

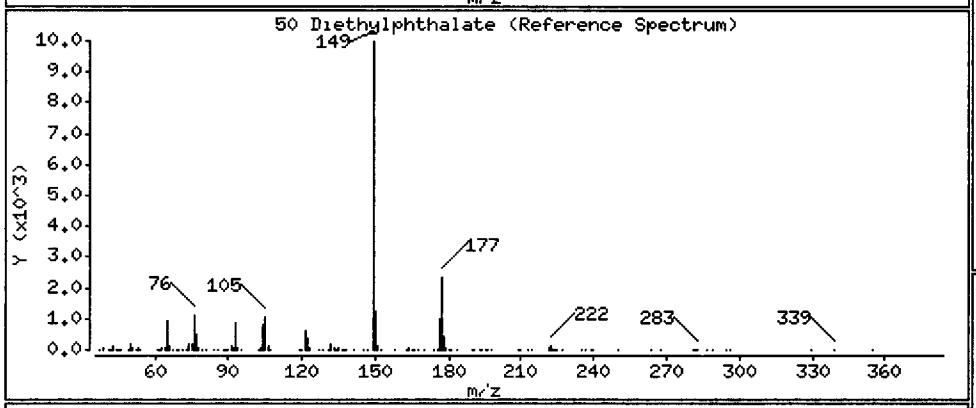
Volume Injected (uL): 1.0 Operator: YZ

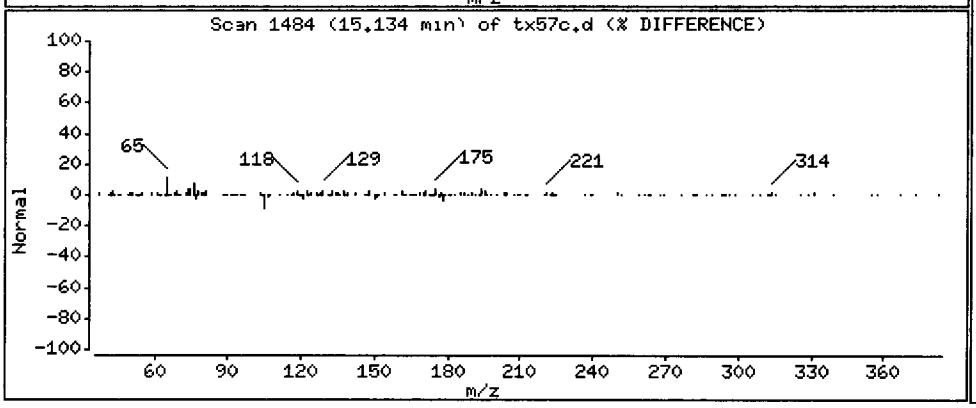
Column phase: ZB-5msi Column diameter: 0.25

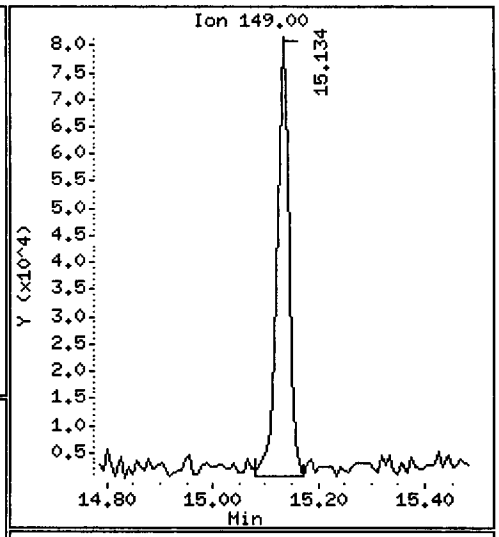
50 Diethylphthalate Concentration: 66.63 ug/kg

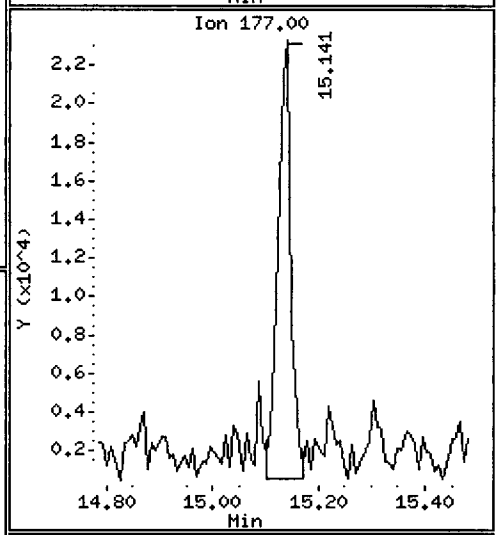


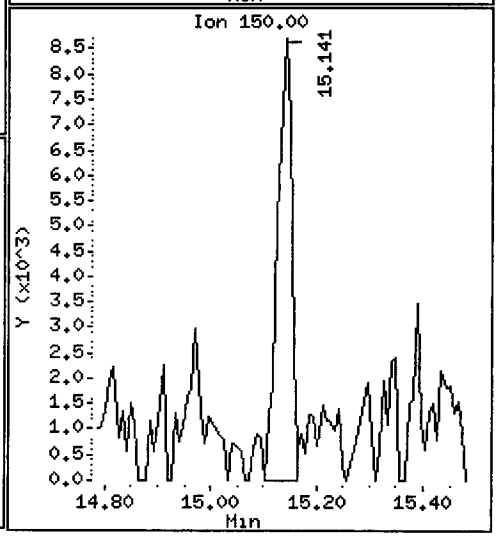












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

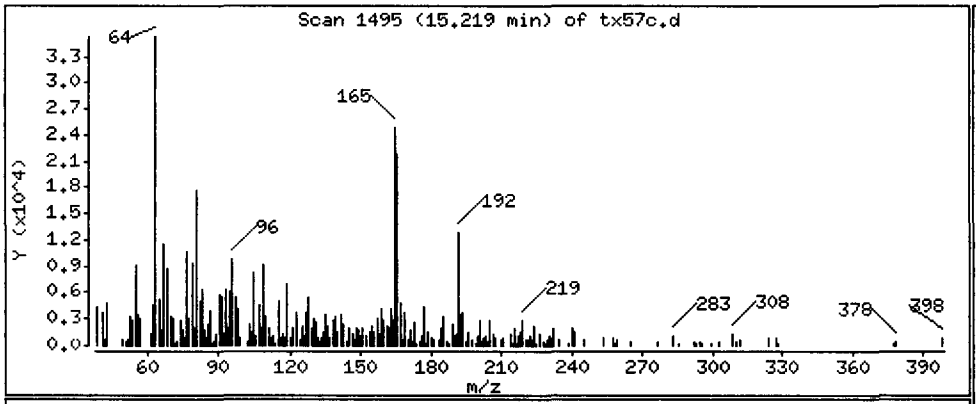
Client ID: SD0014 Instrument: nt10.i

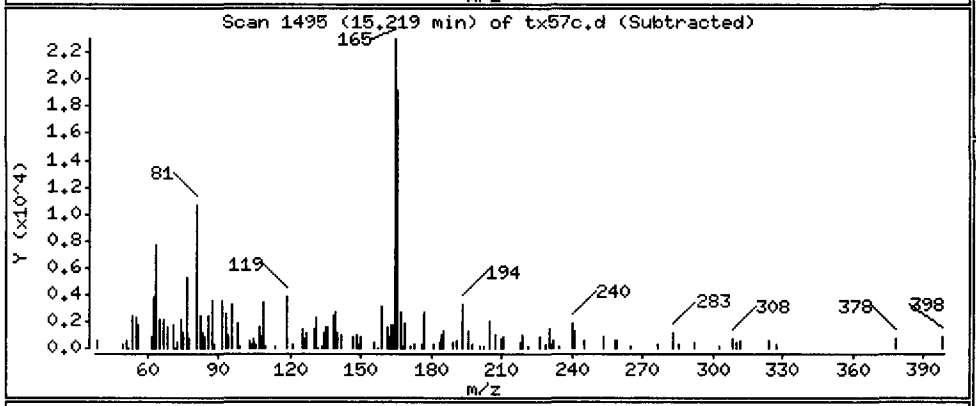
Sample Info: TX57C

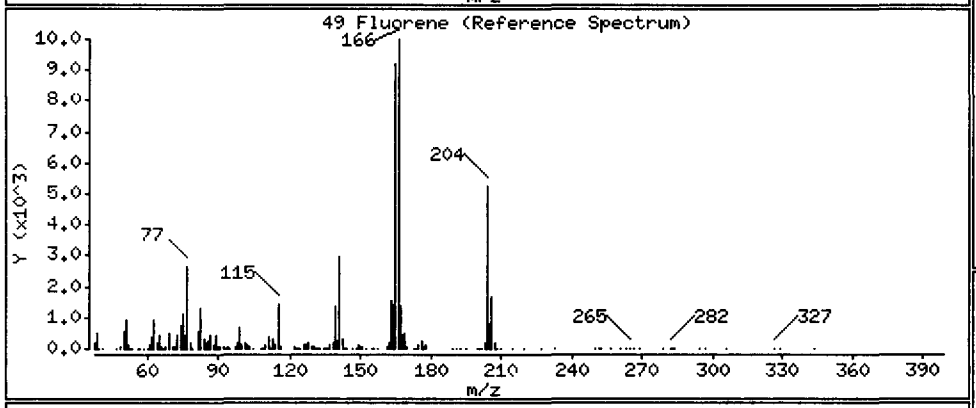
Volume Injected (uL): 1.0 Operator: YZ

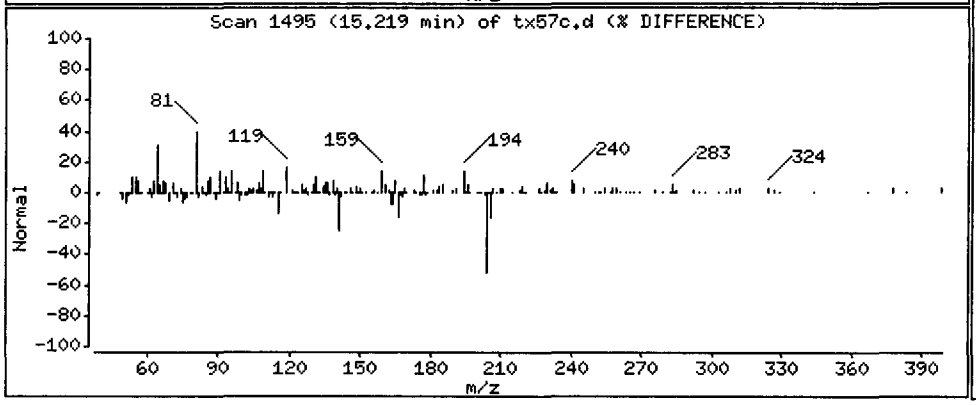
Column phase: ZB-5msi Column diameter: 0.25

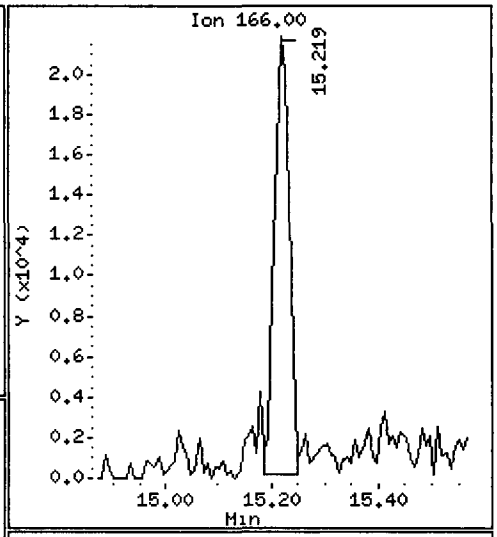
49 Fluorene Concentration: 24.08 ug/kg

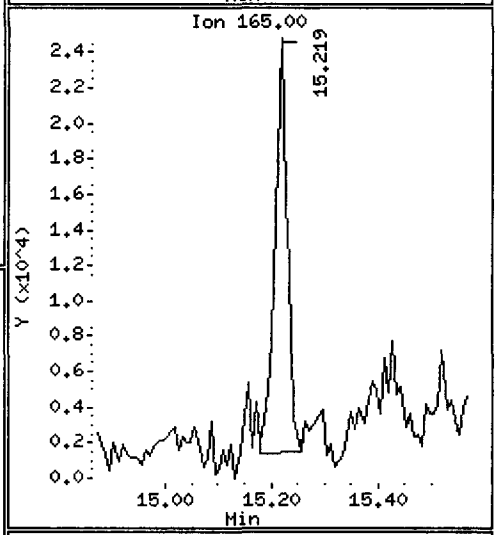


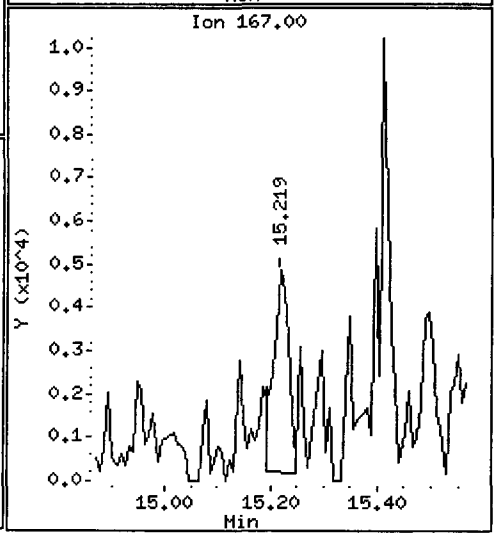












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

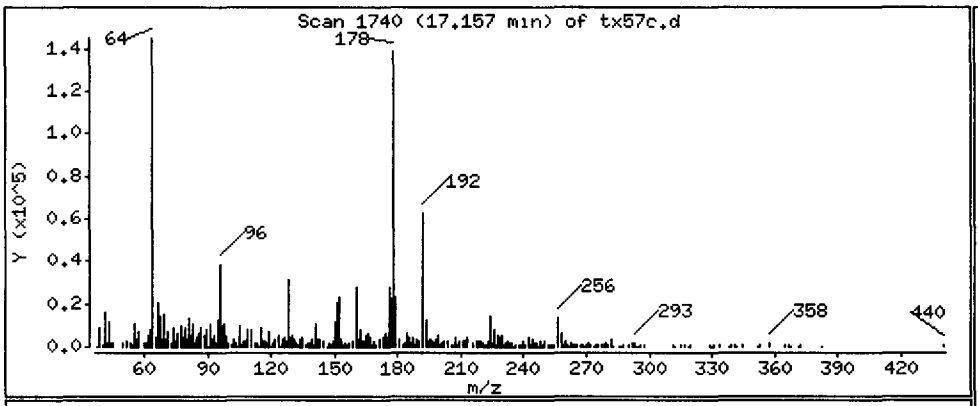
Client ID: SD0014 Instrument: nt10.i

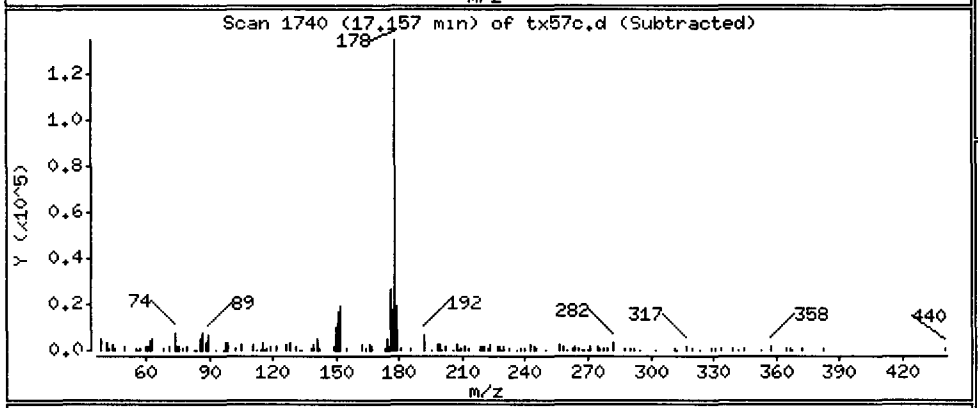
Sample Info: TX57C

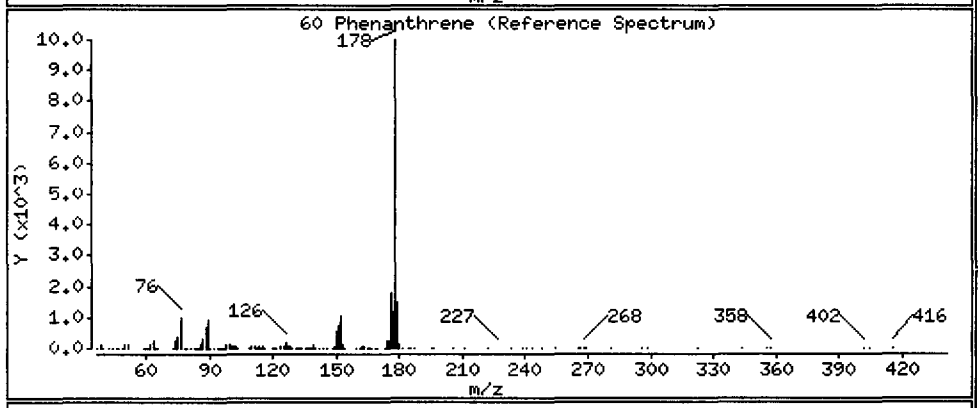
Volume Injected (uL): 1.0 Operator: YZ

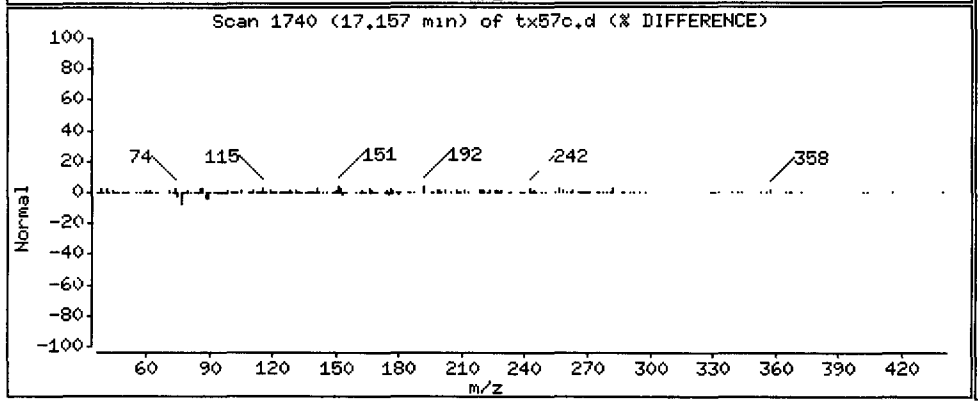
Column phase: ZB-5msi Column diameter: 0.25

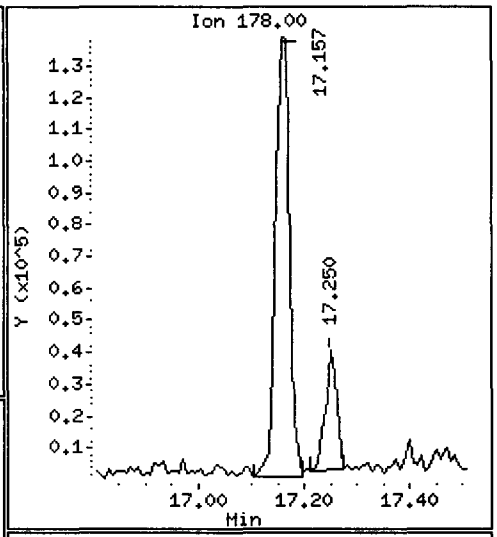
60 Phenanthrene Concentration: 81.00 ug/kg

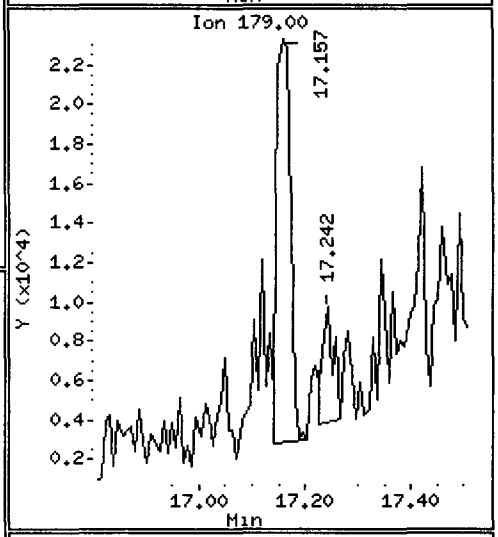


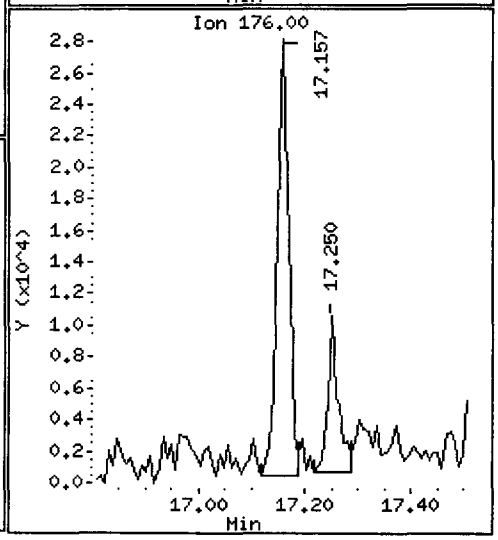












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

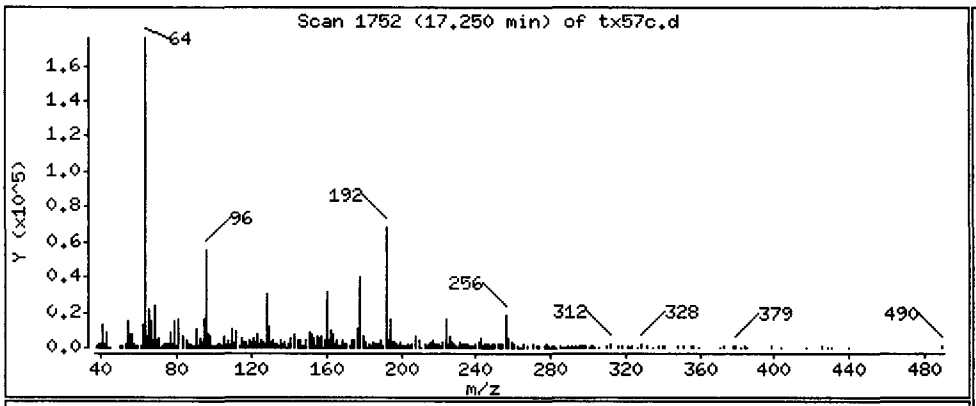
Client ID: SD0014 Instrument: nt10.i

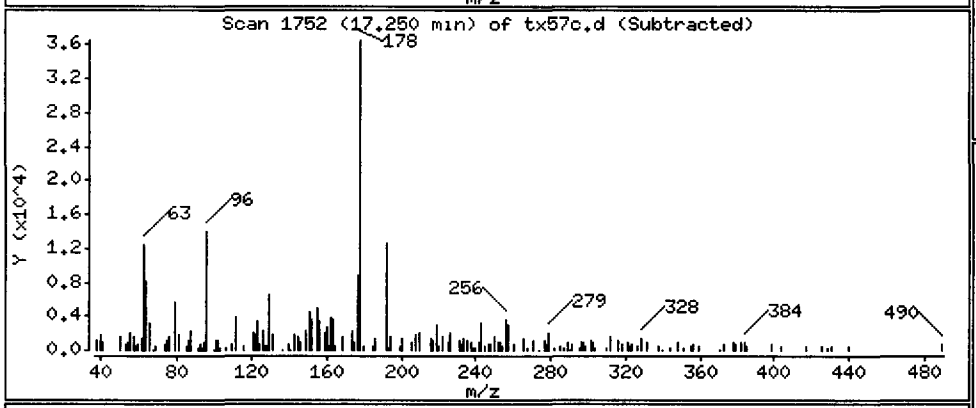
Sample Info: TX57C

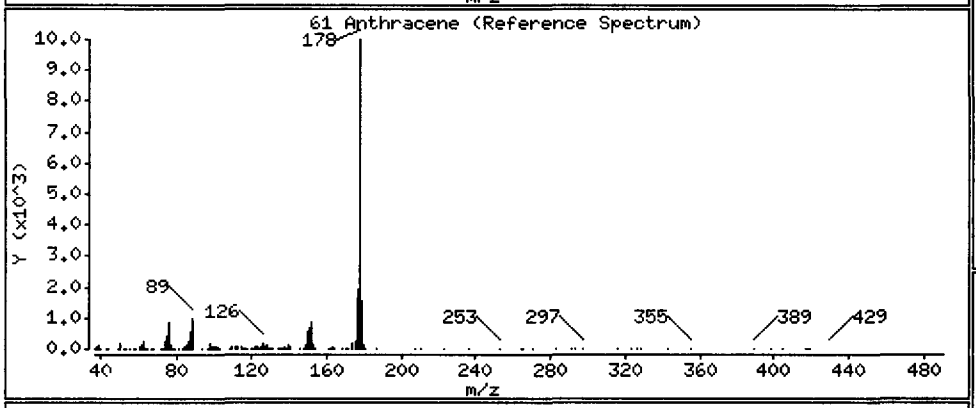
Volume Injected (uL): 1.0 Operator: YZ

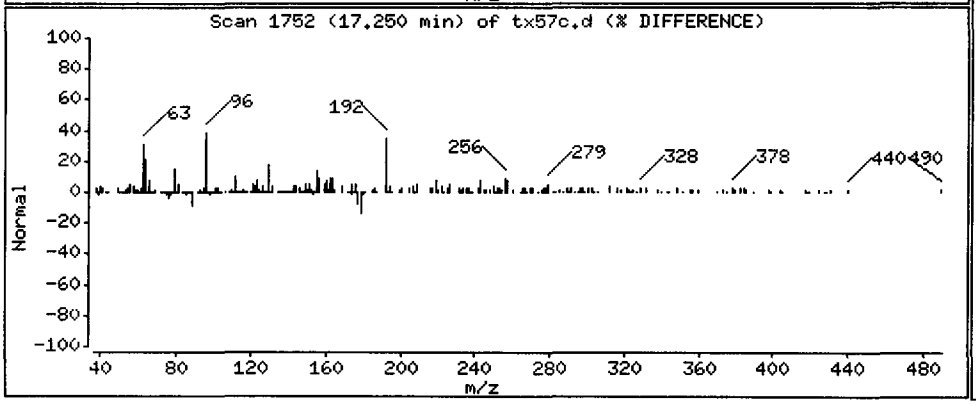
Column phase: ZB-5msi Column diameter: 0.25

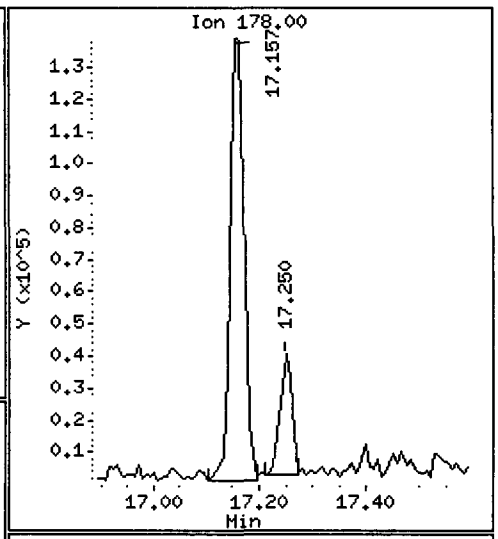
61 Anthracene Concentration: 18.53 ug/kg

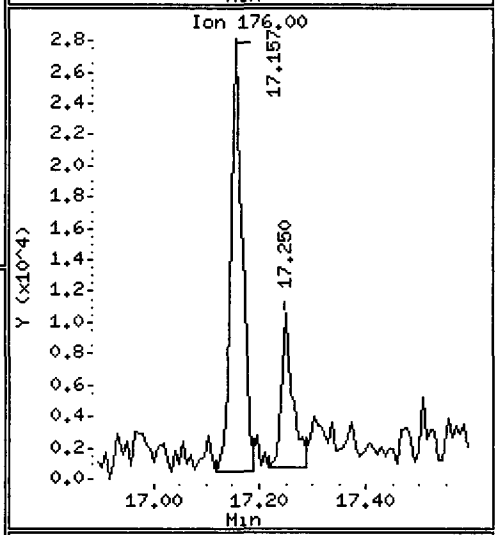


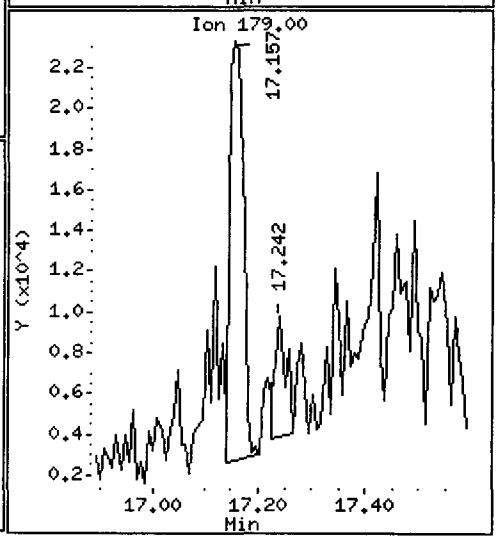












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

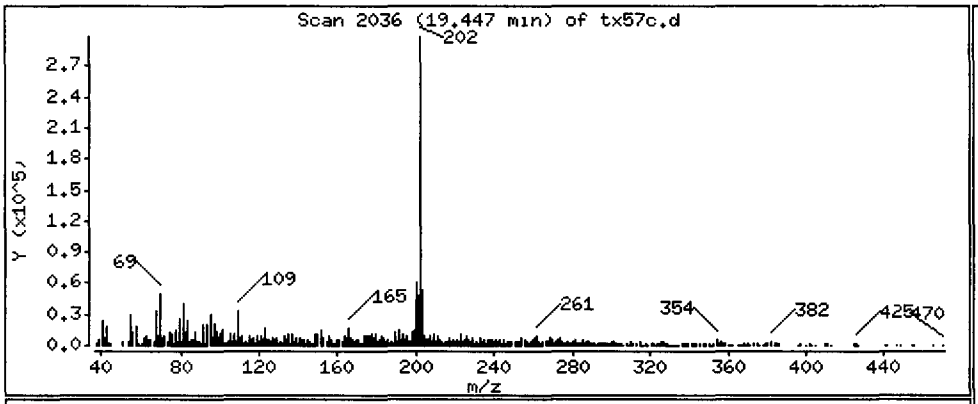
Client ID: SD0014 Instrument: nt10.i

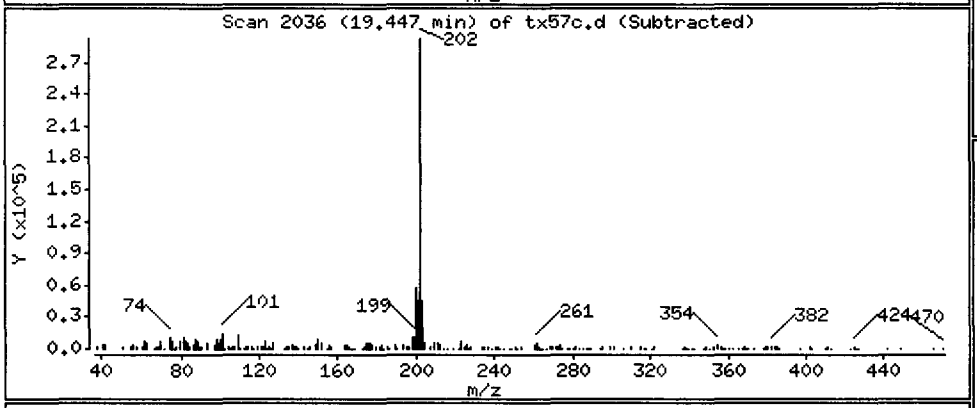
Sample Info: TX57C

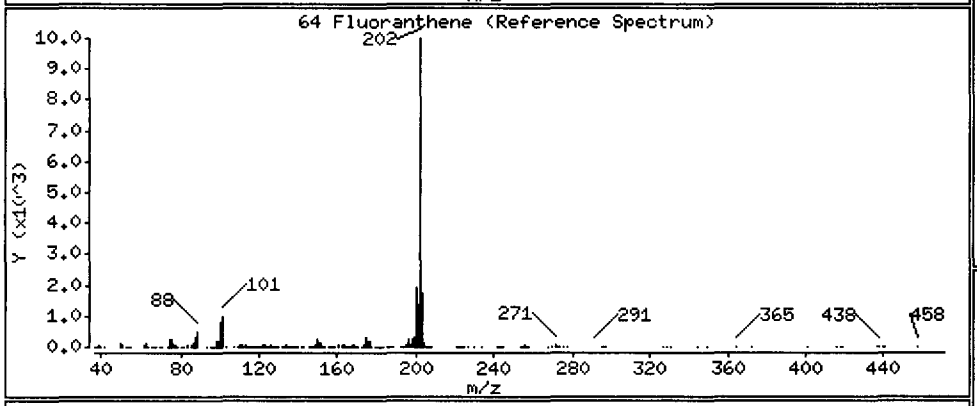
Volume Injected (uL): 1.0 Operator: YZ

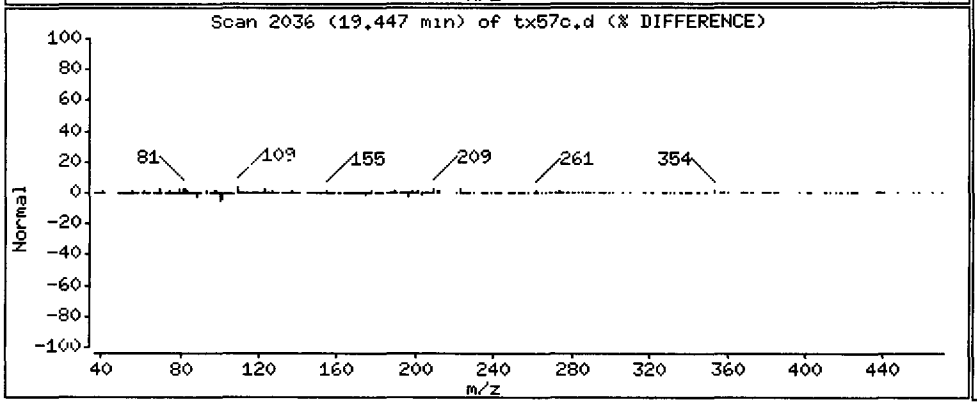
Column phase: ZB-5msi Column diameter: 0.25

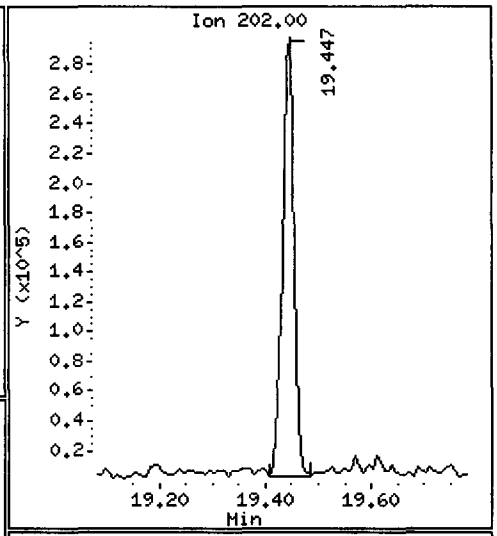
64 Fluoranthene Concentration: 108.8 ug/kg

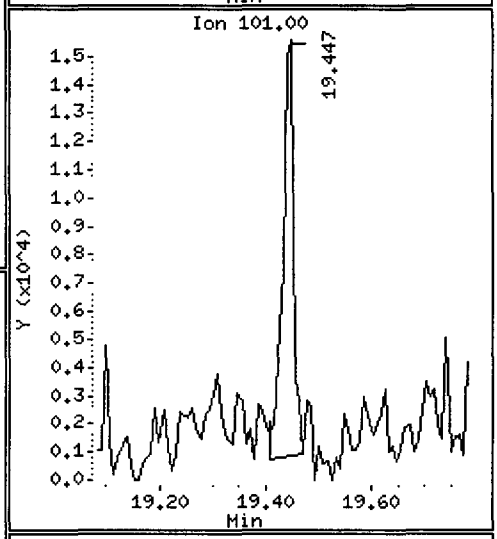


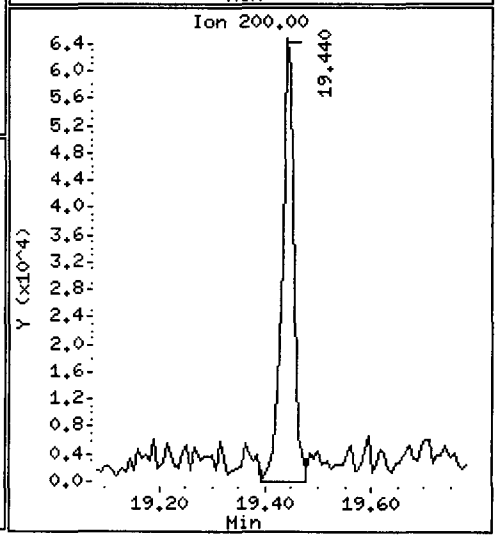












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

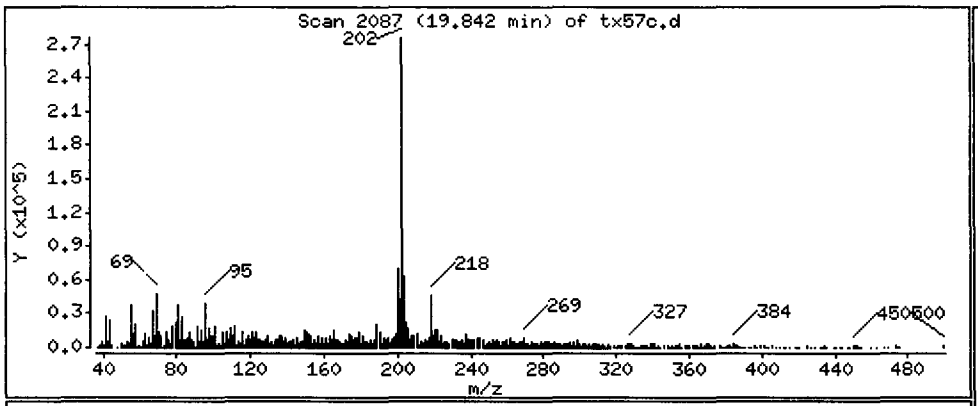
Client ID: SD0014 Instrument: nt10.i

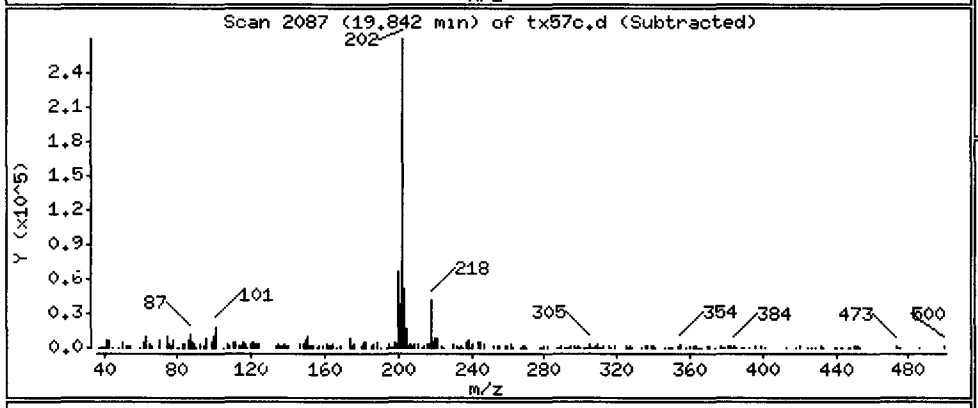
Sample Info: TX57C

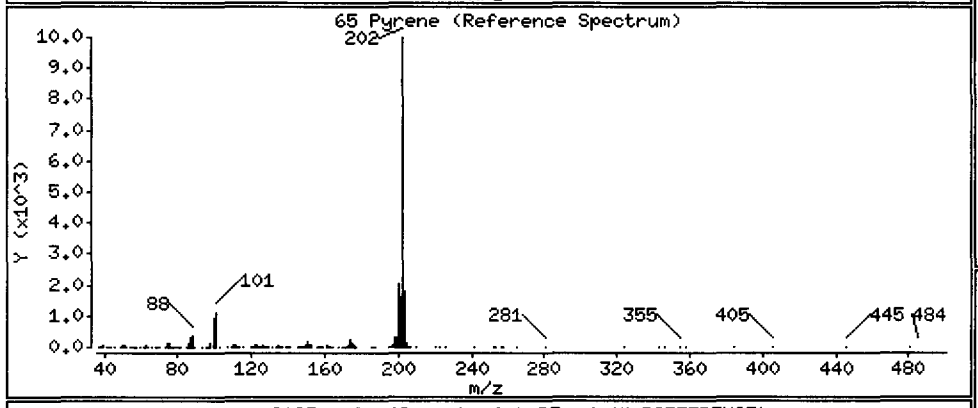
Volume Injected (uL): 1.0 Operator: YZ

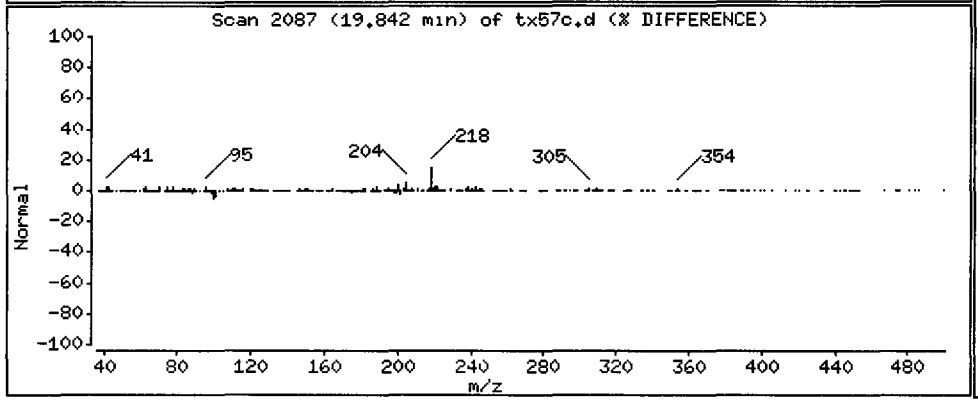
Column phase: ZB-5msi Column diameter: 0.25

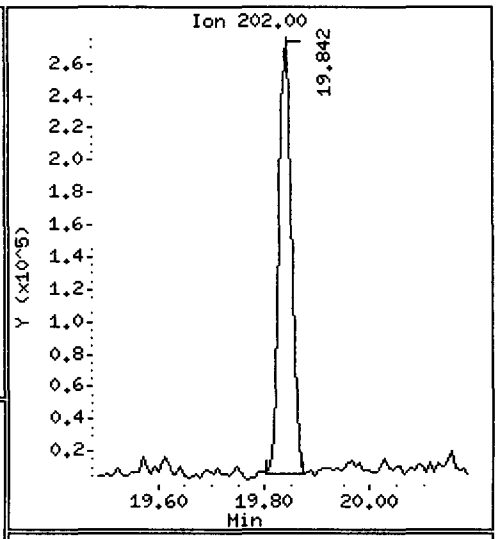
65 Pyrene Concentration: 97.26 ug/kg

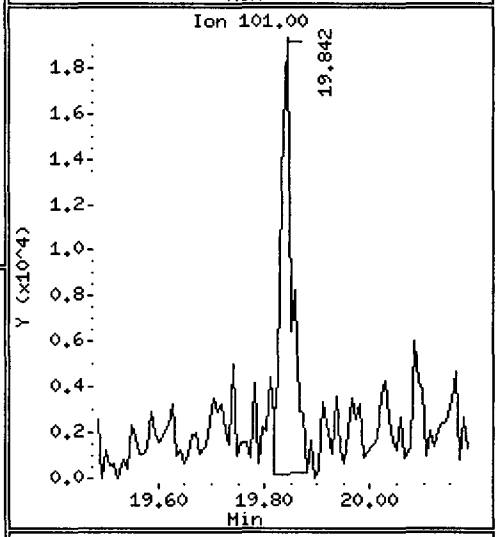


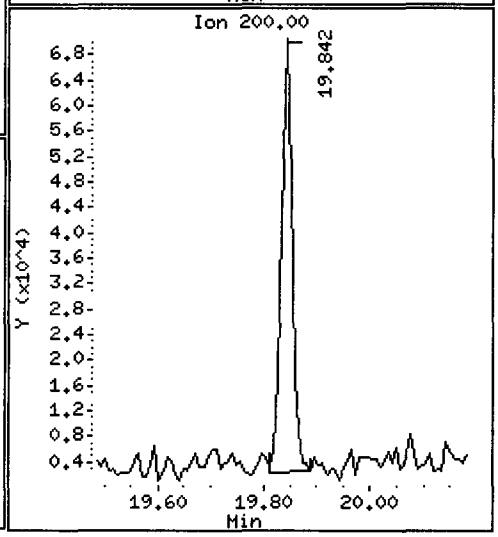












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

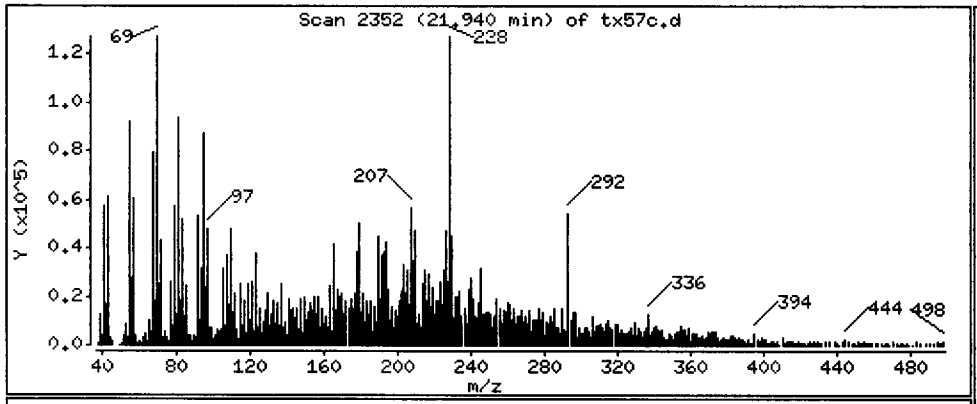
Client ID: SD0014 Instrument: nt10.1

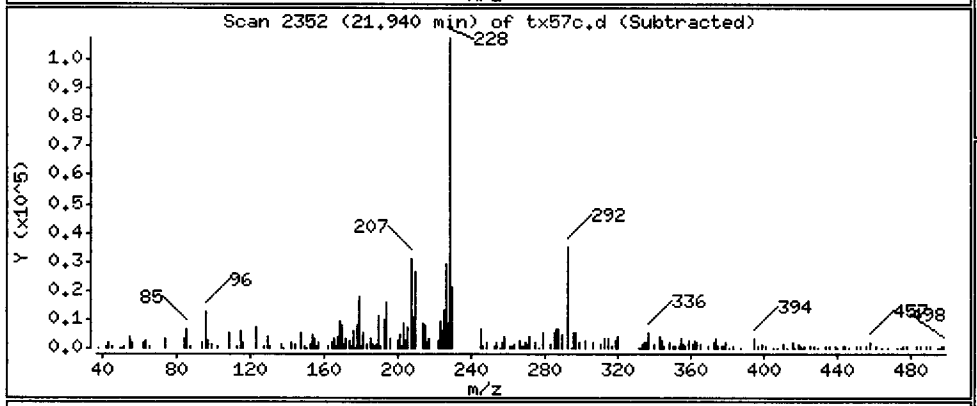
Sample Info: TX57C

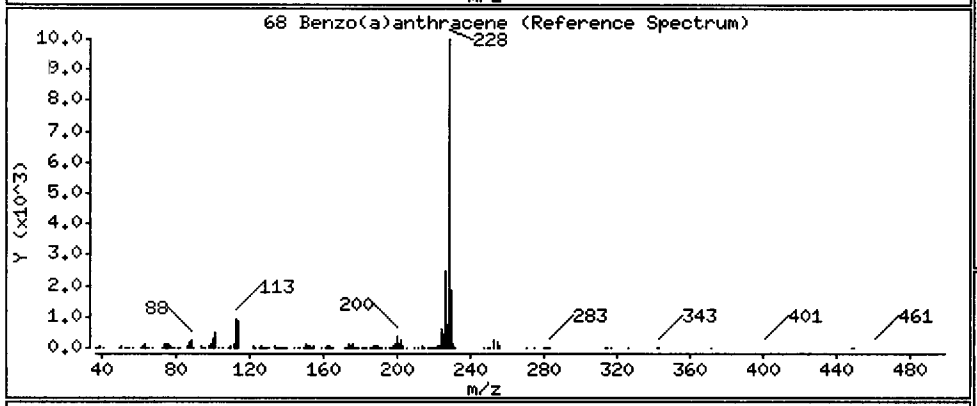
Volume Injected (uL): 1.0 Operator: YZ

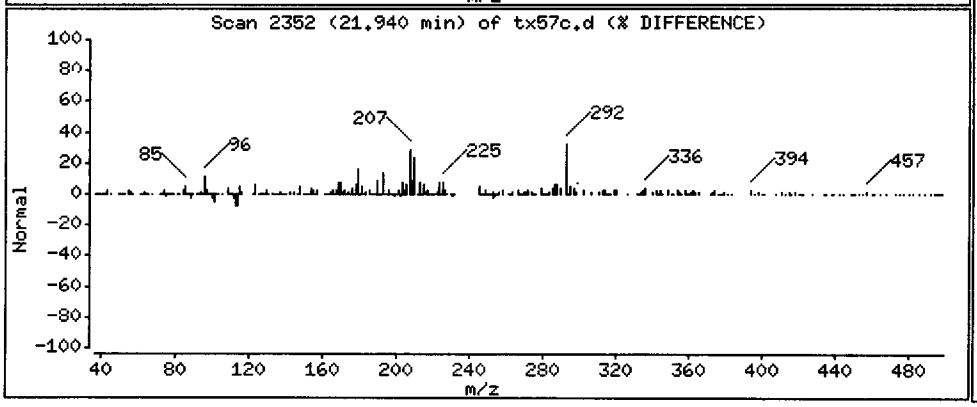
Column phase: ZB-5ms1 Column diameter: 0.25

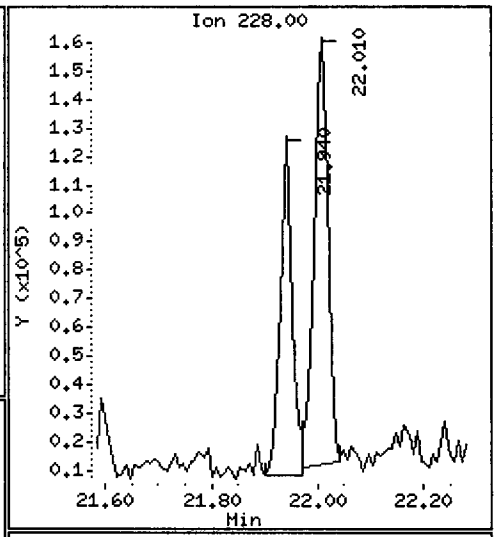
68 Benzo(a)anthracene Concentration: 36.64 ug/kg

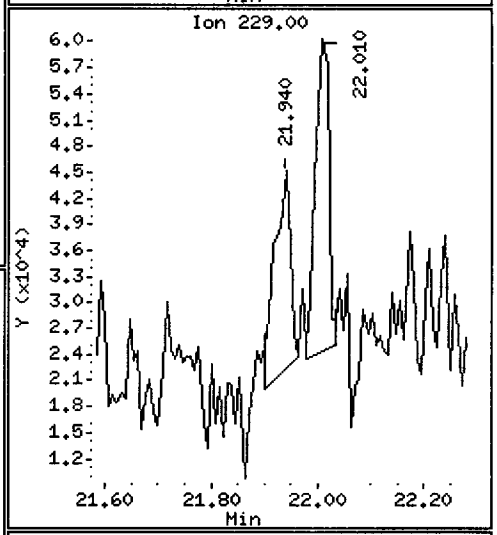


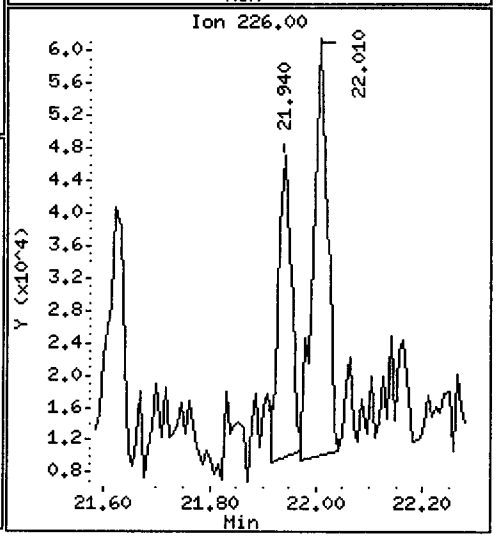












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

Client ID: SD0014

Instrument: nt10.i

Sample Info: TX57C

Volume Injected (uL): 1.0

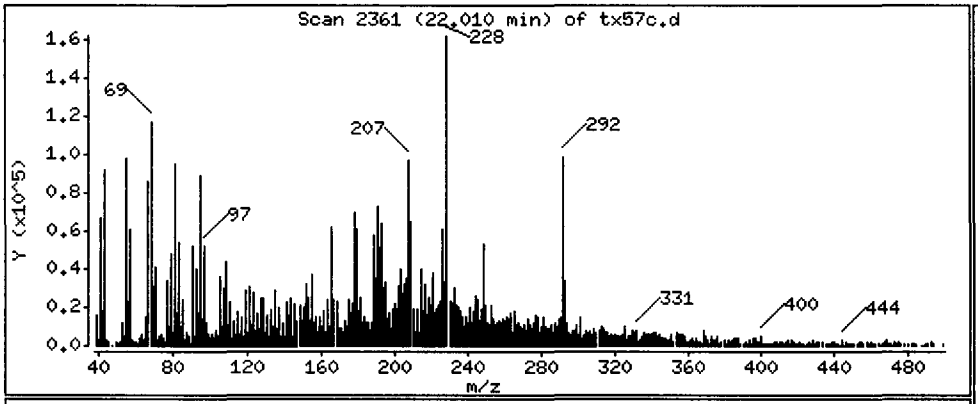
Operator: YZ

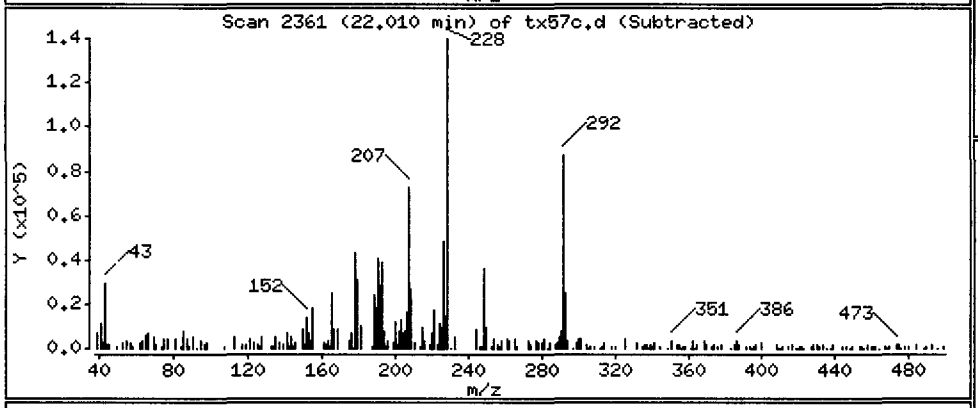
Column phase: ZB-5msi

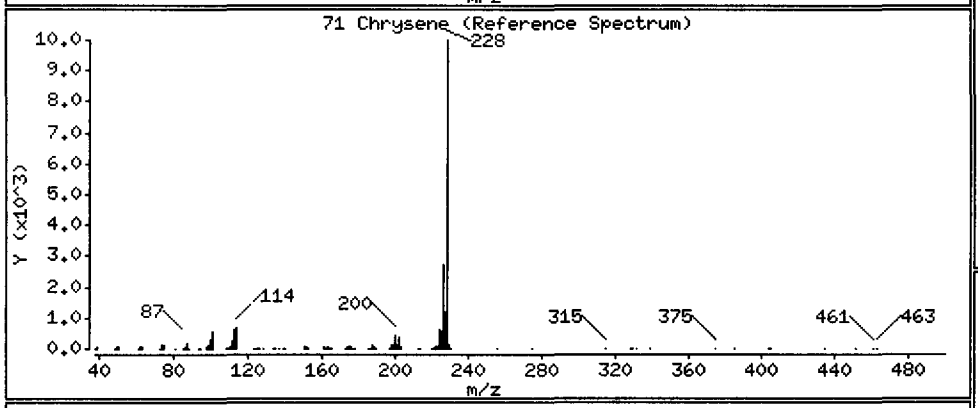
Column diameter: 0.25

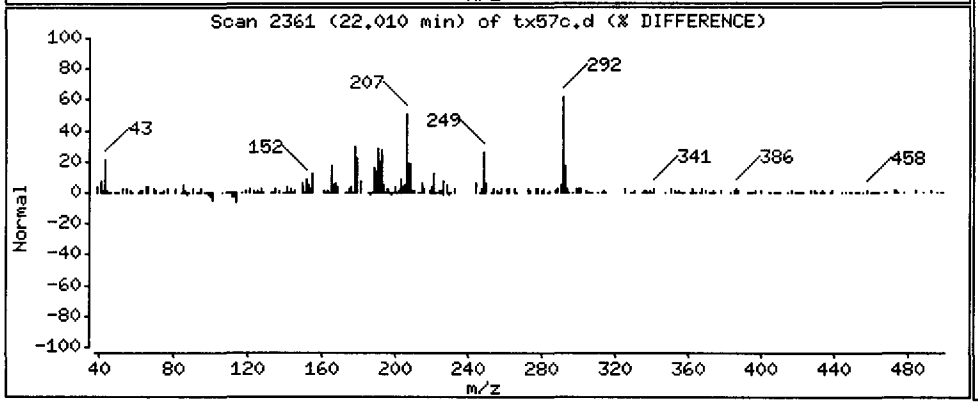
71 Chrysene

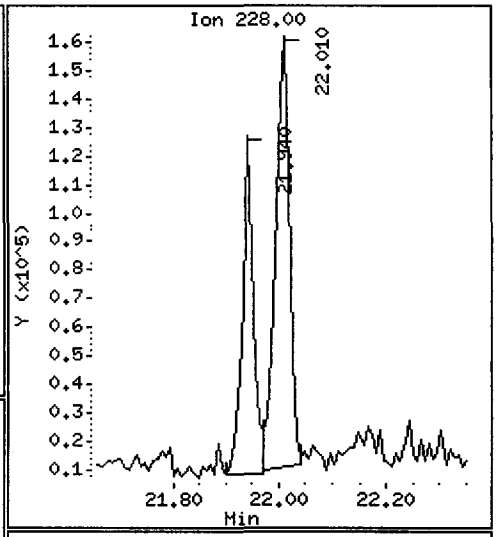
Concentration: 62.78 ug/kg

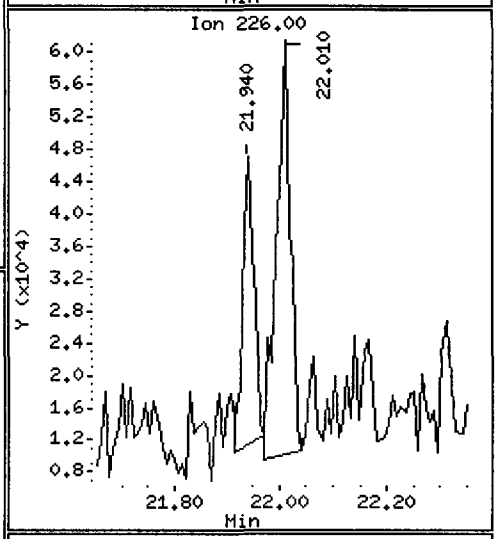


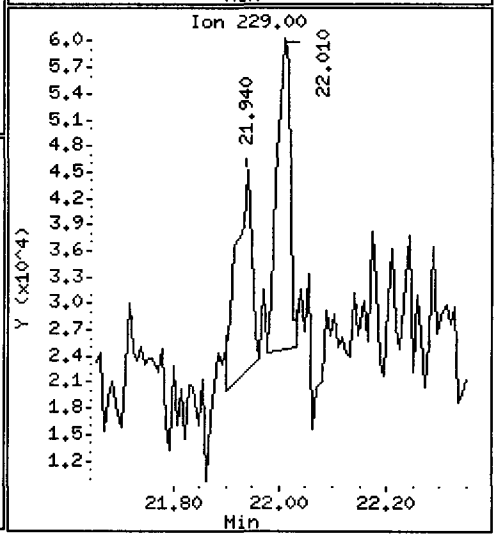












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

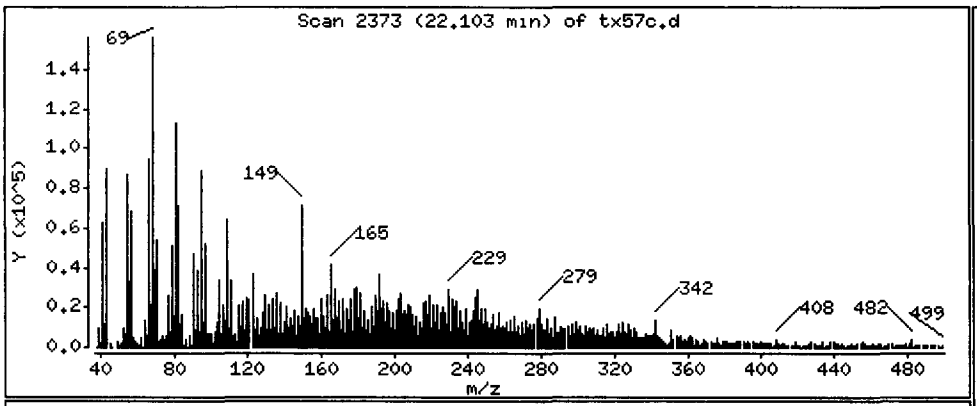
Client ID: SD0014 Instrument: nt10.i

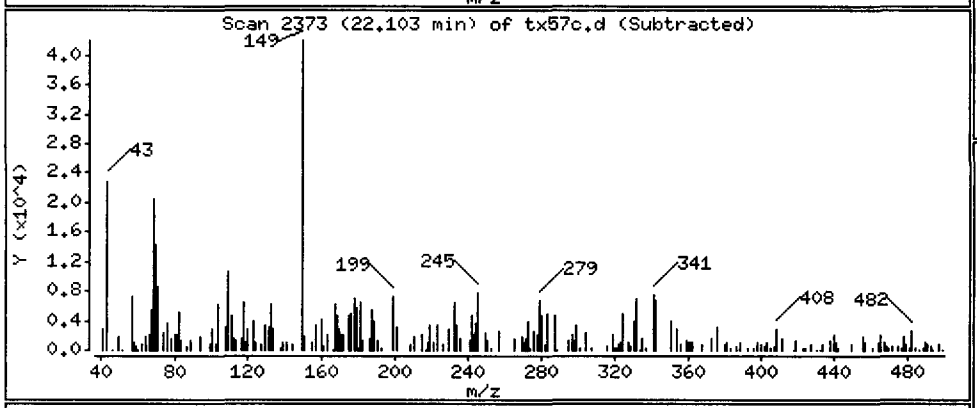
Sample Info: TX57C

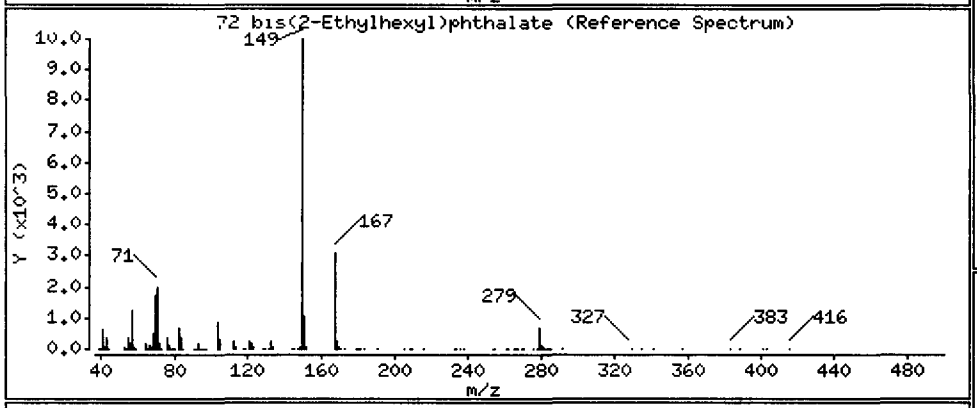
Volume Injected (uL): 1.0 Operator: YZ

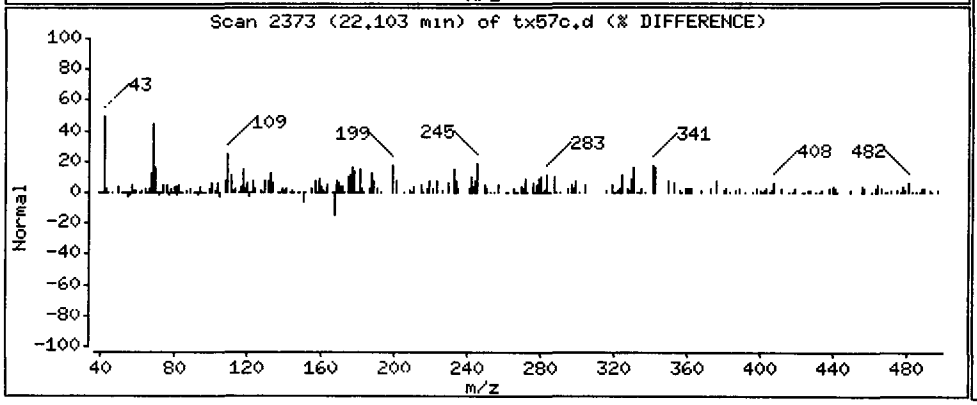
Column phase: ZB-5msi Column diameter: 0.25

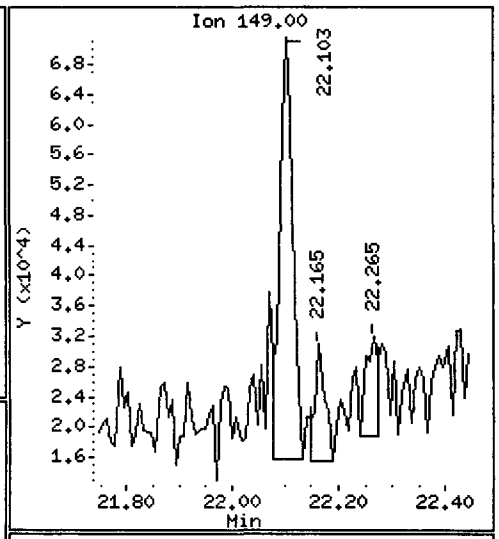
72 bis(2-Ethylhexyl)phthalate Concentration: 45.72 ug/kg

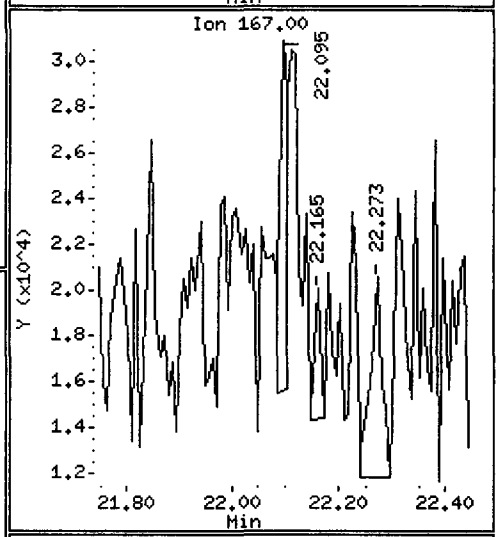


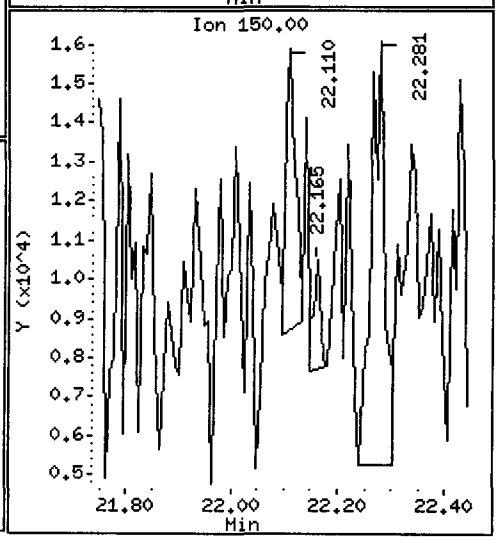












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

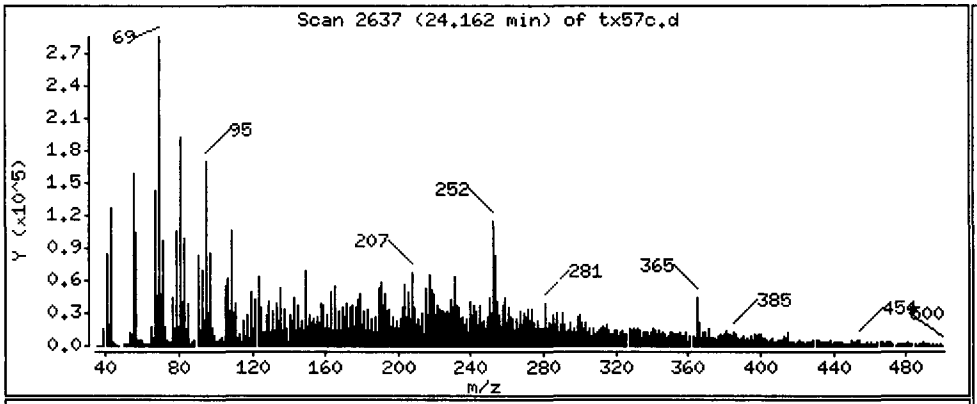
Client ID: SD0014 Instrument: nt10.i

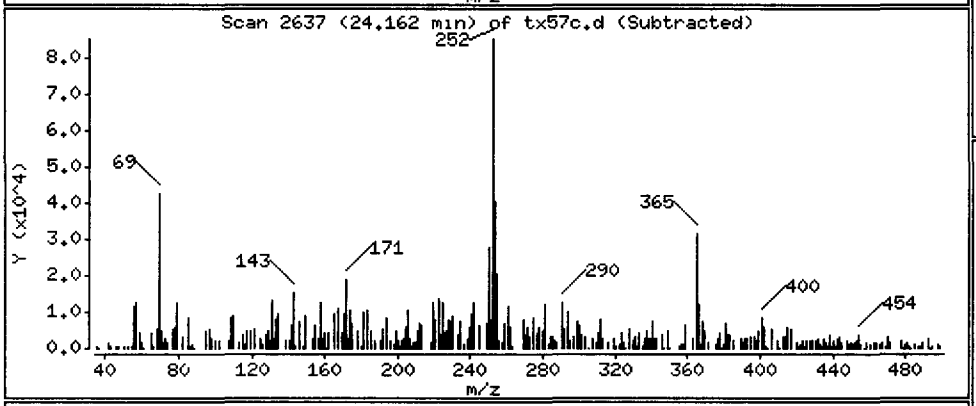
Sample Info: TX57C

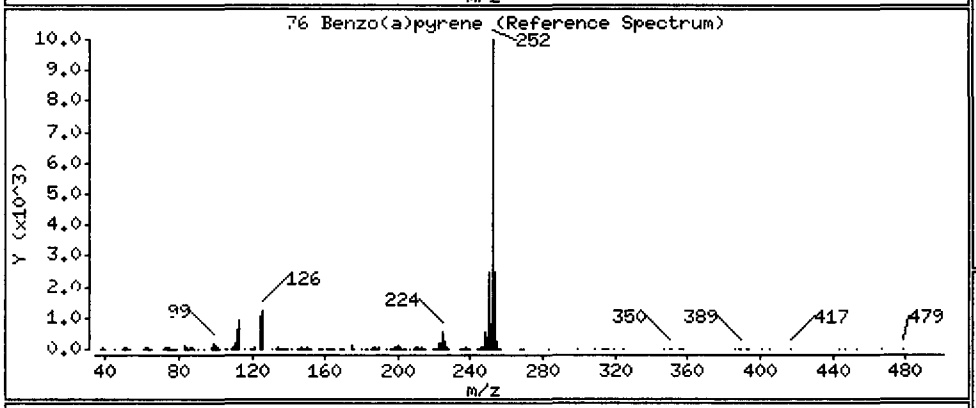
Volume Injected (uL): 1.0 Operator: YZ

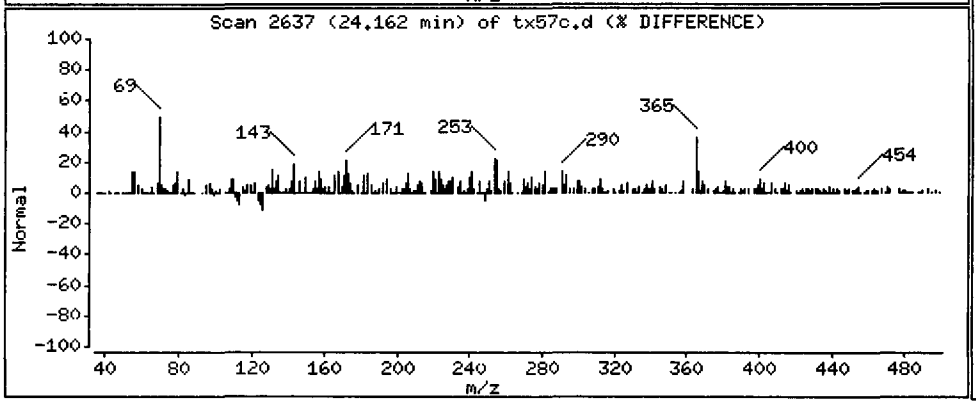
Column phase: ZB-5msi Column diameter: 0.25

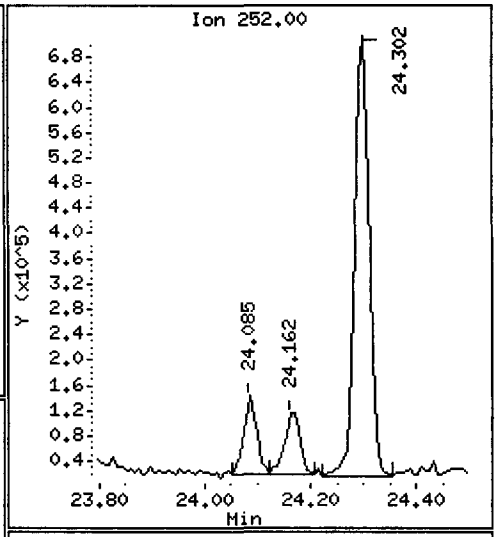
76 Benzo(a)pyrene Concentration: 43.78 ug/kg

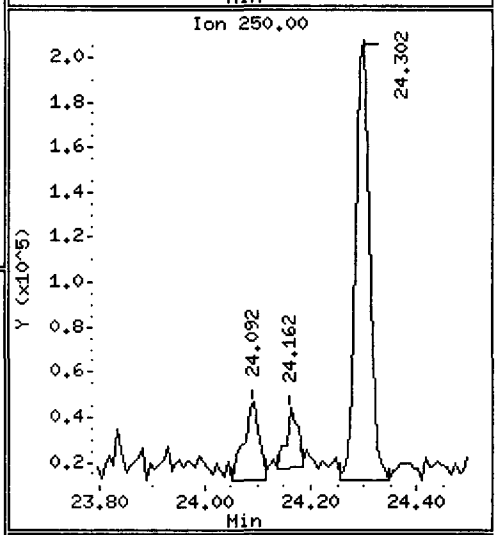


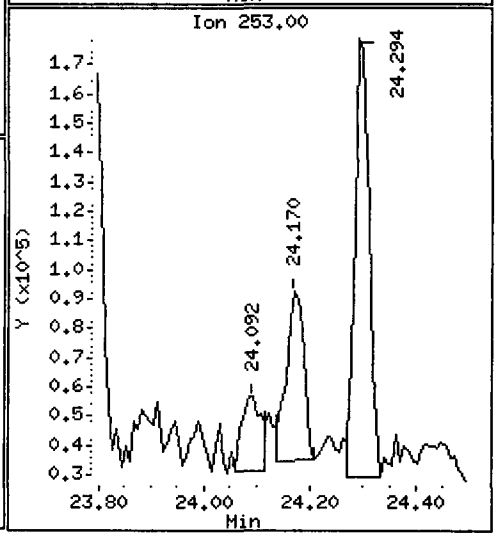












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

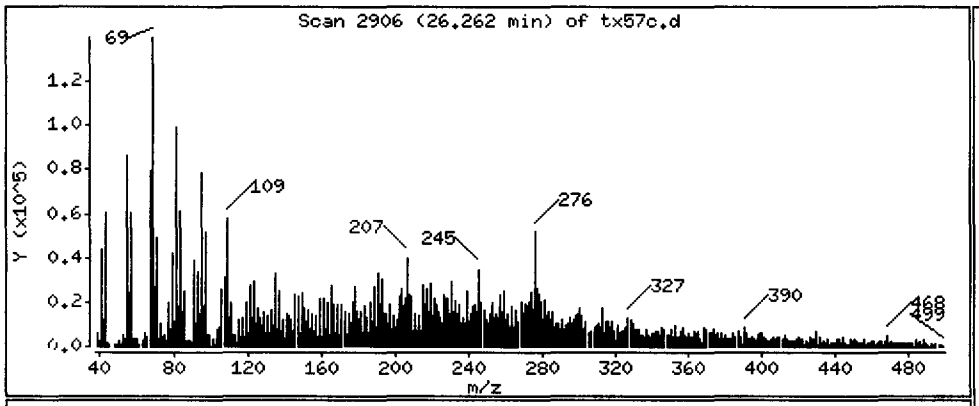
Client ID: SD0014 Instrument: nt10.i

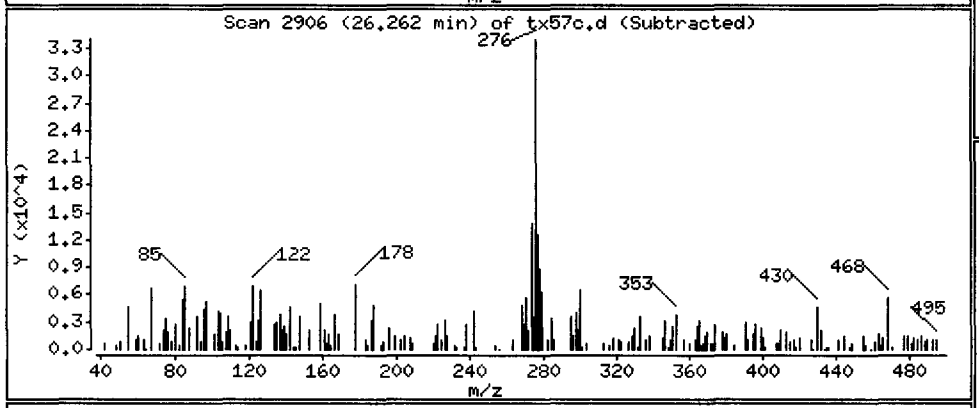
Sample Info: TX57C

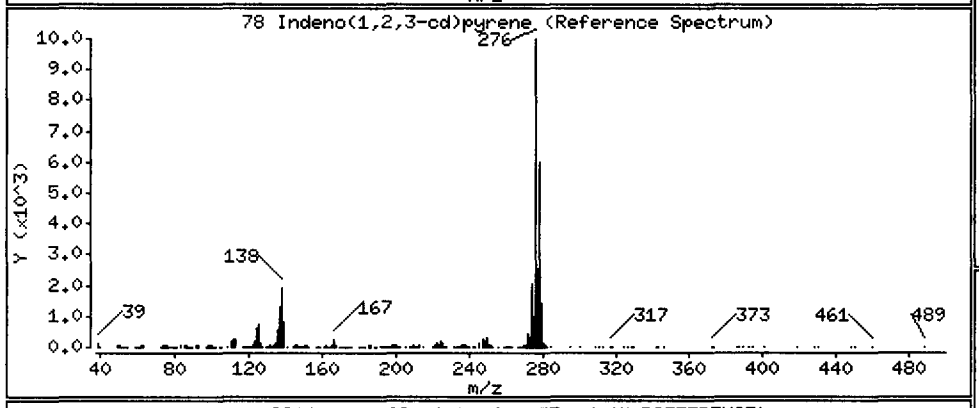
Volume Injected (uL): 1.0 Operator: YZ

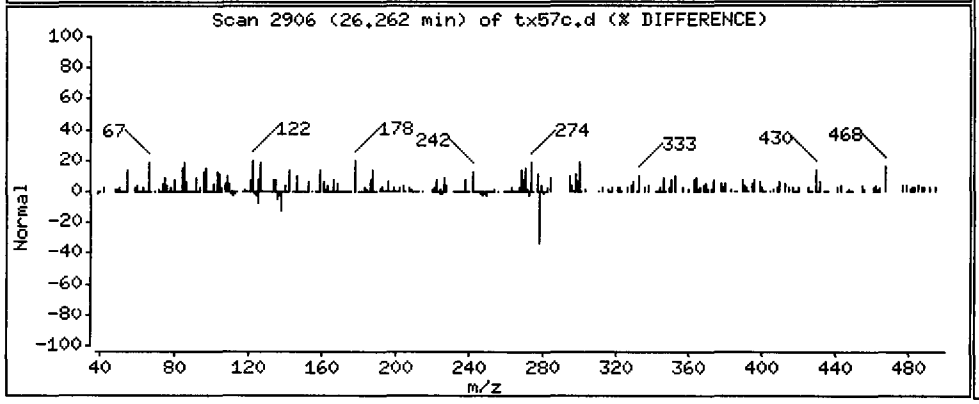
Column phase: ZB-5msi Column diameter: 0.25

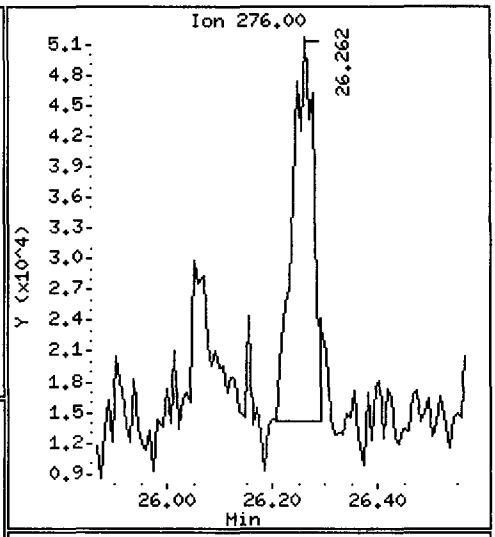
78 Indeno(1,2,3-cd)pyrene Concentration: 17.41 ug/kg

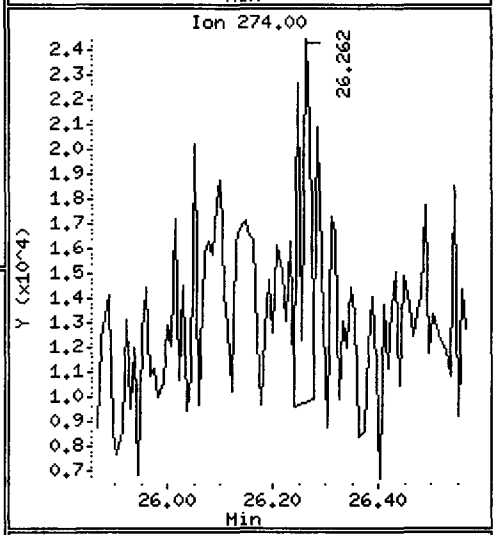


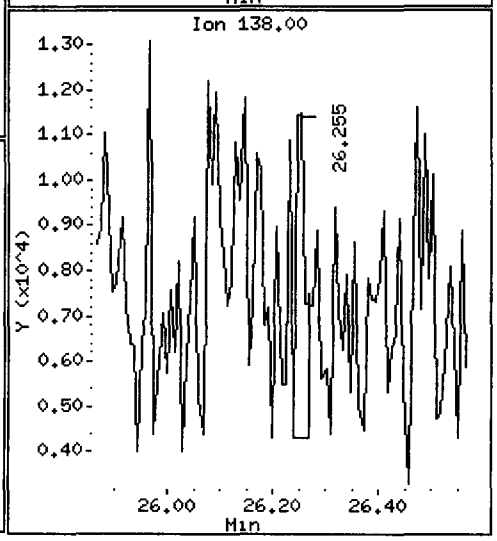












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

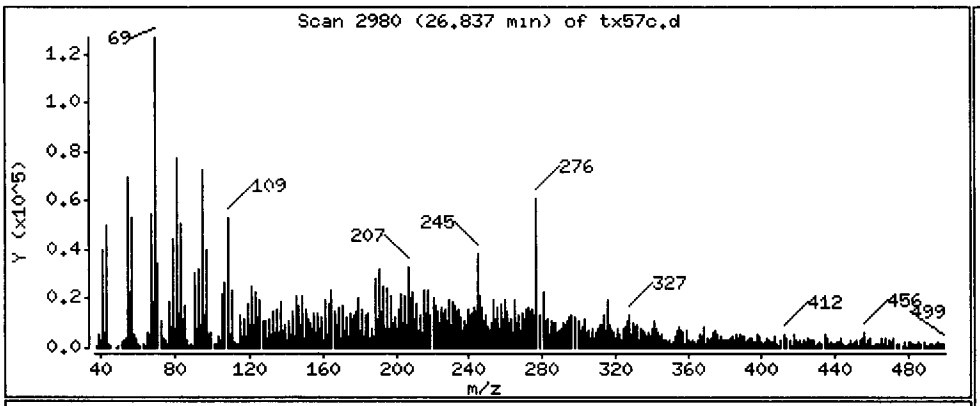
Client ID: SD0014 Instrument: nt10.i

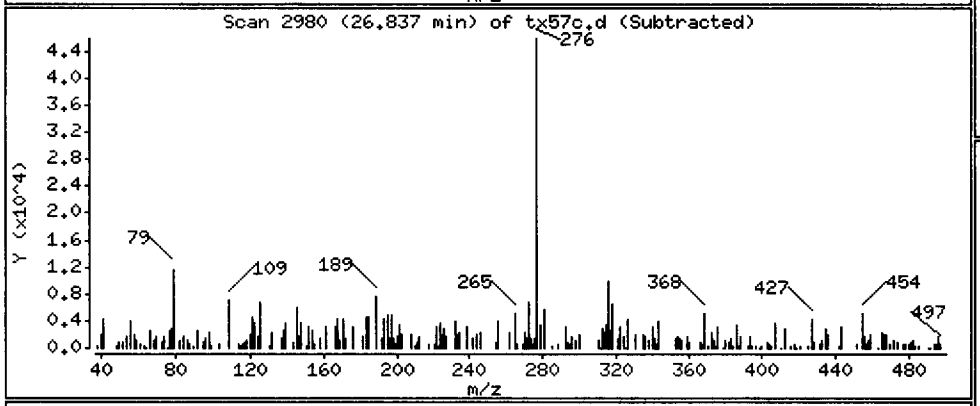
Sample Info: TX57C

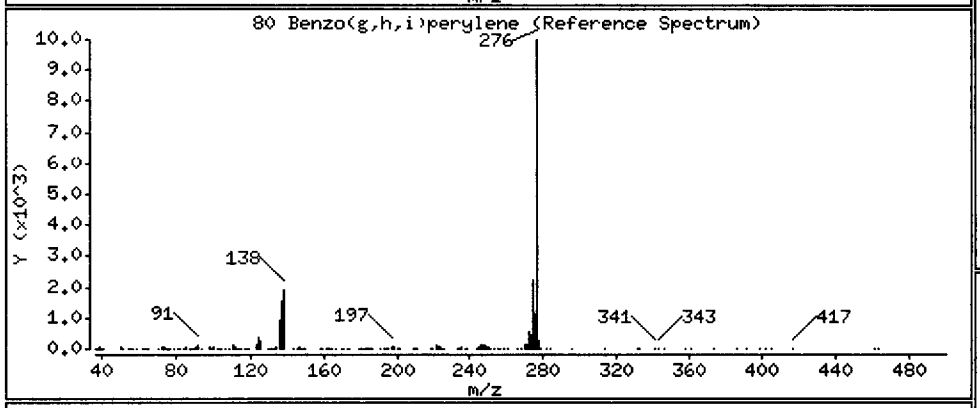
Volume Injected (uL): 1.0 Operator: YZ

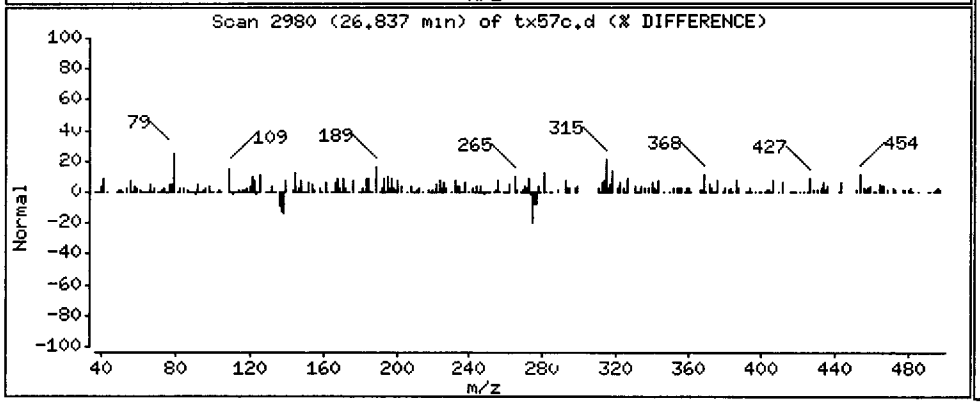
Column phase: ZB-5msi Column diameter: 0.25

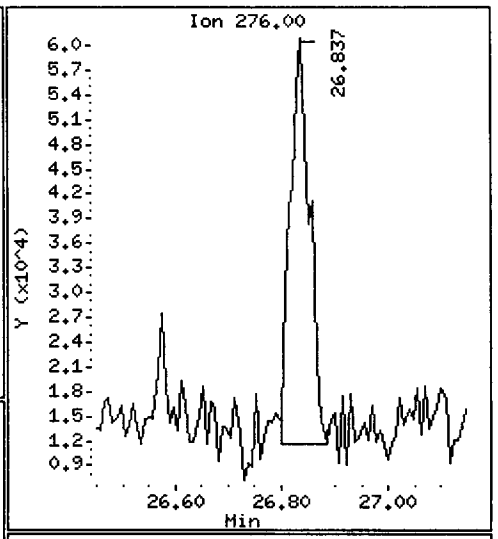
80 Benzo(g,h,i)perylene Concentration: 24.54 ug/kg

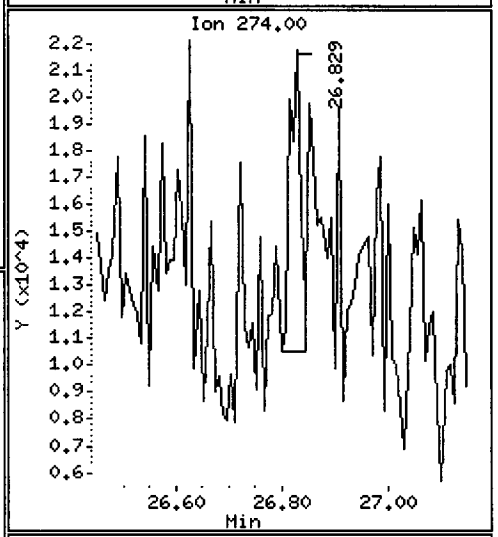


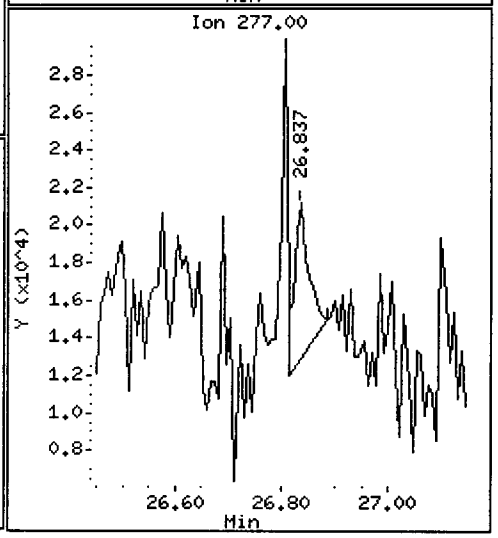












Data File: /chem1/nt10.i/20111206.b/tx57c.d

Date : 06-DEC-2011 17:59

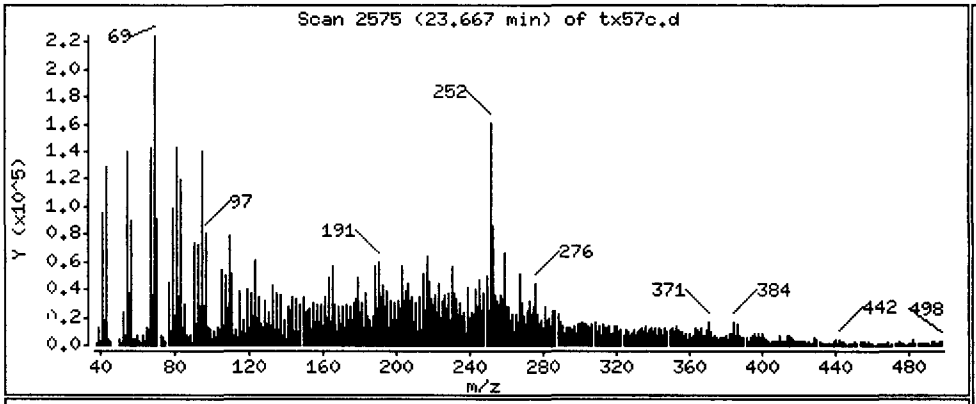
Client ID: SD0014 Instrument: nt10.i

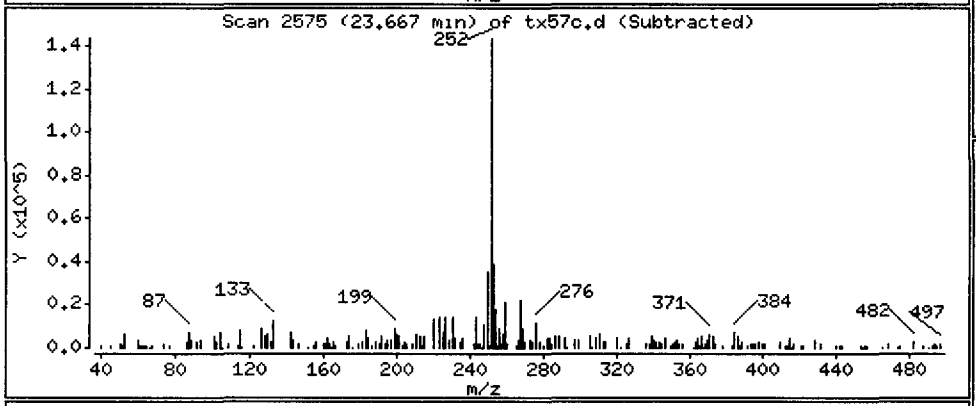
Sample Info: TX57C

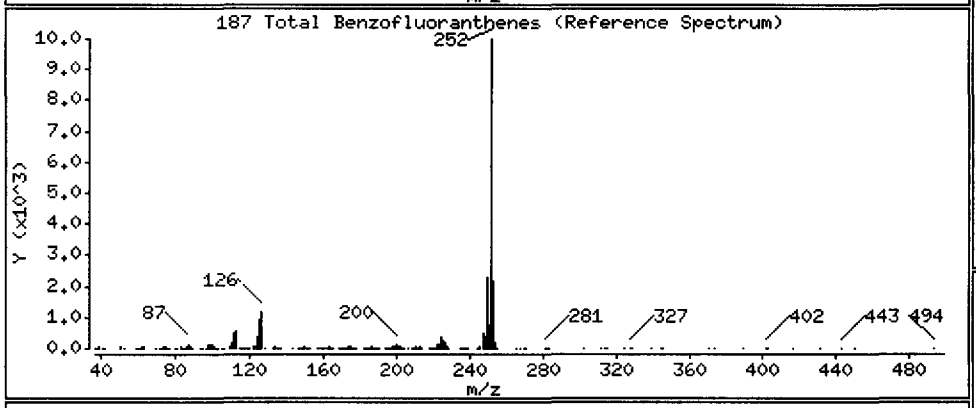
Volume Injected (uL): 1.0 Operator: YZ

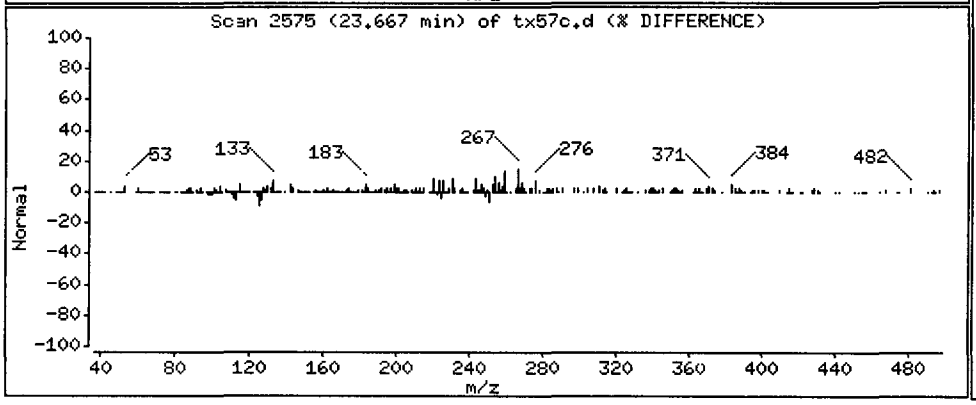
Column phase: ZB-5msi Column diameter: 0.25

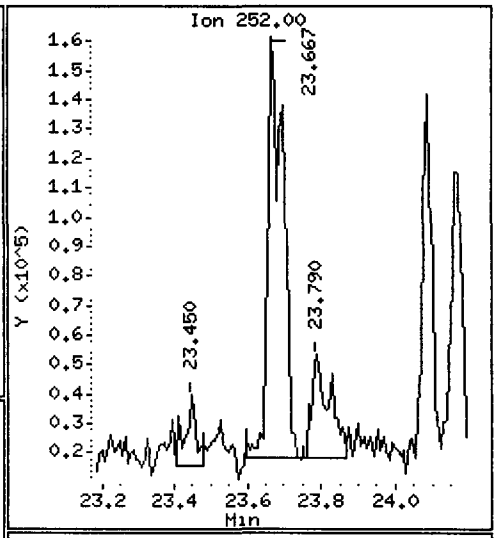
187 Total Benzofluoranthenes Concentration: 77.44 ug/kg

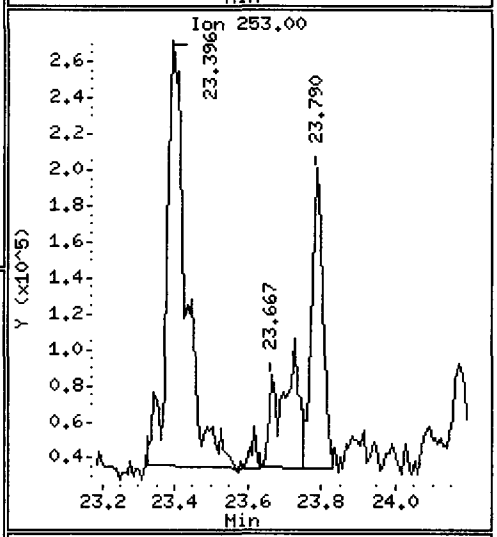


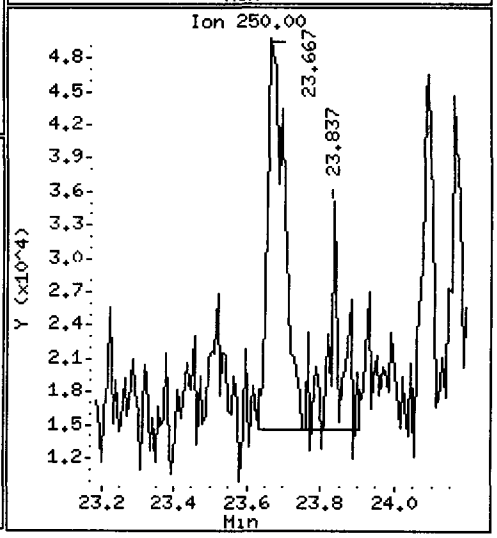












CO-ELUTION SUMMARY FOR FILE - tx57c.d

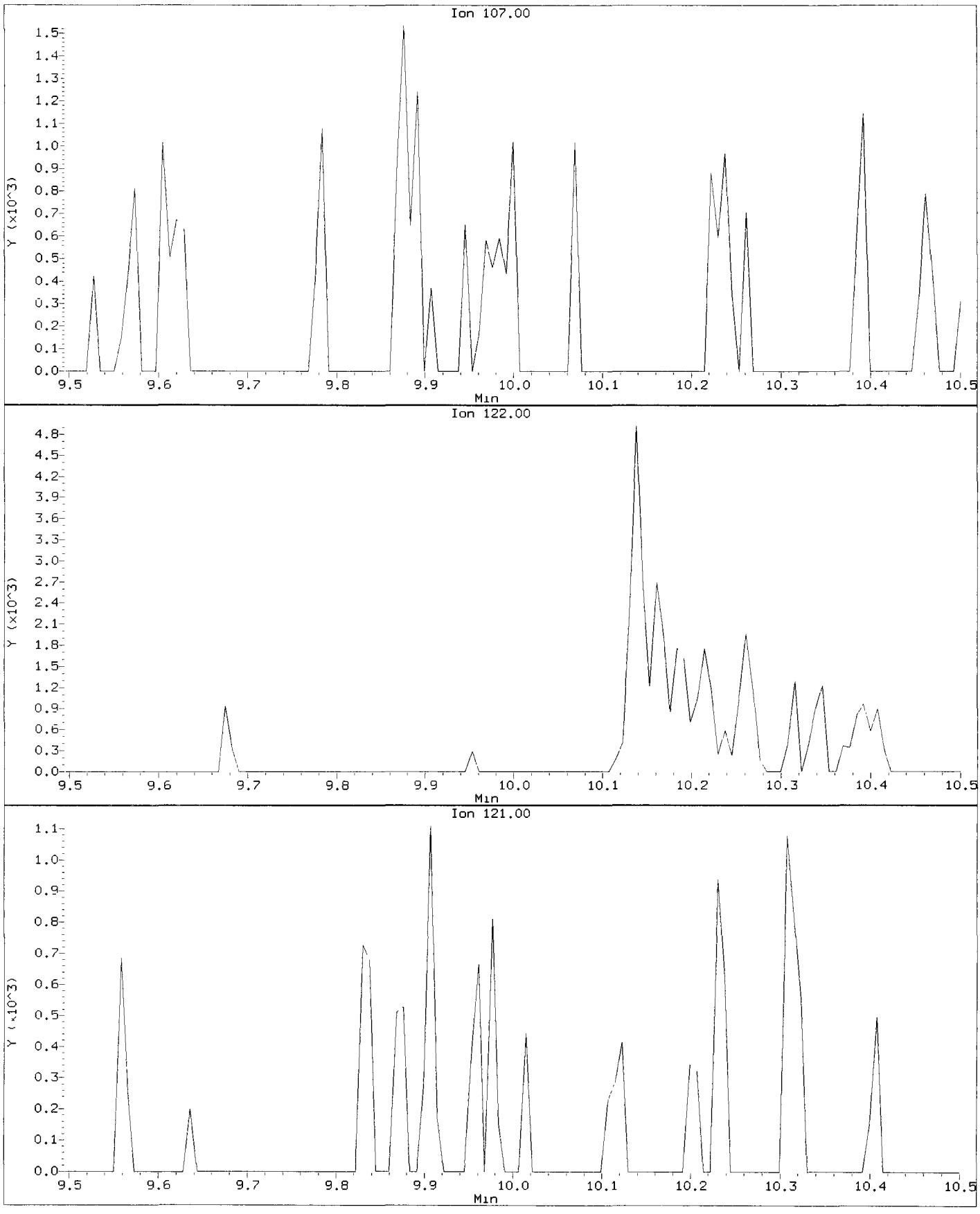
Lab ID: TX57C, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem1/nt10.1/20111206.b/tx57c.d
Injection Date: 06-DEC-2011 17:59
Instrument: nt10.1
Client Sample ID: SD0014

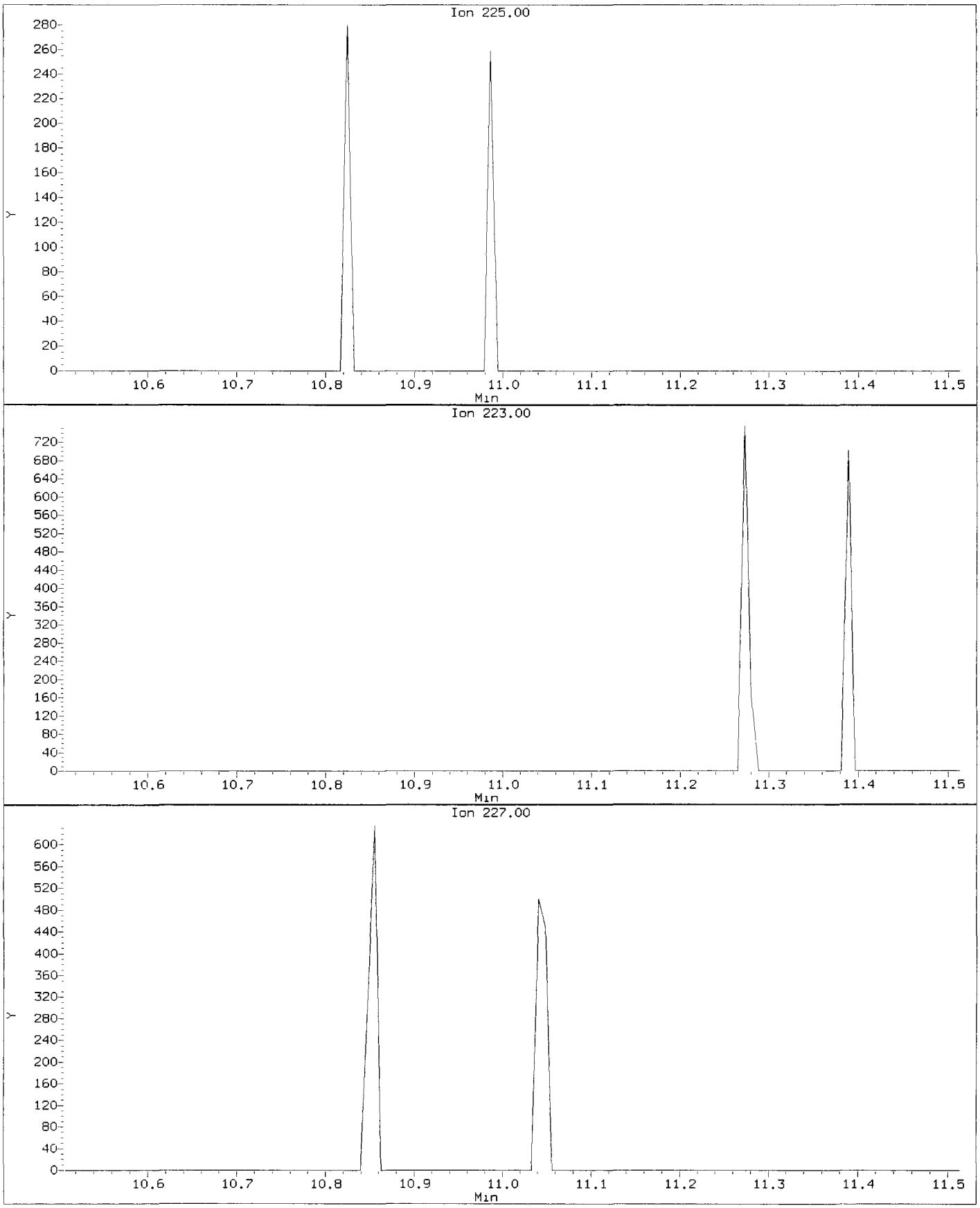
Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



TX57 0064

Data File: /chem1/nt10.1/20111206.b/tx57c.d
Injection Date: 06-DEC-2011 17:59
Instrument: nt10.1
Client Sample ID: SD0014

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 12/9/11

Data file : /chem1/nt10.i/20111206.b/tx57dms.d
Lab Smp Id: TX57DMS Client Smp ID: SD0015 MS
Inj Date : 06-DEC-2011 19:08
Operator : YZ Inst ID: nt10.i
Smp Info : TX57DMS
Misc Info : 11-26622
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 09-Dec-2011 09:12 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 10 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	13.70000	Weight of sample extracted (g)
M	21.40000	% 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)
$	1 2-Fluorophenol	112	6.067	6.043	(0.742)	210081	4.49216	417.2
$	2 Phenol-d5	99	7.628	7.612	(0.933)	288136	4.79742	445.5
	3 Phenol	94	7.651	7.635	(0.936)	216273	2.92011	271.2
$	5 2-Chlorophenol-d4	132	7.836	7.828	(0.958)	236179	4.34538	403.5
	4 Bis(2-Chloroethyl)ether	93	7.759	7.759	(0.949)	143200	3.18750	296.0
	6 2-Chlorophenol	128	7.859	7.851	(0.961)	183280	3.17470	294.8
	7 1,3-Dichlorobenzene	146	8.115	8.107	(0.992)	221606	2.96627	275.5
*	8 1,4-Dichlorobenzene-d4	152	8.177	8.177	(1.000)	191255	4.00000	
	9 1,4-Dichlorobenzene	146	8.208	8.200	(1.004)	246284	3.22638	299.6
$	10 1,2-Dichlorobenzene-d4	152	8.526	8.518	(1.043)	134554	2.85306	265.0
	12 1,2-Dichlorobenzene	146	8.549	8.549	(1.046)	217079	3.09857	287.8
	11 Benzyl alcohol	108	8.472	8.464	(1.036)	109392	3.18840	296.1
	14 2,2'-oxybis(1-Chloropropane)	121	8.759	8.767	(1.071)	51486	2.77114	257.3
	13 2-Methylphenol	108	8.720	8.712	(1.066)	161093	3.37616	313.5

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	9.124	9.116	(1.116)	92277	3.06037	284.2
	16 N-Nitroso-di-n-propylamine	70	9.015	9.015	(1.103)	128318	3.07846	285.9
	15 4-Methylphenol	108	9.000	8.984	(1.101)	370297	7.13205	662.3
$	18 Nitrobenzene-d5	82	9.248	9.248	(0.872)	241070	3.60600	334.9
	19 Nitrobenzene	77	9.287	9.279	(0.875)	252089	3.90659	362.8
	20 Isophorone	82	9.737	9.729	(0.918)	377610	3.52888	327.7
	21 2-Nitrophenol	139	9.907	9.899	(0.934)	109060	3.26367	303.1
	22 2,4-Dimethylphenol	107	10.007	9.999	(0.943)	652755	10.4501	970.5
	23 Bis(2-Chloroethoxy)methane	93	10.184	10.176	(0.960)	188596	3.71443	344.9
	24 Benzoic acid	105	10.192	10.246	(0.961)	222070	5.58657	518.8(R)
	25 2,4-Dichlorophenol	162	10.369	10.361	(0.977)	730004	11.7831	1094
	26 1,2,4-Trichlorobenzene	180	10.531	10.523	(0.993)	282847	3.52408	327.3
*	27 Naphthalene-d8	136	10.608	10.600	(1.000)	628932	4.00000	
	28 Naphthalene	128	10.647	10.639	(1.004)	1723870	11.3208	1051(R)
	29 4-Chloroaniline	127	10.817	10.793	(1.020)	45115	0.72699	67.51
	30 Hexachlorobutadiene	225	11.018	11.010	(1.039)	243077	3.40973	316.6
	31 4-Chloro-3-methylphenol	107	11.776	11.768	(1.110)	549986	9.63127	894.4
	32 2-Methylnaphthalene	142	12.016	12.008	(1.133)	770930	6.74787	626.6
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	12.643	12.635	(0.894)	661544	10.1855	945.9
	35 2,4,5-Trichlorophenol	196	12.720	12.705	(0.899)	721546	10.9212	1014
$	36 2-Fluorobiphenyl	172	12.798	12.782	(0.905)	612955	3.34338	310.5
	37 2-Chloronaphthalene	162	12.984	12.968	(0.918)	497375	3.40415	316.1
	38 2-Nitroaniline	65	13.262	13.246	(0.938)	443004	12.3101	1143
	39 Dimethylphthalate	163	13.711	13.695	(0.969)	631071	3.12377	290.1
	40 Acenaphthylene	152	13.835	13.819	(0.978)	845329	3.96772	368.5
	41 2,6-Dinitrotoluene	165	13.835	13.819	(0.978)	393260	9.72648	903.3
*	42 Acenaphthene-d10	164	14.144	14.129	(1.000)	507095	4.00000	
	43 3-Nitroaniline	138	14.106	14.090	(0.997)	126866	4.43959	412.3
	44 Acenaphthene	153	14.214	14.198	(1.005)	2119161	15.9332	1480(R)
	45 2,4-Dinitrophenol	184	14.330	14.306	(1.013)	89287	2.98282	277.0
	46 Dibenzofuran	168	14.539	14.523	(1.028)	1815365	8.51289	790.6(R)
	47 4-Nitrophenol	109	14.500	14.461	(1.025)	478845	12.7862	1187
	48 2,4-Dinitrotoluene	165	14.631	14.616	(1.034)	614311	11.3628	1055
	50 Diethylphthalate	149	15.149	15.134	(1.071)	649960	3.72556	346.0
	49 Fluorene	166	15.235	15.219	(1.077)	2453477	14.6054	1356(R)
	51 4-Chlorophenyl-phenylether	204	15.250	15.234	(1.078)	548267	4.62131	429.2
	52 4-Nitroaniline	138	15.350	15.335	(1.085)	141372	4.88054	453.2
	53 4,6-Dinitro-2-methylphenol	198	15.458	15.435	(0.902)	437134	8.47937	787.4
	54 N-Nitrosodiphenylamine	169	15.505	15.489	(0.905)	615283	4.32263	401.4
$	55 2,4,6-Tribromophenol	330	15.767	15.751	(1.115)	253803	5.68140	527.6
	56 4-Bromophenyl-phenylether	248	16.237	16.214	(0.948)	323127	3.46024	321.3
	57 Hexachlorobenzene	284	16.538	16.507	(0.965)	386282	2.85849	265.5
	58 Pentachlorophenol	266	16.910	16.871	(0.987)	486644	9.35782	869.0
*	59 Phenanthrene-d10	188	17.134	17.111	(1.000)	1159255	4.00000	
	60 Phenanthrene	178	17.196	17.157	(1.004)	13471954	45.1453 E	4192(R)
	61 Anthracene	178	17.281	17.242	(1.009)	3843122	12.7846	1187(R)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	17.614	17.583	(1.028)	1520192	6.73052	625.0
63	Di-n-butylphthalate	149	18.434	18.403	(1.076)	1700992	5.16845	480.0
64	Fluoranthene	202	19.517	19.432	(1.139)	19186770	46.6587 E	4333(R)
65	Pyrene	202	19.904	19.834	(0.904)	16537456	36.2994 E	3371(R)
$ 66	Terphenyl-d14	244	20.191	20.152	(0.917)	1185472	3.15728	293.2
67	Butylbenzylphthalate	149	21.104	21.073	(0.959)	570090	3.43870	319.3
68	Benzo(a)anthracene	228	21.979	21.932	(0.999)	6352960	12.3910	1151(R)
* 69	Chrysene-d12	240	22.010	21.956	(1.000)	1883863	4.00000	
70	3,3'-Dichlorobenzidine	252	21.964	21.917	(0.998)	415407	1.54474	143.5
71	Chrysene	228	22.049	22.002	(1.002)	6869076	14.8554	1380(R)
72	bis(2-Ethylhexyl)phthalate	149	22.126	22.095	(0.958)	917707	3.49200	324.3
* 134	Di-n-octylphthalate-d4	153	23.094	23.047	(1.000)	1847892	4.00000	
73	Di-n-octylphthalate	149	23.102	23.063	(1.000)	1203621	2.70068	250.8
74	Benzo(b)fluoranthene	252	23.744	23.651	(0.976)	9932187	18.0462	1676
75	Benzo(k)fluoranthene	252	23.744	23.690	(0.976)	9932187	17.4130	1617
76	Benzo(a)pyrene	252	24.224	24.147	(0.996)	4268693	9.44594	877.2(R)
* 77	Perylene-d12	264	24.317	24.232	(1.000)	1806878	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.356	26.216	(1.084)	1752268	2.84538	264.2
79	Dibenzo(a,h)anthracene	278	26.364	26.239	(1.084)	1189104	2.30797	214.3(M)
80	Benzo(g,h,i)perylene	276	26.938	26.798	(1.108)	1412128	2.72514	253.1
90	N-Nitrosodimethylamine	74	3.959	3.920	(0.484)	240405	7.95124	738.4
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	3.974	3.920	(0.486)	307705	10.9311	1015
105	1-methylnaphthalene	142	12.225	12.217	(1.152)	659563	5.62404	522.3
111	Azobenzene (1,2-DP-Hydrazine)	77	15.566	15.551	(1.101)	791404	4.66699	433.4
187	Total Benzofluoranthenes	252	23.744	23.690	(0.976)	9920066	18.7091	1737(R)
99	Perylene	252	24.348	24.278	(1.001)	2297147	5.14988	478.2

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: nt10.i
Lab File ID: tx57dms.d
Lab Smp Id: TX57DMS
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26622

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: SD0015 MS
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	191255	10.64
27 Naphthalene-d8	574010	287005	1148020	628932	9.57
42 Acenaphthene-d10	467963	233982	935926	507095	8.36
59 Phenanthrene-d10	976150	488075	1952300	1159255	18.76
69 Chrysene-d12	1397129	698564	2794258	1883863	34.84
134 Di-n-octylphthala	1264537	632268	2529074	1847892	46.13
77 Perylene-d12	1407308	703654	2814616	1806878	28.39

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.61	0.08
42 Acenaphthene-d10	14.13	13.63	14.63	14.14	0.11
59 Phenanthrene-d10	17.11	16.61	17.61	17.13	0.14
69 Chrysene-d12	21.96	21.46	22.46	22.01	0.25
134 Di-n-octylphthala	23.05	22.55	23.55	23.09	0.20
77 Perylene-d12	24.23	23.73	24.73	24.32	0.35

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: INTEGRAL
Client SDG: TX57
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: TX57DMS
Client Smp ID: SD0015 MS
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: MS
SpikeList File: SHORTPSDDA.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26622

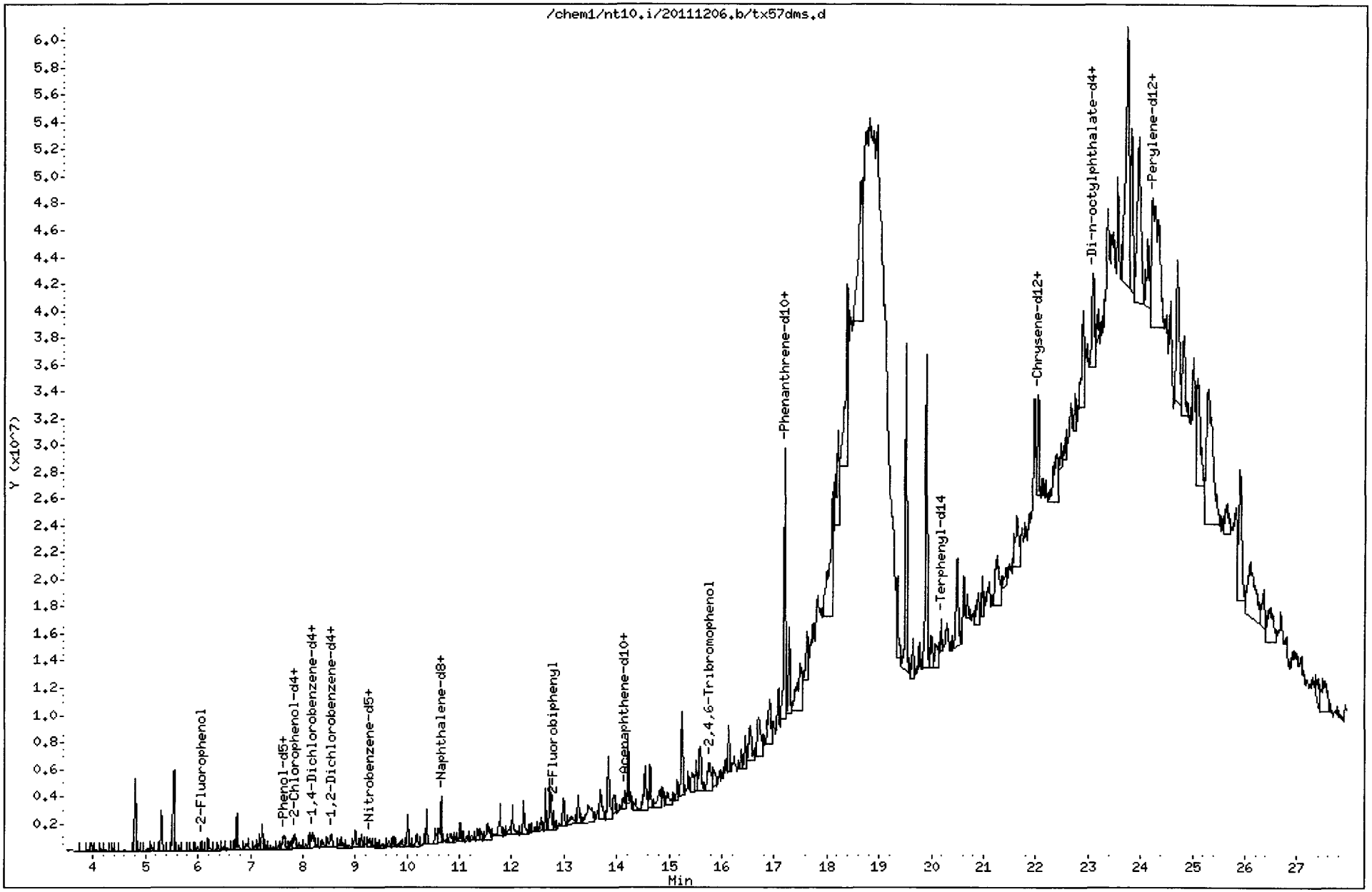
SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	464.3	271.2	58.40	30-160
7	1,3-Dichlorobenzen	464.3	275.5	59.33	30-160
9	1,4-Dichlorobenzen	464.3	299.6	64.53	30-160
11	Benzyl alcohol	464.3	296.1	63.77	30-160
12	1,2-Dichlorobenzen	464.3	287.8	61.97	30-160
13	2-Methylphenol	464.3	313.5	67.52	30-160
15	4-Methylphenol	928.7	662.3	71.32	30-160
17	Hexachloroethane	464.3	284.2	61.21	30-160
22	2,4-Dimethylphenol	1393	970.5	69.67	30-160
24	Benzoic acid	2554	518.8	20.31*	30-160
26	1,2,4-Trichloroben	464.3	327.3	70.48	30-160
28	Naphthalene	464.3	1051	226.42*	30-160
30	Hexachlorobutadien	464.3	316.6	68.19	30-160
32	2-Methylnaphthalen	464.3	626.6	134.96	30-160
39	Dimethylphthalate	464.3	290.1	62.48	30-160
40	Acenaphthylene	464.3	368.5	79.35	30-160
44	Acenaphthene	464.3	1480	318.66*	30-160
46	Dibenzofuran	464.3	790.6	170.26*	30-160
49	Fluorene	464.3	1356	292.11*	30-160
50	Diethylphthalate	464.3	346.0	74.51	30-160
54	N-Nitrosodiphenyla	464.3	401.4	86.45	30-160
57	Hexachlorobenzene	464.3	265.5	57.17	30-160
58	Pentachlorophenol	1393	869.0	62.39	30-160
60	Phenanthrene	464.3	4192	902.91*	30-160
61	Anthracene	464.3	1187	255.69*	30-160
63	Di-n-butylphthalat	464.3	480.0	103.37	30-160
64	Fluoranthene	464.3	4333	933.17*	30-160
65	Pyrene	464.3	3371	725.99*	30-160
67	Butylbenzylphthala	464.3	319.3	68.77	30-160
68	Benzo(a)anthracene	464.3	1151	247.82*	30-160
71	Chrysene	464.3	1380	297.11*	30-160
72	bis(2-Ethylhexyl)p	464.3	324.3	69.84	30-160
73	Di-n-octylphthalat	464.3	250.8	54.01	30-160

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	464.3	877.2	188.92*	30-160
78 Indeno(1,2,3-cd)py	464.3	264.2	56.91	30-160
79 Dibenzo(a,h)anthra	464.3	214.3	46.16	30-160
80 Benzo(g,h,i)peryle	464.3	253.1	54.50	30-160
105 1-methylnaphthalen	464.3	522.3	112.48	30-160
187 Total Benzofluoran	928.7	1737	187.09*	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	696.5	417.2	59.90	30-160
$ 2 Phenol-d5	696.5	445.5	63.97	30-160
$ 5 2-Chlorophenol-d4	696.5	403.5	57.94	30-160
$ 10 1,2-Dichlorobenzen	464.3	265.0	57.06	30-160
$ 18 Nitrobenzene-d5	464.3	334.9	72.12	30-160
$ 36 2-Fluorobiphenyl	464.3	310.5	66.87	30-160
$ 55 2,4,6-Tribromophen	696.5	527.6	75.75	30-160
$ 66 Terphenyl-d14	464.3	293.2	63.15	30-160

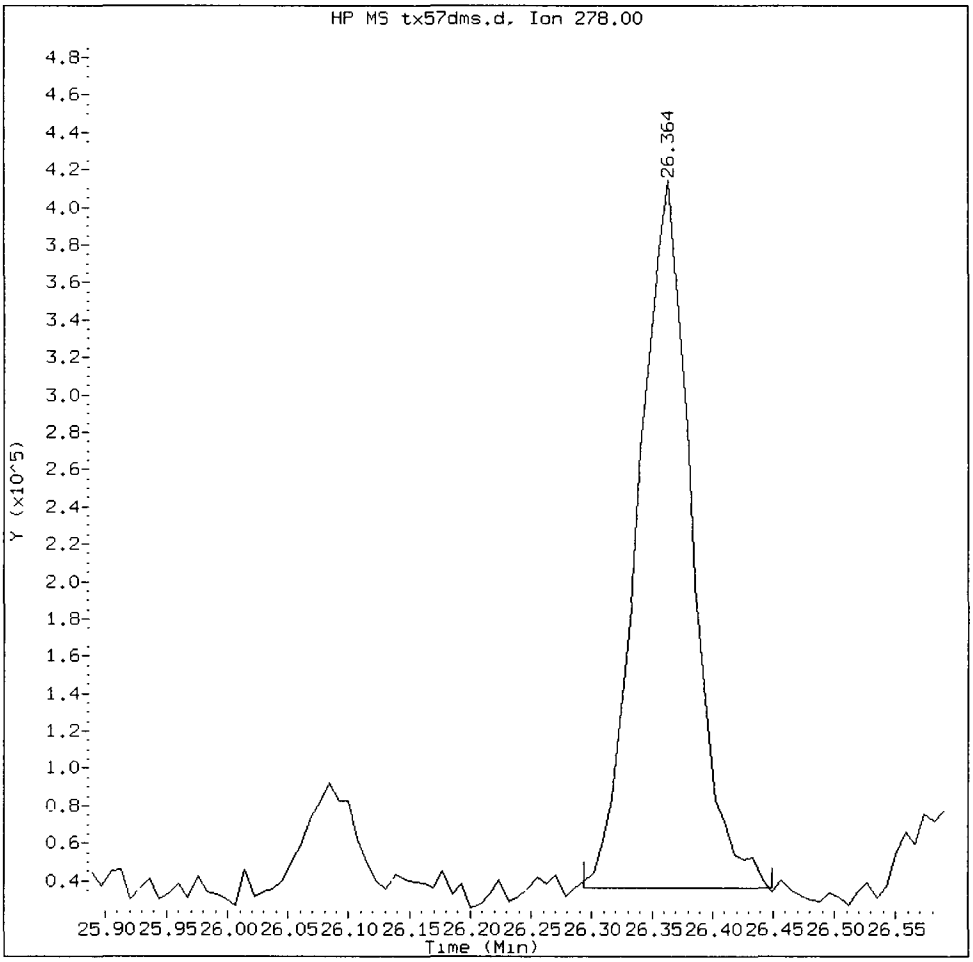
Data File: /chem1/nt10.i/20111206.b/tx57dms.d
Date : 06-DEC-2011 19:08
Client ID: SD0015 MS
Sample Info: TX57DMS
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



TX57DMS, /chem1/nt10.i/20111206.b/tx57dms.d

Dibenzo(a,h)anthracene Amount: 2.31 Area: 1189104



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VE Date: 12/9/11

CO-ELUTION SUMMARY FOR FILE - tx57dms.d

Lab ID: TX57DMS, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

RT	CO-ELUTION COMPOUNDS
13.835	Acenaphthylene and 2,6-Dinitrotoluene
23.744	Benzo(k)fluoranthene and Benzo(b)fluoranthene

Analytical Resources, Inc.

YZ 12/9/11

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111206.b/tx57dmsd.d
Lab Smp Id: TX57DMSD Client Smp ID: SD0015 MSD
Inj Date : 06-DEC-2011 19:42
Operator : YZ Inst ID: nt10.i
Smp Info : TX57DMSD
Misc Info : 11-26622
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 09-Dec-2011 09:12 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 11 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	13.60000	Weight of sample extracted (g)
M	21.40000	% Moisture

Cpnd Variable Local Compound Variable

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1	2-Fluorophenol	112	6.066	6.043	(0.742)	202542	4.54548	425.2
$	2	Phenol-d5	99	7.627	7.612	(0.933)	290072	5.06887	474.2
	3	Phenol	94	7.651	7.635	(0.936)	217995	3.08915	289.0
$	5	2-Chlorophenol-d4	132	7.836	7.828	(0.958)	257385	4.97010	464.9
	4	Bis(2-Chloroethyl)ether	93	7.766	7.759	(0.950)	159644	3.72954	348.9
	6	2-Chlorophenol	128	7.867	7.851	(0.962)	165469	3.00815	281.4
	7	1,3-Dichlorobenzene	146	8.114	8.107	(0.992)	208049	2.92274	273.4
*	8	1,4-Dichlorobenzene-d4	152	8.176	8.177	(1.000)	182229	4.00000	
	9	1,4-Dichlorobenzene	146	8.207	8.200	(1.004)	227276	3.12484	292.3
$	10	1,2-Dichlorobenzene-d4	152	8.526	8.518	(1.043)	135862	3.02348	282.8
	12	1,2-Dichlorobenzene	146	8.549	8.549	(1.046)	223085	3.34202	312.6
	11	Benzyl alcohol	108	8.471	8.464	(1.036)	106122	3.24629	303.7
	14	2,2'-oxybis(1-Chloropropane)	121	8.774	8.767	(1.073)	53906	3.04510	284.9
	13	2-Methylphenol	108	8.728	8.712	(1.067)	158527	3.48695	326.2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	9.123	9.116	(1.116)	76469	2.66171	249.0
	16 N-Nitroso-di-n-propylamine	70	9.015	9.015	(1.103)	151198	3.80704	356.1
	15 4-Methylphenol	108	9.007	8.984	(1.102)	370720	7.49386	701.0
$	18 Nitrobenzene-d5	82	9.255	9.248	(0.872)	235060	3.70288	346.4
	19 Nitrobenzene	77	9.286	9.279	(0.875)	256298	4.18281	391.3
	20 Isophorone	82	9.737	9.729	(0.918)	360303	3.54601	331.7
	21 2-Nitrophenol	139	9.907	9.899	(0.934)	115862	3.65140	341.6
	22 2,4-Dimethylphenol	107	10.014	9.999	(0.944)	609481	10.2756	961.3
	23 Bis(2-Chloroethoxy)methane	93	10.184	10.176	(0.960)	176892	3.66899	343.2
	24 Benzoic acid	105	10.192	10.246	(0.961)	190057	5.04110	471.6(R)
	25 2,4-Dichlorophenol	162	10.377	10.361	(0.978)	682570	11.6028	1085
	26 1,2,4-Trichlorobenzene	180	10.531	10.523	(0.993)	289368	3.79685	355.2
*	27 Naphthalene-d8	136	10.608	10.600	(1.000)	597207	4.00000	
	28 Naphthalene	128	10.647	10.639	(1.004)	1865776	12.9036	1207(R)
	29 4-Chloroaniline	127	10.809	10.793	(1.019)	76175	1.29270	120.9
	30 Hexachlorobutadiene	225	11.010	11.010	(1.038)	262504	3.87785	362.8
	31 4-Chloro-3-methylphenol	107	11.784	11.768	(1.111)	601854	11.0995	1038
	32 2-Methylnaphthalene	142	12.016	12.008	(1.133)	807627	7.44460	696.4
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	12.643	12.635	(0.894)	706422	11.8327	1107
	35 2,4,5-Trichlorophenol	196	12.728	12.705	(0.900)	735216	12.1064	1133
$	36 2-Fluorobiphenyl	172	12.797	12.782	(0.905)	597265	3.54420	331.6
	37 2-Chloronaphthalene	162	12.983	12.968	(0.918)	508250	3.78438	354.0
	38 2-Nitroaniline	65	13.262	13.246	(0.938)	452221	13.6709	1279
	39 Dimethylphthalate	163	13.711	13.695	(0.969)	674662	3.63313	339.9
	40 Acenaphthylene	152	13.835	13.819	(0.978)	846231	4.32113	404.2
	41 2,6-Dinitrotoluene	165	13.835	13.819	(0.978)	408972	11.0043	1029
*	42 Acenaphthene-d10	164	14.144	14.129	(1.000)	466118	4.00000	
	43 3-Nitroaniline	138	14.113	14.090	(0.998)	164788	6.27359	586.9
	44 Acenaphthene	153	14.214	14.198	(1.005)	2364752	19.3427	1809(R)
	45 2,4-Dinitrophenol	184	14.330	14.306	(1.013)	99839	3.62486	339.1
	46 Dibenzofuran	168	14.538	14.523	(1.028)	1939570	9.89491	925.7(R)
	47 4-Nitrophenol	109	14.500	14.461	(1.025)	419341	12.1908	1140(M)
	48 2,4-Dinitrotoluene	165	14.639	14.616	(1.035)	627949	12.6361	1182
	50 Diethylphthalate	149	15.149	15.134	(1.071)	700843	4.37038	408.8
	49 Fluorene	166	15.242	15.219	(1.078)	2674851	17.3231	1621(R)
	51 4-Chlorophenyl-phenylether	204	15.250	15.234	(1.078)	553412	5.07475	474.7
	52 4-Nitroaniline	138	15.358	15.335	(1.086)	203551	7.64490	715.2
	53 4,6-Dinitro-2-methylphenol	198	15.466	15.435	(0.902)	421203	7.97760	746.3
	54 N-Nitrosodiphenylamine	169	15.504	15.489	(0.904)	593064	4.06824	380.6
$	55 2,4,6-Tribromophenol	330	15.766	15.751	(1.115)	232223	5.65532	529.0
	56 4-Bromophenyl-phenylether	248	16.244	16.214	(0.948)	350671	3.66661	343.0
	57 Hexachlorobenzene	284	16.538	16.507	(0.965)	414533	2.99518	280.2
	58 Pentachlorophenol	266	16.910	16.871	(0.986)	459174	8.64585	808.8
*	59 Phenanthrene-d10	188	17.142	17.111	(1.000)	1187263	4.00000	
	60 Phenanthrene	178	17.196	17.157	(1.003)	17196330	56.2665	5264(R)
	61 Anthracene	178	17.281	17.242	(1.008)	5186654	16.8469	1576(R)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	17.621	17.583	(1.028)	2033607	8.79122	822.4
63	Di-n-butylphthalate	149	18.442	18.403	(1.076)	16534615	49.0551	4589(R)
64	Fluoranthene	202	19.509	19.432	(1.138)	22313858	52.9831	4957(RM)
65	Pyrene	202	19.896	19.834	(0.904)	18753215	42.7662	4001(R)
$ 66	Terphenyl-d14	244	20.190	20.152	(0.917)	1246595	3.44939	322.7
67	Butylbenzylphthalate	149	21.104	21.073	(0.959)	608249	3.81177	356.6
68	Benzo(a)anthracene	228	21.986	21.932	(0.999)	9975375	20.2141	1891(R)
* 69	Chrysene-d12	240	22.010	21.956	(1.000)	1813238	4.00000	
70	3,3'-Dichlorobenzidine	252	21.963	21.917	(0.998)	456651	1.76425	165.0
71	Chrysene	228	22.056	22.002	(1.002)	11008266	24.7343	2314(R)
72	bis(2-Ethylhexyl)phthalate	149	22.126	22.095	(0.958)	989567	3.97136	371.5
* 134	Di-n-octylphthalate-d4	153	23.094	23.047	(1.000)	1752079	4.00000	
73	Di-n-octylphthalate	149	23.101	23.063	(1.000)	1204902	2.85140	266.7
74	Benzo(b)fluoranthene	252	23.752	23.651	(0.976)	13790581	28.1797	2636
75	Benzo(k)fluoranthene	252	23.752	23.690	(0.976)	13790581	27.1908	2544
76	Benzo(a)pyrene	252	24.232	24.147	(0.996)	5977951	14.8770	1392(R)
* 77	Perylene-d12	264	24.325	24.232	(1.000)	1606636	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.348	26.216	(1.083)	2038208	3.72220	348.2
79	Dibenzo(a,h)anthracene	278	26.355	26.239	(1.083)	1351048	2.94911	275.9
80	Benzo(g,h,i)perylene	276	26.938	26.798	(1.107)	1456867	3.16188	295.8
90	N-Nitrosodimethylamine	74	3.958	3.920	(0.484)	232422	8.06797	754.7
91	Aniline	93	7.697	7.658	(0.941)	47587	0.33139	31.00(M)
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	3.974	3.920	(0.486)	320093	11.9344	1116
105	1-methylnaphthalene	142	12.232	12.217	(1.153)	647836	5.81749	544.2
111	Azobenzene (1,2-DP-Hydrazine)	77	15.566	15.551	(1.101)	1212632	7.77967	727.8(M)
187	Total Benzofluoranthenes	252	23.752	23.690	(0.976)	13825968	29.3254	2743(R)
99	Perylene	252	24.363	24.278	(1.002)	2648276	6.67703	624.6

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: nt10.i
Lab File ID: tx57dmsd.d
Lab Smp Id: TX57DMSD
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26622

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: SD0015 MSD
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	182229	5.42
27 Naphthalene-d8	574010	287005	1148020	597207	4.04
42 Acenaphthene-d10	467963	233982	935926	466118	-0.39
59 Phenanthrene-d10	976150	488075	1952300	1187263	21.63
69 Chrysene-d12	1397129	698564	2794258	1813238	29.78
134 Di-n-octylphthala	1264537	632268	2529074	1752079	38.55
77 Perylene-d12	1407308	703654	2814616	1606636	14.16

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.61	0.07
42 Acenaphthene-d10	14.13	13.63	14.63	14.14	0.11
59 Phenanthrene-d10	17.11	16.61	17.61	17.14	0.18
69 Chrysene-d12	21.96	21.46	22.46	22.01	0.25
134 Di-n-octylphthala	23.05	22.55	23.55	23.09	0.20
77 Perylene-d12	24.23	23.73	24.73	24.32	0.38

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: INTEGRAL
Client SDG: TX57
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: TX57DMSD
Client Smp ID: SD0015 MSD
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: MSD
SpikeList File: SHORTPSDDA.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26622

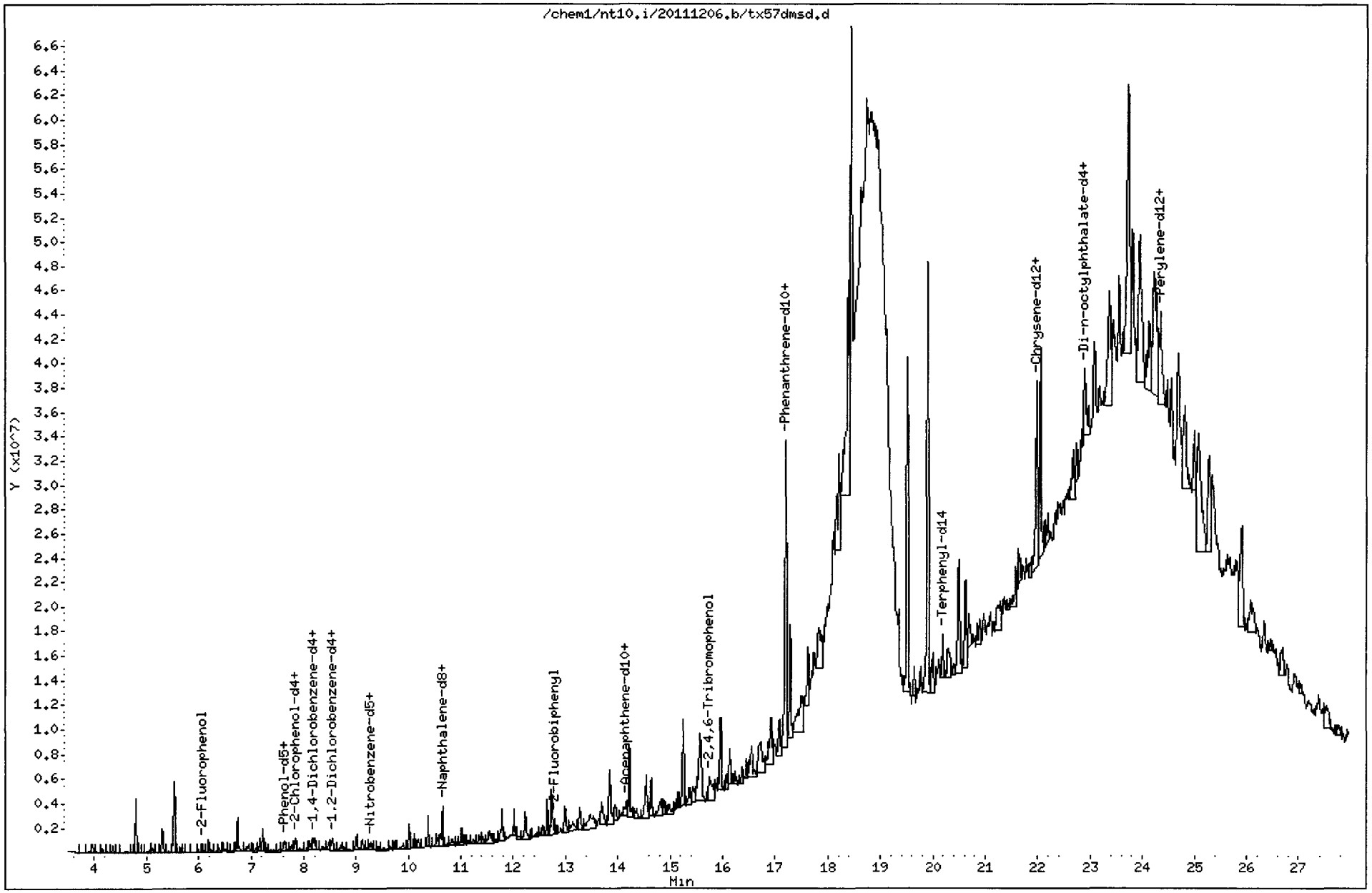
SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	467.7	289.0	61.78	30-160
7	1,3-Dichlorobenzen	467.7	273.4	58.45	30-160
9	1,4-Dichlorobenzen	467.7	292.3	62.50	30-160
11	Benzyl alcohol	467.7	303.7	64.93	30-160
12	1,2-Dichlorobenzen	467.7	312.6	66.84	30-160
13	2-Methylphenol	467.7	326.2	69.74	30-160
15	4-Methylphenol	935.5	701.0	74.94	30-160
17	Hexachloroethane	467.7	249.0	53.23	30-160
22	2,4-Dimethylphenol	1403	961.3	68.50	30-160
24	Benzoic acid	2573	471.6	18.33*	30-160
26	1,2,4-Trichloroben	467.7	355.2	75.94	30-160
28	Naphthalene	467.7	1207	258.07*	30-160
30	Hexachlorobutadien	467.7	362.8	77.56	30-160
32	2-Methylnaphthalen	467.7	696.4	148.89	30-160
39	Dimethylphthalate	467.7	339.9	72.66	30-160
40	Acenaphthylene	467.7	404.2	86.42	30-160
44	Acenaphthene	467.7	1809	386.85*	30-160
46	Dibenzofuran	467.7	925.7	197.90*	30-160
49	Fluorene	467.7	1621	346.46*	30-160
50	Diethylphthalate	467.7	408.8	87.41	30-160
54	N-Nitrosodiphenyla	467.7	380.6	81.36	30-160
57	Hexachlorobenzene	467.7	280.2	59.90	30-160
58	Pentachlorophenol	1403	808.8	57.64	30-160
60	Phenanthrene	467.7	5264	1125.33*	30-160
61	Anthracene	467.7	1576	336.94*	30-160
63	Di-n-butylphthalat	467.7	4589	981.10*	30-160
64	Fluoranthene	467.7	4957	1059.66*	30-160
65	Pyrene	467.7	4001	855.32*	30-160
67	Butylbenzylphthala	467.7	356.6	76.24	30-160
68	Benzo(a)anthracene	467.7	1891	404.28*	30-160
71	Chrysene	467.7	2314	494.69*	30-160
72	bis(2-Ethylhexyl)p	467.7	371.5	79.43	30-160
73	Di-n-octylphthalat	467.7	266.7	57.03	30-160

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	467.7	1392	297.54*	30-160
78 Indeno(1,2,3-cd)py	467.7	348.2	74.44	30-160
79 Dibenzo(a,h)anthra	467.7	275.9	58.98	30-160
80 Benzo(g,h,i)peryle	467.7	295.8	63.24	30-160
105 1-methylnaphthalen	467.7	544.2	116.35	30-160
187 Total Benzofluoran	935.5	2743	293.25*	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	701.6	425.2	60.61	30-160
$ 2 Phenol-d5	701.6	474.2	67.58	30-160
$ 5 2-Chlorophenol-d4	701.6	464.9	66.27	30-160
$ 10 1,2-Dichlorobenzen	467.7	282.8	60.47	30-160
$ 18 Nitrobenzene-d5	467.7	346.4	74.06	30-160
$ 36 2-Fluorobiphenyl	467.7	331.6	70.88	30-160
$ 55 2,4,6-Tribromophen	701.6	529.0	75.40	30-160
$ 66 Terphenyl-d14	467.7	322.7	68.99	30-160

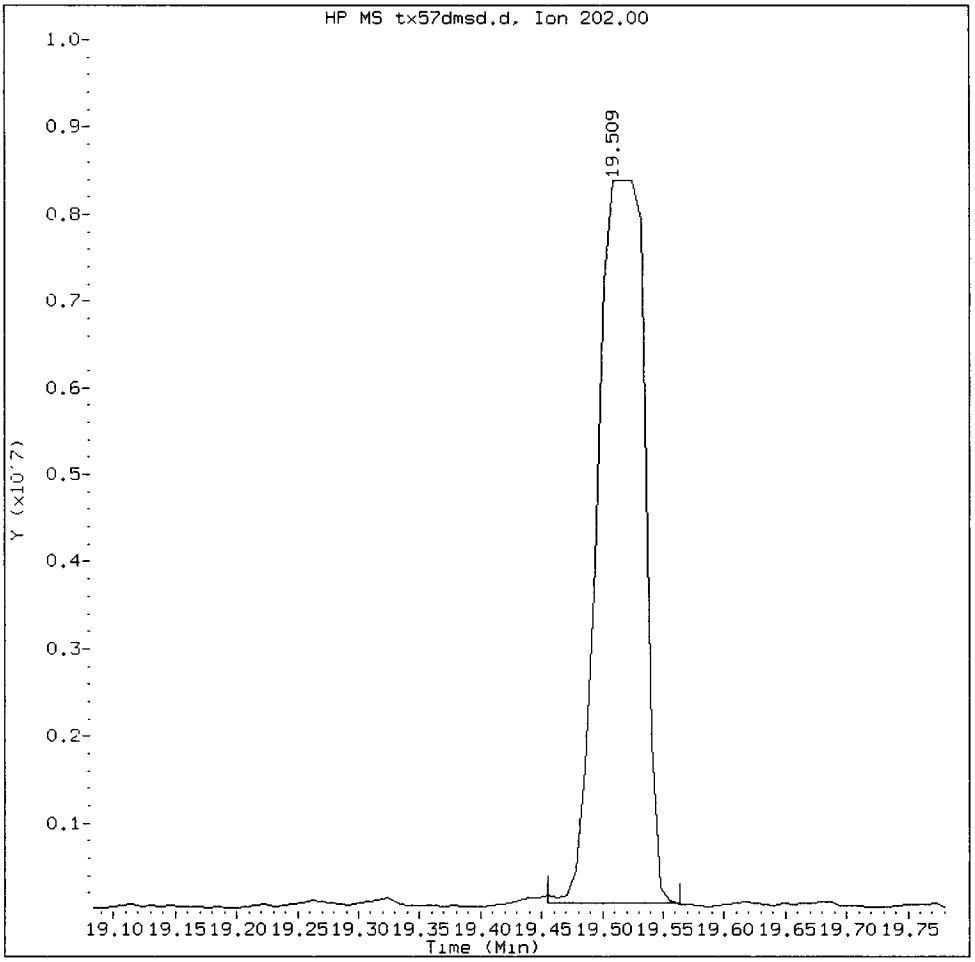
Data File: /chem1/nt10.i/20111206.b/tx57dmsd.d
Date : 06-DEC-2011 19:42
Client ID: SD0015 MSD
Sample Info: TX57DMSD
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



TX57DMSD, /chem1/nt10.i/20111206.b/tx57dmsd.d

Fluoranthene Amount: 52.98 Area: 22313858



MANUAL INTEGRATION for Fluoranthene

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VZ Date: 12/9/11

CO-ELUTION SUMMARY FOR FILE - tx57dmsd.d

Lab ID: TX57DMSD, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

RT	CO-ELUTION COMPOUNDS
13.835	Acenaphthylene and 2,6-Dinitrotoluene
23.752	Benzo(k)fluoranthene and Benzo(b)fluoranthene

YZ 12/9/11

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111206.b/tx57e.d
Lab Smp Id: TX57E Client Smp ID: SD0016
Inj Date : 06-DEC-2011 20:16
Operator : YZ Inst ID: nt10.i
Smp Info : TX57E,3
Misc Info : 11-26623
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 09-Dec-2011 10:00 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 12
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	12.20000	Weight of sample extracted (g)
M	14.70000	% 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)
$	1	2-Fluorophenol	112	6.059	6.043	(0.741)	70968	1.45052	418.2
$	2	Phenol-d5	99	7.628	7.612	(0.933)	88430	1.40735	405.7
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	7.836	7.828	(0.958)	84167	1.48020	426.7
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.177	8.177	(1.000)	200088	4.00000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.526	8.518	(1.043)	49079	0.99472	286.8
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.256	9.248	(0.873)	75874	1.05895	305.3
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.601	10.600	(1.000)	674067	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	12.024	12.008	(1.134)	13117	0.10712 J	30.88
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.798	12.782	(0.905)	203969	1.21267	349.6
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.144	14.129	(1.000)	465230	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.198	14.198	(1.004)	13503	0.11066 J	31.90
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	15.234	15.219	(1.077)	16310	0.10583 J	30.51
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.759	15.751	(1.114)	67156	1.63857	472.4
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.119	17.111	(1.000)	977321	4.00000	
	60 Phenanthrene	178	17.165	17.157	(1.003)	78946	0.31380	90.46
	61 Anthracene	178	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	Compound Not Detected.					
63	Di-n-butylphthalate	149	18.395	18.403	(1.075)	33658	0.12131 J	34.97
64	Fluoranthene	202	19.448	19.432	(1.136)	144537	0.41692	120.2
65	Pyrene	202	19.850	19.834	(0.903)	216213	0.54852	158.1
$ 66	Terphenyl-d14	244	20.160	20.152	(0.917)	382593	1.17771	339.5
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	21.948	21.932	(0.999)	83541	0.18832 J	54.29
* 69	Chrysene-d12	240	21.979	21.956	(1.000)	1629941	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.018	22.002	(1.002)	186981	0.46737	134.7
72	bis(2-Ethylhexyl)phthalate	149	22.111	22.095	(0.958)	50355	0.22987	66.27
* 134	Di-n-octylphthalate-d4	153	23.071	23.047	(1.000)	1540293	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	23.682	23.651	(0.975)	185834	0.38691 MFH	111.5(M)
75	Benzo(k)fluoranthene	252	23.682	23.690	(0.975)	180212	0.36204	104.4(M)
76	Benzo(a)pyrene	252	24.193	24.147	(0.996)	79986	0.20282	58.47(H)
* 77	Perylene-d12	264	24.278	24.232	(1.000)	1576818	4.00000	
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	26.876	26.798	(1.107)	99872	0.22085	63.67
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	12.233	12.217	(1.154)	19882	0.15818 J	45.60
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	23.682	23.690	(0.975)	182949	0.39538	114.0(M)
99	Perylene	252	24.286	24.278	(1.000)	79584	0.20445	58.94(H)

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57e.d
Lab Smp Id: TX57E
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26623

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: SD0016
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	200088	15.75
27 Naphthalene-d8	574010	287005	1148020	674067	17.43
42 Acenaphthene-d10	467963	233982	935926	465230	-0.58
59 Phenanthrene-d10	976150	488075	1952300	977321	0.12
69 Chrysene-d12	1397129	698564	2794258	1629941	16.66
134 Di-n-octylphthala	1264537	632268	2529074	1540293	21.81
77 Perylene-d12	1407308	703654	2814616	1576818	12.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.60	0.00
42 Acenaphthene-d10	14.13	13.63	14.63	14.14	0.11
59 Phenanthrene-d10	17.11	16.61	17.61	17.12	0.05
69 Chrysene-d12	21.96	21.46	22.46	21.98	0.11
134 Di-n-octylphthala	23.05	22.55	23.55	23.07	0.10
77 Perylene-d12	24.23	23.73	24.73	24.28	0.19

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: INTEGRAL
Sample Matrix: SOLID
Lab Smp Id: TX57E
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26623

Client SDG: TX57
Fraction: SV
Client Smp ID: SD0016
Operator: YZ
SampleType: SAMPLE
Quant Type: ISTD

	SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	720.7	418.2	58.02	30-160
$ 2	Phenol-d5	720.7	405.7	56.29	30-160
$ 5	2-Chlorophenol-d4	720.7	426.7	59.21	30-160
$ 10	1,2-Dichlorobenzen	480.5	286.8	59.68	30-160
$ 18	Nitrobenzene-d5	480.5	305.3	63.54	30-160
$ 36	2-Fluorobiphenyl	480.5	349.6	72.76	30-160
$ 55	2,4,6-Tribromophen	720.7	472.4	65.54	30-160
$ 66	Terphenyl-d14	480.5	339.5	70.66	30-160

Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

Client ID: SD0016

Sample Info: TX57E,3

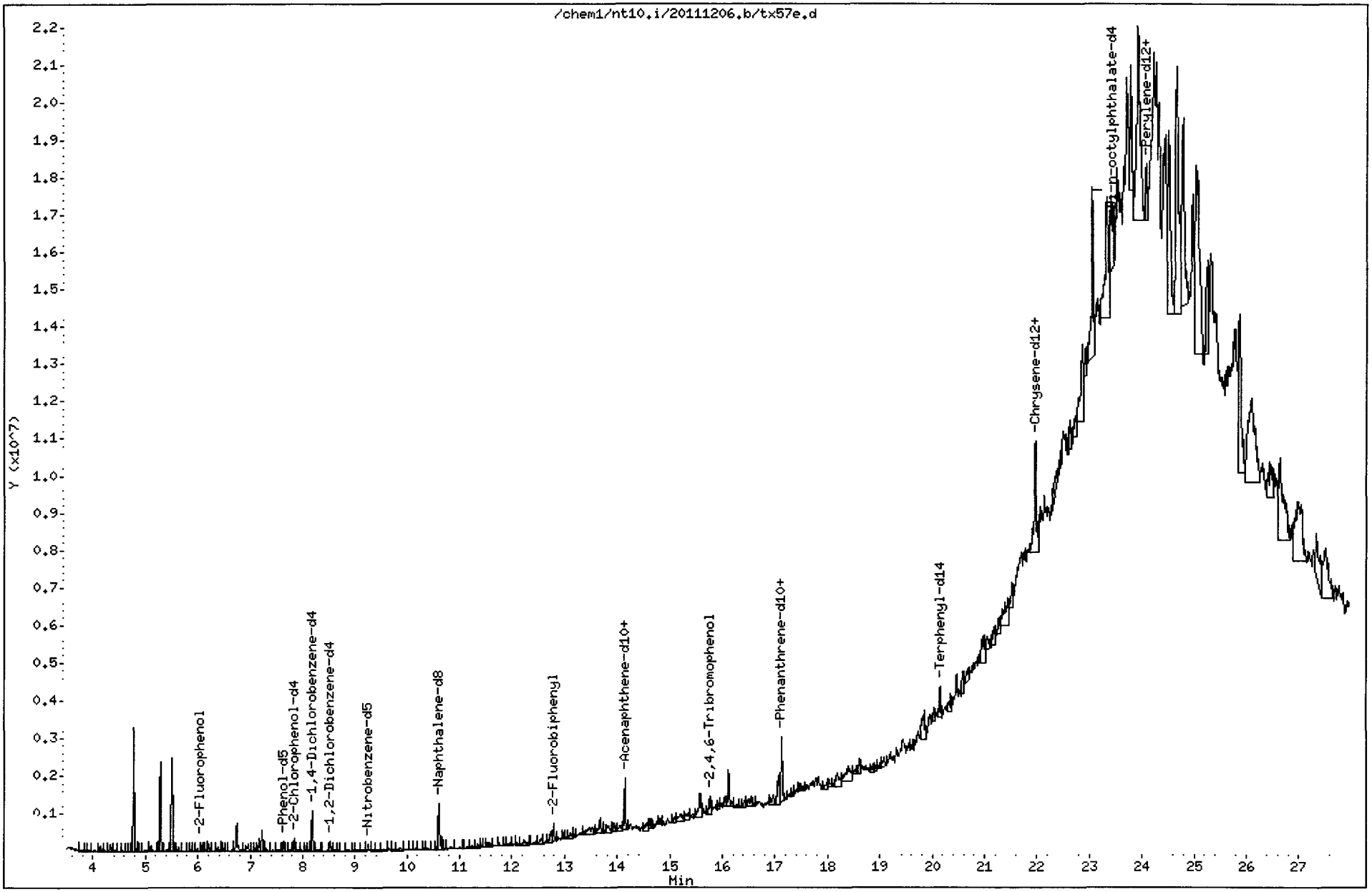
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: YZ

Column diameter: 0.25



TX57 . 00589

Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

Client ID: SD0016

Instrument: nt10.i

Sample Info: TX57E,3

Volume Injected (uL): 1.0

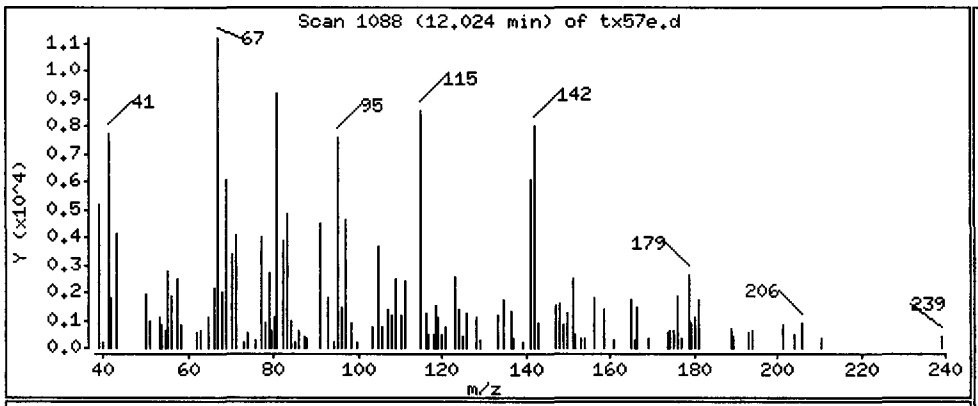
Operator: YZ

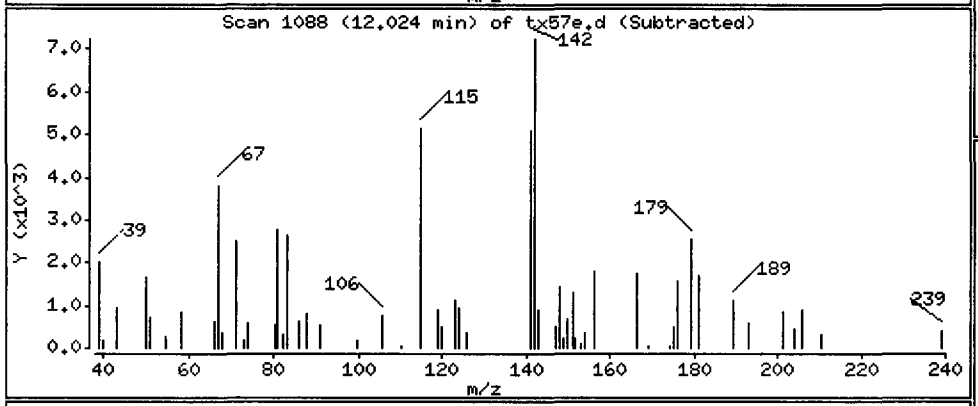
Column phase: ZB-5ms1

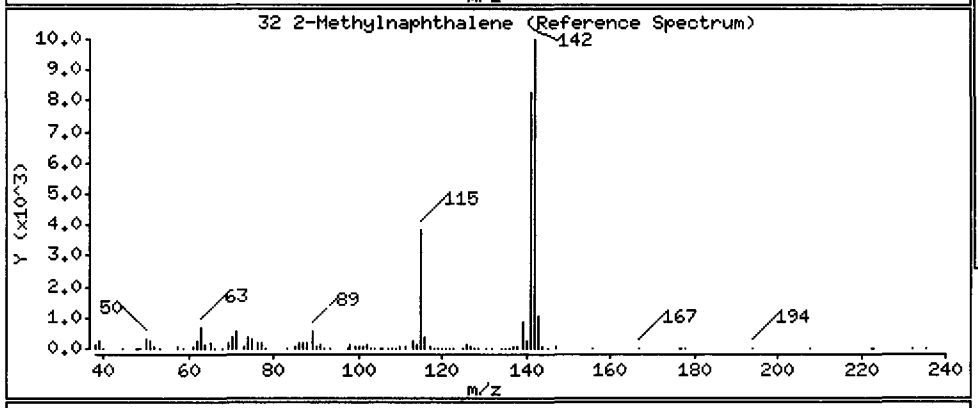
Column diameter: 0.25

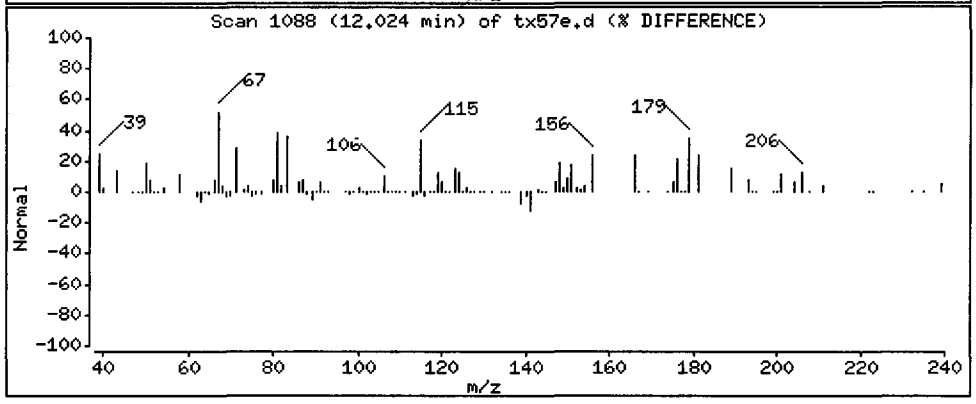
32 2-Methylnaphthalene

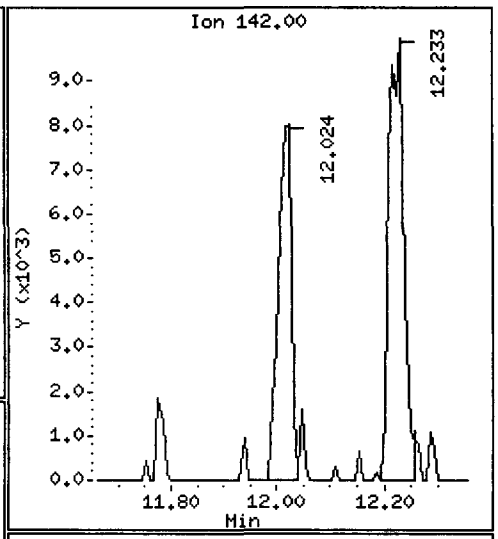
Concentration: 30.88 ug/kg

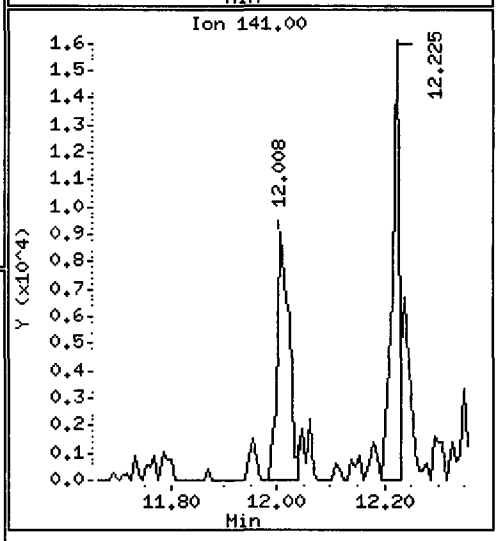












Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

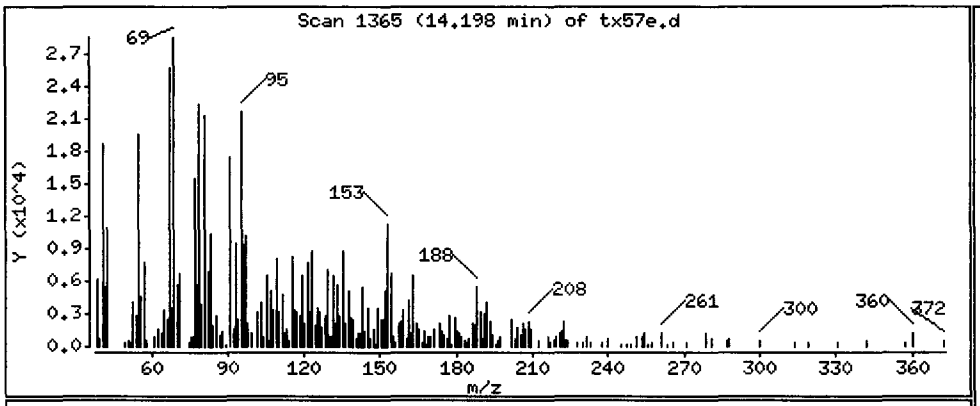
Client ID: SD0016 Instrument: nt10.i

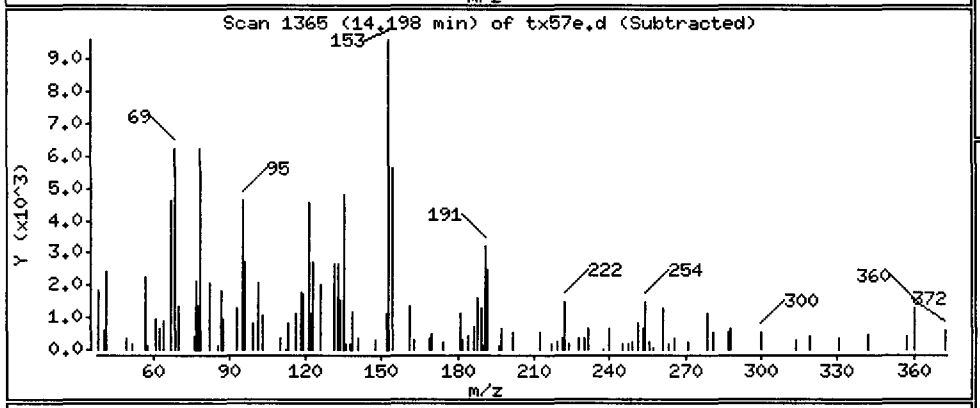
Sample Info: TX57E,3

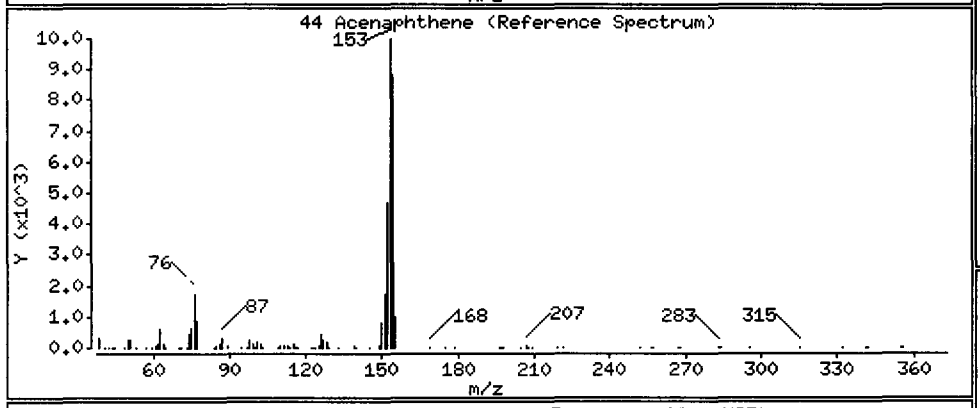
Volume Injected (uL): 1.0 Operator: YZ

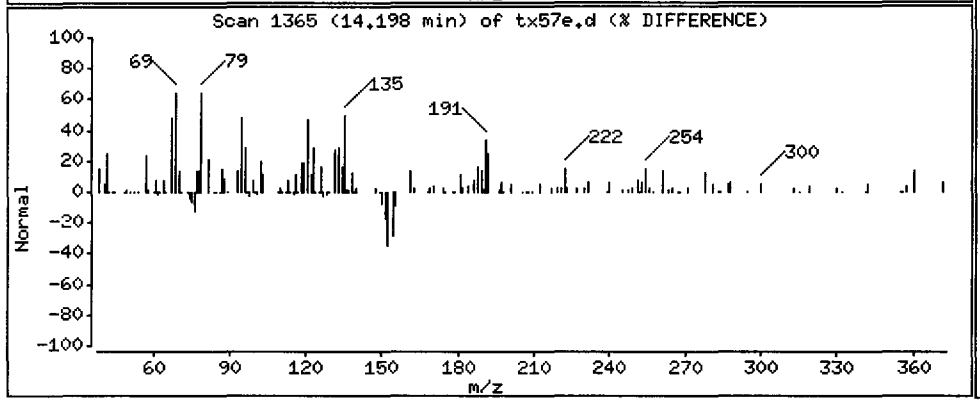
Column phase: ZB-5msi Column diameter: 0.25

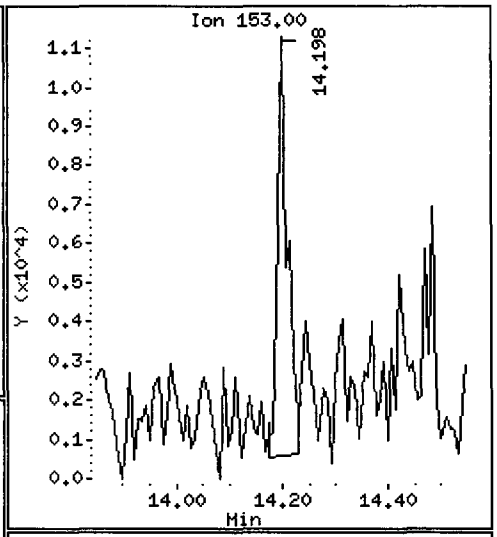
44 Acenaphthene Concentration: 31.90 ug/kg

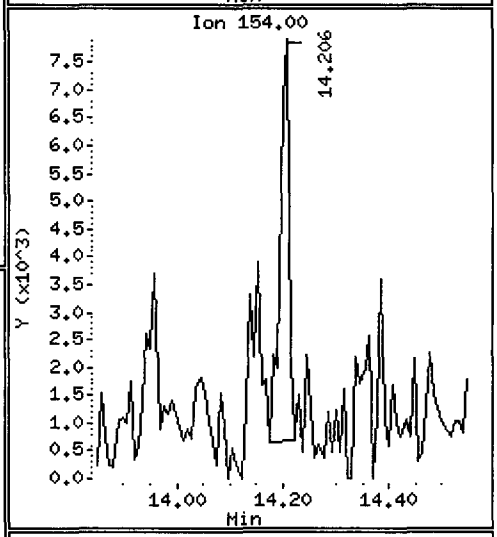


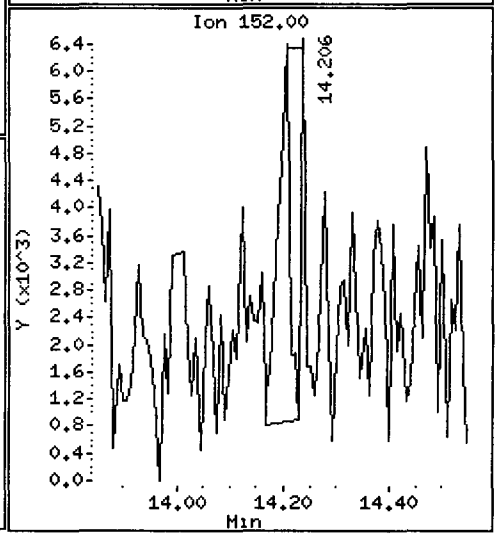












Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

Client ID: SD0016

Instrument: nt10.i

Sample Info: TX57E,3

Volume Injected (uL): 1.0

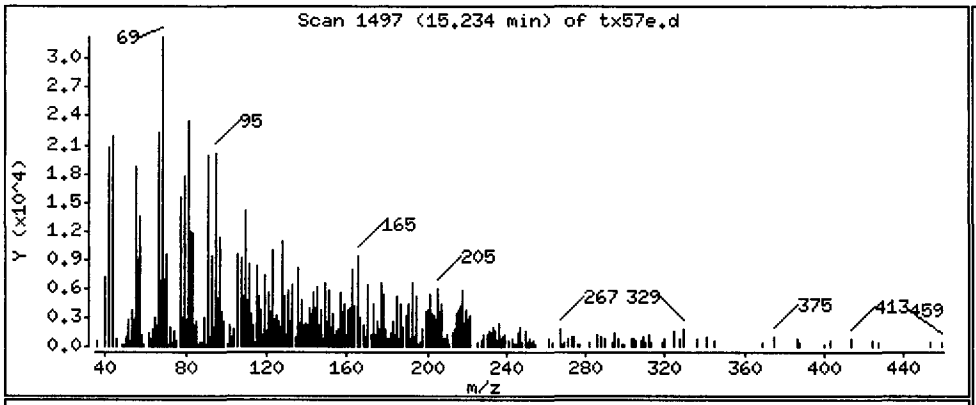
Operator: YZ

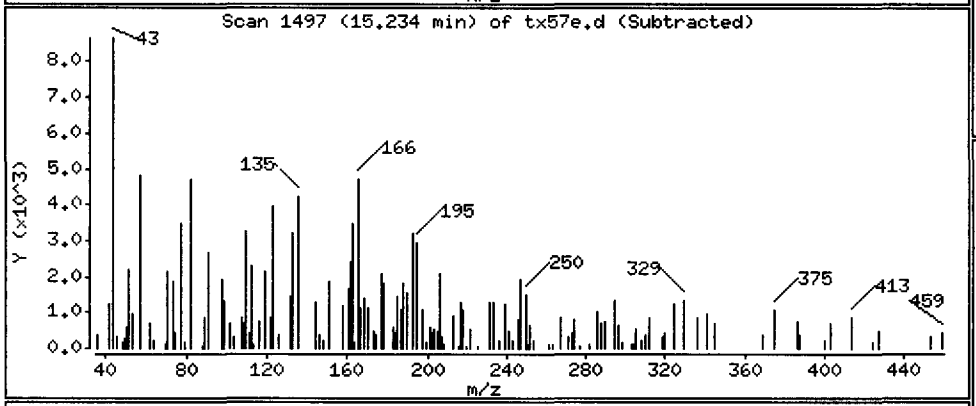
Column phase: ZB-5msi

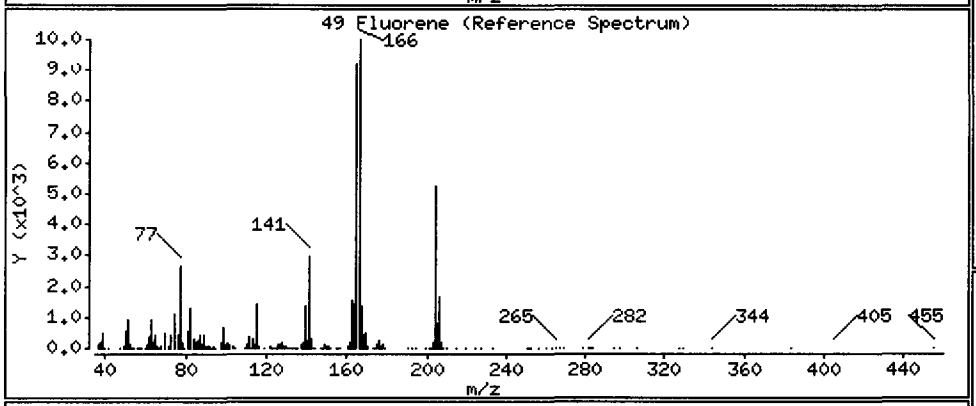
Column diameter: 0.25

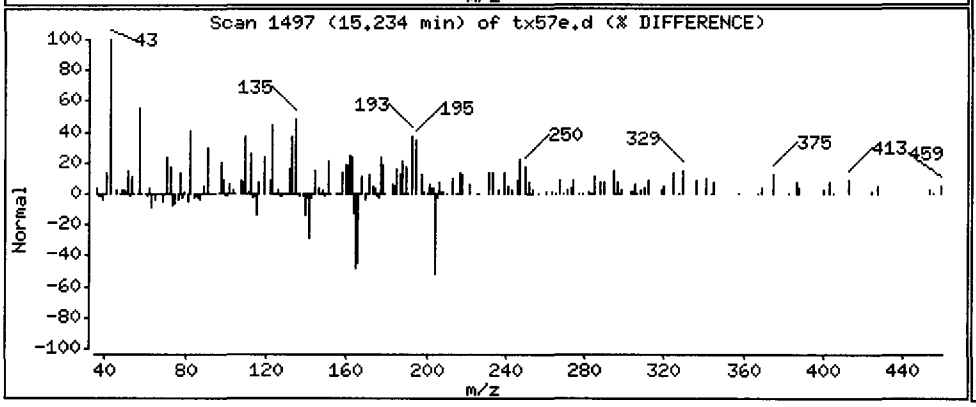
49 Fluorene

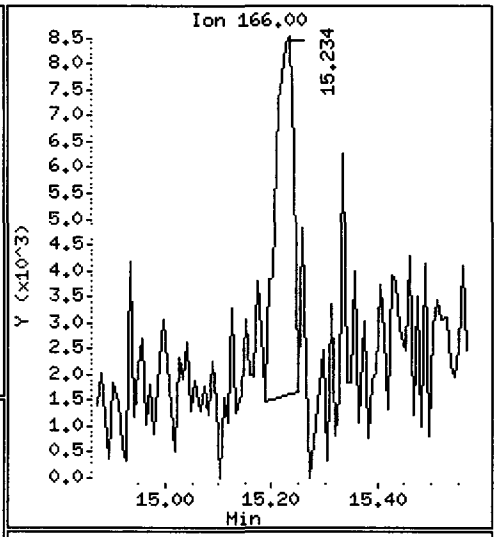
Concentration: 30.51 ug/kg

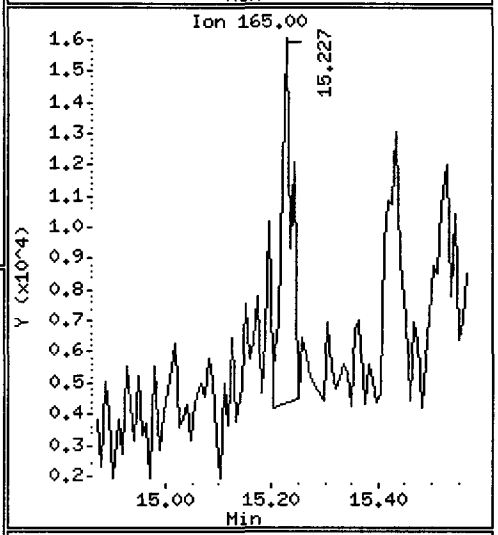


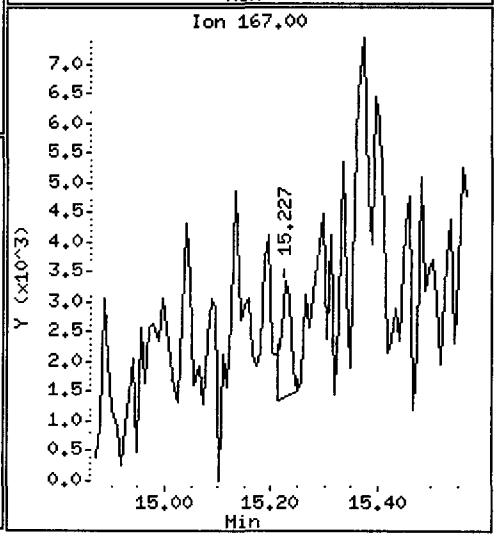












Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

Client ID: SD0016

Instrument: nt10.i

Sample Info: TX57E,3

Volume Injected (uL): 1.0

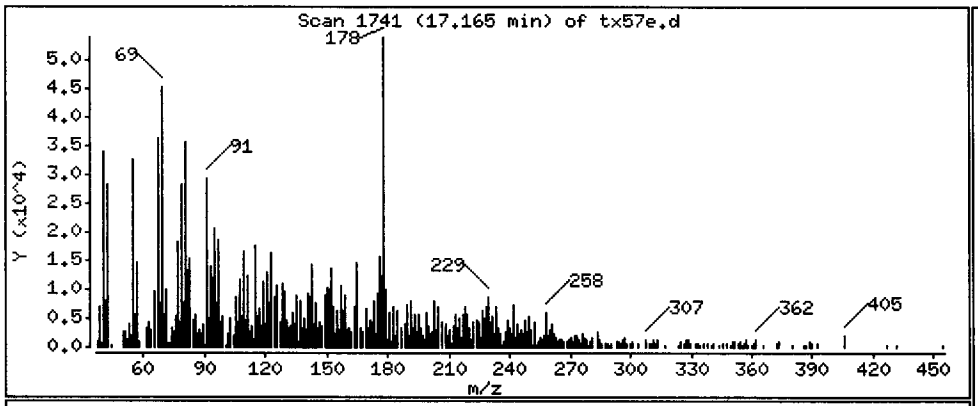
Operator: YZ

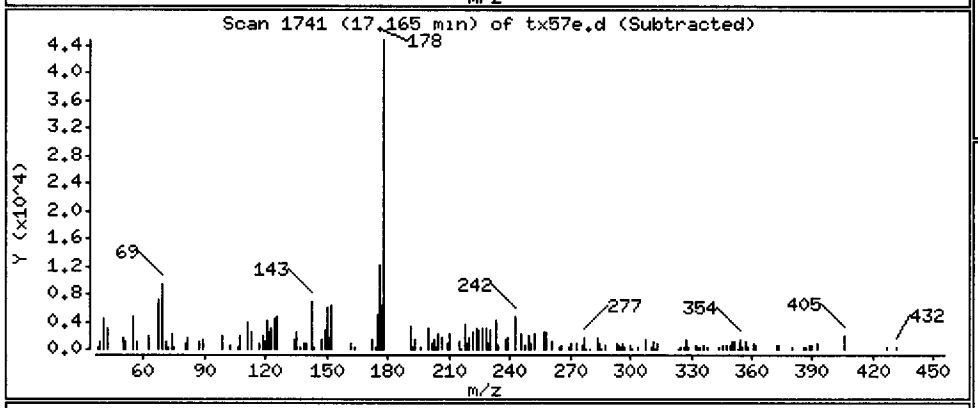
Column phase: ZB-5ms1

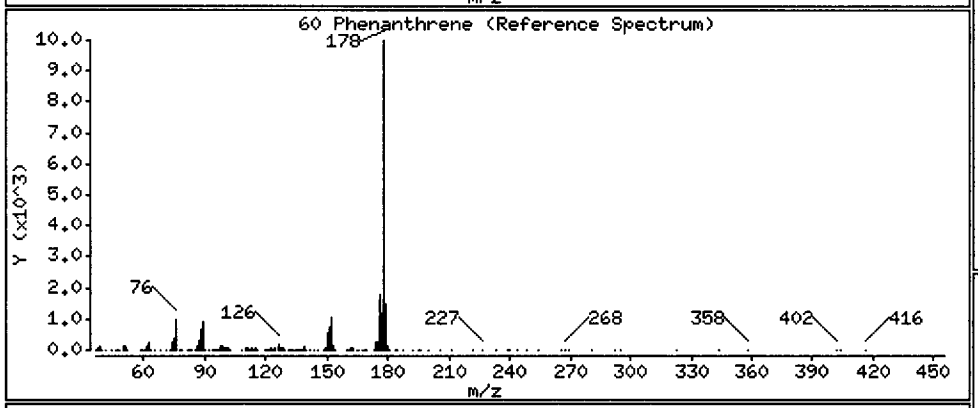
Column diameter: 0.25

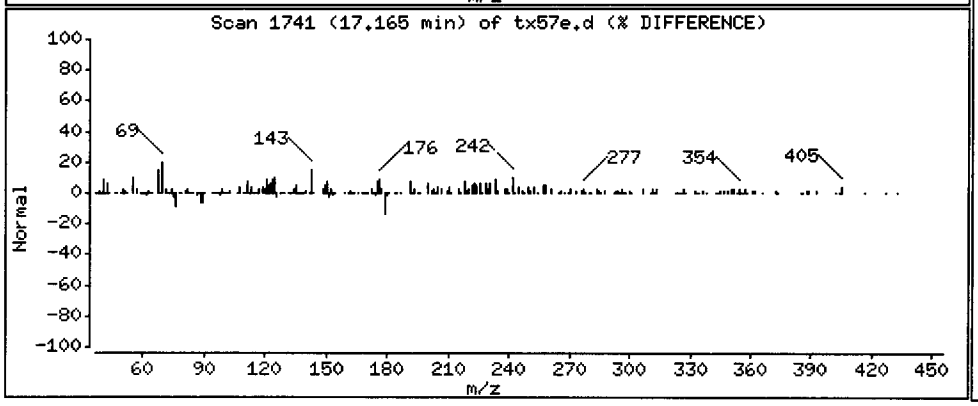
60 Phenanthrene

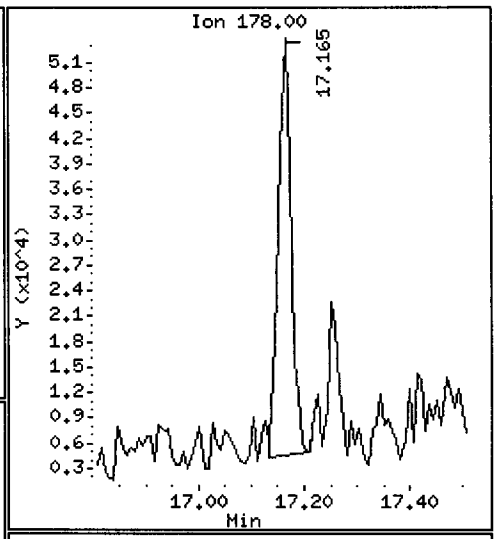
Concentration: 90.46 ug/kg

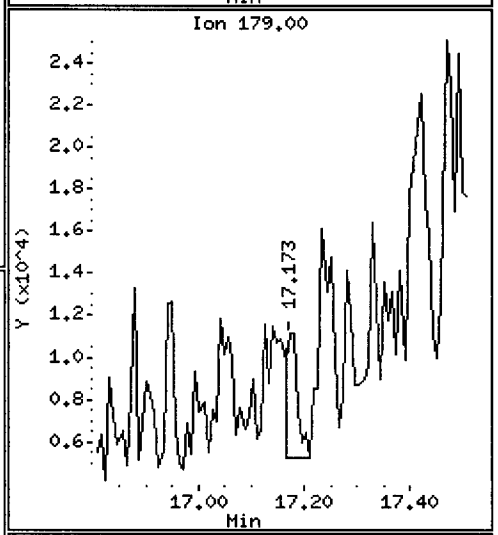


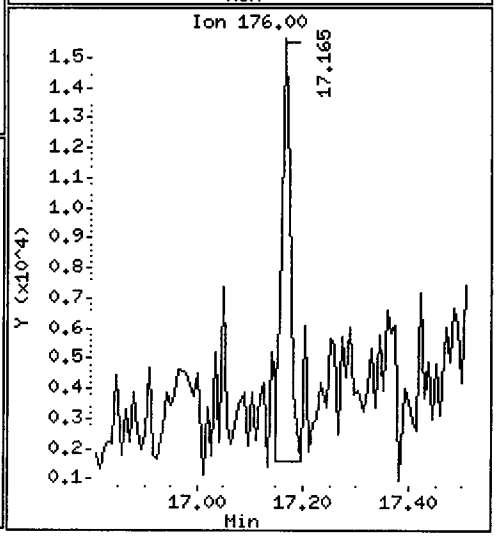












Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

Client ID: SD0016

Instrument: nt10.i

Sample Info: TX57E,3

Volume Injected (uL): 1.0

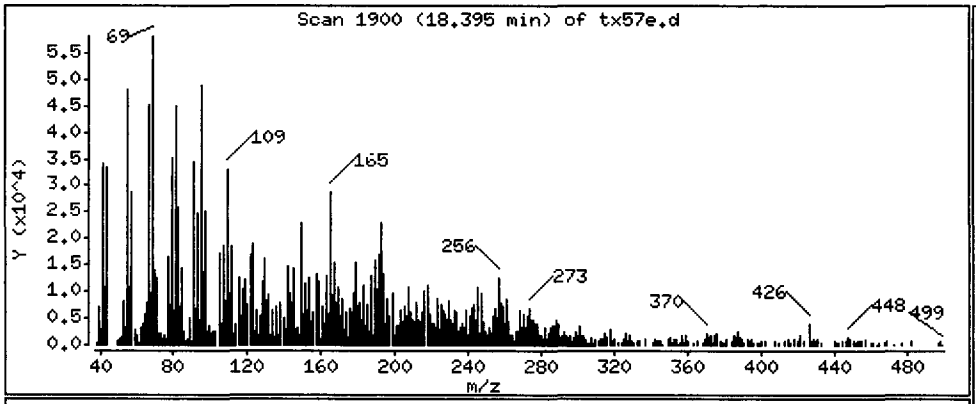
Operator: YZ

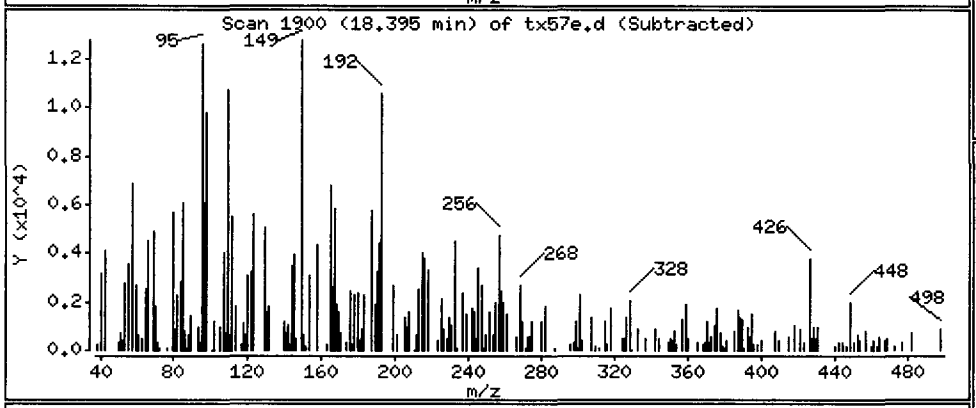
Column phase: ZB-5msi

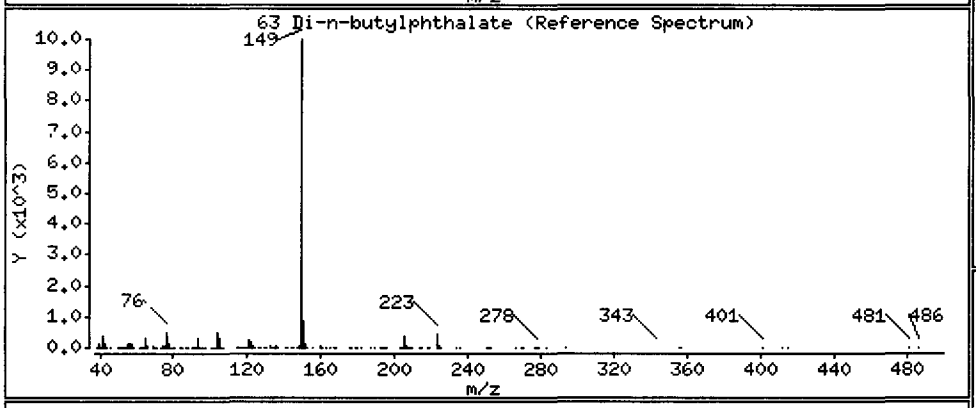
Column diameter: 0.25

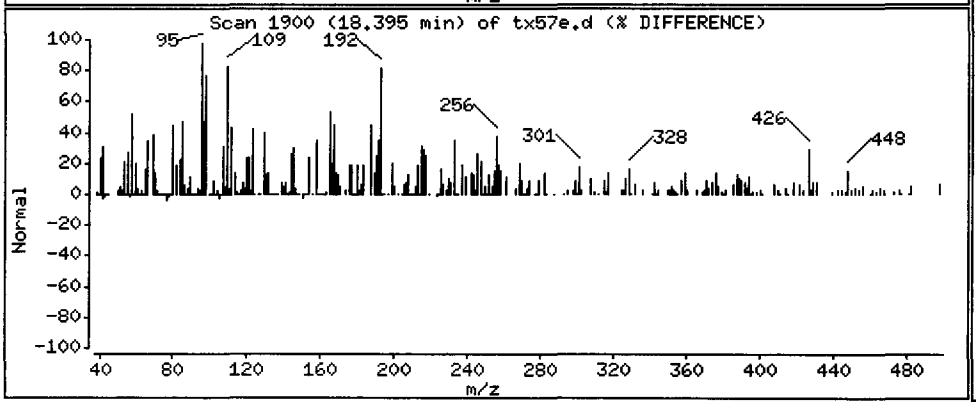
63 Di-n-butylphthalate

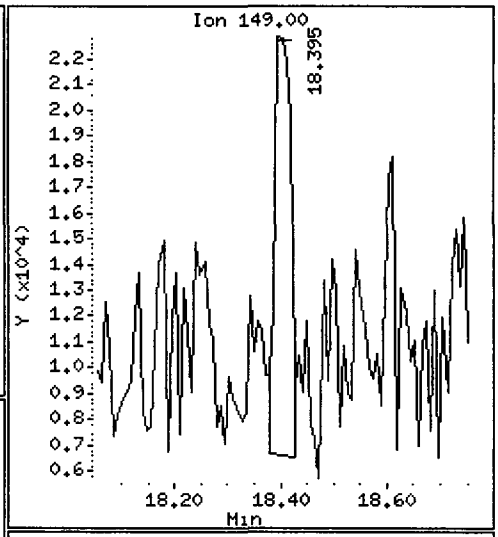
Concentration: 34.97 ug/kg

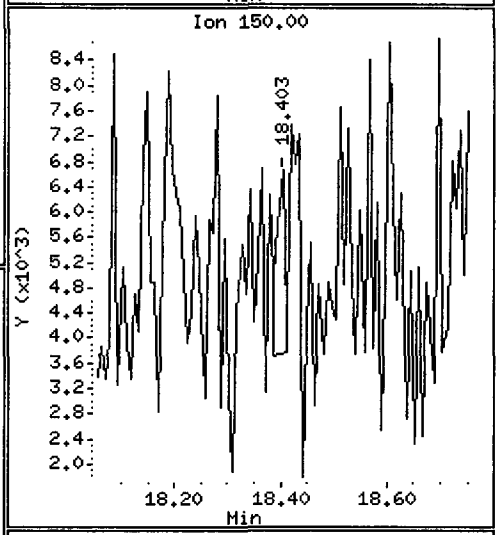


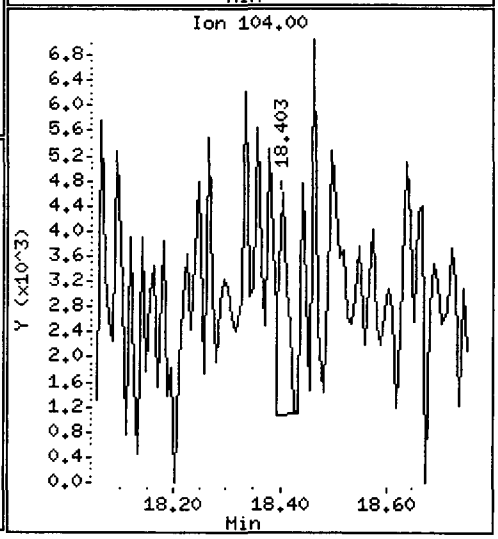












TX57.00694

Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

Client ID: SD0016

Instrument: nt10.i

Sample Info: TX57E,3

Volume Injected (uL): 1.0

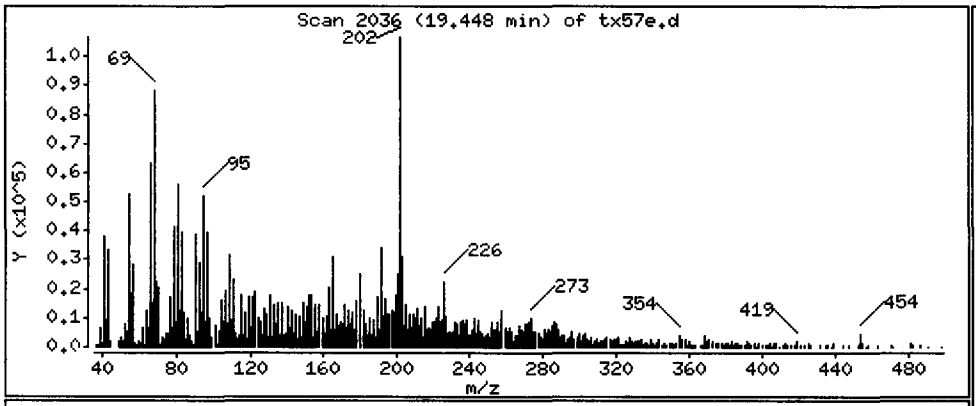
Operator: YZ

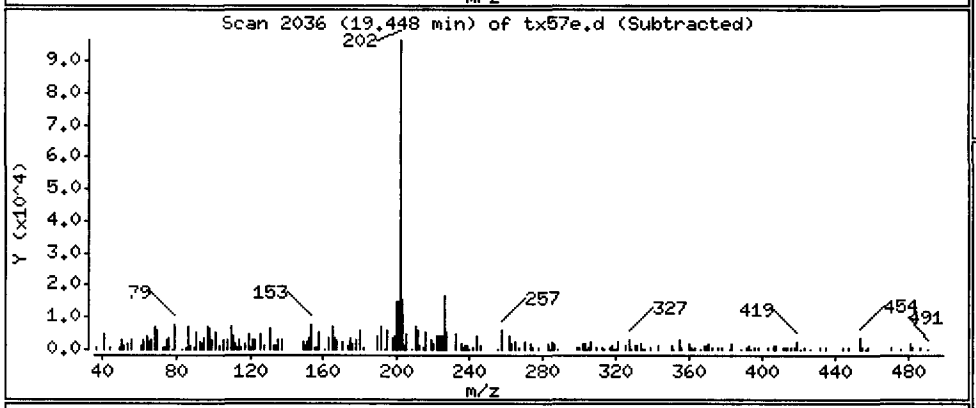
Column phase: ZB-5msi

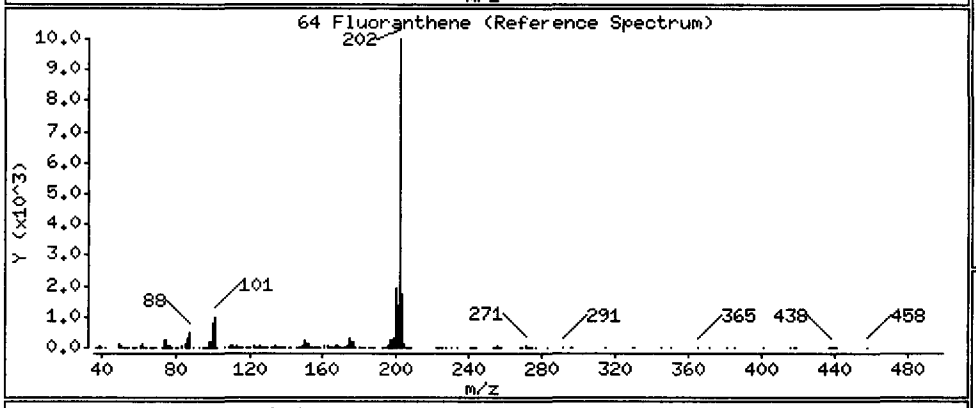
Column diameter: 0.25

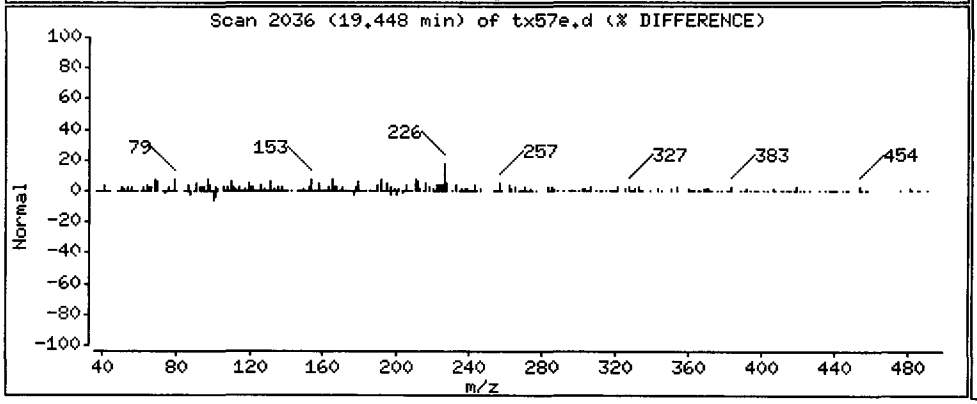
64 Fluoranthene

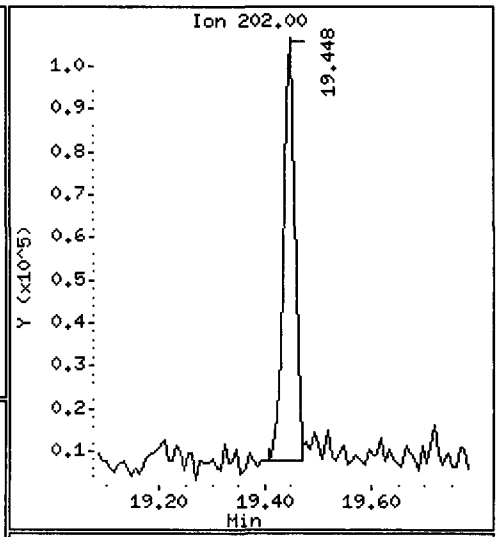
Concentration: 120.2 ug/kg

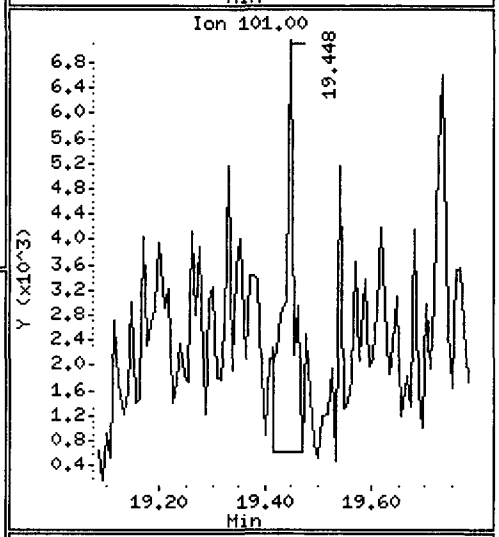


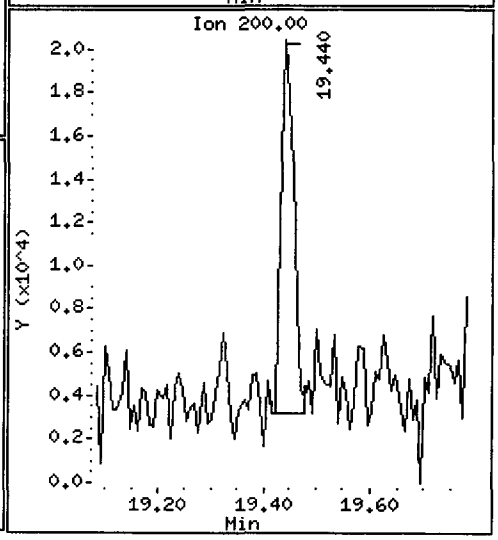












Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

Client ID: SD0016

Instrument: nt10.i

Sample Info: TX57E,3

Volume Injected (uL): 1.0

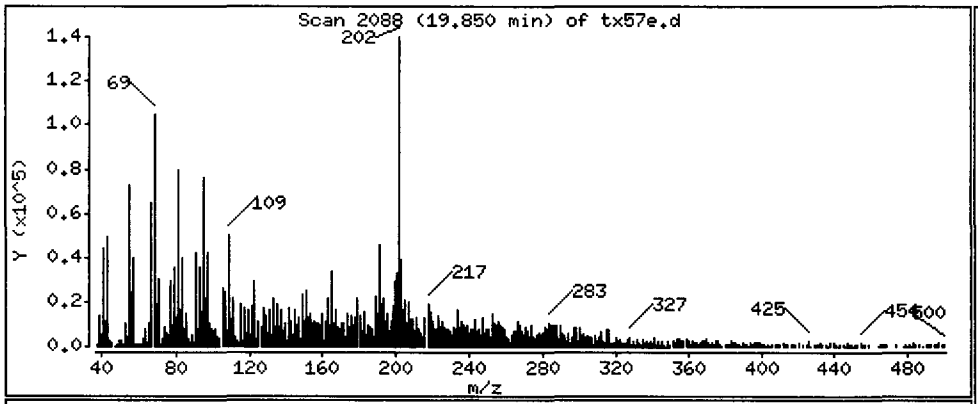
Operator: YZ

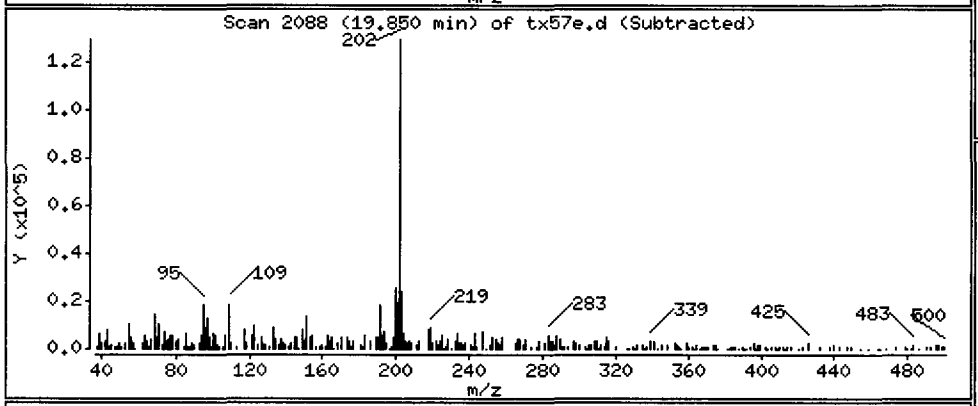
Column phase: ZB-5msi

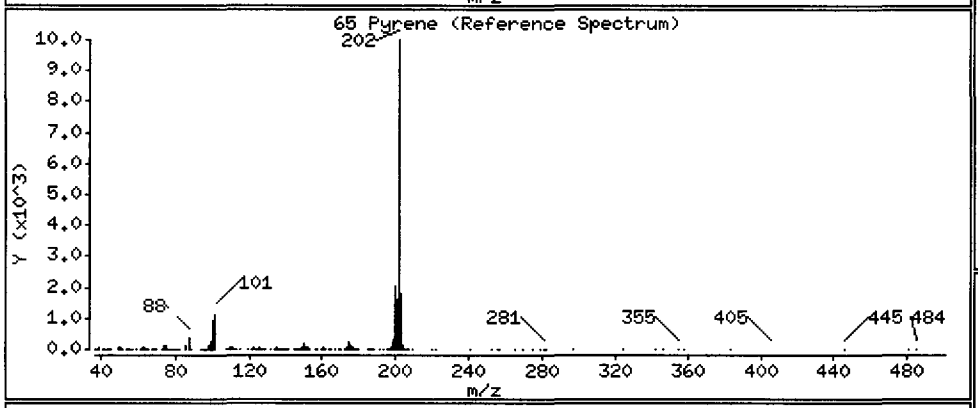
Column diameter: 0.25

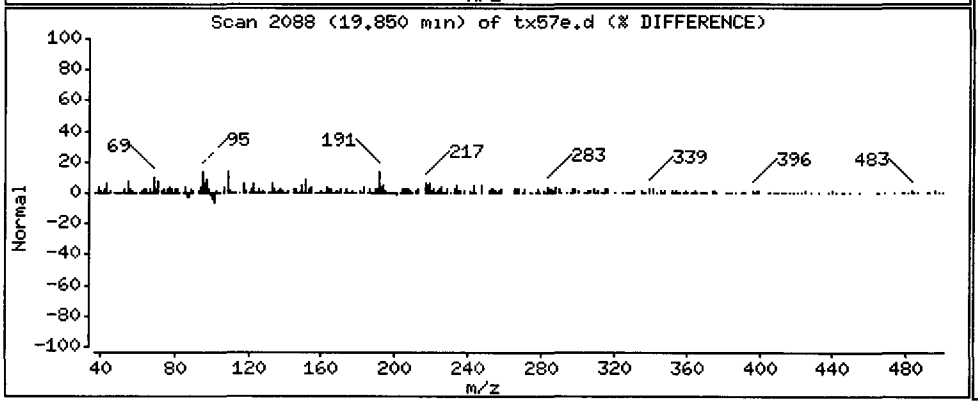
65 Pyrene

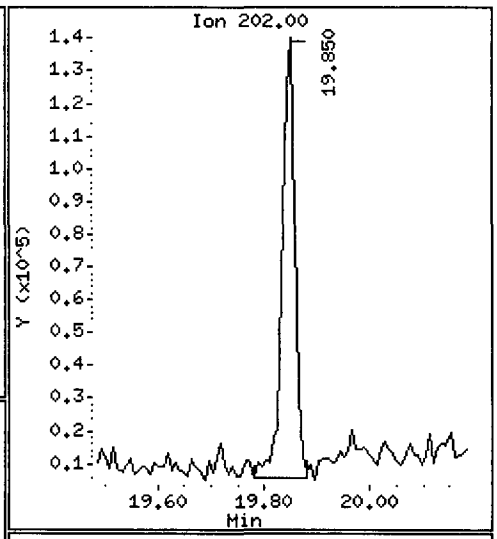
Concentration: 158.1 ug/kg

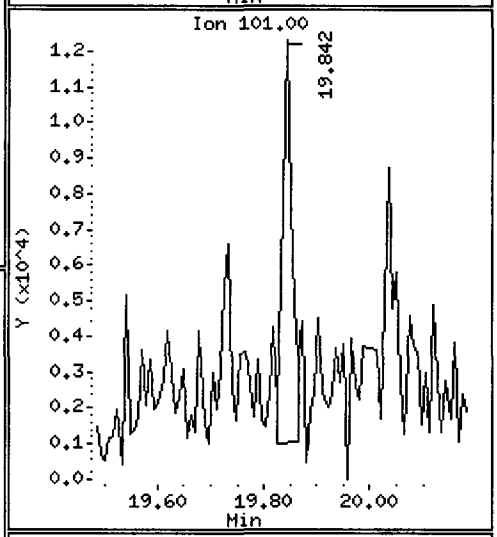


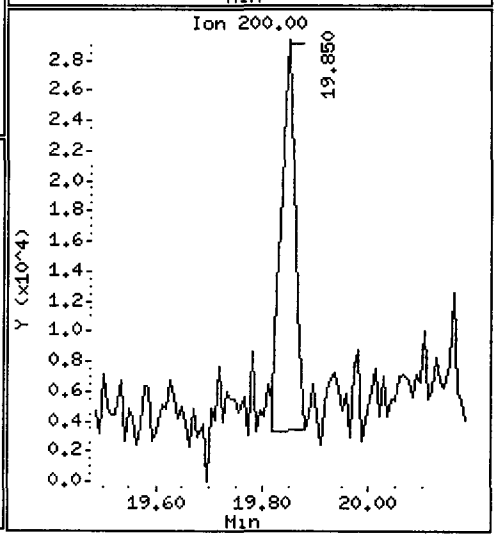












Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

Client ID: SD0016

Instrument: nt10.i

Sample Info: TX57E,3

Volume Injected (uL): 1.0

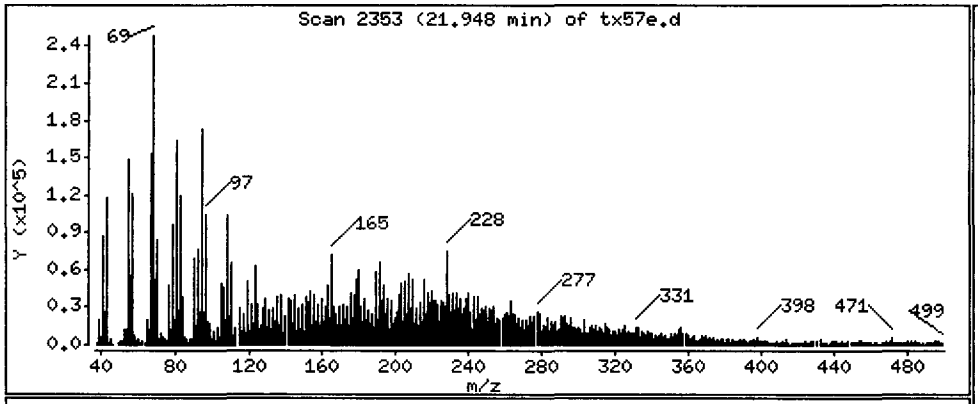
Operator: YZ

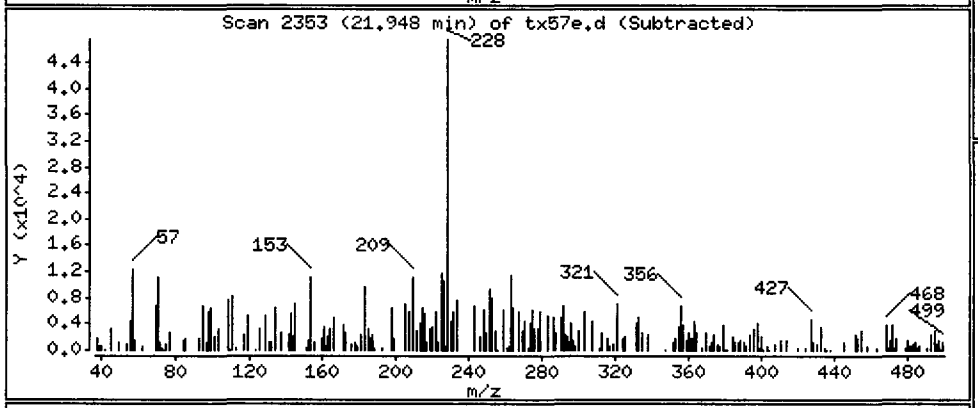
Column phase: ZB-5msi

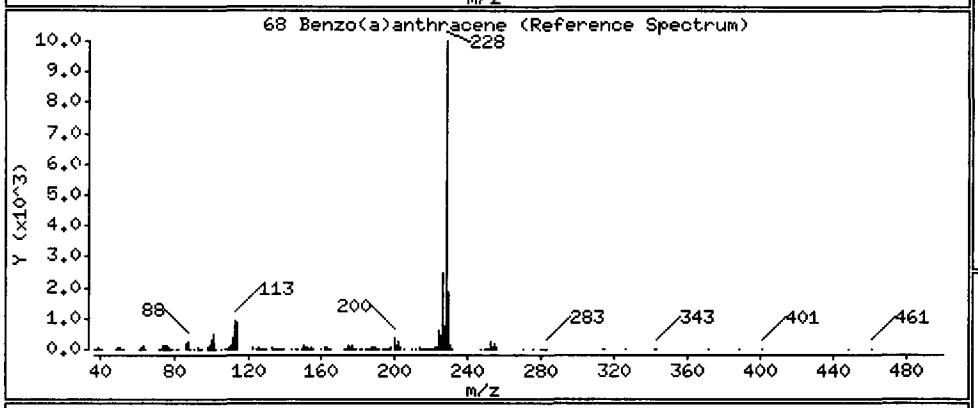
Column diameter: 0.25

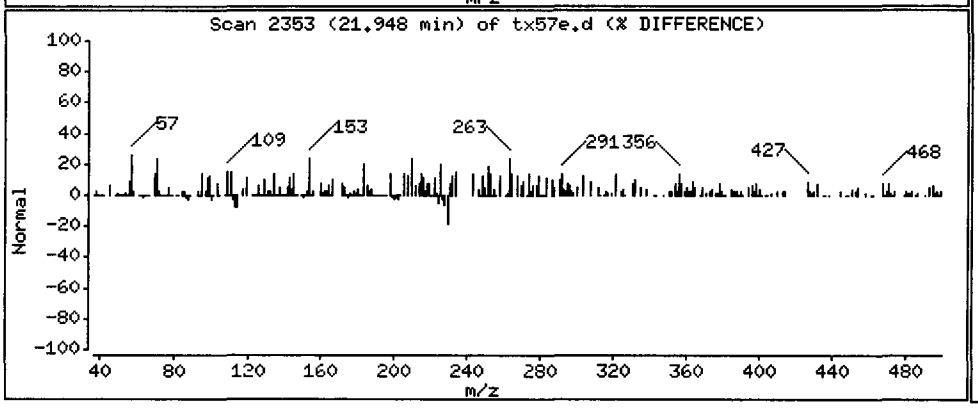
68 Benzo(a)anthracene

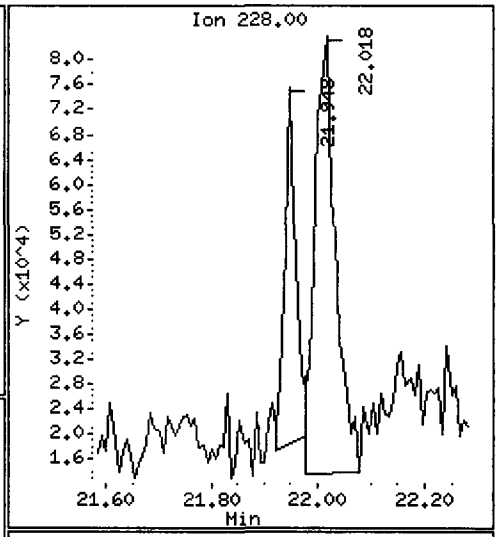
Concentration: 54.29 ug/kg

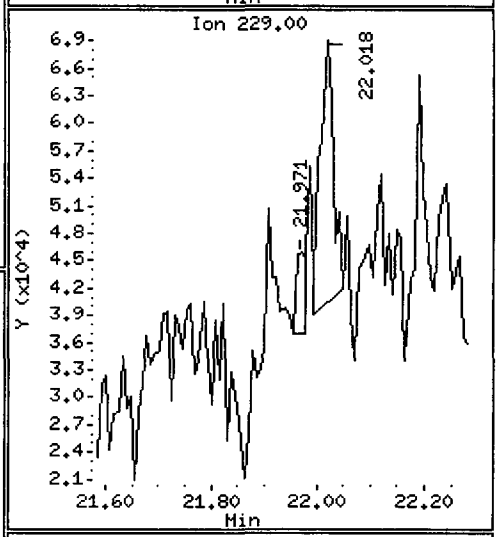


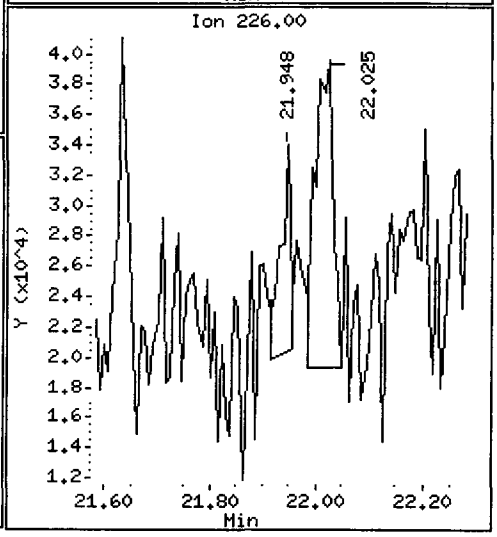












Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

Client ID: SD0016

Instrument: nt10.i

Sample Info: TX57E,3

Volume Injected (uL): 1.0

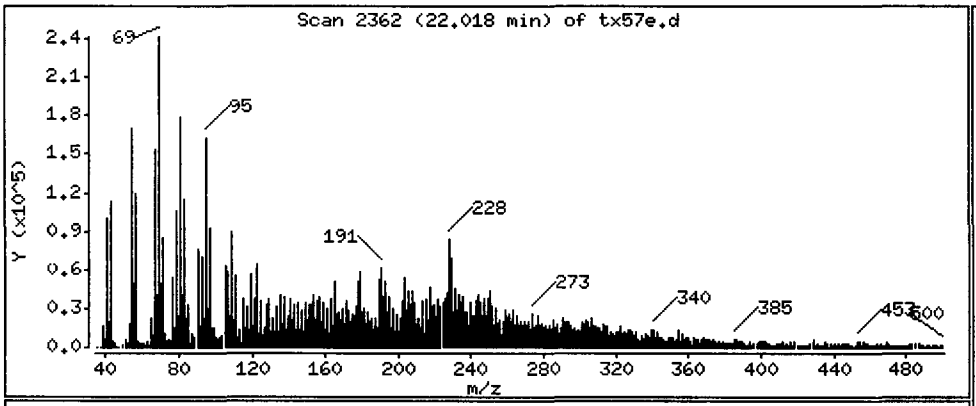
Operator: YZ

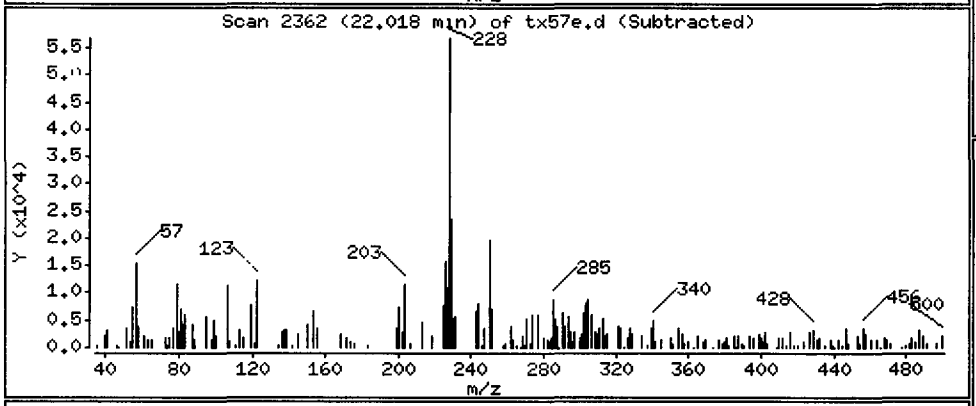
Column phase: ZB-5msi

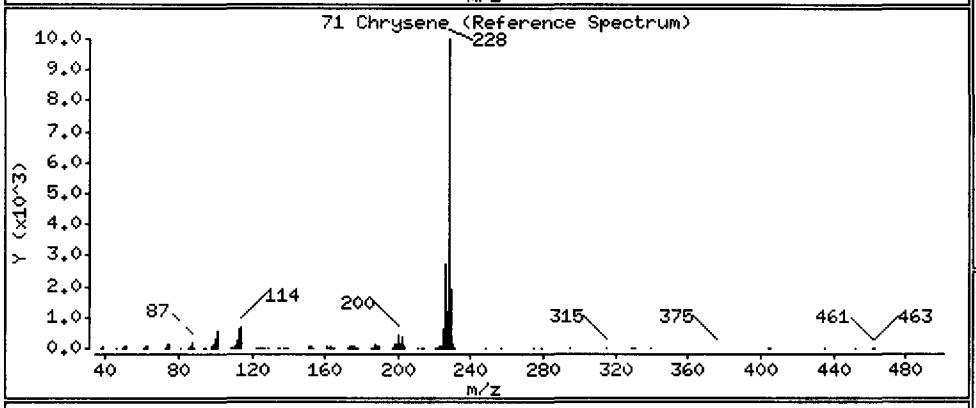
Column diameter: 0.25

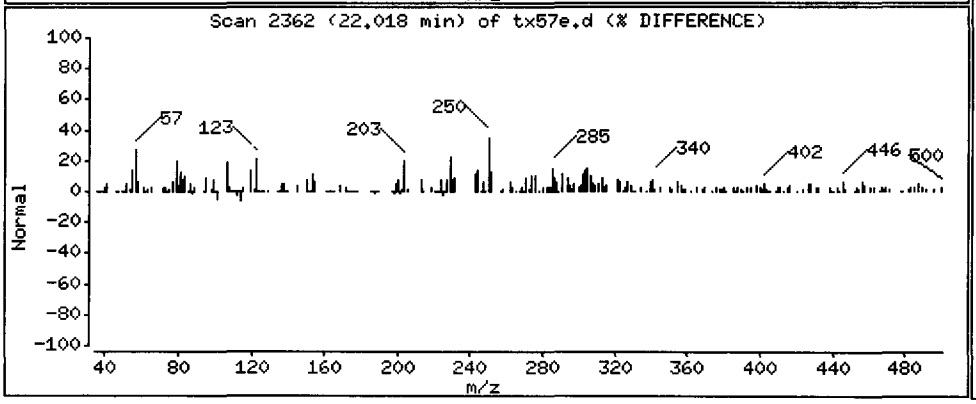
71 Chrysene

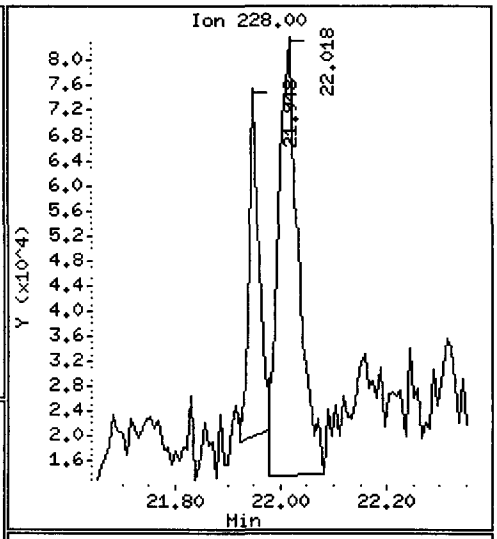
Concentration: 134.7 ug/kg

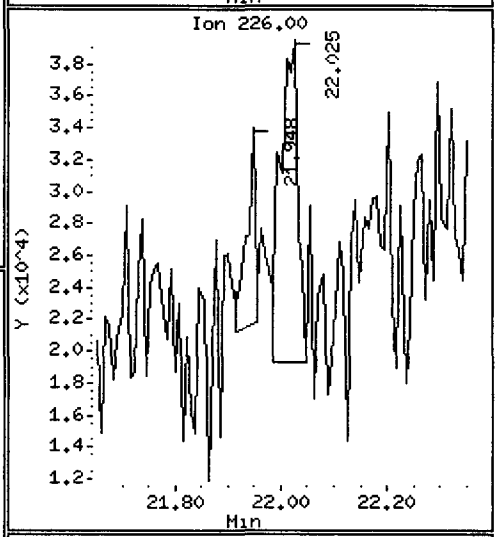


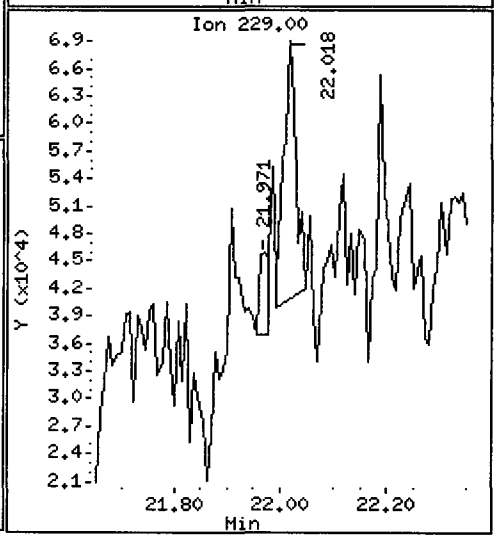












Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

Client ID: SD0016

Instrument: nt10.i

Sample Info: TX57E,3

Volume Injected (uL): 1.0

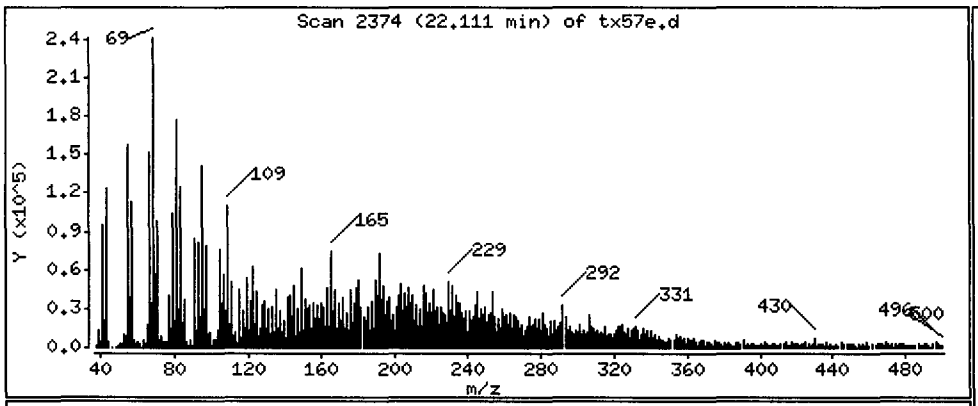
Operator: YZ

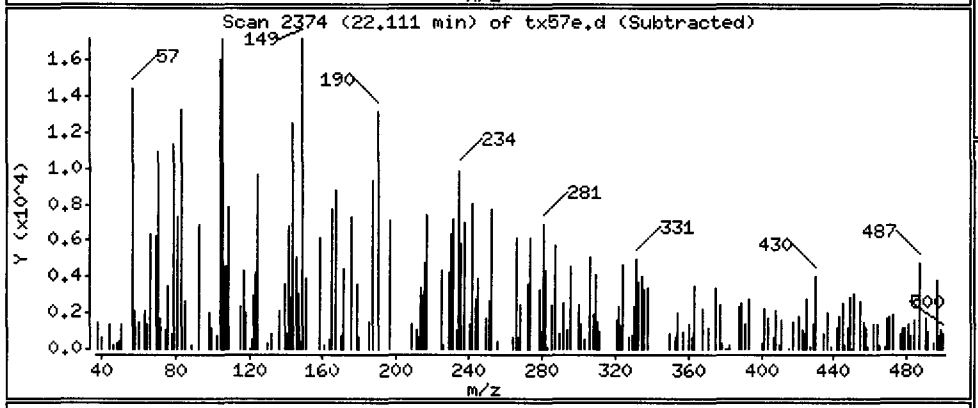
Column phase: ZB-5msi

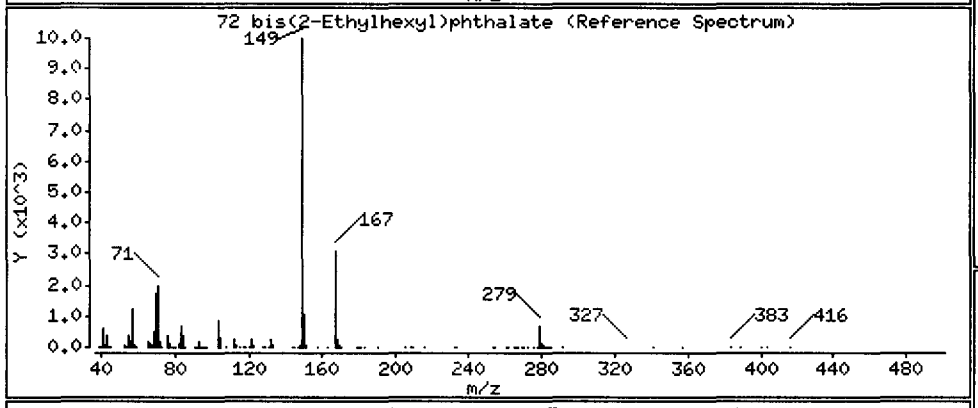
Column diameter: 0.25

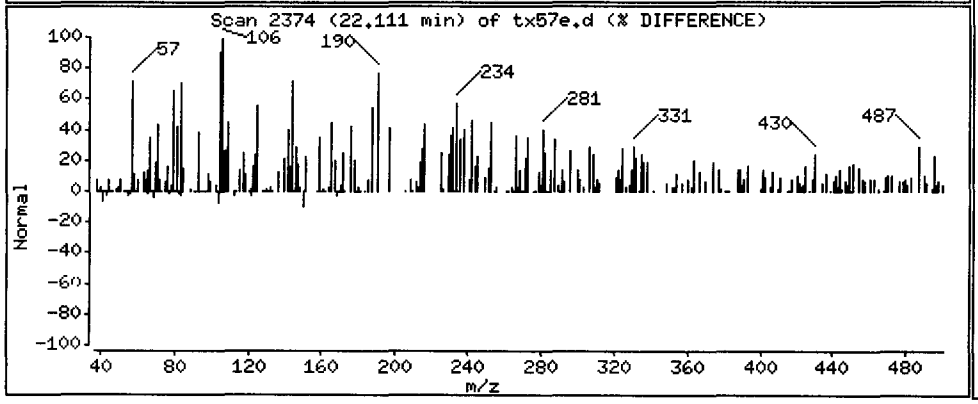
72 bis(2-Ethylhexyl)phthalate

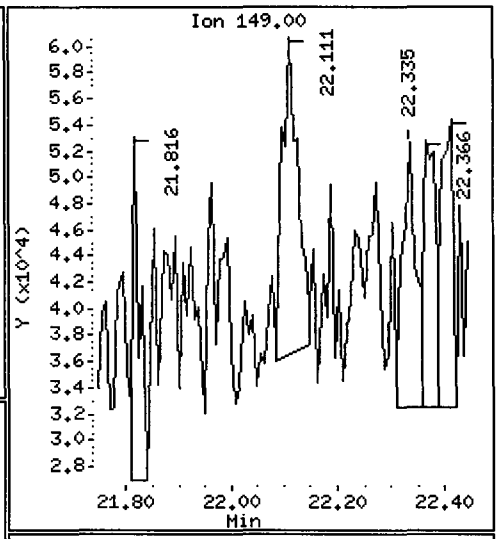
Concentration: 66.27 ug/kg

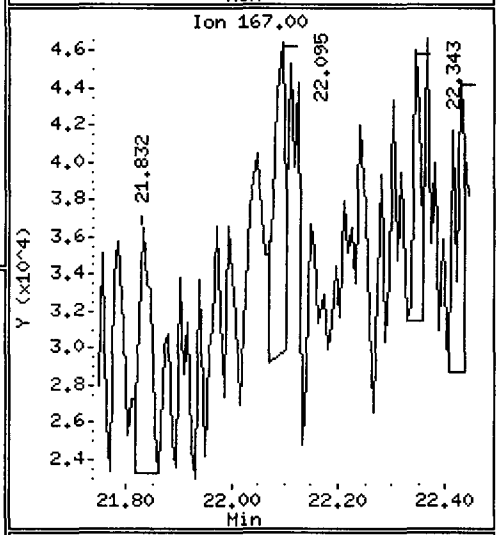


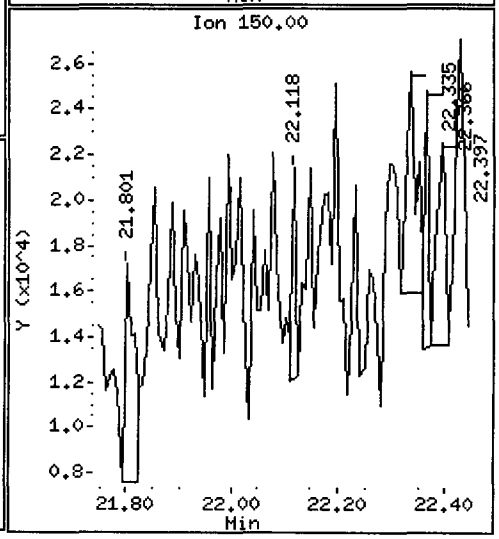












Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

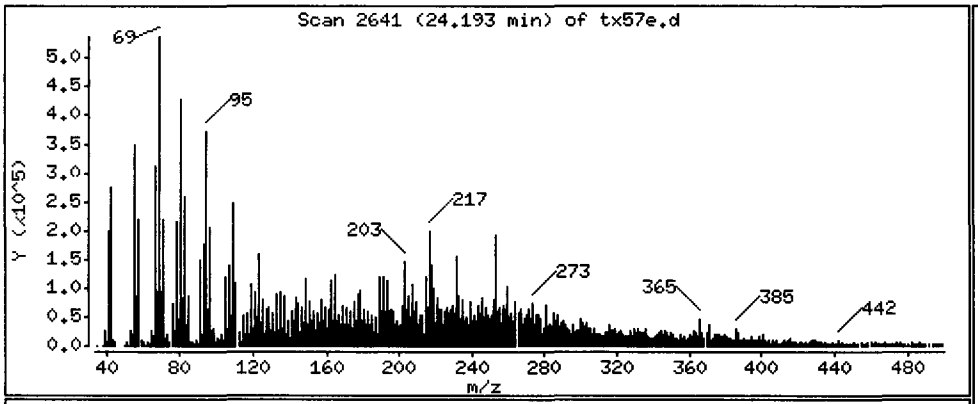
Client ID: SD0016 Instrument: nt10.i

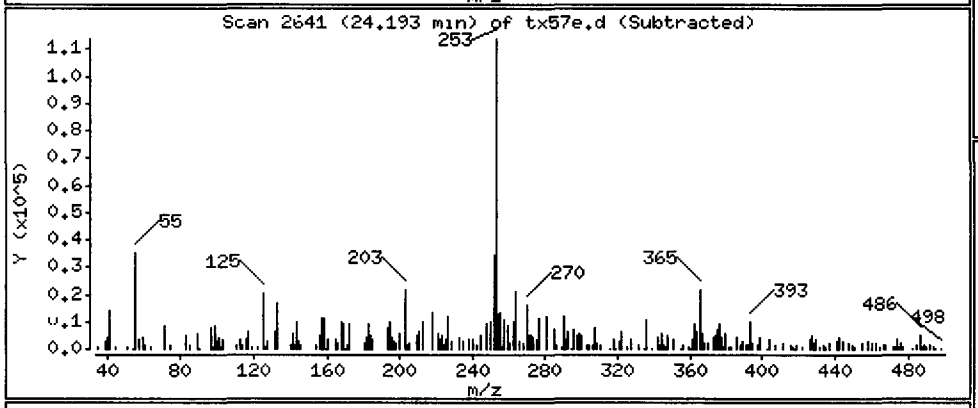
Sample Info: TX57E,3

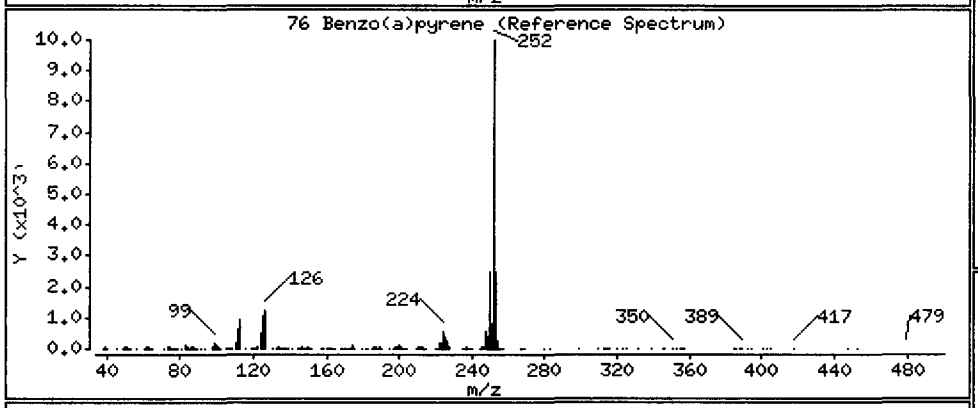
Volume Injected (uL): 1.0 Operator: YZ

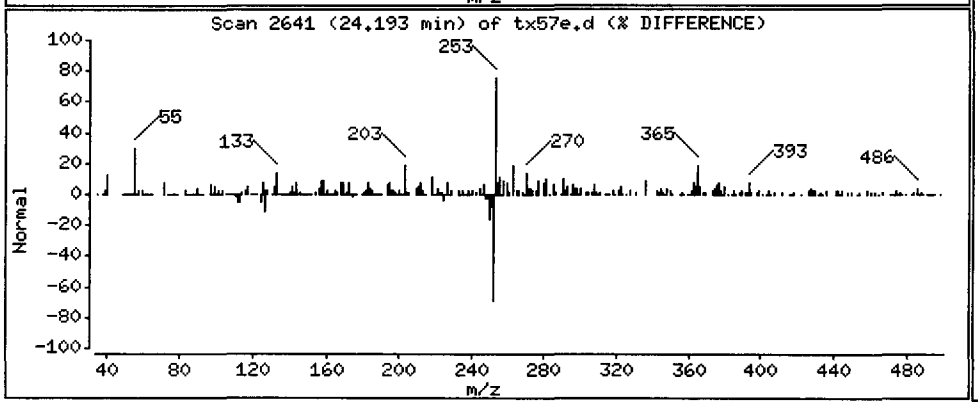
Column phase: ZB-5msi Column diameter: 0.25

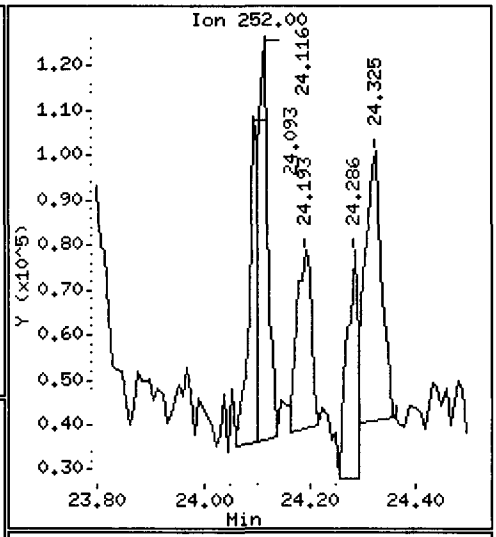
76 Benzo(a)pyrene Concentration: 58.47 ug/kg

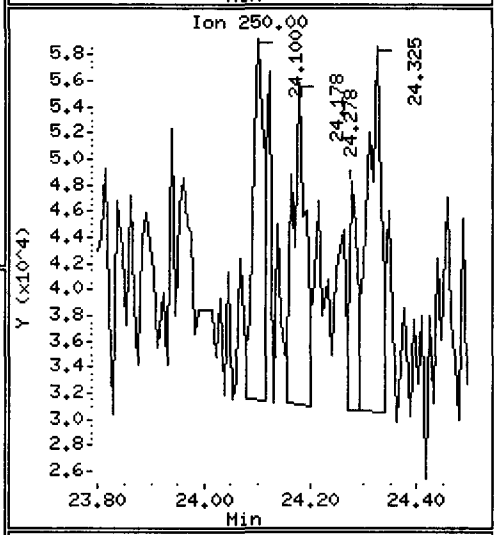


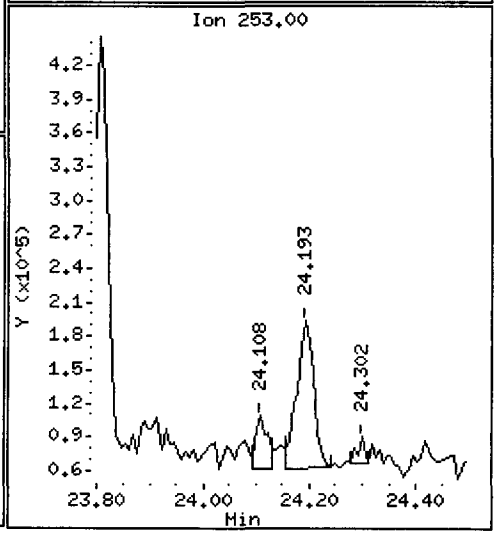












Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

Client ID: SD0016

Instrument: nt10.i

Sample Info: TX57E,3

Volume Injected (uL): 1.0

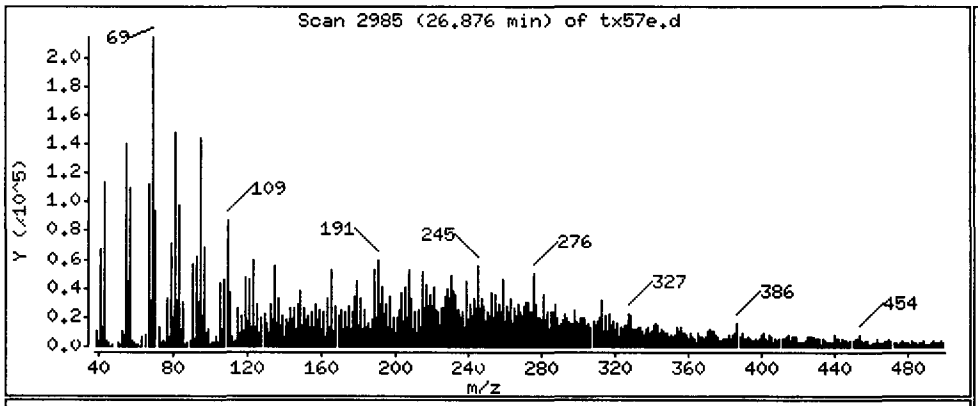
Operator: YZ

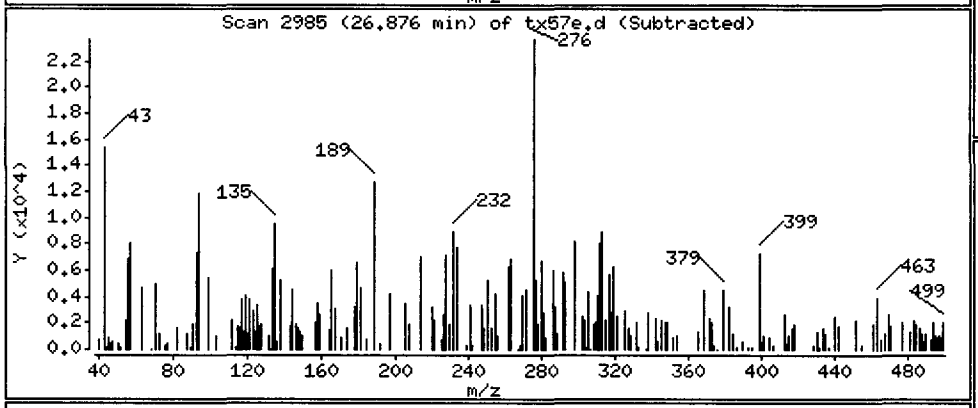
Column phase: ZB-5msi

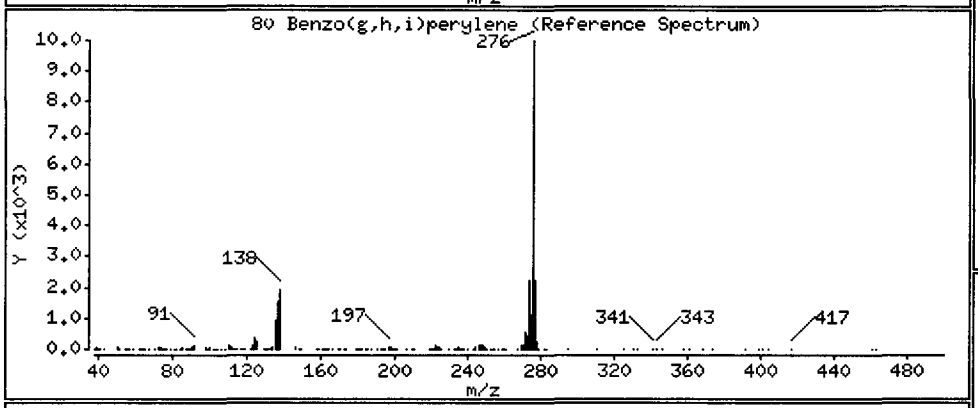
Column diameter: 0.25

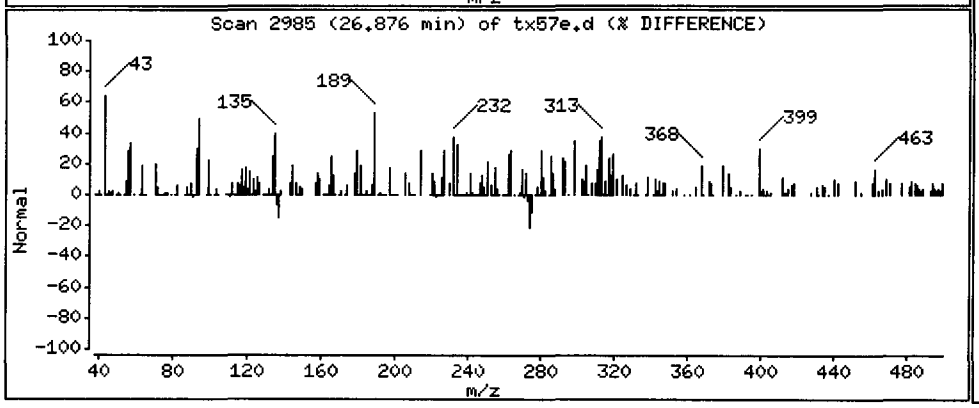
80 Benzo(g,h,i)perylene

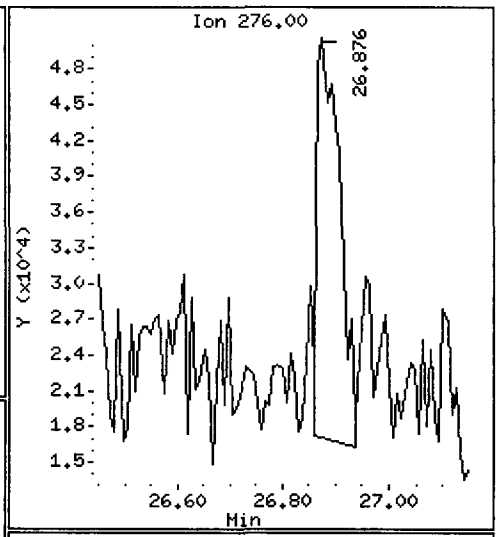
Concentration: 63.67 ug/kg

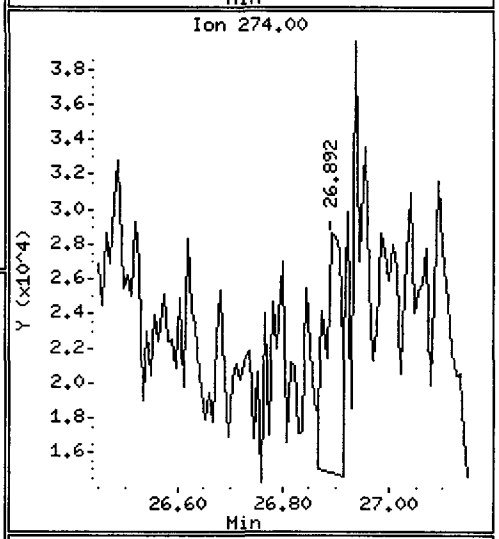


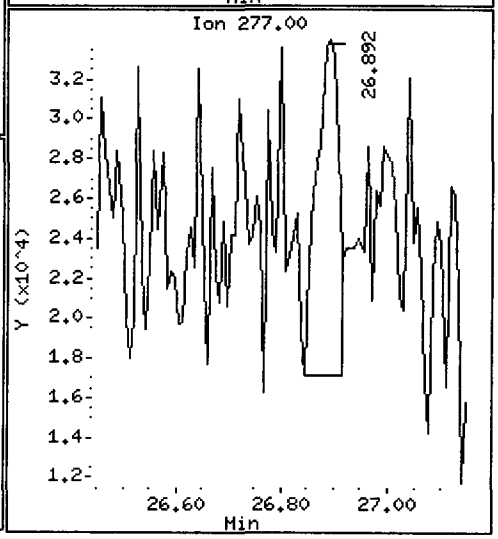












Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

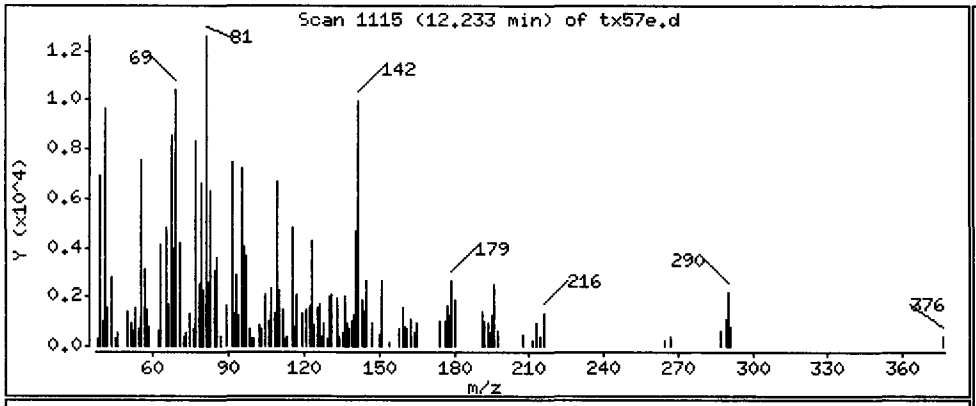
Client ID: SD0016 Instrument: nt10.i

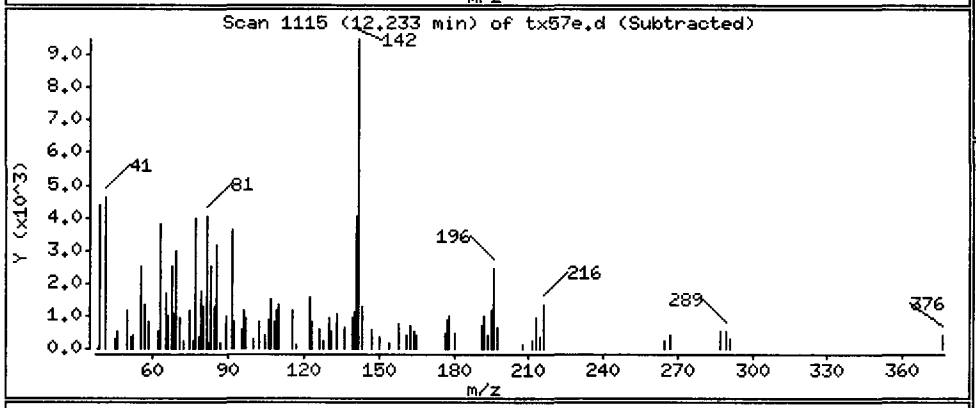
Sample Info: TX57E,3

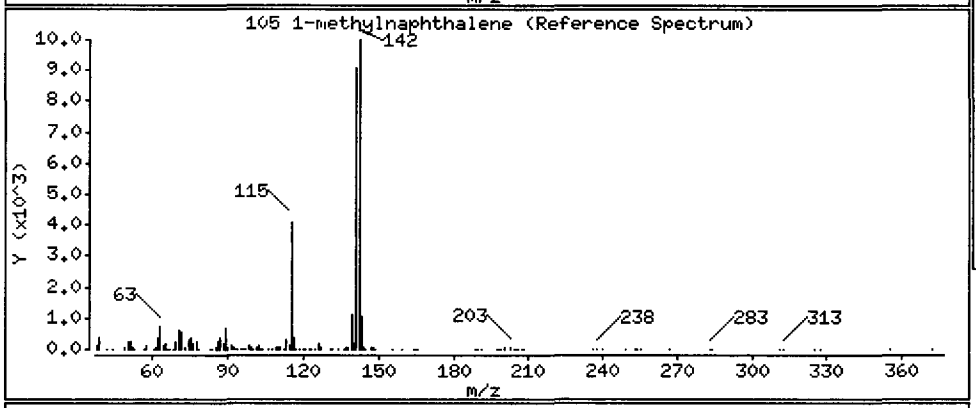
Volume Injected (uL): 1.0 Operator: YZ

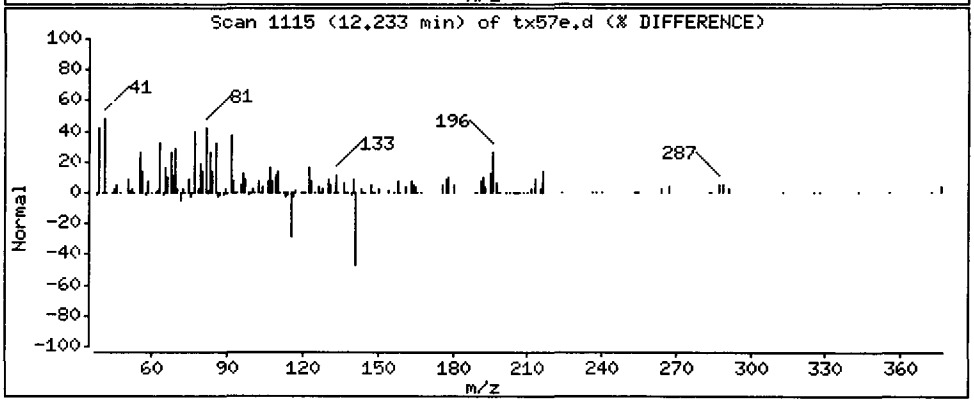
Column phase: ZB-5msi Column diameter: 0.25

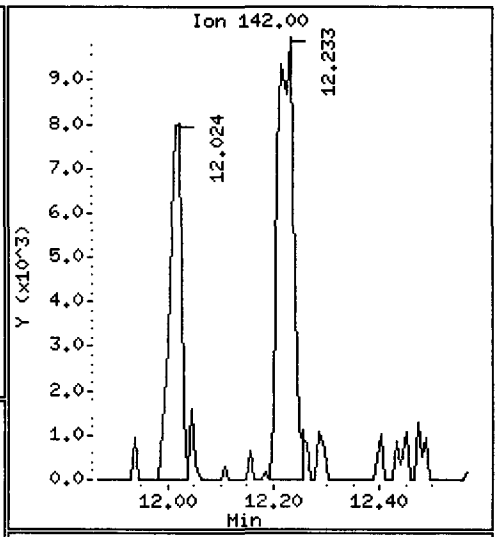
105 1-methylnaphthalene Concentration: 45.60 ug/kg

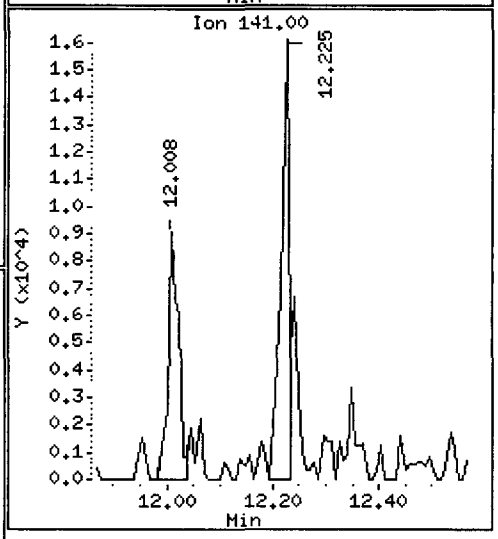












Data File: /chem1/nt10.i/20111206.b/tx57e.d

Date : 06-DEC-2011 20:16

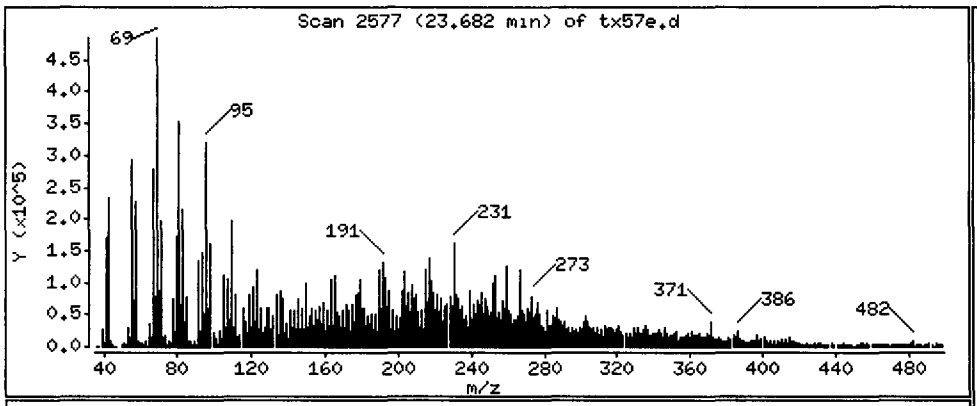
Client ID: SD0016 Instrument: nt10.1

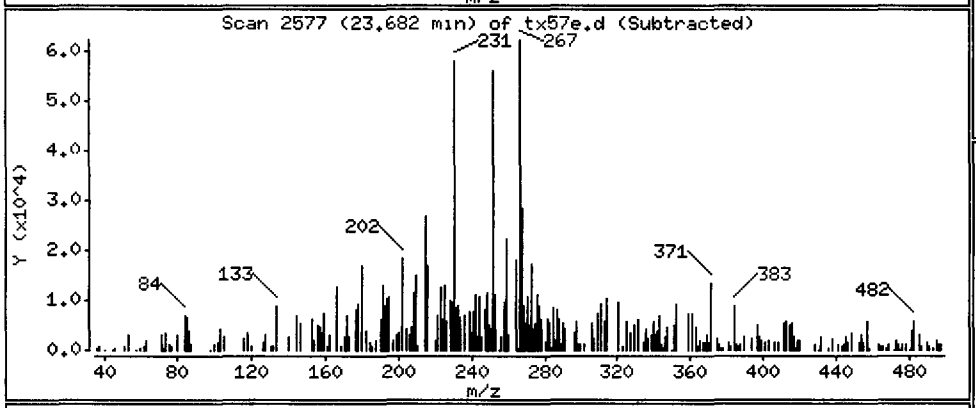
Sample Info: TX57E,3

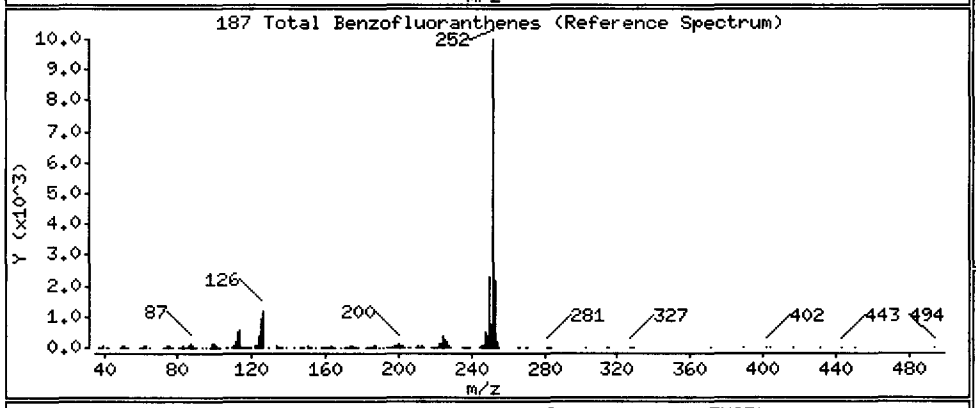
Volume Injected (uL): 1.0 Operator: YZ

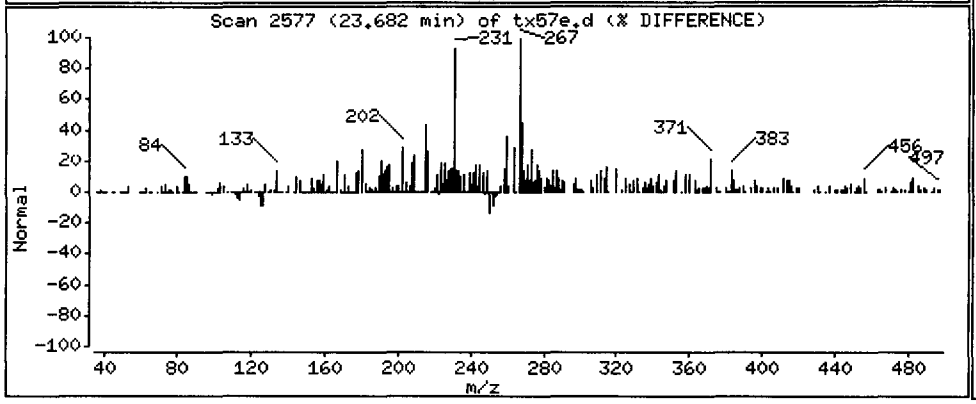
Column phase: ZB-5ms1 Column diameter: 0.25

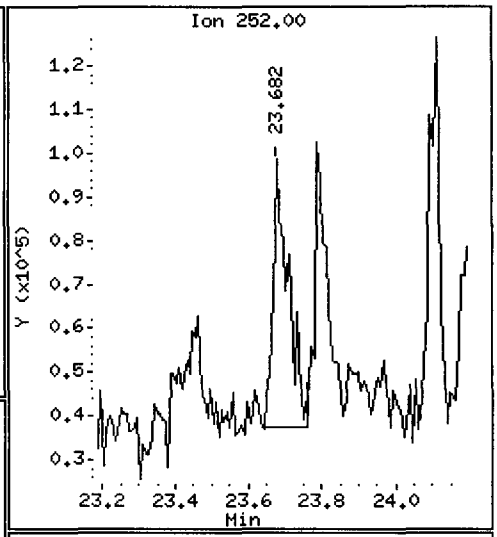
187 Total Benzofluoranthenes Concentration: 114.0 ug/kg

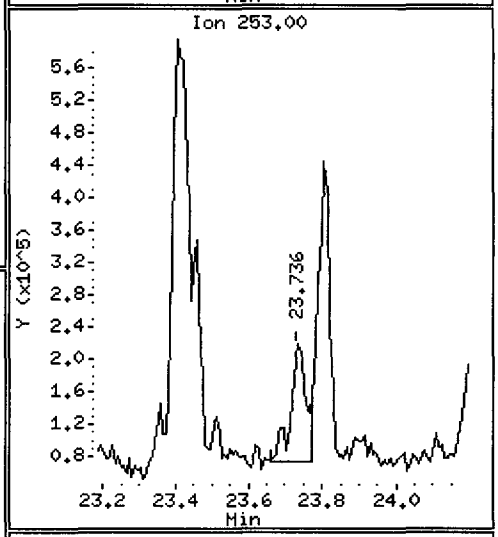


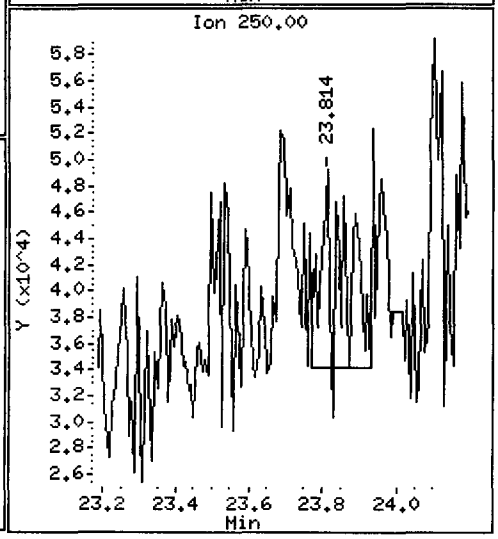






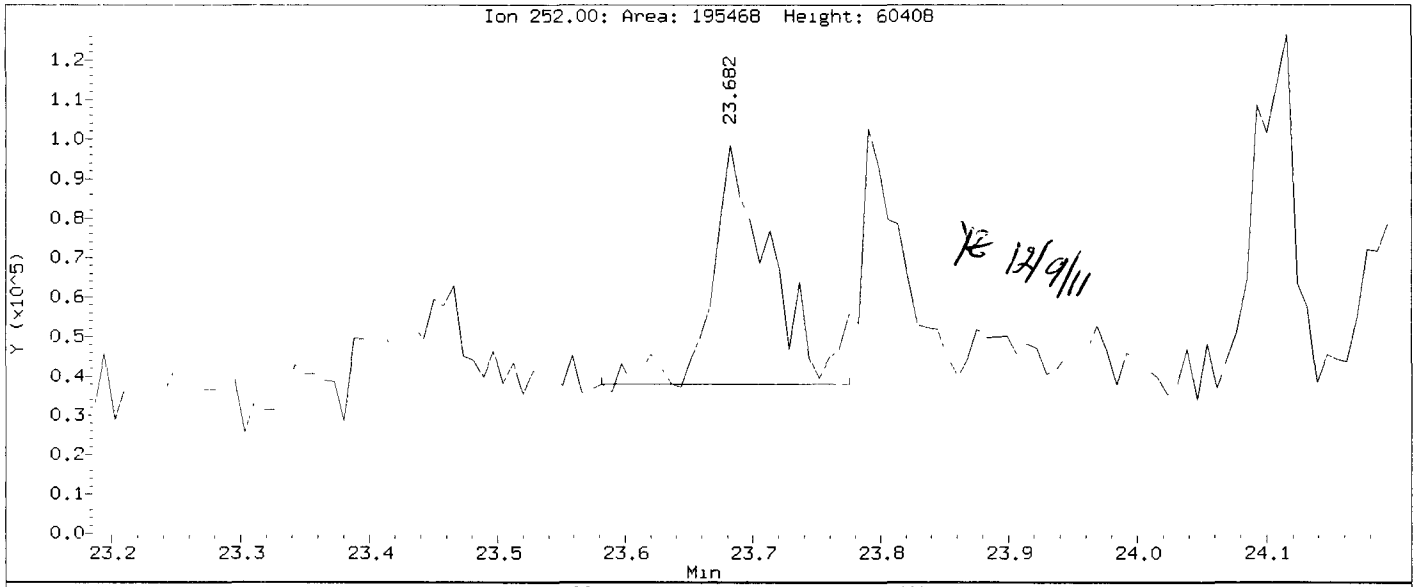




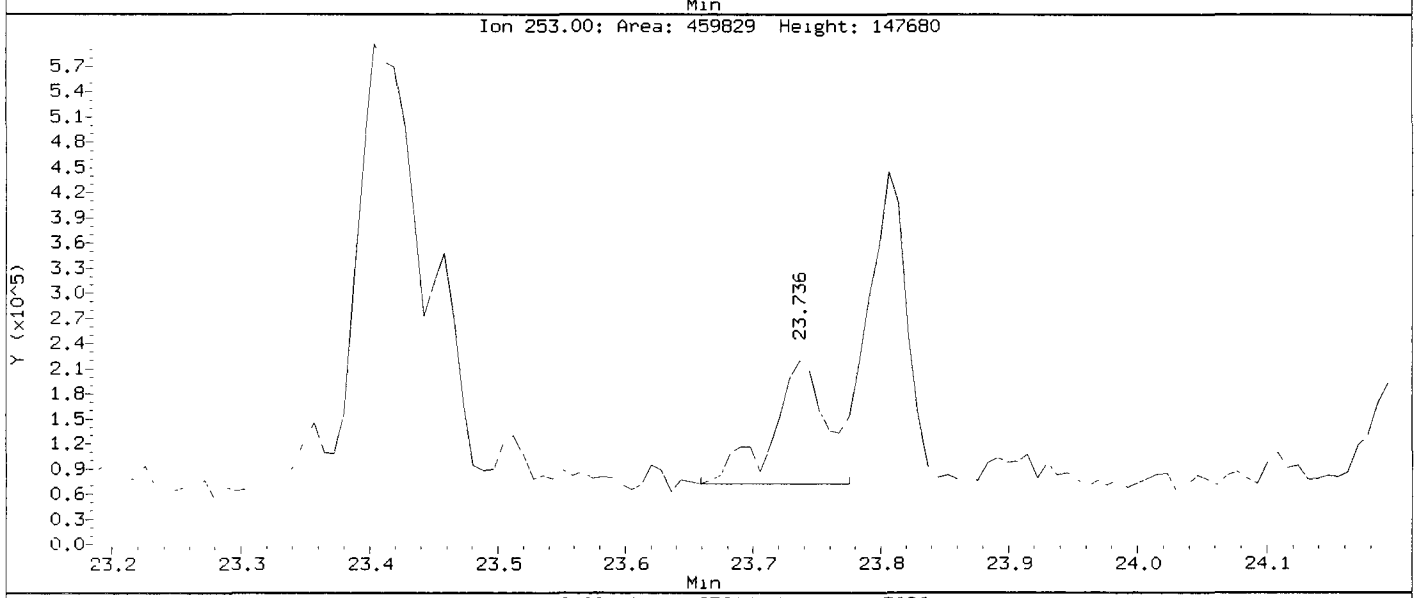


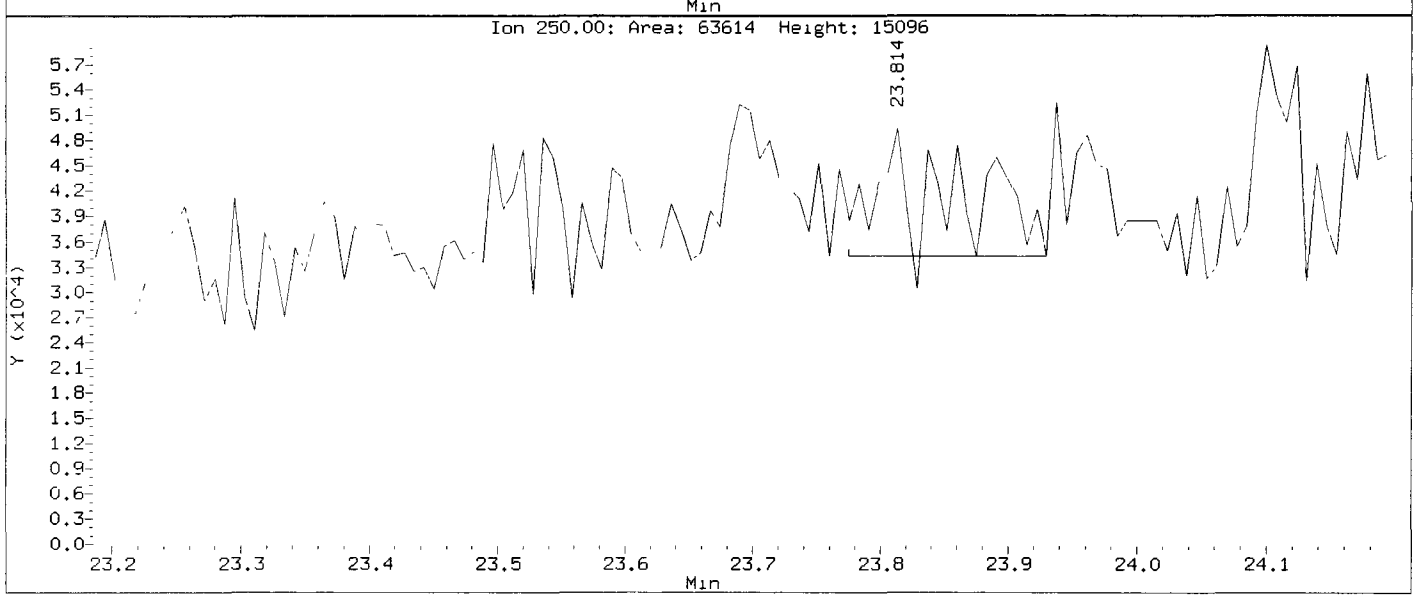
Data File: /chem1/nt10.i/20111206.b/tx57e.d
Injection Date: 06-DEC-2011 20:16
Instrument: nt10.i
Client Sample ID: SD0016

Compound: Total Benzofluoranthenes
CAS Number:



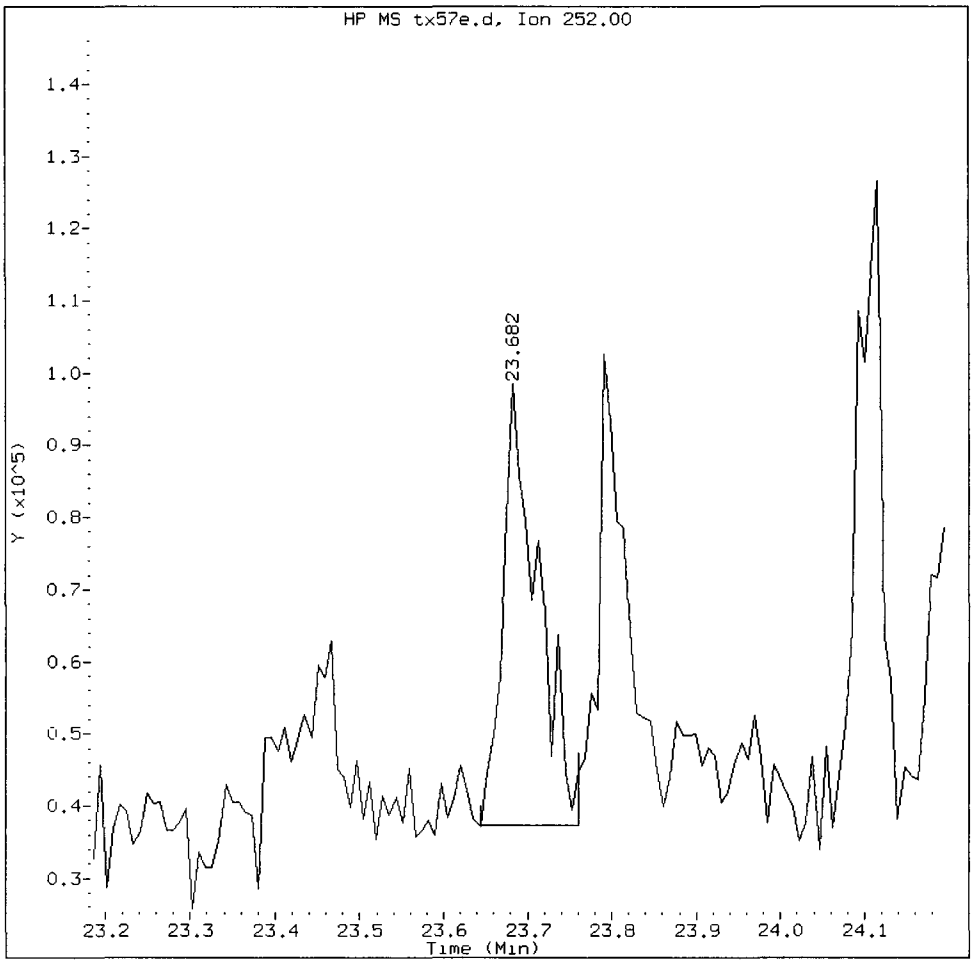
YE 12/9/11





TX57E, /chem1/nt10.i/20111206.b/tx57e.d

Total Benzofluoranthenes Amount: 0.40 Area: 182949



MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 12/9/11

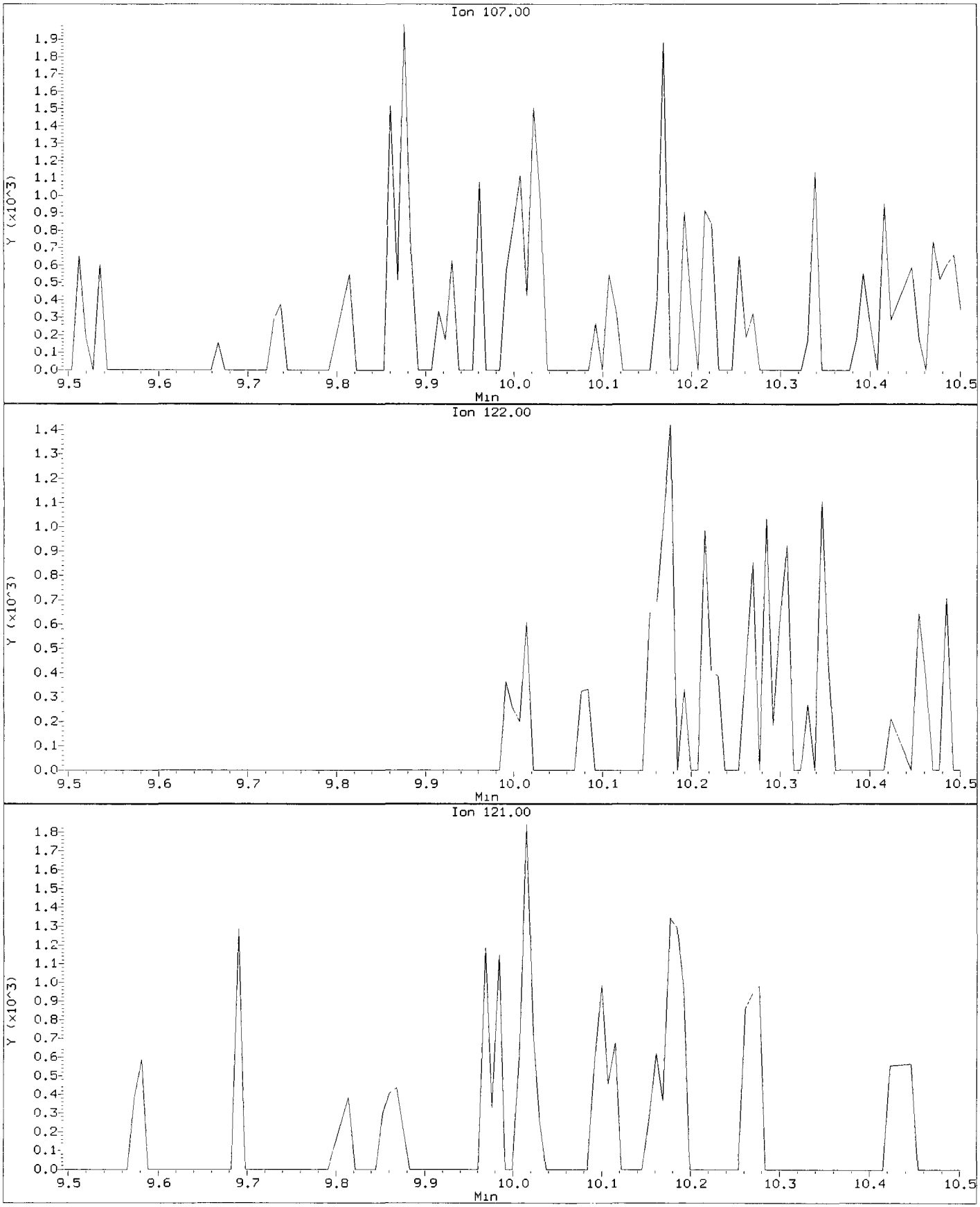
CO-ELUTION SUMMARY FOR FILE - tx57e.d

Lab ID: TX57E, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

RT	CO-ELUTION COMPOUNDS
23.682	Benzo(k)fluoranthene and Benzo(b)fluoranthene

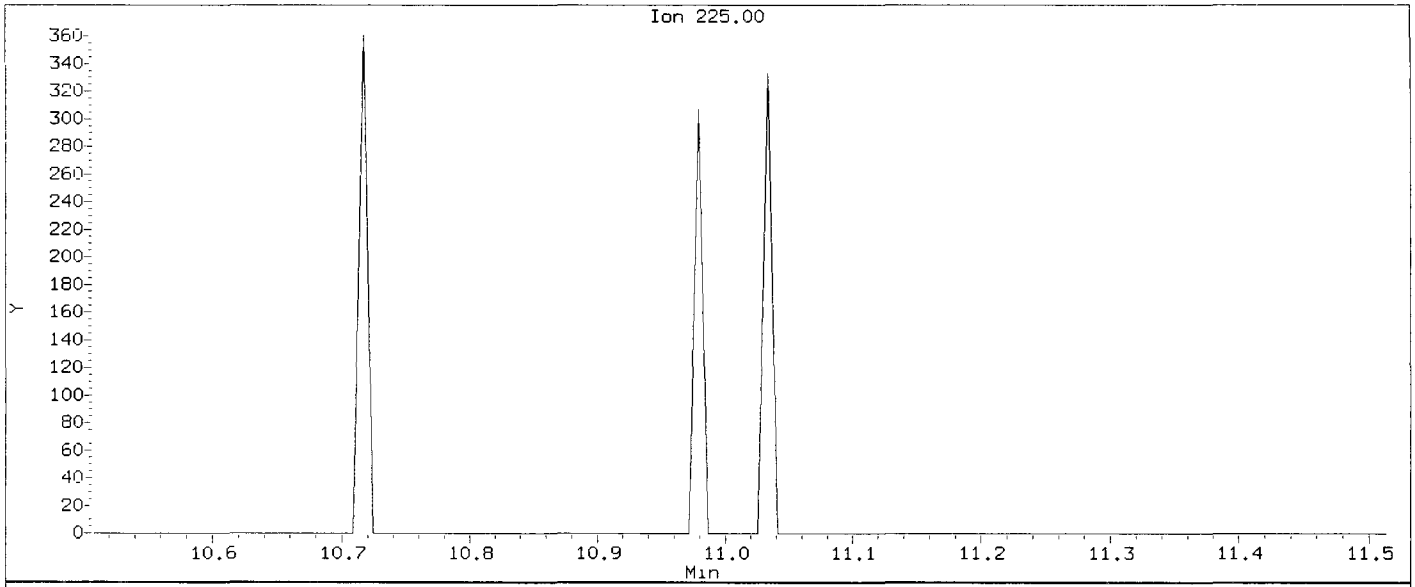
Data File: /chem1/nt10.1/20111206.b/tx57e.d
Injection Date: 06-DEC-2011 20:16
Instrument: nt10.1
Client Sample ID: SD0016

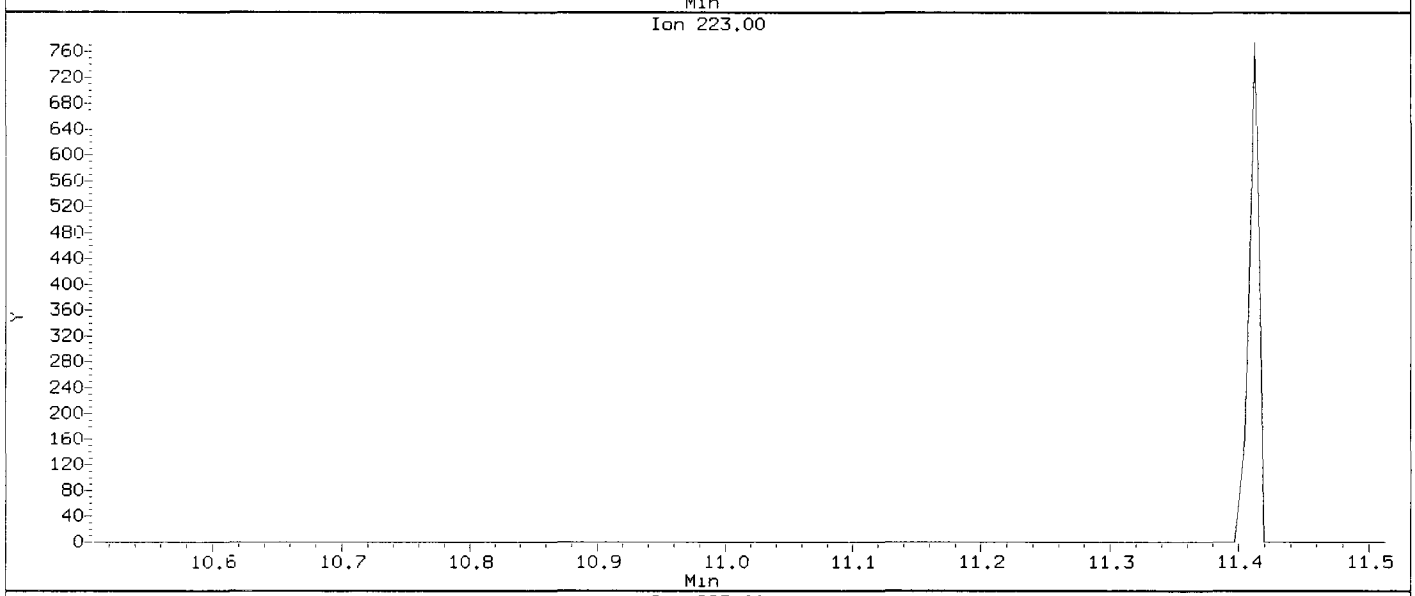
Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9

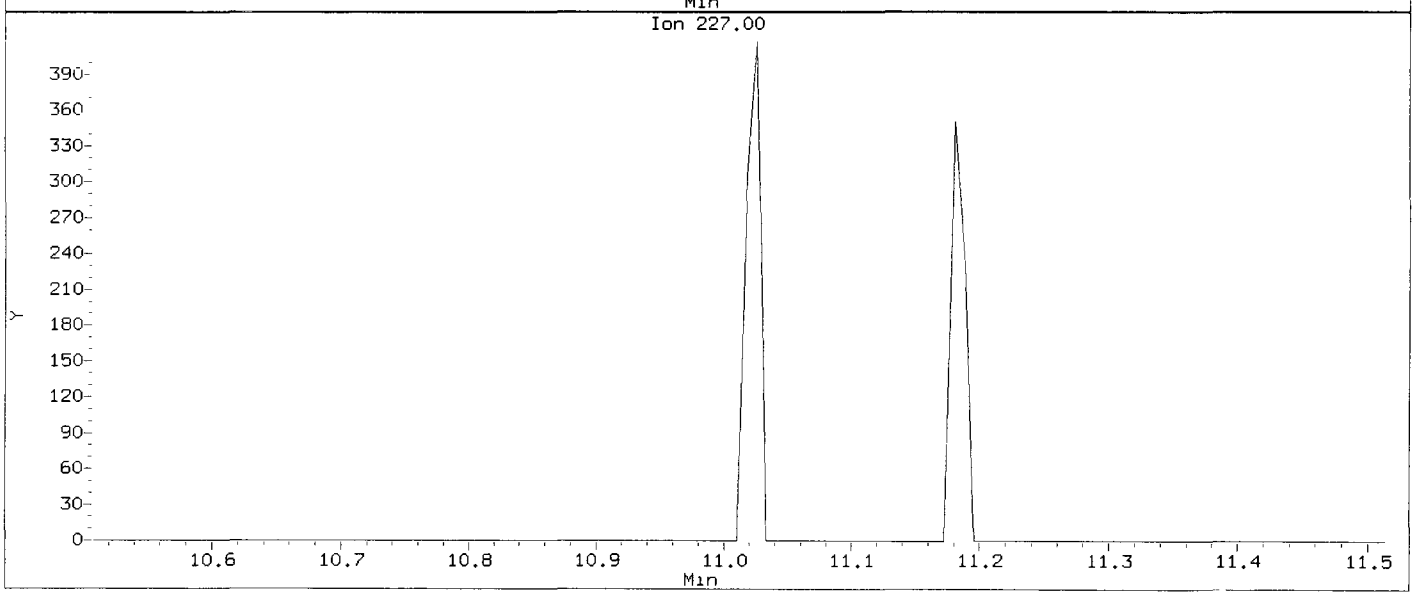


Data File: /chem1/nt10.i/20111206.b/tx57e.d
Injection Date: 06-DEC-2011 20:16
Instrument: nt10.i
Client Sample ID: SD0016

Compound: Hexachlorobutadiene
CAS Number: 87-68-3







TX57 00708

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 12/9/11

Data file : /chem1/nt10.i/20111206.b/tx57f.d
Lab Smp Id: TX57F Client Smp ID: SD0017
Inj Date : 06-DEC-2011 20:50
Operator : YZ Inst ID: nt10.i
Smp Info : TX57F
Misc Info : 11-26624
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 07-Dec-2011 08:43 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	12.40000	Weight of sample extracted (g)
M	16.20000	% 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)
$ 1	2-Fluorophenol	112	6.066	6.043	(0.742)	178851	3.91673	376.9
$ 2	Phenol-d5	99	7.628	7.612	(0.933)	261990	4.46744	429.9
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.836	7.828	(0.958)	228444	4.30458	414.3
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.177	8.177	(1.000)	186745	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.526	8.518	(1.043)	127501	2.76880	266.5
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.248	9.248	(0.872)	215107	3.11411	299.7
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.608	10.600	(1.000)	649840	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.790	12.782	(0.905)	583858	3.41346	328.5
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.137	14.129	(1.000)	473107	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.142	15.134	(1.071)	41530	0.25515	24.55
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.759	15.751	(1.115)	197971	4.74996	457.1
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.119	17.111	(1.000)	983239	4.00000	
	60 Phenanthrene	178	17.173	17.157	(1.003)	84040	0.33204	31.95
	61 Anthracene	178	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	62 Carbazole	167	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					
	64 Fluoranthene	202	19.448	19.432	(1.136)	159169	0.45636	43.92
	65 Pyrene	202	19.850	19.834	(0.903)	170926	0.45409	43.70
$	66 Terphenyl-d14	244	20.159	20.152	(0.918)	1027957	3.31360	318.9
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	21.948	21.932	(0.999)	87579	0.20674	19.90
*	69 Chrysene-d12	240	21.971	21.956	(1.000)	1556491	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	22.018	22.002	(1.002)	113867	0.29805	28.68
	72 bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134 Di-n-octylphthalate-d4	153	23.071	23.047	(1.000)	1319715	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	23.698	23.651	(0.977)	210268	0.46902	45.14
	75 Benzo(k)fluoranthene	252	23.698	23.690	(0.977)	210268	0.45257	43.55
	76 Benzo(a)pyrene	252	24.178	24.147	(0.996)	75737	0.20575	19.80
*	77 Perylene-d12	264	24.263	24.232	(1.000)	1471800	4.00000	
	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.					
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	Compound Not Detected.					
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	23.698	23.690	(0.977)	196086	0.45401	43.69(M)
	99 Perylene	252	24.302	24.278	(1.002)	58362	0.16063	15.46

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57f.d
Lab Smp Id: TX57F
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26624

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: SD0017
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	186745	8.03
27 Naphthalene-d8	574010	287005	1148020	649840	13.21
42 Acenaphthene-d10	467963	233982	935926	473107	1.10
59 Phenanthrene-d10	976150	488075	1952300	983239	0.73
69 Chrysene-d12	1397129	698564	2794258	1556491	11.41
134 Di-n-octylphthala	1264537	632268	2529074	1319715	4.36
77 Perylene-d12	1407308	703654	2814616	1471800	4.58

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.61	0.07
42 Acenaphthene-d10	14.13	13.63	14.63	14.14	0.06
59 Phenanthrene-d10	17.11	16.61	17.61	17.12	0.05
69 Chrysene-d12	21.96	21.46	22.46	21.97	0.07
134 Di-n-octylphthala	23.05	22.55	23.55	23.07	0.10
77 Perylene-d12	24.23	23.73	24.73	24.26	0.13

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

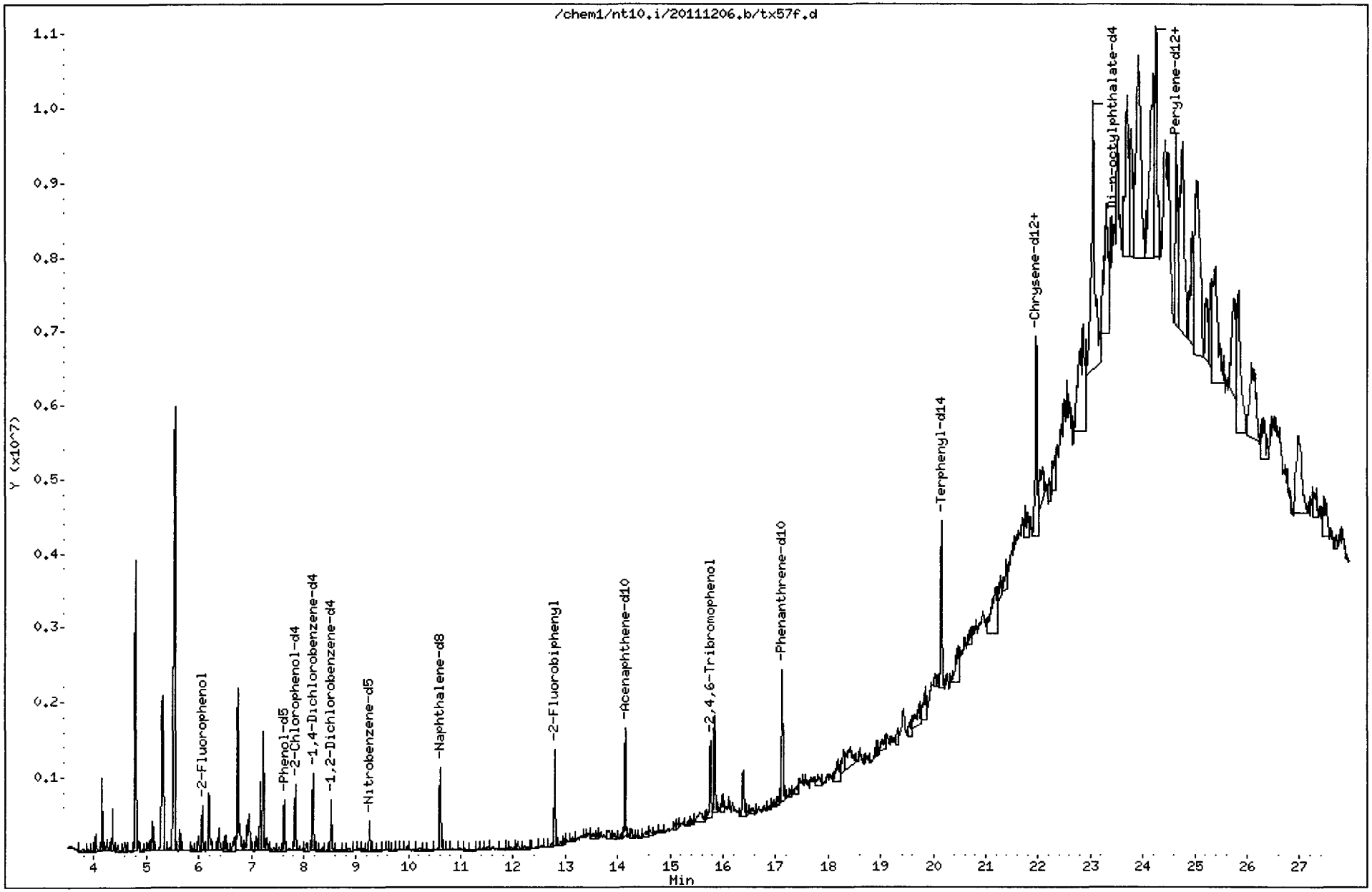
Client Name: INTEGRAL
Sample Matrix: SOLID
Lab Smp Id: TX57F
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26624

Client SDG: TX57
Fraction: SV
Client Smp ID: SD0017
Operator: YZ
SampleType: SAMPLE
Quant Type: ISTD

	SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	721.8	376.9	52.22	30-160
$ 2	Phenol-d5	721.8	429.9	59.57	30-160
$ 5	2-Chlorophenol-d4	721.8	414.3	57.39	30-160
$ 10	1,2-Dichlorobenzen	481.2	266.5	55.38	30-160
$ 18	Nitrobenzene-d5	481.2	299.7	62.28	30-160
$ 36	2-Fluorobiphenyl	481.2	328.5	68.27	30-160
$ 55	2,4,6-Tribromophen	721.8	457.1	63.33	30-160
$ 66	Terphenyl-d14	481.2	318.9	66.27	30-160

Data File: /chem1/nt10.i/20111206.b/tx57f.d
Date : 06-DEC-2011 20:50
Client ID: SD0017
Sample Info: TX57F
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20111206.b/tx57f.d

Date : 06-DEC-2011 20:50

Client ID: SD0017

Instrument: nt10.i

Sample Info: TX57F

Volume Injected (uL): 1.0

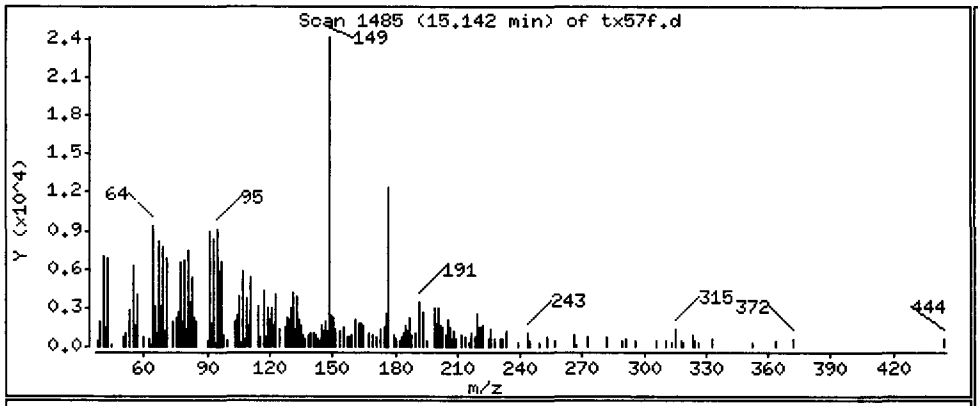
Operator: YZ

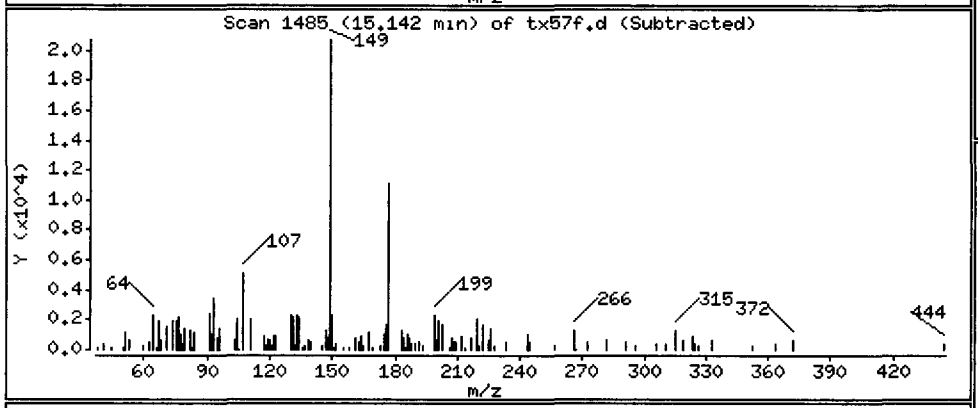
Column phase: ZB-5msi

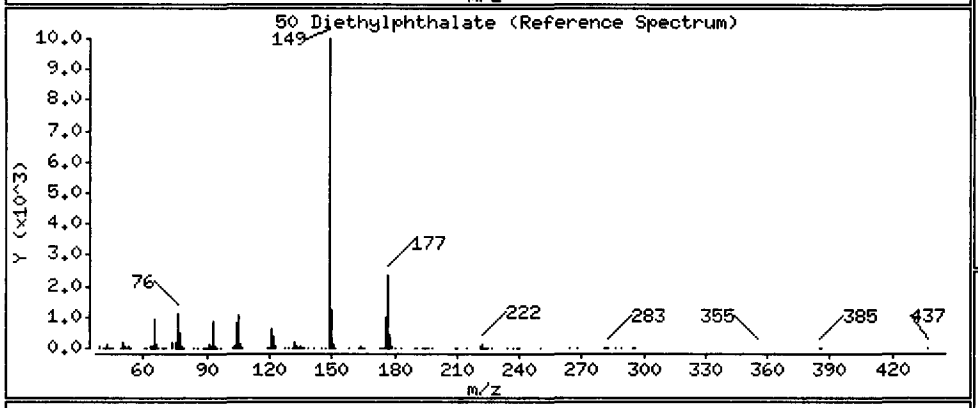
Column diameter: 0.25

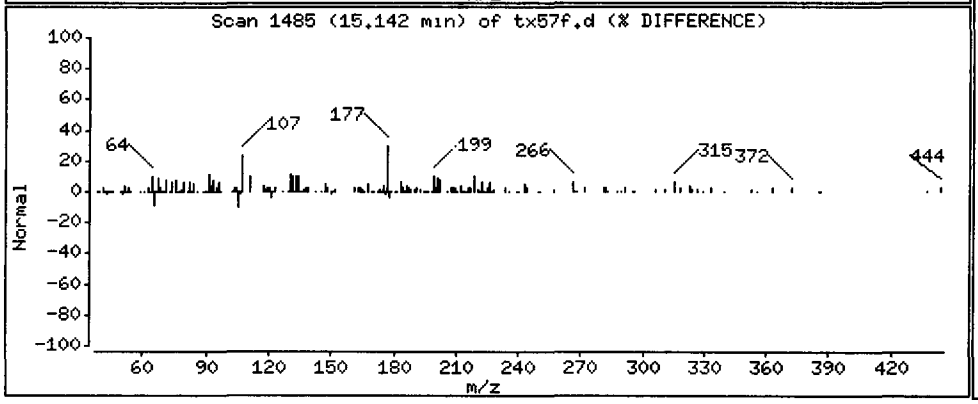
50 Diethylphthalate

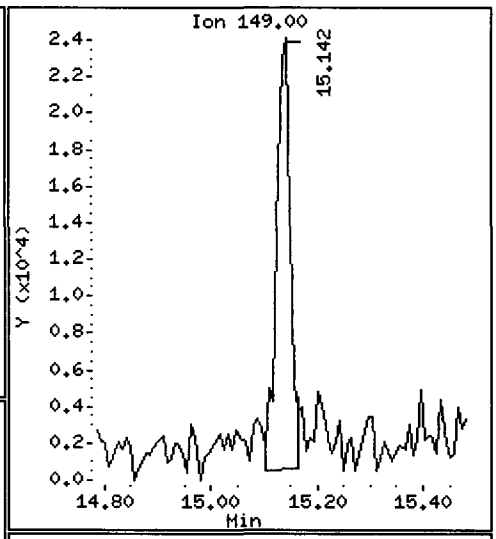
Concentration: 24.55 ug/kg

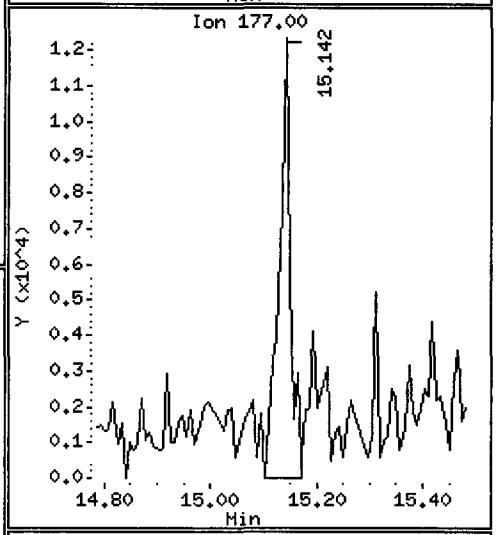


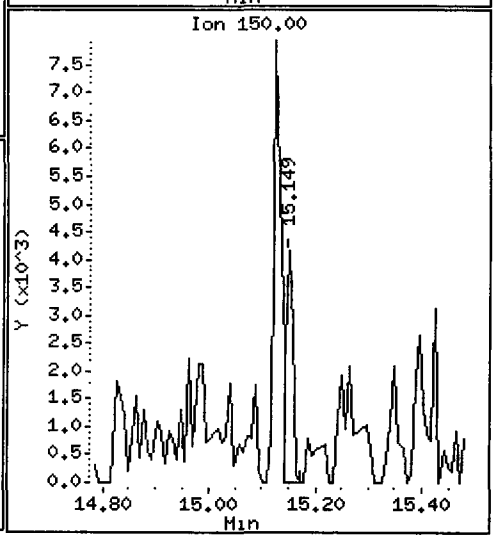












Data File: /chem1/nt10.1/20111206.b/tx57f.d

Date : 06-DEC-2011 20:50

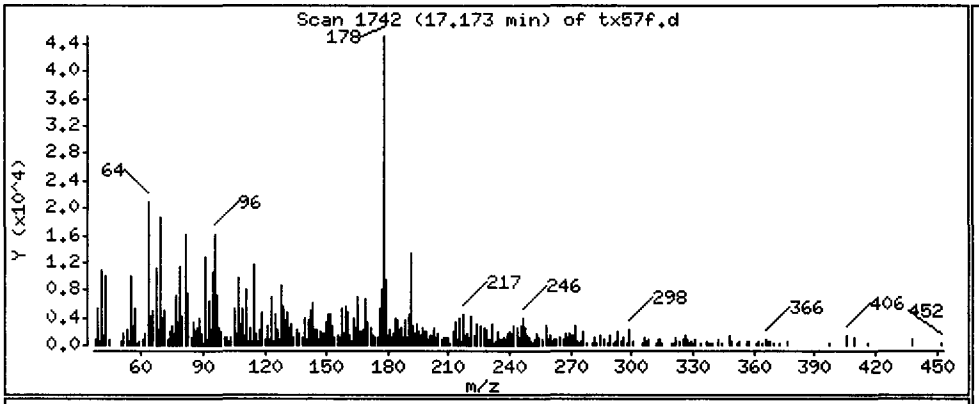
Client ID: SD0017 Instrument: nt10.1

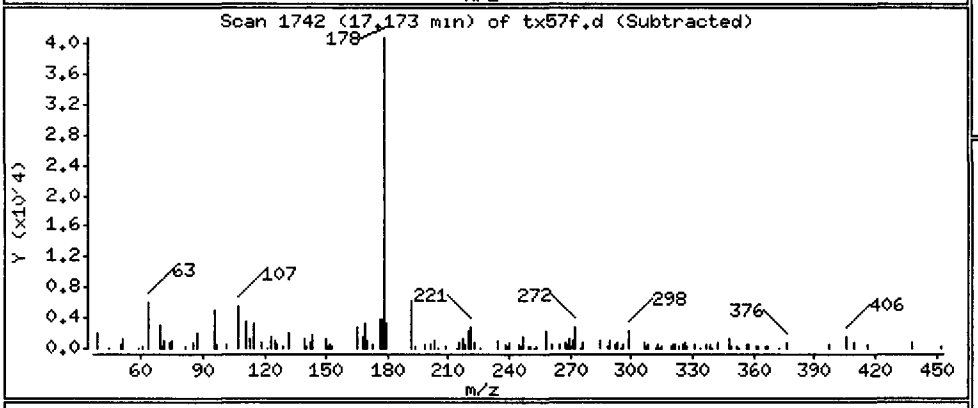
Sample Info: TX57F

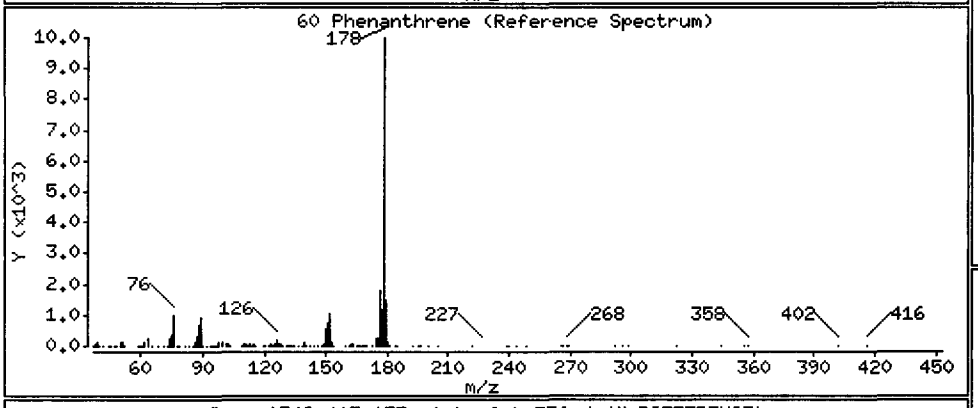
Volume Injected (uL): 1.0 Operator: YZ

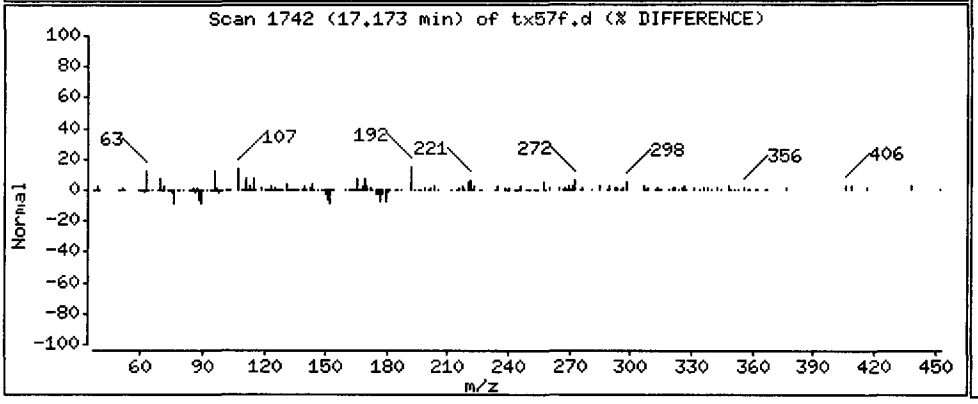
Column phase: ZB-5msi Column diameter: 0.25

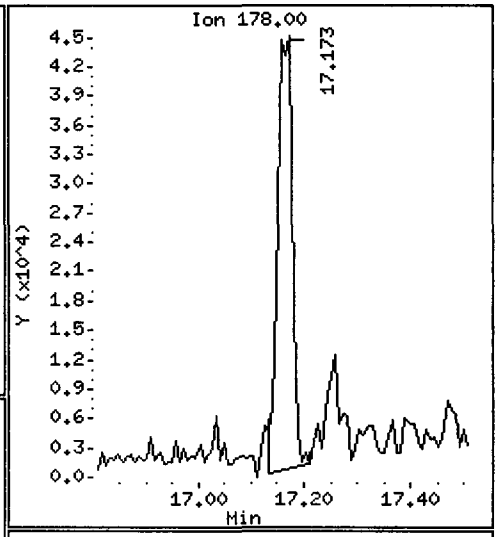
60 Phenanthrene Concentration: 31.95 ug/kg

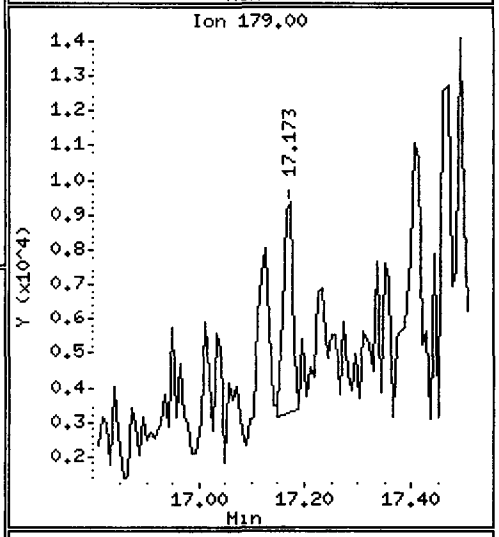


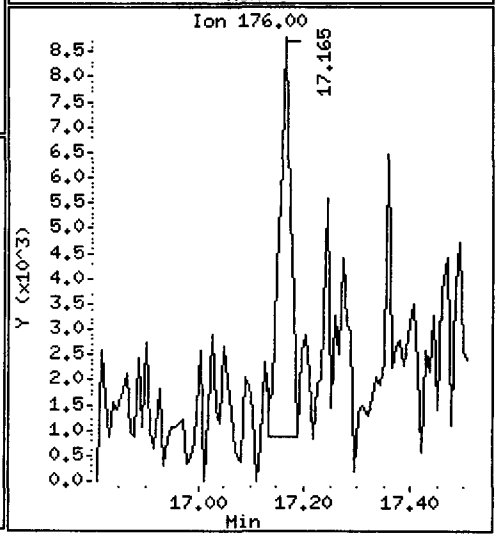












Data File: /chem1/nt10.i/20111206.b/tx57f.d

Date : 06-DEC-2011 20:50

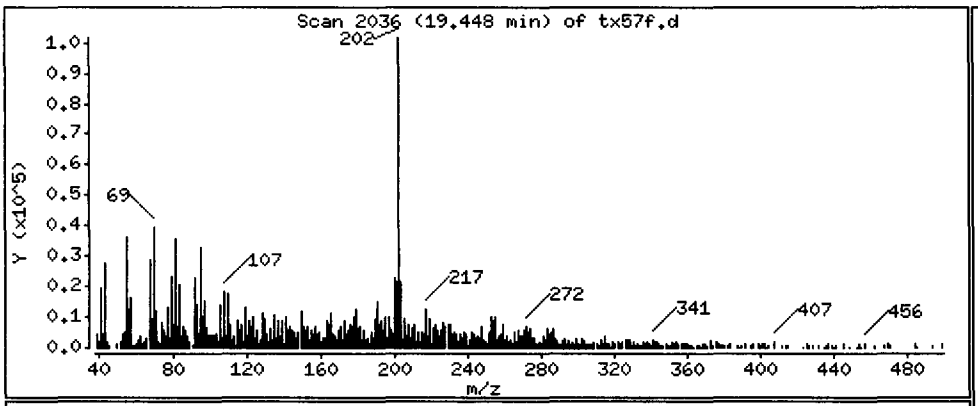
Client ID: SD0017 Instrument: nt10.i

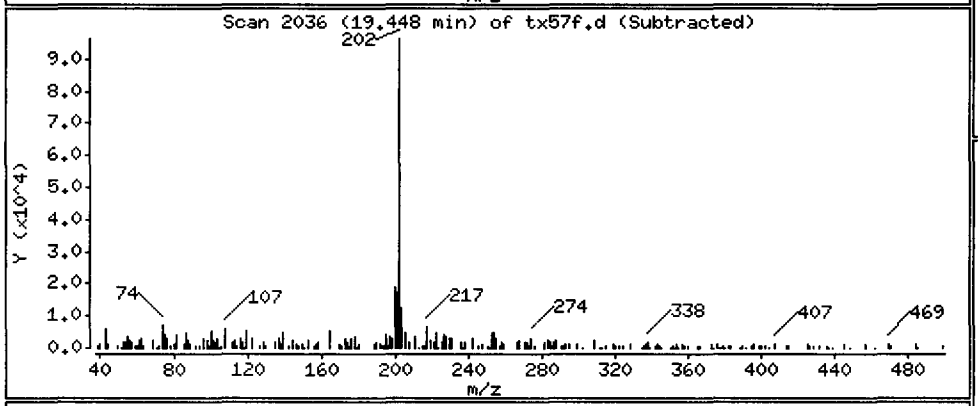
Sample Info: TX57F

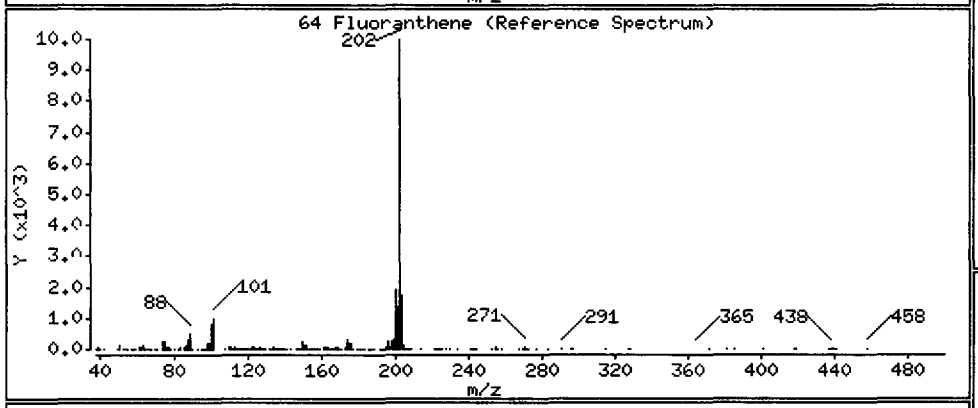
Volume Injected (uL): 1.0 Operator: YZ

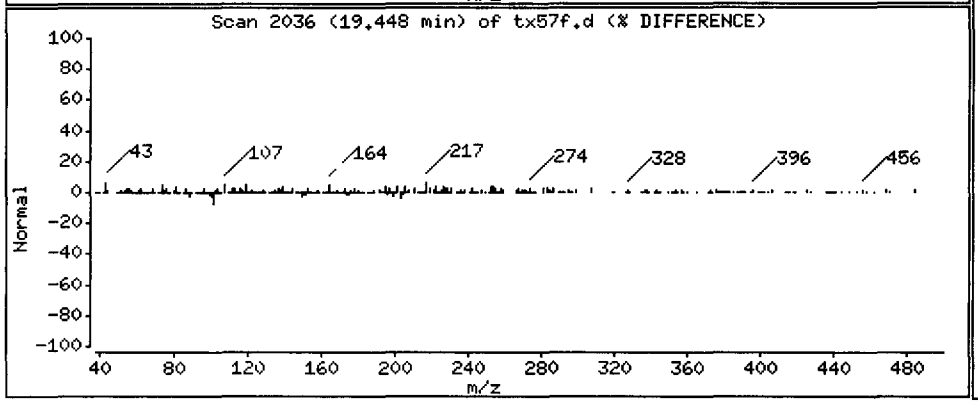
Column phase: ZB-5ms1 Column diameter: 0.25

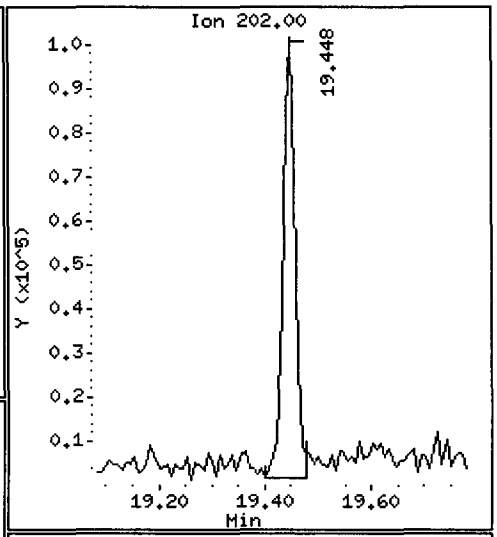
64 Fluoranthene Concentration: 43.92 ug/kg

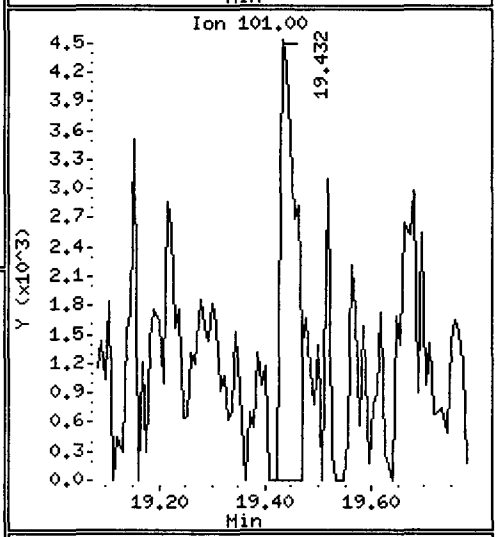


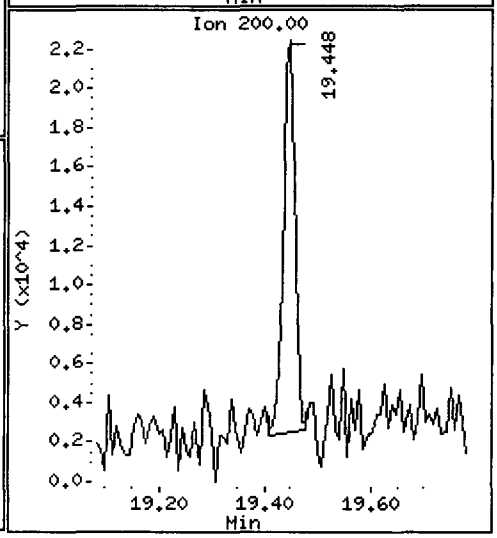












Data File: /chem1/nt10.i/20111206.b/tx57f.d

Date : 06-DEC-2011 20:50

Client ID: SD0017

Instrument: nt10.i

Sample Info: TX57F

Volume Injected (uL): 1.0

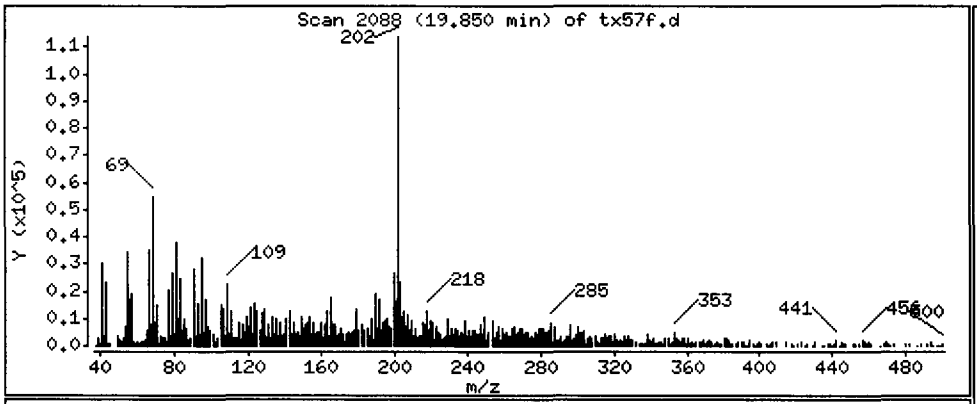
Operator: YZ

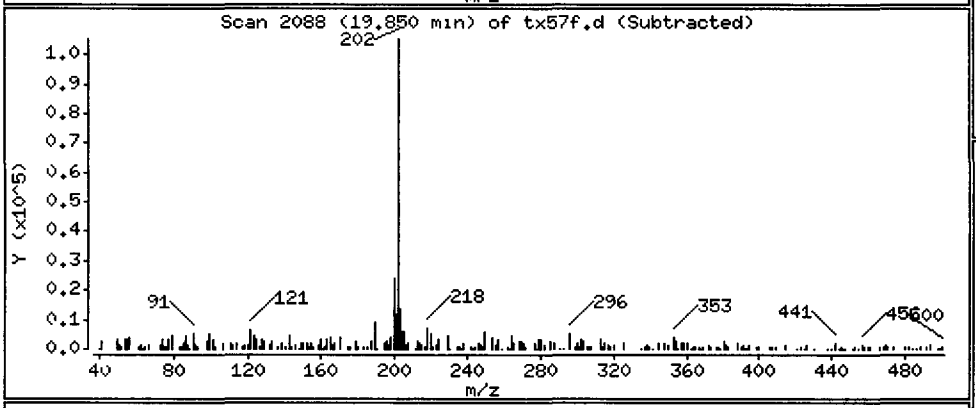
Column phase: ZB-5msi

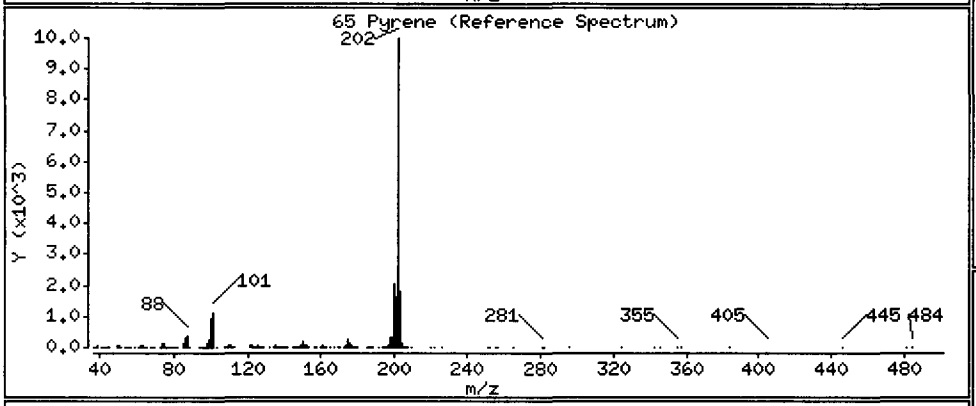
Column diameter: 0.25

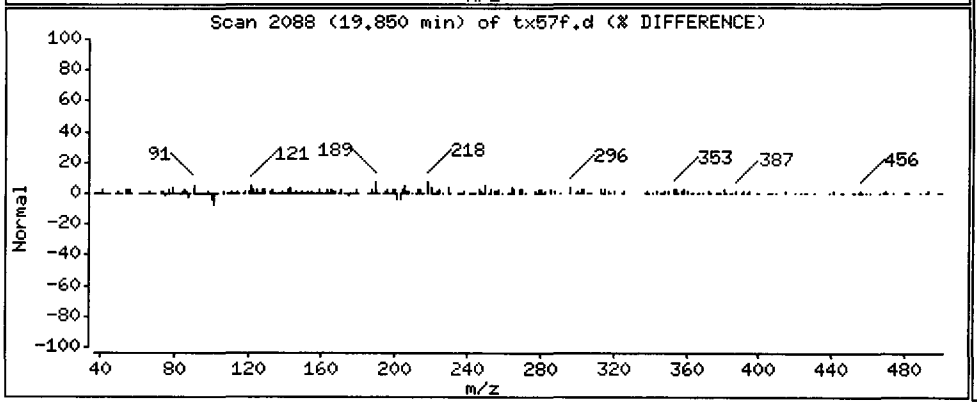
65 Pyrene

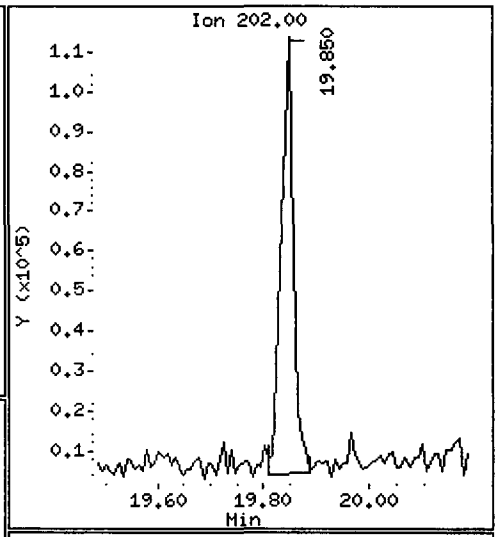
Concentration: 43.70 ug/kg

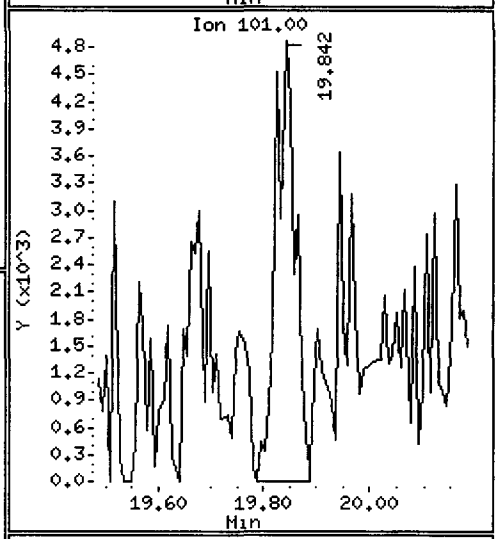


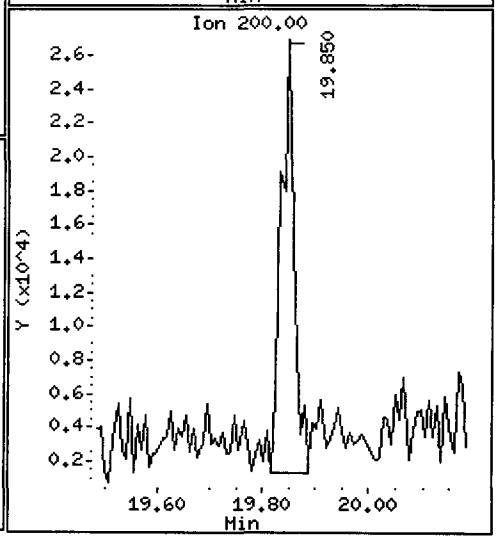












Data File: .'chem1/nt10.i/20111206.b/tx57f.d

Date : 06-DEC-2011 20:50

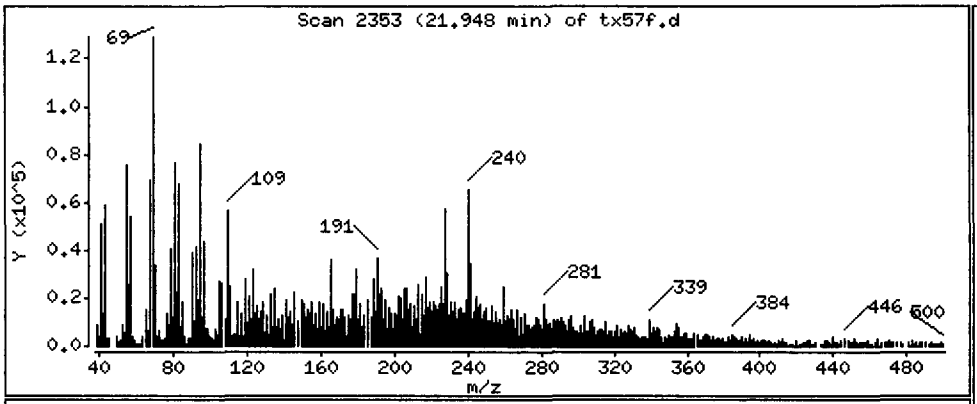
Client ID: SD0017 Instrument: nt10.i

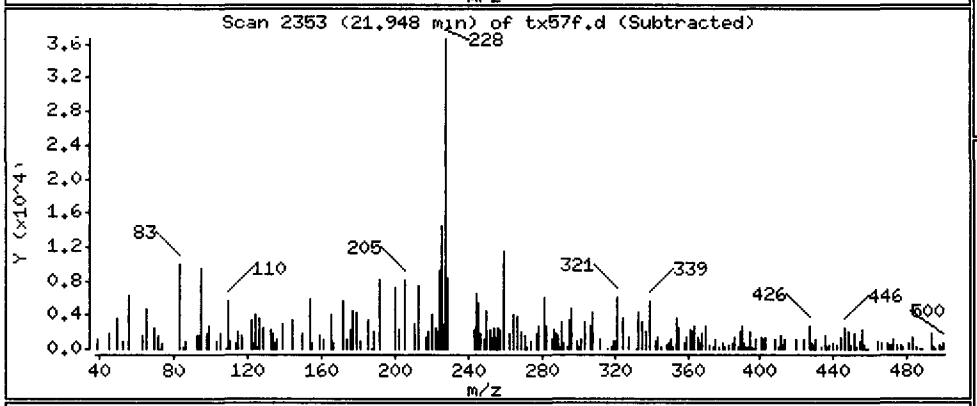
Sample Info: TX57F

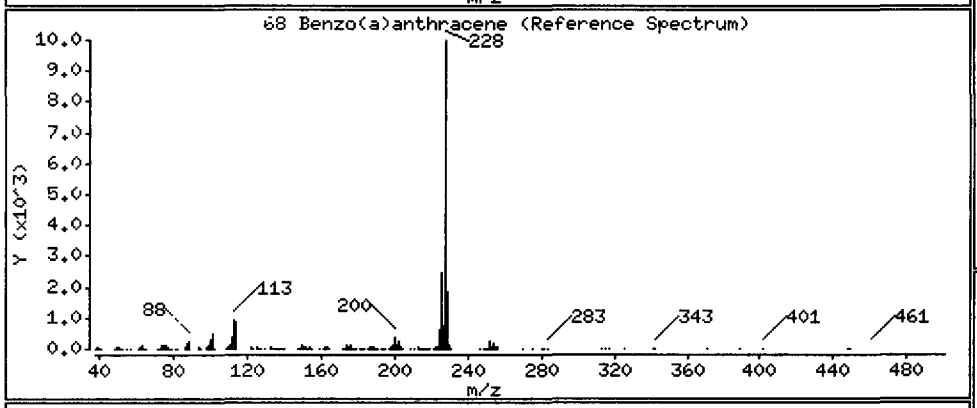
Volume Injected (uL): 1.0 Operator: YZ

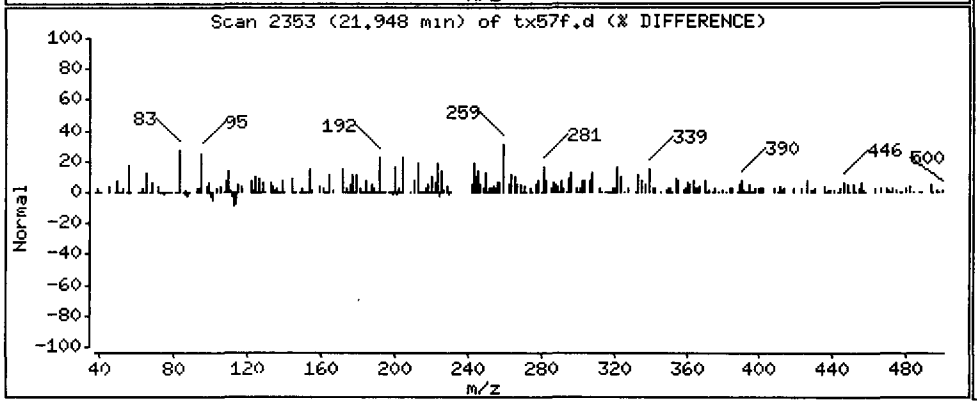
Column phase: ZB-5msi Column diameter: 0.25

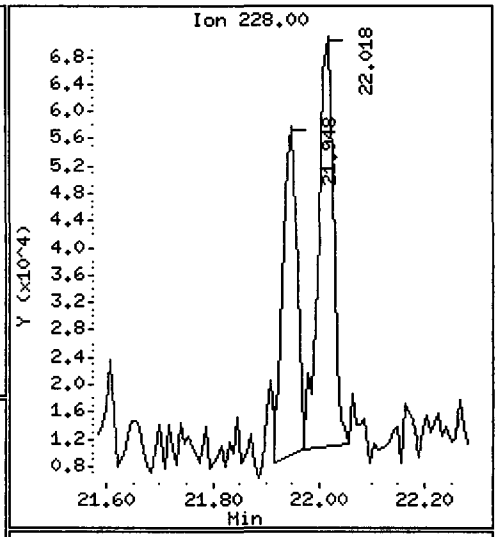
68 Benzo(a)anthracene Concentration: 19.90 ug/kg

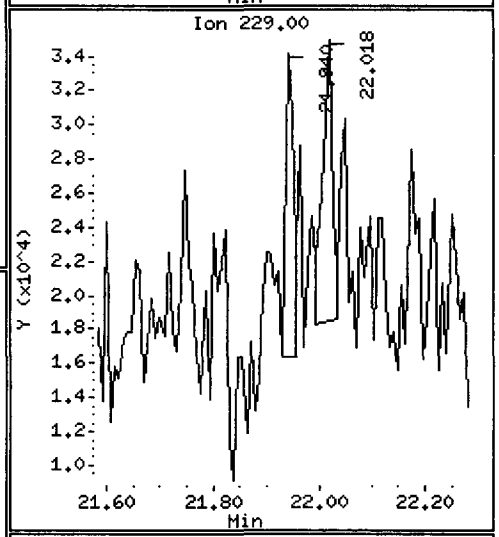


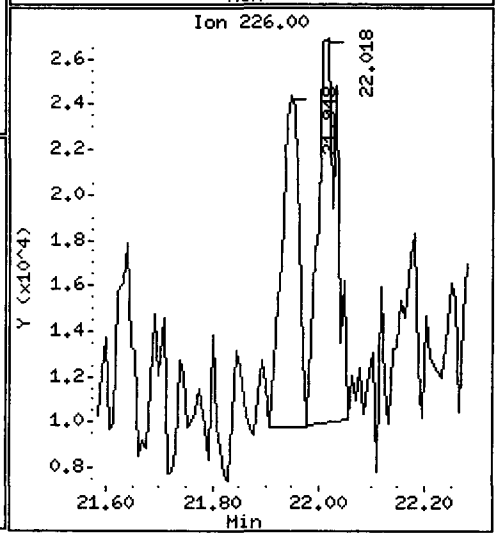












Data File: /chem1/nt10.i/20111206.b/tx57f.d

Date : 06-DEC-2011 20:50

Client ID: SD0017

Instrument: nt10.i

Sample Info: TX57F

Volume Injected (uL): 1.0

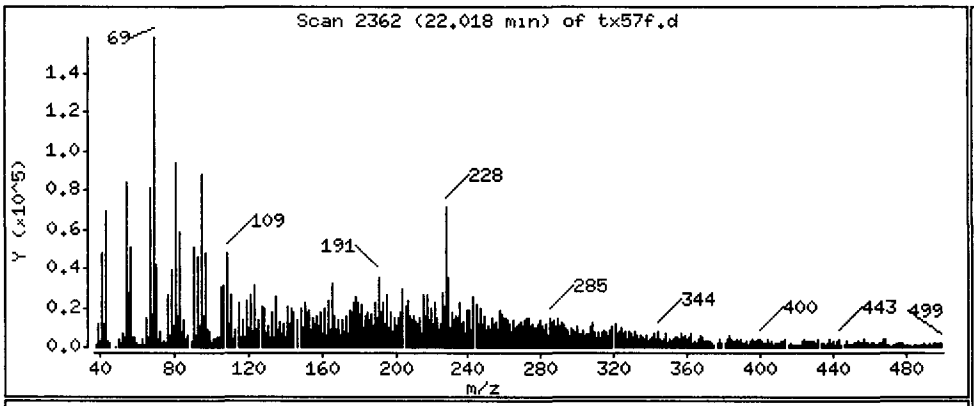
Operator: YZ

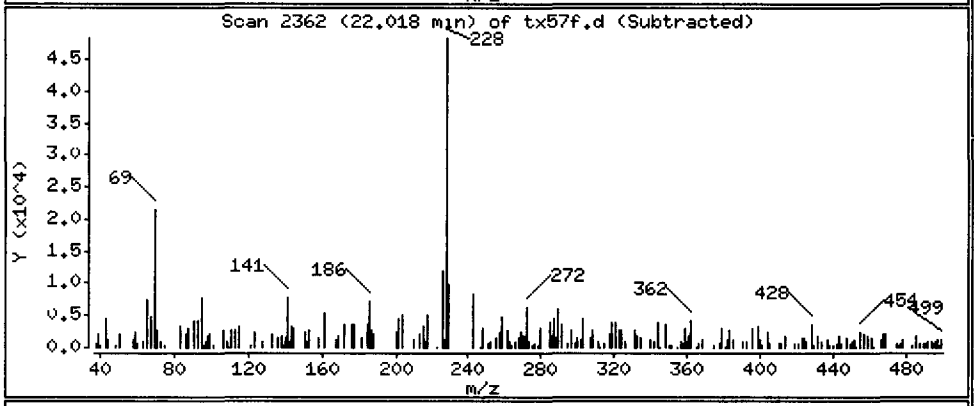
Column phase: ZB-5msi

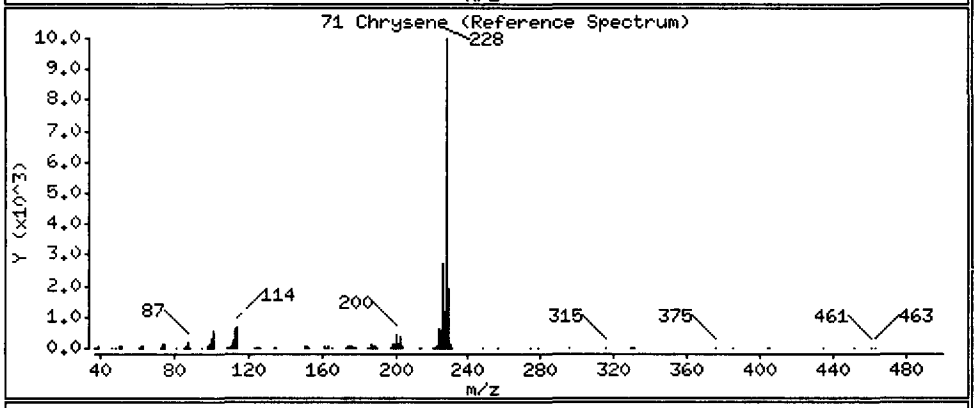
Column diameter: 0.25

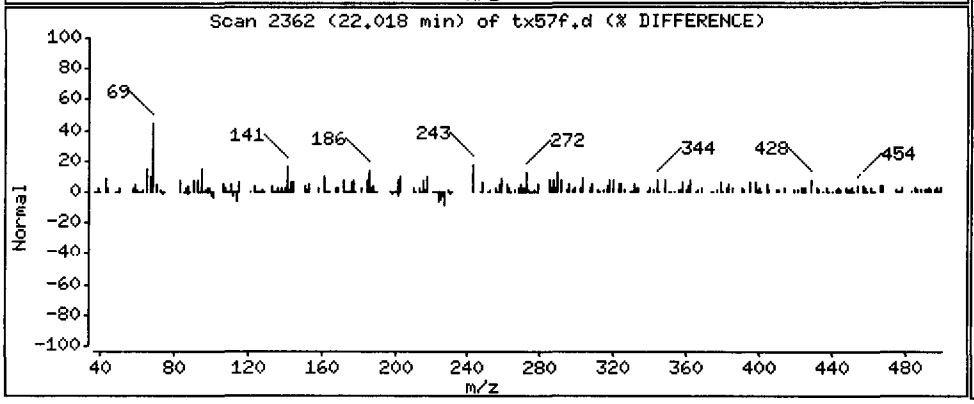
71 Chrysene

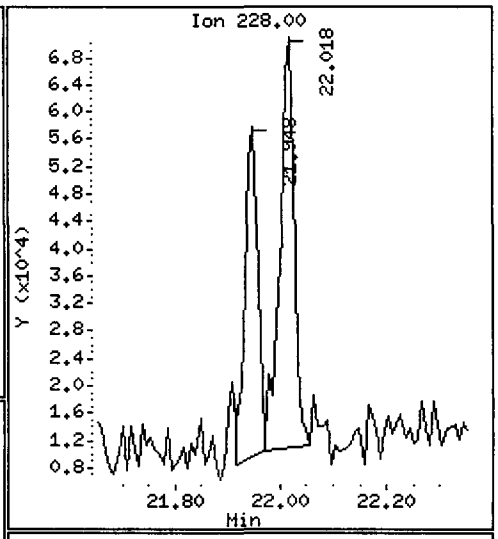
Concentration: 28.68 ug/kg

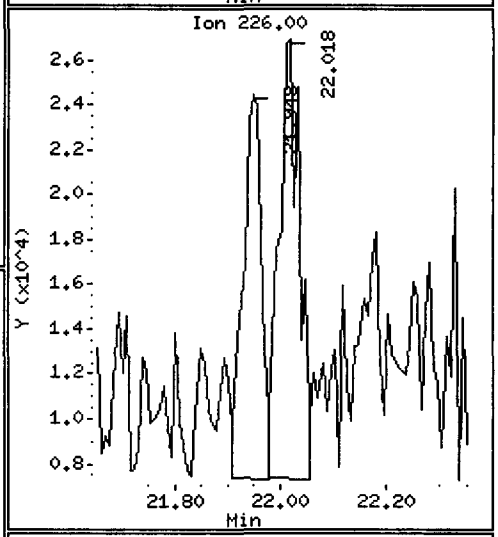


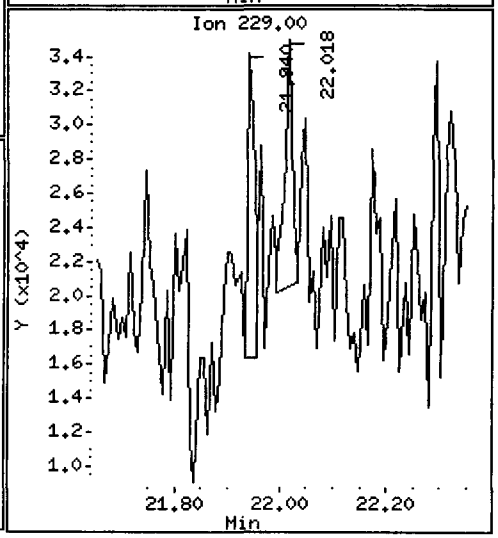












Data File: /chem1/nt10.i/20111206.b/tx57f.d

Date : 06-DEC-2011 20:50

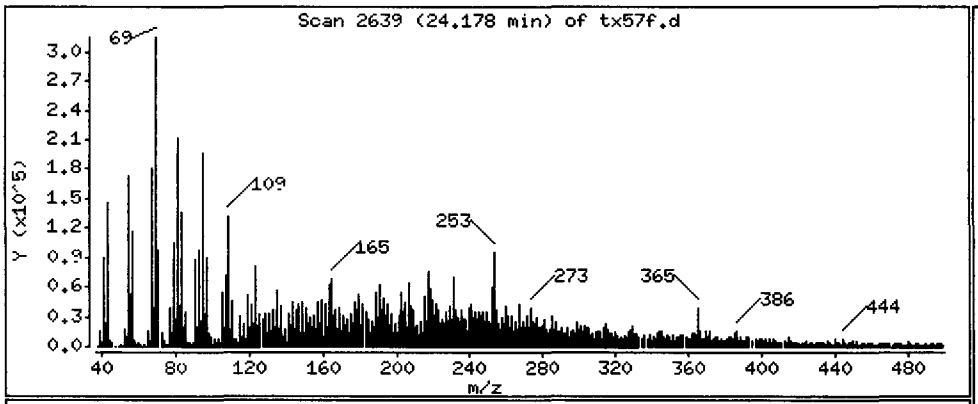
Client ID: SD0017 Instrument: nt10.i

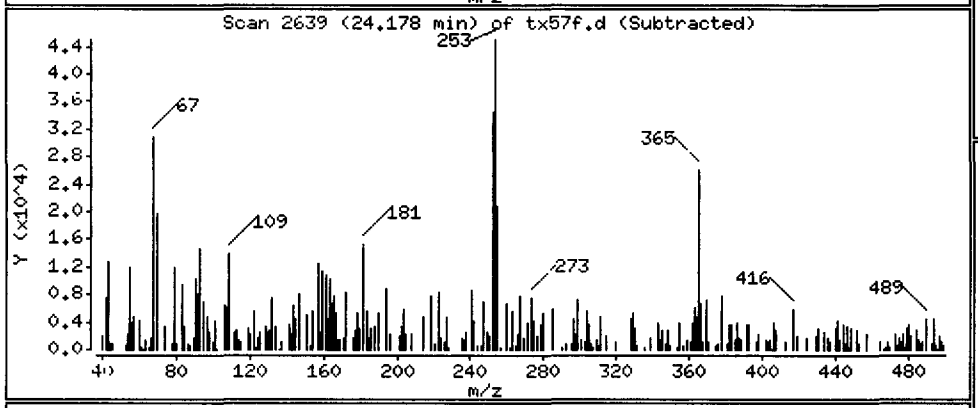
Sample Info: TX57F

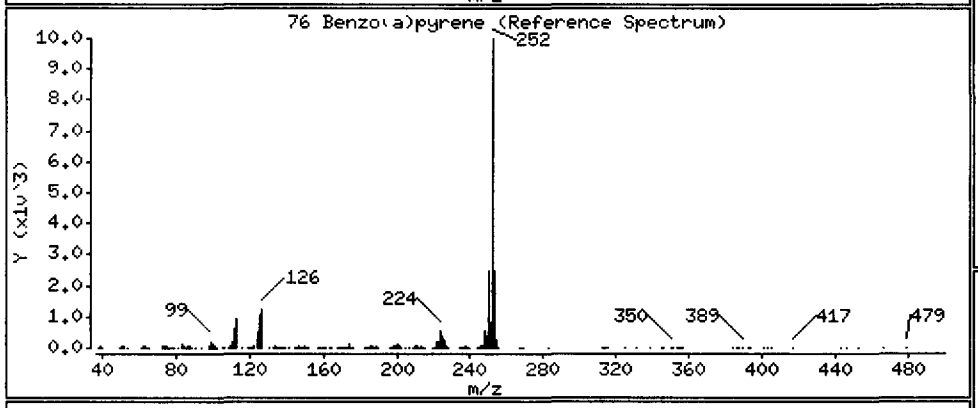
Volume Injected (uL): 1.0 Operator: YZ

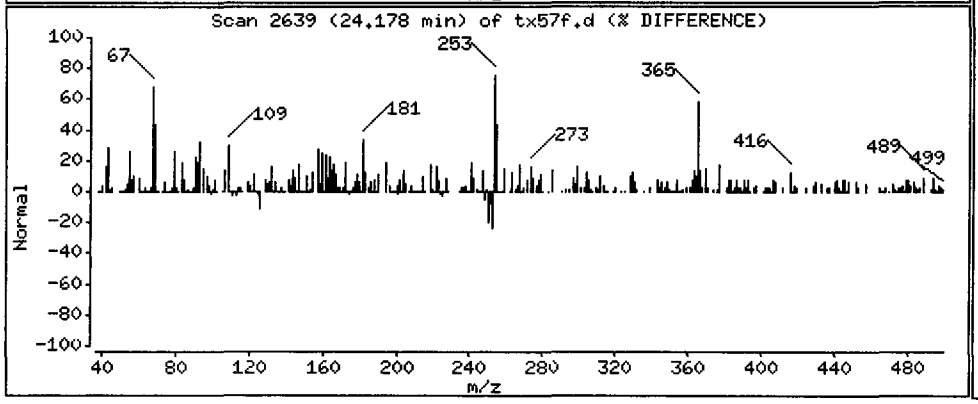
Column phase: ZB-5msi Column diameter: 0.25

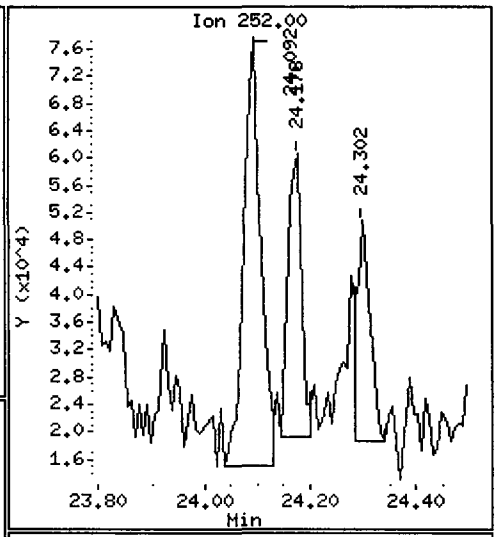
76 Benzo(a)pyrene Concentration: 19.80 ug/kg

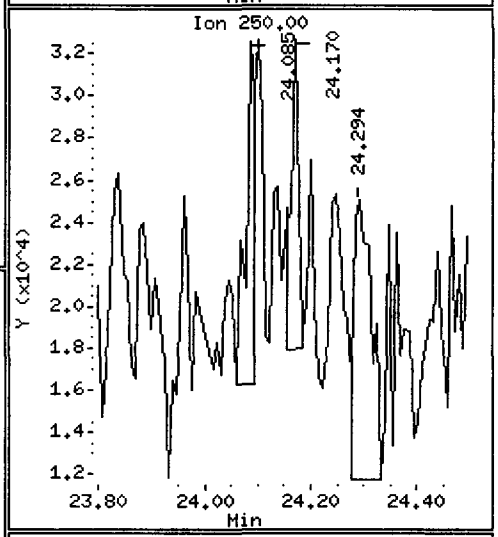


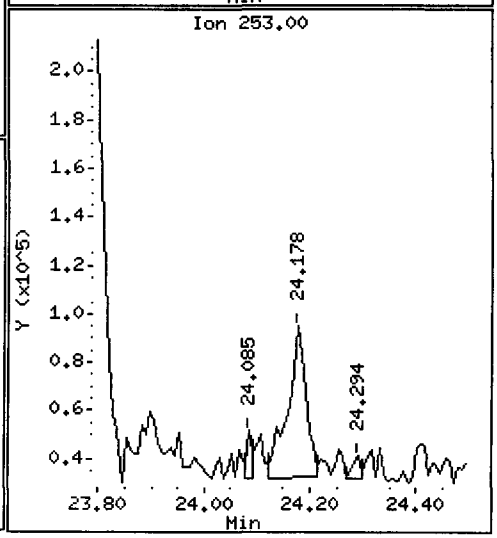












Data File: /chem1/nt10.i/20111206.b/tx57f.d

Date : 06-DEC-2011 20:50

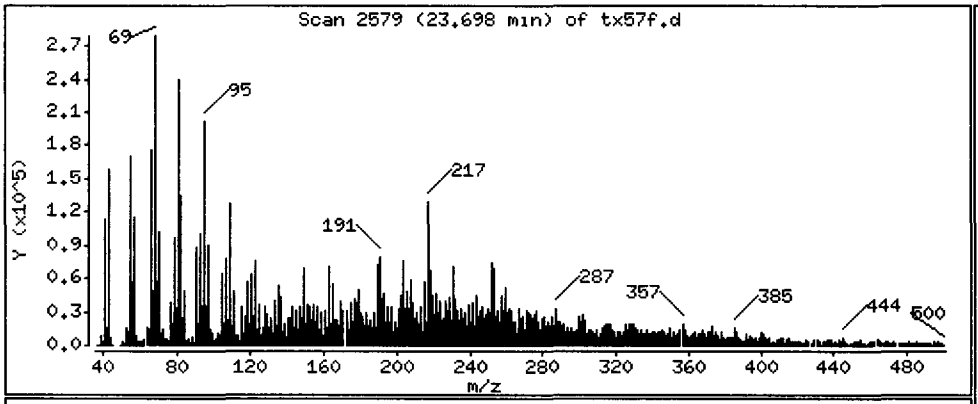
Client ID: SD0017 Instrument: nt10.i

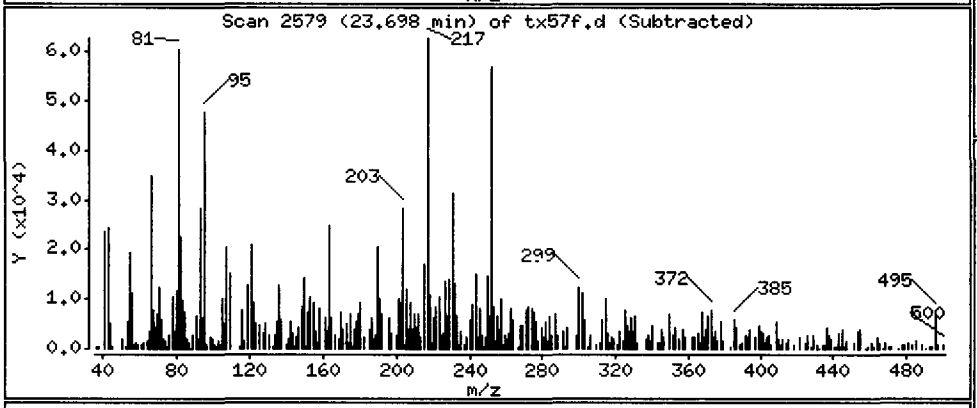
Sample Info: TX57F

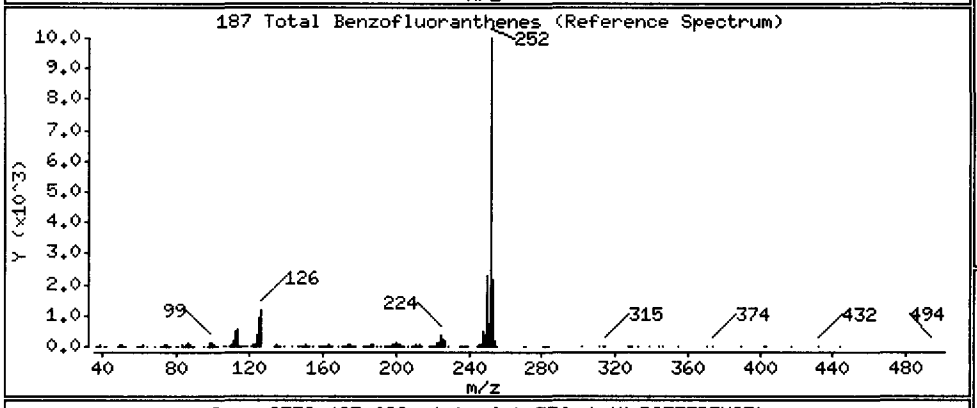
Volume Injected (uL): 1.0 Operator: YZ

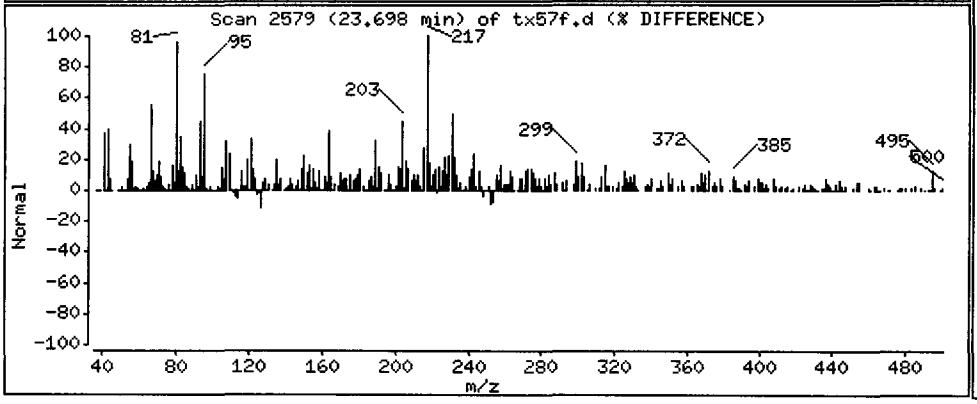
Column phase: ZB-5ms1 Column diameter: 0.25

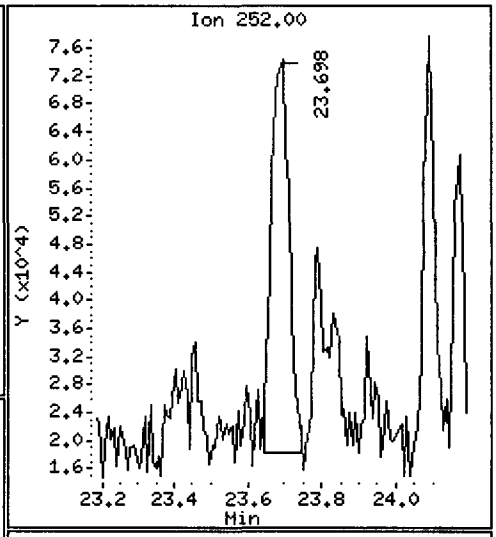
187 Total Benzofluoranthenes Concentration: 43.69 ug/kg

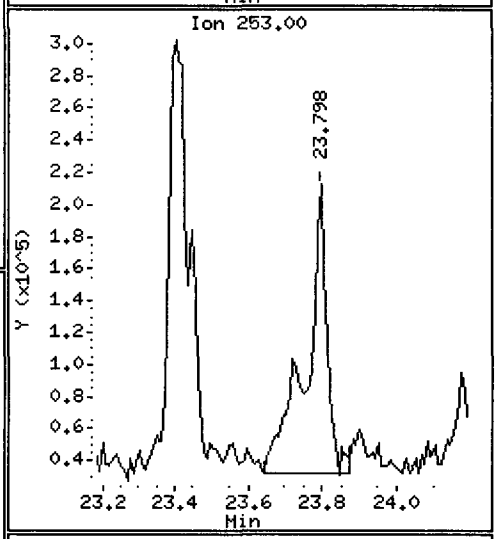


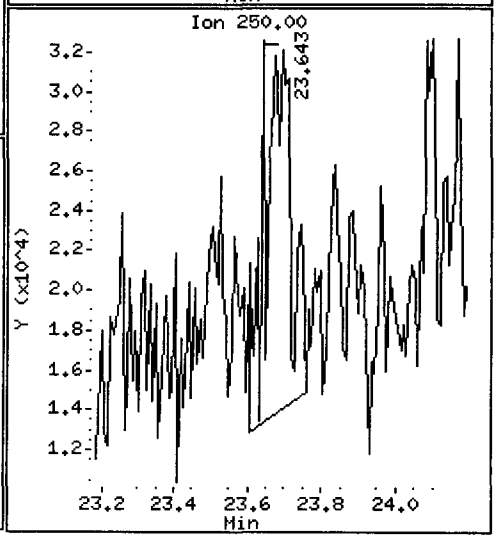






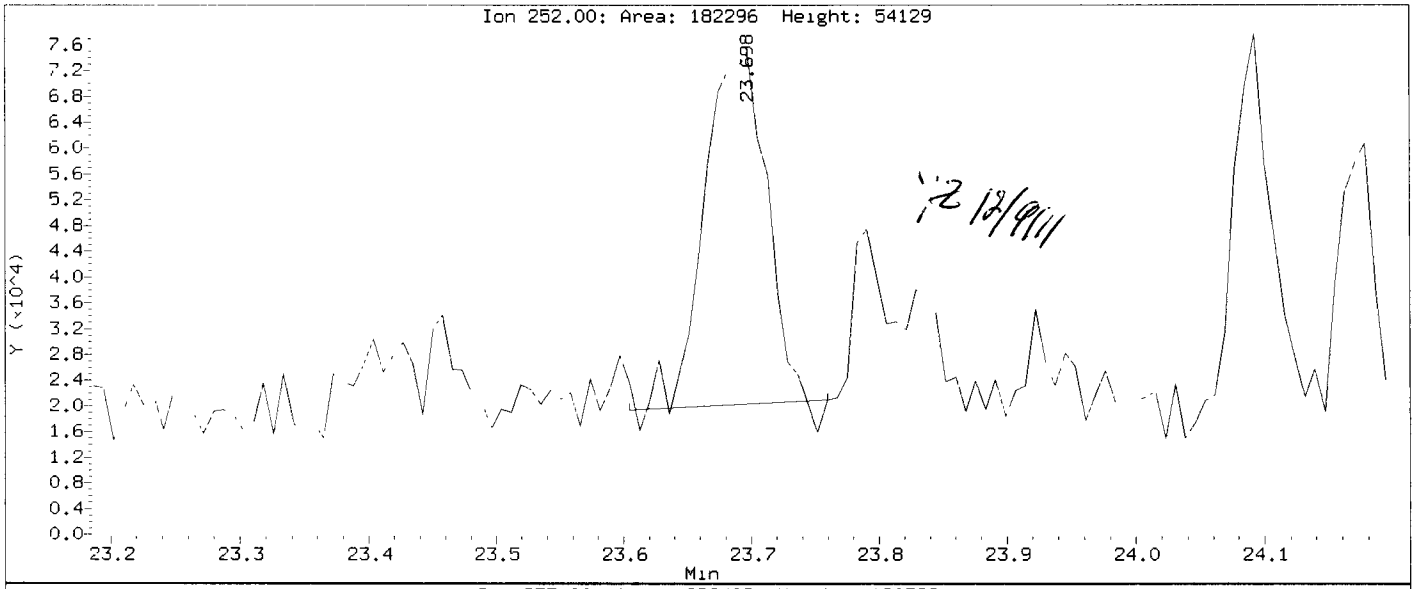


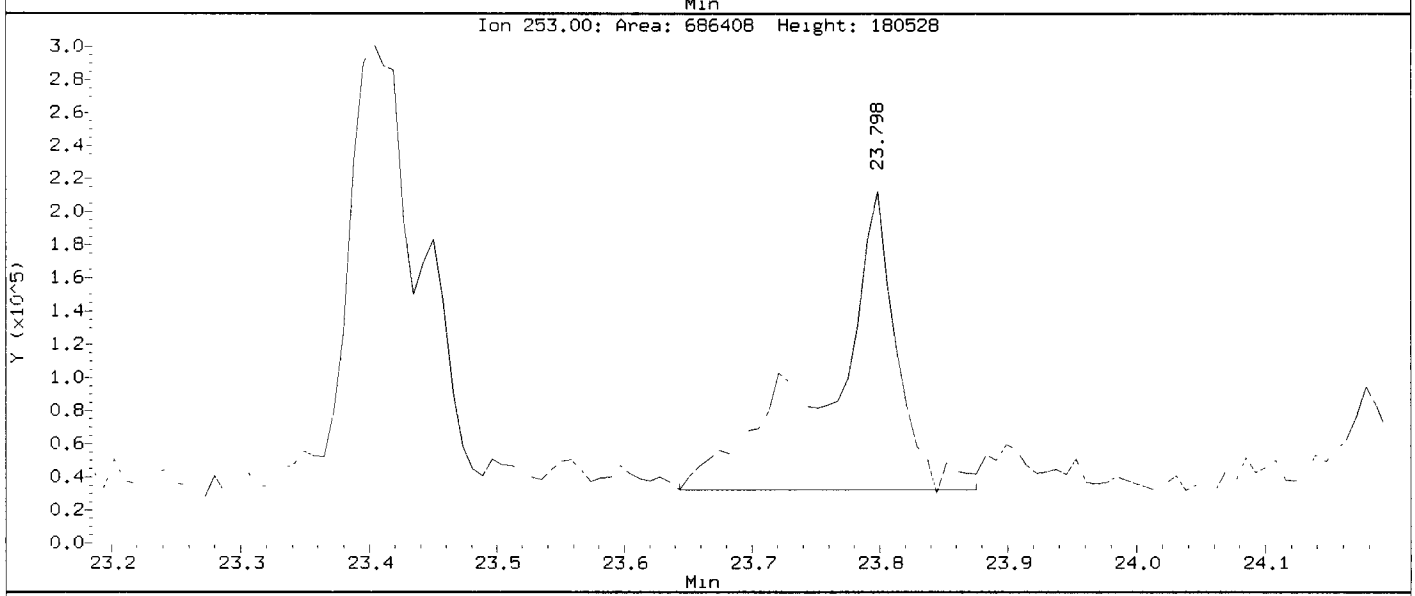


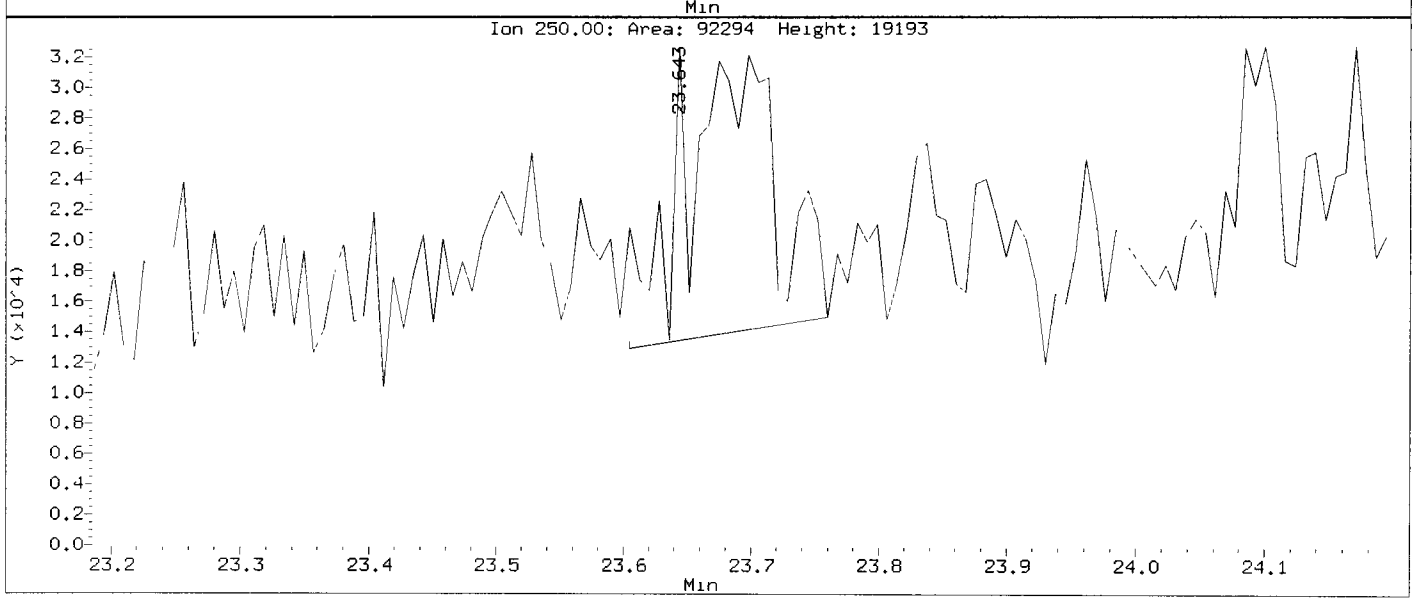


Data File: /chem1/nt10.i/20111206.b/tx57f.d
Injection Date: 06-DEC-2011 20:50
Instrument: nt10.i
Client Sample ID: SD0017

Compound: Total Benzofluoranthenes
CAS Number:



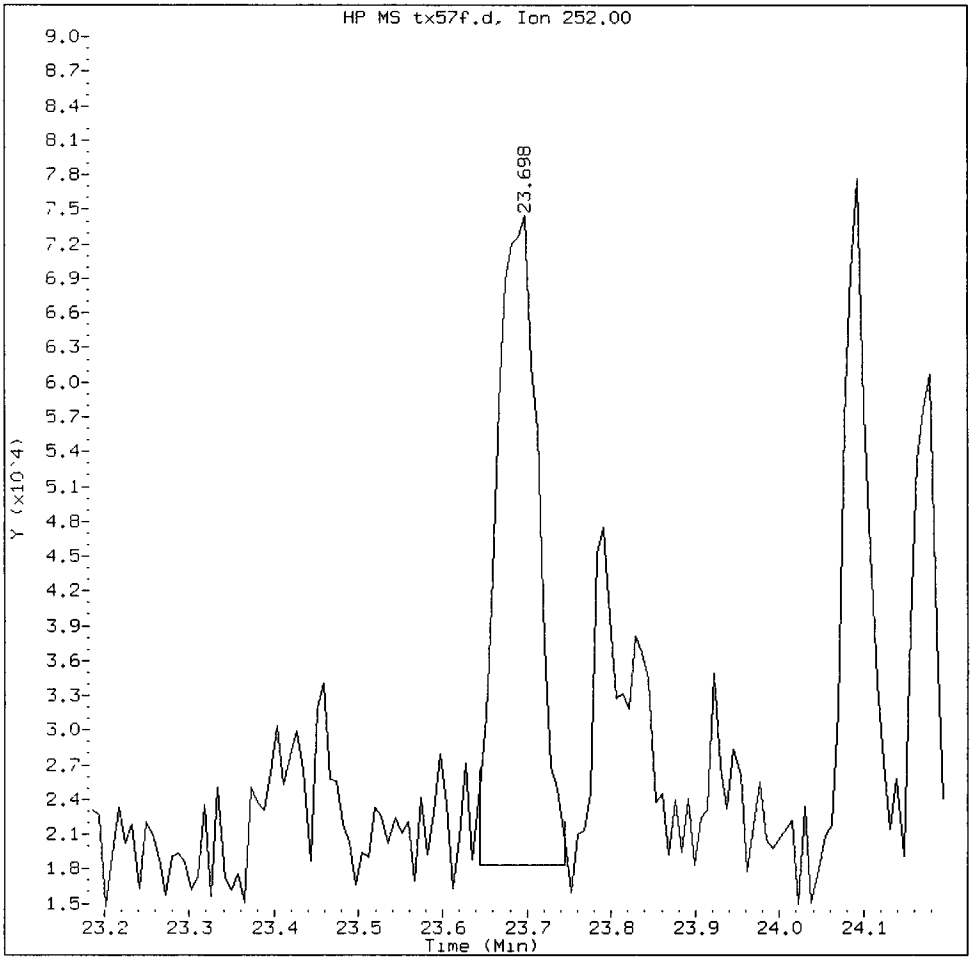




TX57 00723

TX57F, /chem1/nt10.i/20111206.b/tx57f.d

Total Benzofluoranthenes Amount: 0.45 Area: 196086



MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 12/9/11

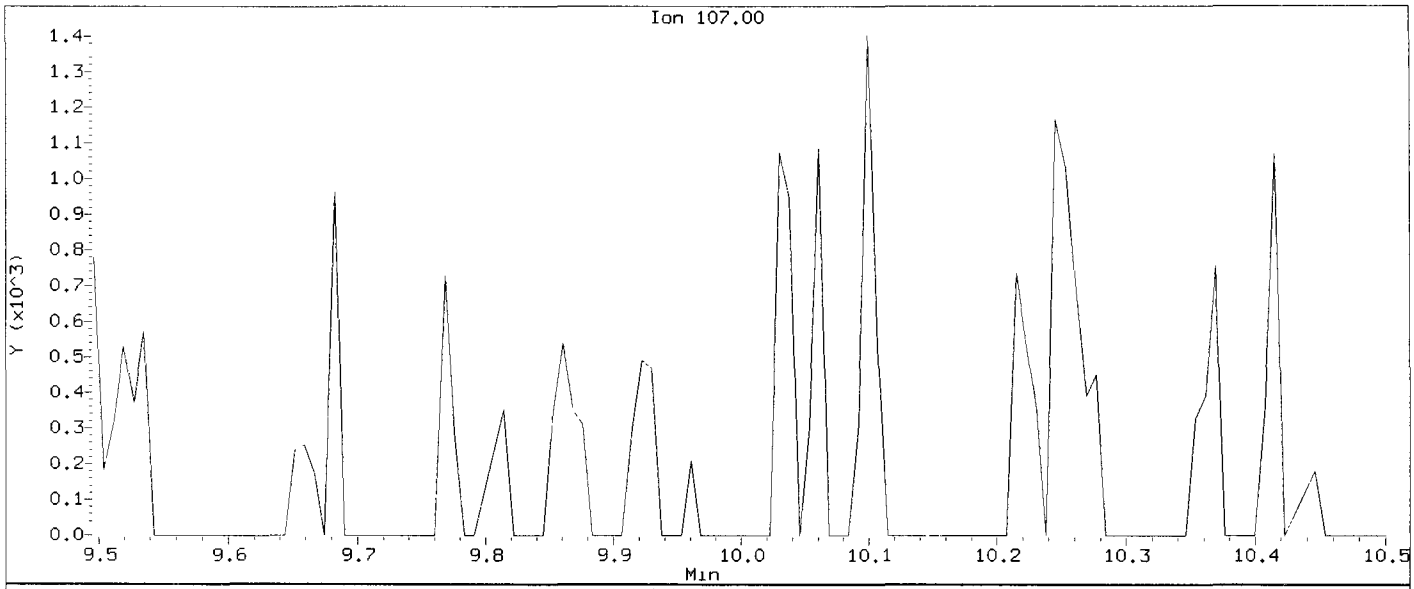
CO-ELUTION SUMMARY FOR FILE - tx57f.d

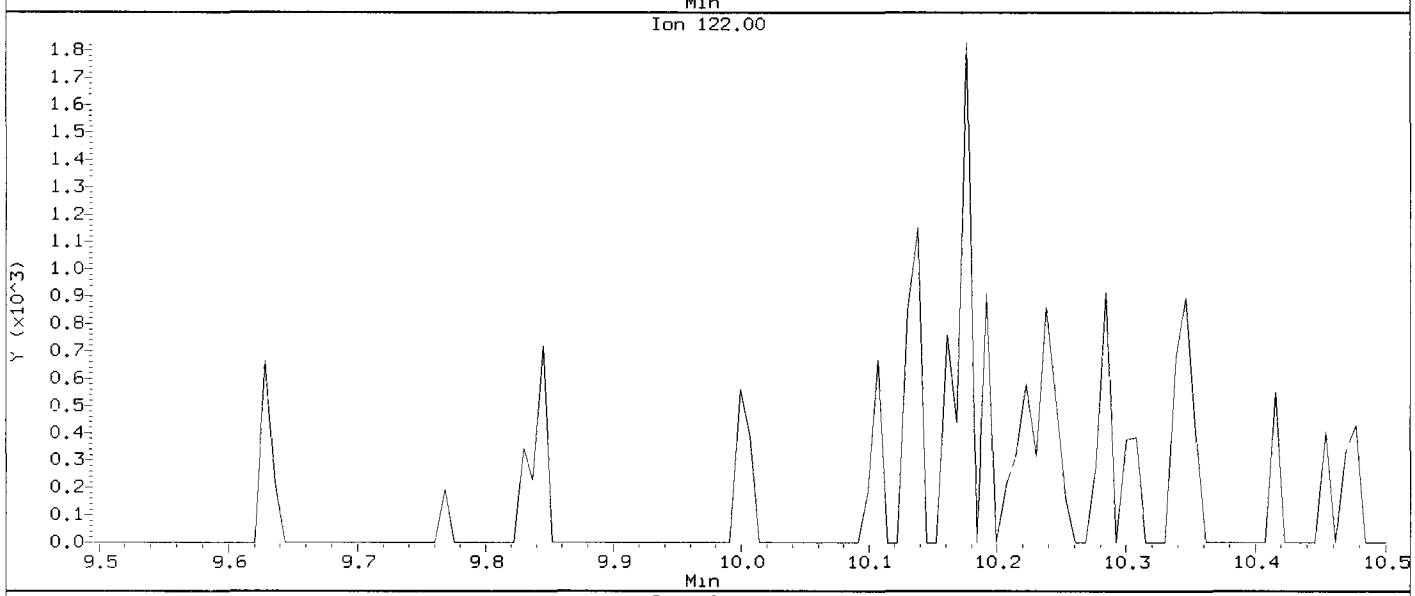
Lab ID: TX57F, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

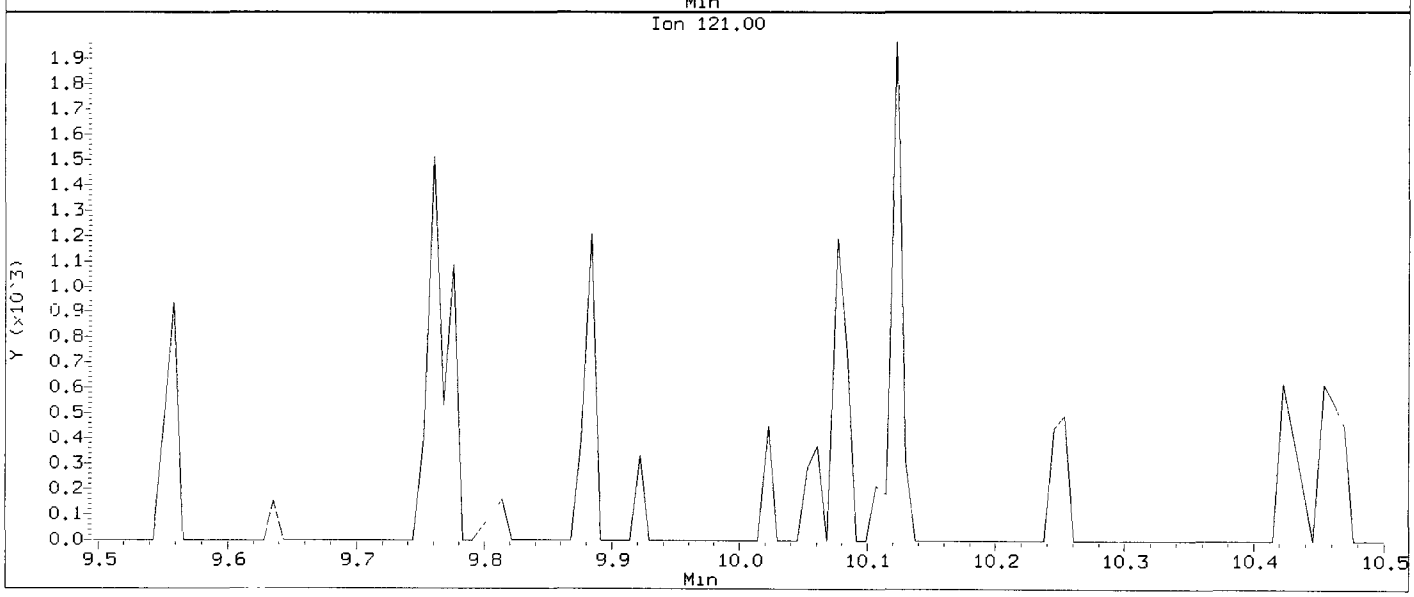
RT	CO-ELUTION COMPOUNDS
23.698	Benzo(k)fluoranthene and Benzo(b)fluoranthene

Data File: /chem1/nt10.i/20111206.b/tx57f.d
Injection Date: 06-DEC-2011 20:50
Instrument: nt10.i
Client Sample ID: SD0017

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9

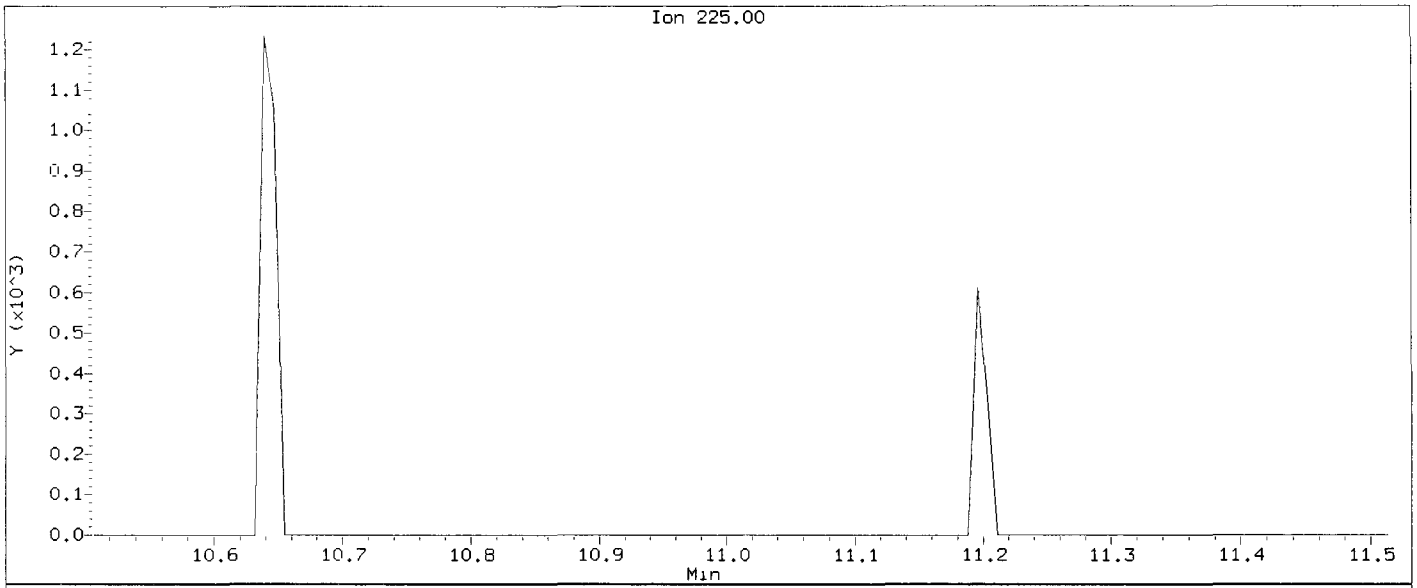


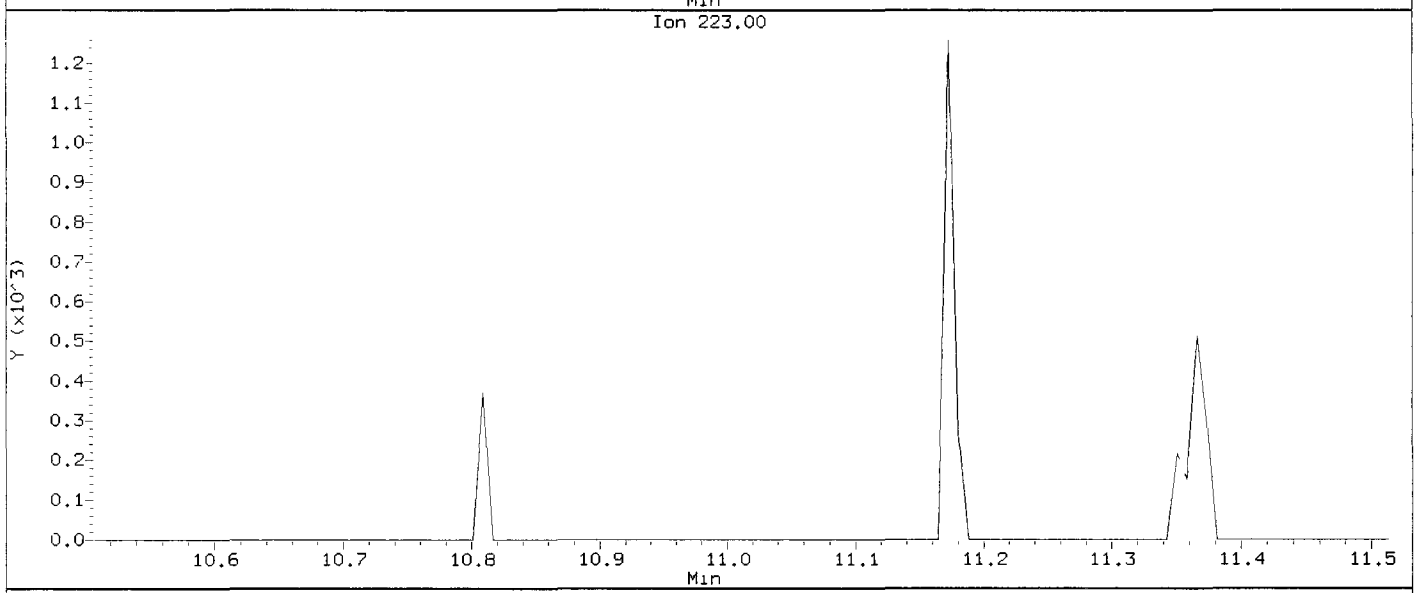


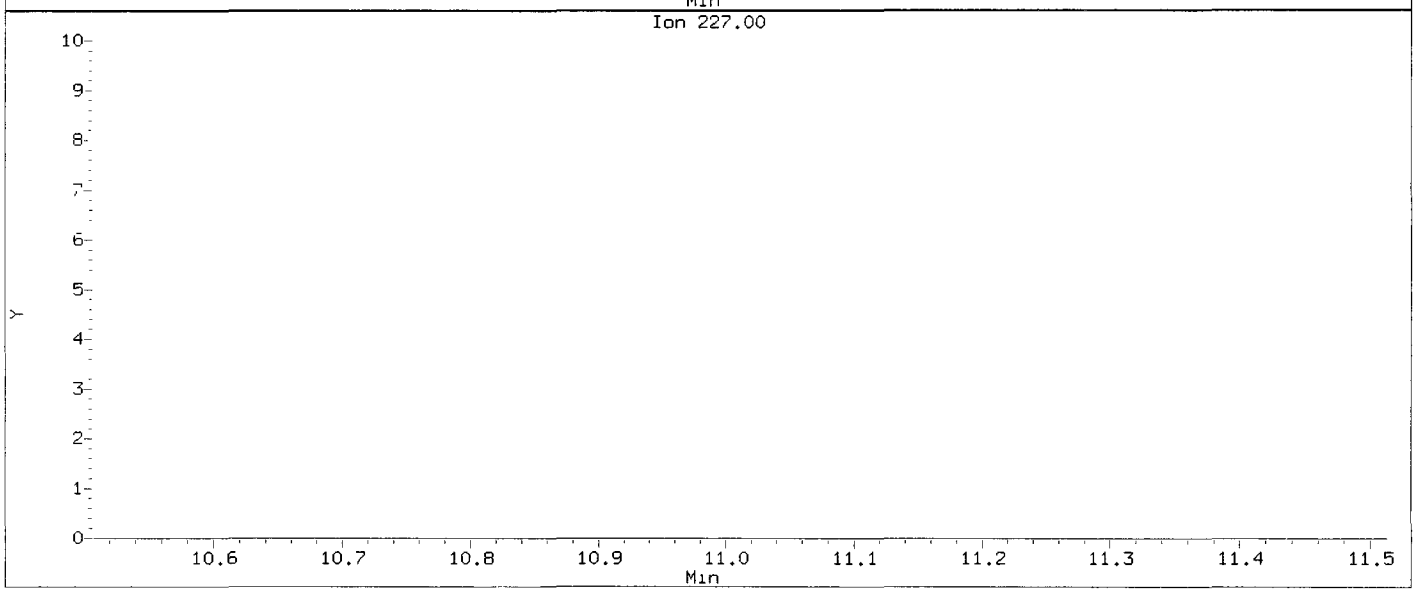


Data File: /chem1/nt10.i/20111206.b/tx57f.d
Injection Date: 06-DEC-2011 20:50
Instrument: nt10.i
Client Sample ID: SD0017

Compound: Hexachlorobutadiene
CAS Number: 87-68-3







Analytical Resources, Inc.

YZ 12/9/11

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111206.b/tx57g.d
Lab Smp Id: TX57G Client Smp ID: SD0018
Inj Date : 06-DEC-2011 21:24
Operator : YZ Inst ID: nt10.i
Smp Info : TX57G
Misc Info : 11-26625
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 07-Dec-2011 08:43 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	12.30000	Weight of sample extracted (g)
M	11.30000	% 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)
$	1 2-Fluorophenol	112	6.067	6.043	(0.741)	86787	1.94988	178.7(R)
$	2 Phenol-d5	99	7.628	7.612	(0.932)	198170	3.46683	317.8
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	7.836	7.828	(0.957)	135617	2.62171	240.3
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.184	8.177	(1.000)	182024	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	8.526	8.518	(1.042)	130030	2.89696	265.5
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.256	9.248	(0.873)	213594	3.22549	295.6
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.601	10.600	(1.000)	622988	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.790	12.782	(0.905)	557148	3.07471	281.8
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.137	14.129	(1.000)	501203	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.142	15.134	(1.071)	54721	0.31735	29.09
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.759	15.751	(1.115)	43746	0.99077	90.81(R)
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.119	17.111	(1.000)	1077078	4.00000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	62 Carbazole	167	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					
	64 Fluoranthene	202	19.440	19.432	(1.136)	39506	0.10340 J	9.478
	65 Pyrene	202	Compound Not Detected.					
$	66 Terphenyl-d14	244	20.159	20.152	(0.918)	974924	3.34887	307.0
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	21.971	21.956	(1.000)	1460641	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	22.002	22.002	(1.001)	40343	0.11253 J	10.31
	72 bis(2-Ethylhexyl)phthalate	149	22.103	22.095	(0.959)	37442	0.22059	20.22
*	134 Di-n-octylphthalate-d4	153	23.055	23.047	(1.000)	1193476	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	23.659	23.651	(0.976)	58420	0.13547	12.42
	75 Benzo(k)fluoranthene	252	23.659	23.690	(0.976)	58420	0.13072	11.98
	76 Benzo(a)pyrene	252	Compound Not Detected.					
*	77 Perylene-d12	264	24.247	24.232	(1.000)	1415715	4.00000	
	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.					
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	Compound Not Detected.					
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	23.659	23.690	(0.976)	66337	0.15968 J	14.64(M)
	99 Perylene	252	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: nt10.i
Lab File ID: tx57g.d
Lab Smp Id: TX57G
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26625

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: SD0018
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	182024	5.30
27 Naphthalene-d8	574010	287005	1148020	622988	8.53
42 Acenaphthene-d10	467963	233982	935926	501203	7.10
59 Phenanthrene-d10	976150	488075	1952300	1077078	10.34
69 Chrysene-d12	1397129	698564	2794258	1460641	4.55
134 Di-n-octylphthala	1264537	632268	2529074	1193476	-5.62
77 Perylene-d12	1407308	703654	2814616	1415715	0.60

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.10
27 Naphthalene-d8	10.60	10.10	11.10	10.60	0.00
42 Acenaphthene-d10	14.13	13.63	14.63	14.14	0.06
59 Phenanthrene-d10	17.11	16.61	17.61	17.12	0.05
69 Chrysene-d12	21.96	21.46	22.46	21.97	0.07
134 Di-n-octylphthala	23.05	22.55	23.55	23.06	0.03
77 Perylene-d12	24.23	23.73	24.73	24.25	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: INTEGRAL
Sample Matrix: SOLID
Lab Smp Id: TX57G
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26625

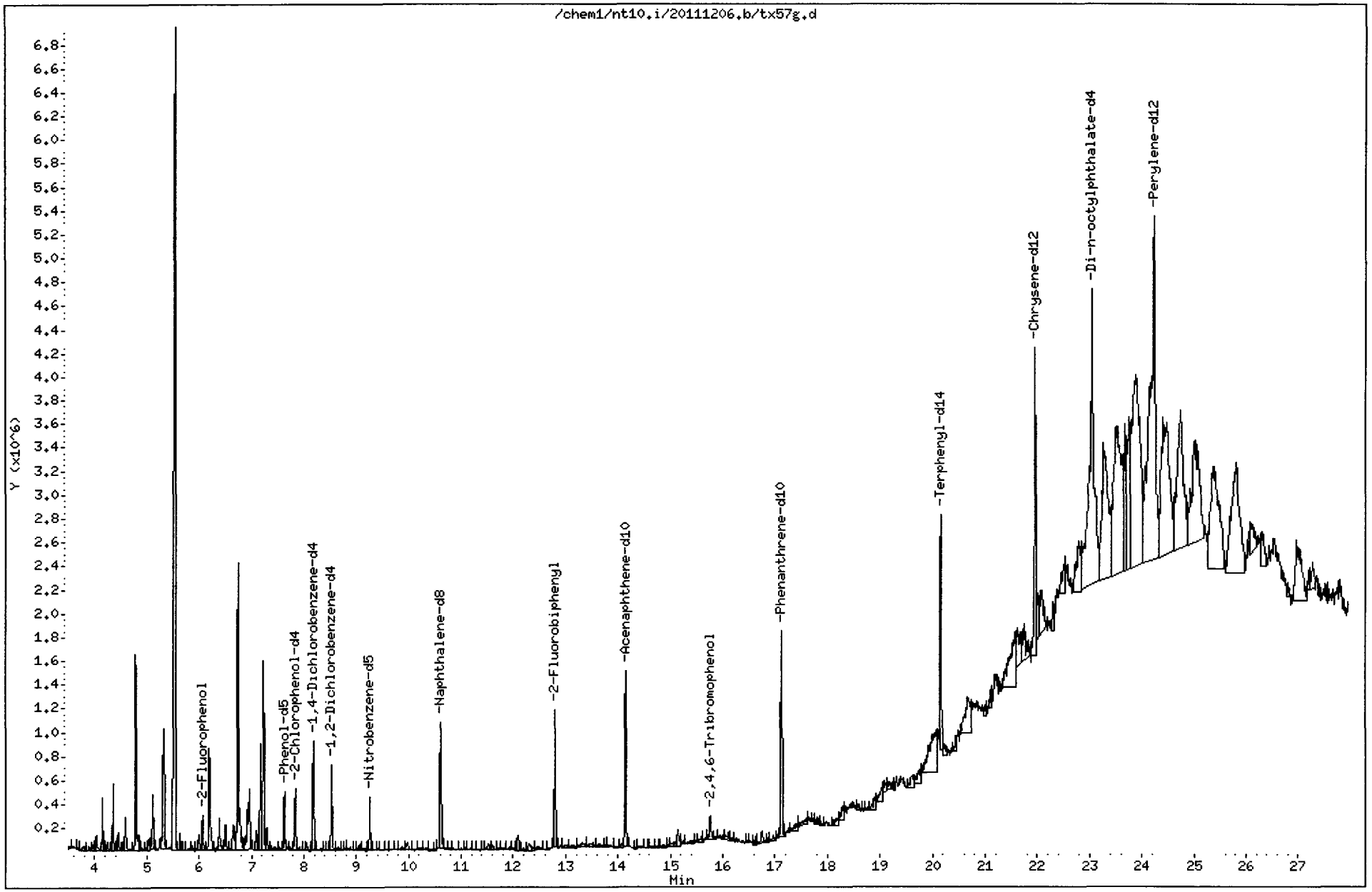
Client SDG: TX57
Fraction: SV
Client Smp ID: SD0018
Operator: YZ
SampleType: SAMPLE
Quant Type: ISTD

	SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	687.4	178.7	26.00*	30-160
$ 2	Phenol-d5	687.4	317.8	46.22	30-160
$ 5	2-Chlorophenol-d4	687.4	240.3	34.96	30-160
$ 10	1,2-Dichlorobenzen	458.3	265.5	57.94	30-160
$ 18	Nitrobenzene-d5	458.3	295.6	64.51	30-160
$ 36	2-Fluorobiphenyl	458.3	281.8	61.49	30-160
$ 55	2,4,6-Tribromophen	687.4	90.81	13.21*	30-160
$ 66	Terphenyl-d14	458.3	307.0	66.98	30-160

Data File: /chem1/nt10.i/20111206.b/tx57g.d
Date : 06-DEC-2011 21:24
Client ID: SD0018
Sample Info: TX57G
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i

Operator: YZ
Column diameter: 0.25



TX57 00733

Data File: /chem1/nt10.i/20111206.b/tx57g.d

Date : 06-DEC-2011 21:24

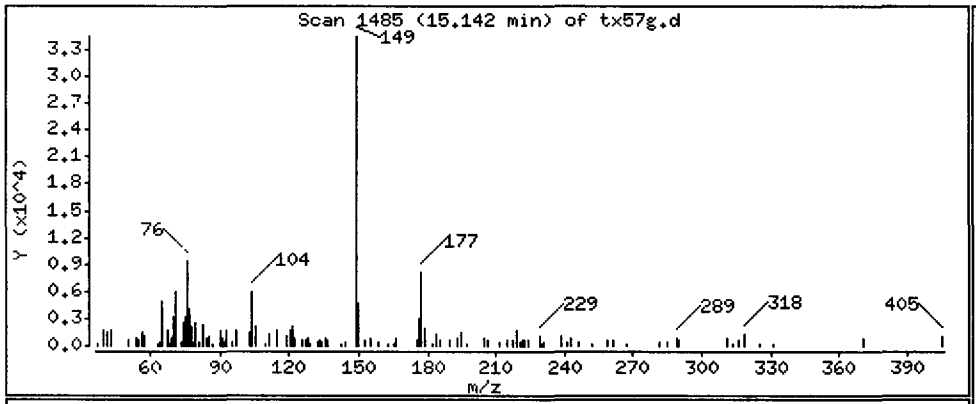
Client ID: SD0018 Instrument: nt10.i

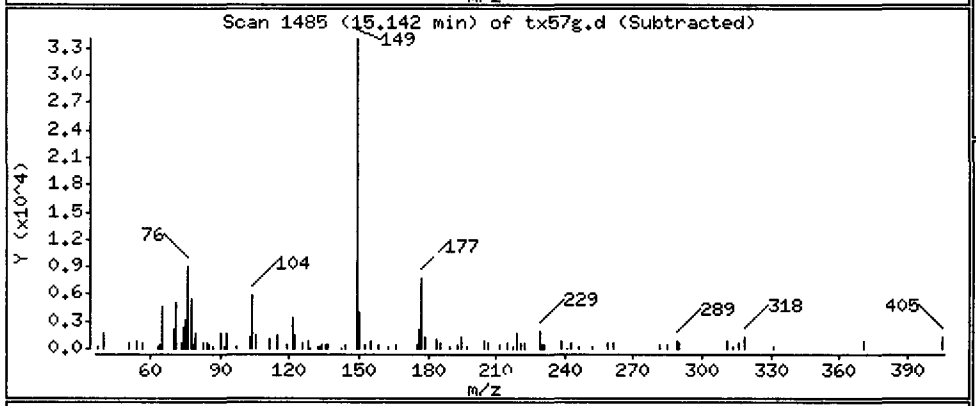
Sample Info: TX57G

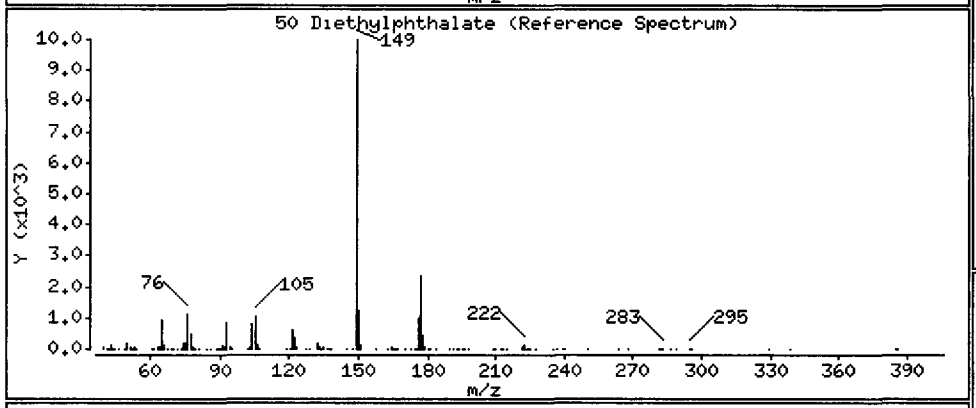
Volume Injected (uL): 1.0 Operator: YZ

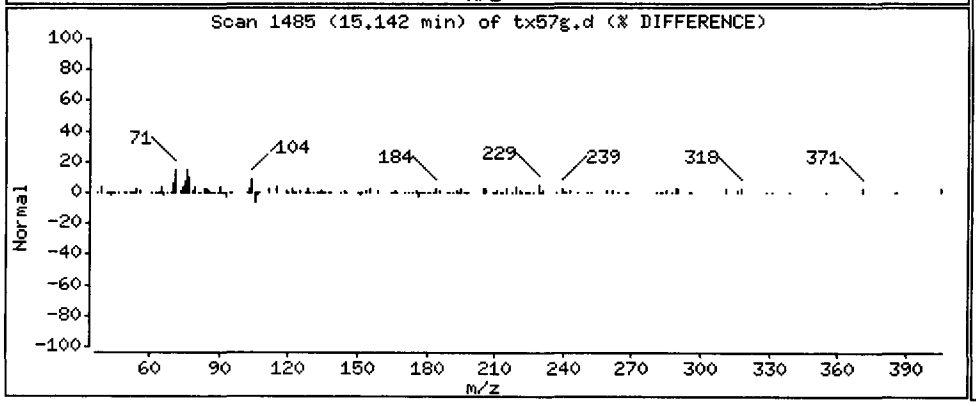
Column phase: ZB-5msi Column diameter: 0.25

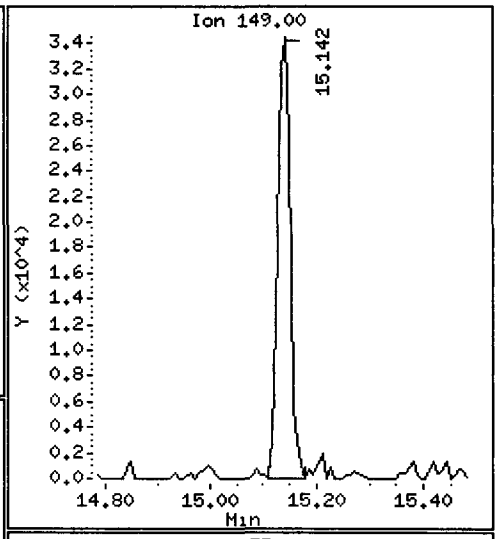
50 Diethylphthalate Concentration: 29.09 ug/kg

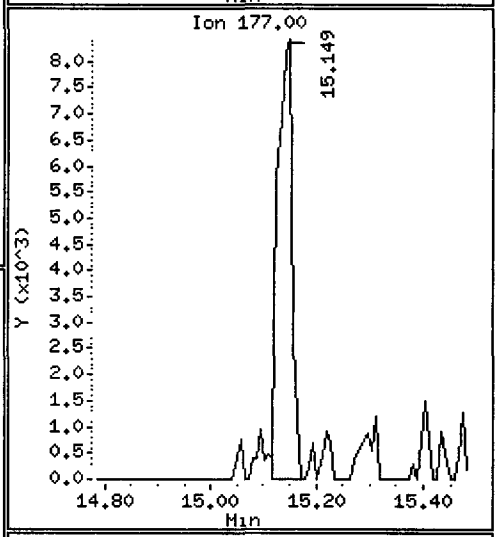


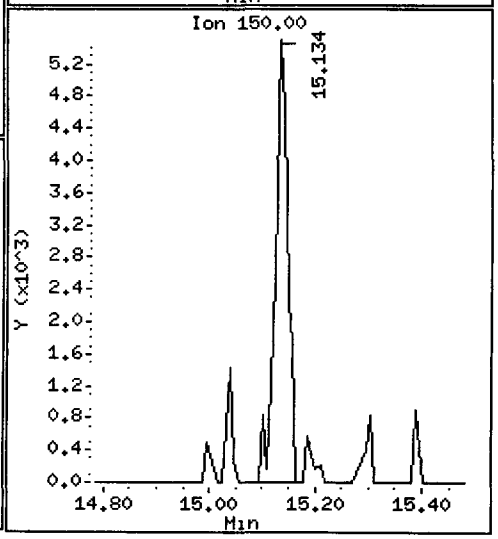












Data File: /chem1/nt10.i/20111206.b/tx57g.d

Date : 06-DEC-2011 21:24

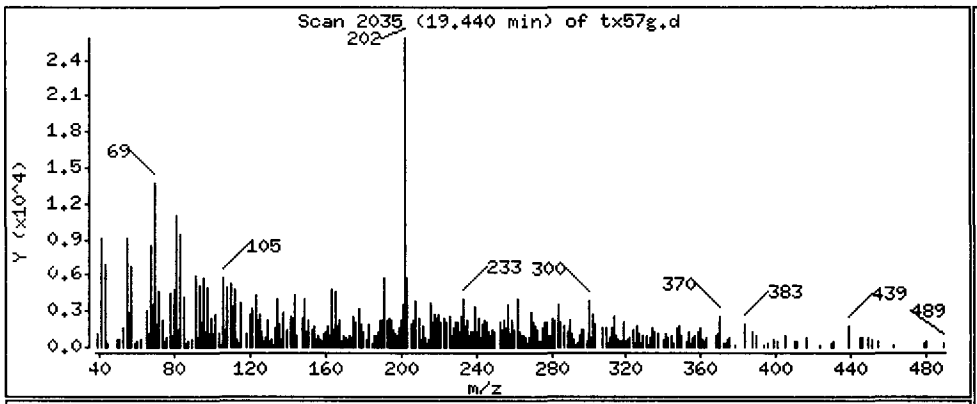
Client ID: SD0018 Instrument: nt10.i

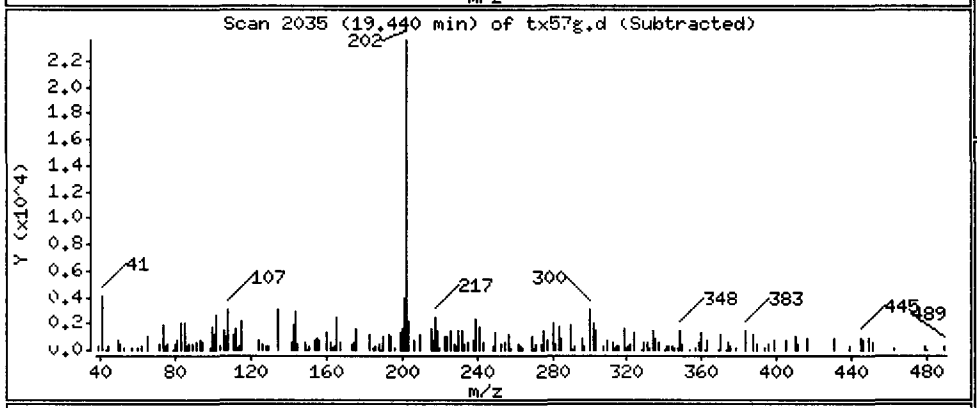
Sample Info: TX57G

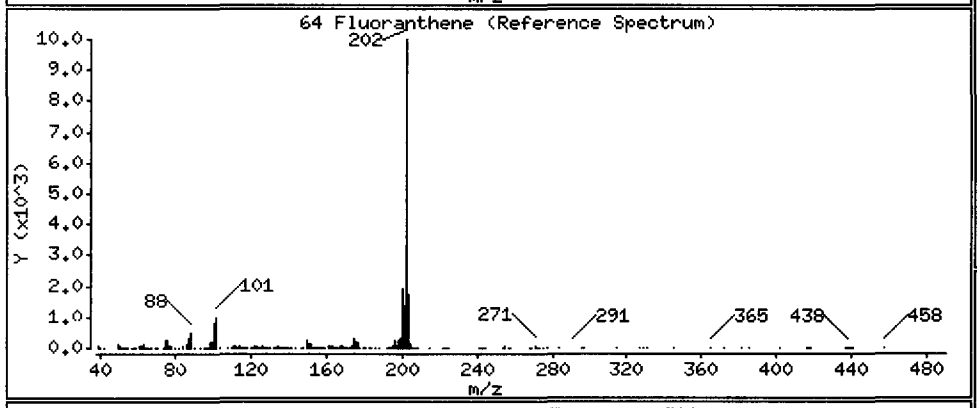
Volume Injected (uL): 1.0 Operator: YZ

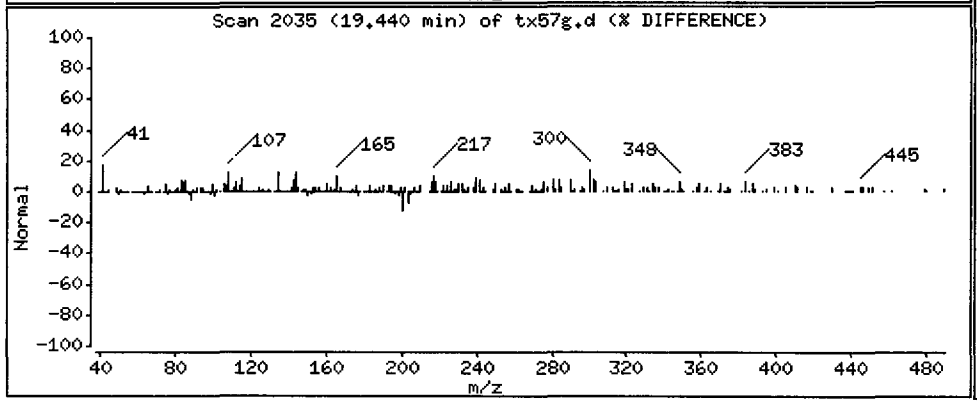
Column phase: ZB-5ms1 Column diameter: 0.25

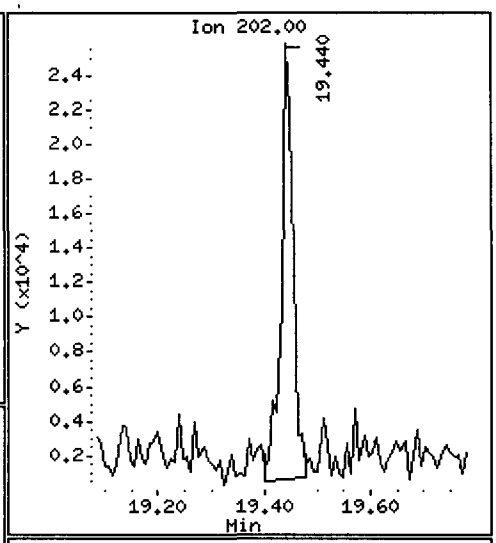
64 Fluoranthene Concentration: 9.478 ug/kg

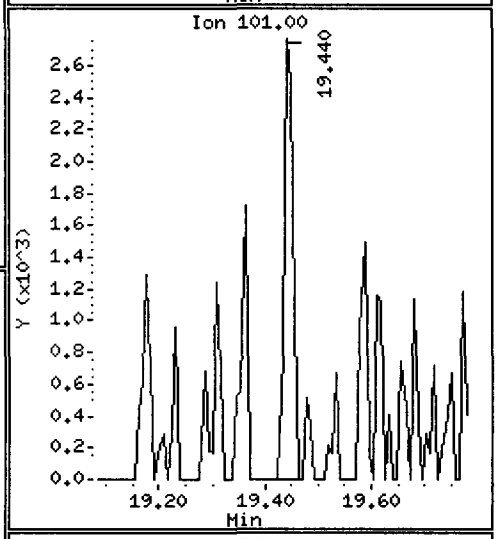


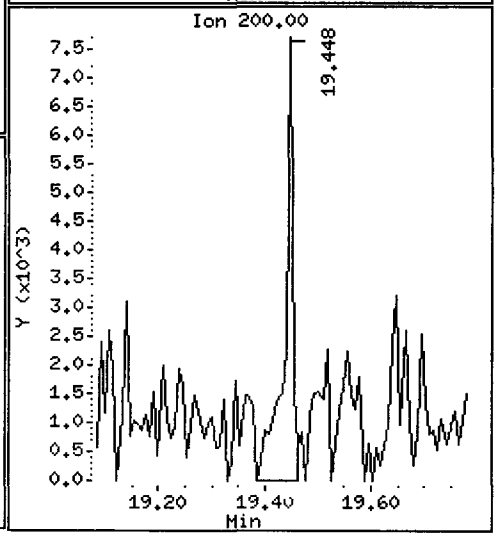












Data File: /chem1/nt10.i/20111206.b/tx57g.d

Date : 06-DEC-2011 21:24

Client ID: SD0018

Instrument: nt10.i

Sample Info: TX57G

Volume Injected (uL): 1.0

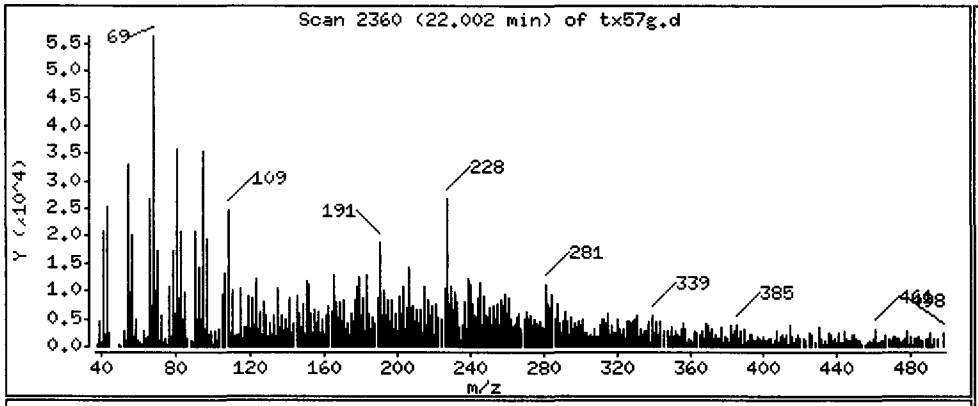
Operator: YZ

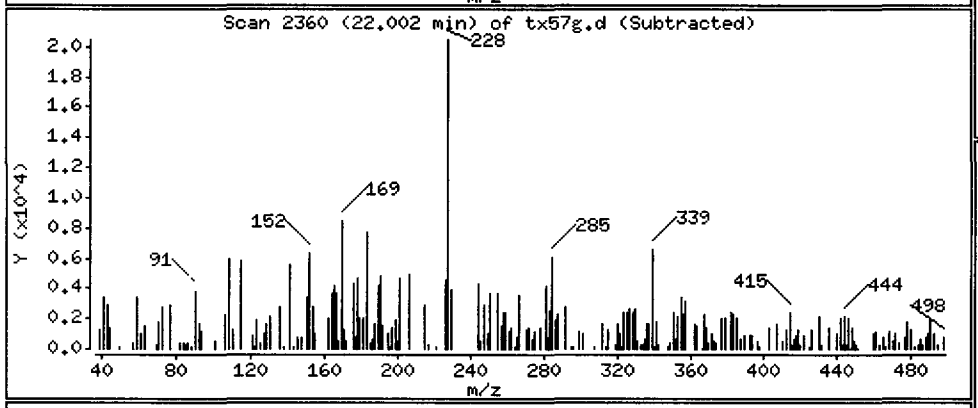
Column phase: ZB-5ms1

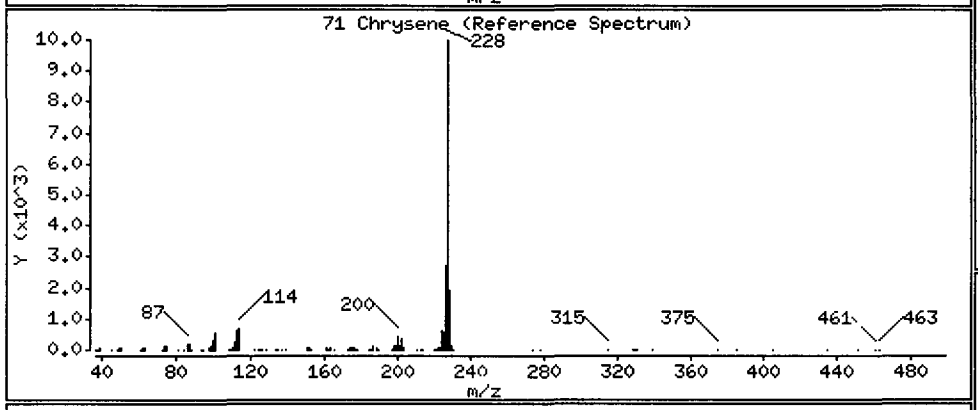
Column diameter: 0.25

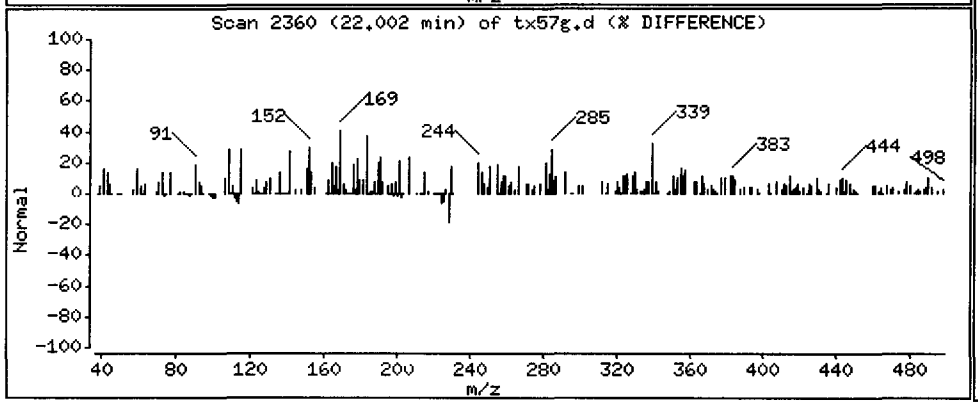
71 Chrysene

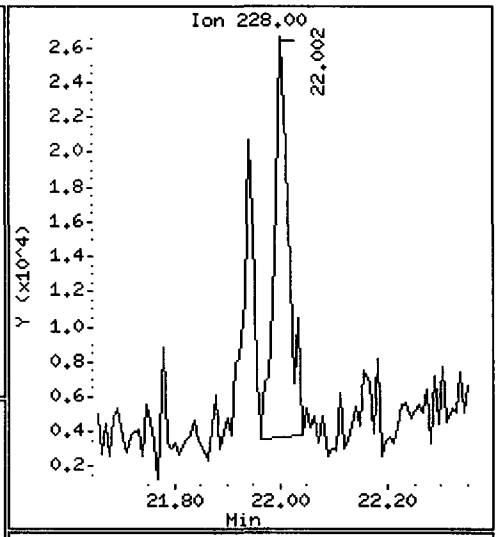
Concentration: 10.31 ug/kg

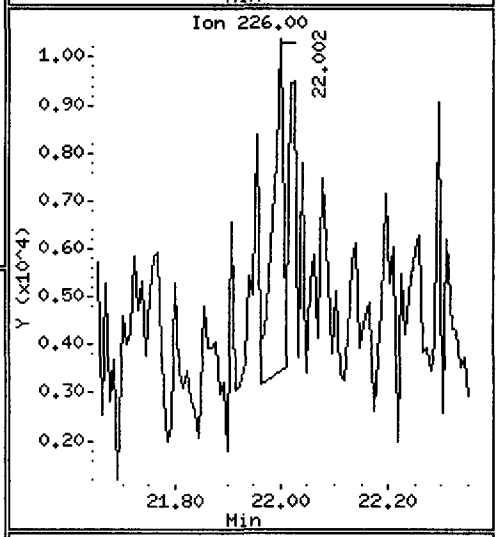


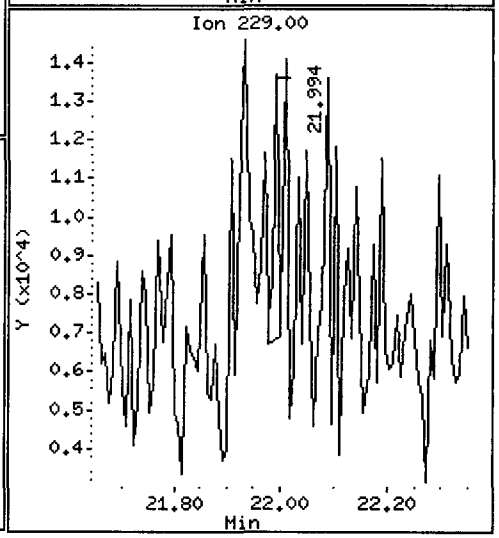












Data File: /chem1/nt10.i/20111206.b/tx57g.d

Date : 06-DEC-2011 21:24

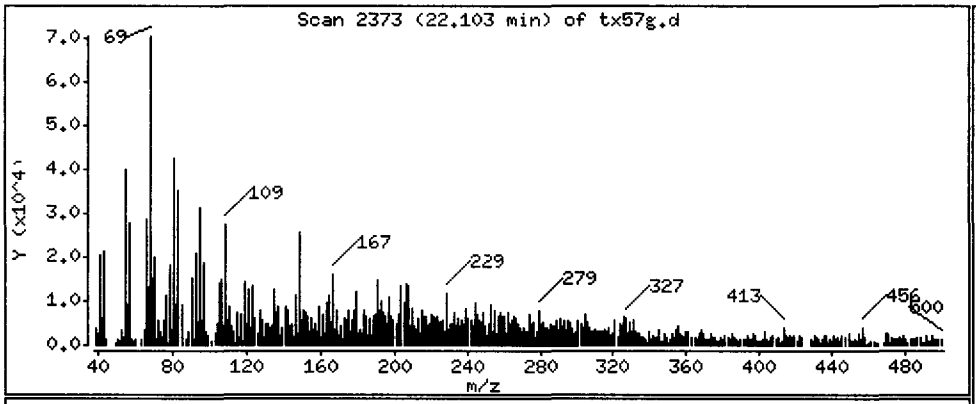
Client ID: SD0018 Instrument: nt10.i

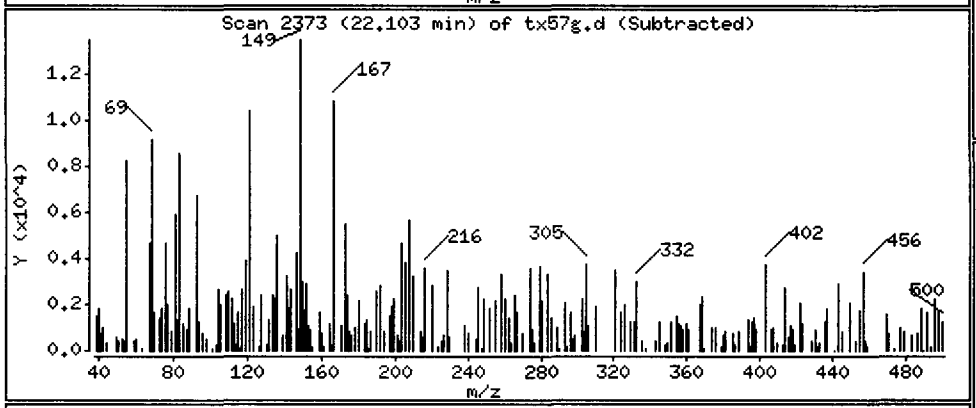
Sample Info: TX57G

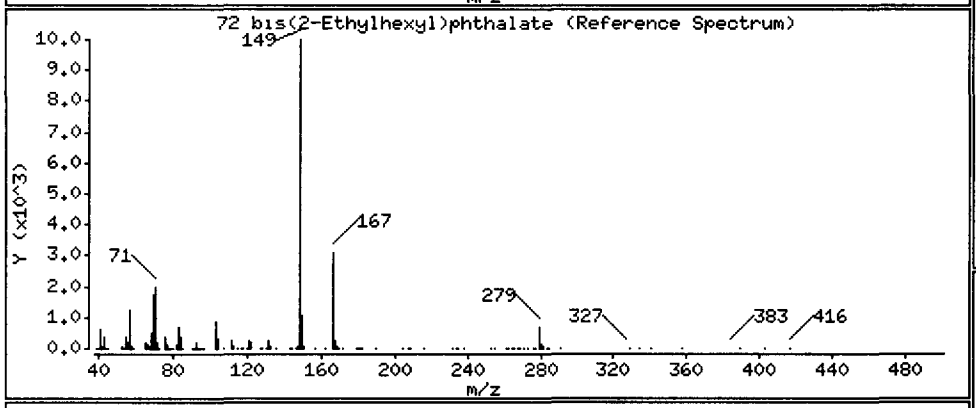
Volume Injected (uL): 1.0 Operator: YZ

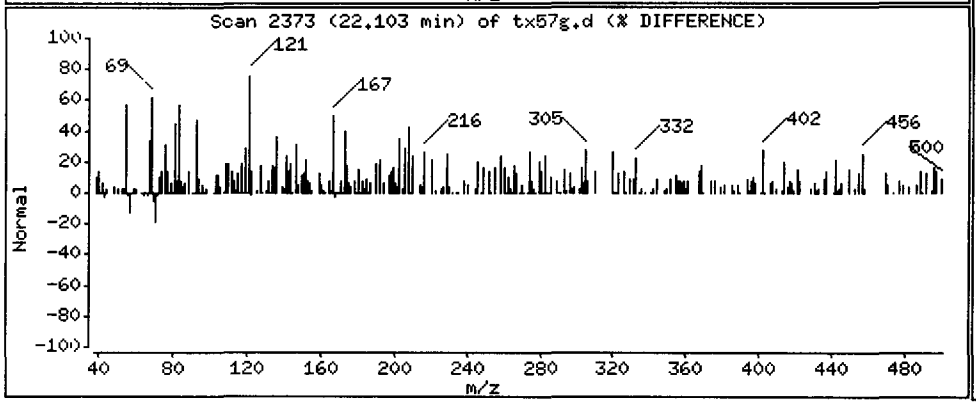
Column phase: ZB-5msi Column diameter: 0.25

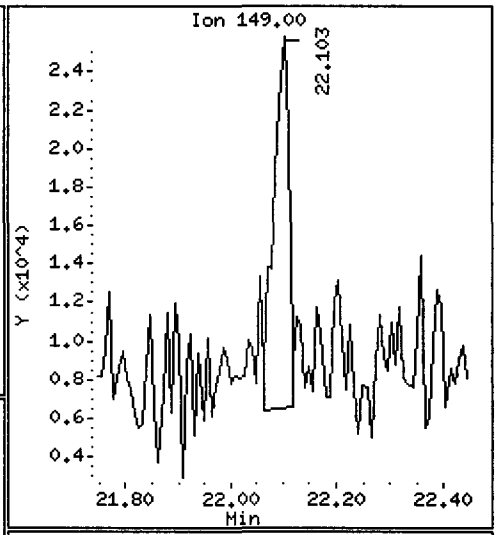
72 bis(2-Ethylhexyl)phthalate Concentration: 20.22 ug/kg

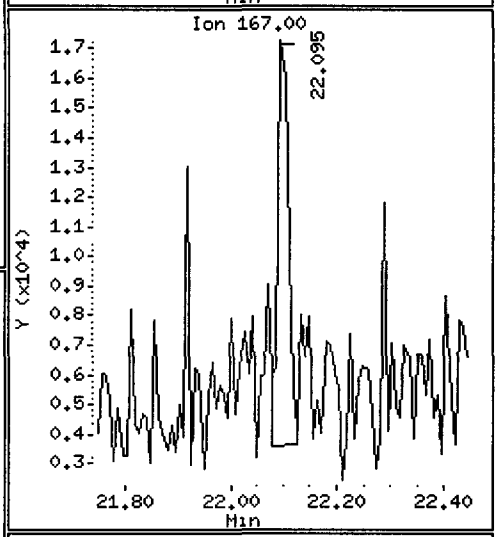


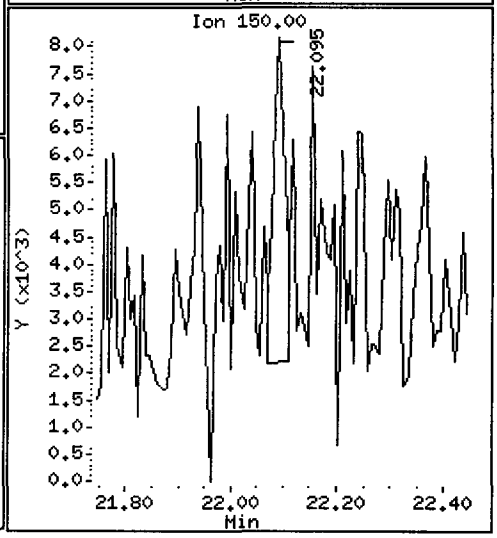












Data File: /chem1/nt10.i/20111206.b/tx57g.d

Date : 06-DEC-2011 21:24

Client ID: SD0018

Instrument: nt10.i

Sample Info: TX57G

Volume Injected (uL): 1.0

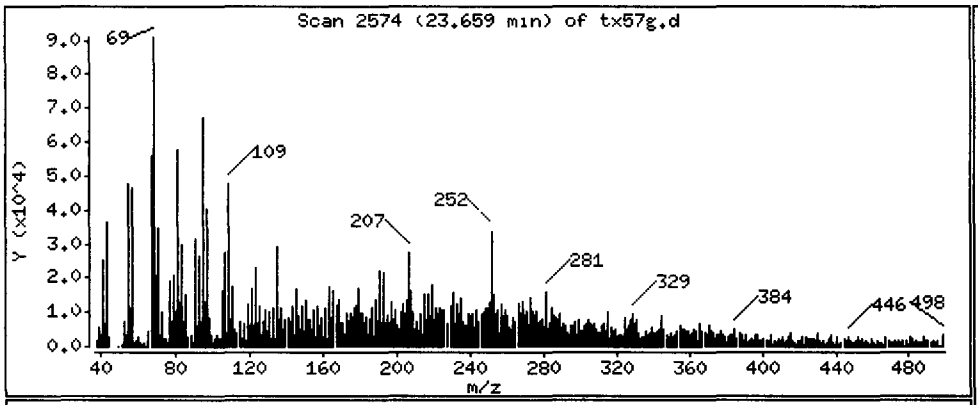
Operator: YZ

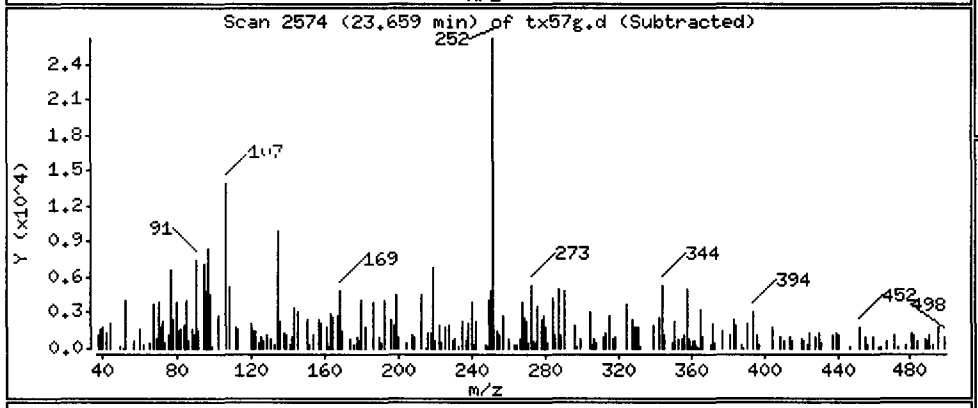
Column phase: ZB-5msi

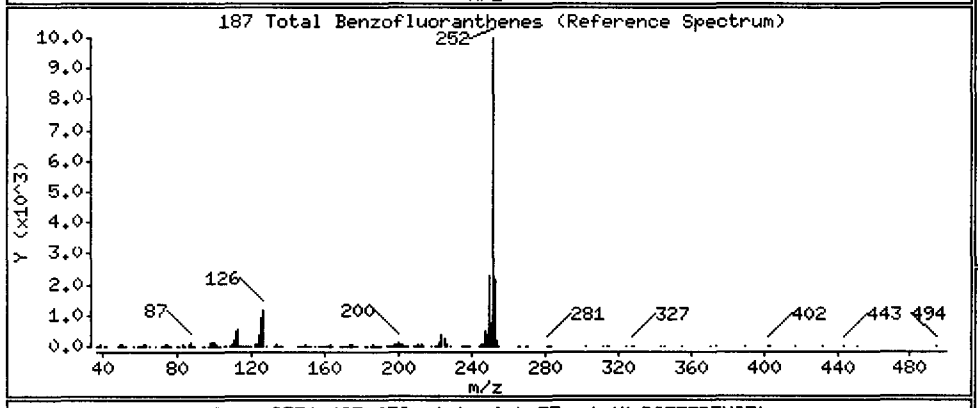
Column diameter: 0.25

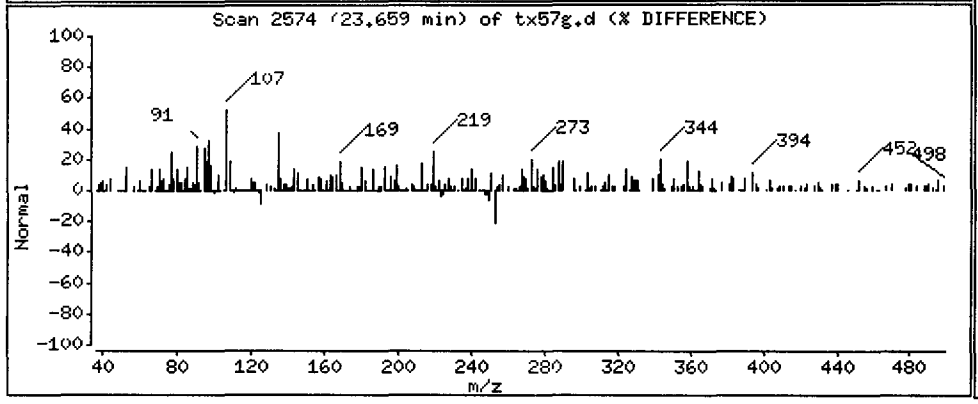
187 Total Benzofluoranthenes

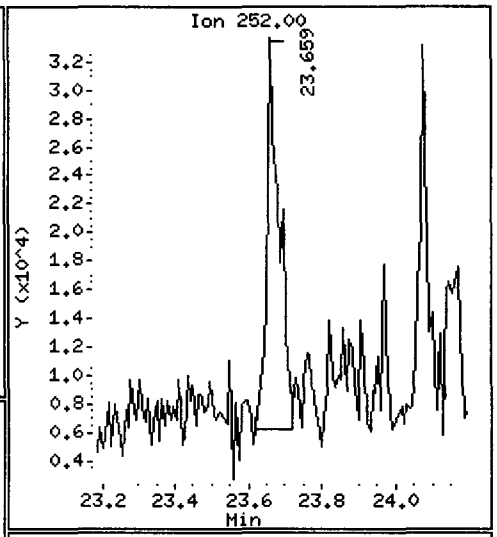
Concentration: 14.64 ug/kg

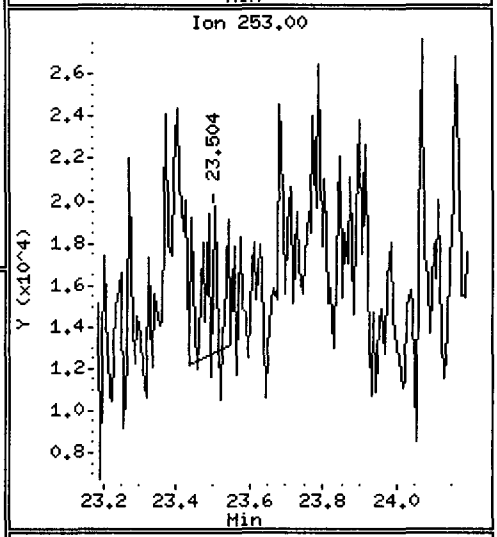


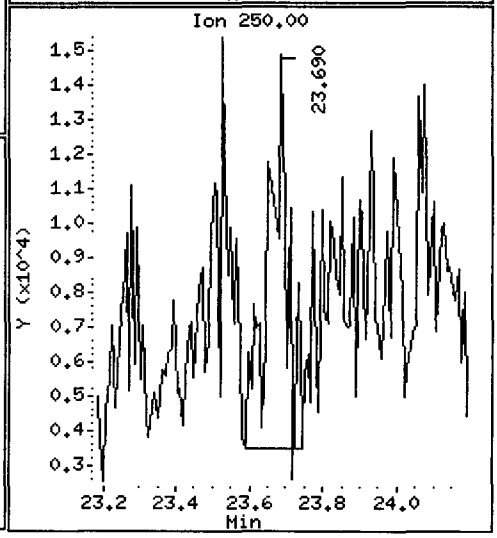






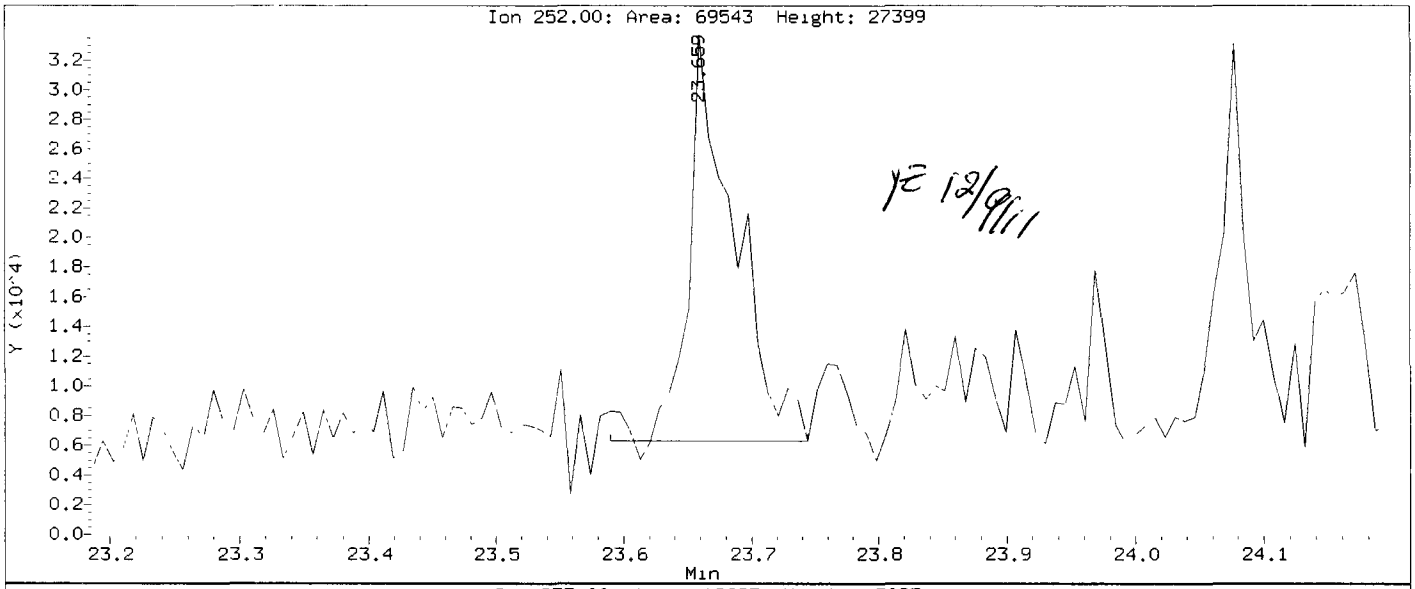


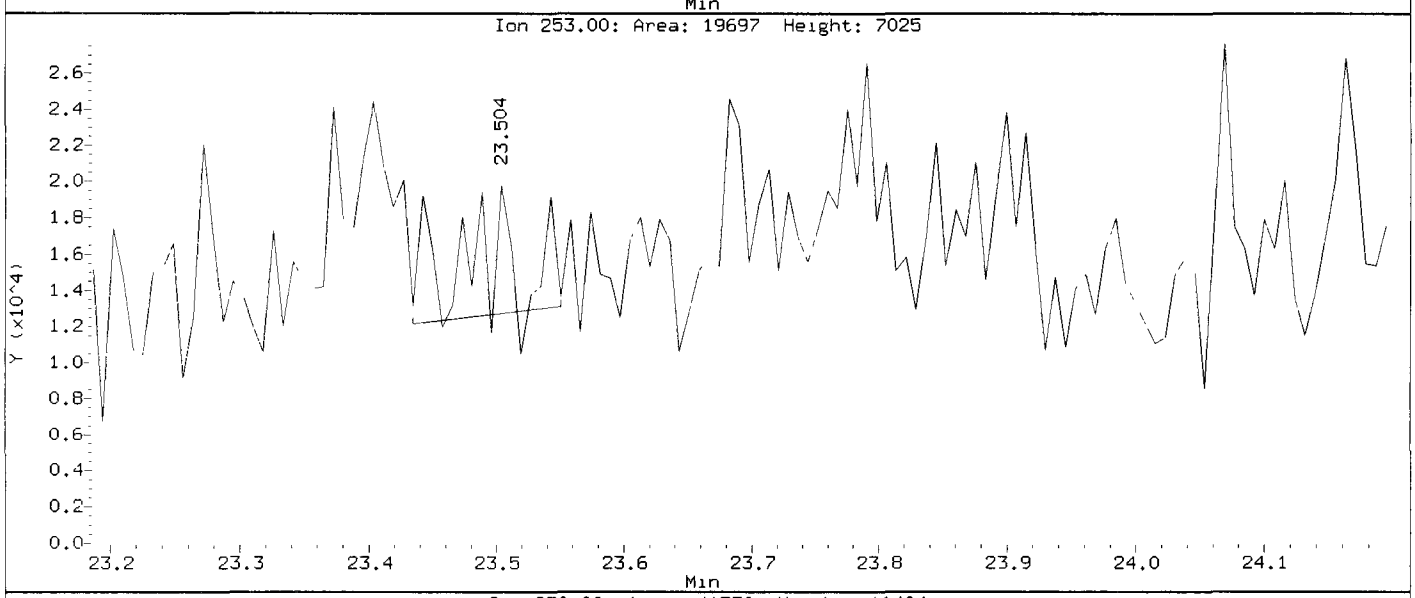


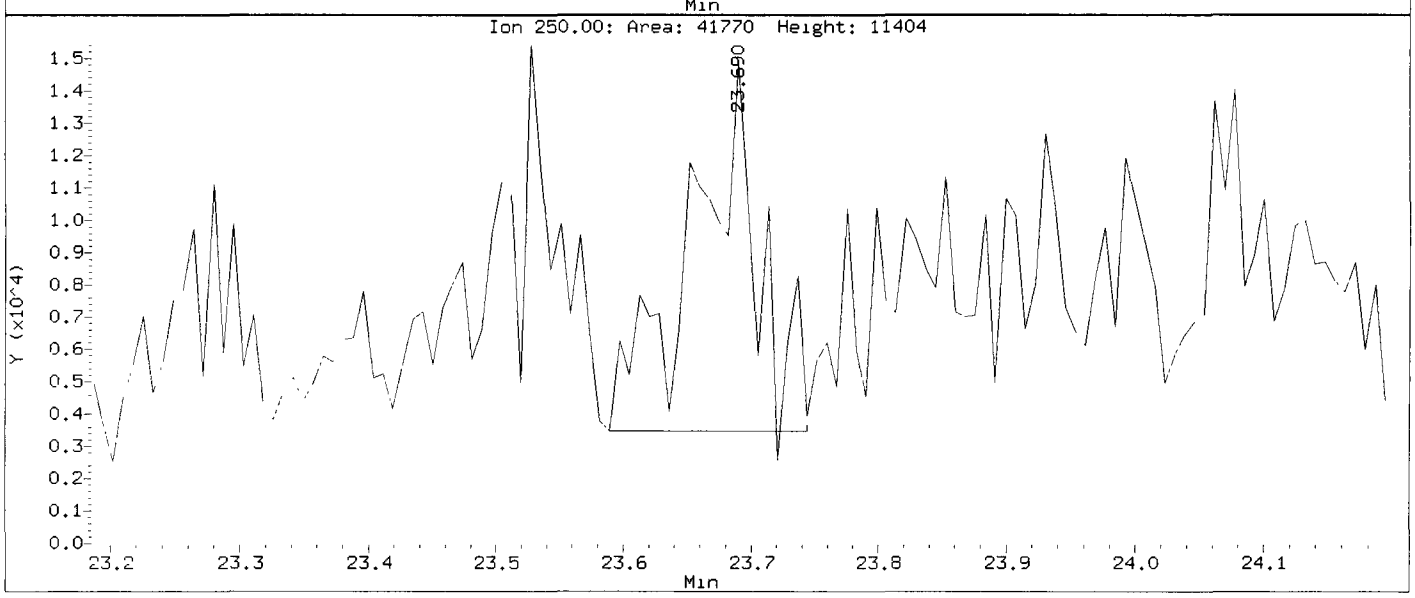


Data File: /chem1/nt10.i/20111206.b/tx57g.d
Injection Date: 06-DEC-2011 21:24
Instrument: nt10.i
Client Sample ID: SD0018

Compound: Total Benzofluoranthenes
CAS Number:

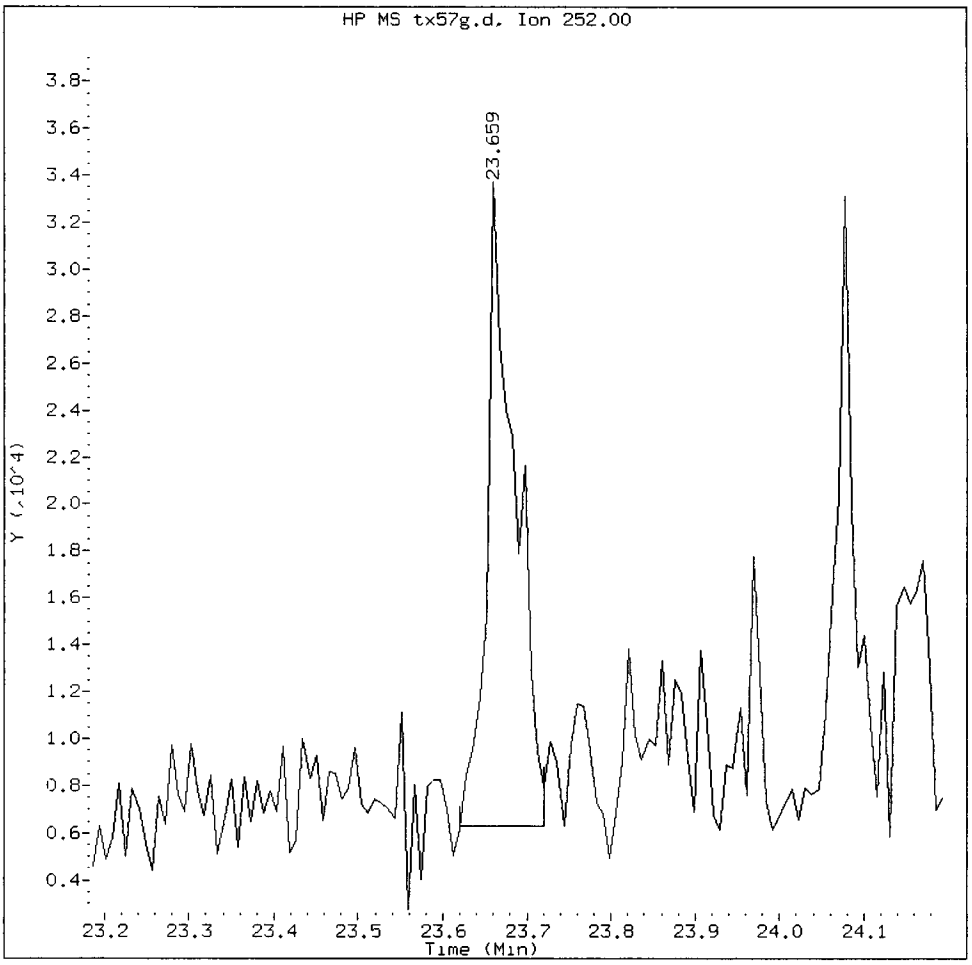






TX57G, /chem1/nt10.i/20111206.b/tx57g.d

Total Benzofluoranthenes Amount: 0.16 Area: 66337



MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 12/9/11

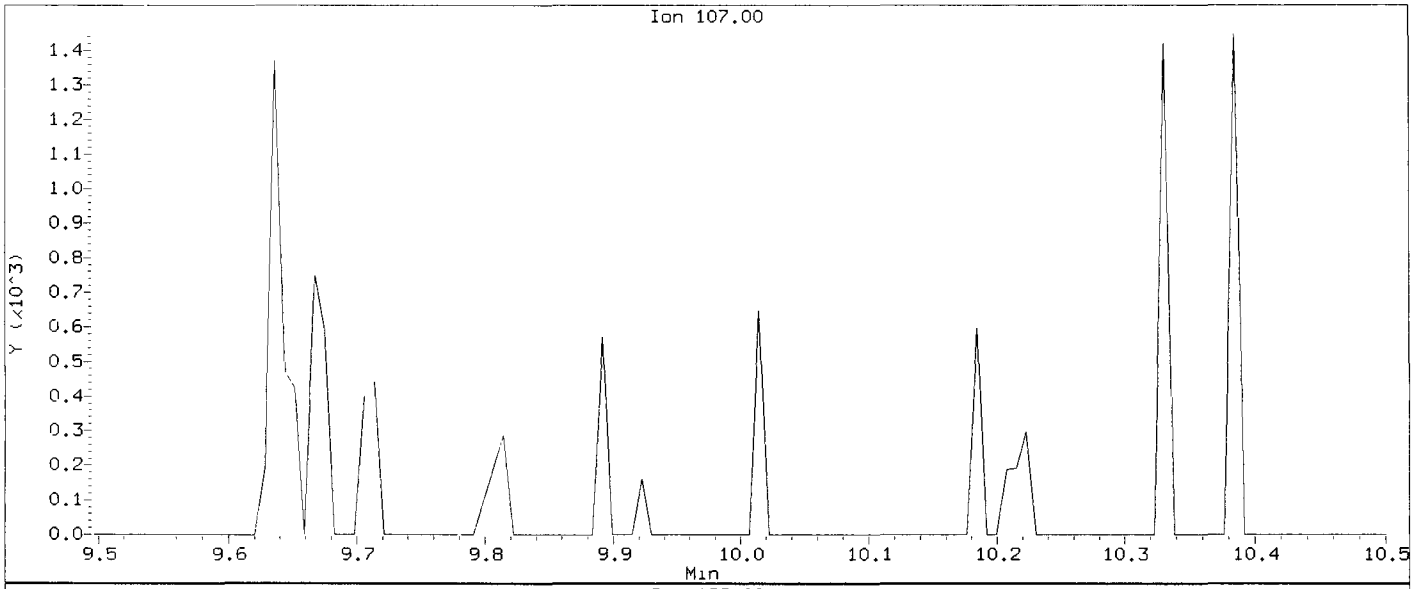
CO-ELUTION SUMMARY FOR FILE - tx57g.d

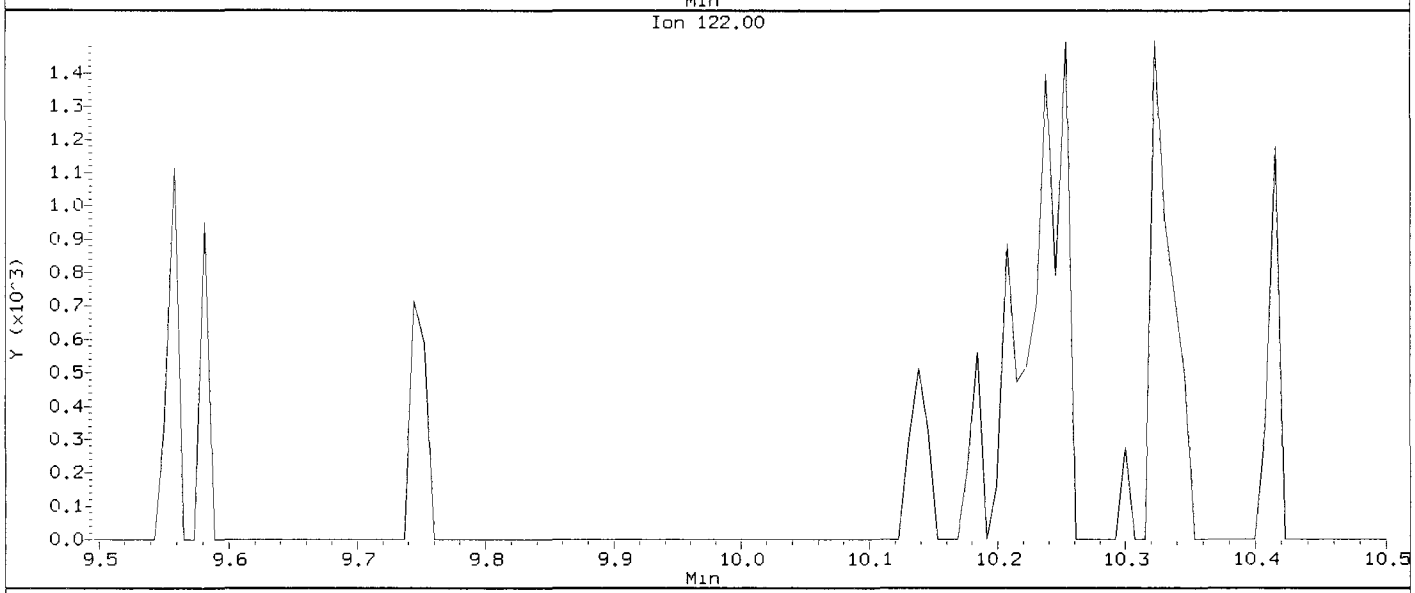
Lab ID: TX57G, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

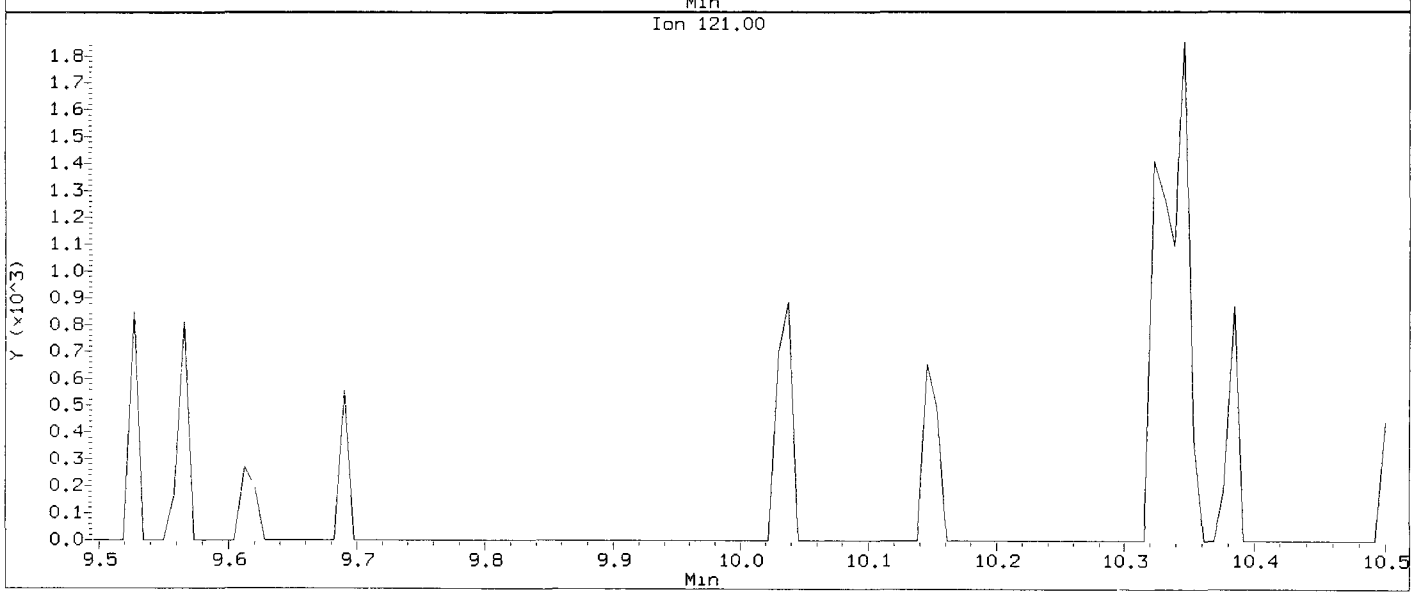
RT	CO-ELUTION COMPOUNDS
23.659	Benzo(k)fluoranthene and Benzo(b)fluoranthene

Data File: /chem1/nt10.i/20111206.b/tx57g.d
Injection Date: 06-DEC-2011 21:24
Instrument: nt10.i
Client Sample ID: SD0018

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9

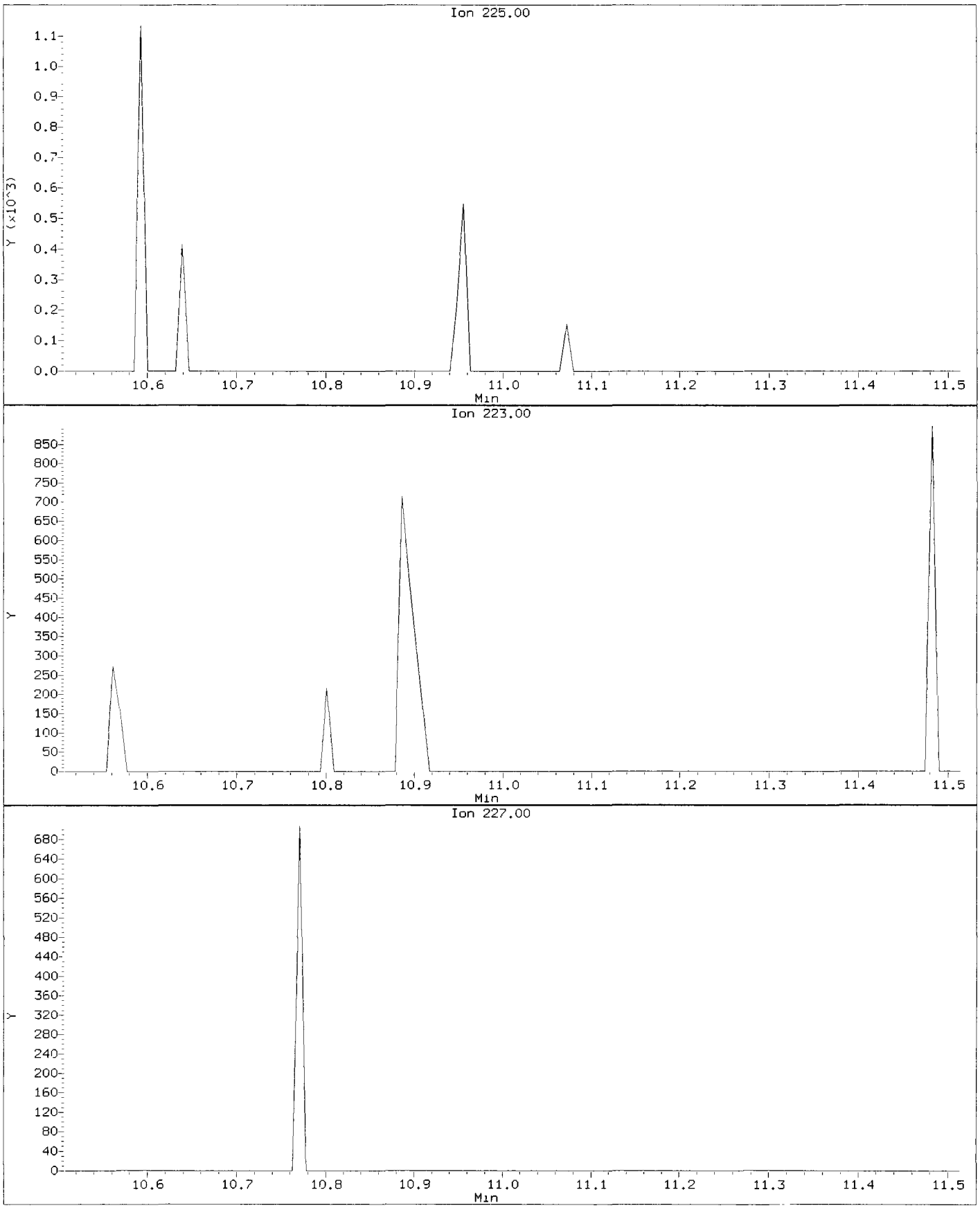






Data File: /chem1/nt10.i/20111206.b/tx57g.d
Injection Date: 06-DEC-2011 21:24
Instrument: nt10.i
Client Sample ID: SD0018

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 12/9/11

Data file : /chem1/nt10.i/20111206.b/tx57h.d
Lab Smp Id: TX57H Client Smp ID: SD0019
Inj Date : 06-DEC-2011 21:58
Operator : YZ Inst ID: nt10.i
Smp Info : TX57H,3
Misc Info : 11-26626
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 07-Dec-2011 08:43 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 15
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	12.10000	Weight of sample extracted (g)
M	13.70000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.059	6.043	(0.741)	63958	1.54224	443.1
$ 2	Phenol-d5	99	7.620	7.612	(0.932)	79058	1.48437	426.5
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.836	7.828	(0.958)	85351	1.77085	508.8
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.177	8.177	(1.000)	169600	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.526	8.518	(1.043)	42099	1.00664	289.2
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.248	9.248	(0.872)	81186	1.31582	378.0
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.601	10.600	(1.000)	580460	4.00000	
	28 Naphthalene	128	10.647	10.639	(1.004)	21016	0.14954 J	42.96
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	12.016	12.008	(1.134)	11118	0.10544 J	30.29
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.790	12.782	(0.905)	217968	1.39305	400.2
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.137	14.129	(1.000)	432785	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.199	14.198	(1.004)	58323	0.51380	147.6
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.531	14.523	(1.028)	33552	0.18435 J	52.96
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.142	15.134	(1.071)	17136	0.11509 J	33.06
	49 Fluorene	166	15.227	15.219	(1.077)	62197	0.43383	124.6
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.751	15.751	(1.114)	68714	1.80227	517.8
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.119	17.111	(1.000)	909892	4.00000	
	60 Phenanthrene	178	17.165	17.157	(1.003)	667275	2.84889	818.5
	61 Anthracene	178	17.251	17.242	(1.008)	195941	0.83046	238.6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	17.591	17.583	(1.028)	57341	0.32345	92.92
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	19.448	19.432	(1.136)	1090314	3.37809	970.5
65	Pyrene	202	19.842	19.834	(0.903)	1015021	2.99268	859.8
$ 66	Terphenyl-d14	244	20.160	20.152	(0.918)	348449	1.24657	358.1
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	21.948	21.932	(0.999)	555147	1.45443	417.8
* 69	Chrysene-d12	240	21.971	21.956	(1.000)	1402473	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.018	22.002	(1.002)	613813	1.78311	512.3
72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
* 134	Di-n-octylphthalate-d4	153	23.071	23.047	(1.000)	1187443	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	23.682	23.651	(0.975)	405197	1.11312	319.8(M)
75	Benzo(k)fluoranthene	252	23.706	23.690	(0.976)	583601	1.54696	444.4
76	Benzo(a)pyrene	252	24.186	24.147	(0.996)	443315	1.48319	426.1(H)
* 77	Perylene-d12	264	24.279	24.232	(1.000)	1195073	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.301	26.216	(1.083)	193171	0.47426	136.3
79	Dibenzo(a,h)anthracene	278	26.309	26.239	(1.084)	62489	0.18338	52.68
80	Benzo(g,h,i)perylene	276	26.884	26.798	(1.107)	221711	0.64690	185.8
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	23.706	23.690	(0.976)	899398	2.56462	736.8
99	Perylene	252	24.317	24.278	(1.002)	238006	0.80674	231.8

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57h.d
Lab Smp Id: TX57H
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26626

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: SD0019
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	169600	-1.89
27 Naphthalene-d8	574010	287005	1148020	580460	1.12
42 Acenaphthene-d10	467963	233982	935926	432785	-7.52
59 Phenanthrene-d10	976150	488075	1952300	909892	-6.79
69 Chrysene-d12	1397129	698564	2794258	1402473	0.38
134 Di-n-octylphthala	1264537	632268	2529074	1187443	-6.10
77 Perylene-d12	1407308	703654	2814616	1195073	-15.08

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.60	0.00
42 Acenaphthene-d10	14.13	13.63	14.63	14.14	0.06
59 Phenanthrene-d10	17.11	16.61	17.61	17.12	0.05
69 Chrysene-d12	21.96	21.46	22.46	21.97	0.07
134 Di-n-octylphthala	23.05	22.55	23.55	23.07	0.10
77 Perylene-d12	24.23	23.73	24.73	24.28	0.19

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: INTEGRAL
Client SDG: TX57
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: TX57H
Client Smp ID: SD0019
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26626

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	718.2	443.1	61.69	30-160
$ 2 Phenol-d5	718.2	426.5	59.37	30-160
$ 5 2-Chlorophenol-d4	718.2	508.8	70.83	30-160
$ 10 1,2-Dichlorobenzen	478.8	289.2	60.40	30-160
$ 18 Nitrobenzene-d5	478.8	378.0	78.95	30-160
$ 36 2-Fluorobiphenyl	478.8	400.2	83.58	30-160
$ 55 2,4,6-Tribromophen	718.2	517.8	72.09	30-160
$ 66 Terphenyl-d14	478.8	358.1	74.79	30-160

Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

Client ID: SD0019

Sample Info: TX57H,3

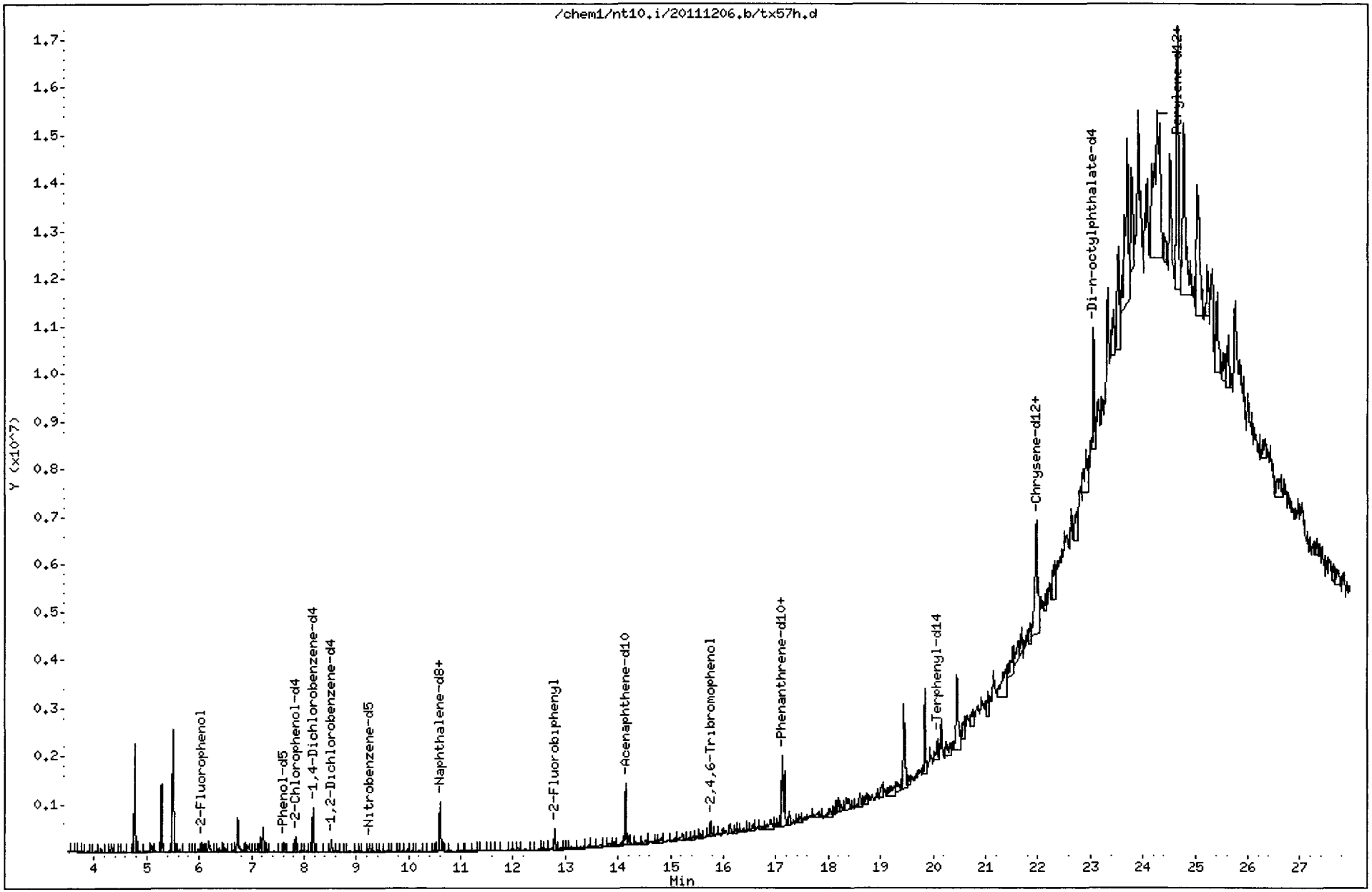
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: YZ

Column diameter: 0.25



TX57 00745

Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

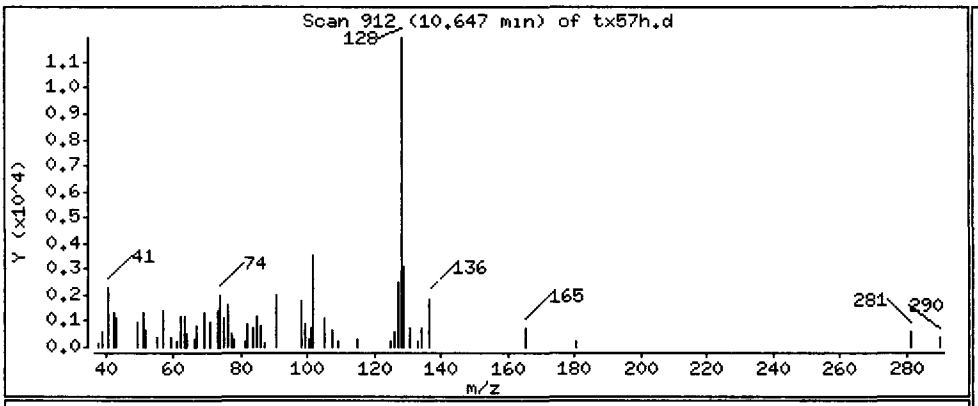
Client ID: SD0019 Instrument: nt10.i

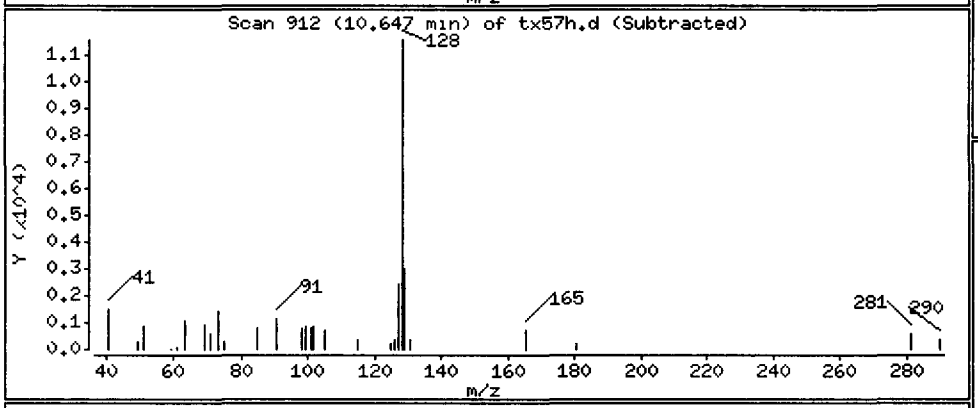
Sample Info: TX57H,3

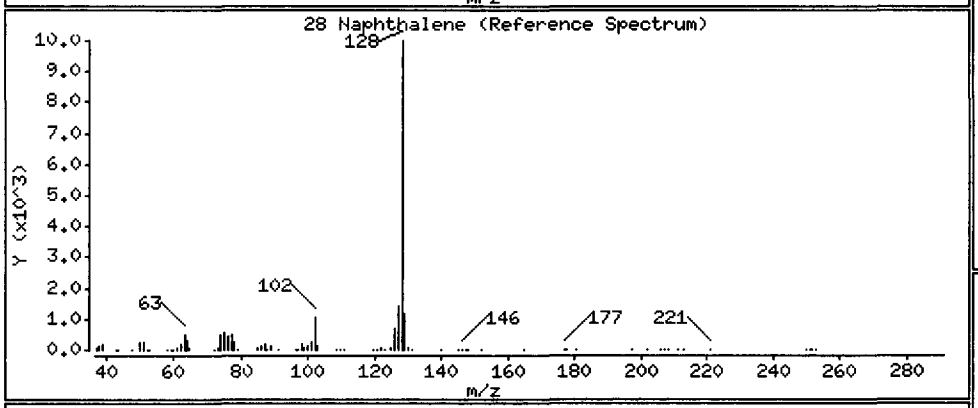
Volume Injected (uL): 1.0 Operator: YZ

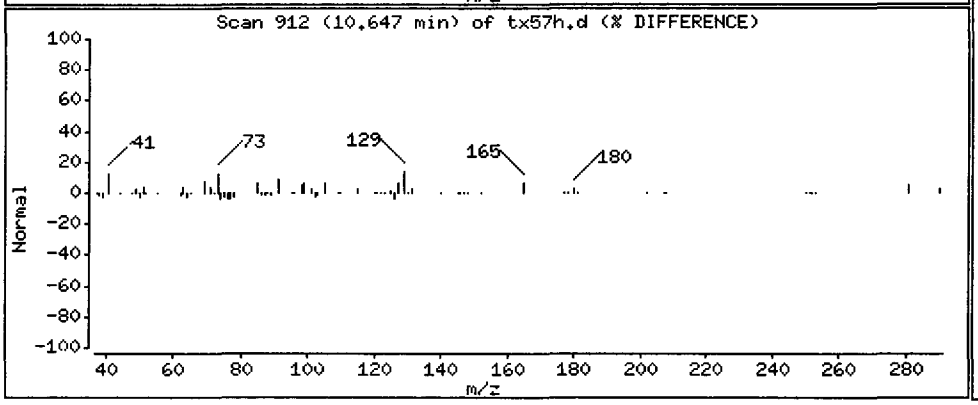
Column phase: ZB-5msi Column diameter: 0.25

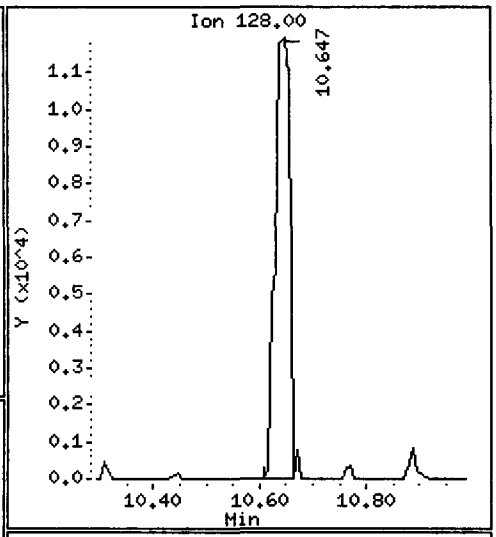
28 Naphthalene Concentration: 42.96 ug/kg

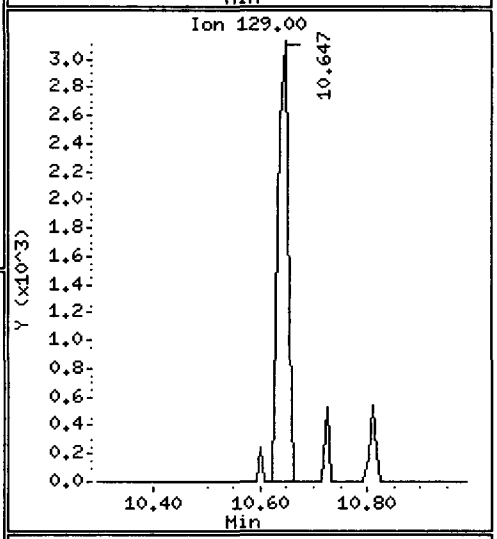


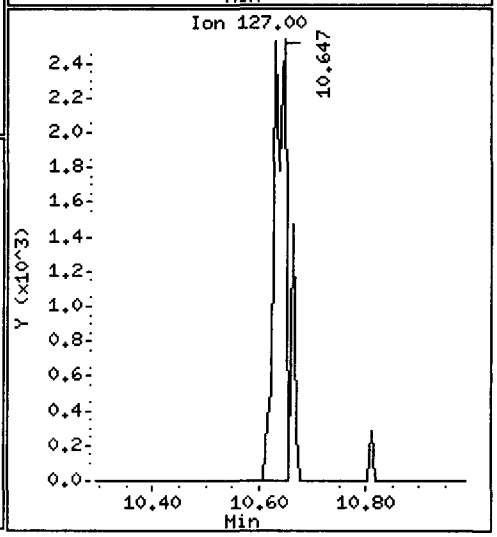












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

Client ID: SD0019

Instrument: nt10.i

Sample Info: TX57H,3

Volume Injected (uL): 1.0

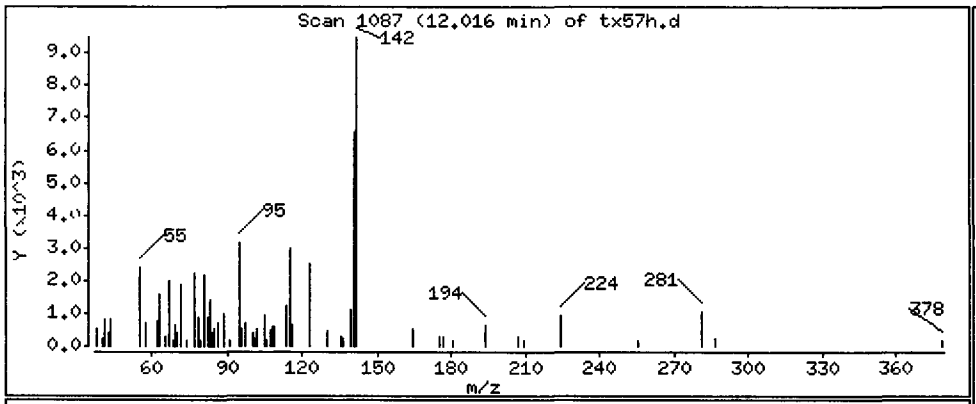
Operator: YZ

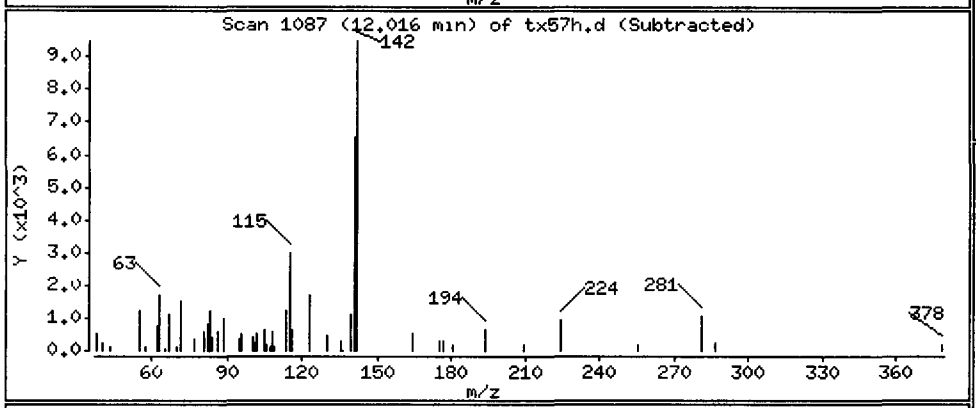
Column phase: ZB-5ms1

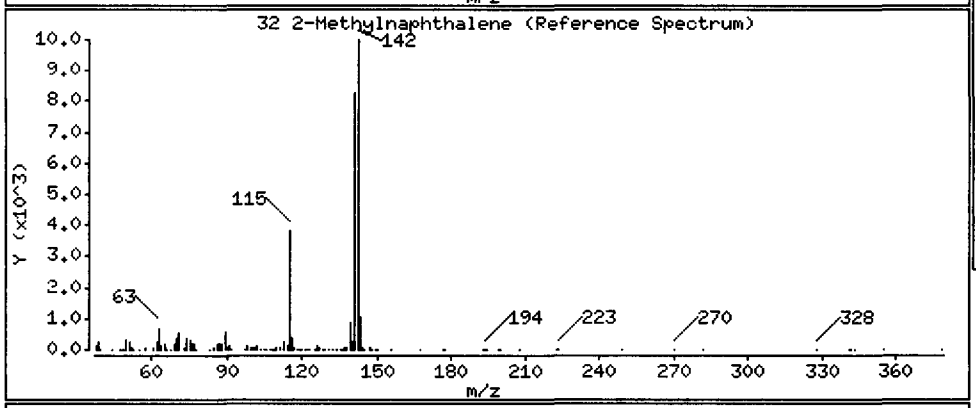
Column diameter: 0.25

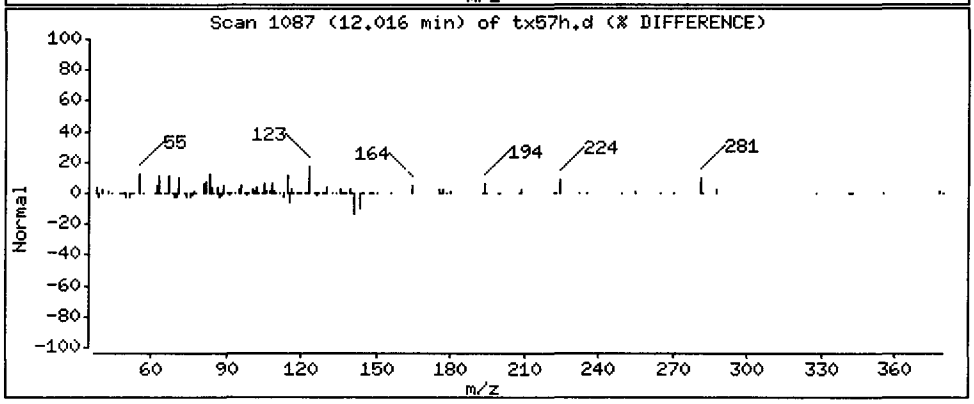
32 2-Methylnaphthalene

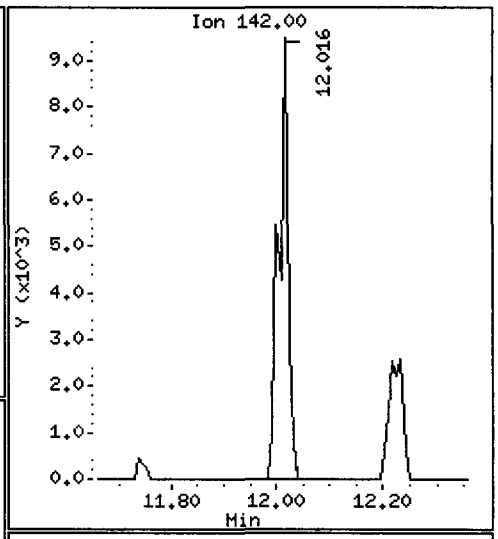
Concentration: 30.29 ug/kg

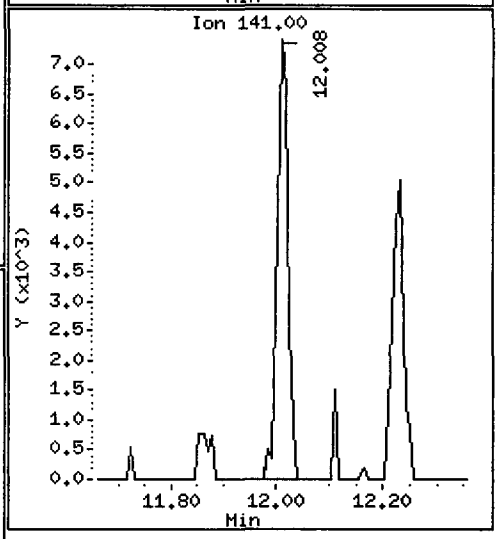












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

Client ID: SD0019

Instrument: nt10.i

Sample Info: TX57H,3

Volume Injected (uL): 1.0

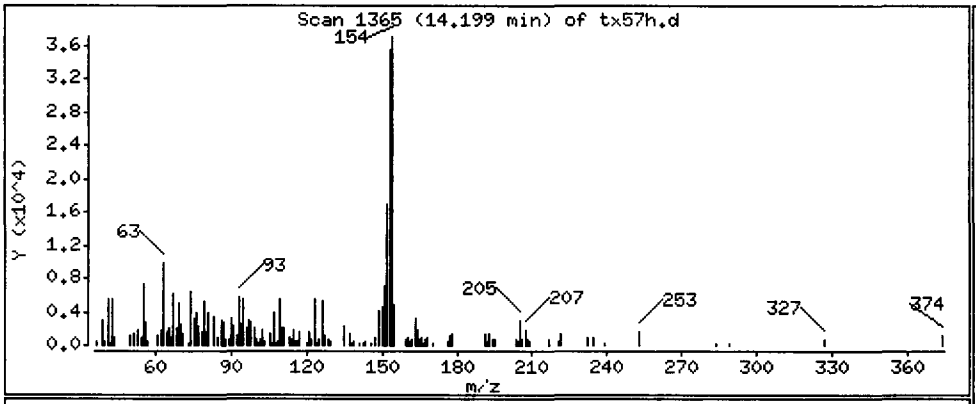
Operator: YZ

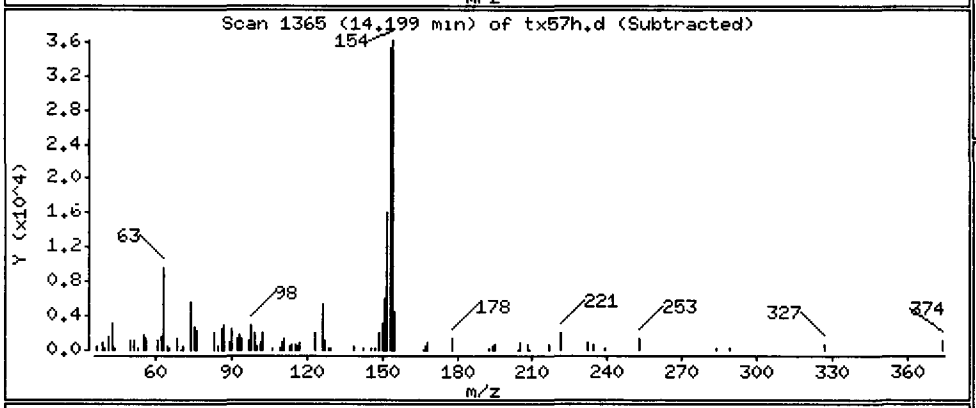
Column phase: ZB-5ms1

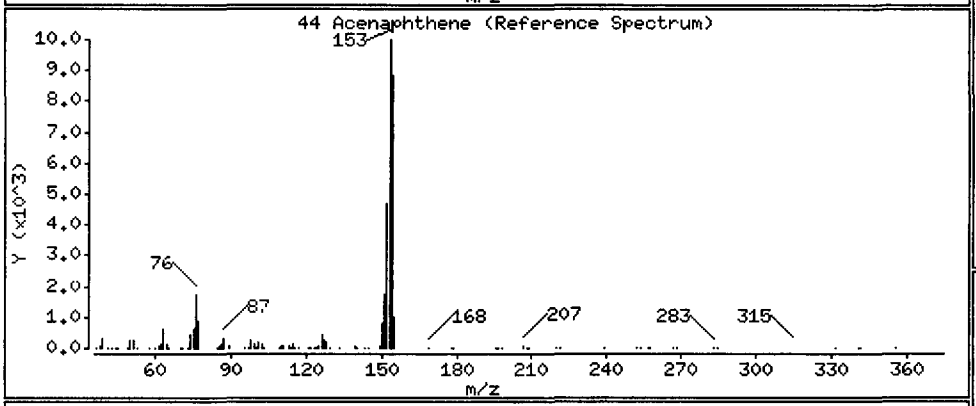
Column diameter: 0.25

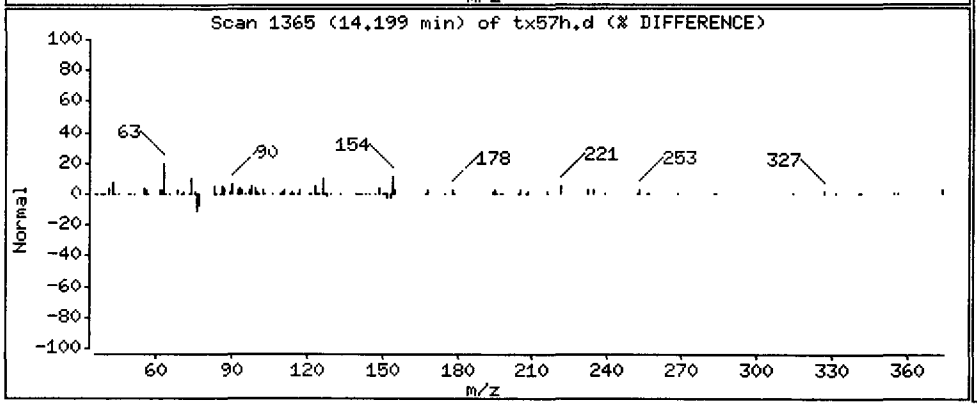
44 Acenaphthene

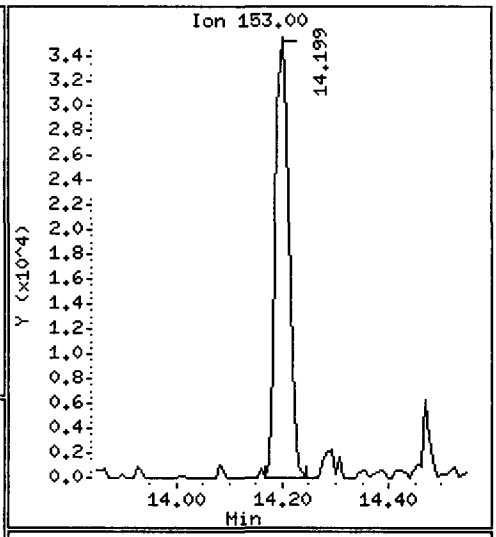
Concentration: 147.6 ug/kg

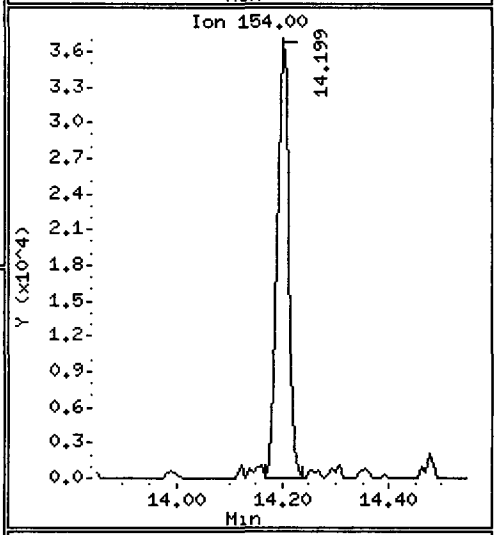


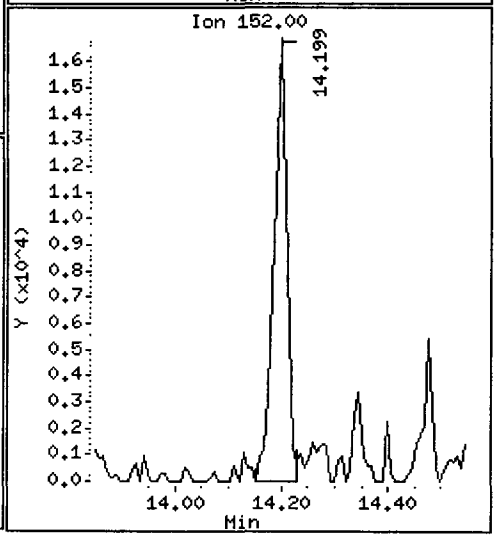












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

Client ID: SD0019

Instrument: nt10.i

Sample Info: TX57H,3

Volume Injected (uL): 1.0

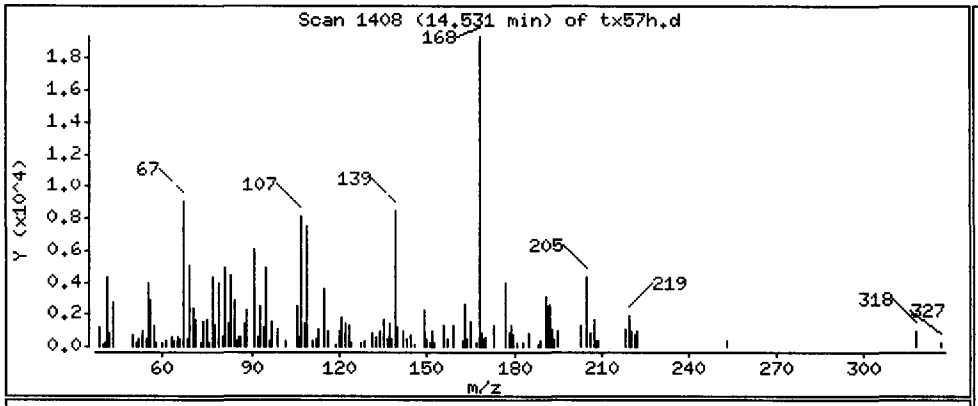
Operator: YZ

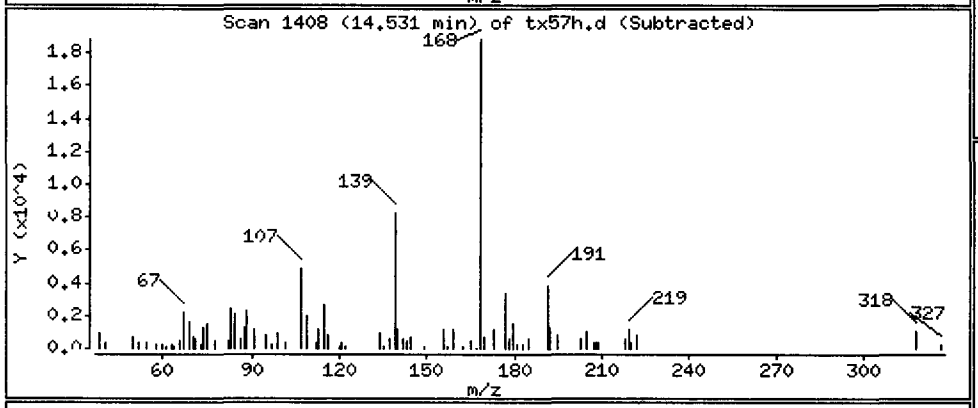
Column phase: ZB-5msi

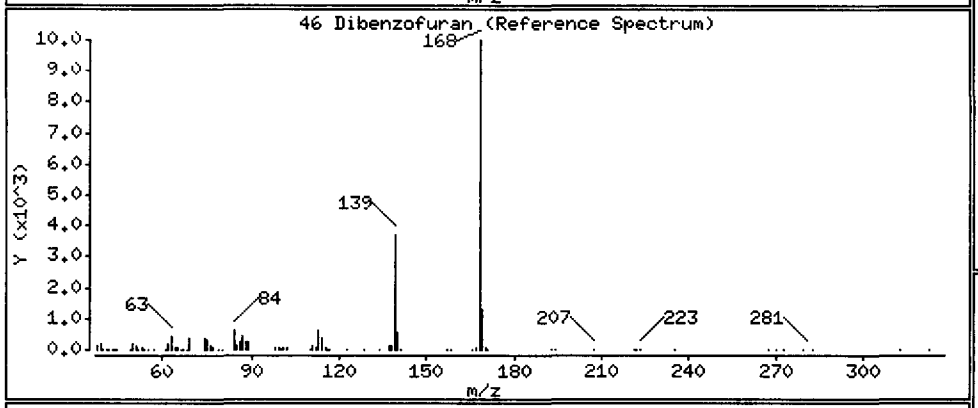
Column diameter: 0.25

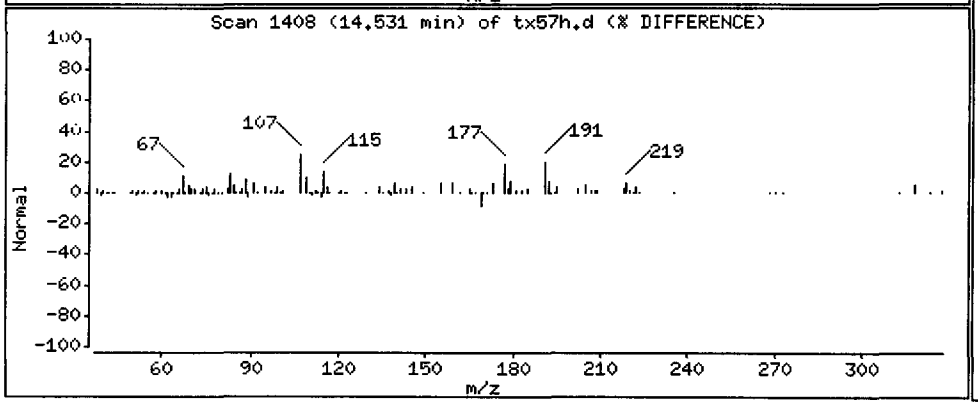
46 Dibenzofuran

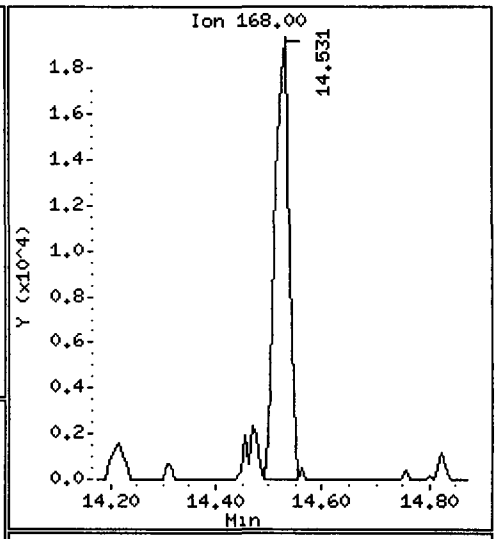
Concentration: 52.96 ug/kg

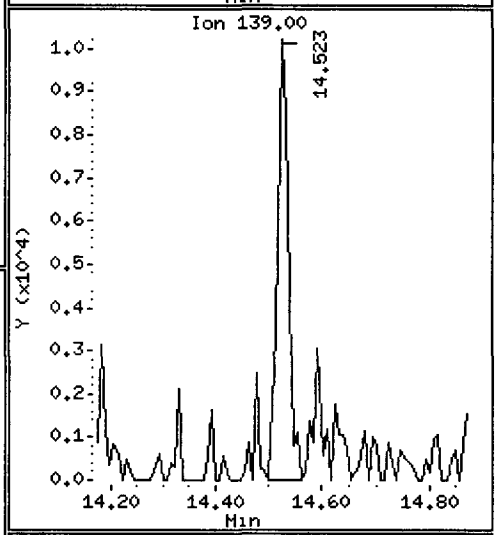


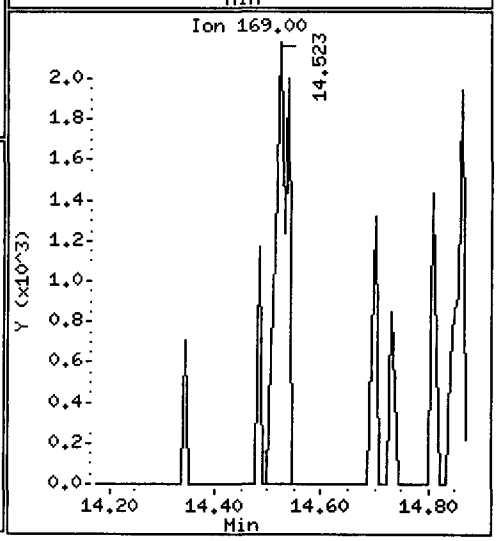












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

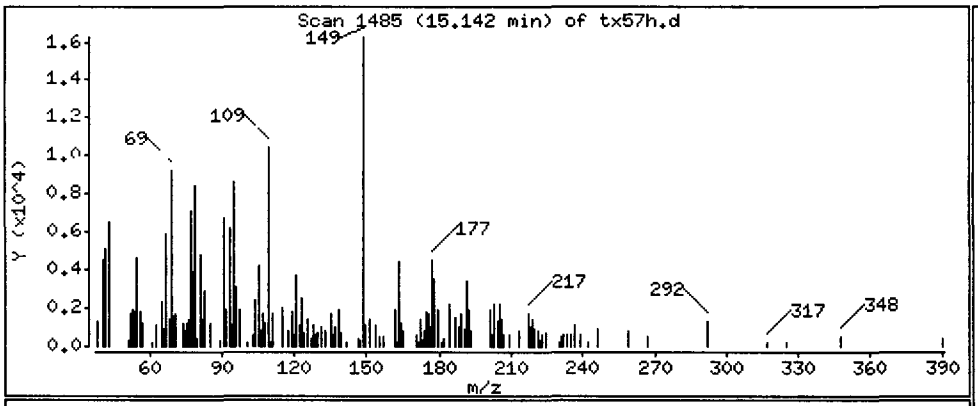
Client ID: SD0019 Instrument: nt10.i

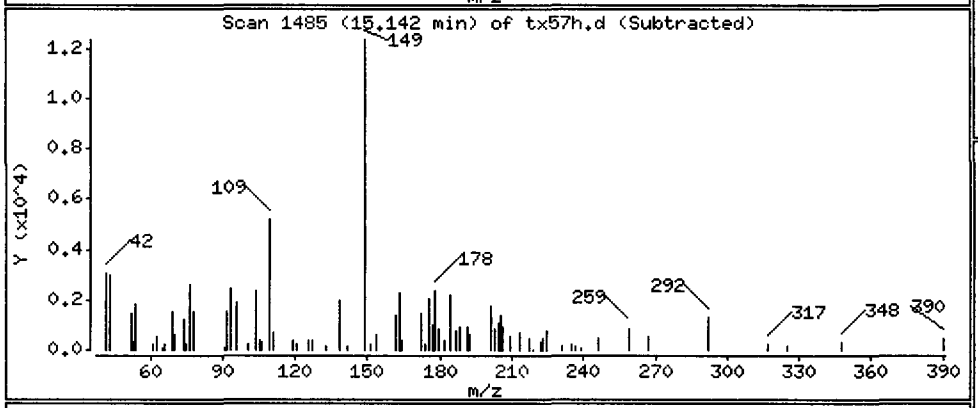
Sample Info: TX57H,3

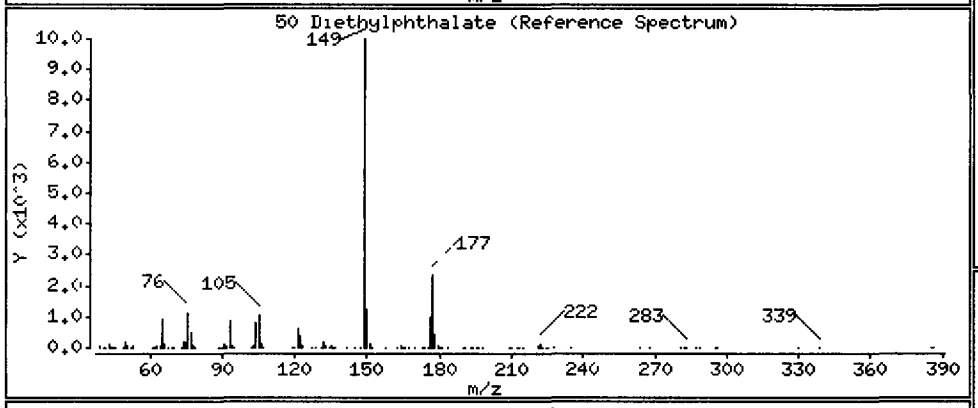
Volume Injected (uL): 1.0 Operator: YZ

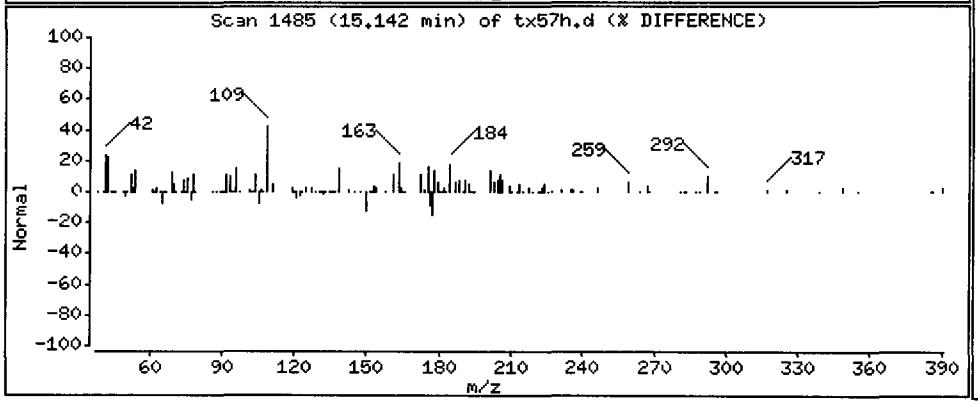
Column phase: ZB-5msi Column diameter: 0.25

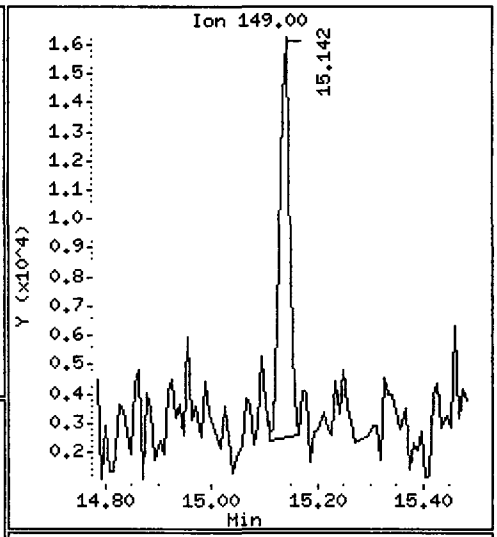
50 Diethylphthalate Concentration: 33.06 ug/kg

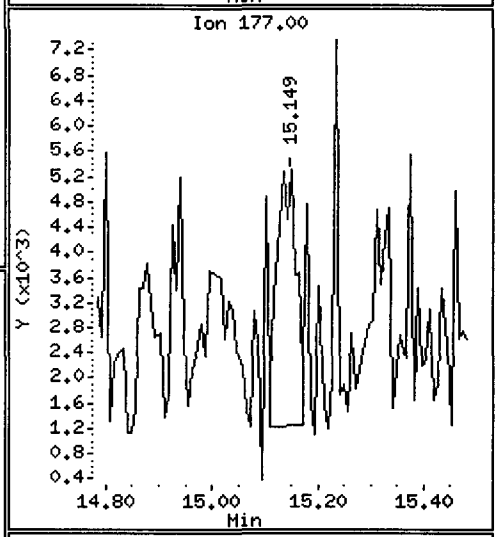


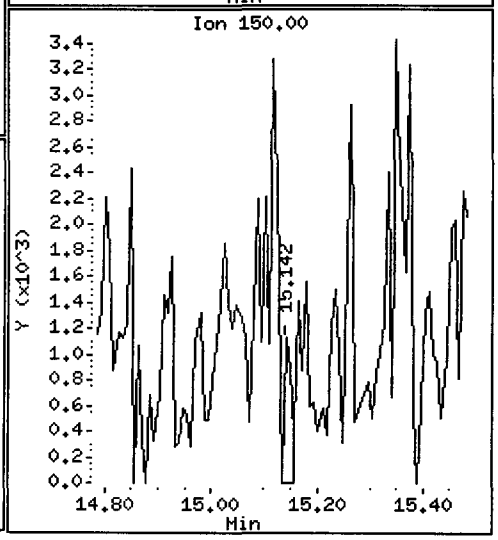












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

Client ID: SD0019

Instrument: nt10.i

Sample Info: TX57H.3

Volume Injected (uL): 1.0

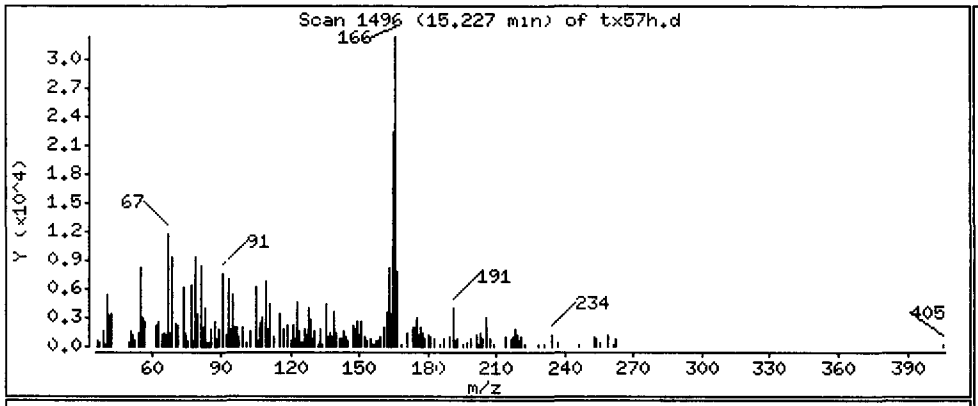
Operator: YZ

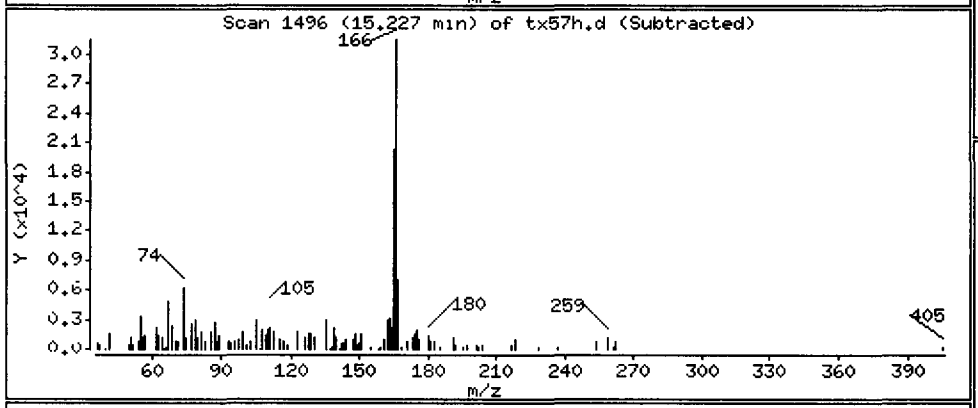
Column phase: ZB-5msi

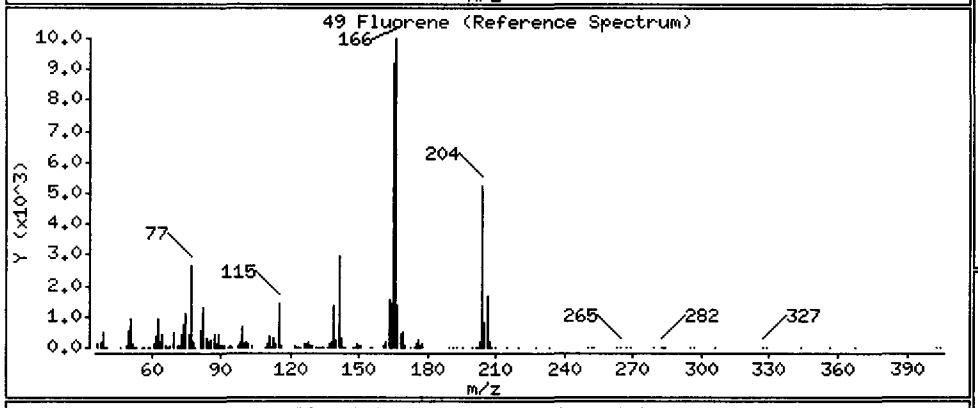
Column diameter: 0.25

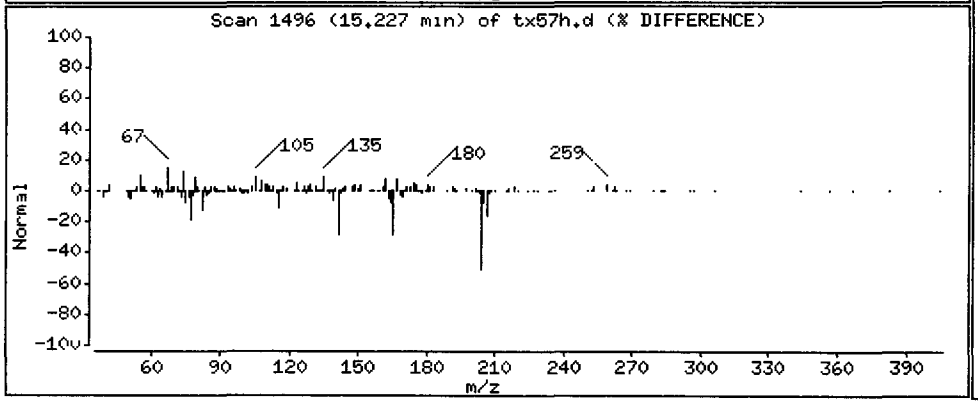
49 Fluorene

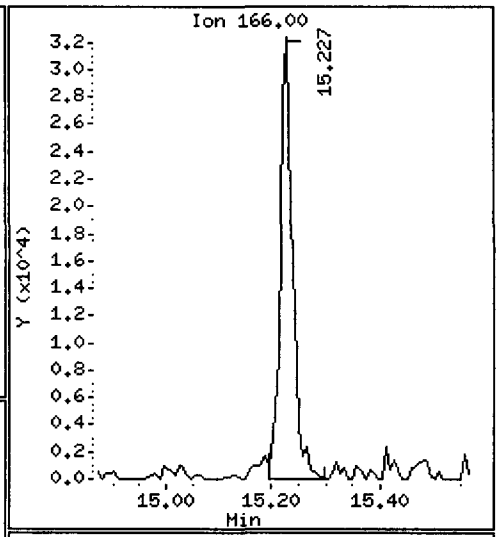
Concentration: 124.6 ug/kg

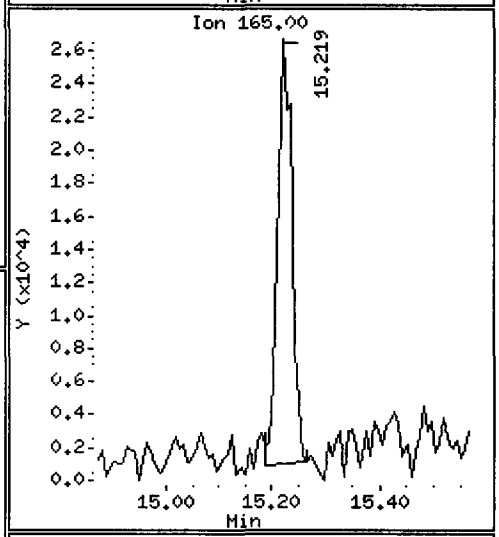


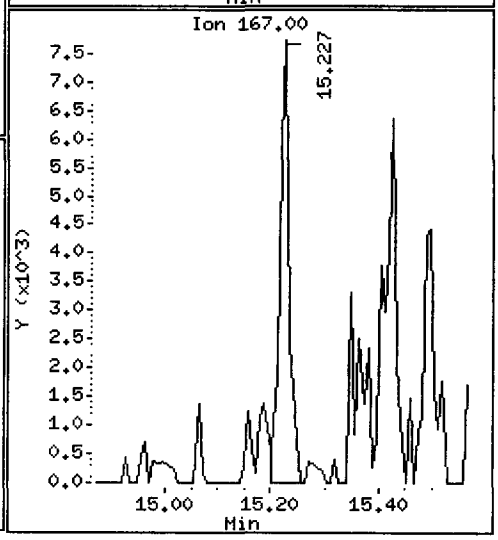












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

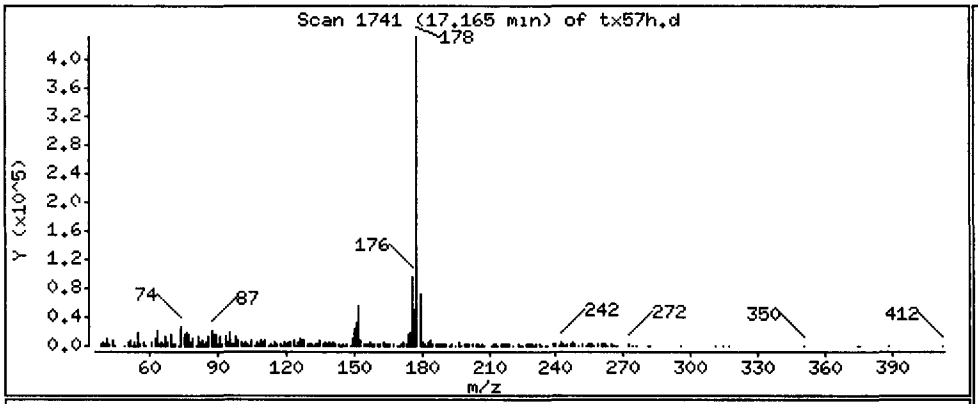
Client ID: SD0019 Instrument: nt10.i

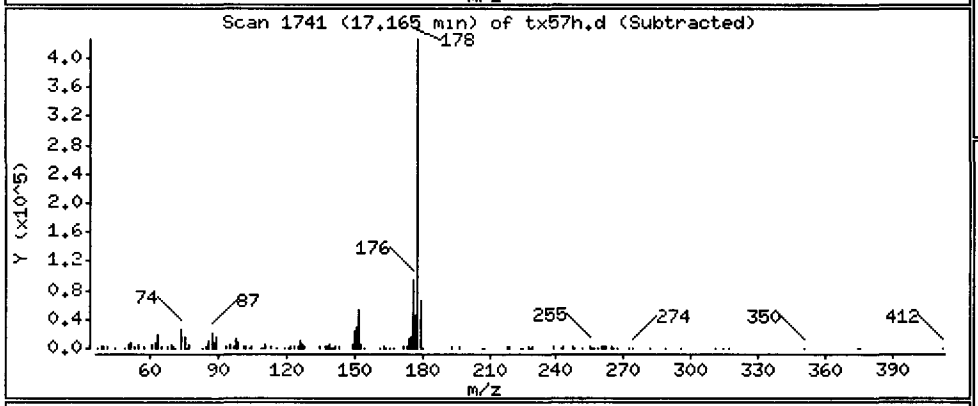
Sample Info: TX57H,3

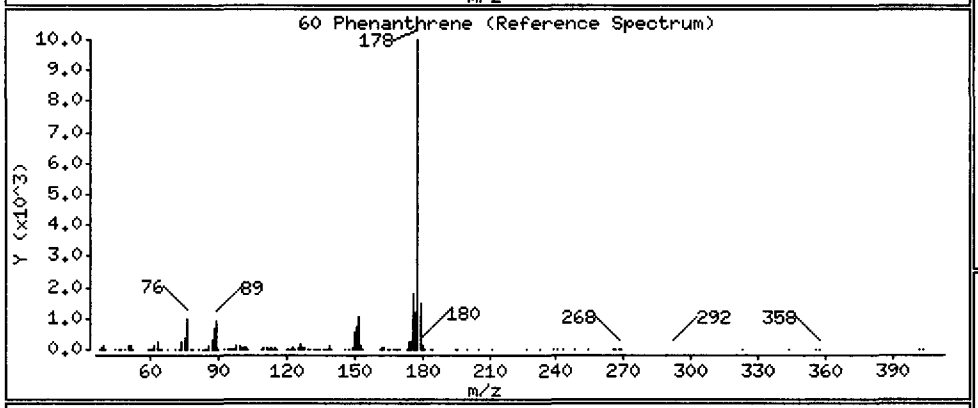
Volume Injected (uL): 1.0 Operator: YZ

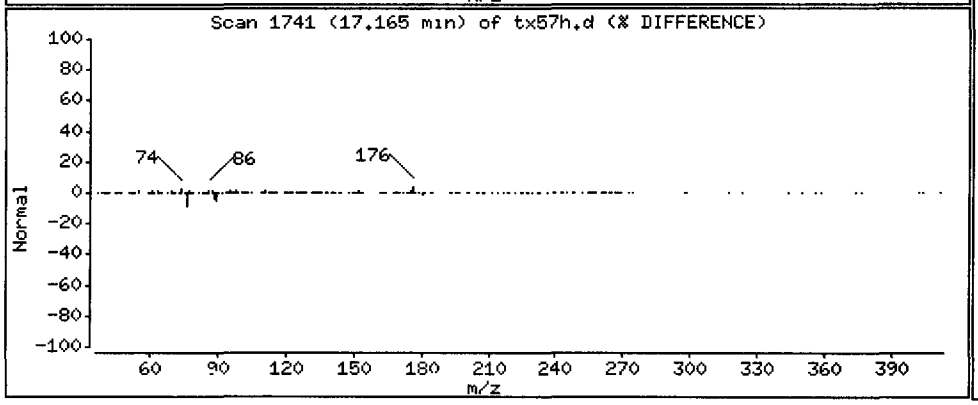
Column phase: ZB-5msi Column diameter: 0.25

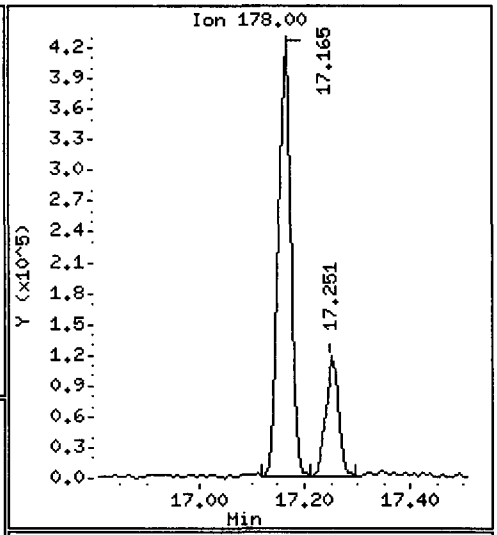
60 Phenanthrene Concentration: 818.5 ug/kg

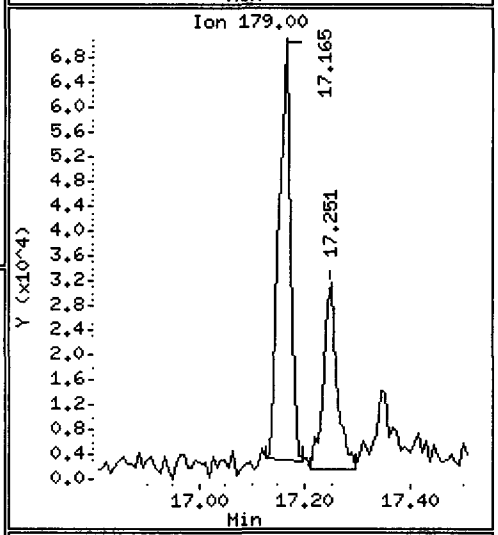


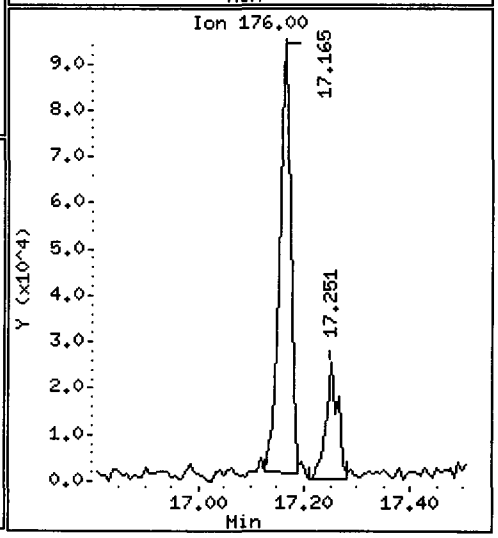












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

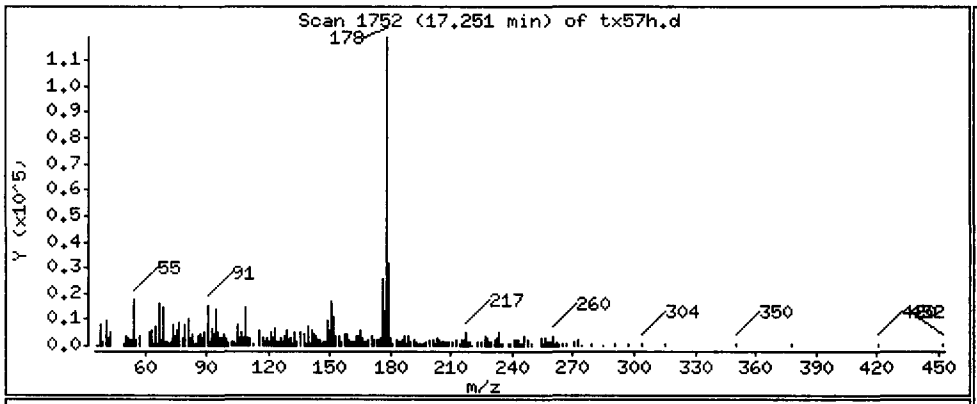
Client ID: SD0019 Instrument: nt10.i

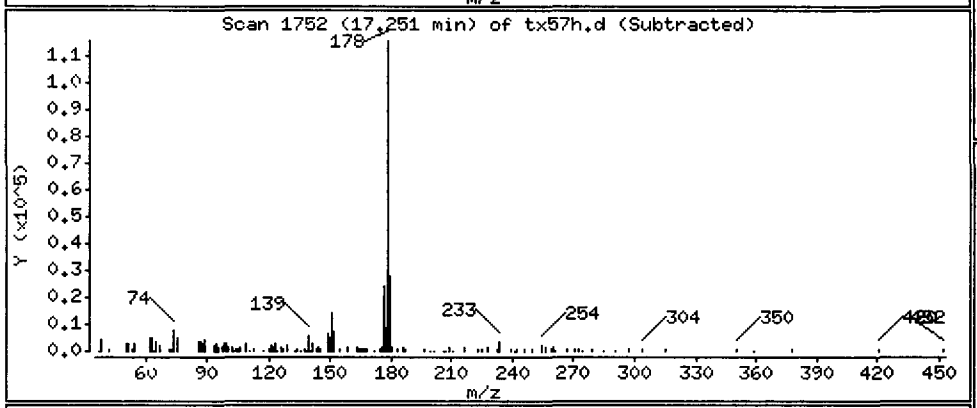
Sample Info: TX57H,3

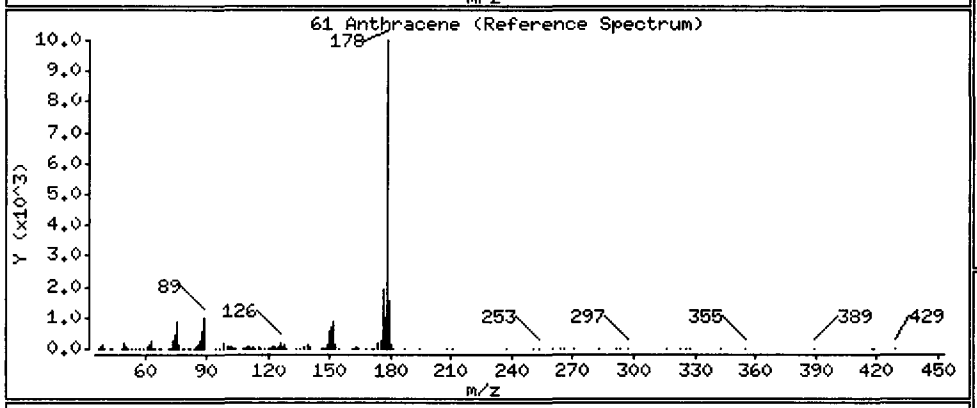
Volume Injected (uL): 1.0 Operator: YZ

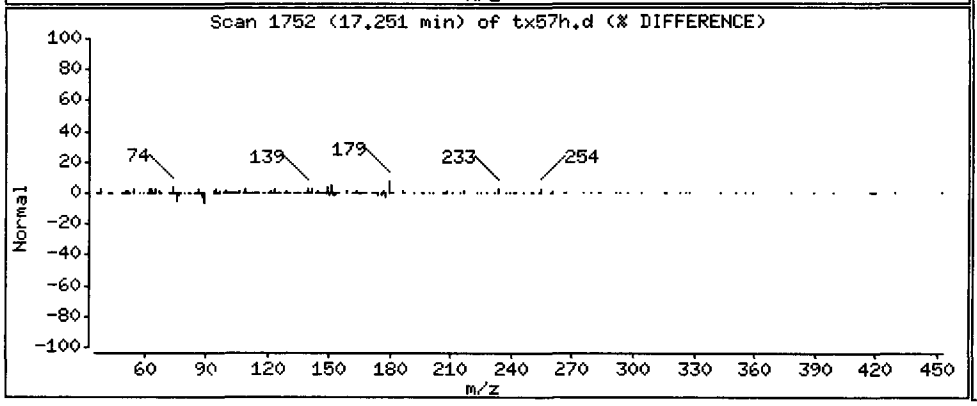
Column phase: ZB-5msi Column diameter: 0.25

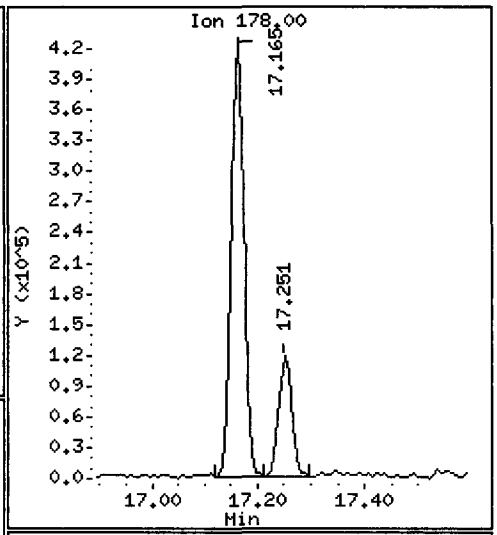
61 Anthracene Concentration: 238.6 ug/kg

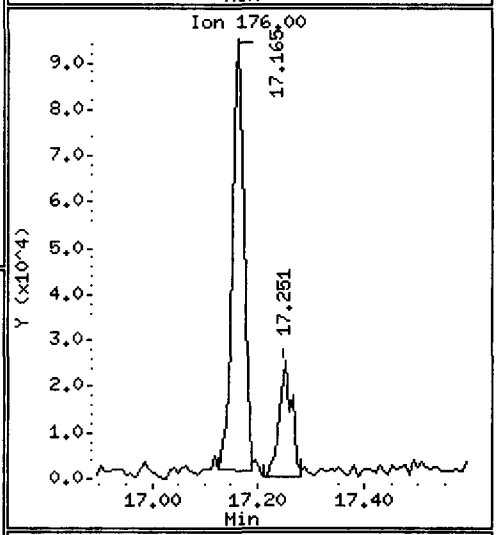


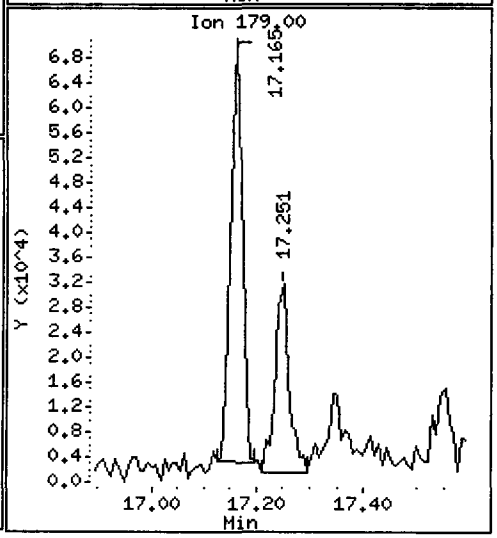












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

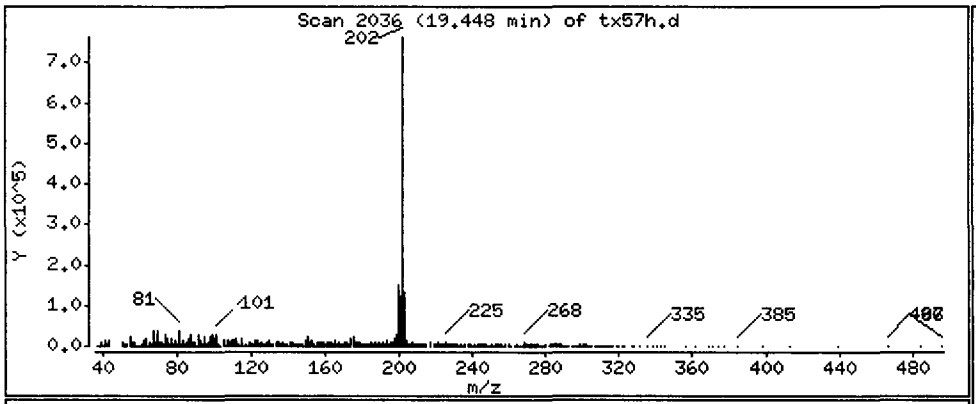
Client ID: SD0019 Instrument: nt10.i

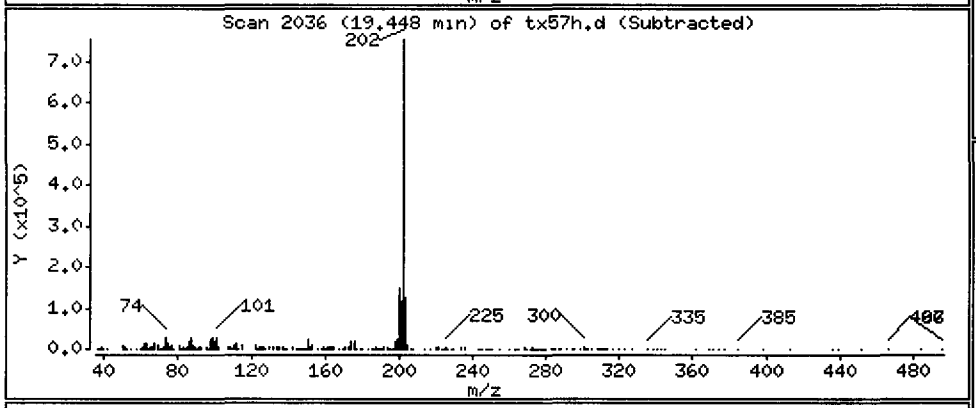
Sample Info: TX57H,3

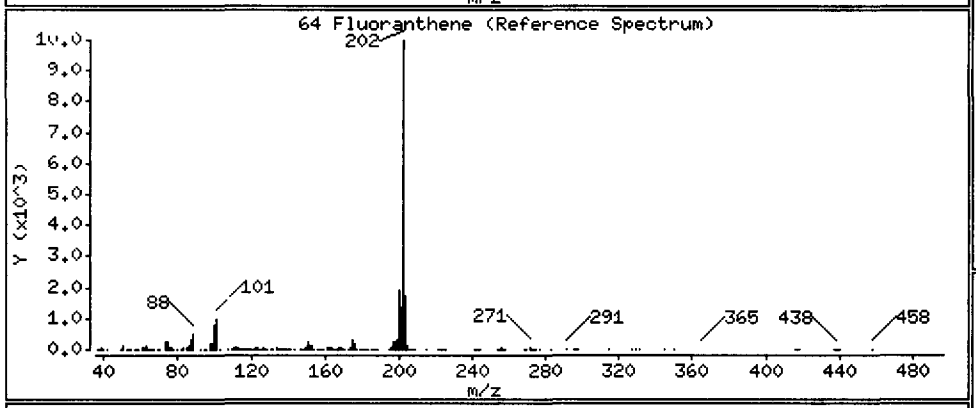
Volume Injected (uL): 1.0 Operator: YZ

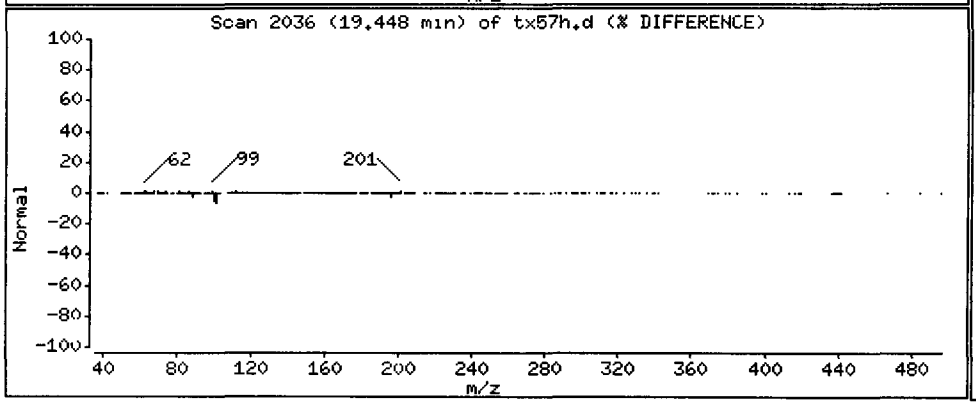
Column phase: ZB-5ms1 Column diameter: 0.25

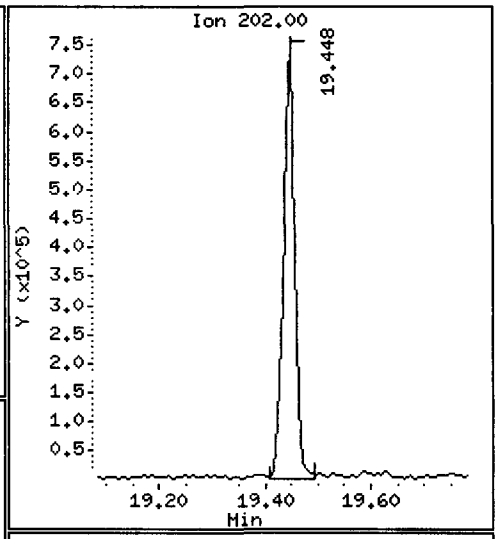
64 Fluoranthene Concentration: 970.5 ug/kg

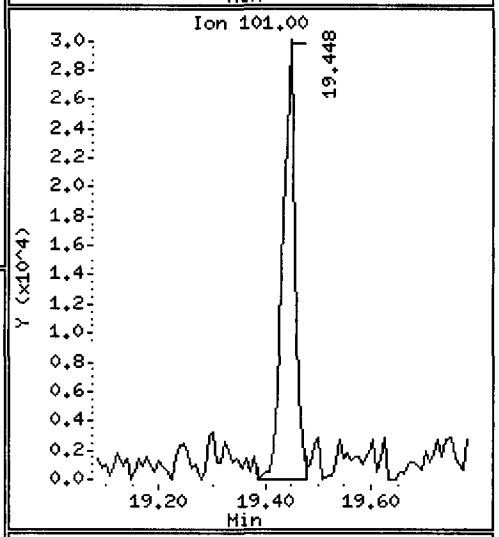


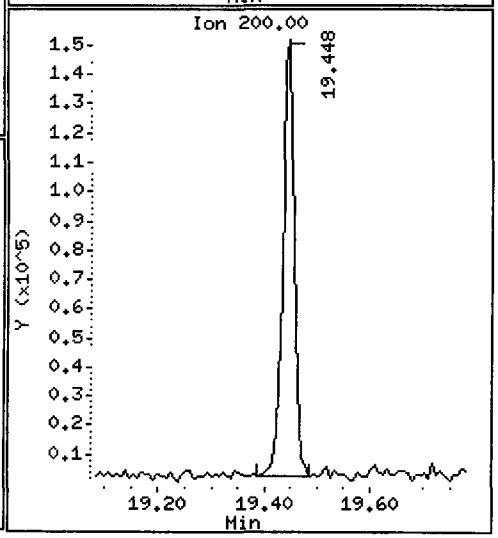












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

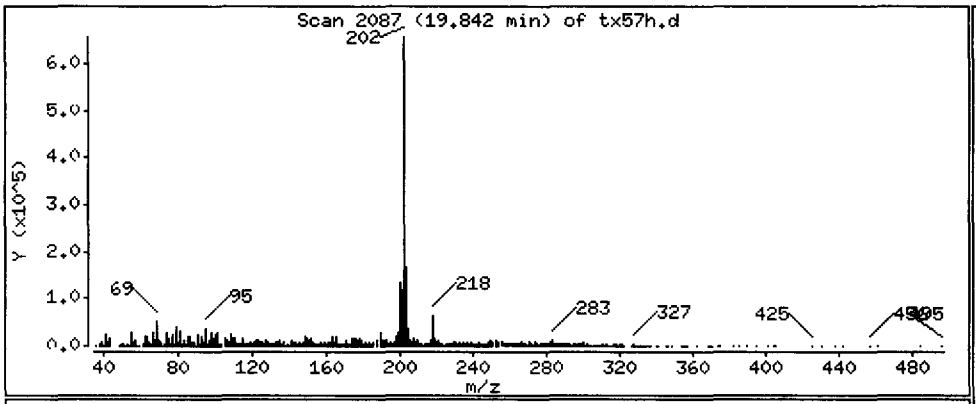
Client ID: SD0019 Instrument: nt10.i

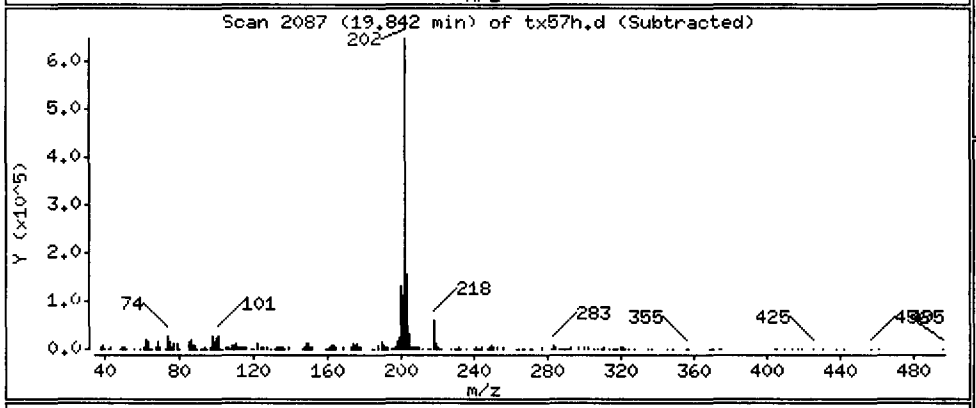
Sample Info: TX57H,3

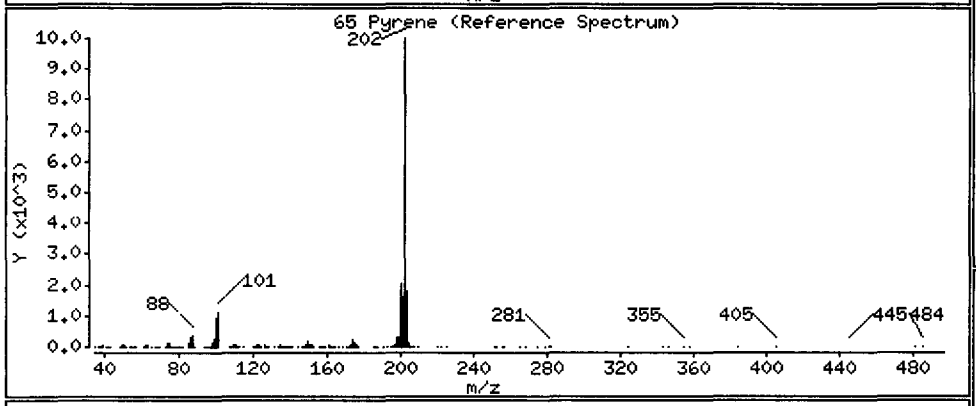
Volume Injected (uL): 1.0 Operator: YZ

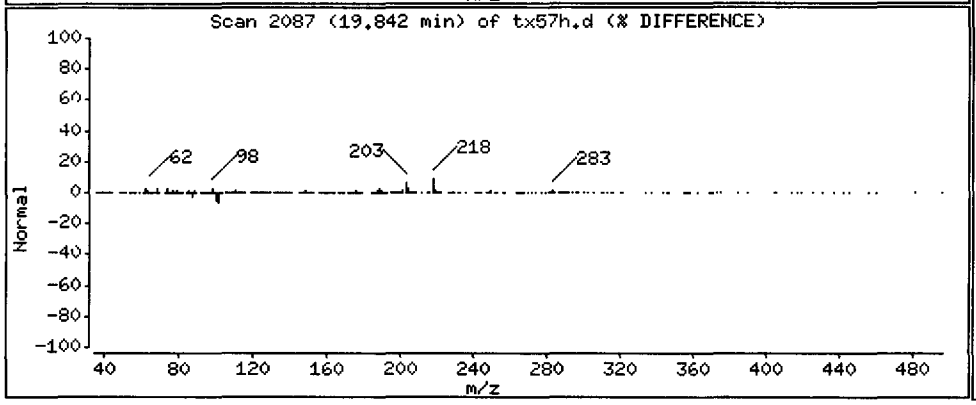
Column phase: ZB-5msi Column diameter: 0.25

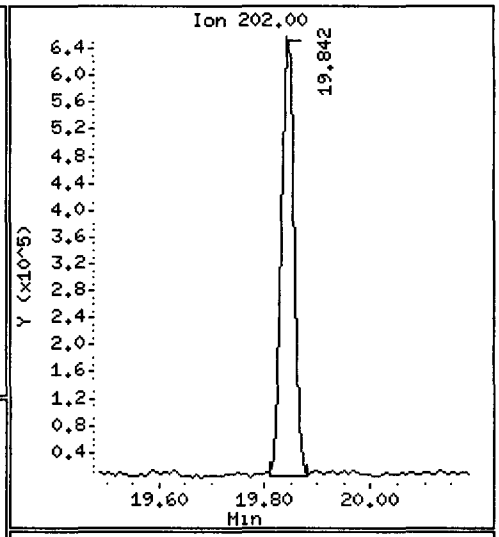
65 Pyrene Concentration: 859.8 ug/kg

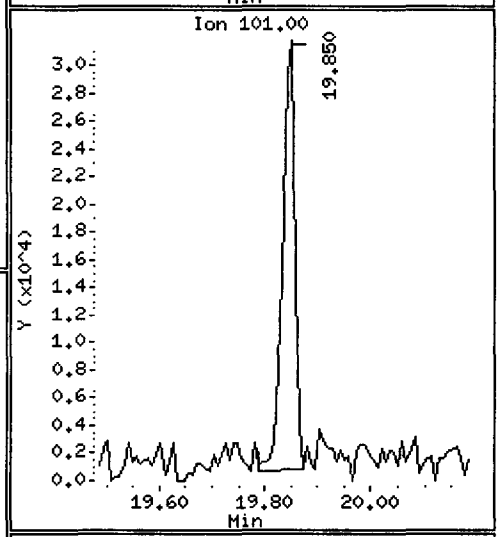


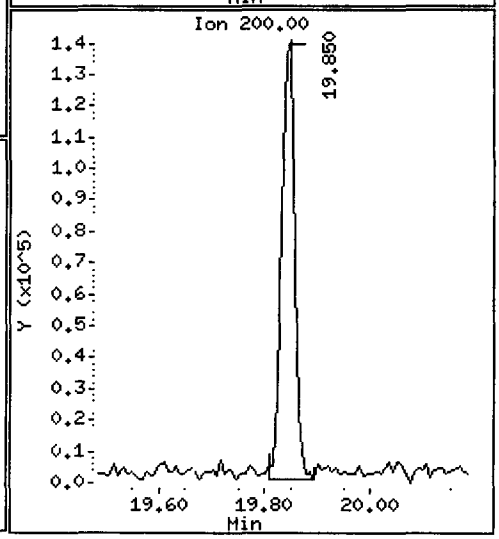












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

Client ID: SD0019

Instrument: nt10.i

Sample Info: TX57H,3

Volume Injected (uL): 1.0

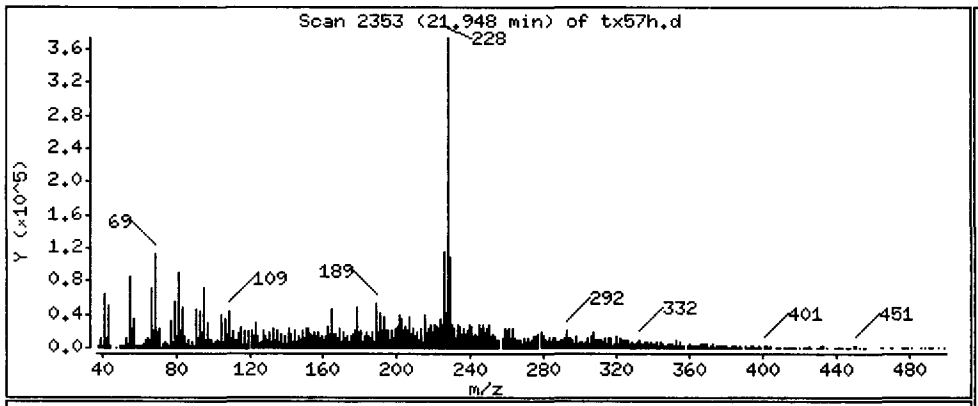
Operator: YZ

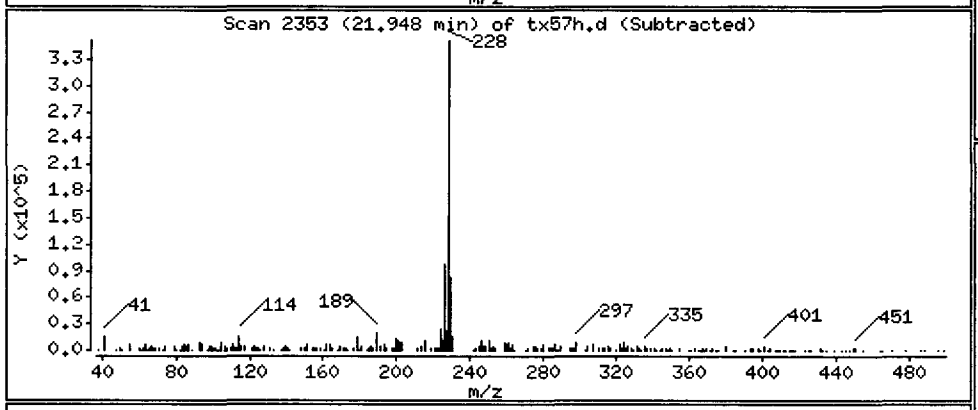
Column phase: ZB-5ms1

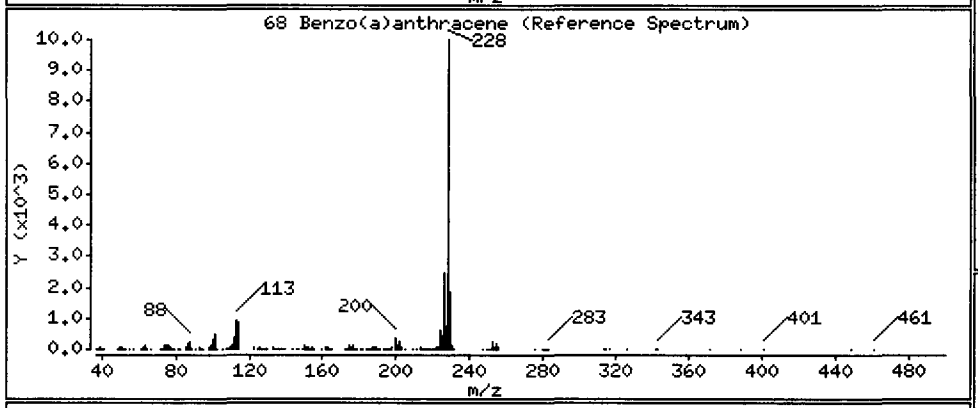
Column diameter: 0.25

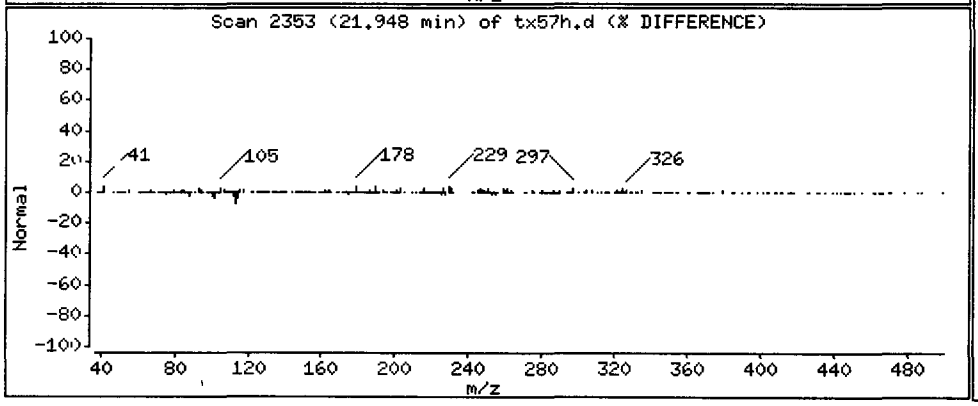
68 Benzo(a)anthracene

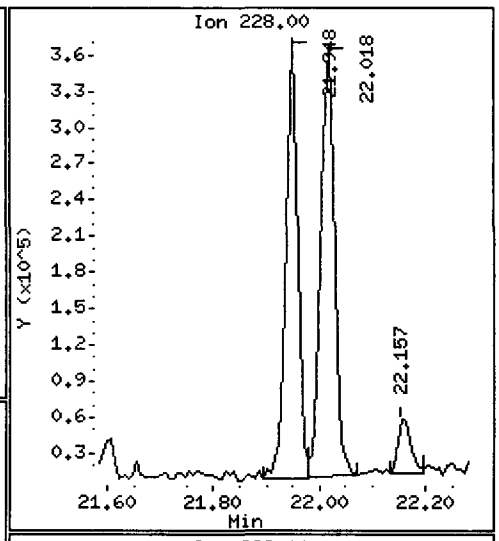
Concentration: 417.8 ug/kg

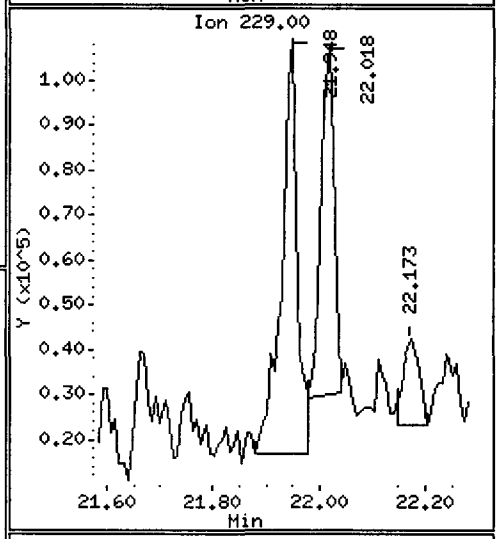


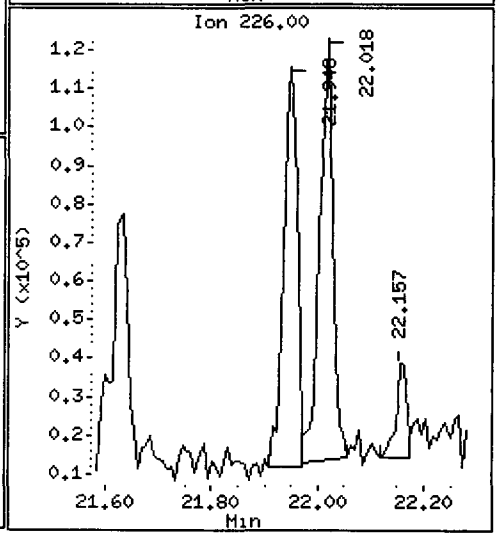












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

Client ID: SD0019

Instrument: nt10.i

Sample Info: TX57H,3

Volume Injected (uL): 1.0

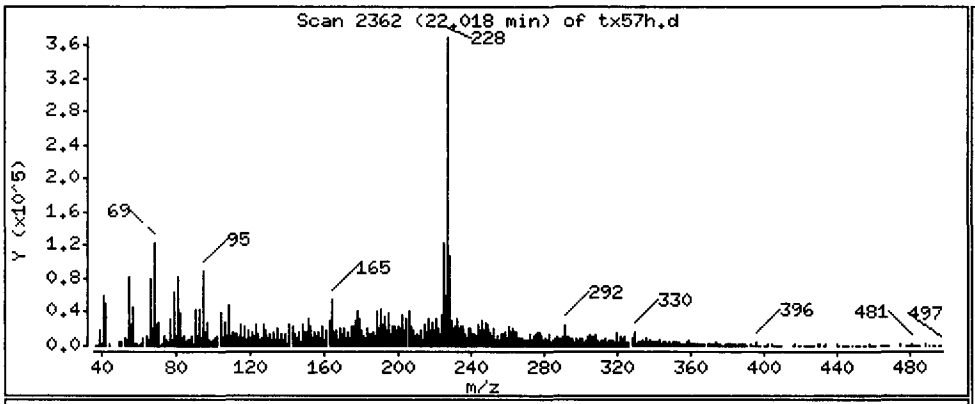
Operator: YZ

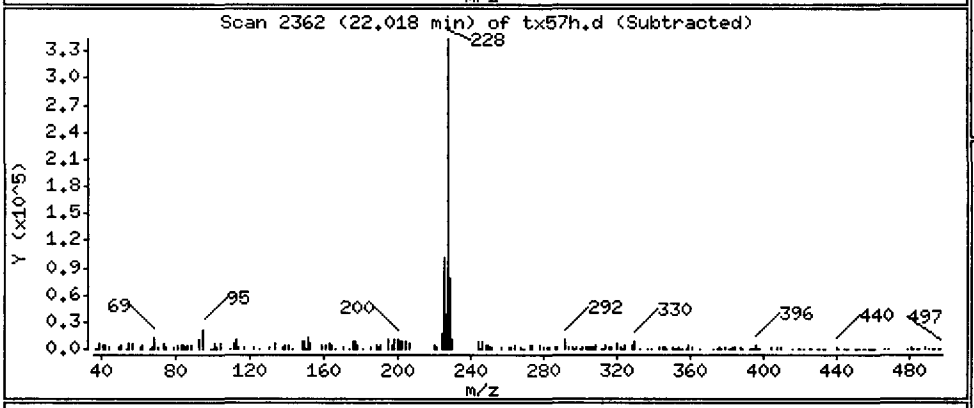
Column phase: ZB-5msi

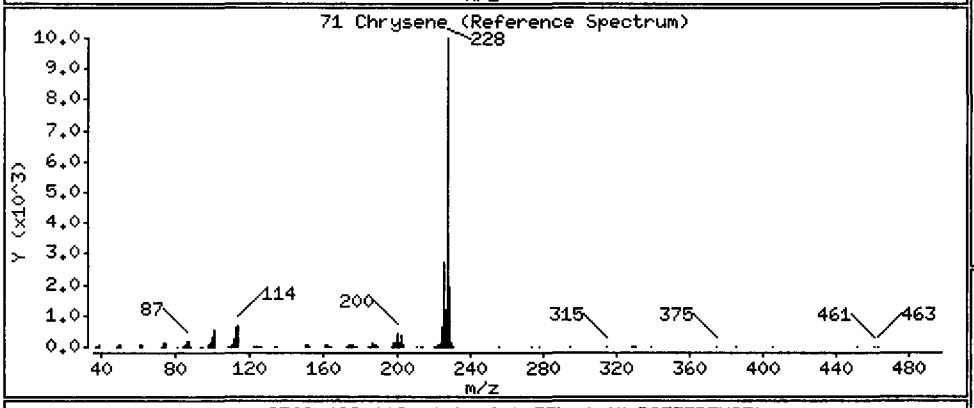
Column diameter: 0.25

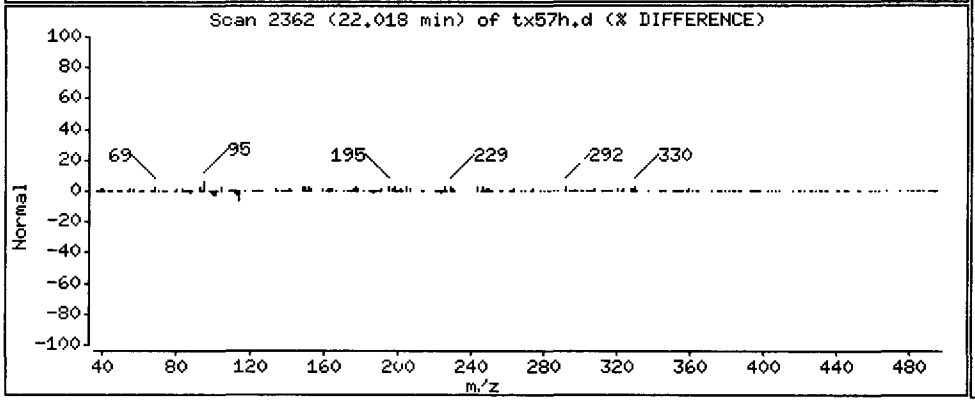
71 Chrysene

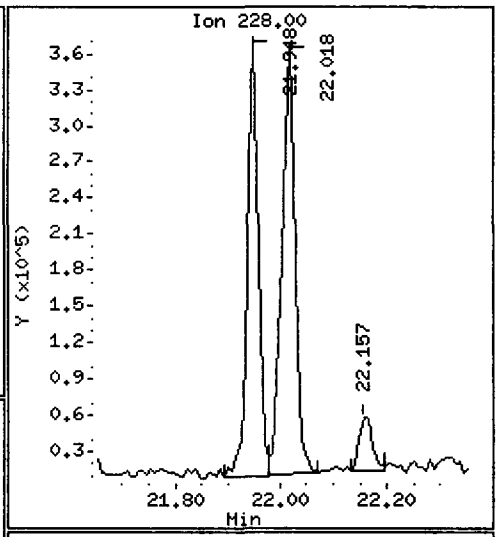
Concentration: 512.3 ug/kg

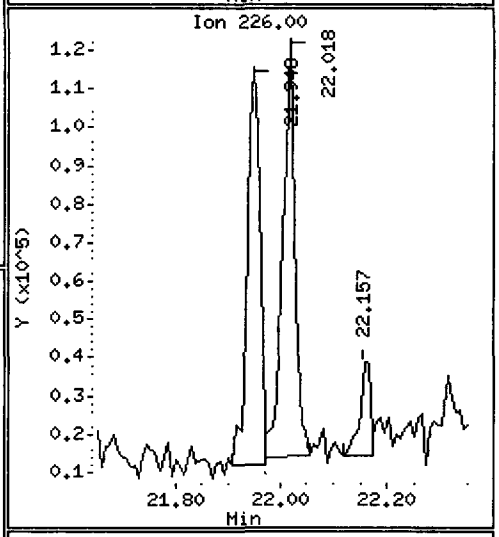


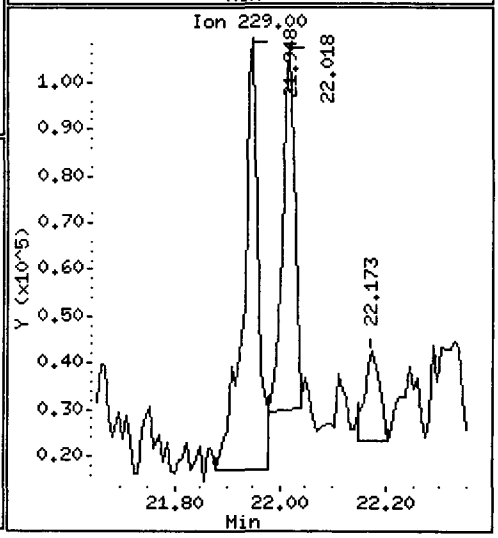












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

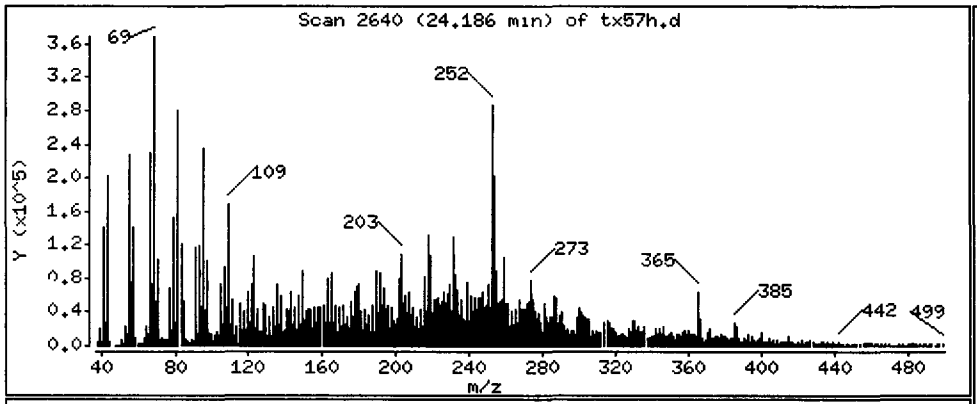
Client ID: SD0019 Instrument: nt10.i

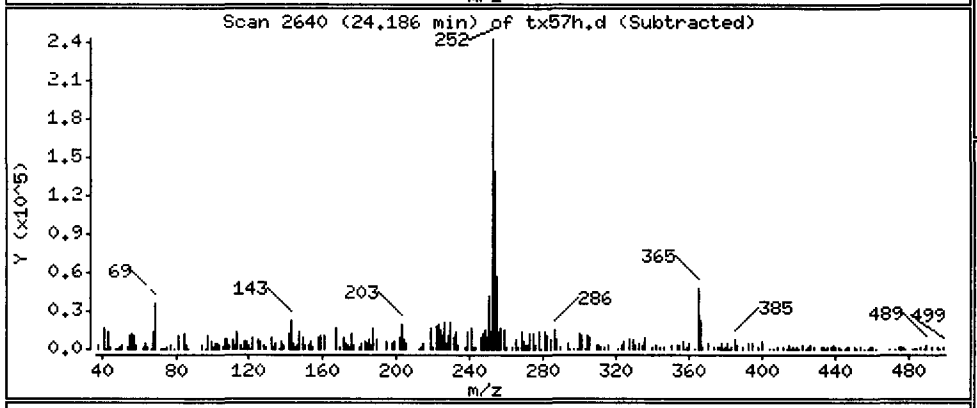
Sample Info: TX57H,3

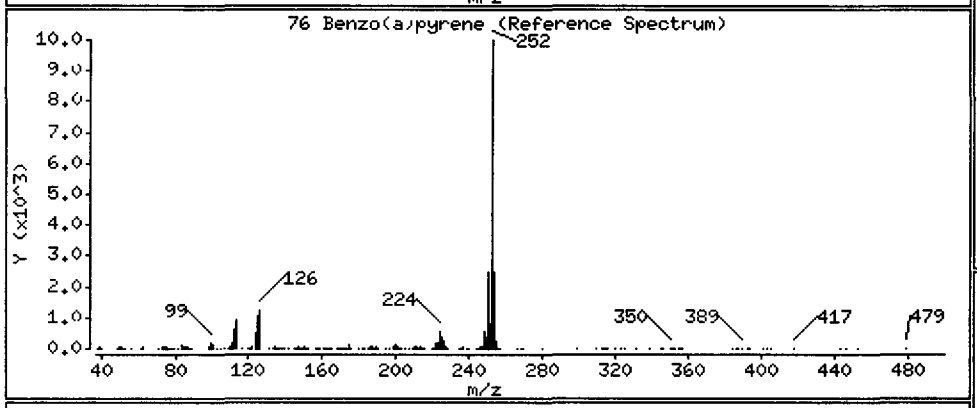
Volume Injected (uL): 1.0 Operator: YZ

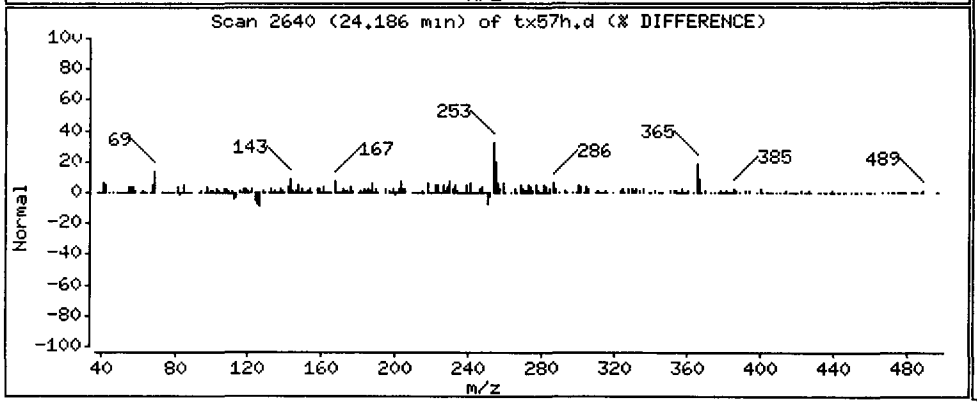
Column phase: ZB-5msi Column diameter: 0.25

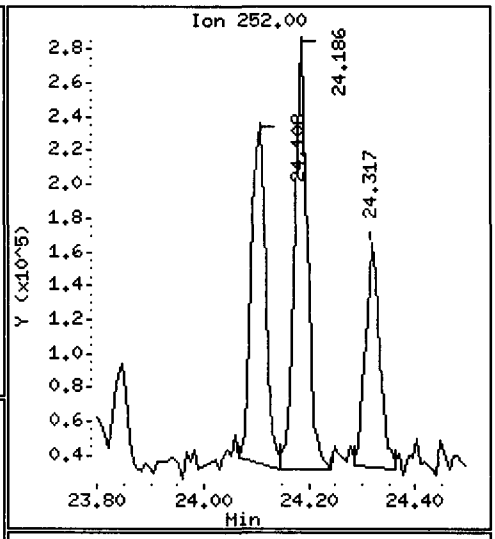
76 Benzo(a)pyrene Concentration: 426.1 ug/kg

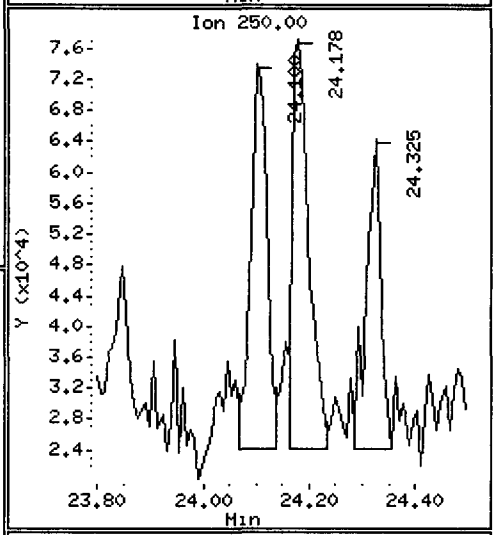


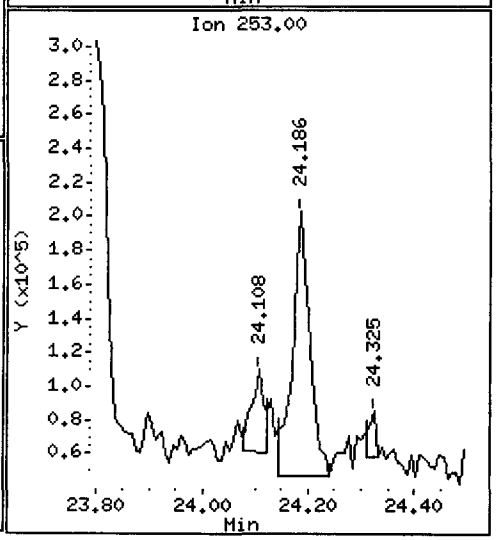












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

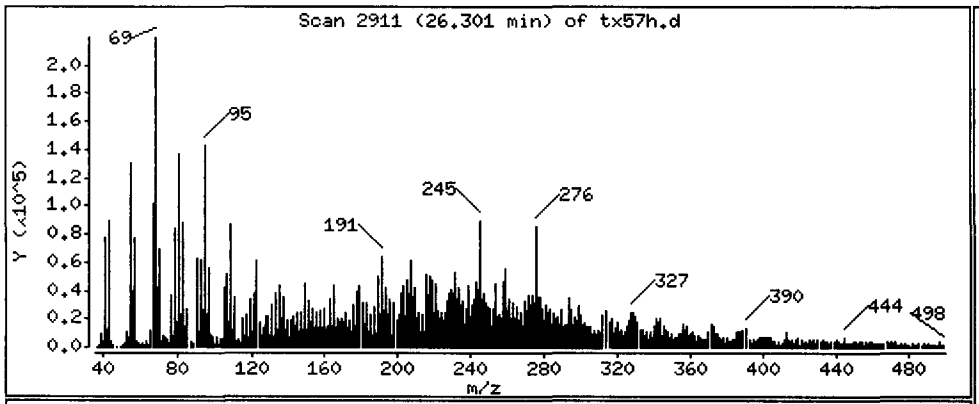
Client ID: SD0019 Instrument: nt10.i

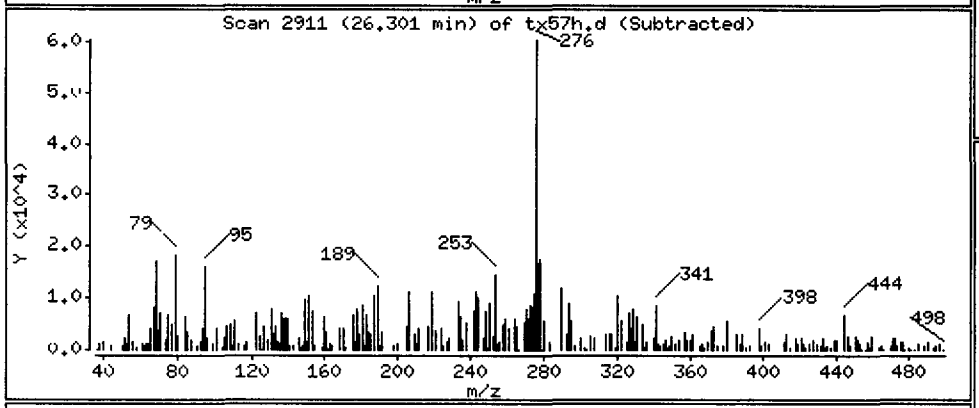
Sample Info: TX57H,3

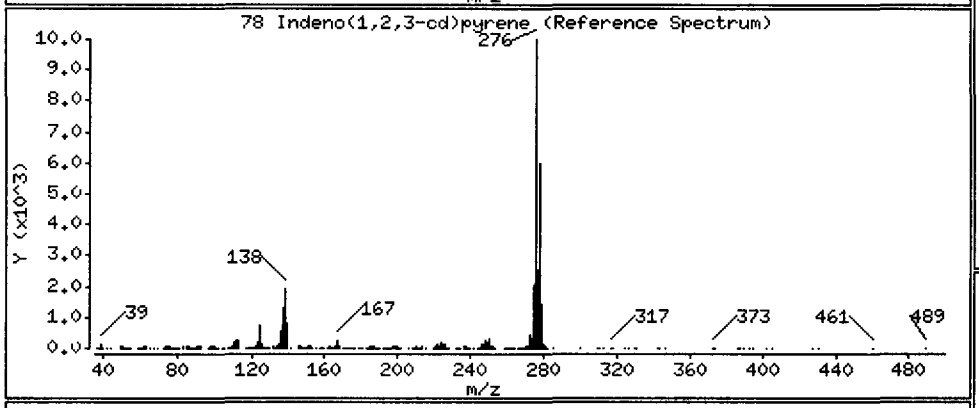
Volume Injected (uL): 1.0 Operator: YZ

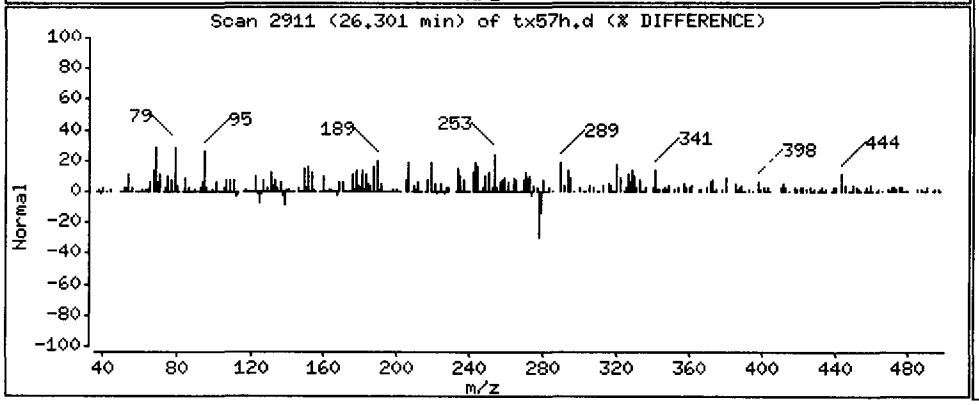
Column phase: ZB-5msi Column diameter: 0.25

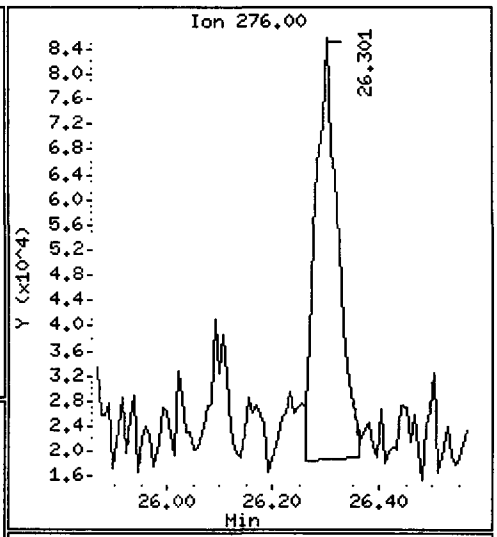
78 Indeno(1,2,3-cd)pyrene Concentration: 136.3 ug/kg

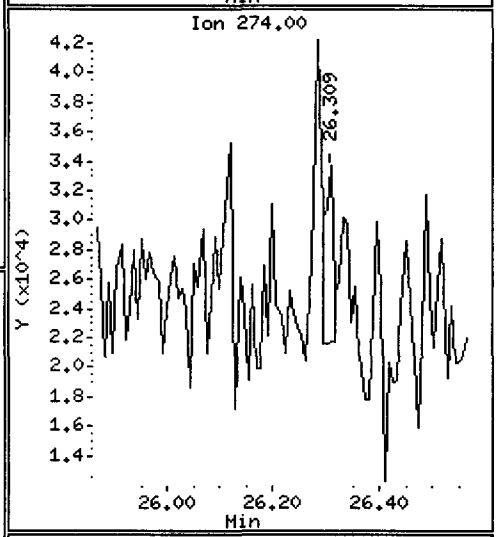


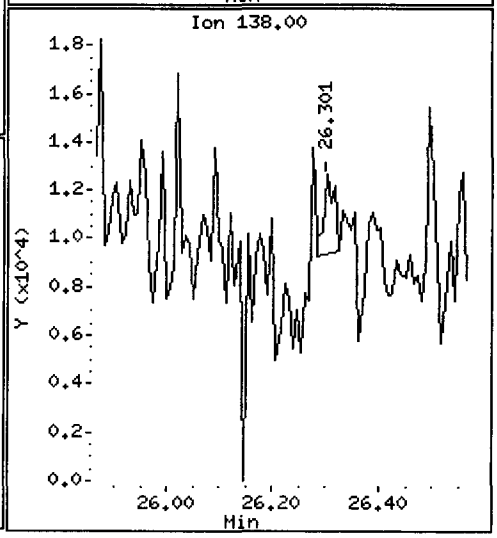












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

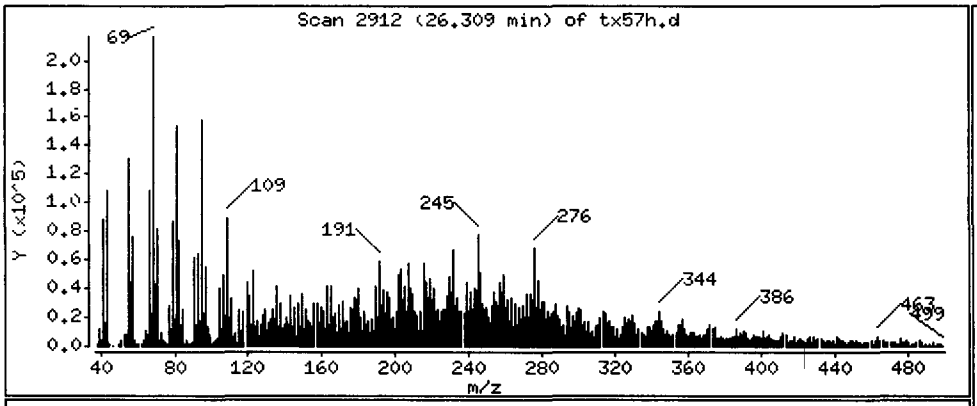
Client ID: SD0019 Instrument: nt10.i

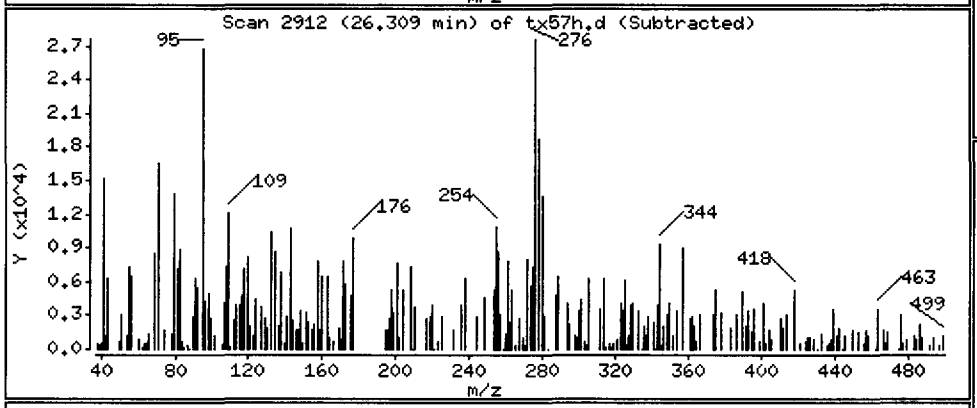
Sample Info: TX57H,3

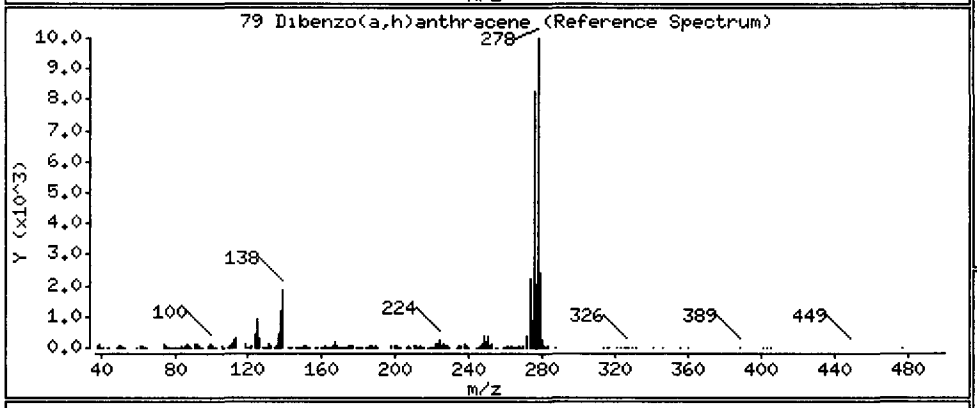
Volume Injected (uL): 1.0 Operator: YZ

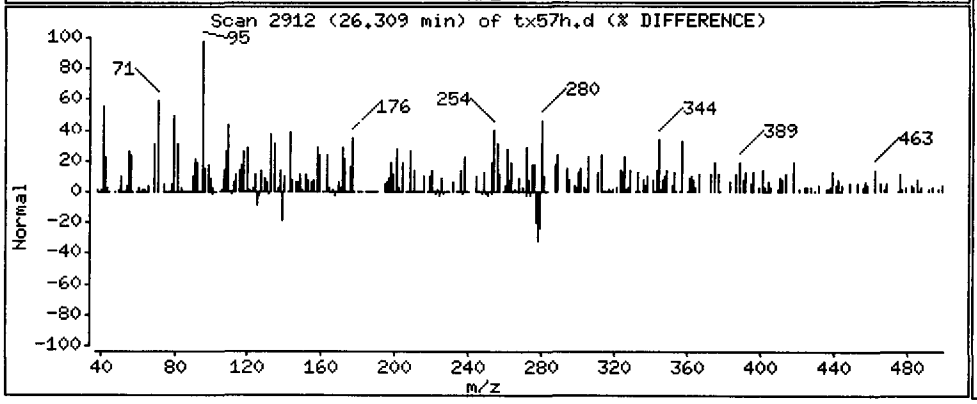
Column phase: ZB-5ms1 Column diameter: 0.25

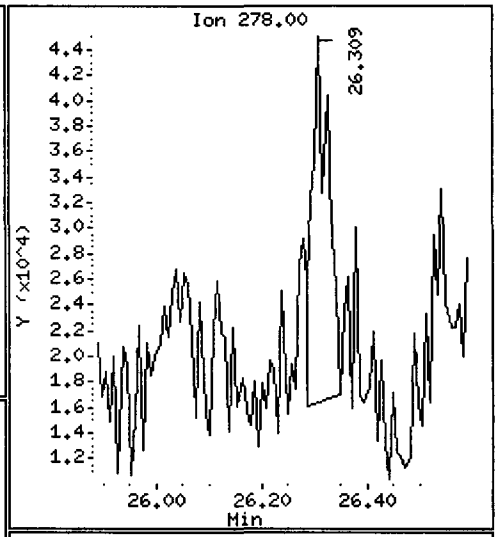
79 Dibenzo(a,h)anthracene Concentration: 52.68 ug/kg

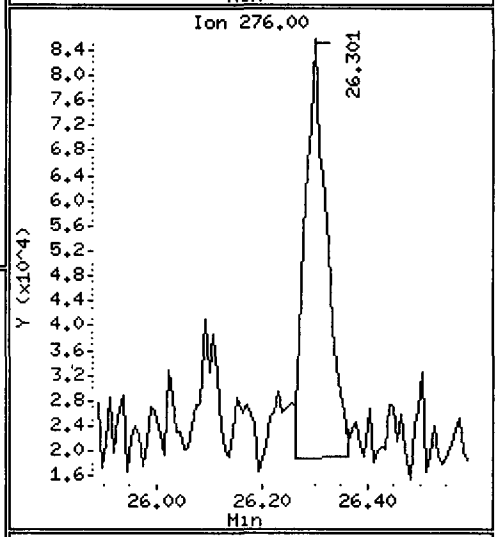


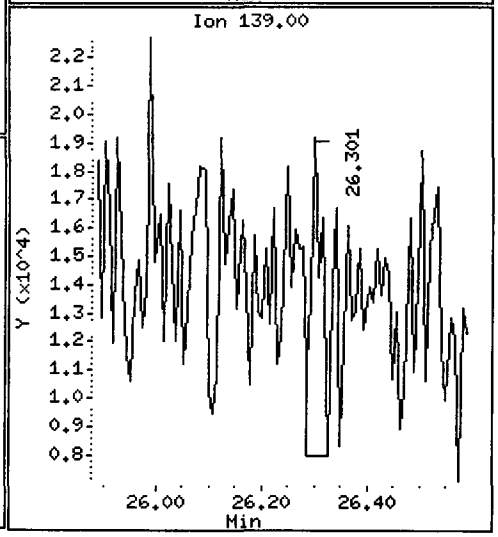












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

Client ID: SD0019

Instrument: nt10.i

Sample Info: TX57H,3

Volume Injected (uL): 1.0

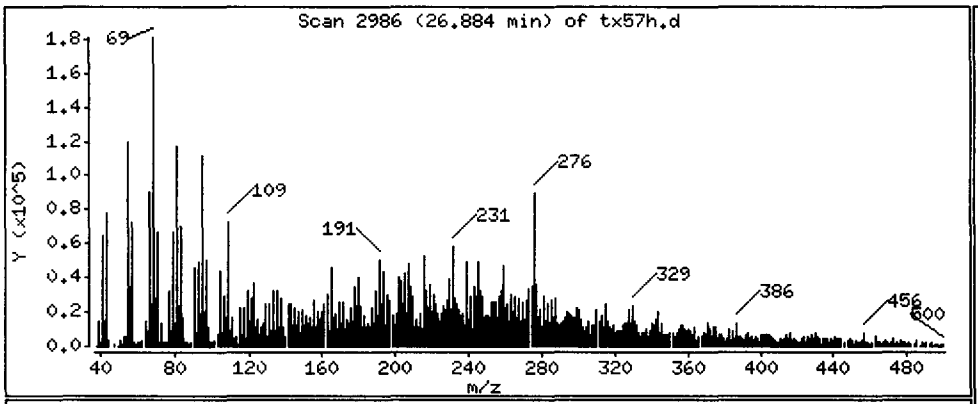
Operator: YZ

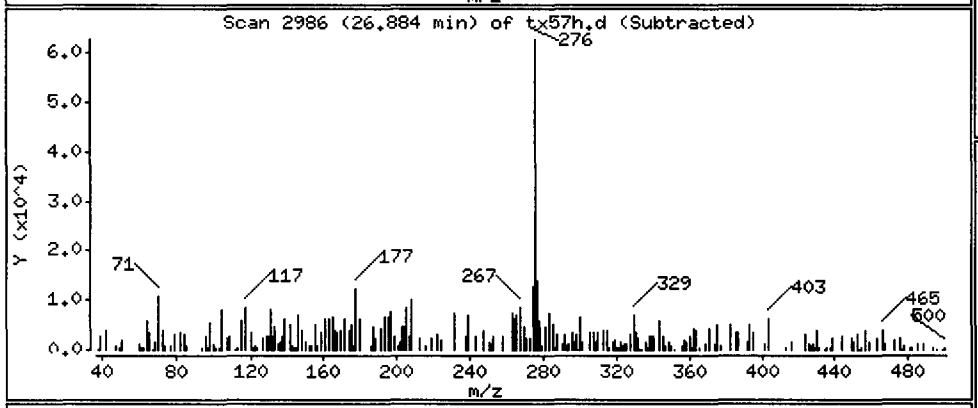
Column phase: ZB-5msi

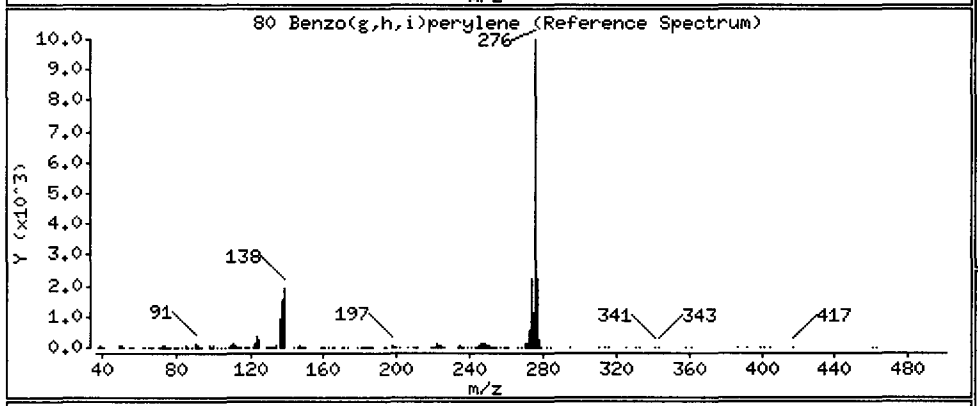
Column diameter: 0.25

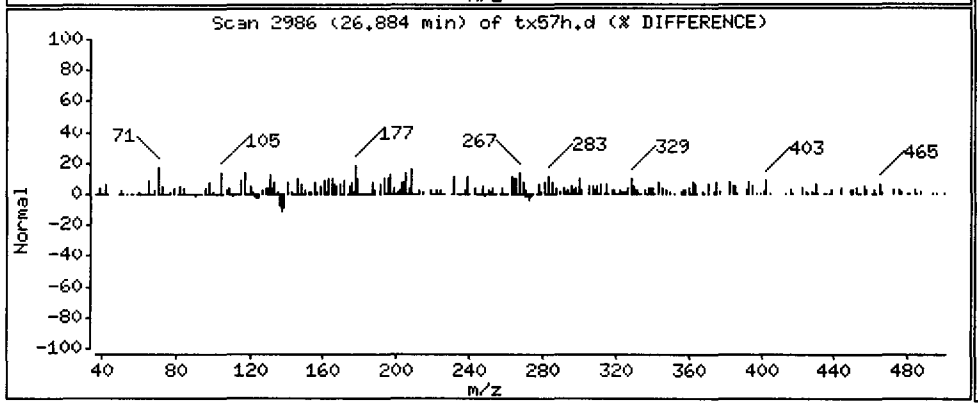
80 Benzo(g,h,i)perylene

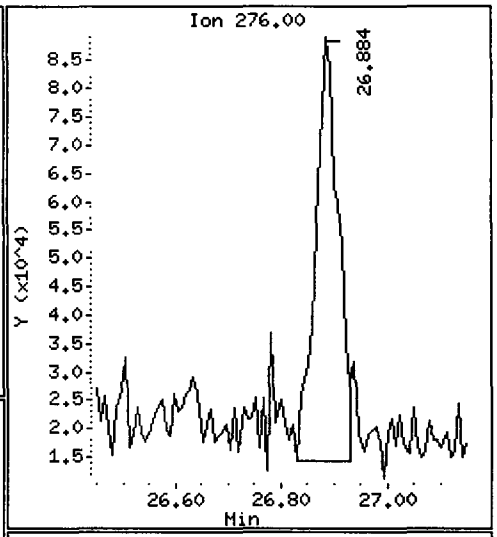
Concentration: 185.8 ug/kg

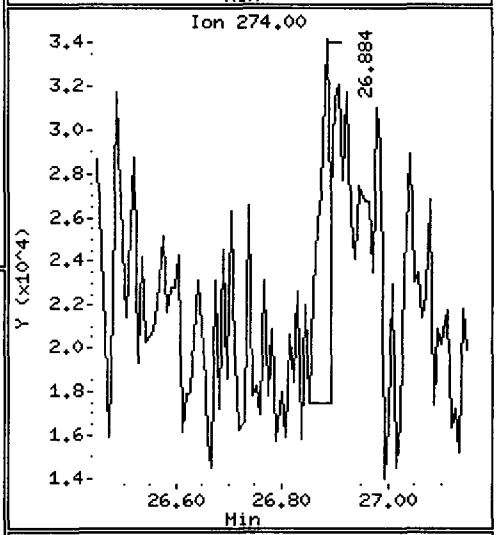


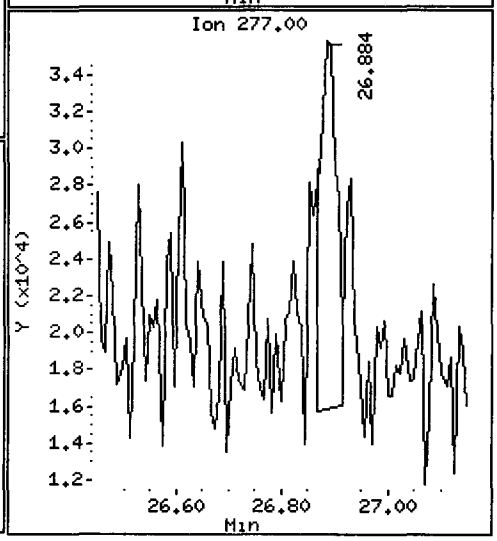












Data File: /chem1/nt10.i/20111206.b/tx57h.d

Date : 06-DEC-2011 21:58

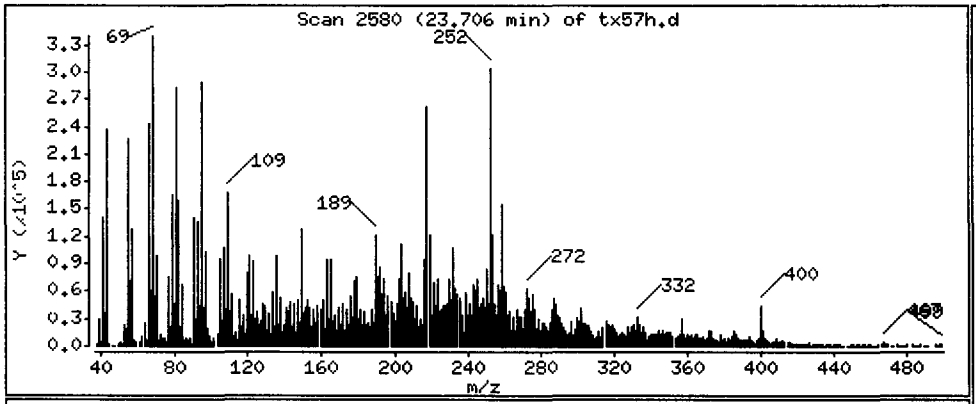
Client ID: SD0019 Instrument: nt10.i

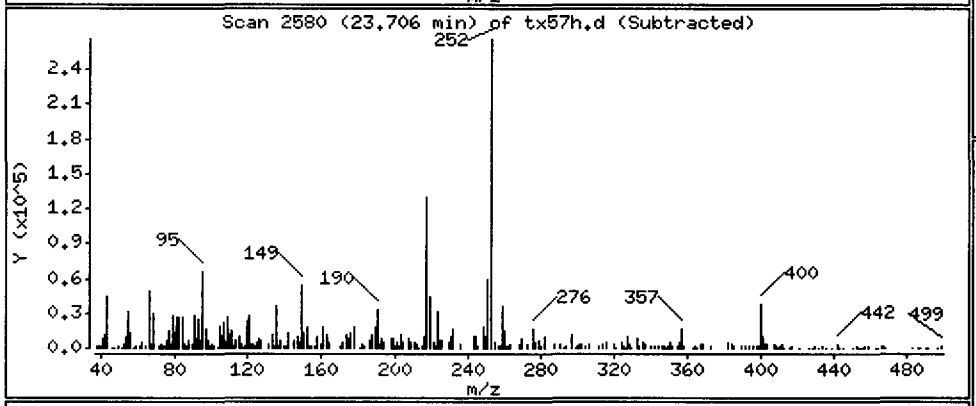
Sample Info: TX57H,3

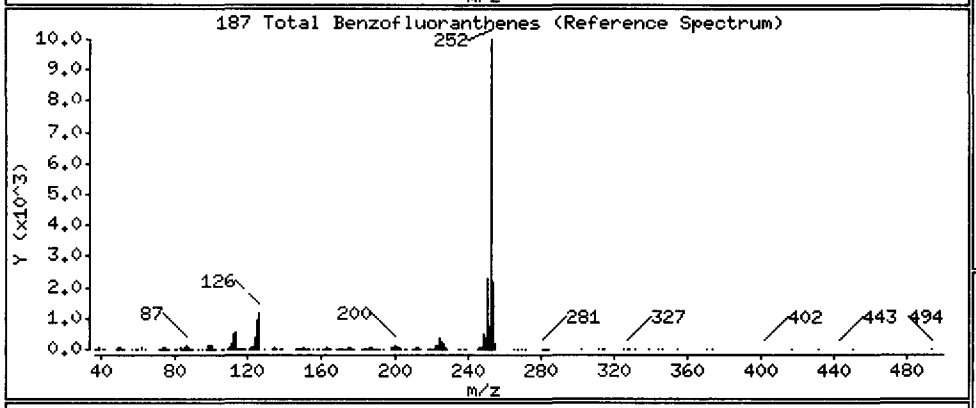
Volume Injected (uL): 1.0 Operator: YZ

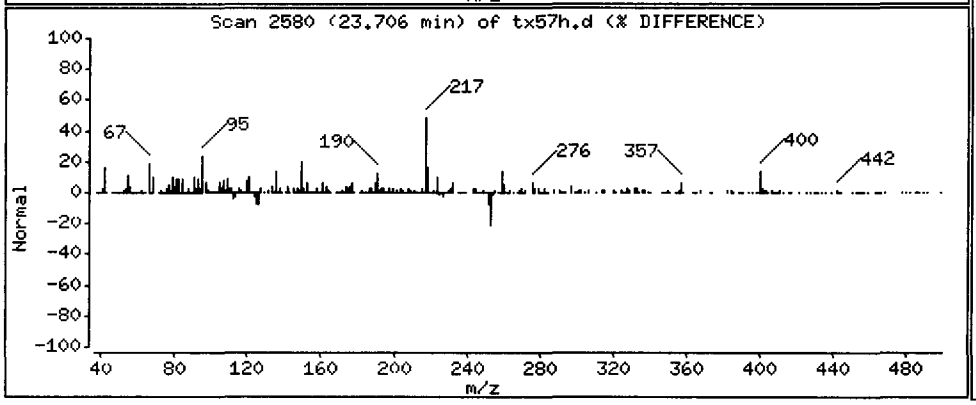
Column phase: ZB-5msi Column diameter: 0.25

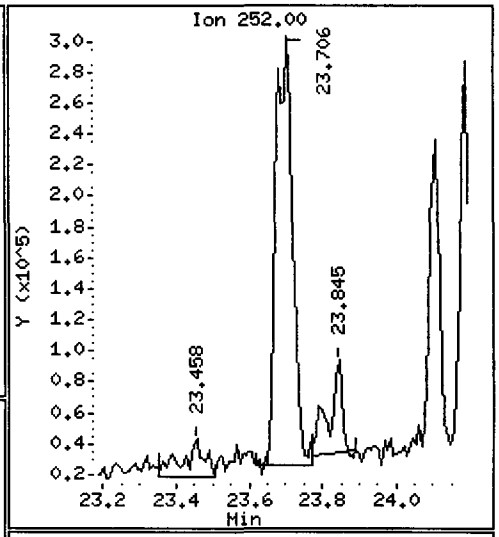
187 Total Benzofluoranthenes Concentration: 736.8 ug/kg

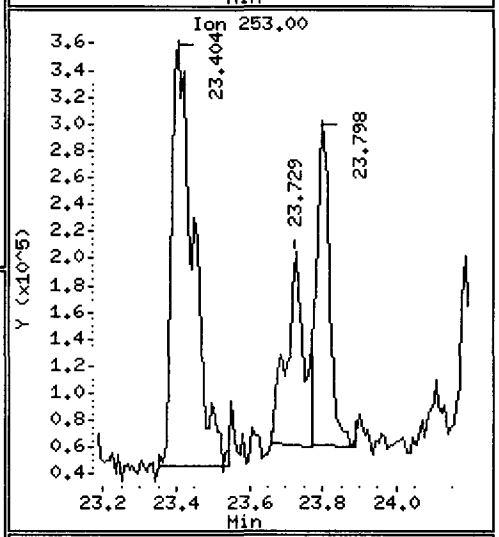


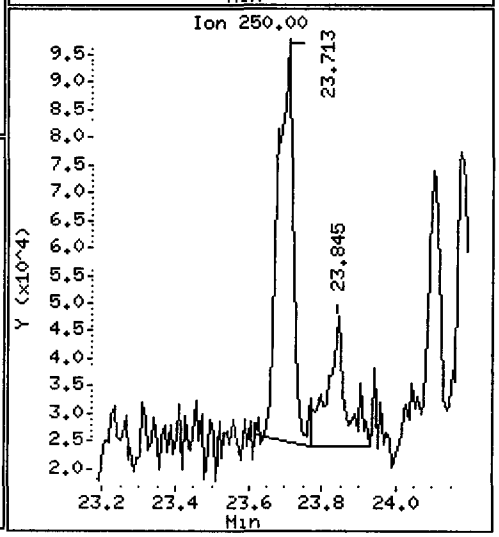












CO-ELUTION SUMMARY FOR FILE - tx57h.d

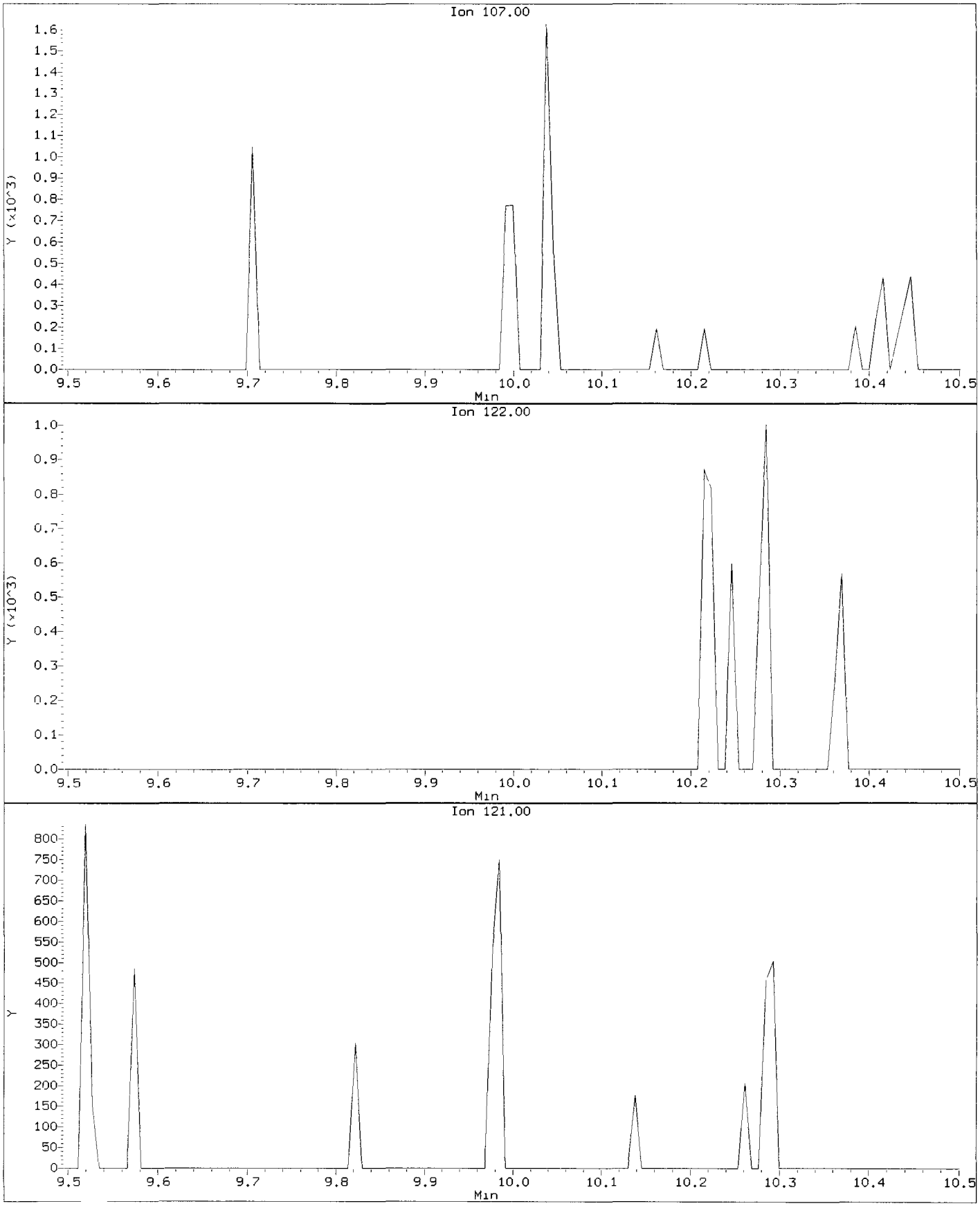
Lab ID: TX57H, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

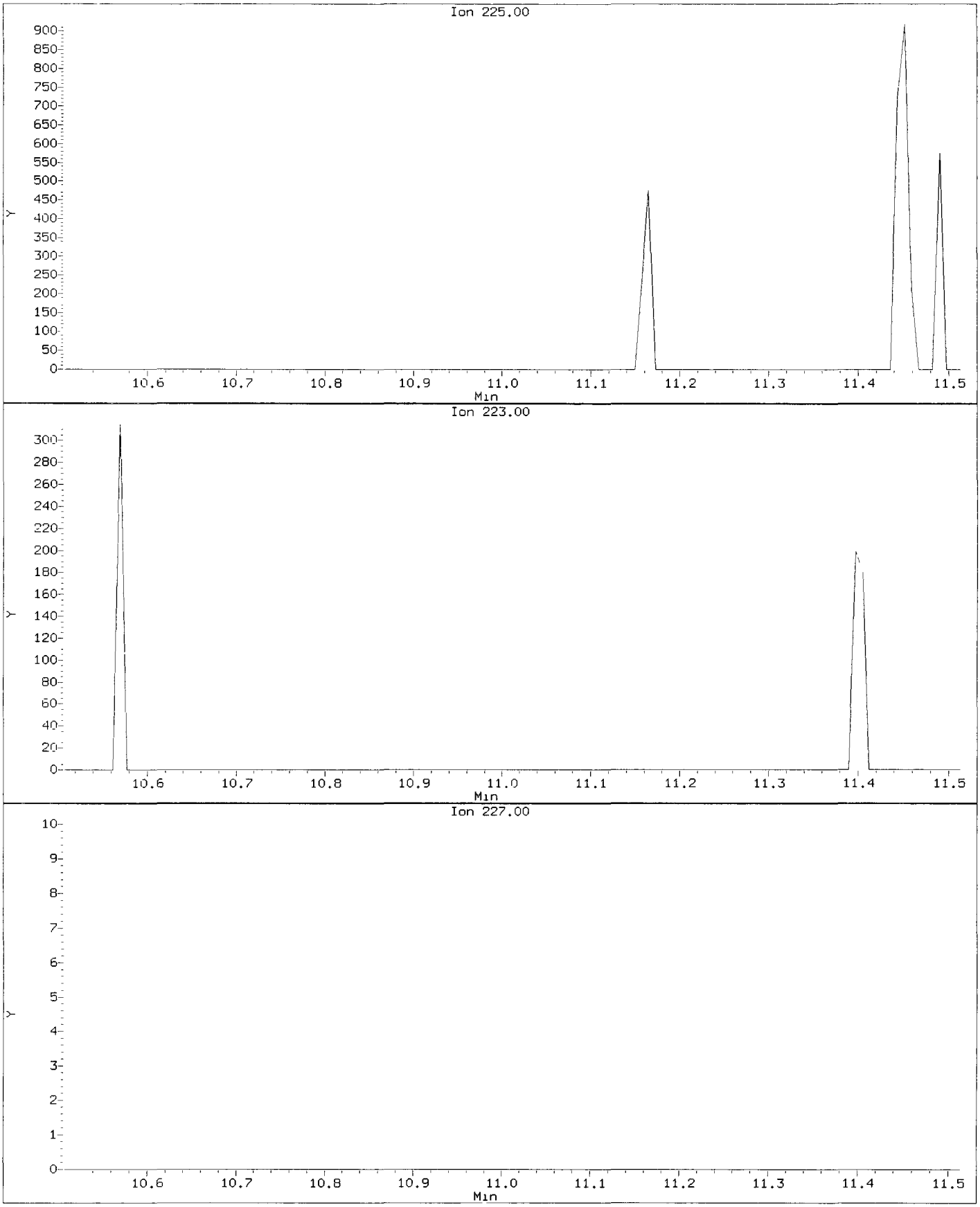
Data File: /chem1/nt10.i/20111206.b/tx57h.d
Injection Date: 06-DEC-2011 21:58
Instrument: nt10.i
Client Sample ID: SD0019

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



Data File: /chem1/nt10.1/20111206.b/tx57h.d
Injection Date: 06-DEC-2011 21:58
Instrument: nt10.1
Client Sample ID: SD0019

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

4-2 12/9/11

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111206.b/tx57i.d
Lab Smp Id: TX57I Client Smp ID: SD0020
Inj Date : 06-DEC-2011 22:32
Operator : YZ Inst ID: nt10.i
Smp Info : TX57I,3
Misc Info : 11-26627
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 07-Dec-2011 08:43 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 16
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	11.30000	Weight of sample extracted (g)
M	9.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.059	6.043	(0.741)	74411	1.53634	448.2
$ 2	Phenol-d5	99	7.628	7.612	(0.933)	83649	1.34478	392.3
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.836	7.828	(0.958)	75791	1.34643	392.8
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.177	8.177	(1.000)	198076	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.526	8.518	(1.043)	46392	0.94981	277.1
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.256	9.248	(0.872)	77611	1.10572	322.6
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.608	10.600	(1.000)	660335	4.00000	
	28 Naphthalene	128	10.647	10.639	(1.004)	49641	0.31049	90.58
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	12.016	12.008	(1.133)	42520	0.35447	103.4
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.798	12.782	(0.905)	188438	1.15727	337.6
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.144	14.129	(1.000)	450383	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.198	14.198	(1.004)	85867	0.72689	212.1
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.531	14.523	(1.027)	74544	0.39358	114.8
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	15.227	15.219	(1.077)	138151	0.92596	270.1
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.767	15.751	(1.115)	63146	1.59152	464.3
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.127	17.111	(1.000)	969507	4.00000	
	60 Phenanthrene	178	17.173	17.157	(1.003)	520607	2.08603	608.6
	61 Anthracene	178	17.258	17.242	(1.008)	529193	2.10496	614.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	17.598	17.583	(1.028)	127347	0.67417	196.7
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	19.455	19.432	(1.136)	625619	1.81915	530.7
65	Pyrene	202	19.850	19.834	(0.903)	725022	1.94078	566.2
$ 66	Terphenyl-d14	244	20.159	20.152	(0.917)	366265	1.18963	347.1
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	21.956	21.932	(0.999)	294613	0.70077	204.4
* 69	Chrysene-d12	240	21.979	21.956	(1.000)	1544733	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.018	22.002	(1.002)	524582	1.38355	403.6
72	bis(2-Ethylhexyl)phthalate	149	22.103	22.095	(0.958)	46453	0.22192	64.75
* 134	Di-n-octylphthalate-d4	153	23.071	23.047	(1.000)	1471823	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	23.682	23.651	(0.975)	495952	1.11721	325.9
75	Benzo(k)fluoranthene	252	23.682	23.690	(0.975)	495952	1.07801	314.5
76	Benzo(a)pyrene	252	24.185	24.147	(0.996)	238899	0.65542	191.2(H)
* 77	Perylene-d12	264	24.278	24.232	(1.000)	1457386	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.301	26.216	(1.083)	89191	0.17956	52.39
79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276	26.884	26.798	(1.107)	89775	0.21479	62.67
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	12.225	12.217	(1.152)	34786	0.28251	82.42
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	23.682	23.690	(0.975)	557532	1.30365	380.3
99	Perylene	252	24.317	24.278	(1.002)	207278	0.57612	168.1(H)

QC Flag Legend

H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57i.d
Lab Smp Id: TX57I
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26627

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: SD0020
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	198076	14.59
27 Naphthalene-d8	574010	287005	1148020	660335	15.04
42 Acenaphthene-d10	467963	233982	935926	450383	-3.76
59 Phenanthrene-d10	976150	488075	1952300	969507	-0.68
69 Chrysene-d12	1397129	698564	2794258	1544733	10.56
134 Di-n-octylphthala	1264537	632268	2529074	1471823	16.39
77 Perylene-d12	1407308	703654	2814616	1457386	3.56

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.61	0.07
42 Acenaphthene-d10	14.13	13.63	14.63	14.14	0.11
59 Phenanthrene-d10	17.11	16.61	17.61	17.13	0.09
69 Chrysene-d12	21.96	21.46	22.46	21.98	0.11
134 Di-n-octylphthala	23.05	22.55	23.55	23.07	0.10
77 Perylene-d12	24.23	23.73	24.73	24.28	0.19

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

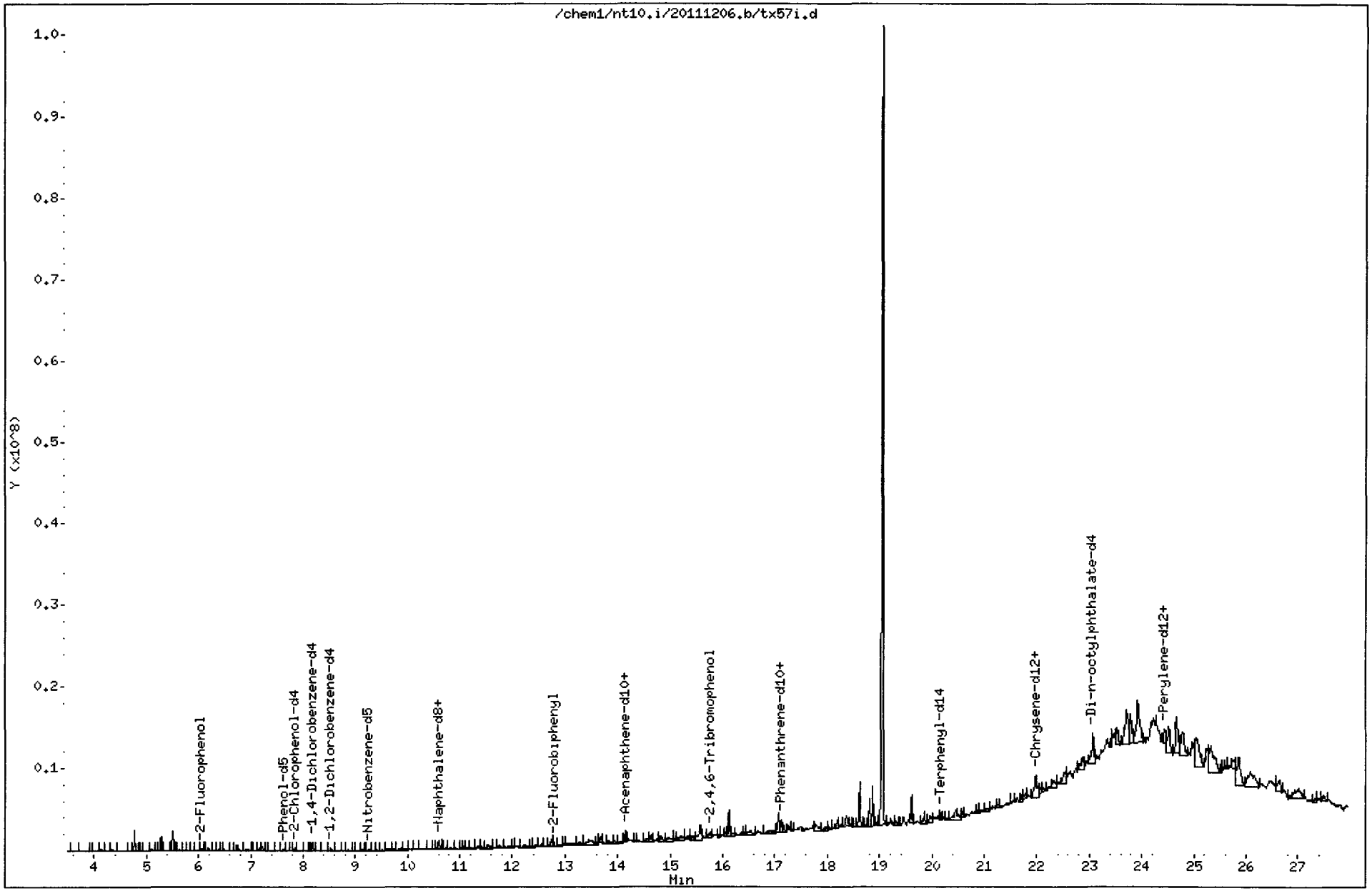
RECOVERY REPORT

Client Name: INTEGRAL
Client SDG: TX57
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: TX57I
Client Smp ID: SD0020
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26627

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	729.4	448.2	61.45	30-160
$ 2 Phenol-d5	729.4	392.3	53.79	30-160
$ 5 2-Chlorophenol-d4	729.4	392.8	53.86	30-160
$ 10 1,2-Dichlorobenzen	486.2	277.1	56.99	30-160
$ 18 Nitrobenzene-d5	486.2	322.6	66.34	30-160
$ 36 2-Fluorobiphenyl	486.2	337.6	69.44	30-160
$ 55 2,4,6-Tribromophen	729.4	464.3	63.66	30-160
$ 66 Terphenyl-d14	486.2	347.1	71.38	30-160

Data File: /chem1/nt10.i/20111206.b/tx57i.d
Date : 06-DEC-2011 22:32
Client ID: SD0020
Sample Info: TX57I,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

Client ID: SD0020

Instrument: nt10.i

Sample Info: TX57I,3

Volume Injected (uL): 1.0

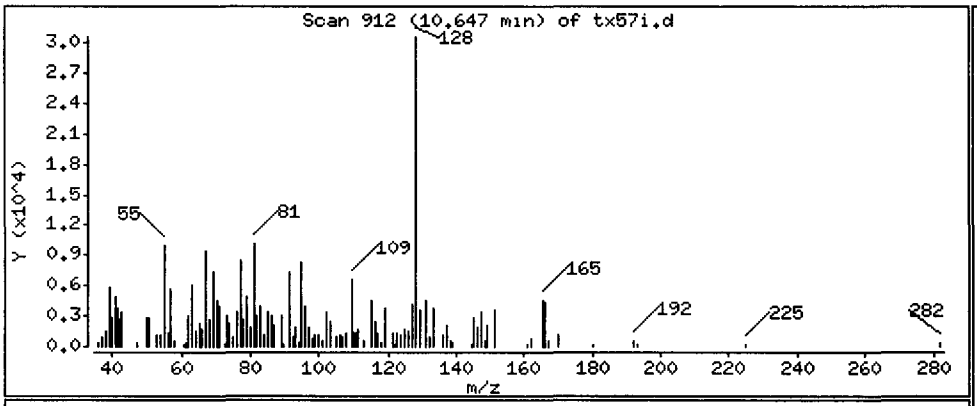
Operator: YZ

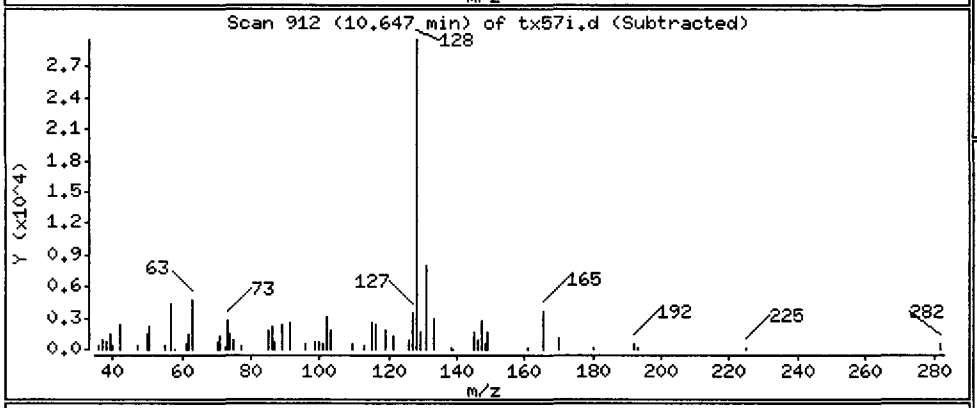
Column phase: ZB-5ms1

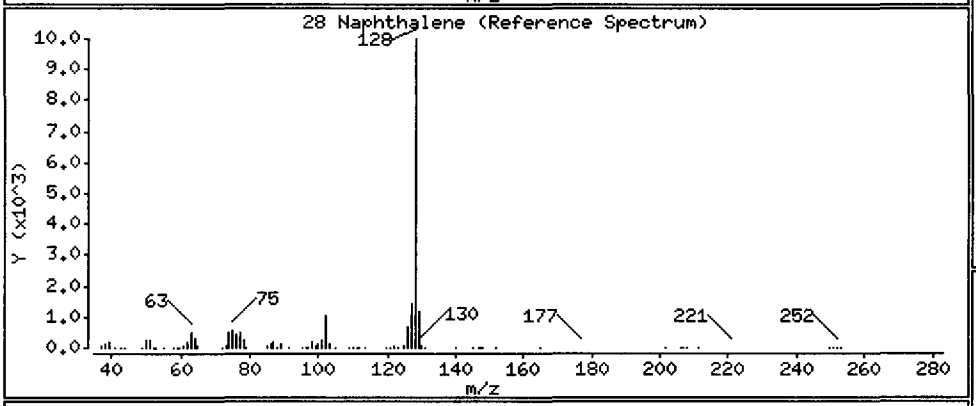
Column diameter: 0.25

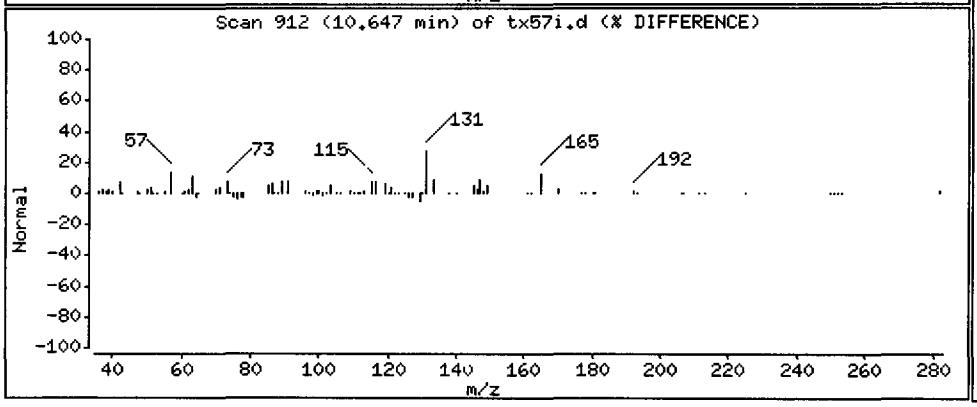
28 Naphthalene

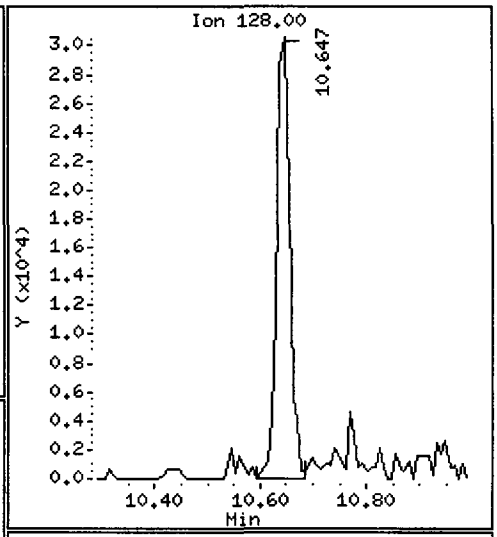
Concentration: 90.58 ug/kg

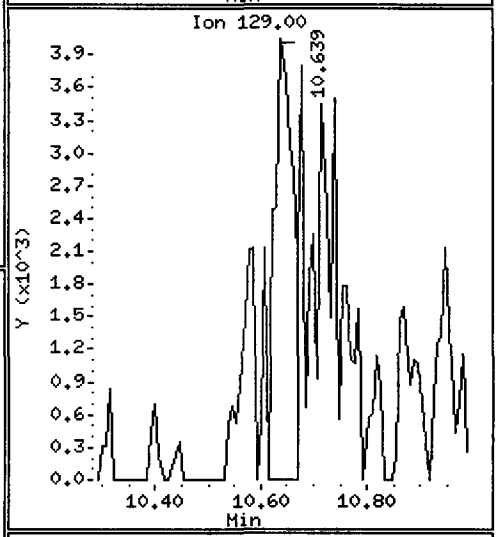


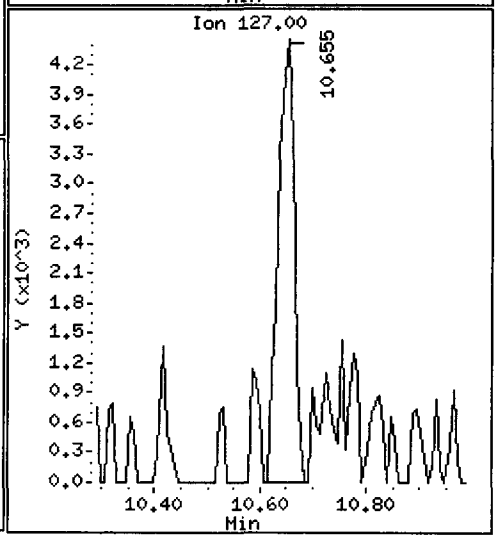












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

Client ID: SD0020

Instrument: nt10.i

Sample Info: TX57I,3

Volume Injected (uL): 1.0

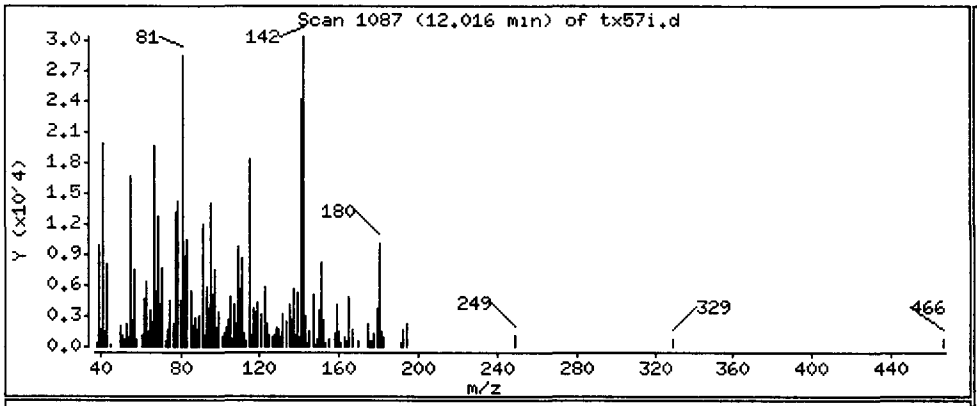
Operator: YZ

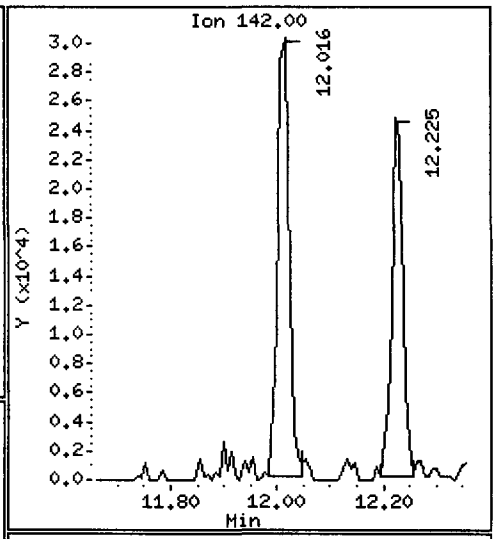
Column phase: ZB-5ms1

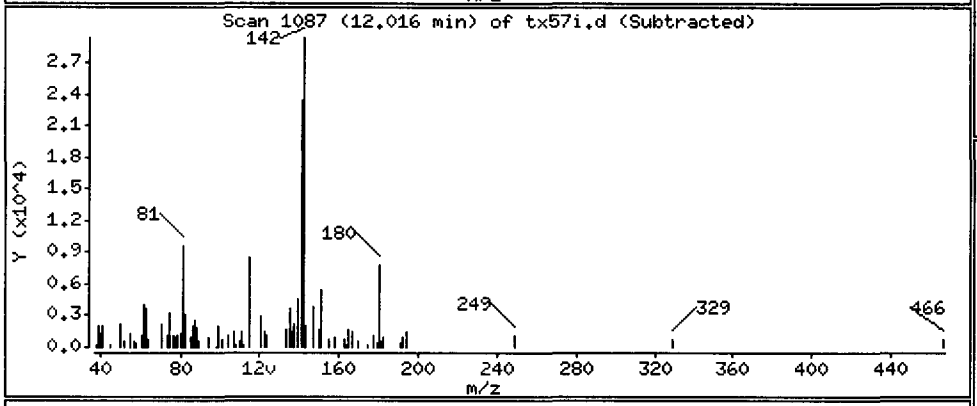
Column diameter: 0.25

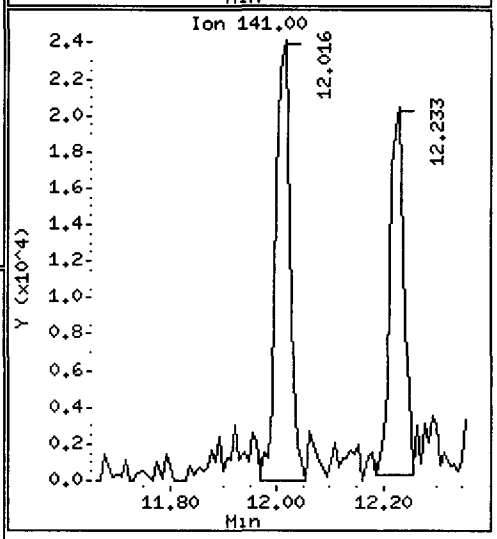
32 2-Methylnaphthalene

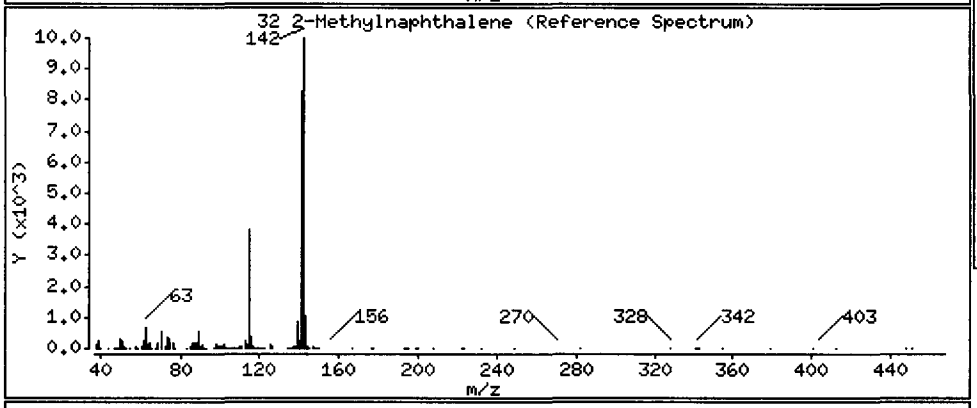
Concentration: 103.4 ug/kg

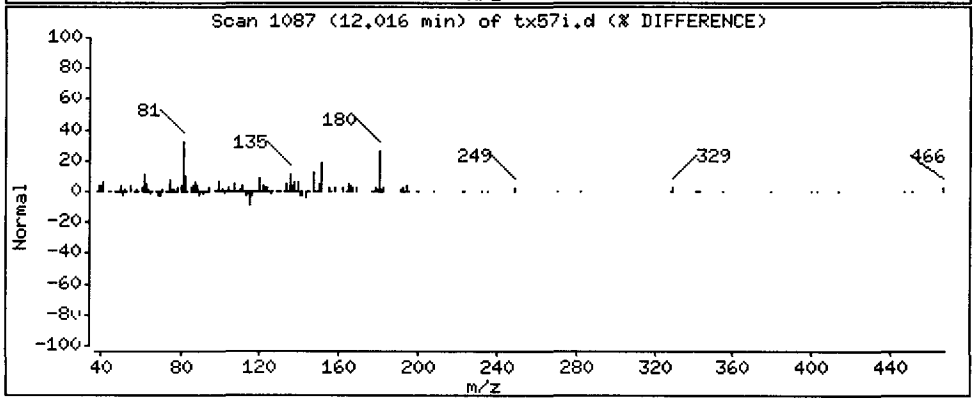












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

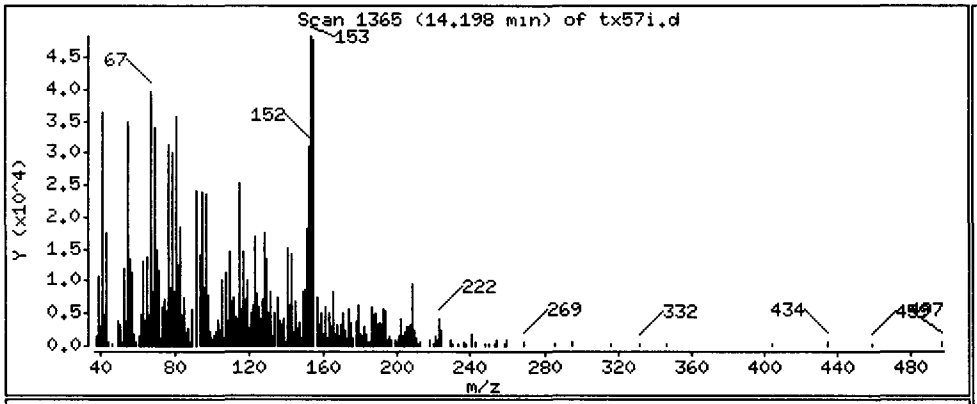
Client ID: SD0020 Instrument: nt10.i

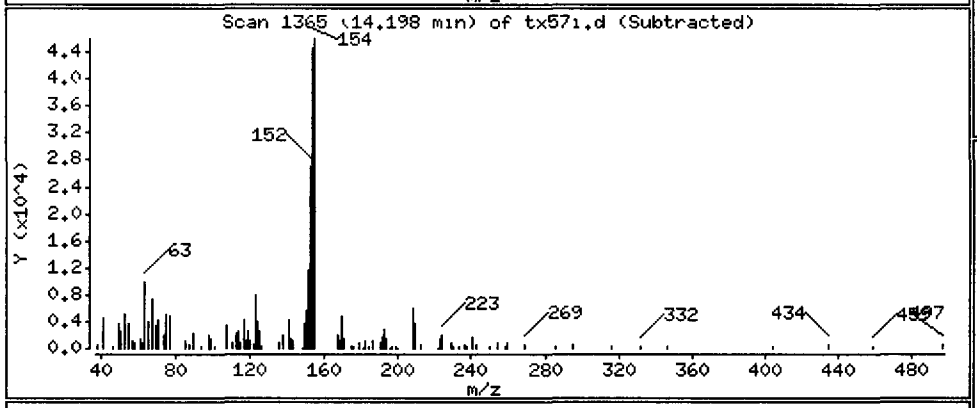
Sample Info: TX57I,3

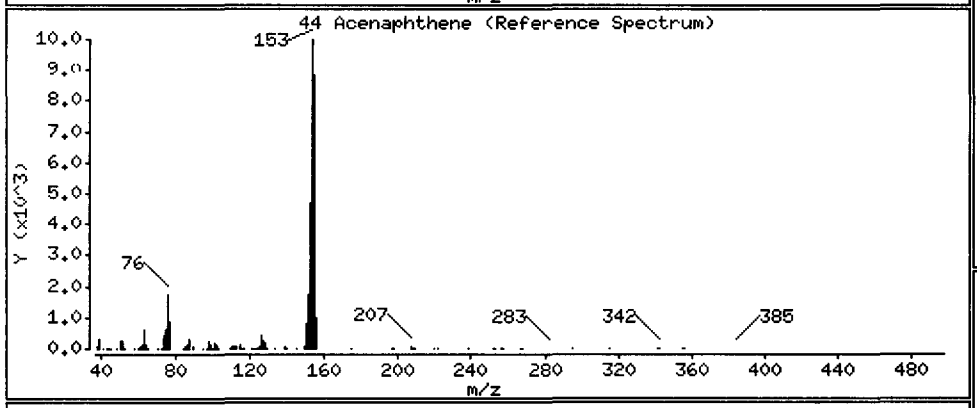
Volume Injected (uL): 1.0 Operator: YZ

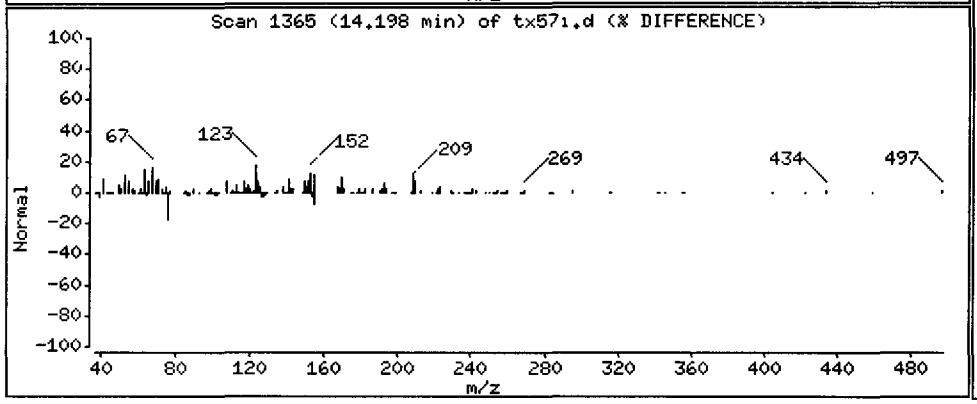
Column phase: ZB-5msi Column diameter: 0.25

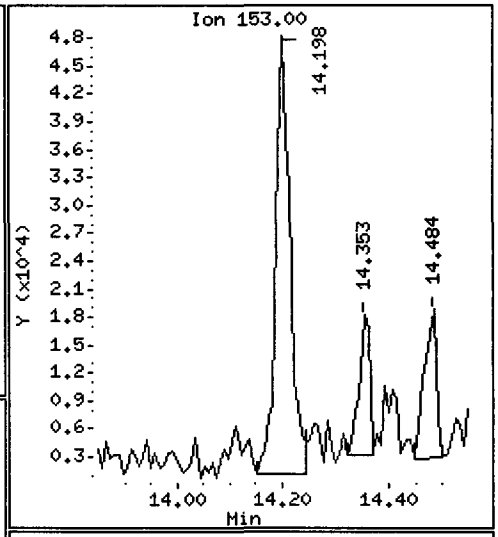
44 Acenaphthene Concentration: 212.1 ug/kg

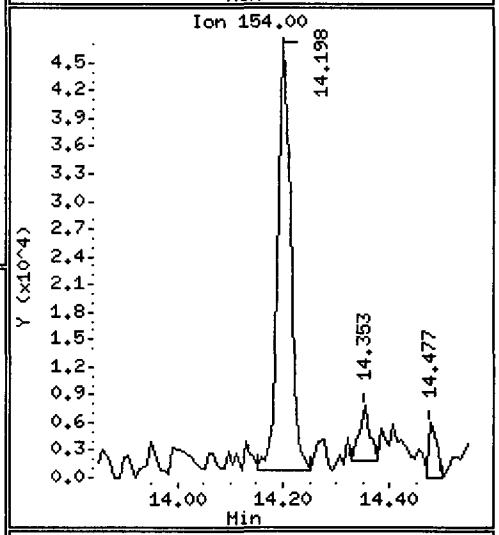


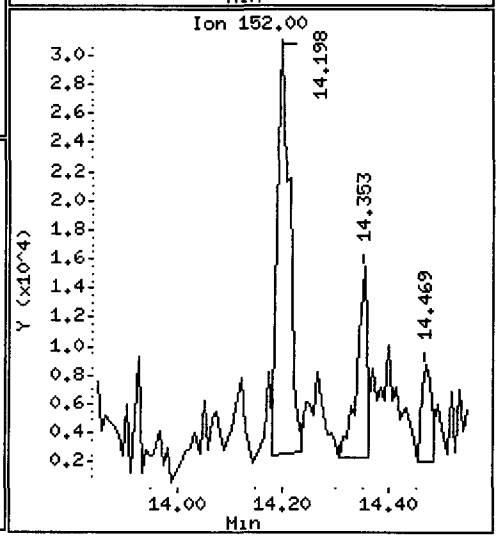












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

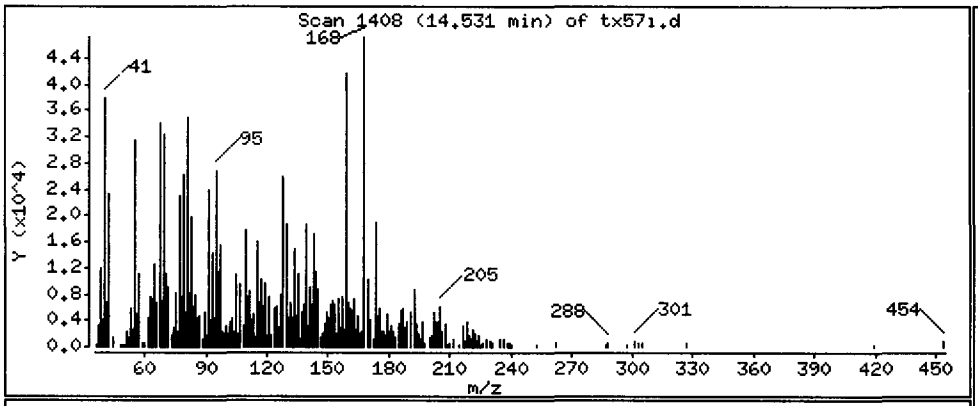
Client ID: SD0020 Instrument: nt10.i

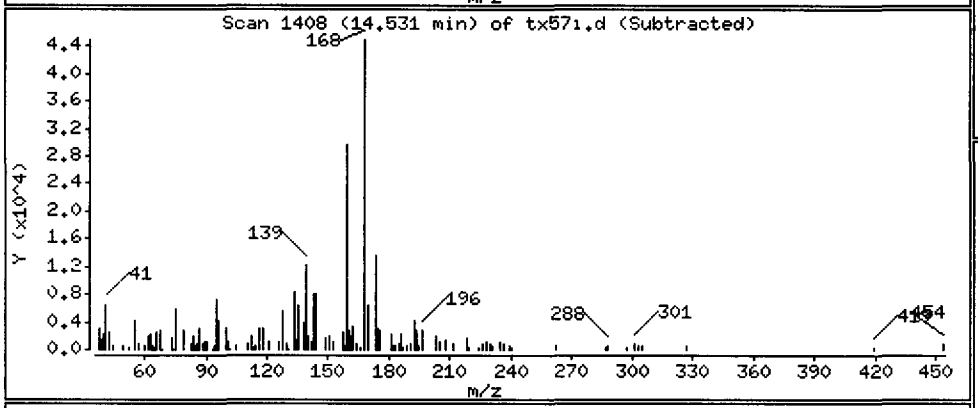
Sample Info: TX57I,3

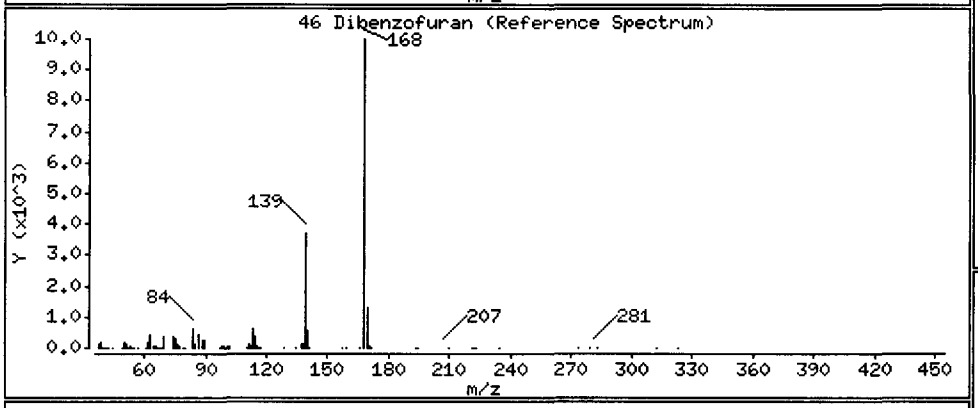
Volume Injected (uL): 1.0 Operator: YZ

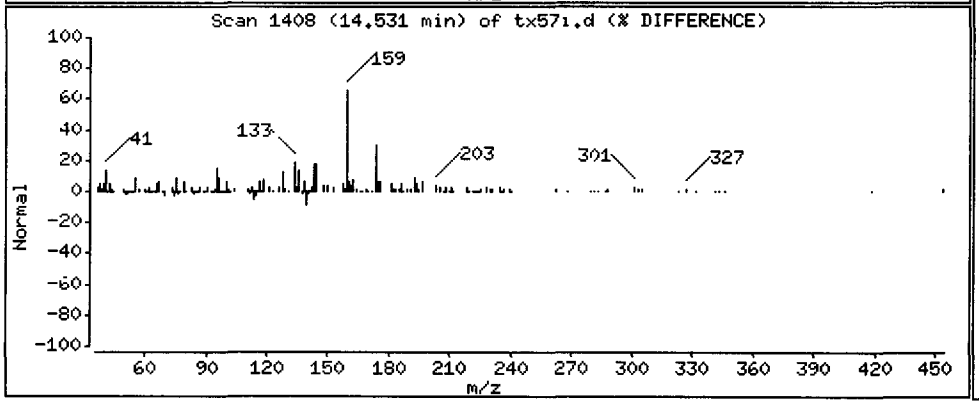
Column phase: ZB-5msi Column diameter: 0.25

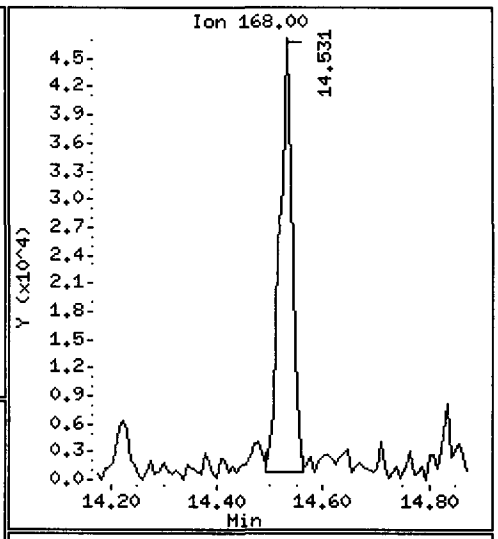
46 Dibenzofuran Concentration: 114.8 ug/kg

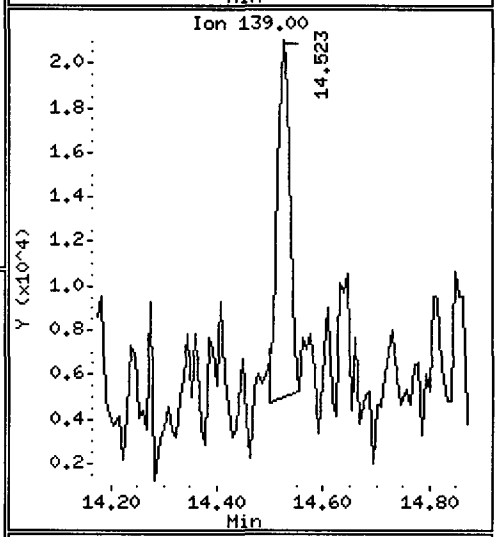


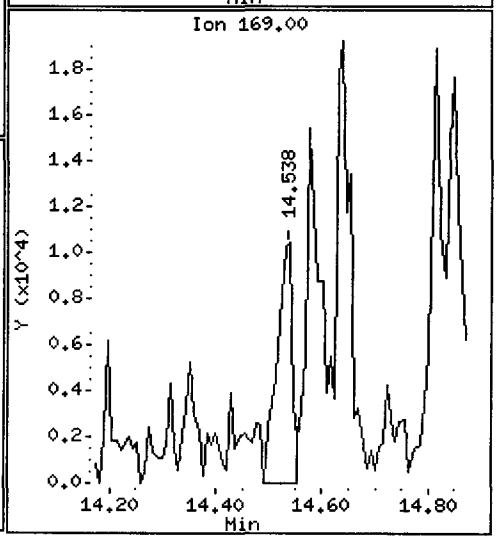












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

Client ID: SD0020

Instrument: nt10.i

Sample Info: TX57I,3

Volume Injected (uL): 1.0

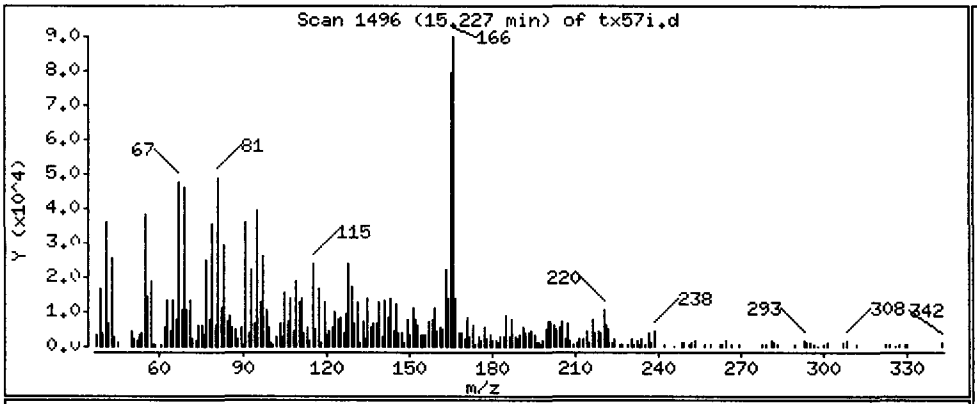
Operator: YZ

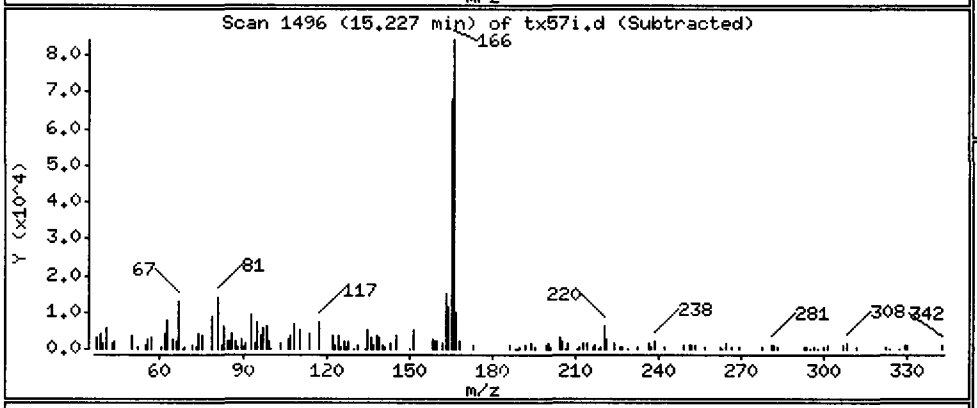
Column phase: ZB-5ms1

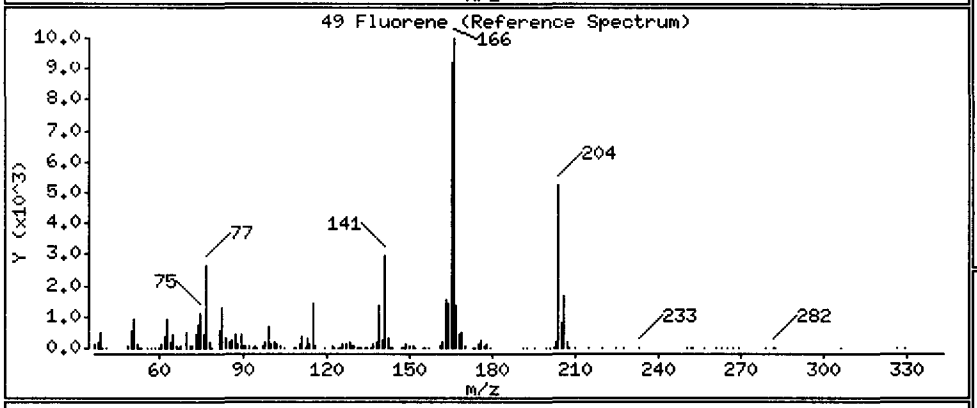
Column diameter: 0.25

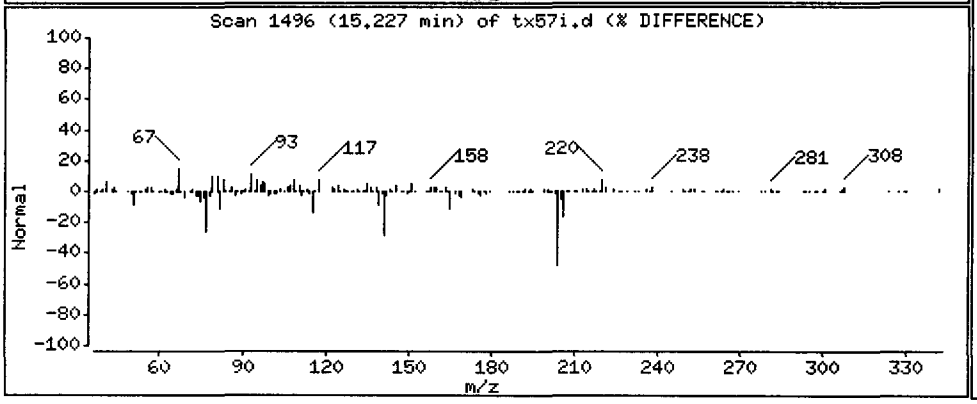
49 Fluorene

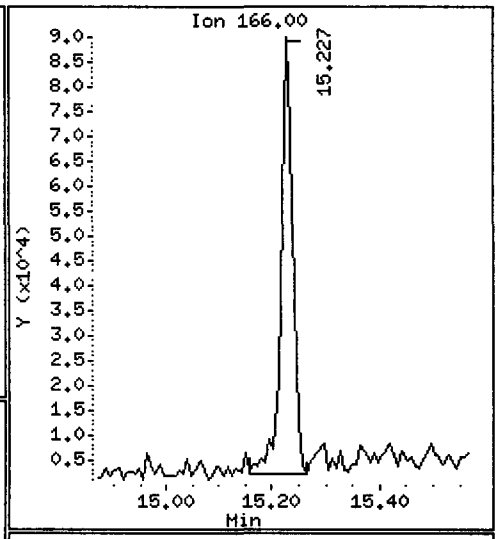
Concentration: 270.1 ug/kg

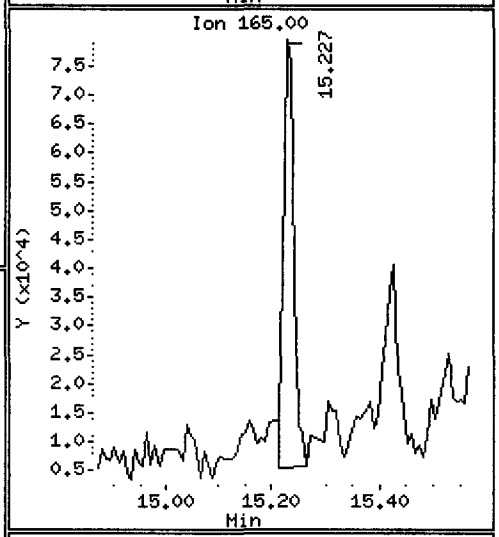


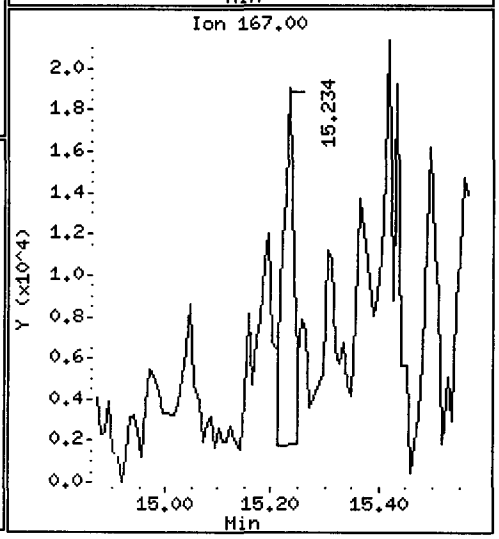












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

Client ID: SD0020

Instrument: nt10.i

Sample Info: TX57I,3

Volume Injected (uL): 1.0

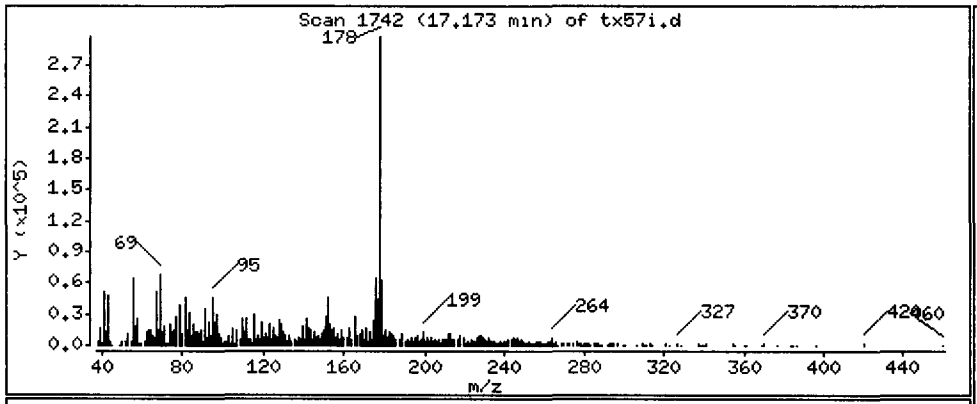
Operator: YZ

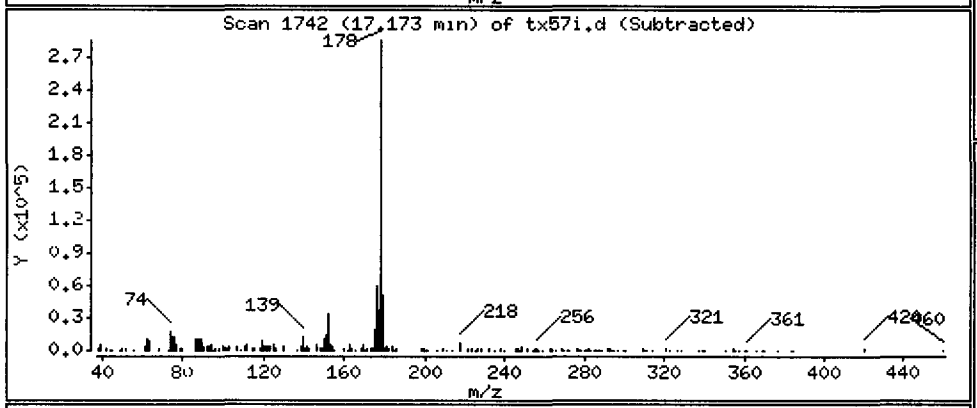
Column phase: ZB-5ms1

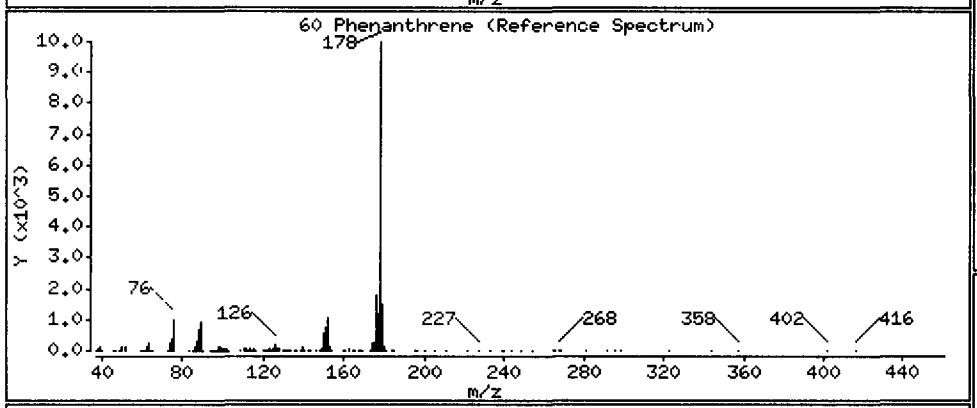
Column diameter: 0.25

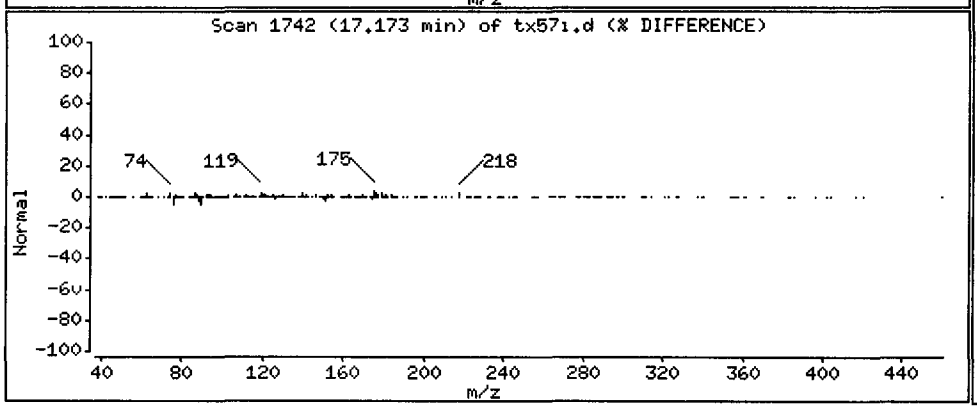
60 Phenanthrene

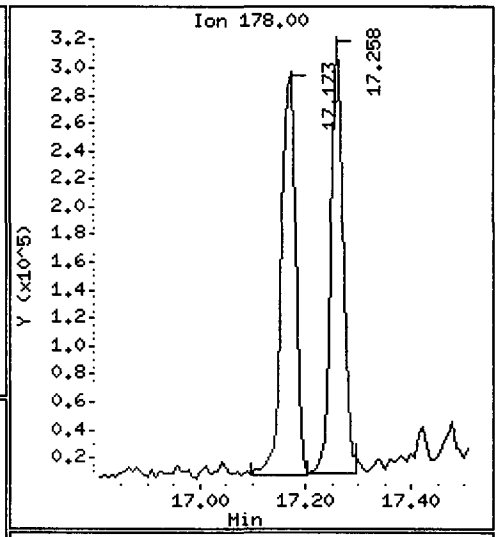
Concentration: 608.6 ug/kg

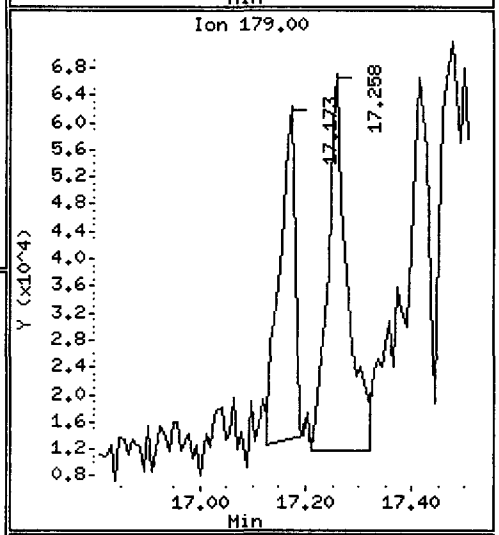


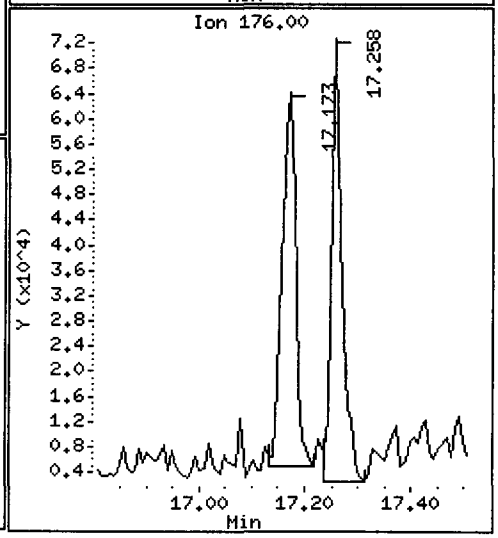












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

Client ID: SD0020

Instrument: nt10.i

Sample Info: TX57I,3

Volume Injected (uL): 1.0

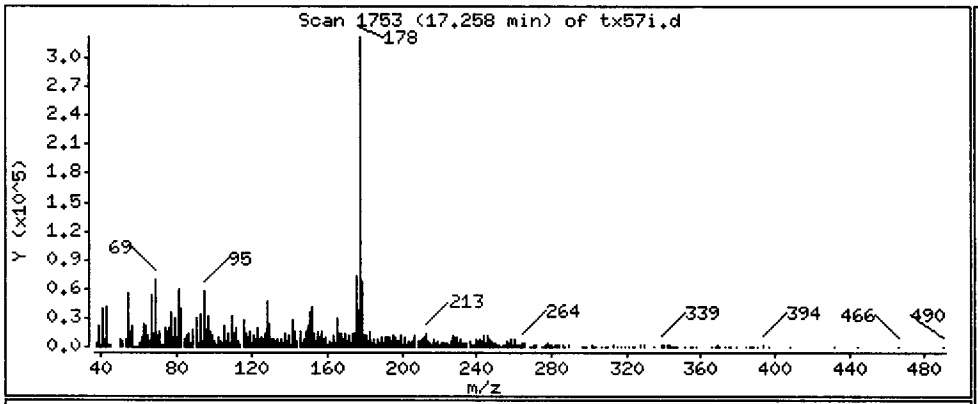
Operator: YZ

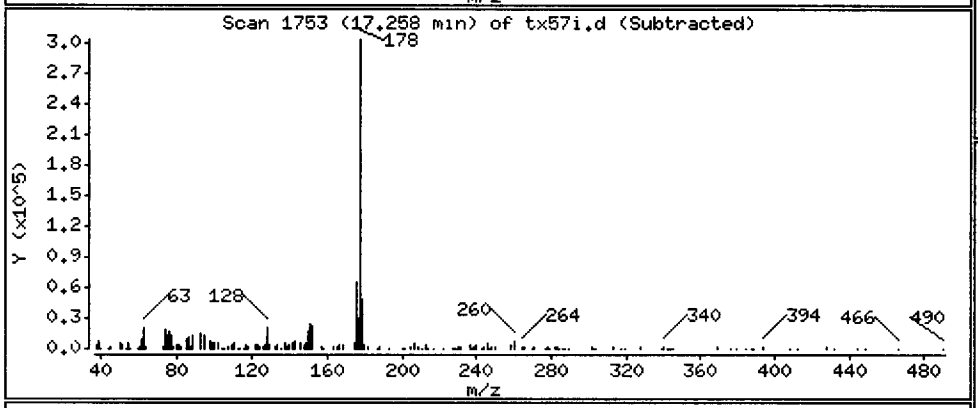
Column phase: ZB-5msi

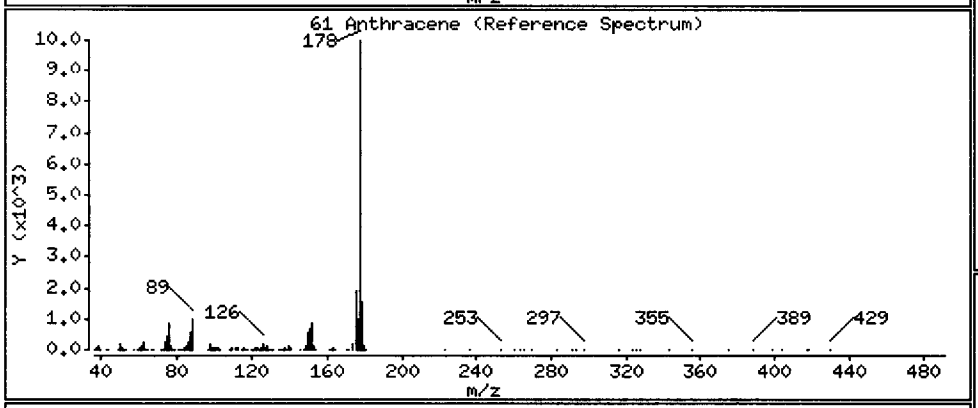
Column diameter: 0.25

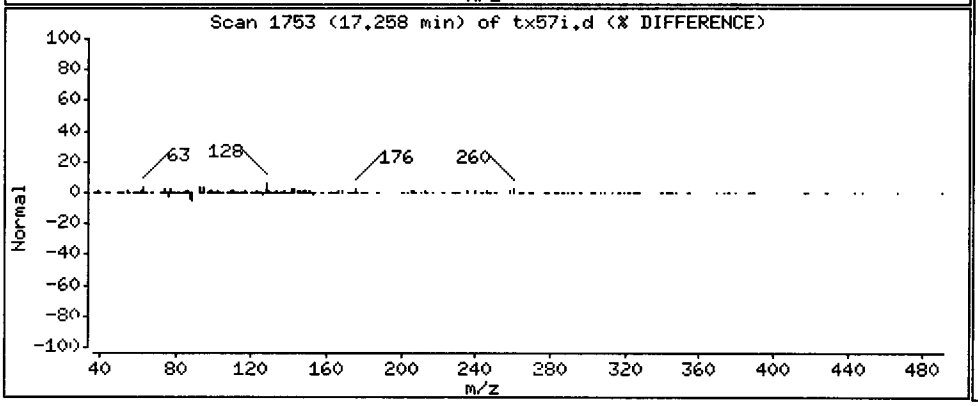
61 Anthracene

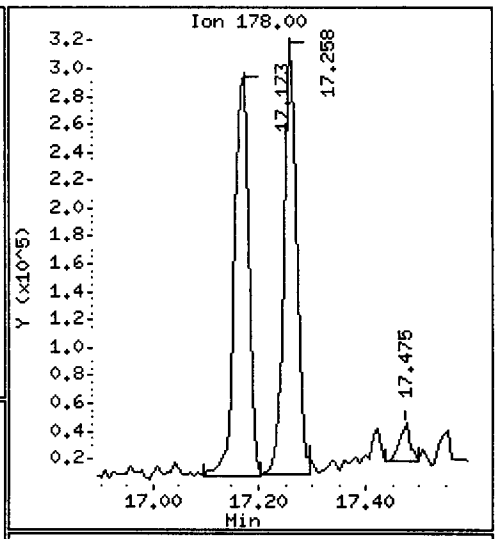
Concentration: 614.1 ug/kg

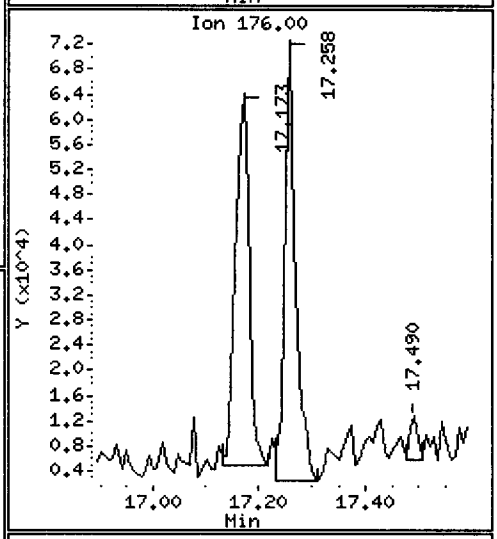


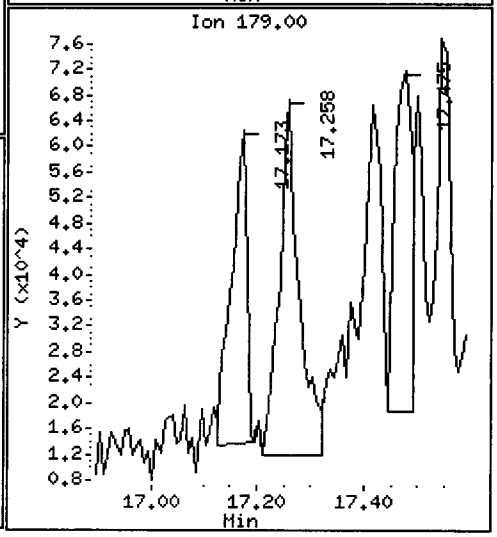












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

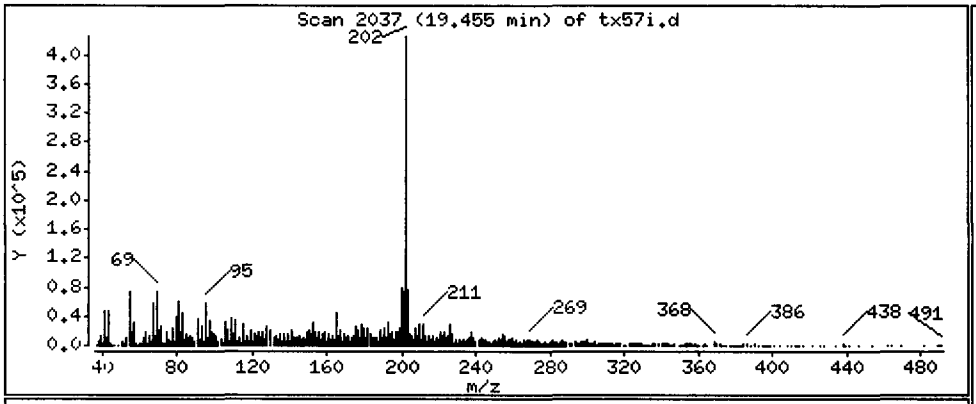
Client ID: SD0020 Instrument: nt10.i

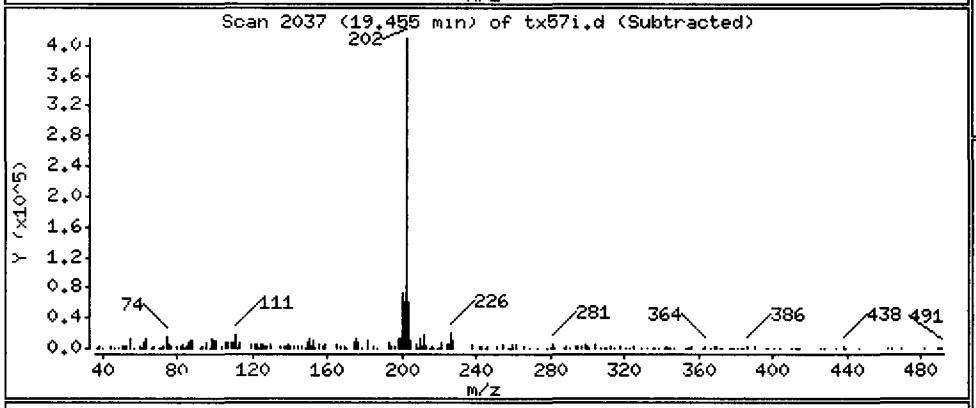
Sample Info: TX57I,3

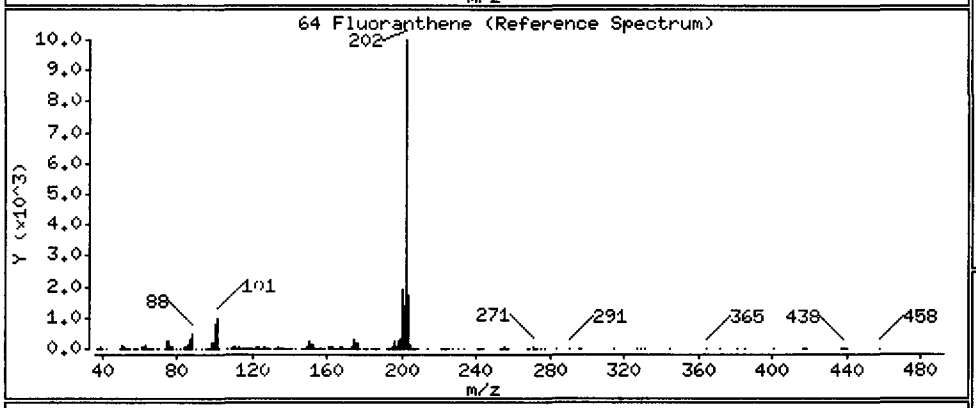
Volume Injected (uL): 1.0 Operator: YZ

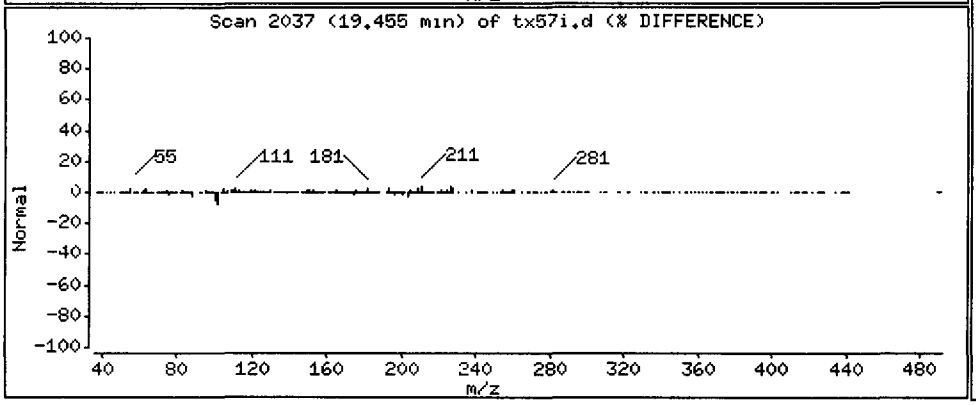
Column phase: ZB-5msi Column diameter: 0.25

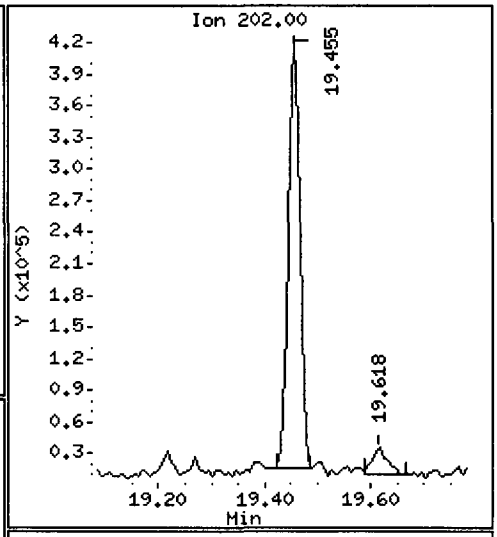
64 Fluoranthene Concentration: 530.7 ug/kg

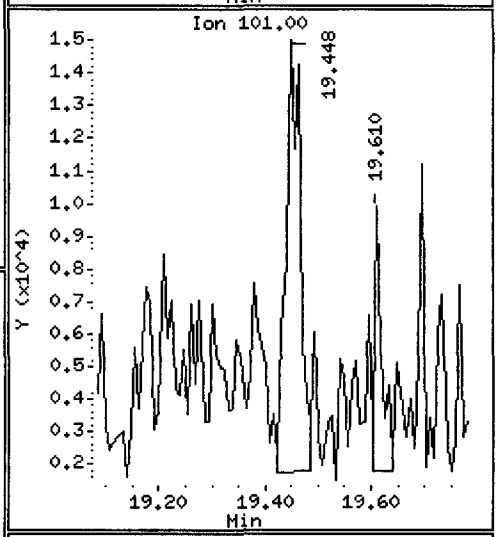


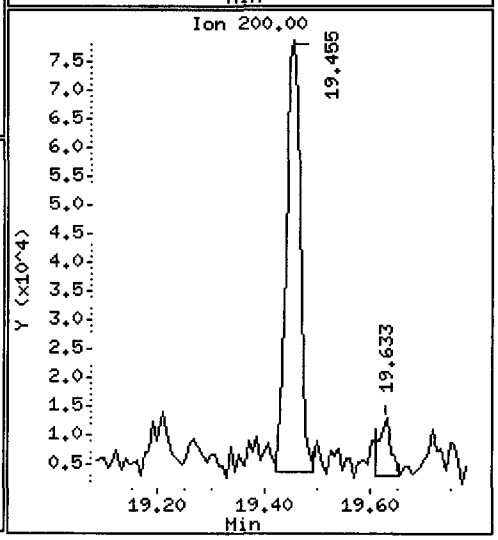












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

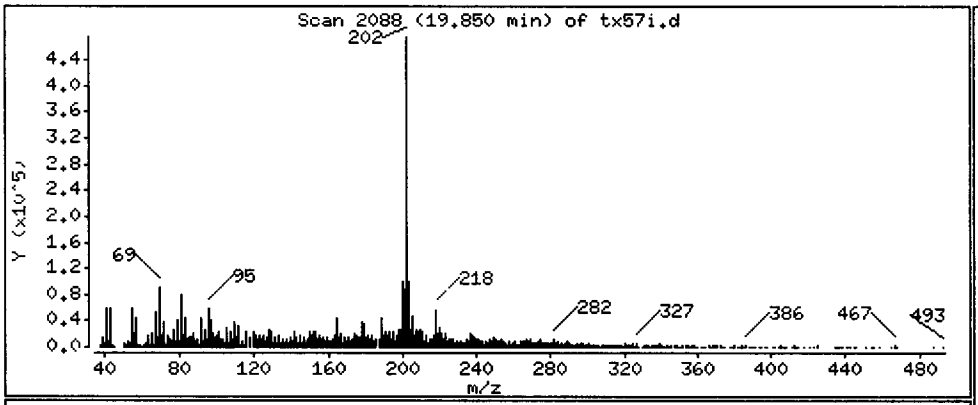
Client ID: SD0020 Instrument: nt10.i

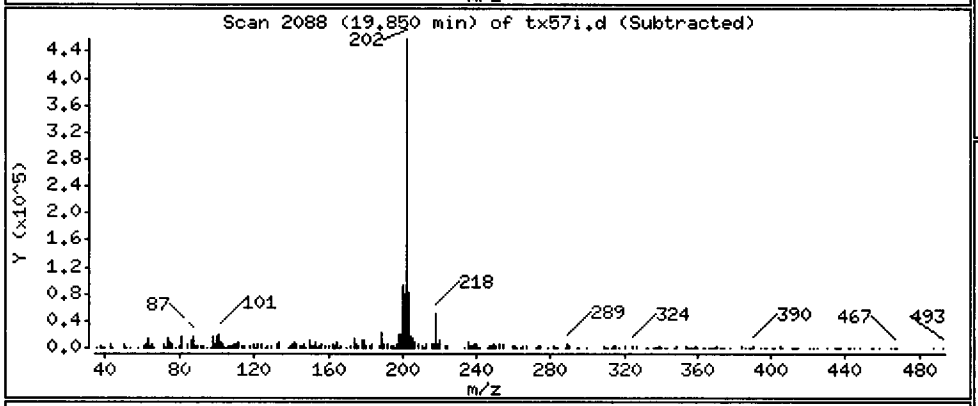
Sample Info: TX57I.3

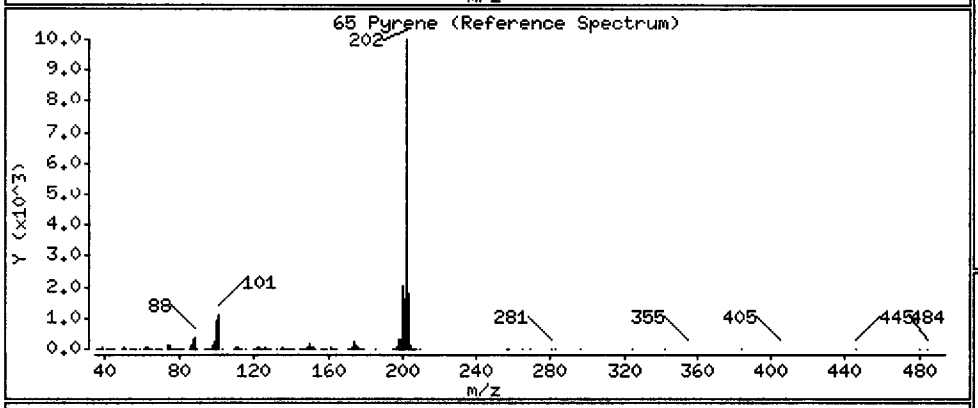
Volume Injected (uL): 1.0 Operator: YZ

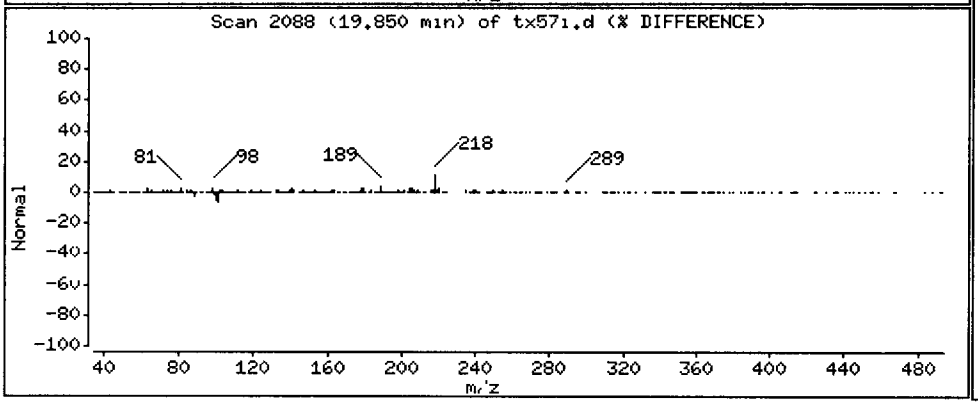
Column phase: ZB-5msi Column diameter: 0.25

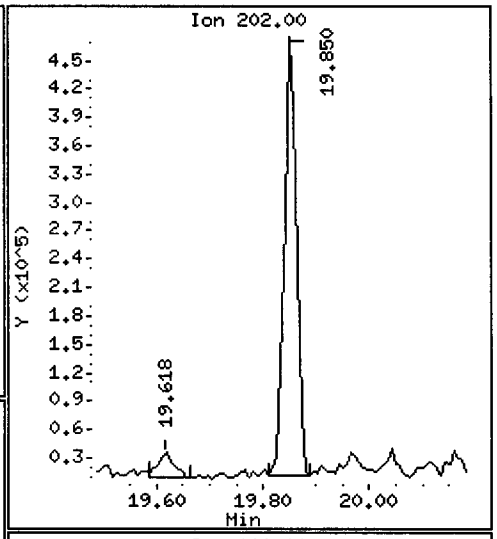
65 Pyrene Concentration: 566.2 ug/kg

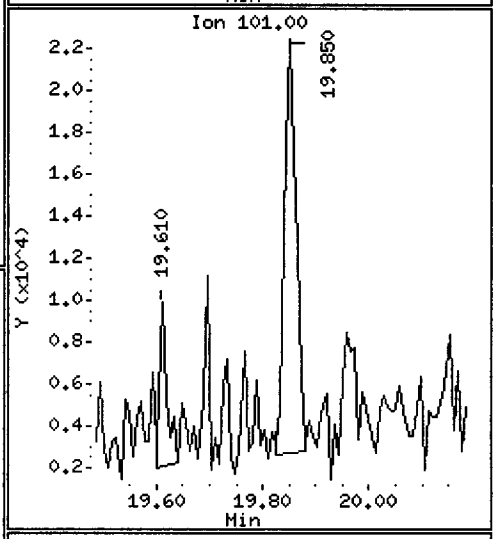


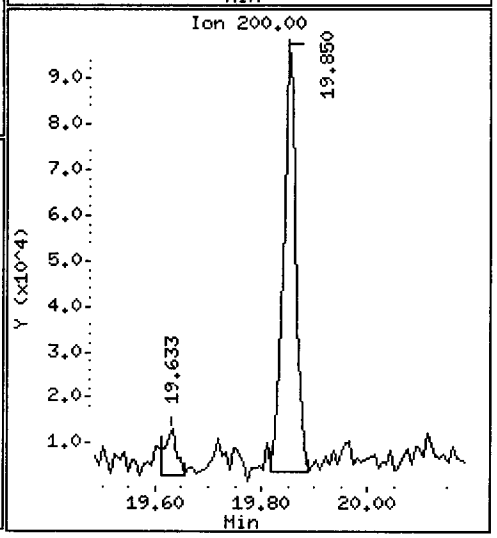












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

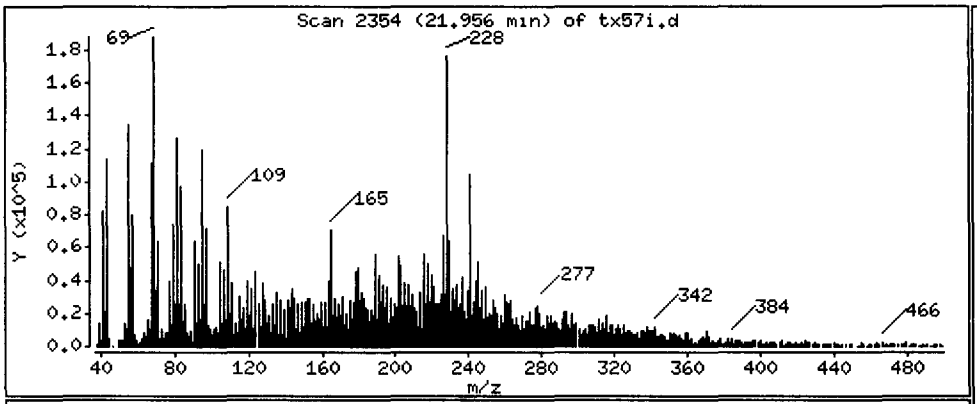
Client ID: SD0020 Instrument: nt10.i

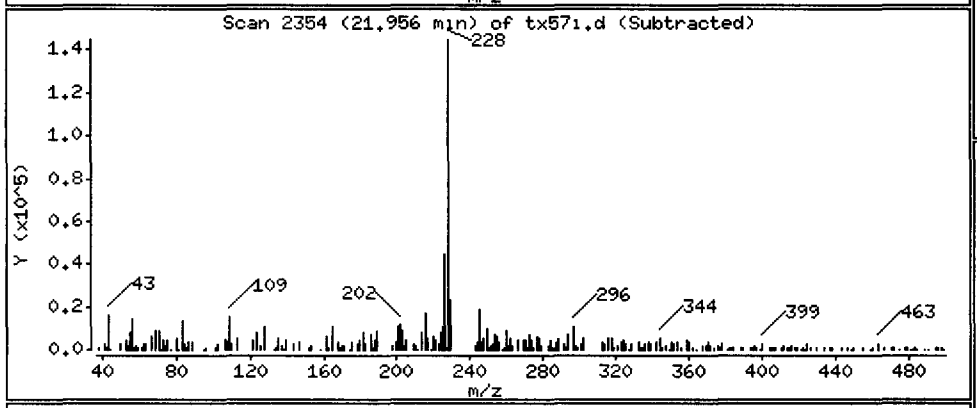
Sample Info: TX57I,3

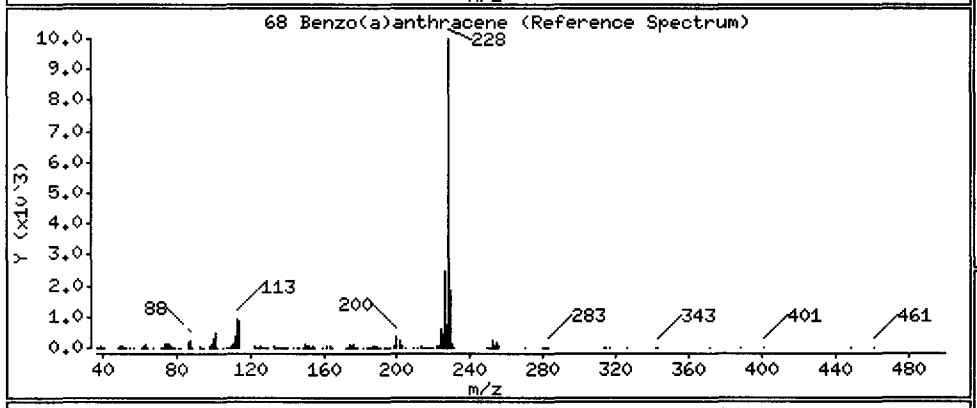
Volume Injected (uL): 1.0 Operator: YZ

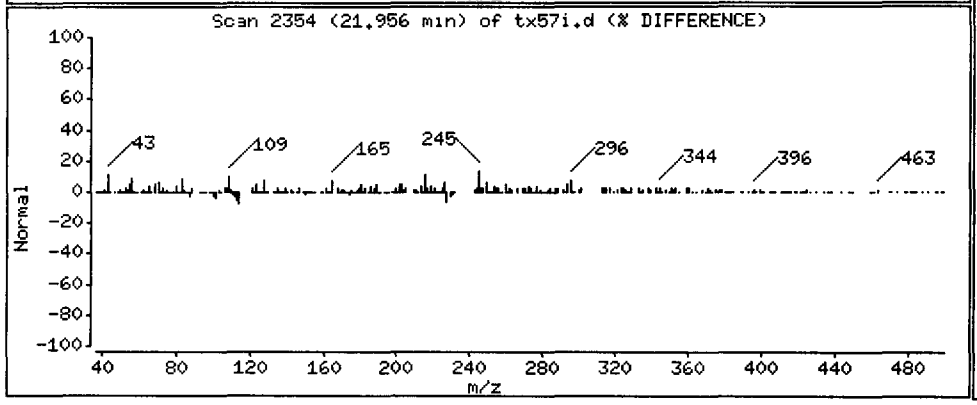
Column phase: ZB-5msi Column diameter: 0.25

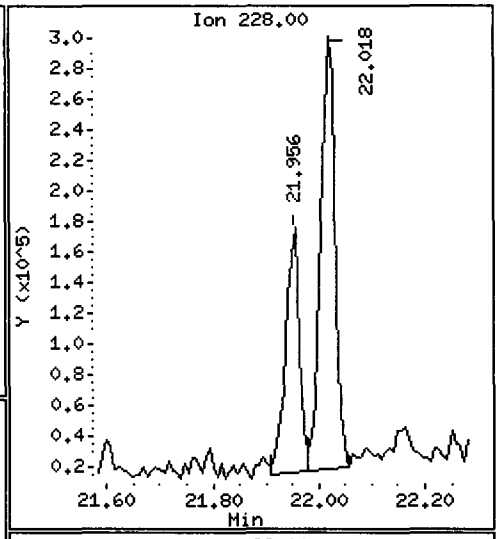
68 Benzo(a)anthracene Concentration: 204.4 ug/kg

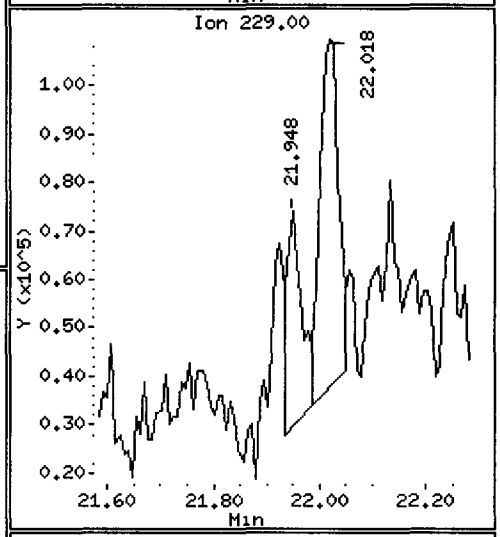


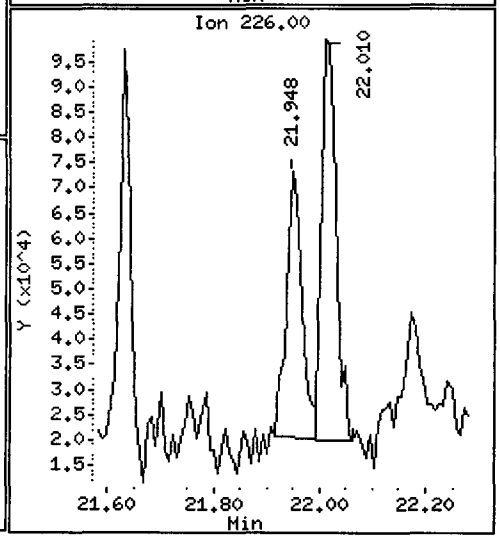












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

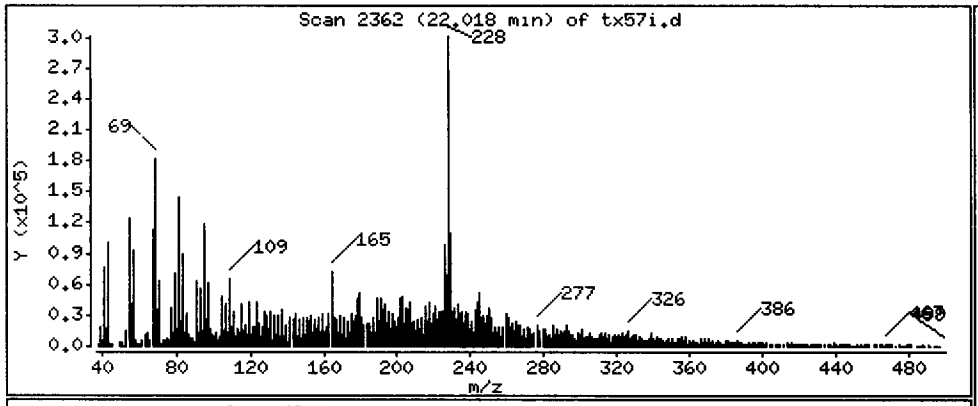
Client ID: SD0020 Instrument: nt10.i

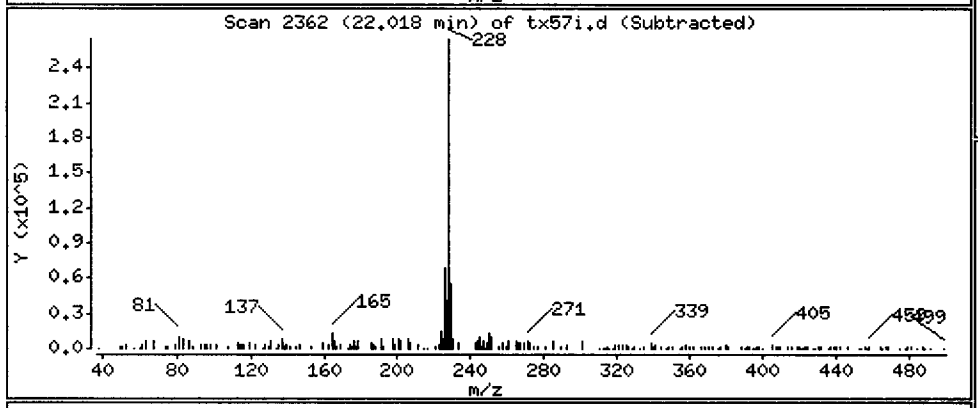
Sample Info: TX57I.3

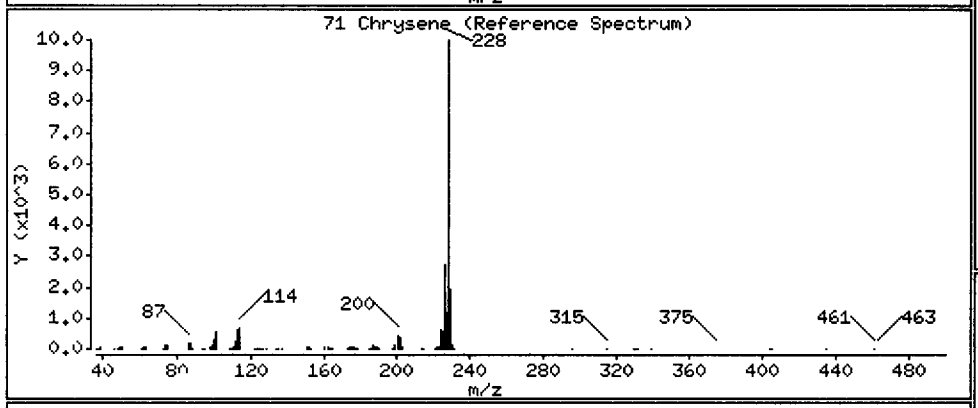
Volume Injected (uL): 1.0 Operator: YZ

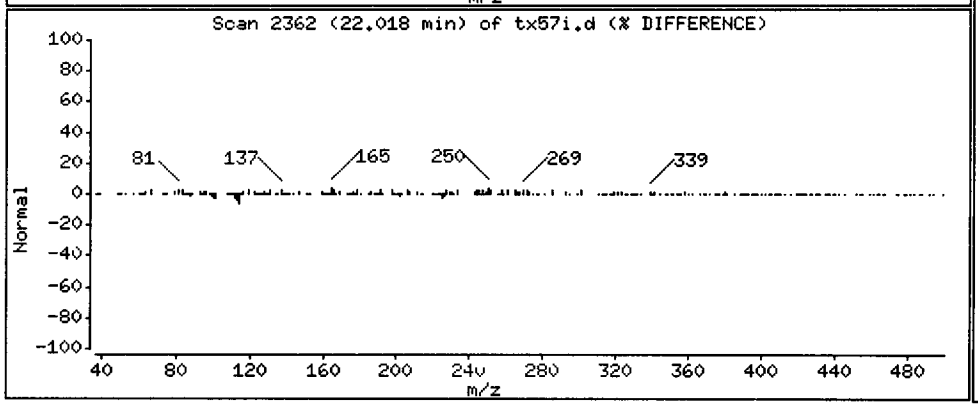
Column phase: ZB-5msi Column diameter: 0.25

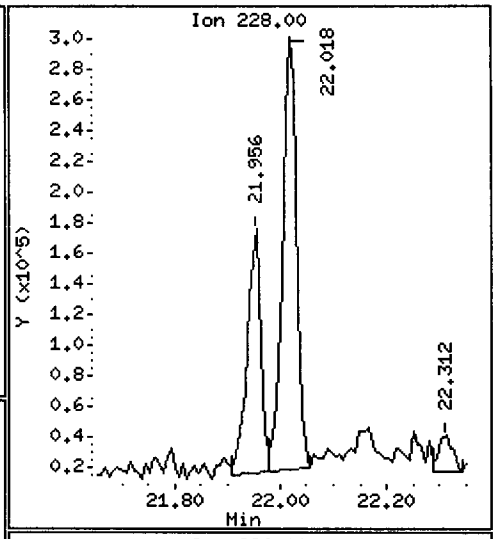
71 Chrysene Concentration: 403.6 ug/kg

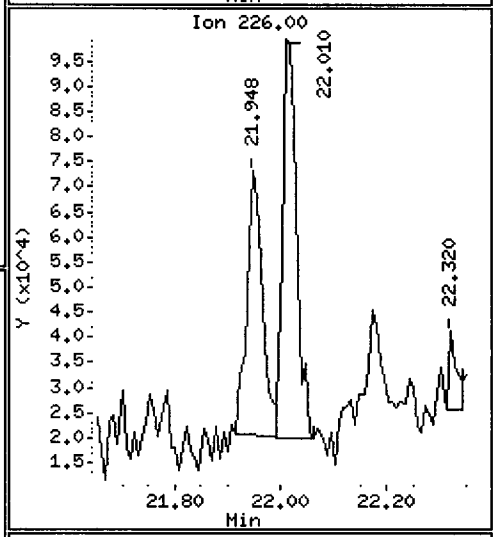


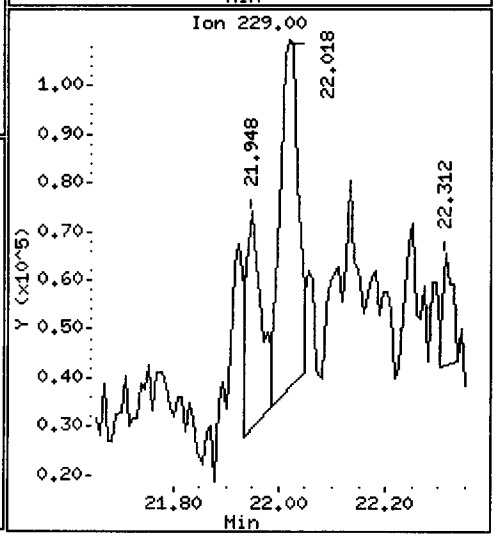












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

Client ID: SD0020

Instrument: nt10.i

Sample Info: TX57I,3

Volume Injected (uL): 1.0

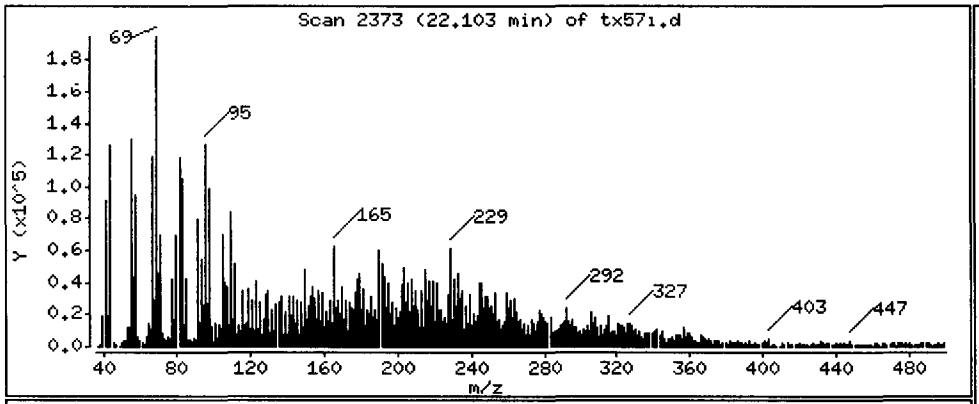
Operator: YZ

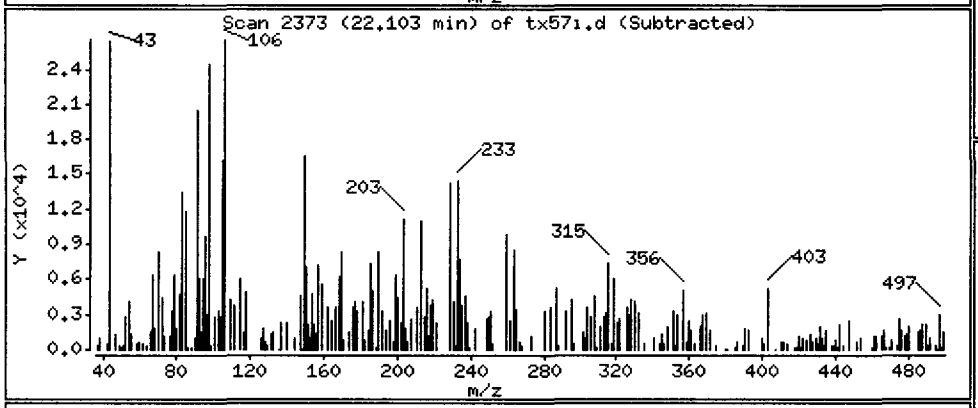
Column phase: ZB-5msi

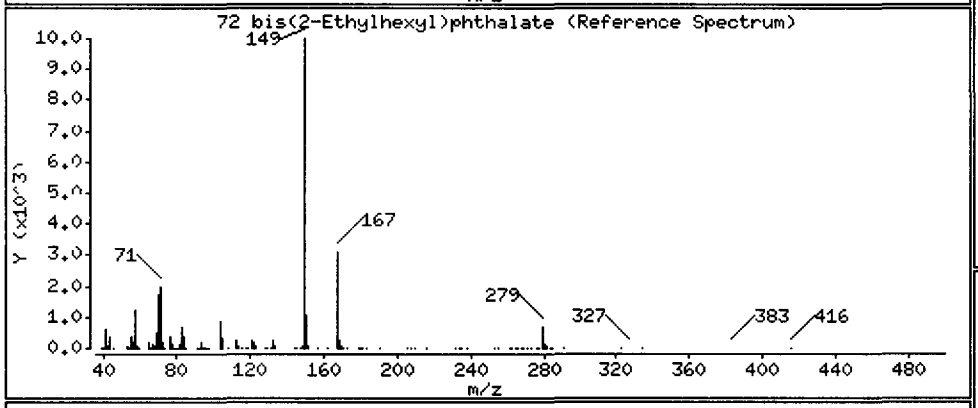
Column diameter: 0.25

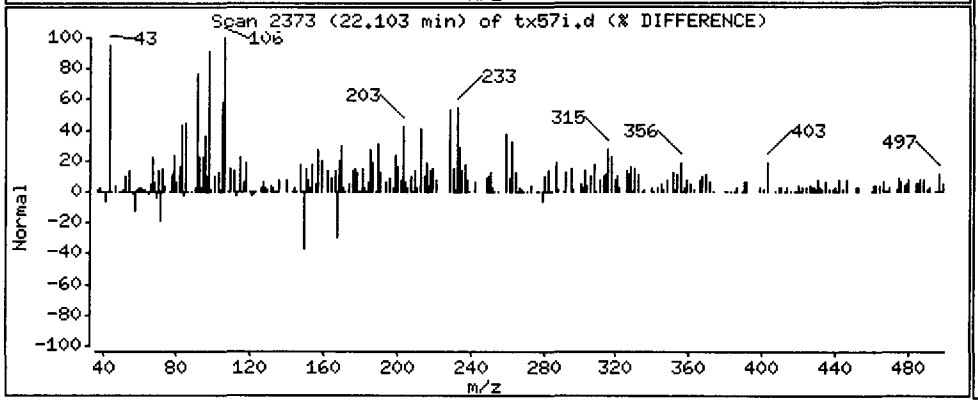
72 bis(2-Ethylhexyl)phthalate

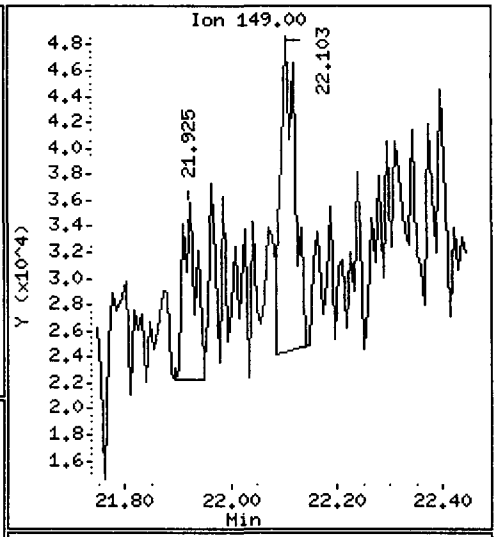
Concentration: 64.75 ug/kg

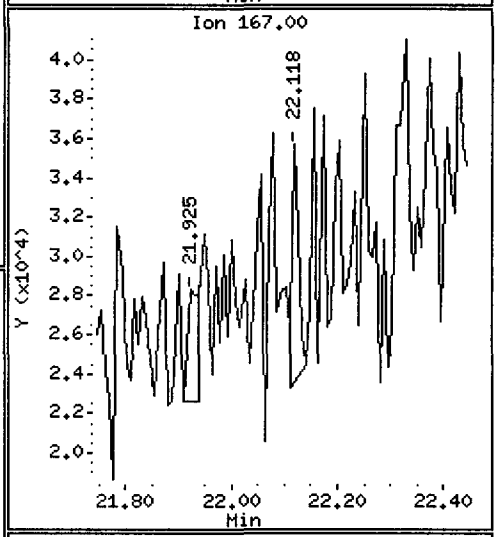


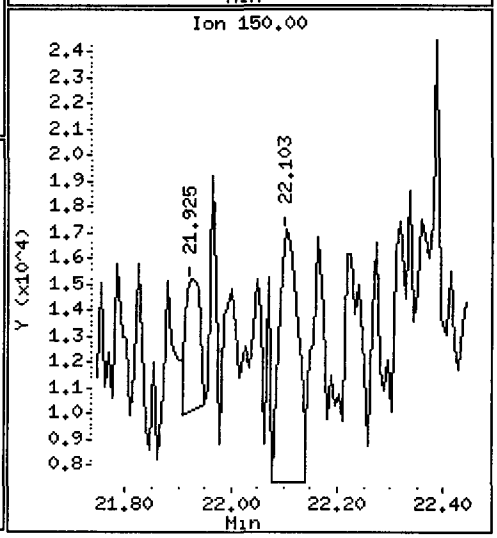












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

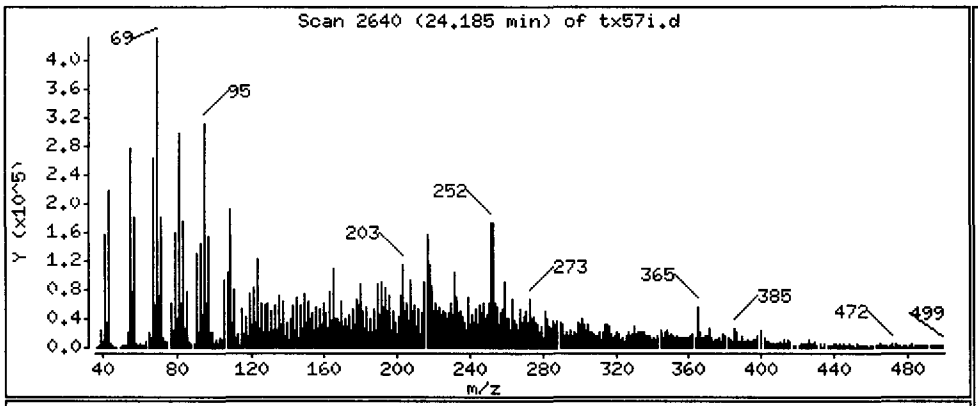
Client ID: SD0020 Instrument: nt10.i

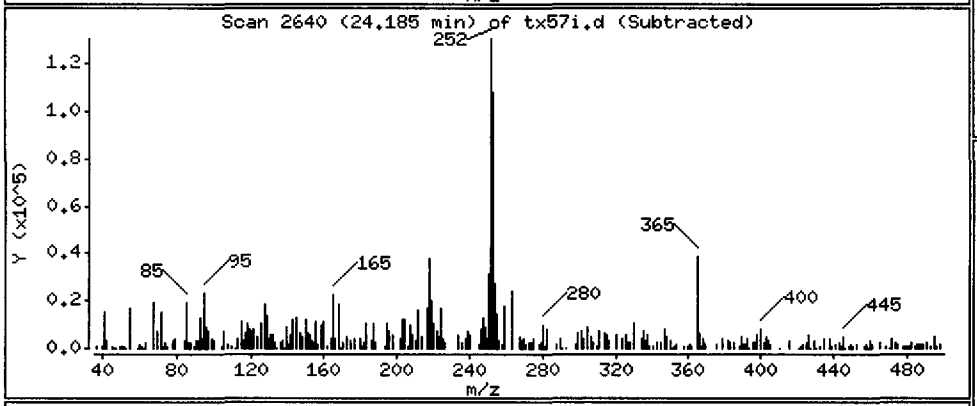
Sample Info: TX57I,3

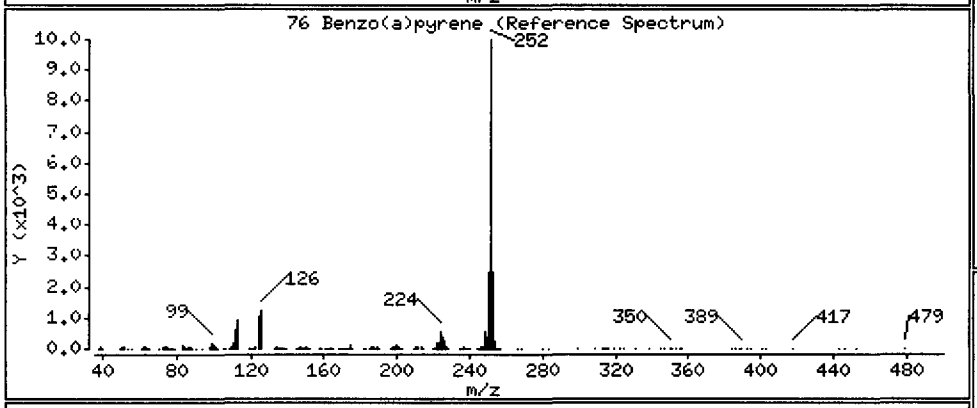
Volume Injected (uL): 1.0 Operator: YZ

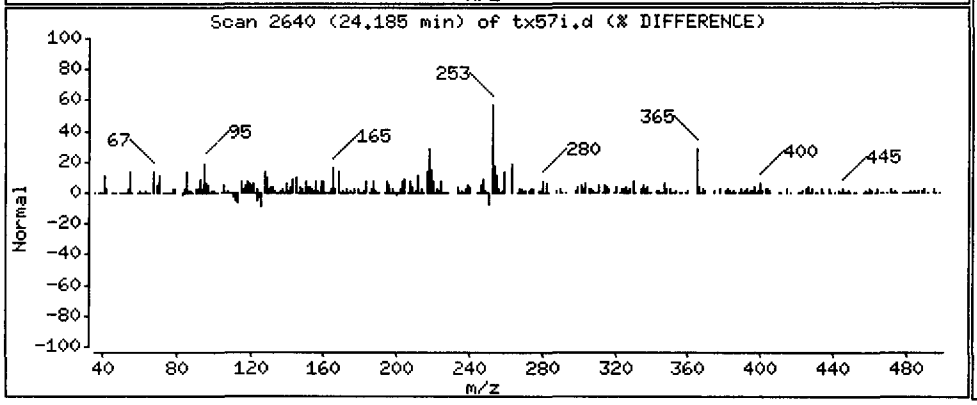
Column phase: ZB-5msi Column diameter: 0.25

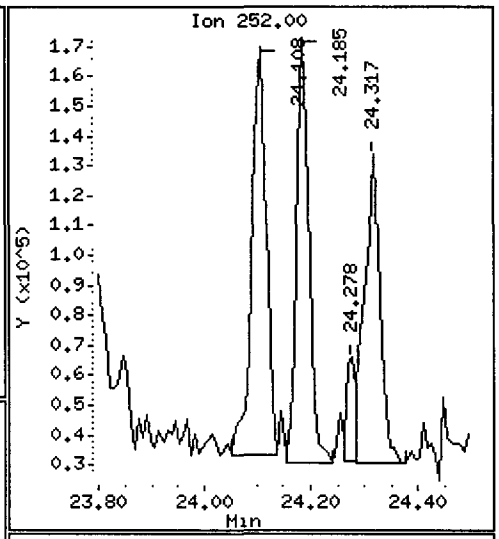
76 Benzo(a)pyrene Concentration: 191.2 ug/kg

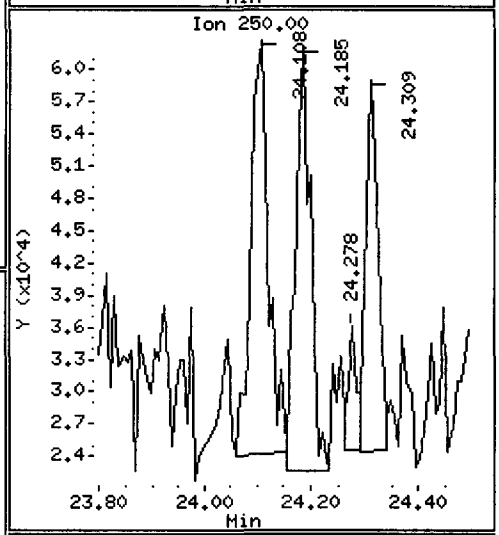


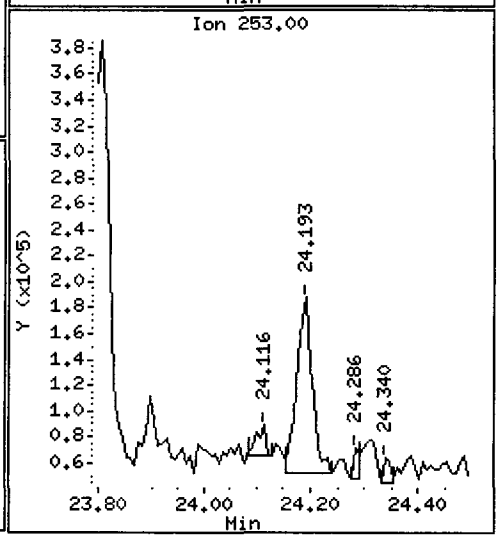












Data File: /chem1/nt10.1/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

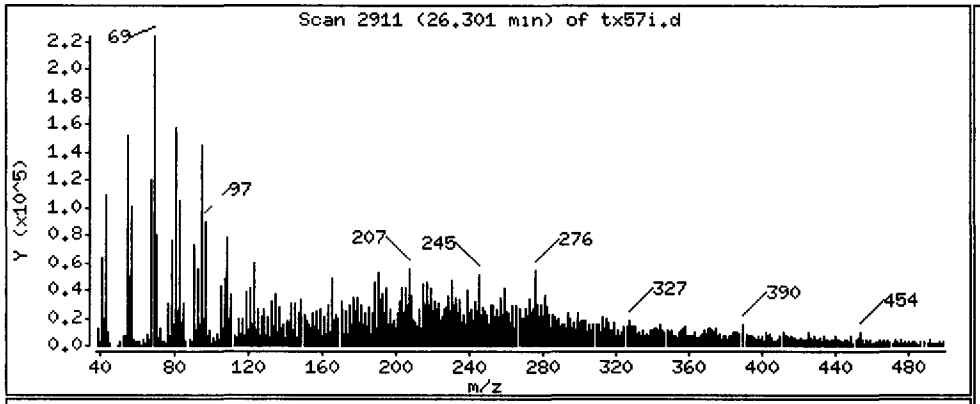
Client ID: SD0020 Instrument: nt10.1

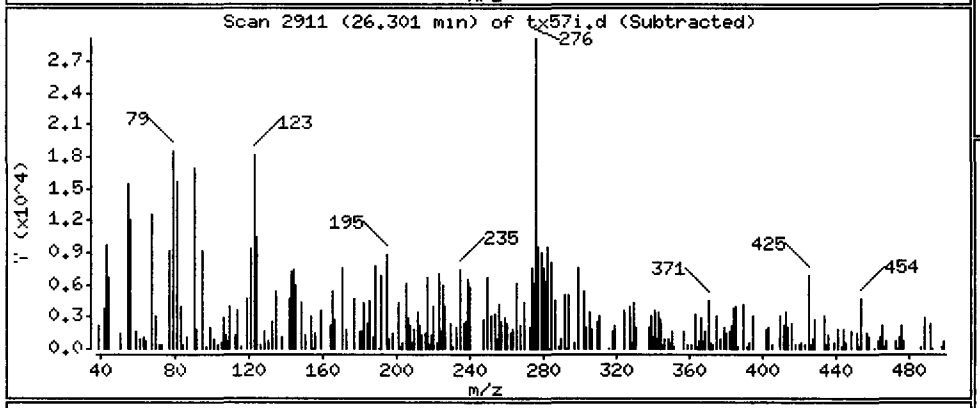
Sample Info: TX57I,3

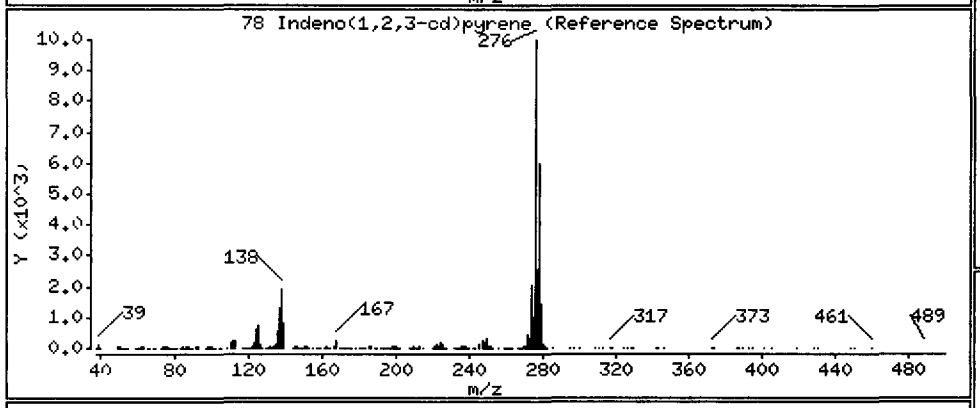
Volume Injected (uL): 1.0 Operator: YZ

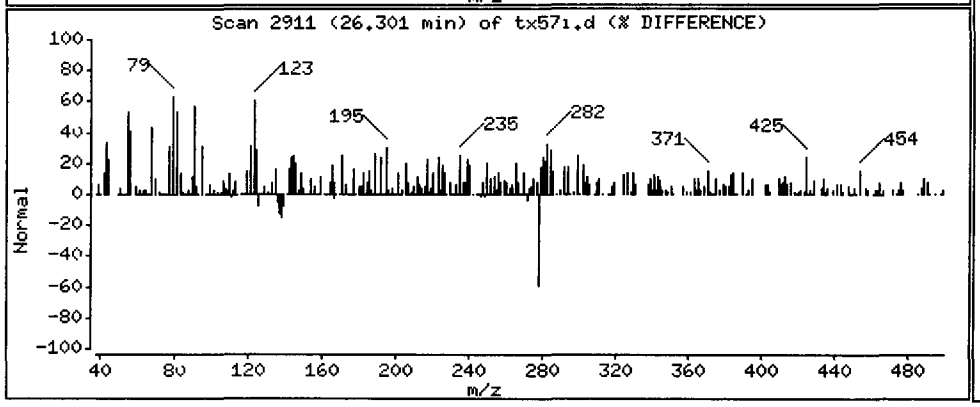
Column phase: ZB-5msi Column diameter: 0.25

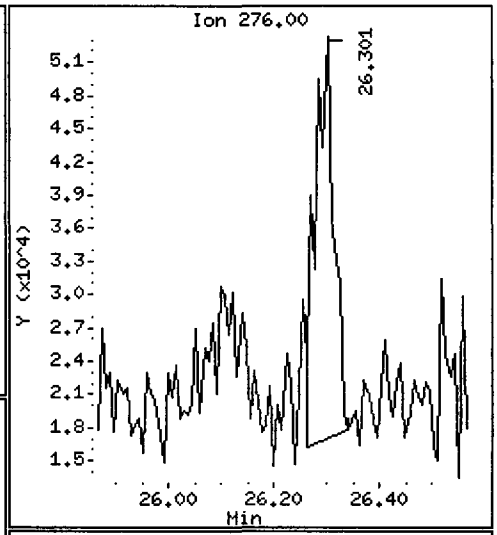
78 Indeno(1,2,3-cd)pyrene Concentration: 52.39 ug/kg

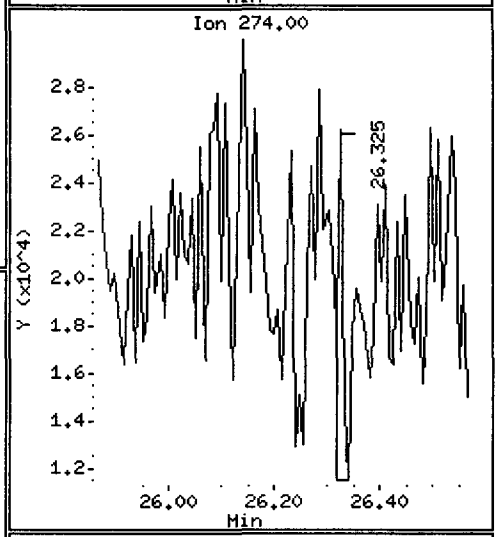


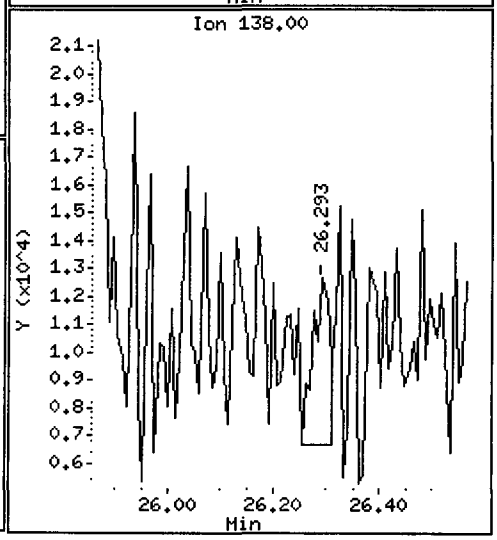












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

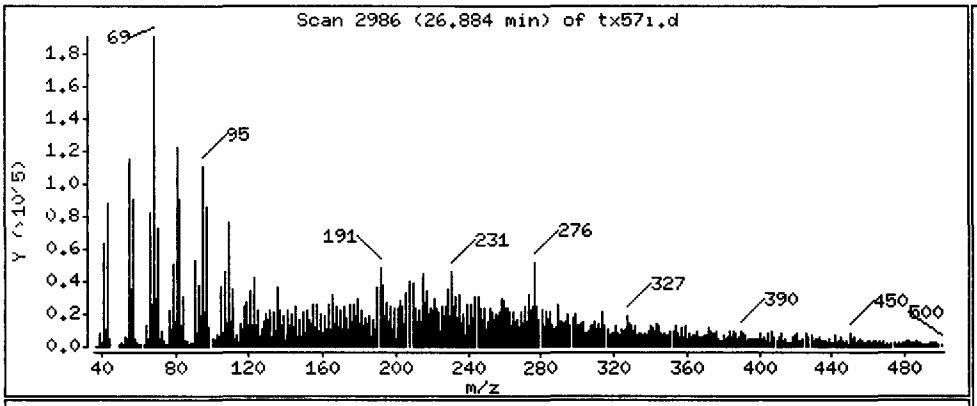
Client ID: SD0020 Instrument: nt10.i

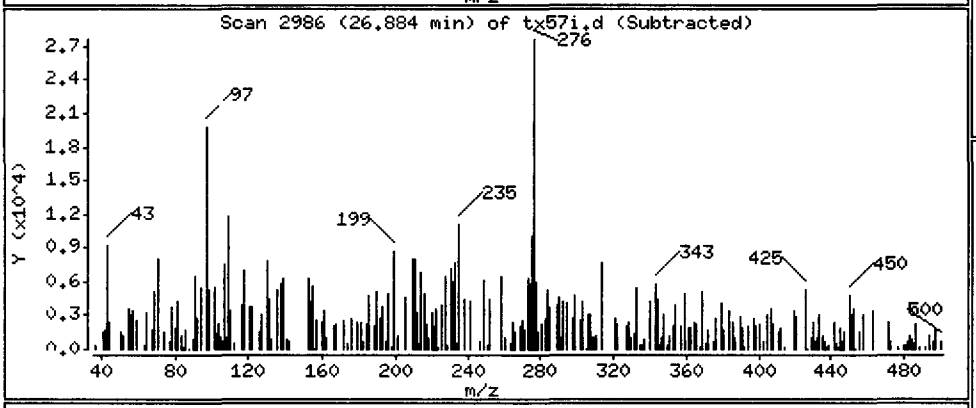
Sample Info: TX57I,3

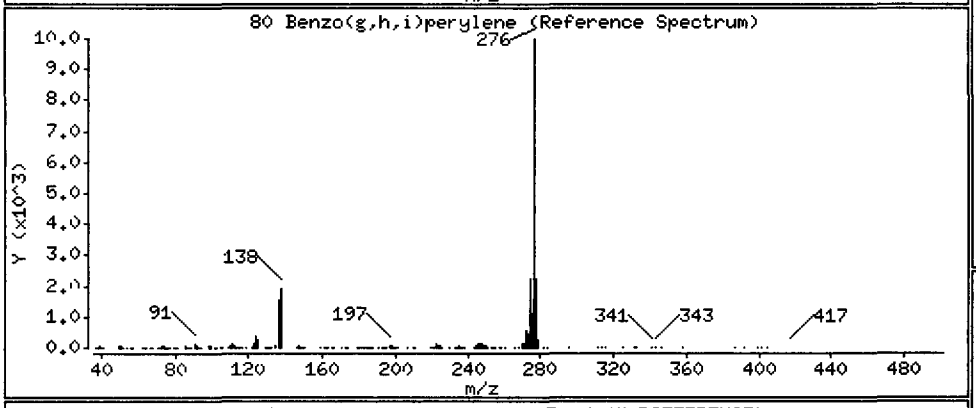
Volume Injected (uL): 1.0 Operator: YZ

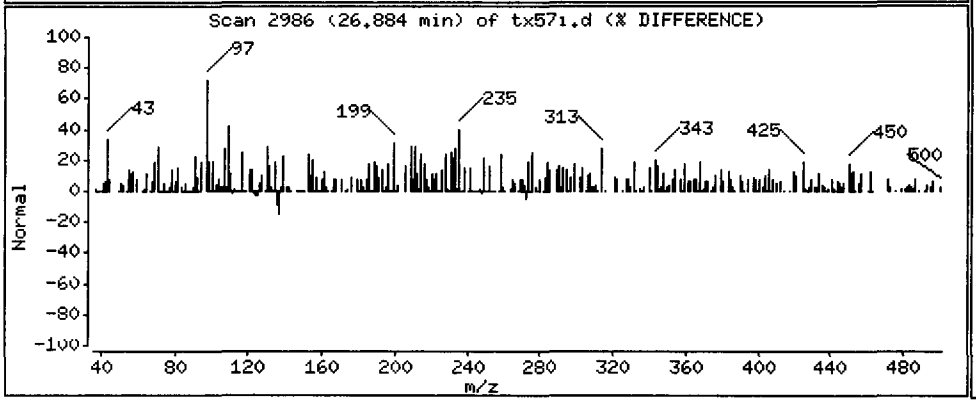
Column phase: ZB-5msi Column diameter: 0.25

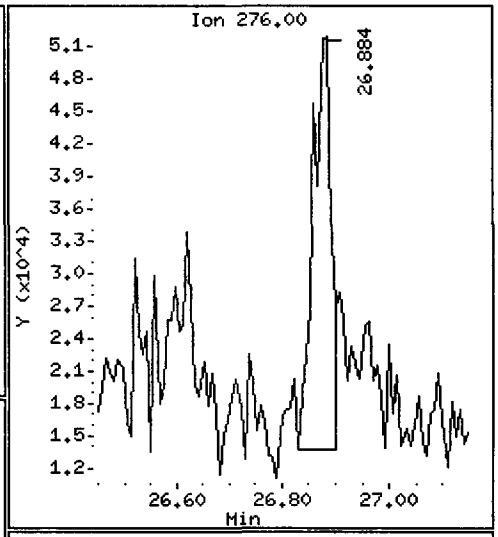
80 Benzo(g,h,i)perylene Concentration: 62.67 ug/kg

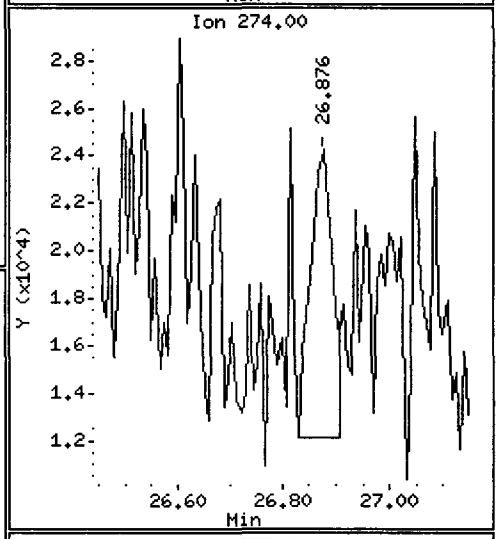


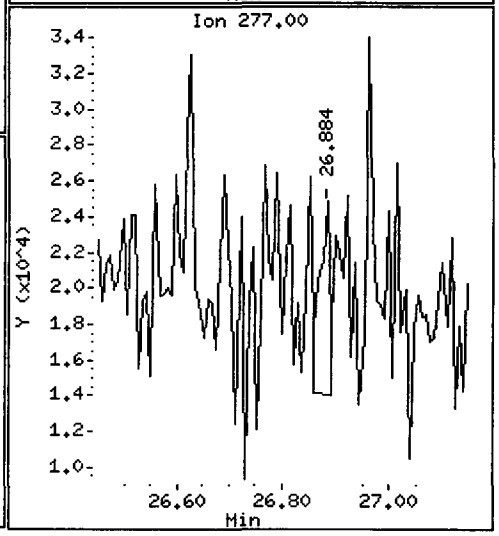












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

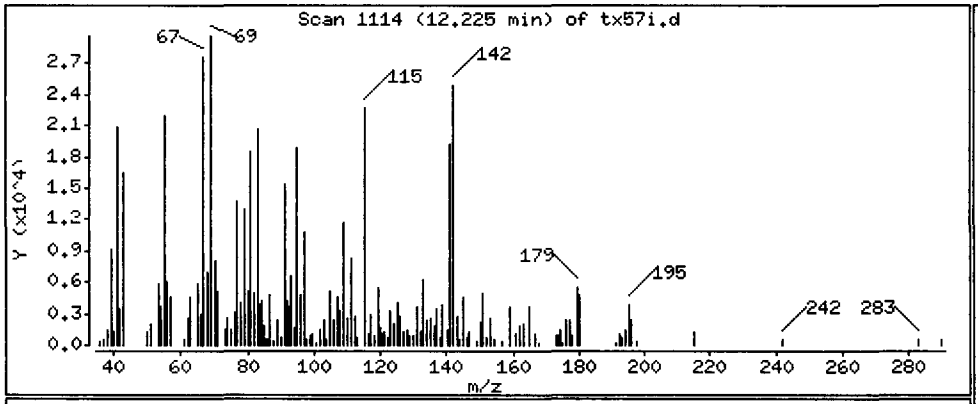
Client ID: SD0020 Instrument: nt10.i

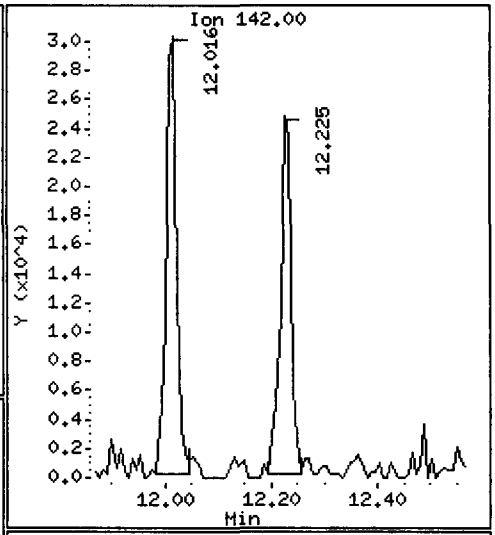
Sample Info: TX57I,3

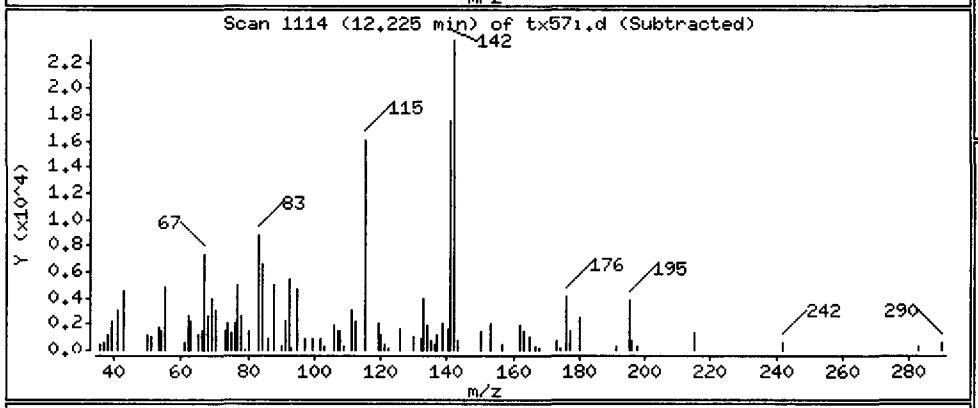
Volume Injected (uL): 1.0 Operator: YZ

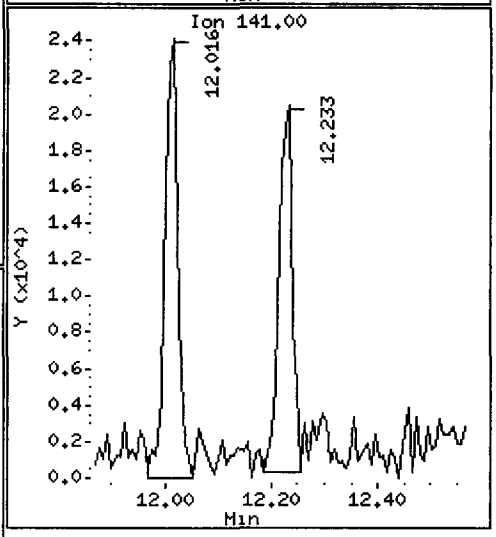
Column phase: ZB-5msi Column diameter: 0.25

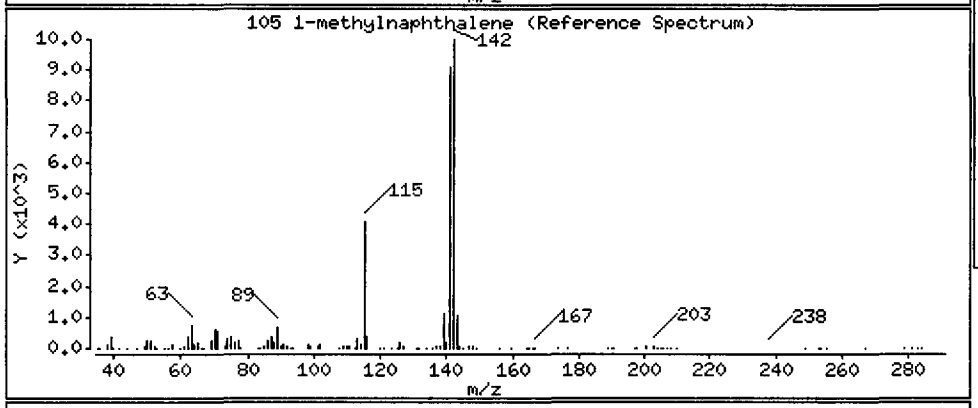
105 1-methylnaphthalene Concentration: 82.42 ug/kg

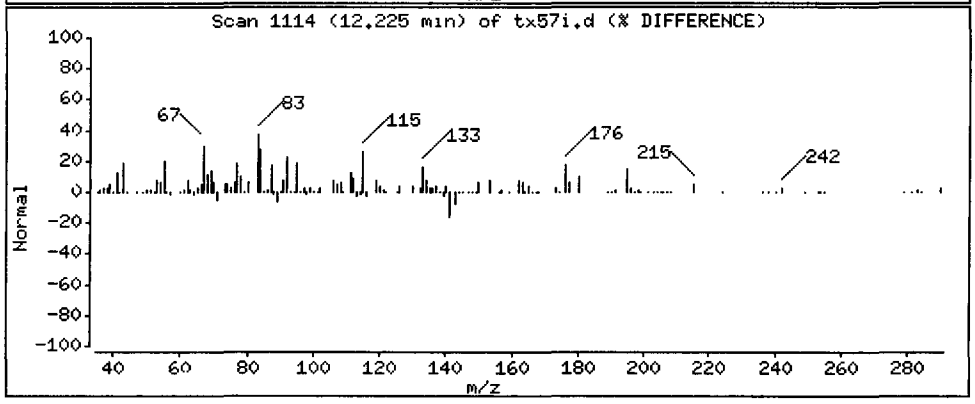












Data File: /chem1/nt10.i/20111206.b/tx57i.d

Date : 06-DEC-2011 22:32

Client ID: SD0020

Instrument: nt10.i

Sample Info: TX57I,3

Volume Injected (uL): 1.0

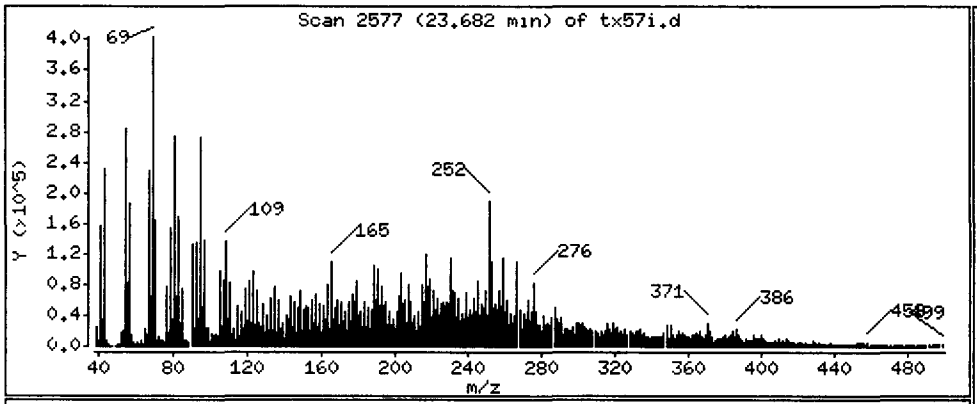
Operator: YZ

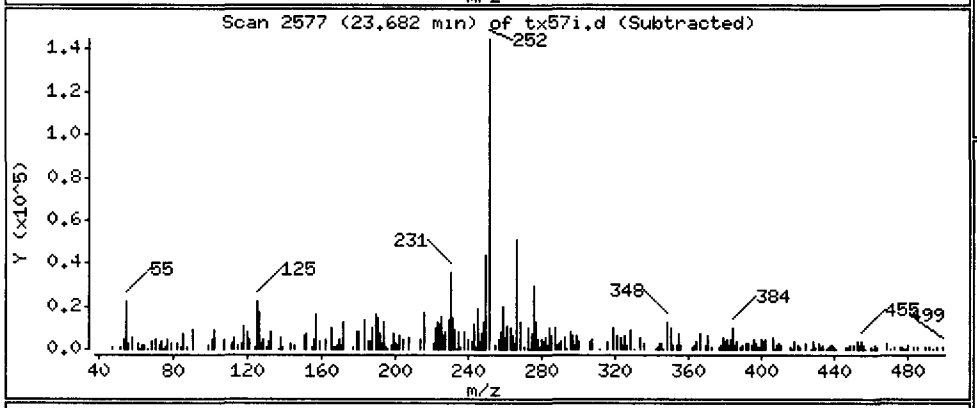
Column phase: ZB-5ms1

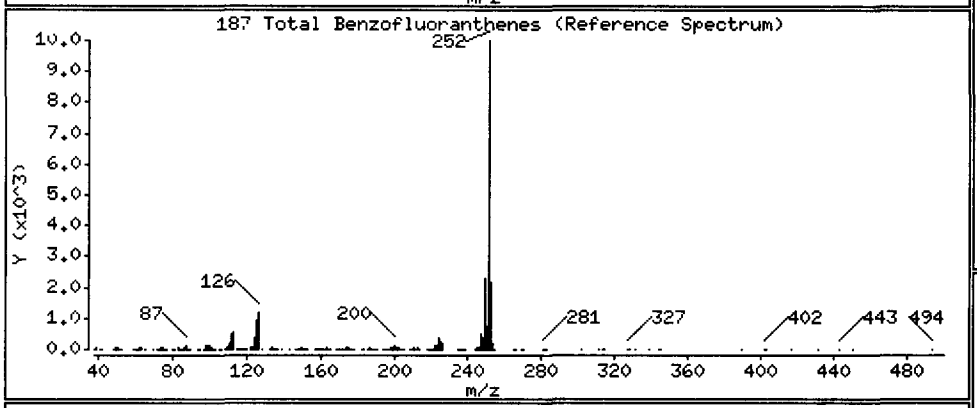
Column diameter: 0.25

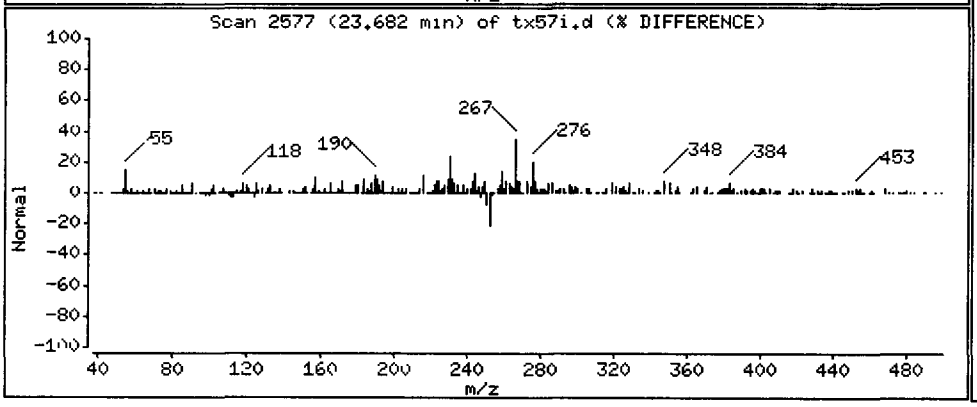
187 Total Benzofluoranthenes

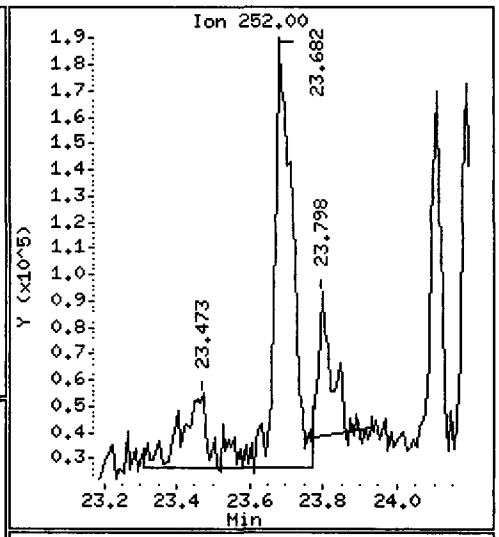
Concentration: 380.3 ug/kg

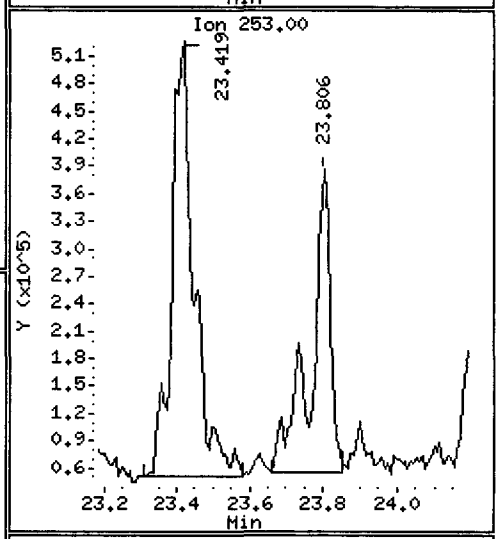


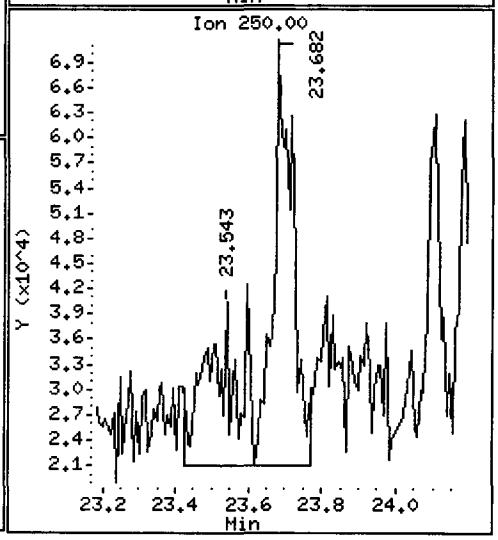












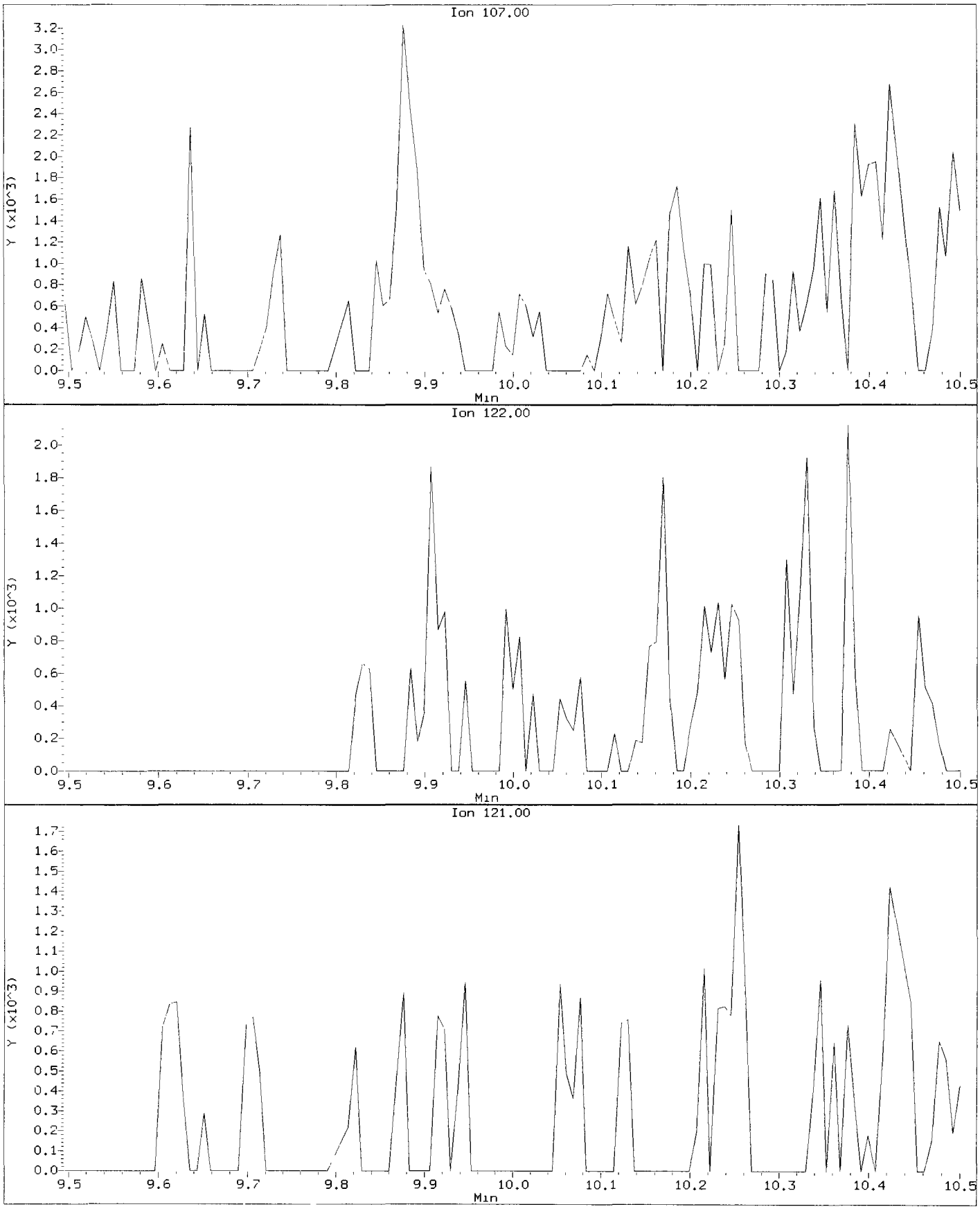
CO-ELUTION SUMMARY FOR FILE - tx57i.d

Lab ID: TX57I, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

RT	CO-ELUTION COMPOUNDS
23.682	Benzo(k)fluoranthene and Benzo(b)fluoranthene

Data File: /chem1/nt10.i/20111206.b/tx57i.d
Injection Date: 06-DEC-2011 22:32
Instrument: nt10.i
Client Sample ID: SD0020

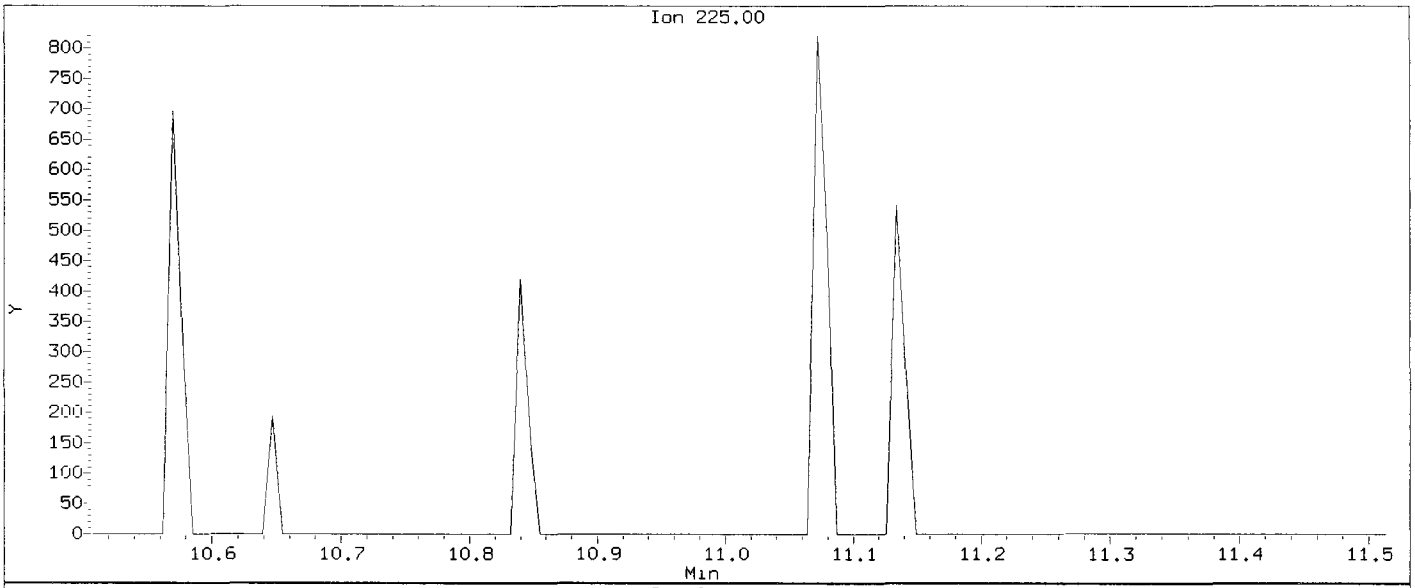
Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9

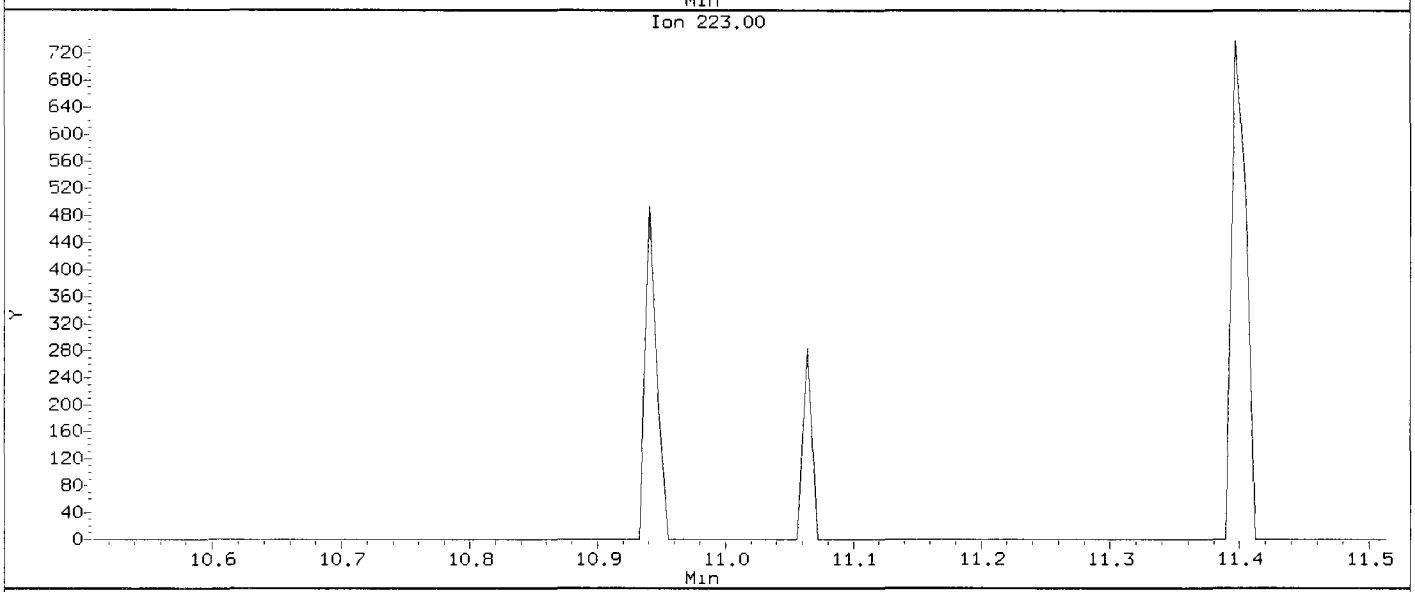


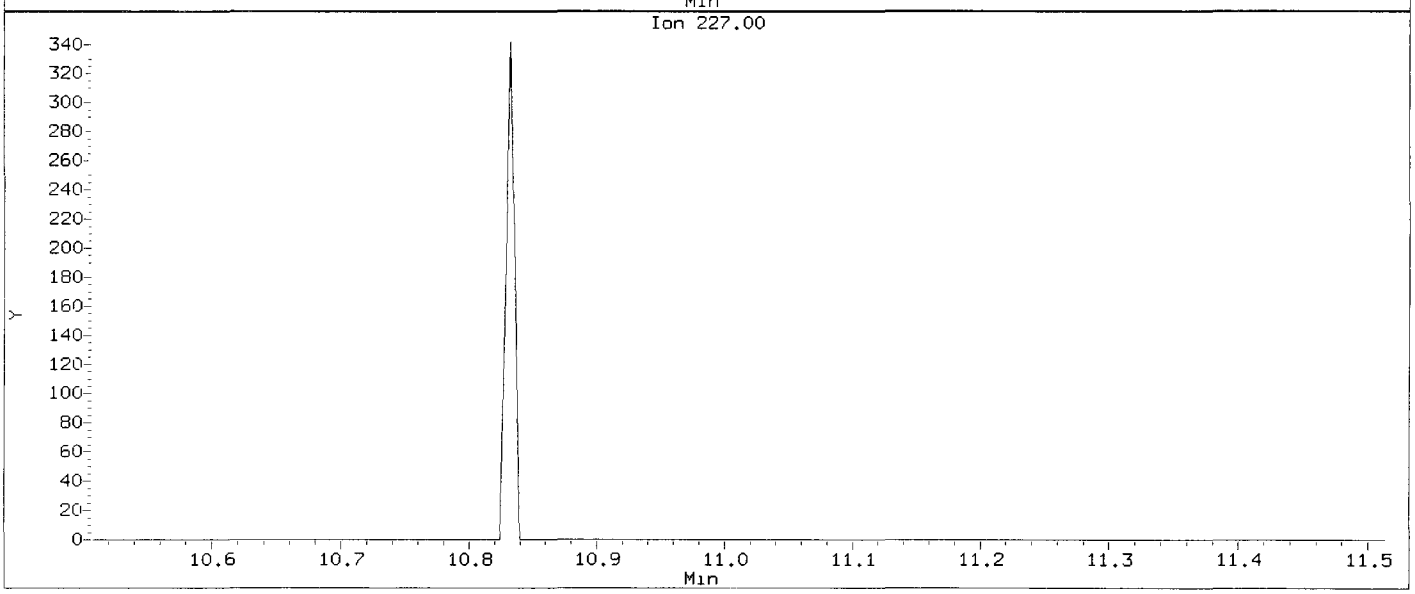
TX57 : 00794

Data File: /chem1/nt10.i/20111206.b/tx57i.d
Injection Date: 06-DEC-2011 22:32
Instrument: nt10.i
Client Sample ID: SD0020

Compound: Hexachlorobutadiene
CAS Number: 87-68-3







TX57 00735

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 12/9/11

Data file : /chem1/nt10.i/20111206.b/tx57j.d
Lab Smp Id: TX57J Client Smp ID: SD0021
Inj Date : 06-DEC-2011 23:06
Operator : YZ Inst ID: nt10.i
Smp Info : TX57J,3
Misc Info : 11-26628
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 07-Dec-2011 08:43 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 17
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	11.10000	Weight of sample extracted (g)
M	8.70000	% 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)
$ 1	2-Fluorophenol	112	6.059	6.043	(0.741)	64355	1.32260	391.5
$ 2	Phenol-d5	99	7.628	7.612	(0.933)	84248	1.34818	399.1
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.836	7.828	(0.958)	77468	1.36989	405.5
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.177	8.177	(1.000)	198992	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.526	8.518	(1.043)	42567	0.86749	256.8
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.256	9.248	(0.872)	73305	0.95078	281.5
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.608	10.600	(1.000)	725337	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.798	12.782	(0.905)	203295	1.08743	321.9
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.137	14.129	(1.000)	517098	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.134	15.134	(1.071)	24932	0.14015	41.49
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.759	15.751	(1.115)	59749	1.31161	388.3
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.119	17.111	(1.000)	1000723	4.00000	
	60 Phenanthrene	178	17.158	17.157	(1.002)	46220	0.17942	53.11
	61 Anthracene	178	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	Compound Not Detected.					
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	19.448	19.432	(1.136)	62645	0.17647 J	52.24
65	Pyrene	202	19.850	19.834	(0.903)	70661	0.17373 J	51.43
$ 66	Terphenyl-d14	244	20.160	20.152	(0.917)	355514	1.06056	314.0
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	Compound Not Detected.					
* 69	Chrysene-d12	240	21.979	21.956	(1.000)	1681864	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.010	22.002	(1.001)	64231	0.15559 J	46.06
72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
* 134	Di-n-octylphthalate-d4	153	23.071	23.047	(1.000)	1454966	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	23.682	23.651	(0.975)	58686	0.13232 MH	39.17
75	Benzo(k)fluoranthene	252	23.682	23.690	(0.975)	58686	0.12768 MH	37.80
76	Benzo(a)pyrene	252	24.186	24.147	(0.996)	63884	0.17543 J	51.93(MH)
* 77	Perylene-d12	264	24.279	24.232	(1.000)	1456035	4.00000	
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.					
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	Compound Not Detected.					
99	Perylene	252	24.325	24.278	(1.002)	91502	0.25456	75.36

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57j.d
Lab Smp Id: TX57J
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26628

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: SD0021
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	198992	15.12
27 Naphthalene-d8	574010	287005	1148020	725337	26.36
42 Acenaphthene-d10	467963	233982	935926	517098	10.50
59 Phenanthrene-d10	976150	488075	1952300	1000723	2.52
69 Chrysene-d12	1397129	698564	2794258	1681864	20.38
134 Di-n-octylphthala	1264537	632268	2529074	1454966	15.06
77 Perylene-d12	1407308	703654	2814616	1456035	3.46

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.61	0.07
42 Acenaphthene-d10	14.13	13.63	14.63	14.14	0.06
59 Phenanthrene-d10	17.11	16.61	17.61	17.12	0.05
69 Chrysene-d12	21.96	21.46	22.46	21.98	0.11
134 Di-n-octylphthala	23.05	22.55	23.55	23.07	0.10
77 Perylene-d12	24.23	23.73	24.73	24.28	0.19

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

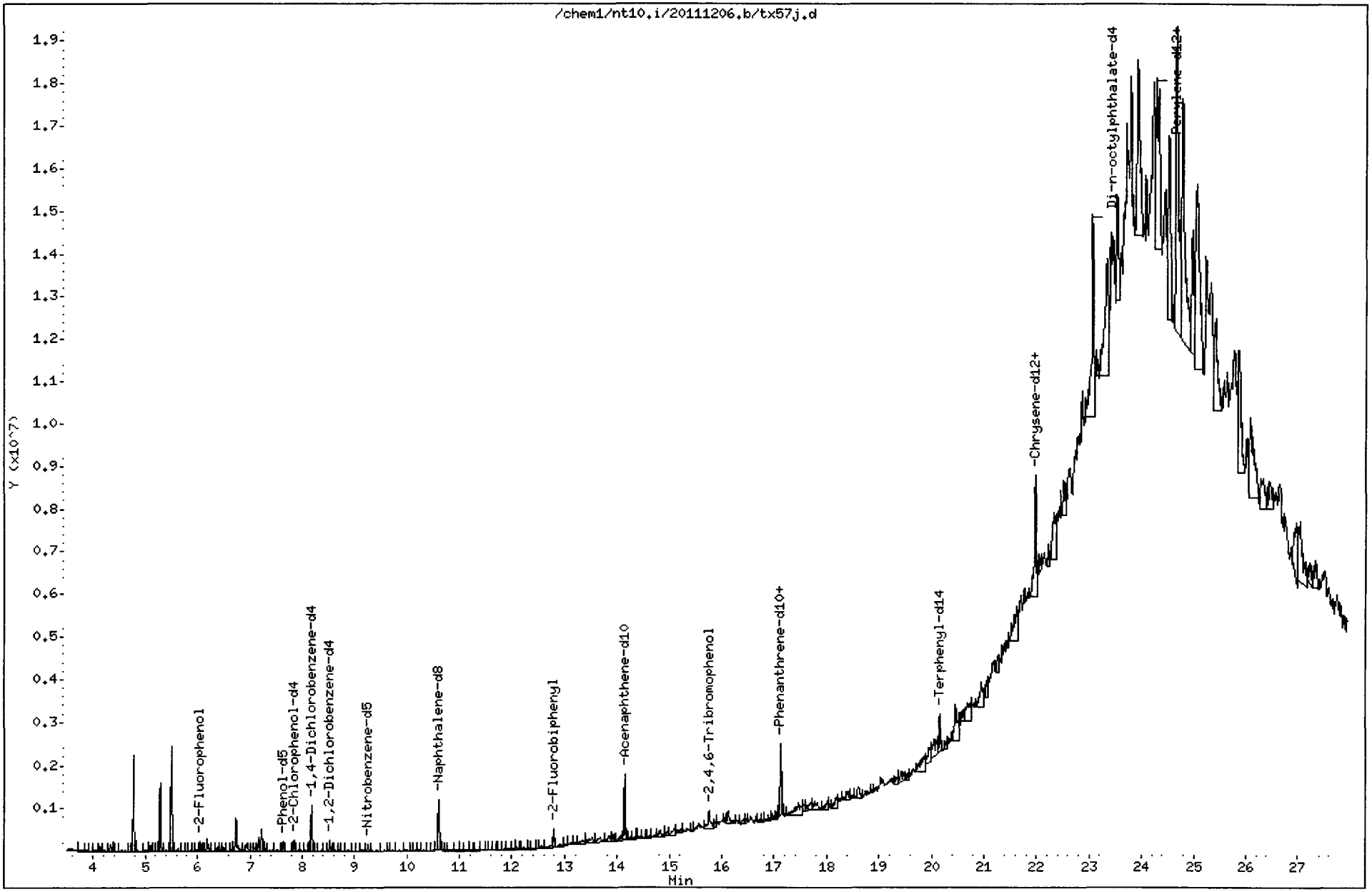
Client Name: INTEGRAL
Sample Matrix: SOLID
Lab Smp Id: TX57J
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26628

Client SDG: TX57
Fraction: SV
Client Smp ID: SD0021
Operator: YZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	740.1	391.5	52.90	30-160
$ 2 Phenol-d5	740.1	399.1	53.93	30-160
$ 5 2-Chlorophenol-d4	740.1	405.5	54.80	30-160
$ 10 1,2-Dichlorobenzen	493.4	256.8	52.05	30-160
$ 18 Nitrobenzene-d5	493.4	281.5	57.05	30-160
$ 36 2-Fluorobiphenyl	493.4	321.9	65.25	30-160
$ 55 2,4,6-Tribromophen	740.1	388.3	52.46	30-160
$ 66 Terphenyl-d14	493.4	314.0	63.63	30-160

Data File: /chem1/nt10.i/20111206.b/tx57j.d
Date : 06-DEC-2011 23:06
Client ID: SD0021
Sample Info: TX57J,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



TX57J SD0021

Data File: /chem1/nt10.i/20111206.b/tx57j.d

Date : 06-DEC-2011 23:06

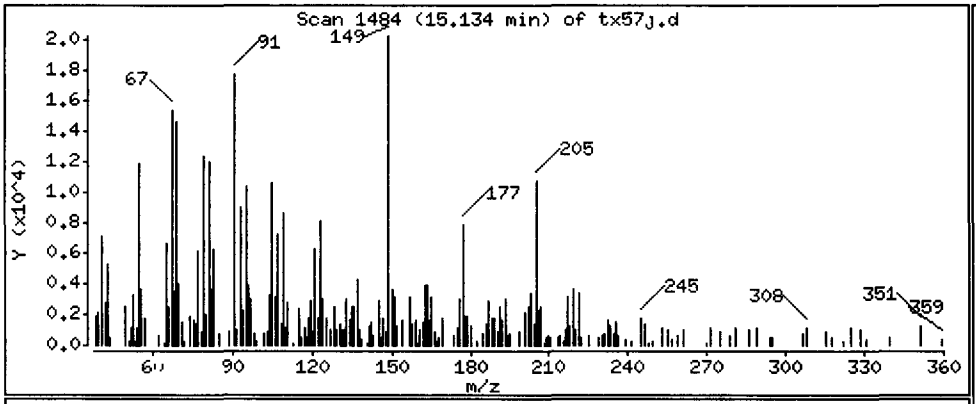
Client ID: SD0021 Instrument: nt10.i

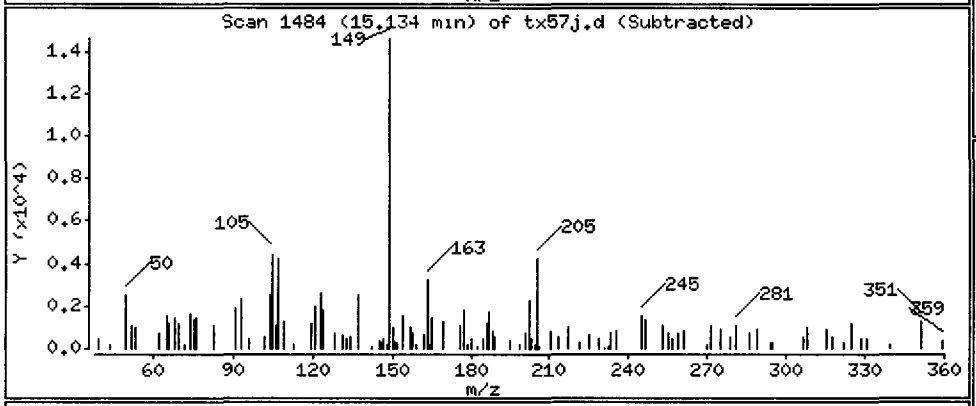
Sample Info: TX57J,3

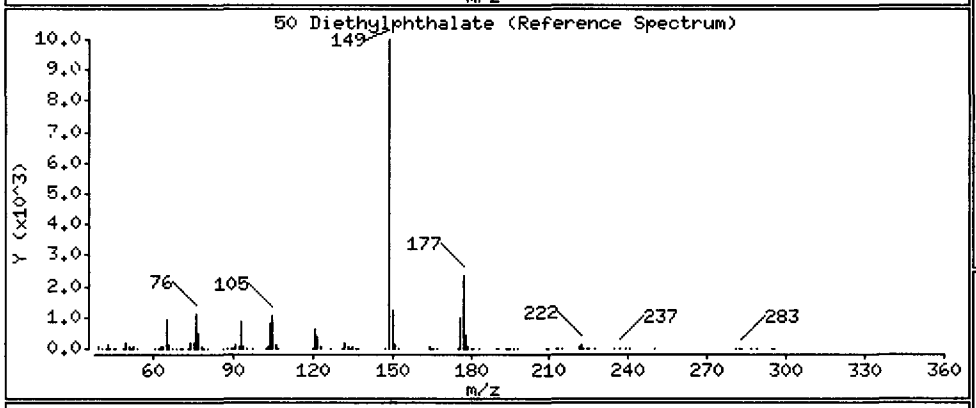
Volume Injected (uL): 1.0 Operator: YZ

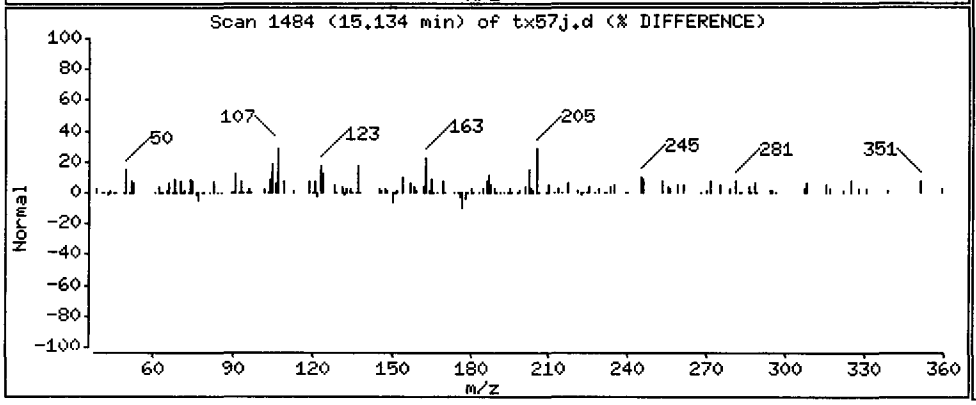
Column phase: ZB-5msi Column diameter: 0.25

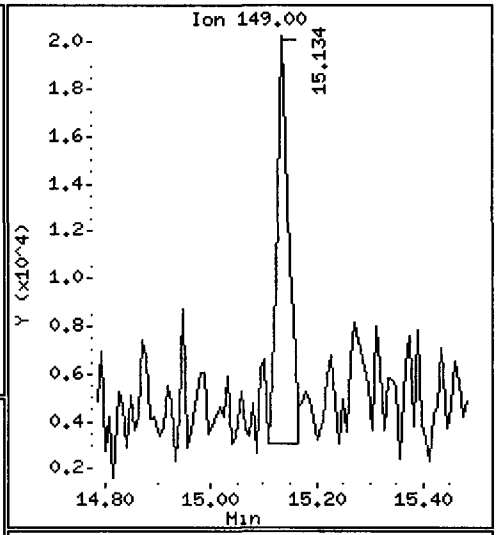
50 Diethylphthalate Concentration: 41.49 ug/kg

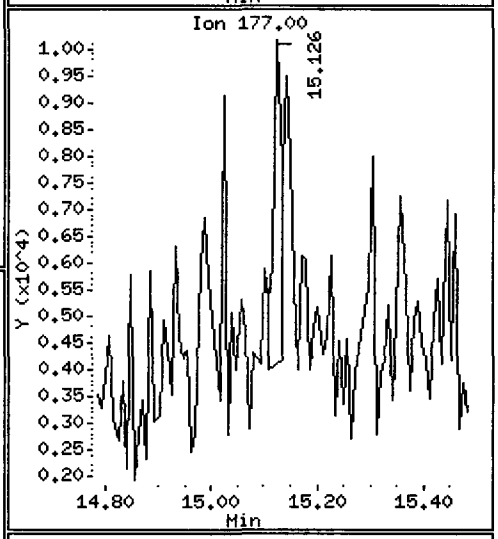


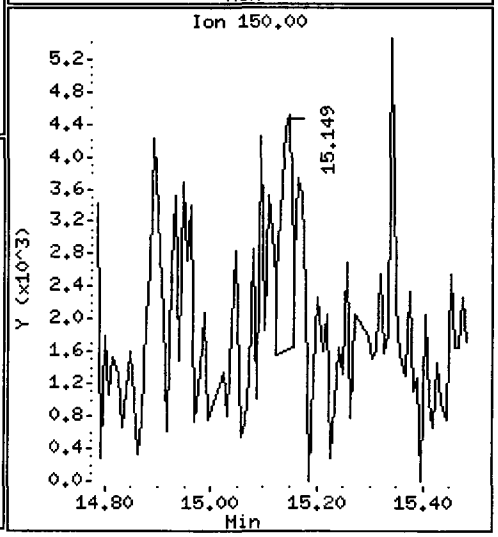












Data File: /chem1/nt10.i/20111206.b/tx57j.d

Date : 06-DEC-2011 23:06

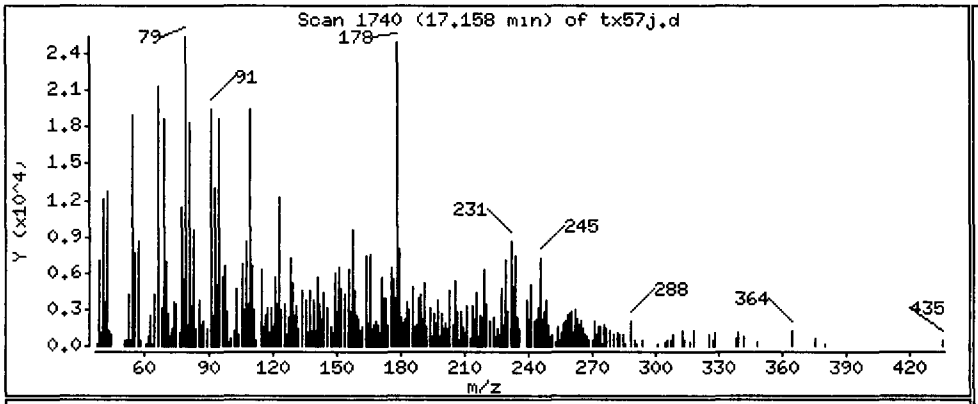
Client ID: SD0021 Instrument: nt10.i

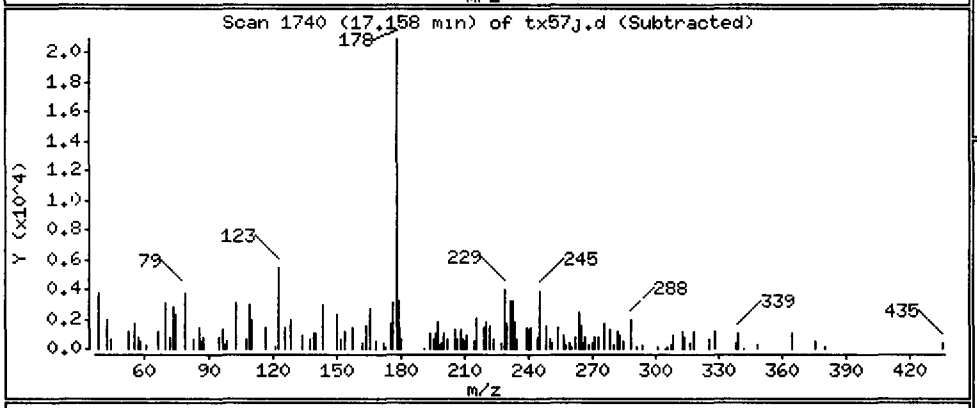
Sample Info: TX57J,3

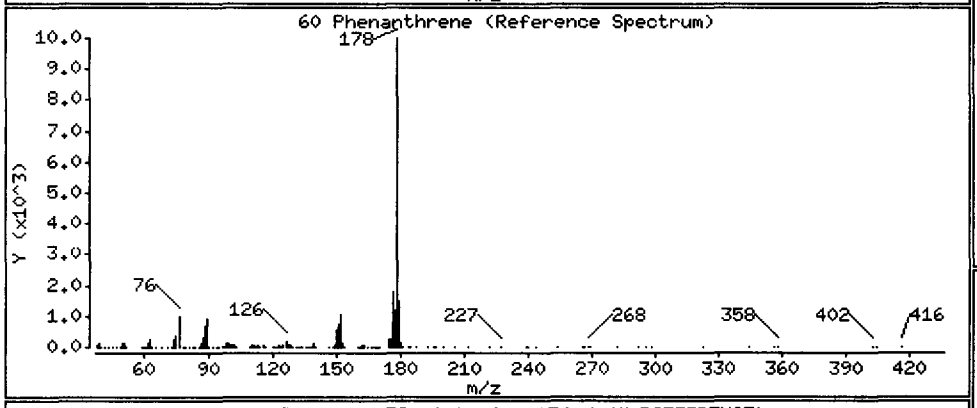
Volume Injected (uL): 1.0 Operator: YZ

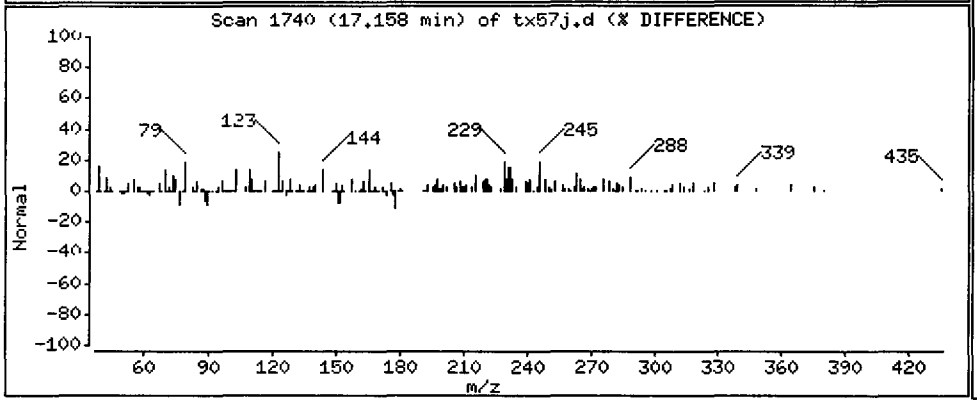
Column phase: ZB-5ms1 Column diameter: 0.25

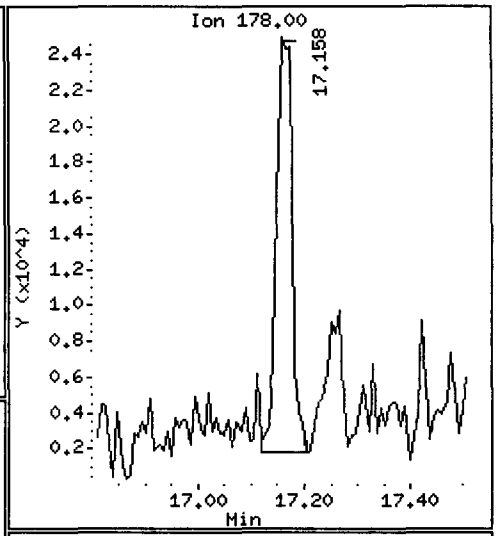
60 Phenanthrene Concentration: 53.11 ug/kg

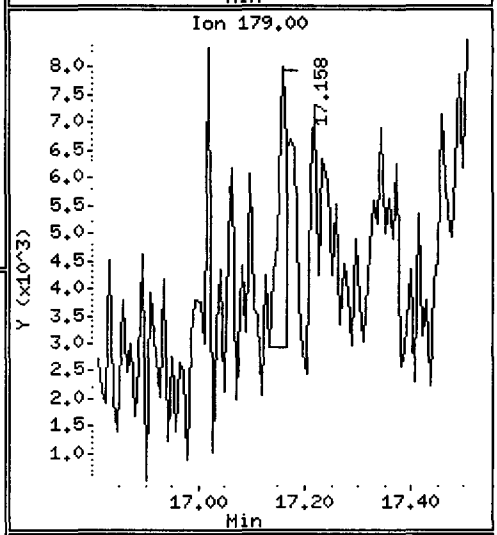


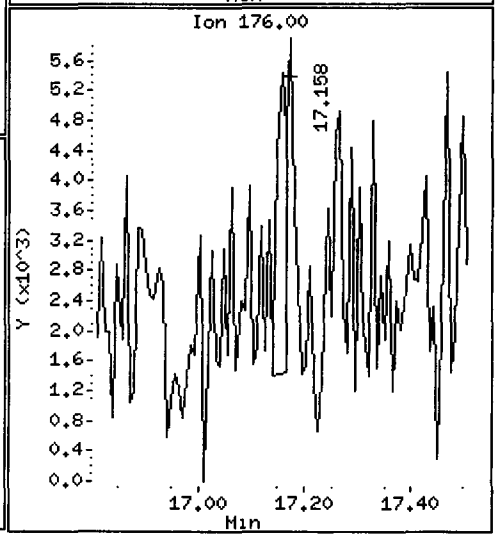












Data File: /chem1/nt10.i/20111206.b/tx57j.d

Date : 06-DEC-2011 23:06

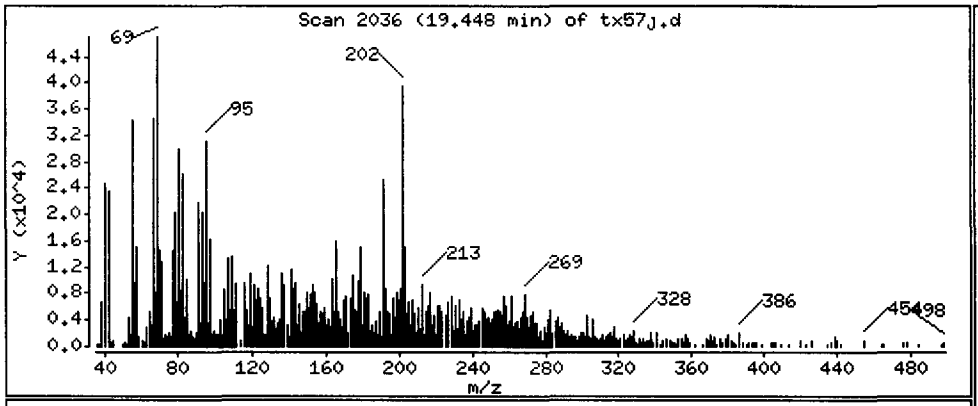
Client ID: SD0021 Instrument: nt10.i

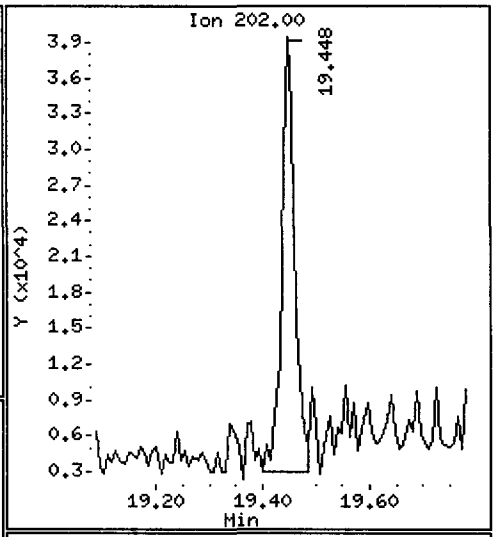
Sample Info: TX57J.3

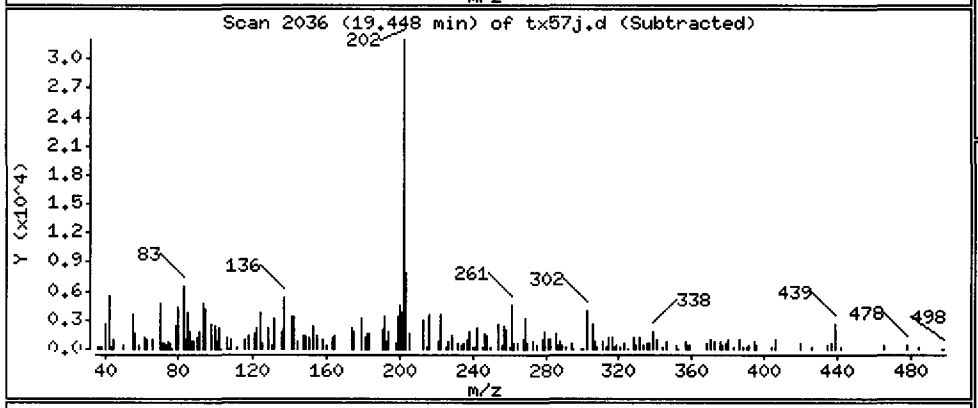
Volume Injected (uL): 1.0 Operator: YZ

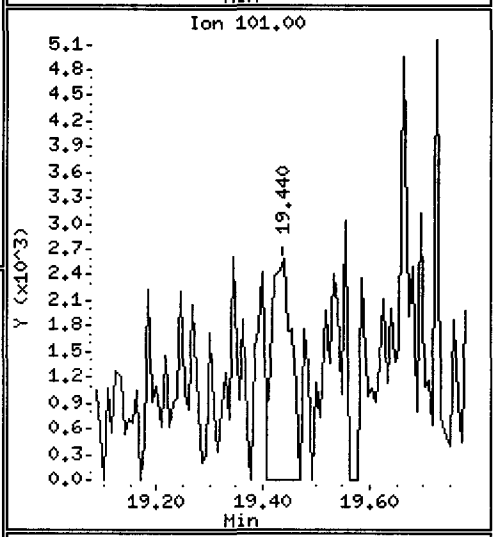
Column phase: ZB-5msi Column diameter: 0.25

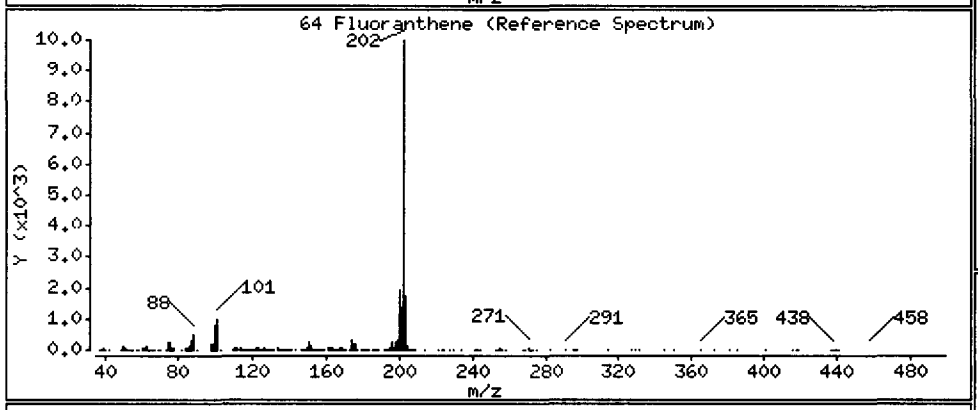
64 Fluoranthene Concentration: 52.24 ug/kg

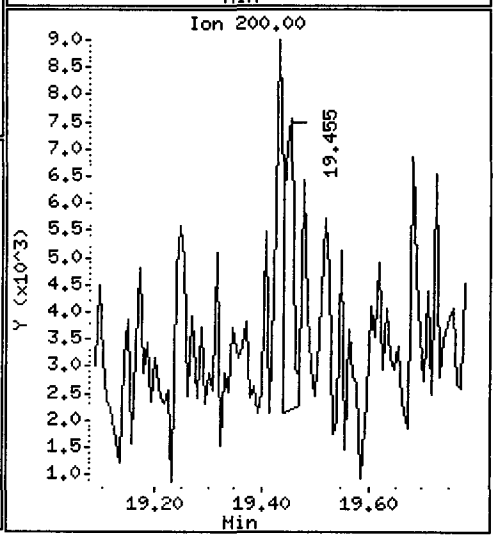


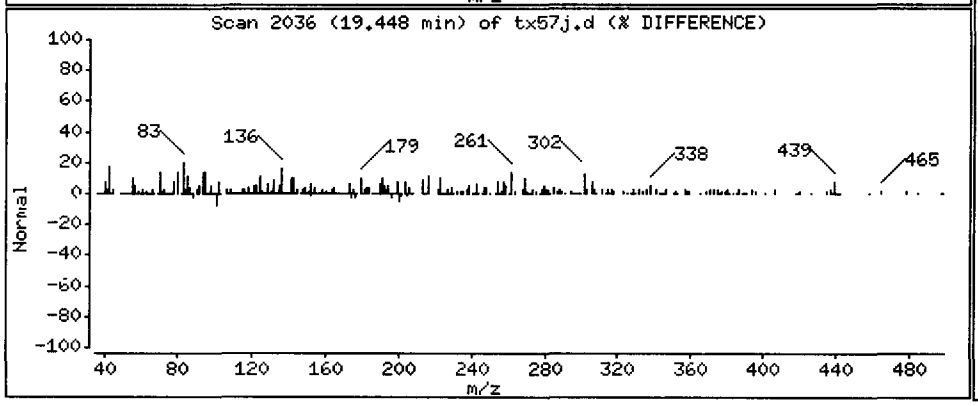












Data File: /chem1/nt10.i/20111206.b/tx57j.d

Date : 06-DEC-2011 23:06

Client ID: SD0021

Instrument: nt10.i

Sample Info: TX57J,3

Volume Injected (uL): 1.0

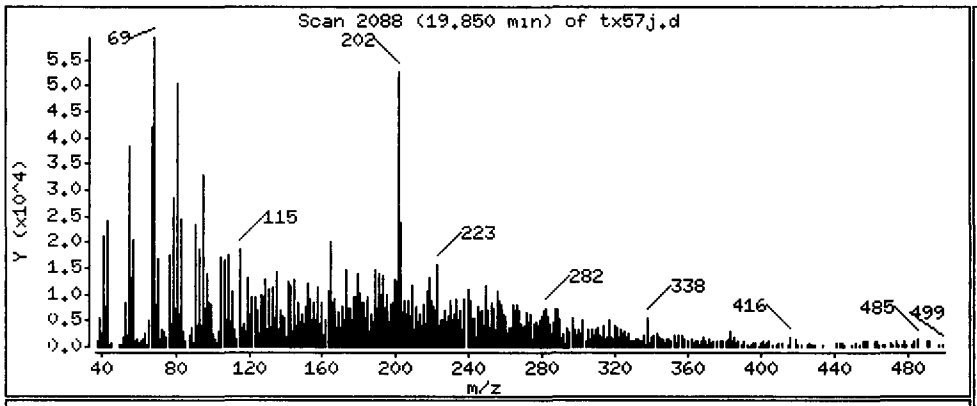
Operator: YZ

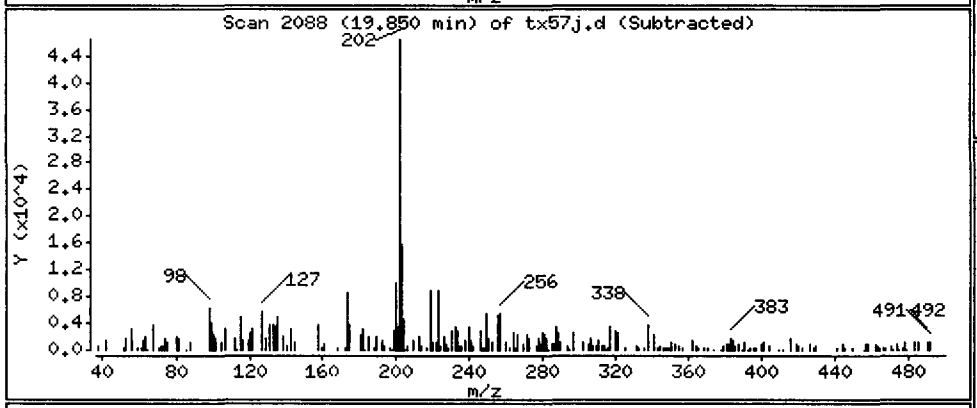
Column phase: ZB-5msi

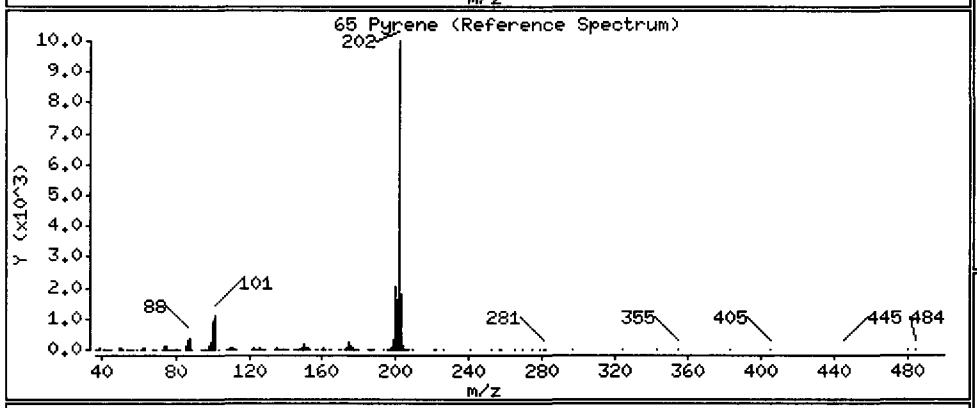
Column diameter: 0.25

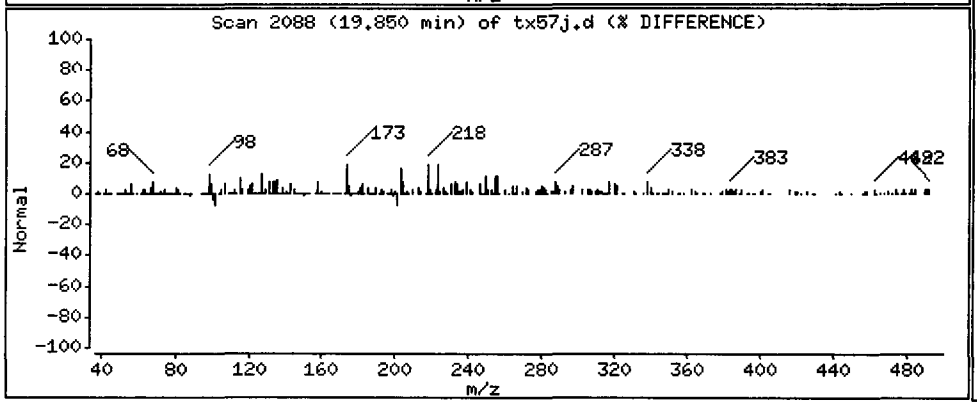
65 Pyrene

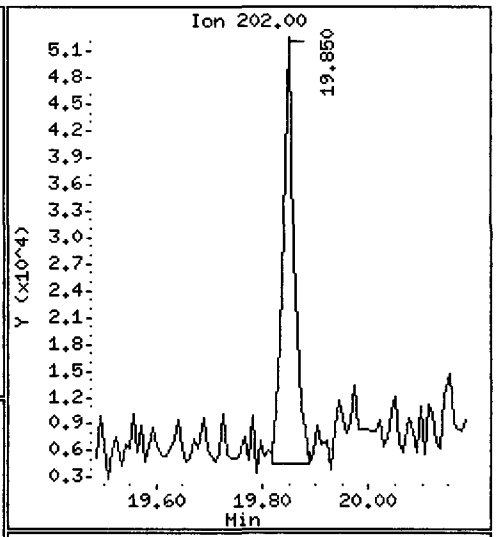
Concentration: 51.43 ug/kg

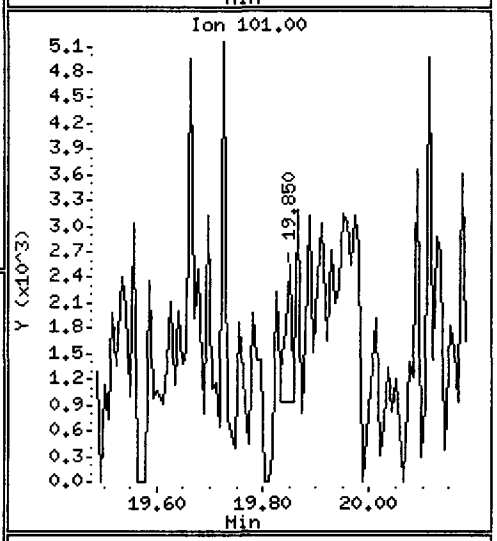


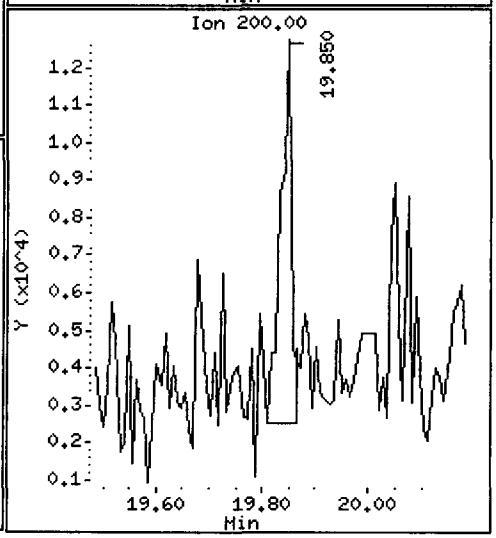












Data File: /chem1/nt10.i/20111206.b/tx57j.d

Date : 06-DEC-2011 23:06

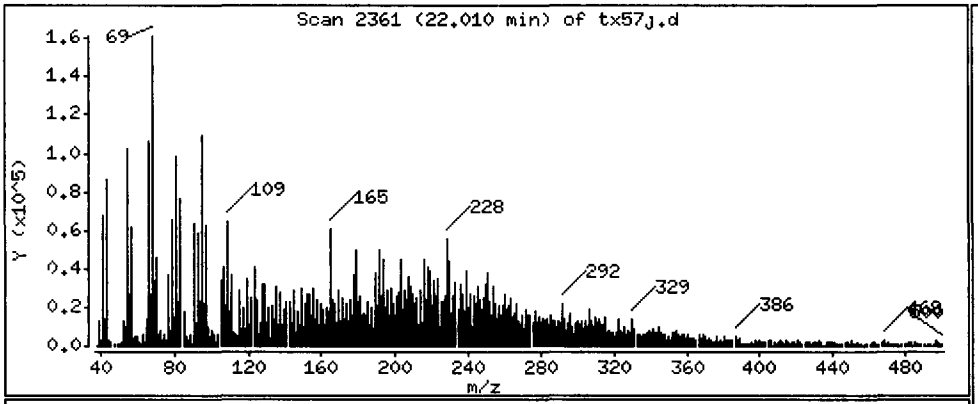
Client ID: SD0021 Instrument: nt10.i

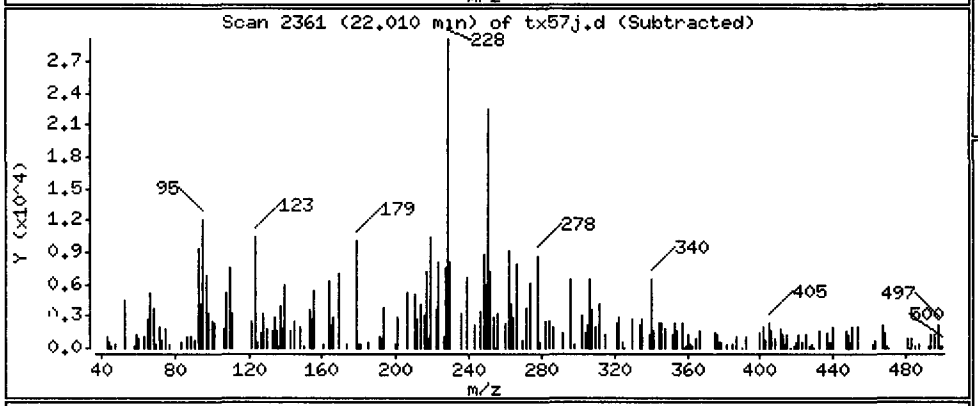
Sample Info: TX57J,3

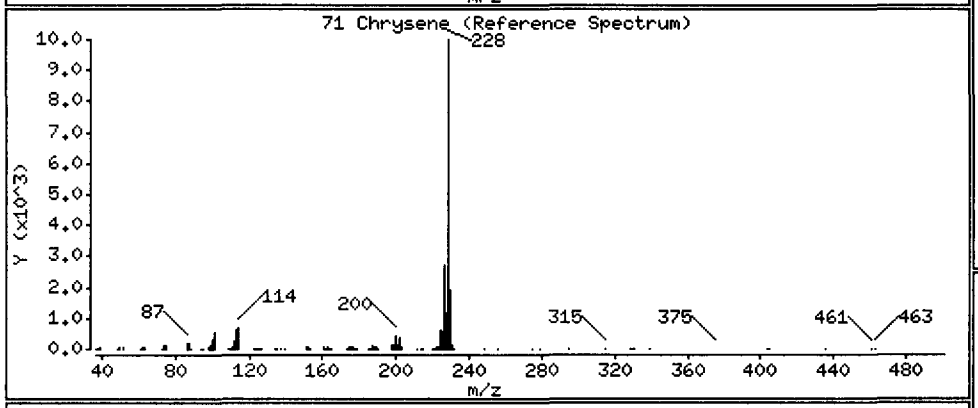
Volume Injected (uL): 1.0 Operator: YZ

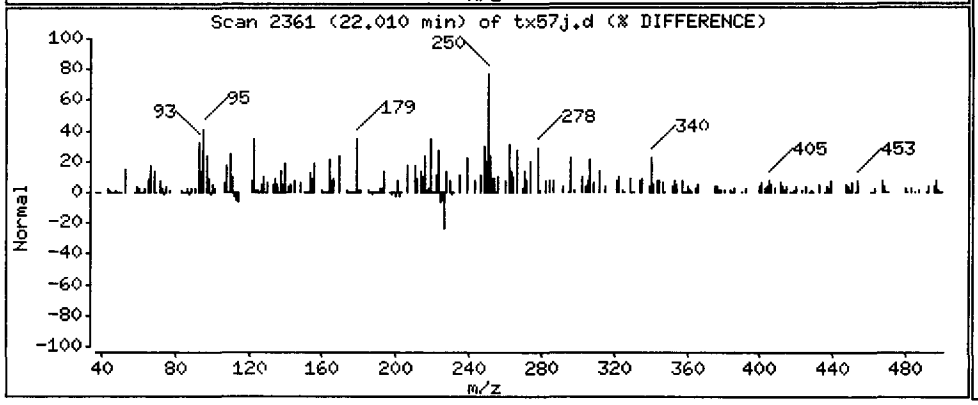
Column phase: ZB-5ms1 Column diameter: 0.25

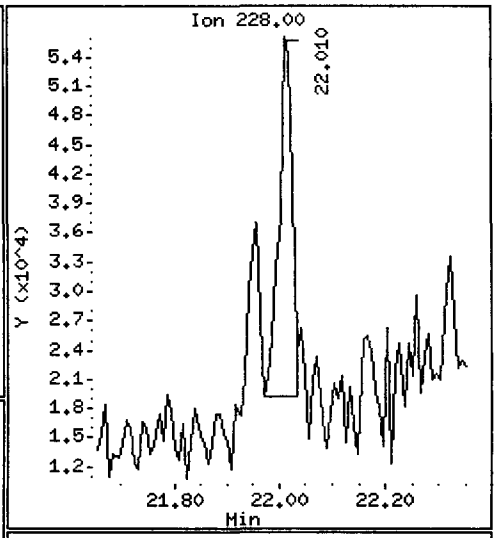
71 Chrysene Concentration: 46.06 ug/kg

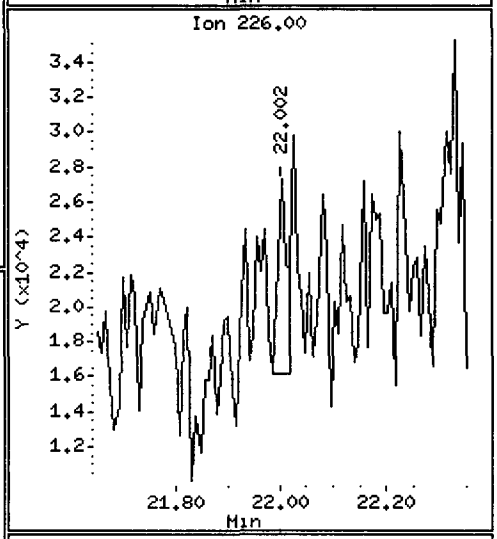


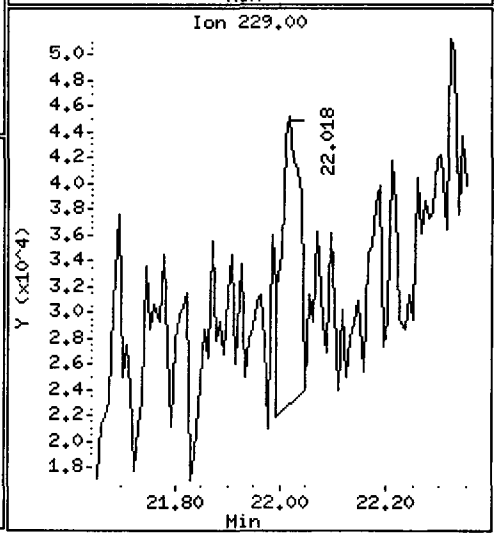












Data File: /chem1/nt10.i/20111206.b/tx57j.d

Date : 06-DEC-2011 23:06

Client ID: SD0021

Instrument: nt10.i

Sample Info: TX57J,3

Volume Injected (uL): 1.0

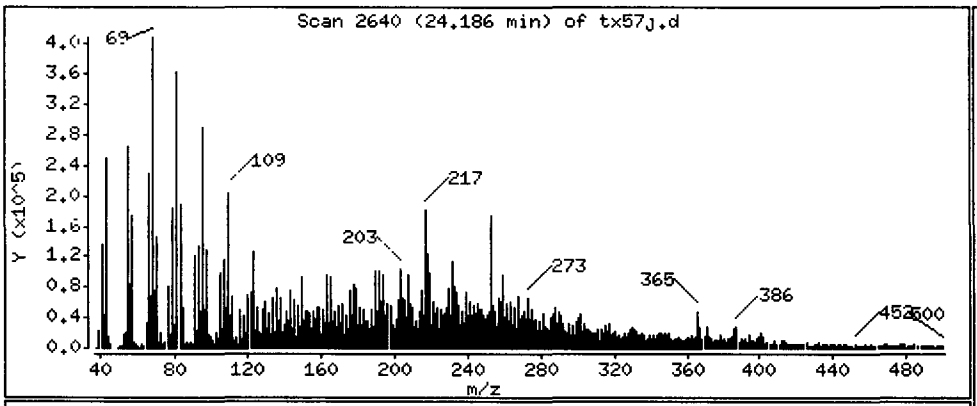
Operator: YZ

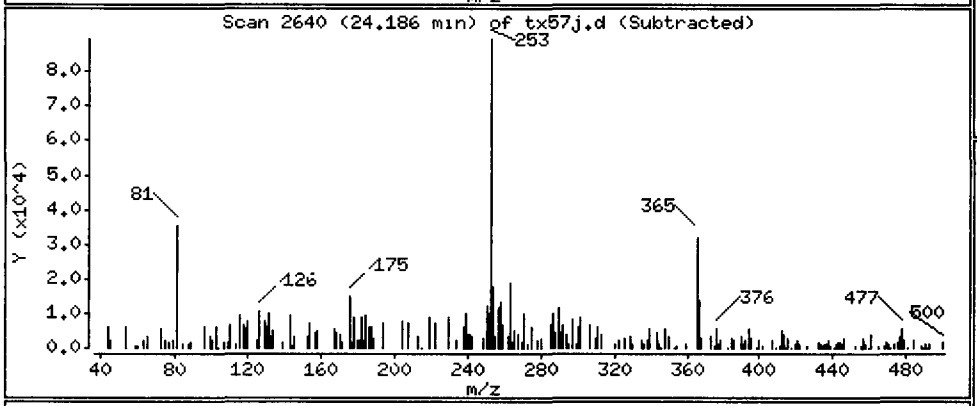
Column phase: ZB-5ms1

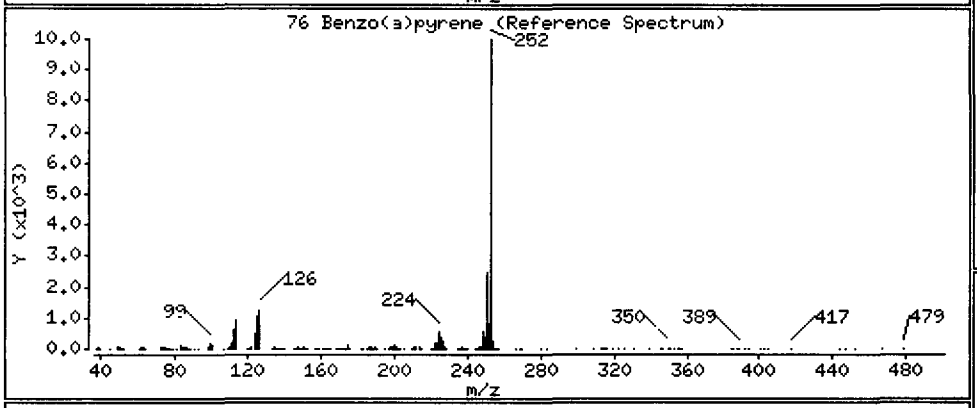
Column diameter: 0.25

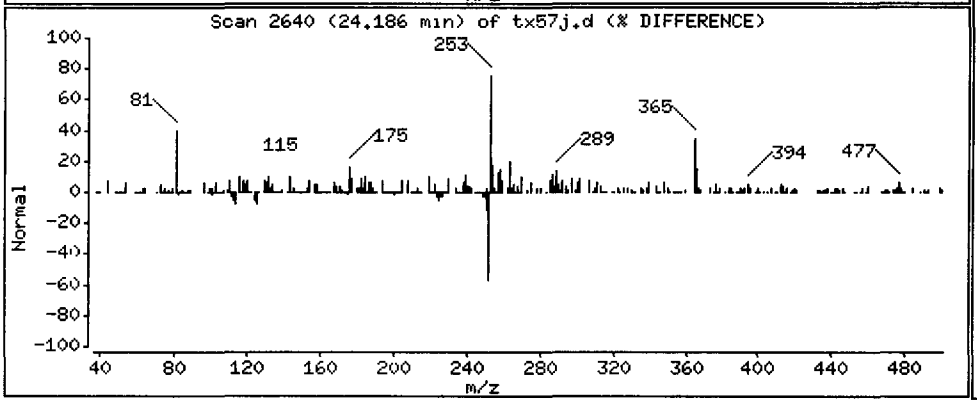
76 Benzo(a)pyrene

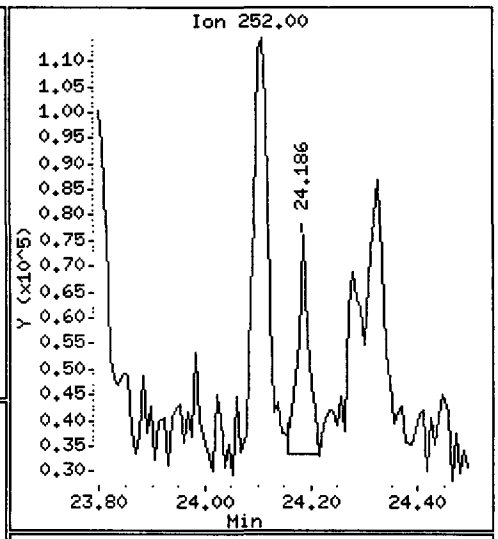
Concentration: 51.93 ug/kg

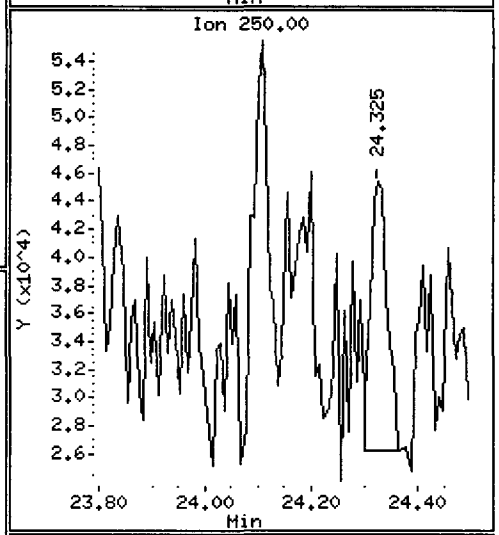


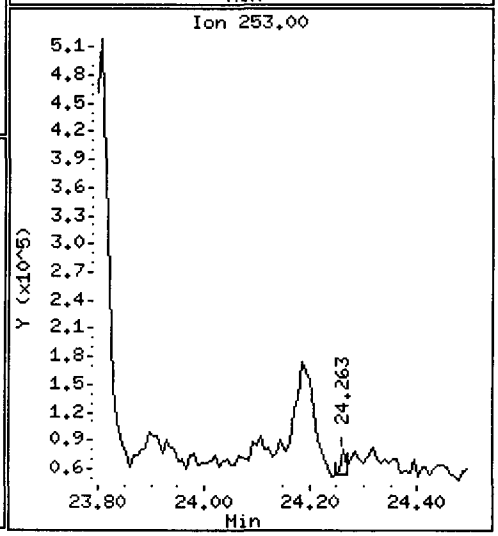












Data File: /chem1/nt10.i/20111206.b/tx57j.d

Date : 06-DEC-2011 23:06

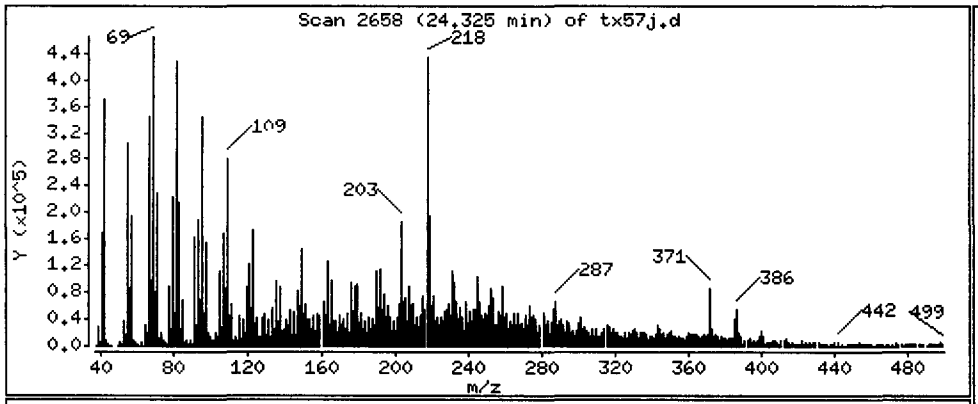
Client ID: SD0021 Instrument: nt10.i

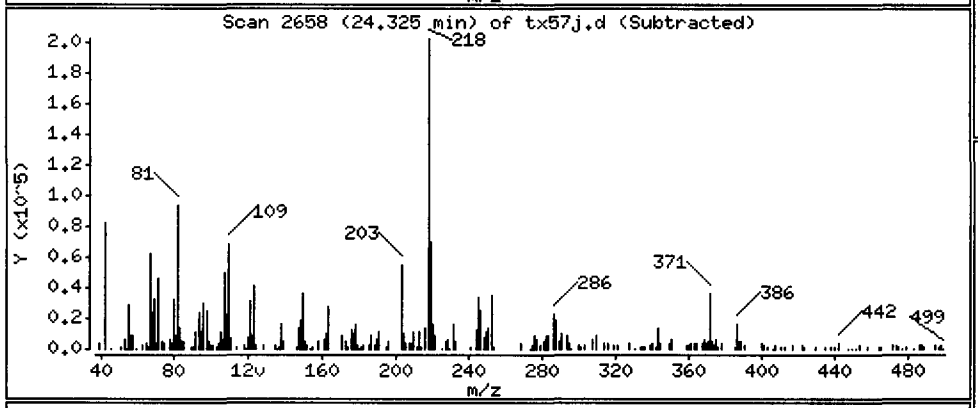
Sample Info: TX57J,3

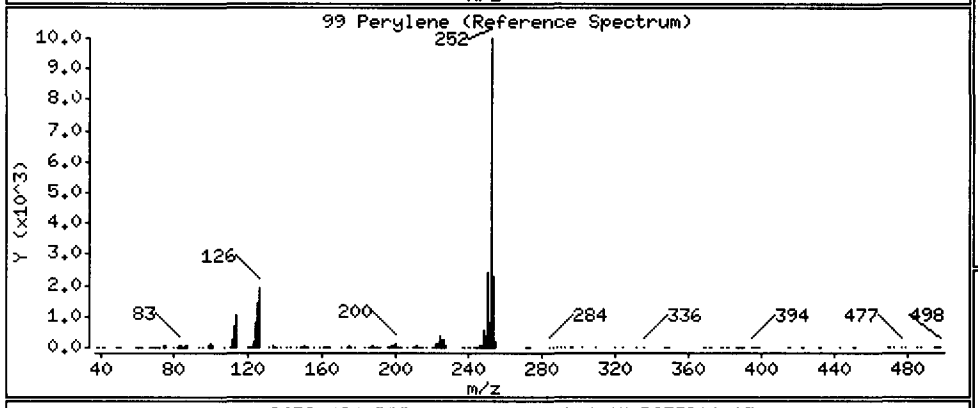
Volume Injected (uL): 1.0 Operator: YZ

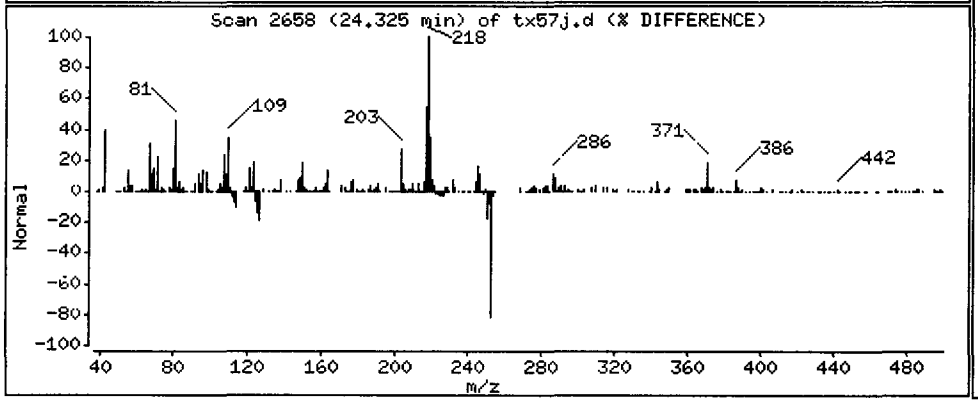
Column phase: ZB-5msi Column diameter: 0.25

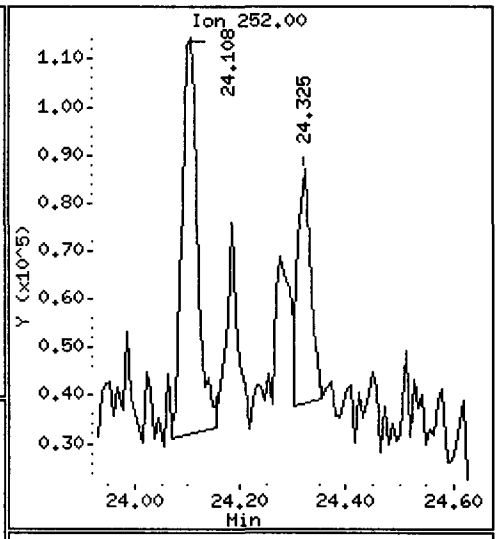
99 Perylene Concentration: 75.36 ug/kg

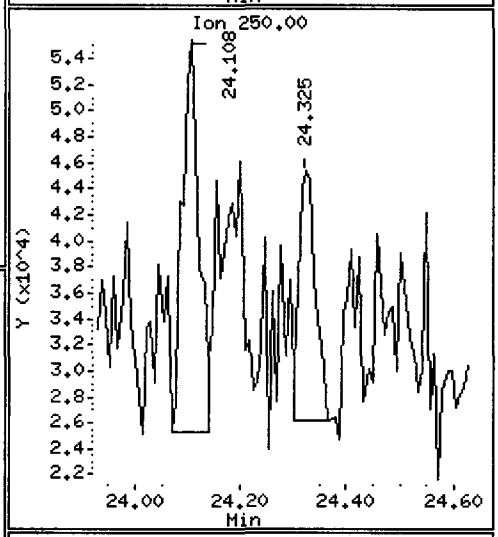


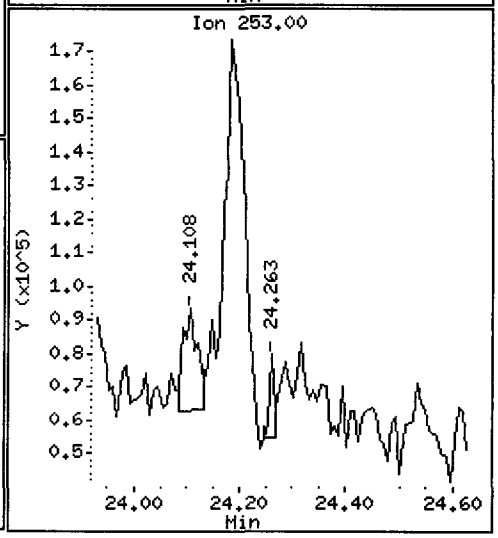






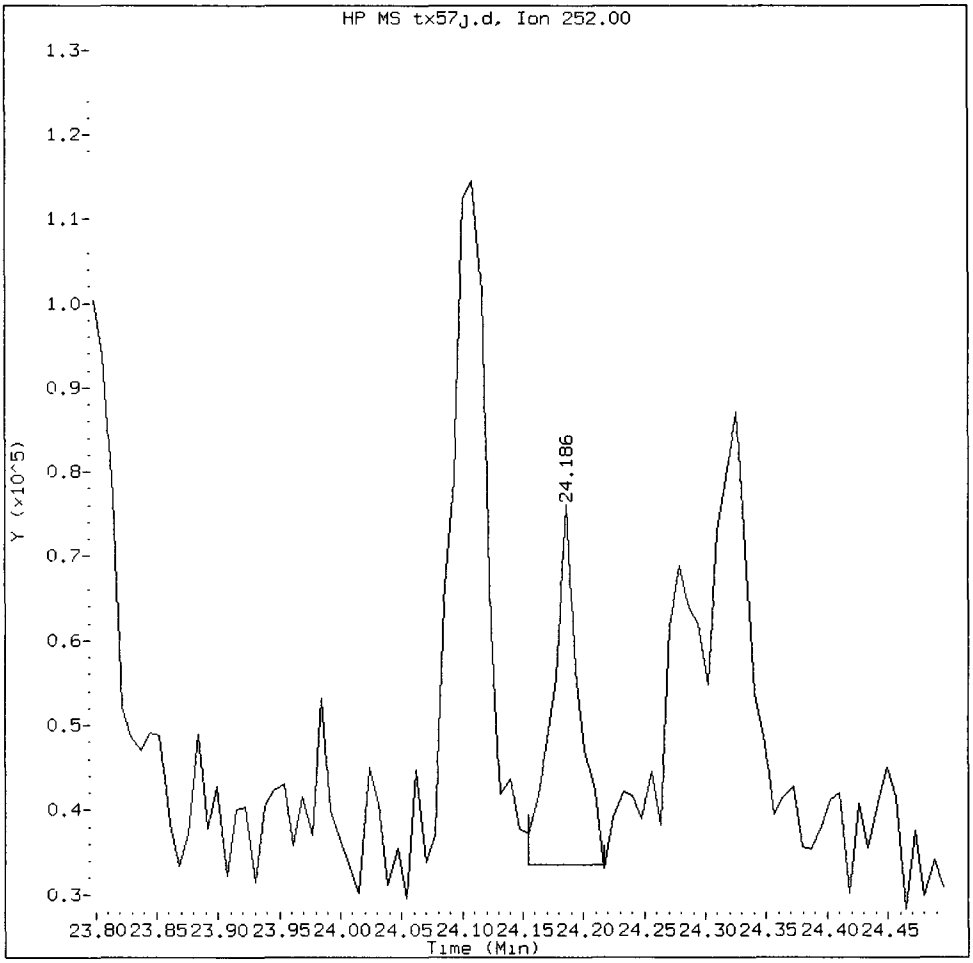






TX57J, /chem1/nt10.i/20111206.b/tx57j.d

Benzo(a)pyrene Amount: 0.18 Area: 63884



MANUAL INTEGRATION for Benzo(a)pyrene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 12/9/11

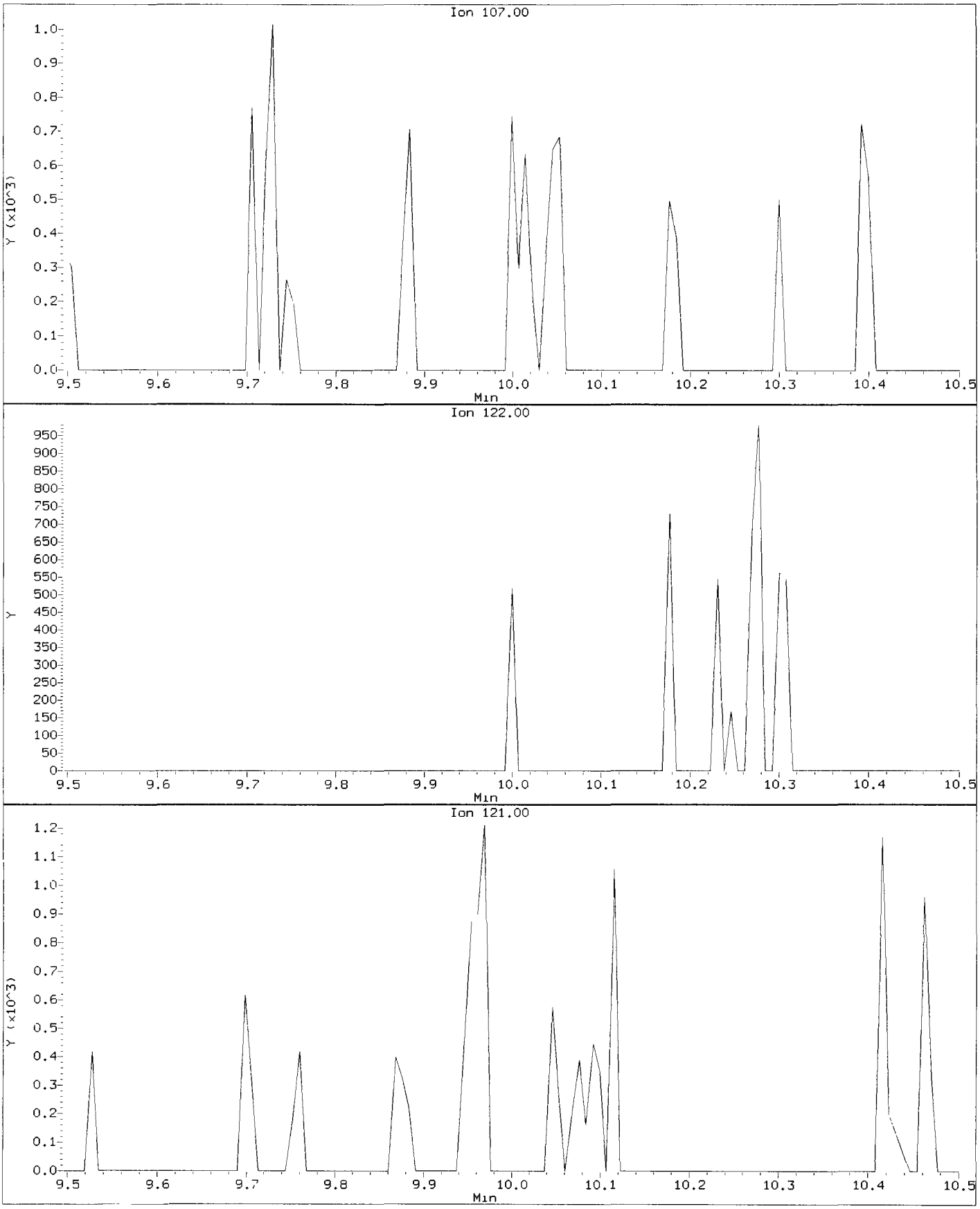
CO-ELUTION SUMMARY FOR FILE - tx57j.d

Lab ID: TX57J, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

RT	CO-ELUTION COMPOUNDS
23.682	Benzo(k)fluoranthene and Benzo(b)fluoranthene

Data File: /chem1/nt10.i/20111206.b/tx57j.d
Injection Date: 06-DEC-2011 23:06
Instrument: nt10.i
Client Sample ID: SD0021

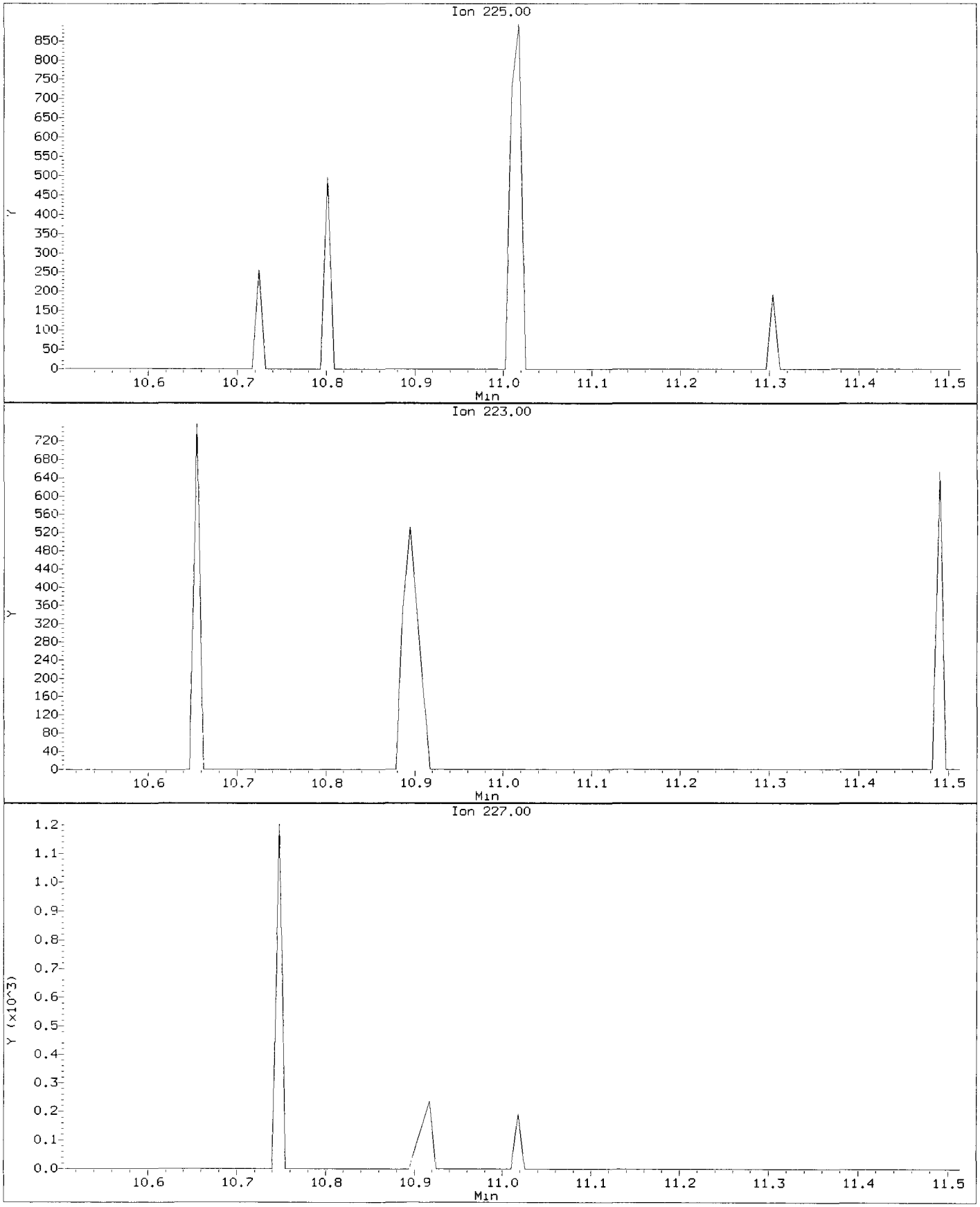
Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



TX57 00612

Data File: /chem1/nt10.i/20111206.b/tx57j.d
Injection Date: 06-DEC-2011 23:06
Instrument: nt10.i
Client Sample ID: SD0021

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

YZ 12/9/11

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111206.b/tx57k.d
Lab Smp Id: TX57K Client Smp ID: SD0022
Inj Date : 06-DEC-2011 23:40
Operator : YZ Inst ID: nt10.i
Smp Info : TX57K
Misc Info : 11-26629
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 07-Dec-2011 08:43 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	12.40000	Weight of sample extracted (g)
M	12.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.067	6.043	(0.742)	182856	3.92677	360.3
$ 2	Phenol-d5	99	7.628	7.612	(0.933)	276417	4.62202	424.1
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.836	7.828	(0.958)	232784	4.30127	394.6
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.177	8.177	(1.000)	190439	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.526	8.518	(1.043)	133476	2.84233	260.8
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.256	9.248	(0.873)	213531	2.95067	270.7
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.601	10.600	(1.000)	680811	4.00000	
	28 Naphthalene	128	10.639	10.639	(1.004)	20805	0.12622 J	11.58
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.798	12.782	(0.905)	581489	3.07266	281.9
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	13.835	13.819	(0.978)	60579	0.27546	25.27
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.144	14.129	(1.000)	523448	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.134	15.134	(1.070)	22290	0.12377 J	11.36
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.759	15.751	(1.114)	194888	4.22629	387.7
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.119	17.111	(1.000)	1061162	4.00000	
	60 Phenanthrene	178	17.165	17.157	(1.003)	197100	0.72155	66.20
	61 Anthracene	178	17.250	17.242	(1.008)	52377	0.19034 J	17.46
	62 Carbazole	167	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	19.440	19.432	(1.136)	384613	1.02177	93.74
65	Pyrene	202	19.842	19.834	(0.903)	430988	1.16024	106.4
$ 66	Terphenyl-d14	244	20.160	20.152	(0.918)	966670	3.15758	289.7
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	21.948	21.932	(0.999)	220244	0.52685	48.34
* 69	Chrysene-d12	240	21.971	21.956	(1.000)	1536014	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.010	22.002	(1.002)	251504	0.66709	61.20
72	bis(2-Ethylhexyl)phthalate	149	22.103	22.095	(0.959)	33959	0.18775	17.23
* 134	Di-n-octylphthalate-d4	153	23.055	23.047	(1.000)	1271804	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	23.667	23.651	(0.976)	259869	0.60649	55.64
75	Benzo(k)fluoranthene	252	23.690	23.690	(0.977)	258593	0.58233	53.43
76	Benzo(a)pyrene	252	24.162	24.147	(0.996)	303952	0.86394	79.26
* 77	Perylene-d12	264	24.255	24.232	(1.000)	1406700	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.255	26.216	(1.082)	177543	0.37031	33.98
79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276	26.829	26.798	(1.106)	184274	0.45678	41.91
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	23.690	23.690	(0.977)	469414	1.13716	104.3
99	Perylene	252	24.286	24.278	(1.001)	103069	0.29680	27.23

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57k.d
Lab Smp Id: TX57K
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26629

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: SD0022
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	190439	10.17
27 Naphthalene-d8	574010	287005	1148020	680811	18.61
42 Acenaphthene-d10	467963	233982	935926	523448	11.86
59 Phenanthrene-d10	976150	488075	1952300	1061162	8.71
69 Chrysene-d12	1397129	698564	2794258	1536014	9.94
134 Di-n-octylphthala	1264537	632268	2529074	1271804	0.57
77 Perylene-d12	1407308	703654	2814616	1406700	-0.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.60	0.00
42 Acenaphthene-d10	14.13	13.63	14.63	14.14	0.11
59 Phenanthrene-d10	17.11	16.61	17.61	17.12	0.05
69 Chrysene-d12	21.96	21.46	22.46	21.97	0.07
134 Di-n-octylphthala	23.05	22.55	23.55	23.06	0.03
77 Perylene-d12	24.23	23.73	24.73	24.26	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

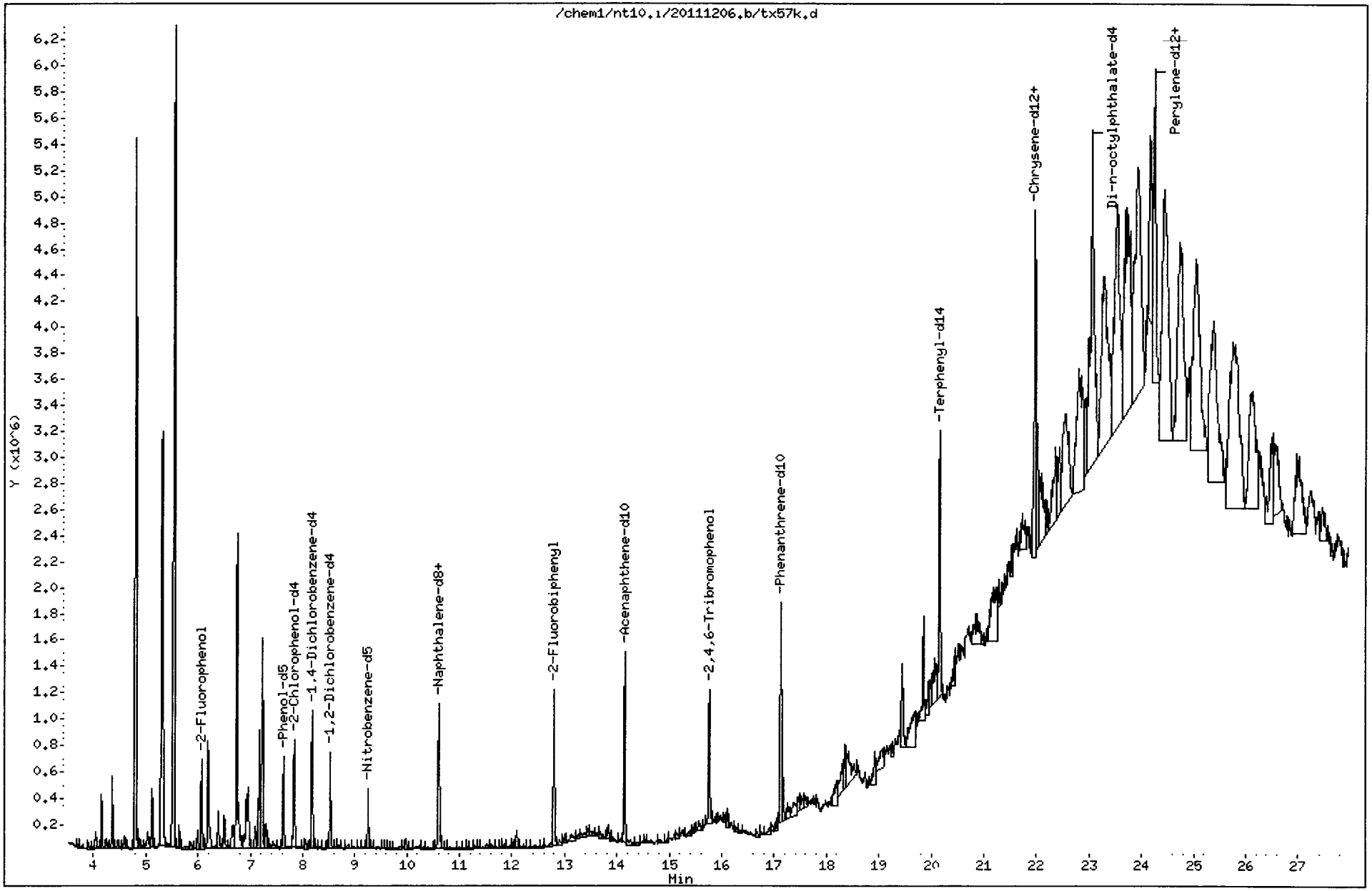
Client Name: INTEGRAL
Sample Matrix: SOLID
Lab Smp Id: TX57K
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26629

Client SDG: TX57
Fraction: SV
Client Smp ID: SD0022
Operator: YZ
SampleType: SAMPLE
Quant Type: ISTD

	SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	688.1	360.3	52.36	30-160
$ 2	Phenol-d5	688.1	424.1	61.63	30-160
$ 5	2-Chlorophenol-d4	688.1	394.6	57.35	30-160
$ 10	1,2-Dichlorobenzen	458.7	260.8	56.85	30-160
$ 18	Nitrobenzene-d5	458.7	270.7	59.01	30-160
$ 36	2-Fluorobiphenyl	458.7	281.9	61.45	30-160
$ 55	2,4,6-Tribromophen	688.1	387.7	56.35	30-160
$ 66	Terphenyl-d14	458.7	289.7	63.15	30-160

Data File: /chem1/nt10.i/20111206.b/tx57k.d
Date : 06-DEC-2011 23:40
Client ID: SD0022
Sample Info: TX57K
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



TX57 00818

Data File: /chem1/nt10.i/20111206.b/tx57k.d

Date : 06-DEC-2011 23:40

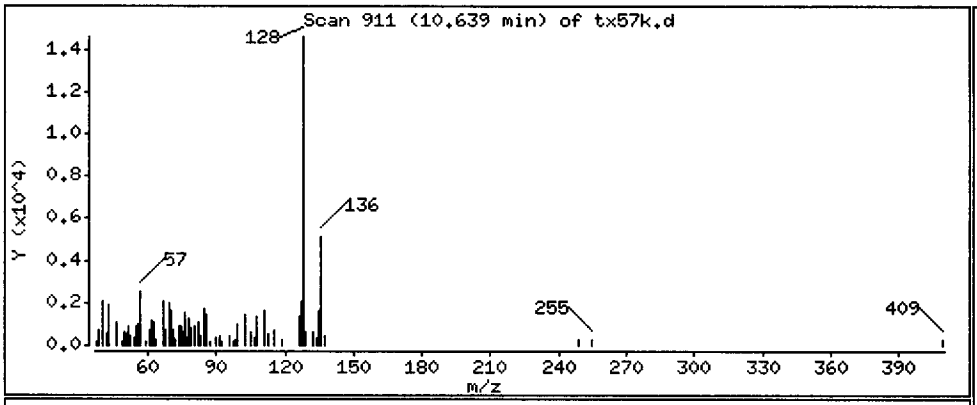
Client ID: SD0022 Instrument: nt10.i

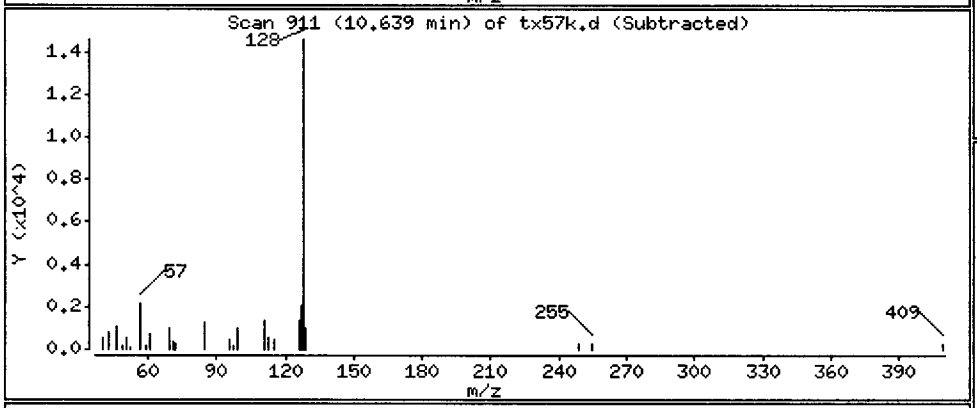
Sample Info: TX57K

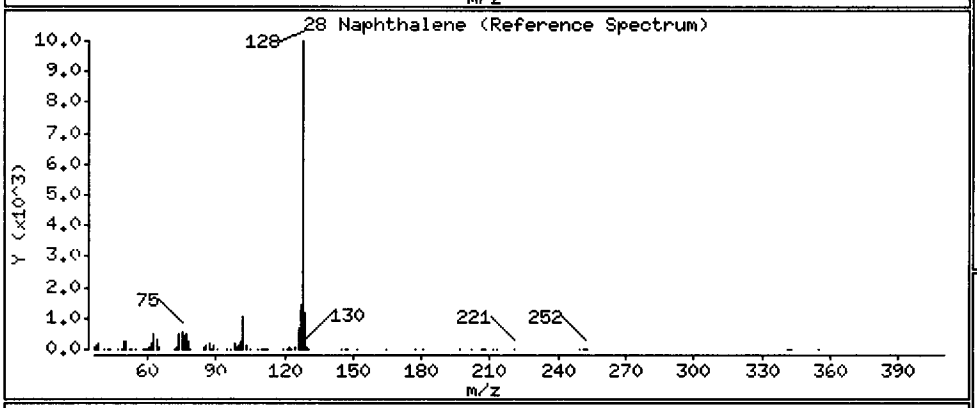
Volume Injected (uL): 1.0 Operator: YZ

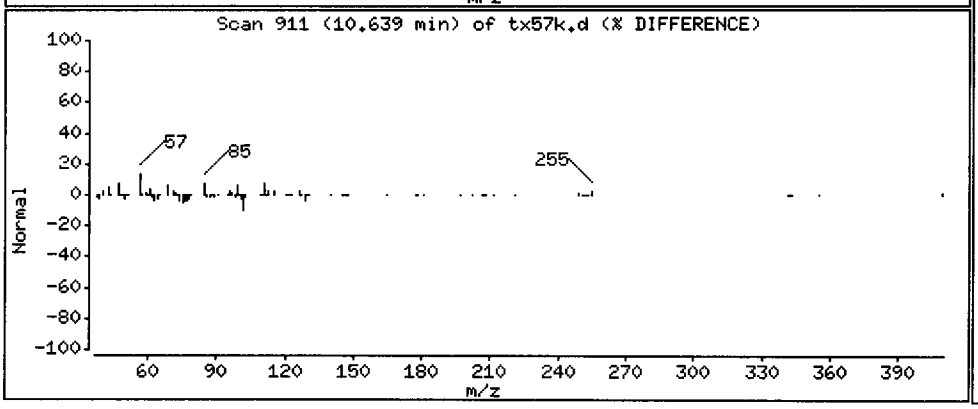
Column phase: ZB-5ms1 Column diameter: 0.25

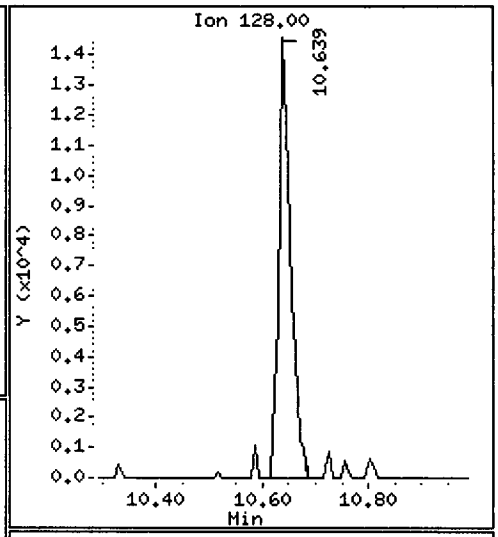
28 Naphthalene Concentration: 11.58 ug/kg

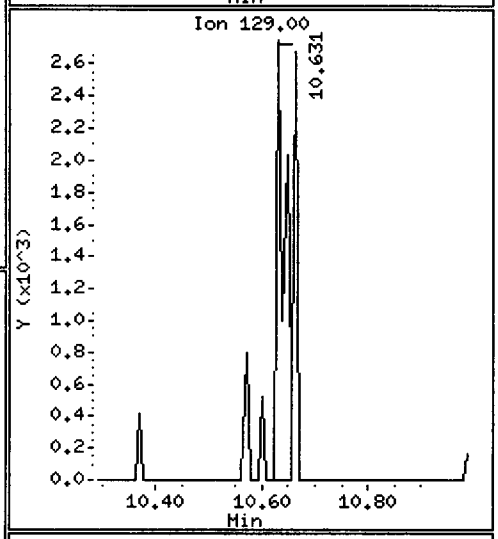


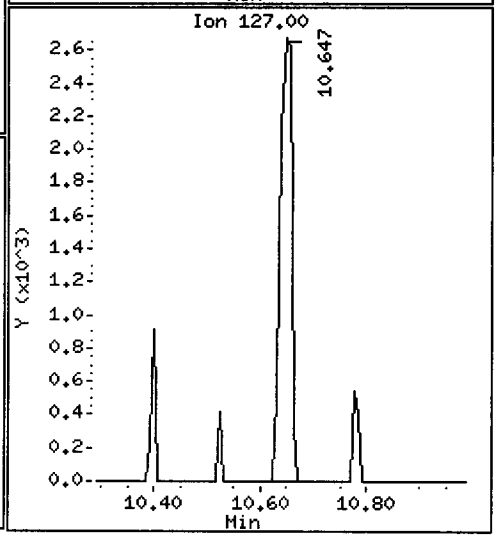












Data File: /chem1/nt10.i/20111206.b/tx57k.d

Date : 06-DEC-2011 23:40

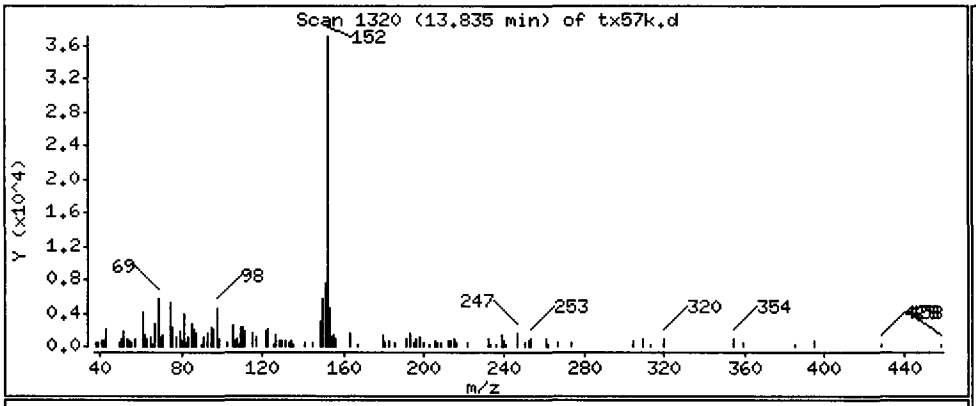
Client ID: SD0022 Instrument: nt10.i

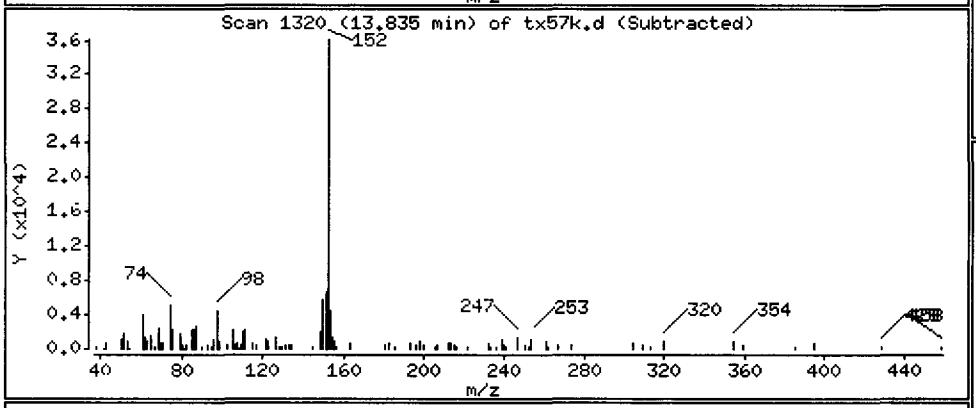
Sample Info: TX57K

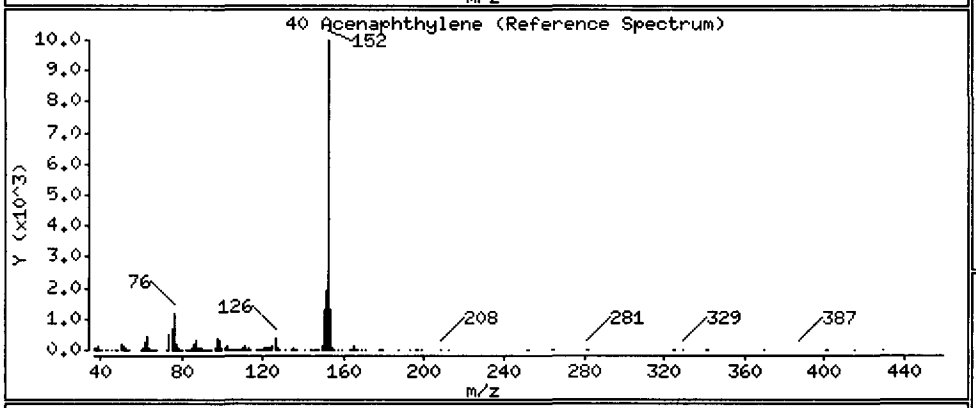
Volume Injected (uL): 1.0 Operator: YZ

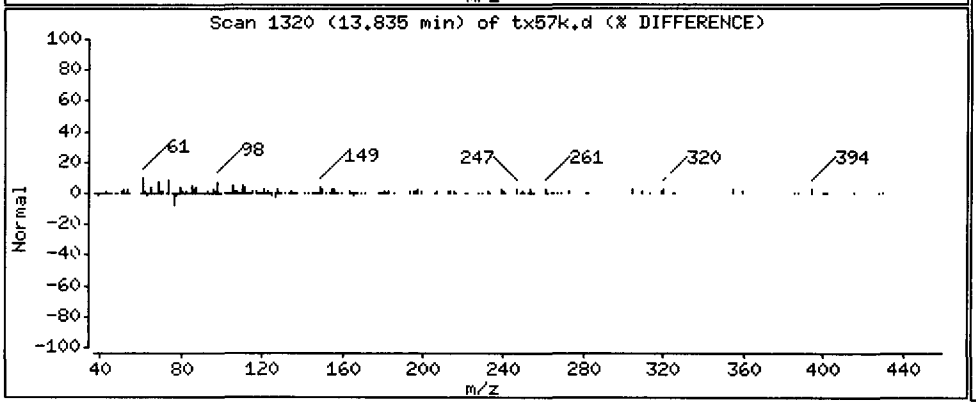
Column phase: ZB-5msi Column diameter: 0.25

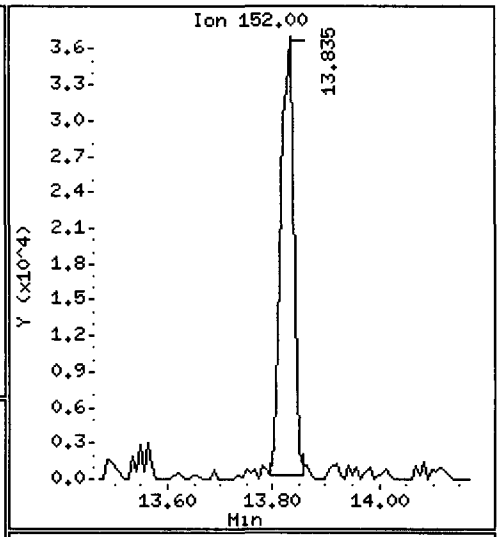
40 Acenaphthylene Concentration: 25.27 ug/kg

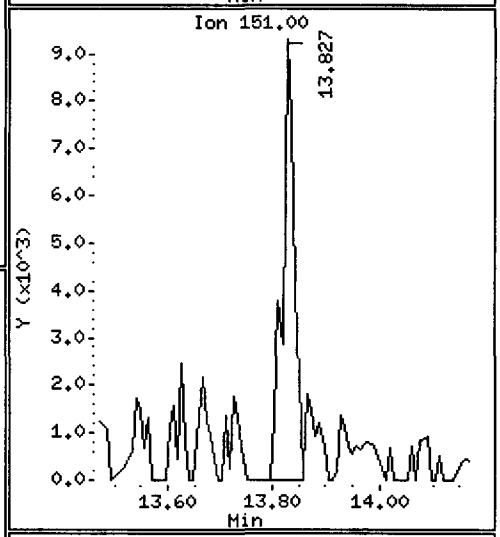


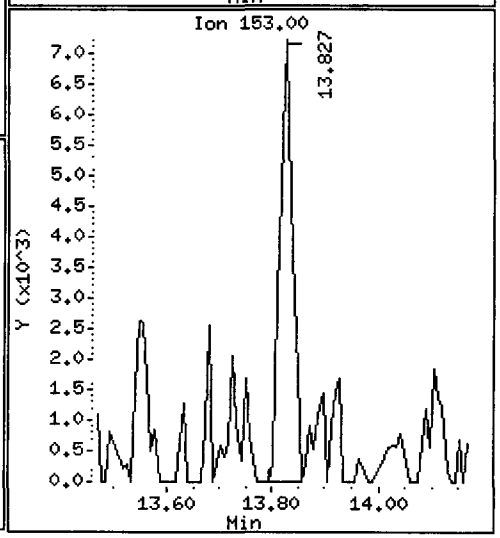












Data File: /chem1/nt10.i/20111206.b/tx57k.d

Date : 06-DEC-2011 23:40

Client ID: SD0022

Instrument: nt10.i

Sample Info: TX57k

Volume Injected (uL): 1.0

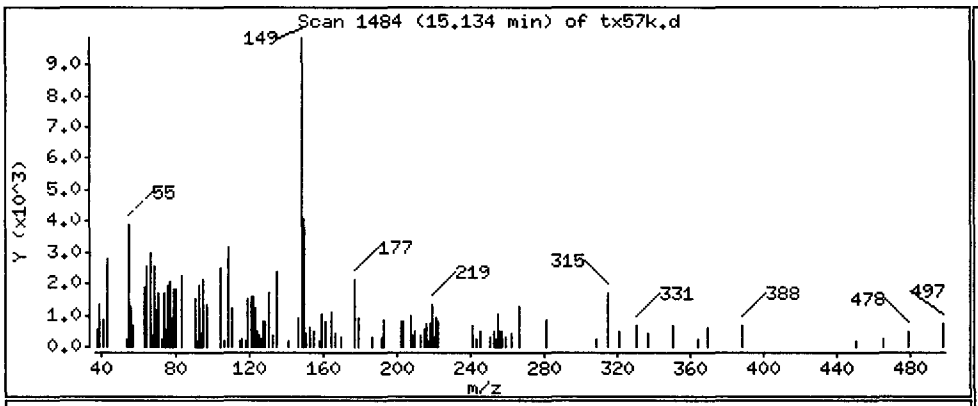
Operator: YZ

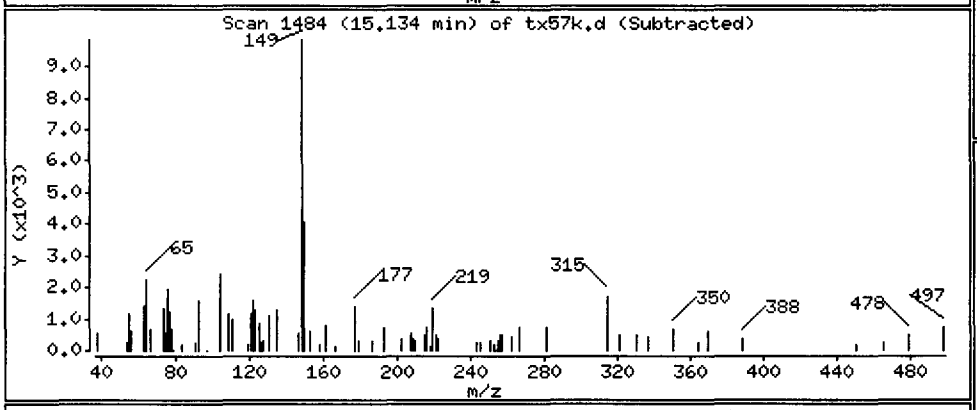
Column phase: ZB-5msi

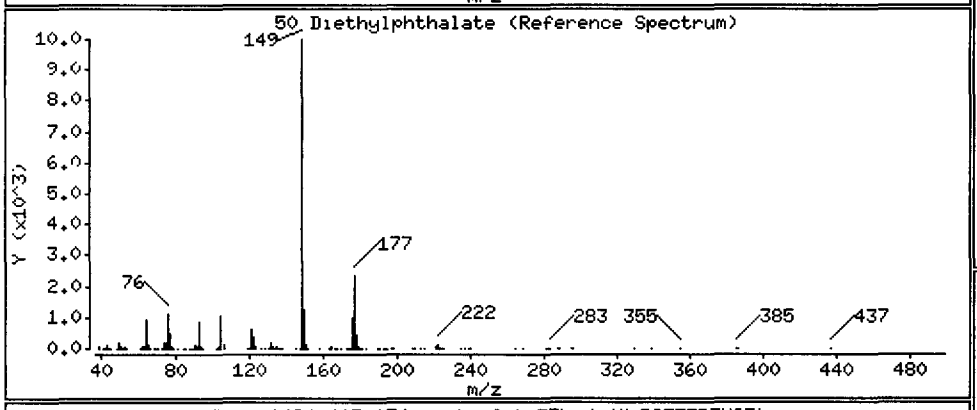
Column diameter: 0.25

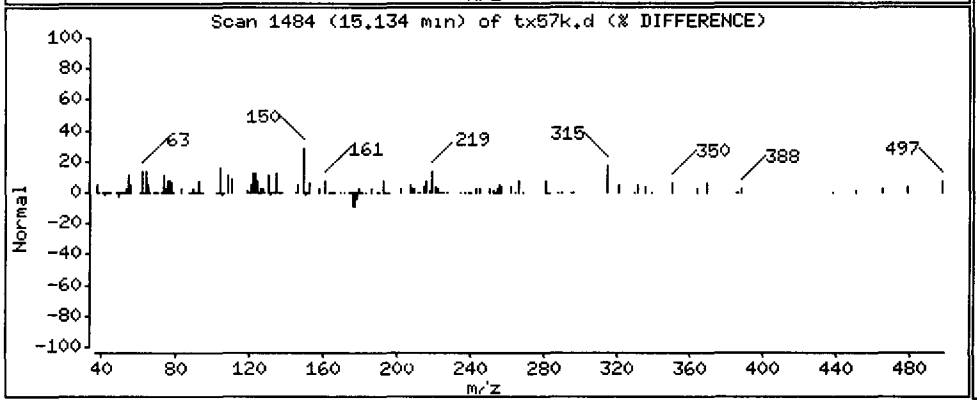
50 Diethylphthalate

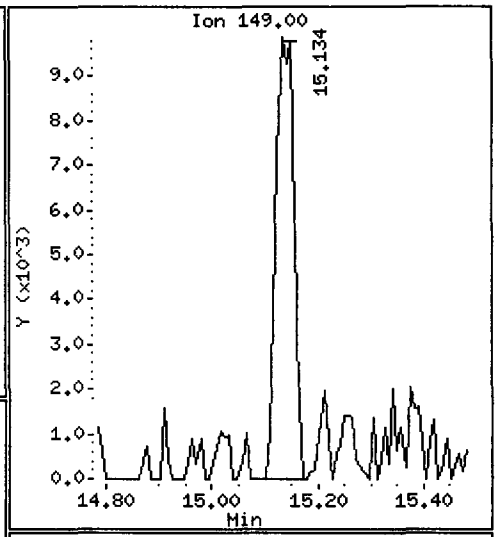
Concentration: 11.36 ug/kg

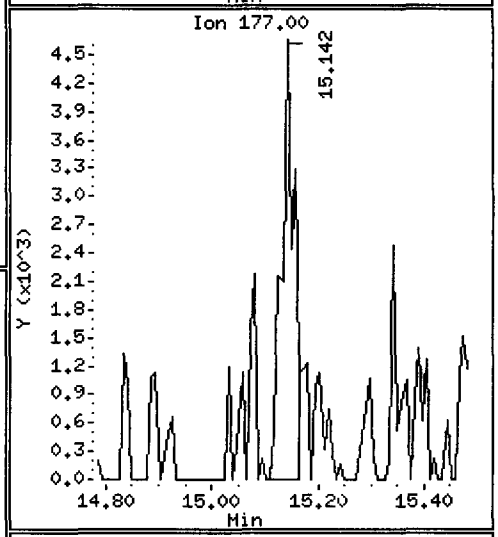


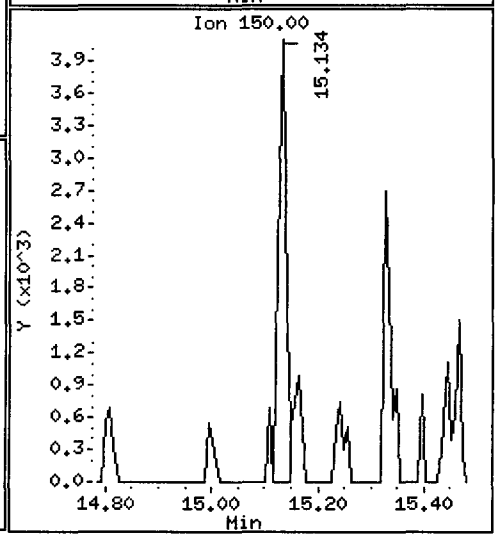












Data File: /chem1/nt10.i/20111206.b/tx57k.d

Date : 06-DEC-2011 23:40

Client ID: SD0022

Instrument: nt10.i

Sample Info: TX57K

Volume Injected (uL): 1.0

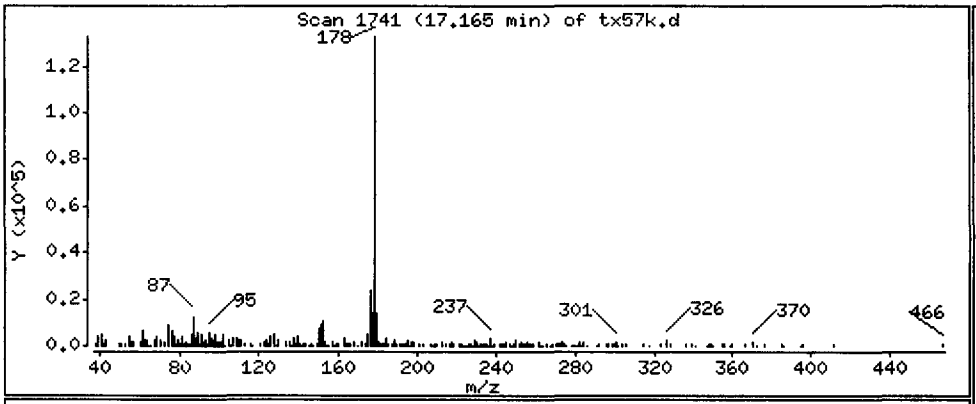
Operator: YZ

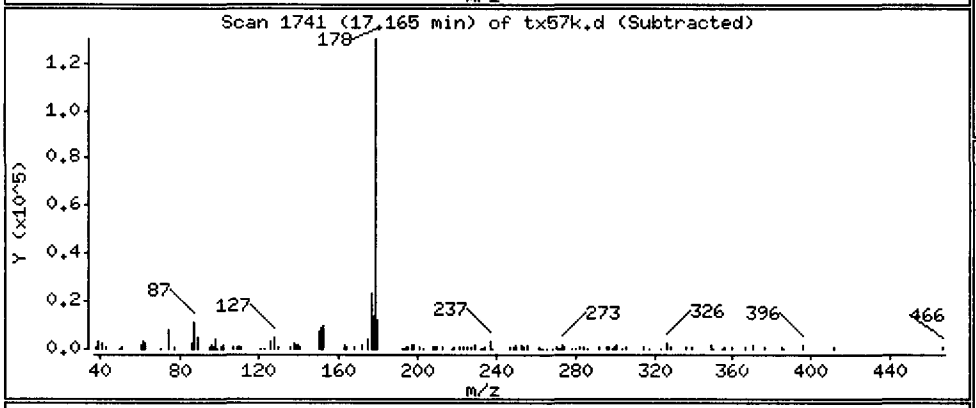
Column phase: ZB-5ms1

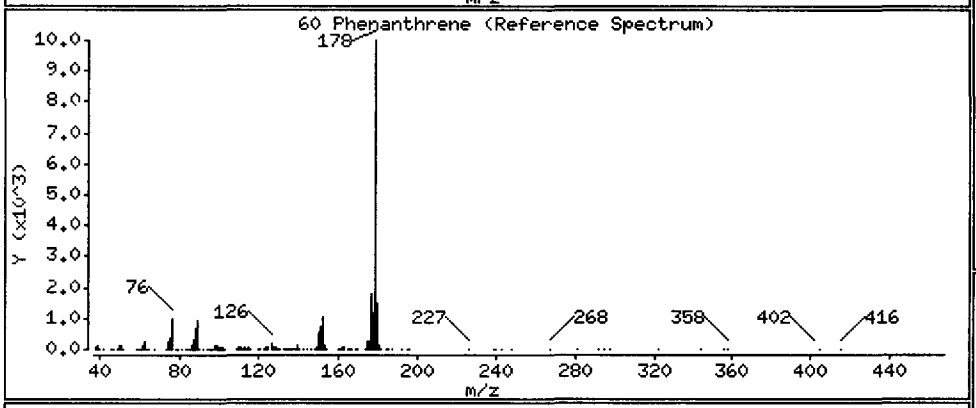
Column diameter: 0.25

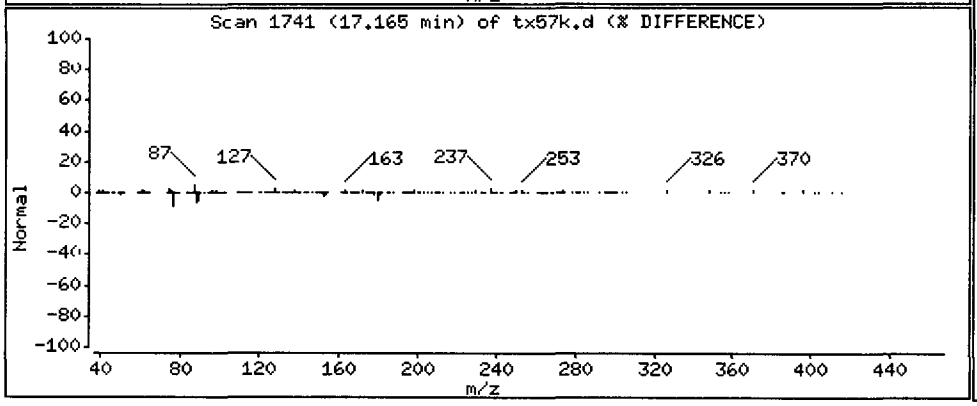
60 Phenanthrene

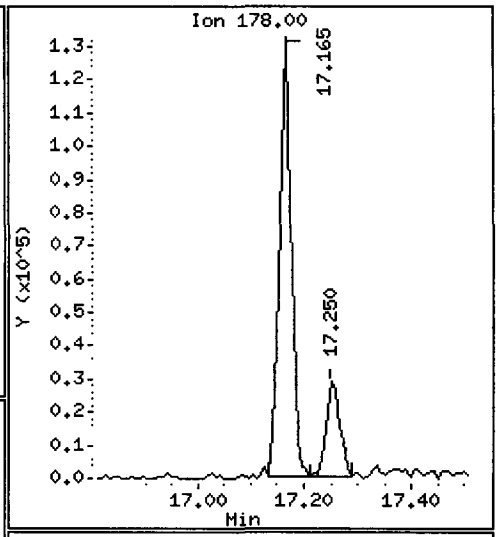
Concentration: 66.20 ug/kg

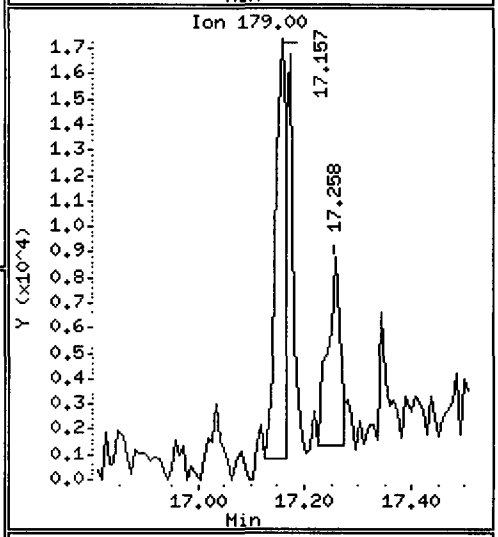


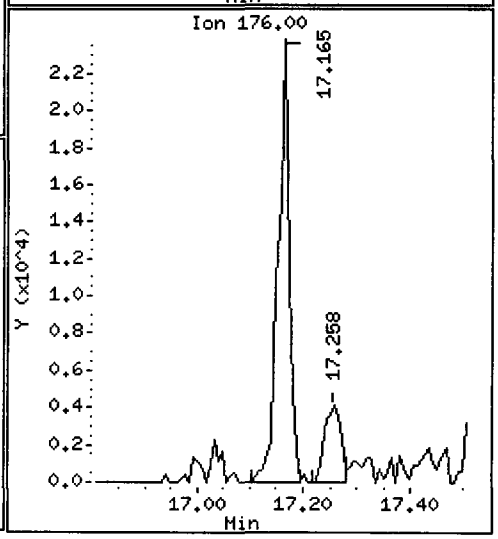












Data File: /chem1/nt10.i/20111206.b/tx57k.d

Date : 06-DEC-2011 23:40

Client ID: SD0022

Instrument: nt10.i

Sample Info: TX57K

Volume Injected (uL): 1.0

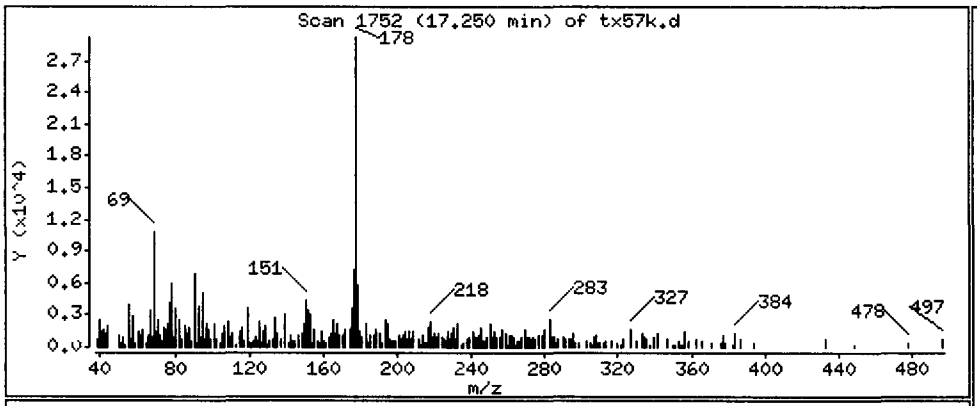
Operator: YZ

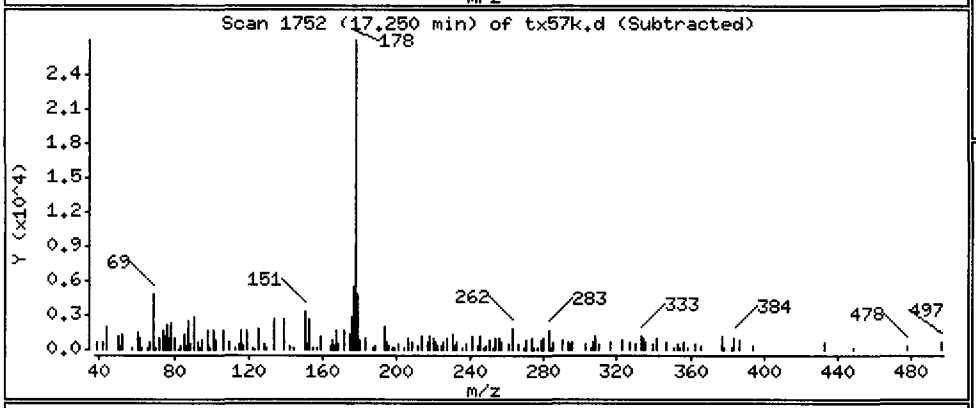
Column phase: ZB-5ms1

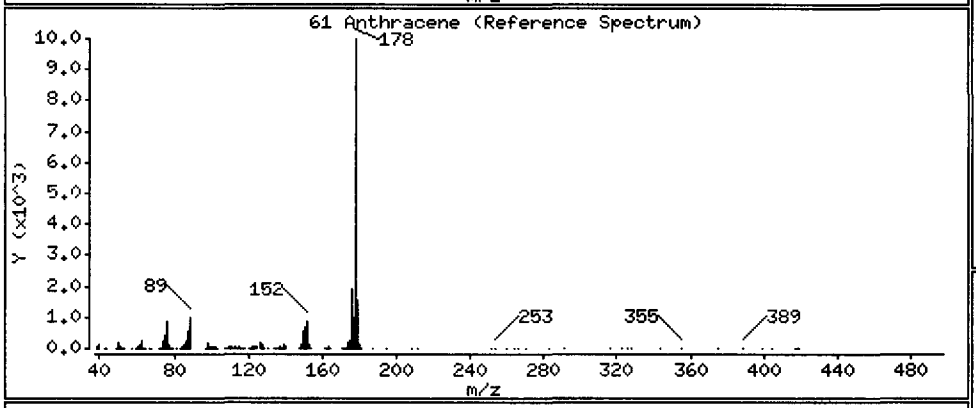
Column diameter: 0.25

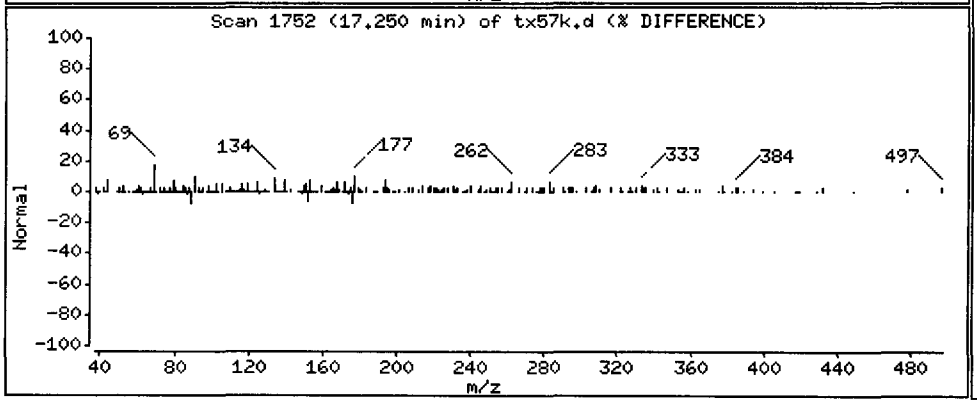
61 Anthracene

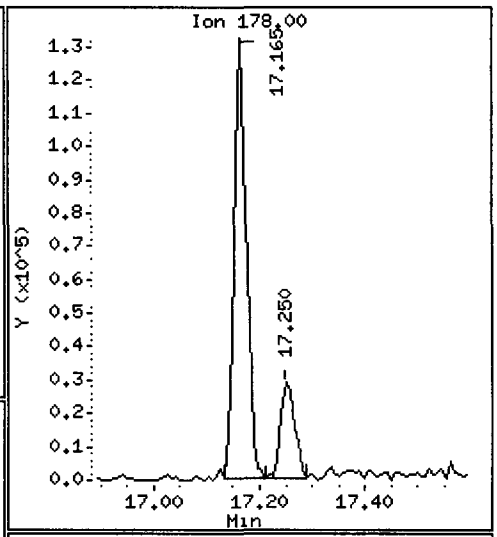
Concentration: 17.46 ug/kg

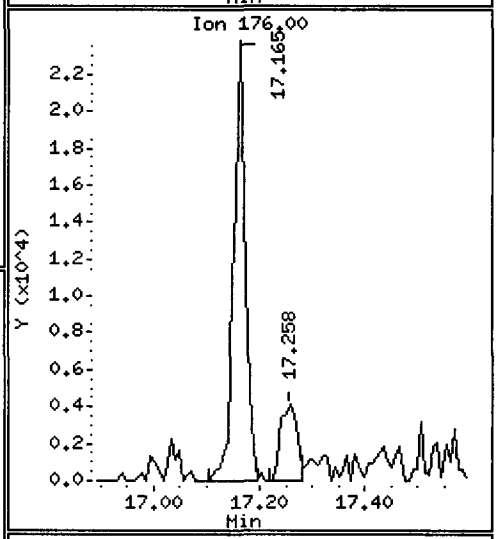


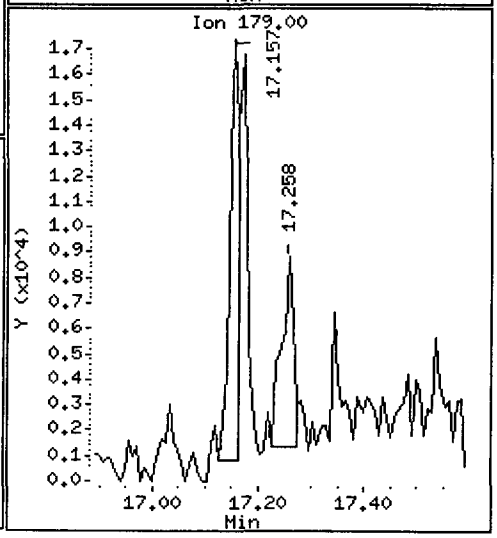












Data File: /chem1/nt10.i/20111206.b/tx57k.d

Date : 06-DEC-2011 23:40

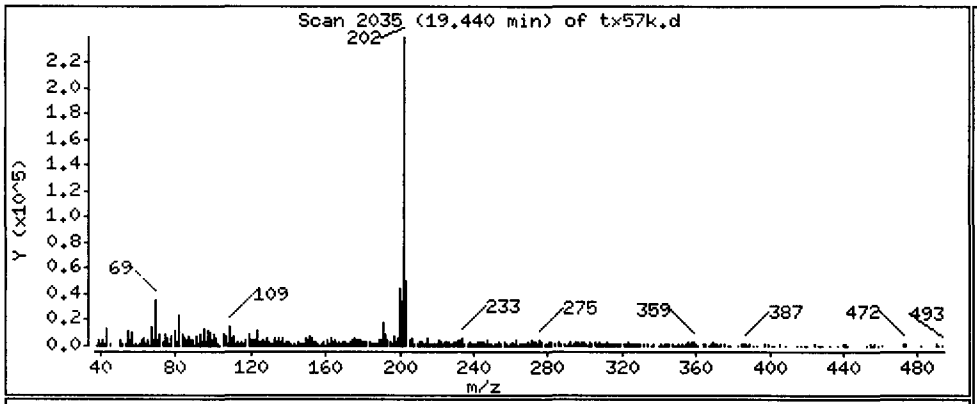
Client ID: SD0022 Instrument: nt10.i

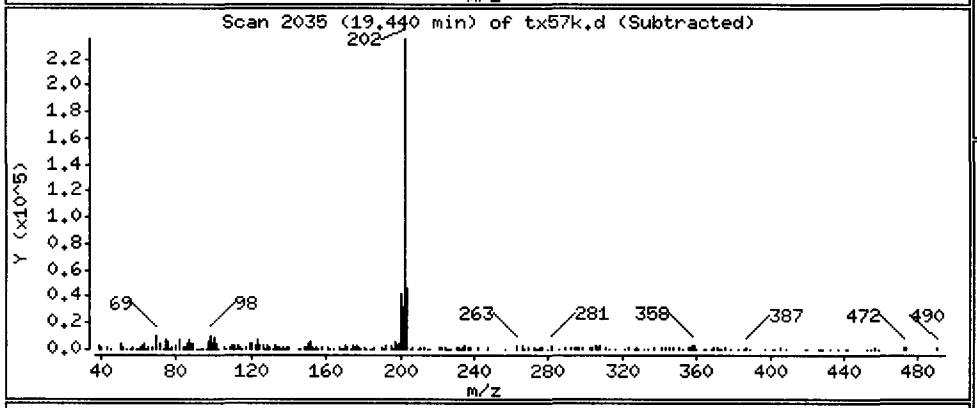
Sample Info: TX57K

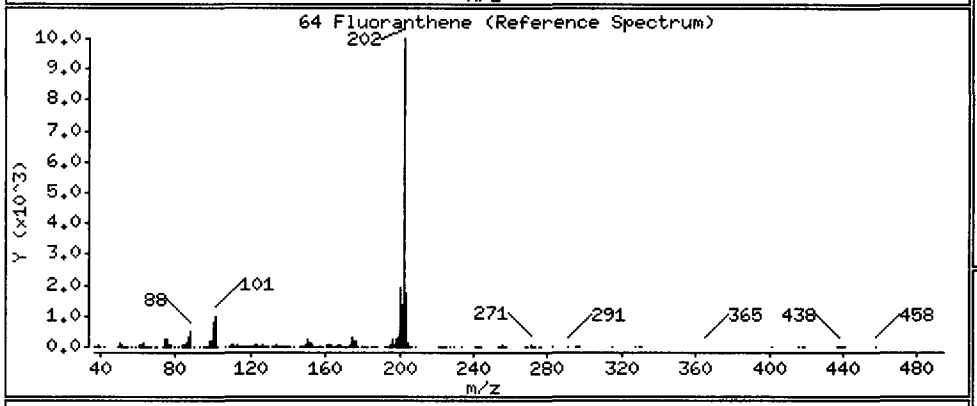
Volume Injected (uL): 1.0 Operator: YZ

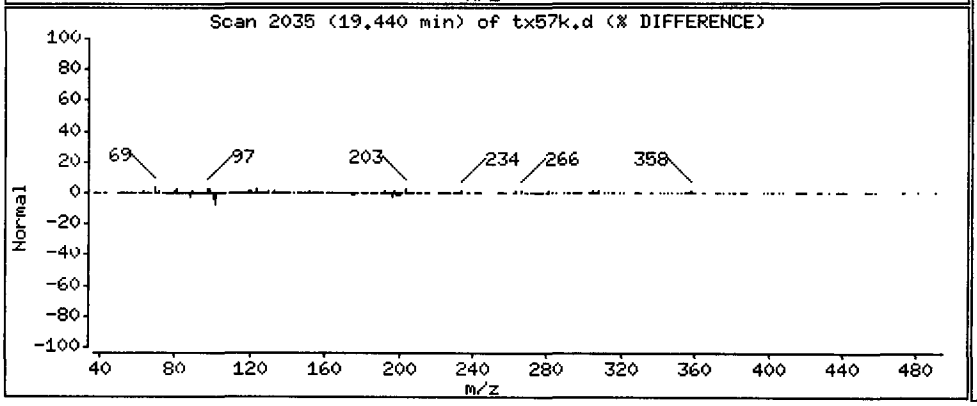
Column phase: ZB-5msi Column diameter: 0.25

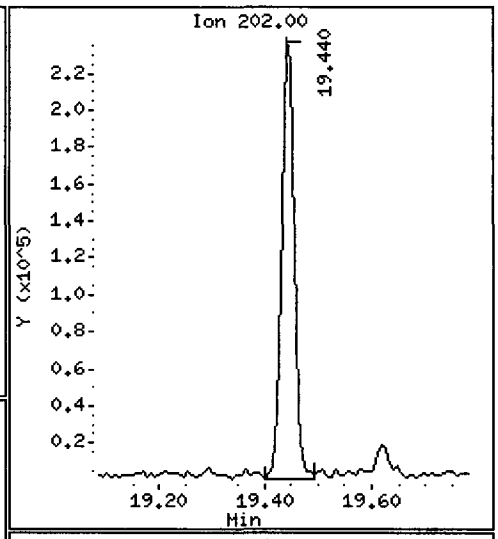
64 Fluoranthene Concentration: 93.74 ug/kg

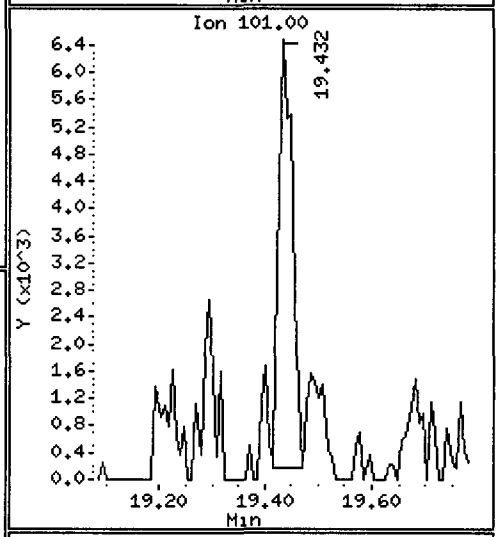


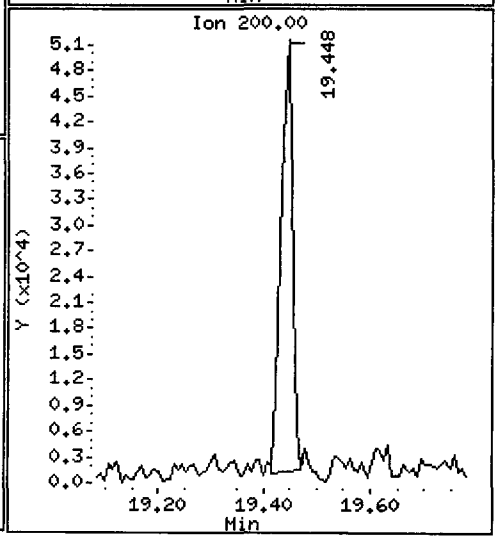












Data File: /chem1/nt10.i/20111206.b/tx57k.d

Date : 06-DEC-2011 23:40

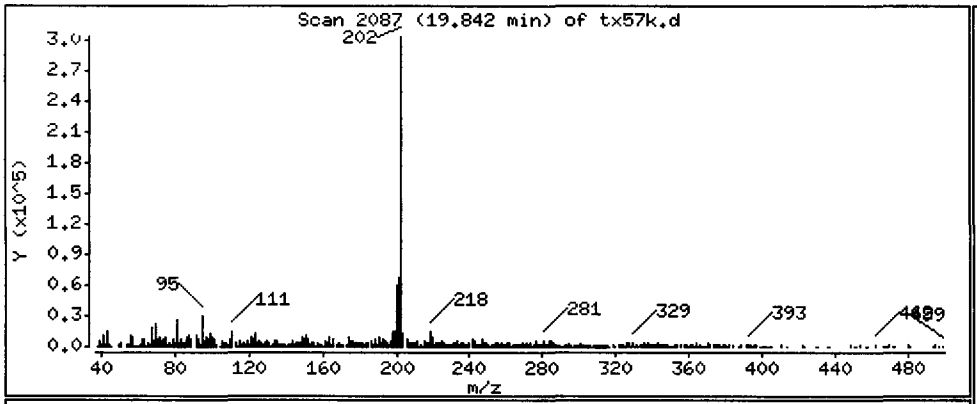
Client ID: SD0022 Instrument: nt10.i

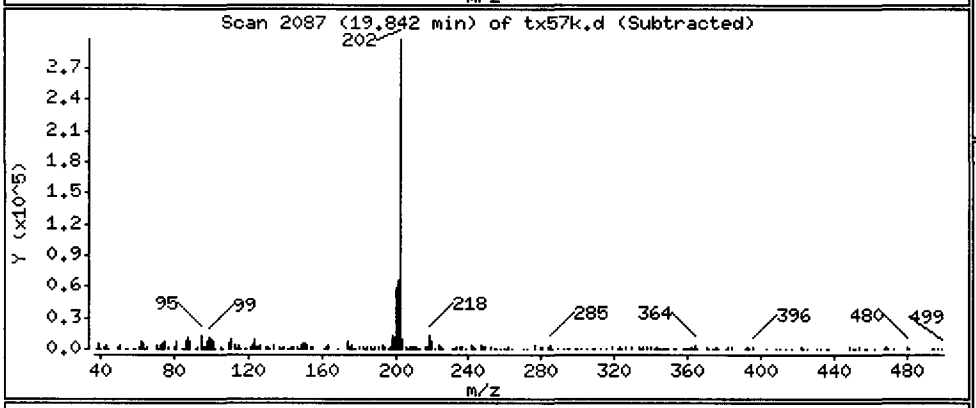
Sample Info: TX57K

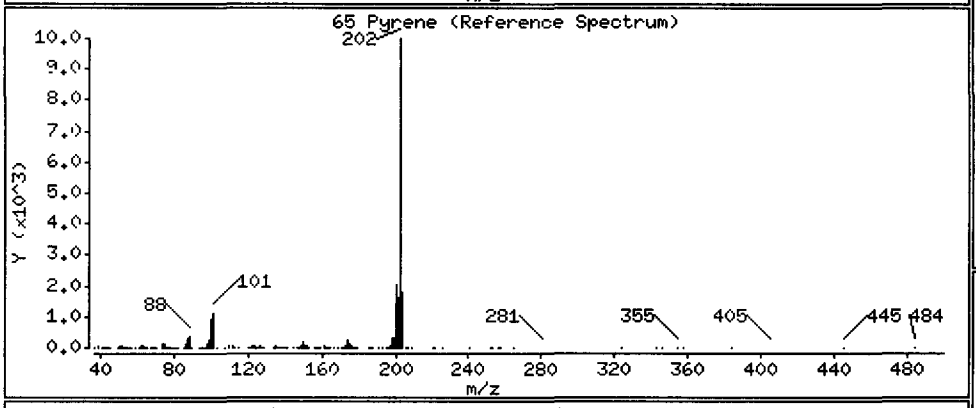
Volume Injected (uL): 1.0 Operator: YZ

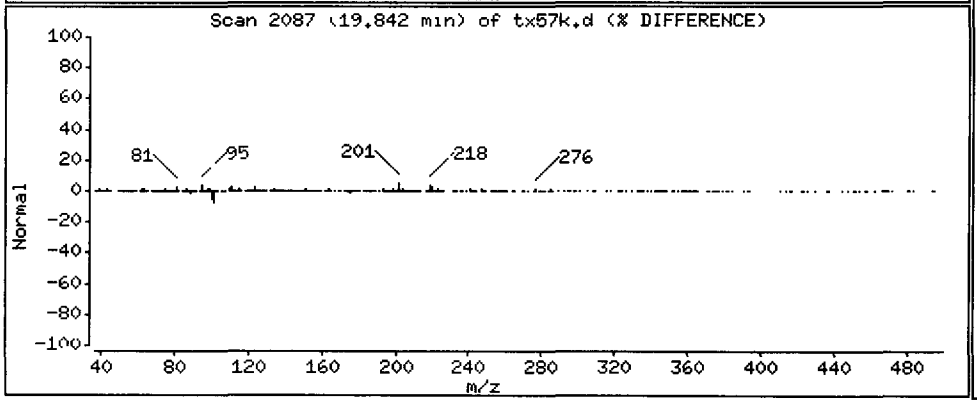
Column phase: ZB-5msi Column diameter: 0.25

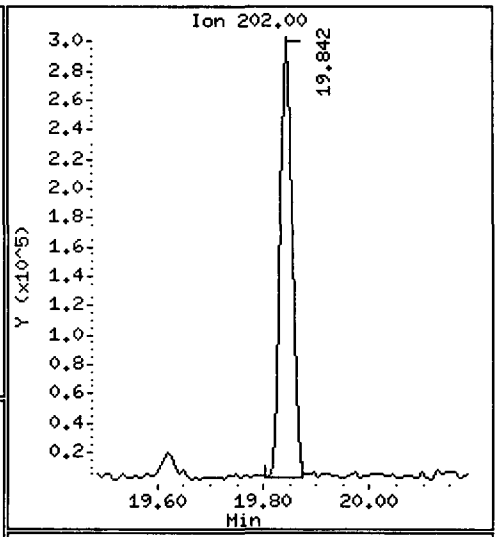
65 Pyrene Concentration: 106.4 ug/kg

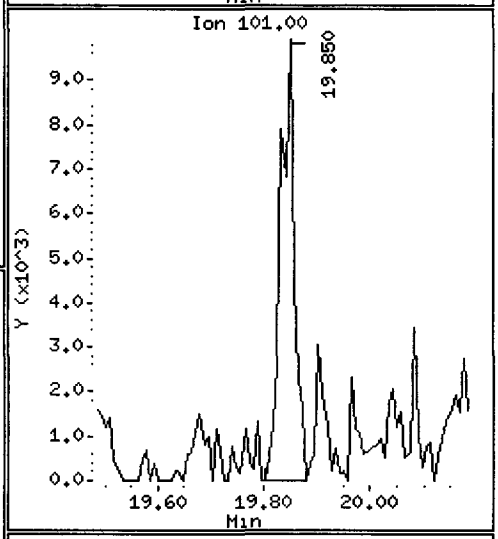


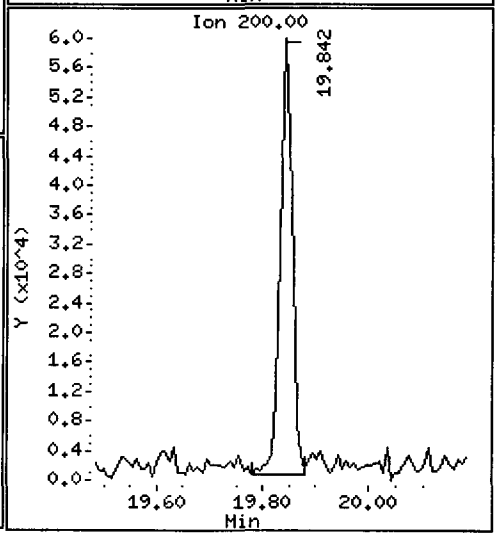












Data File: /chem1/nt10.i/20111206.b/tx57k.d

Date : 06-DEC-2011 23:40

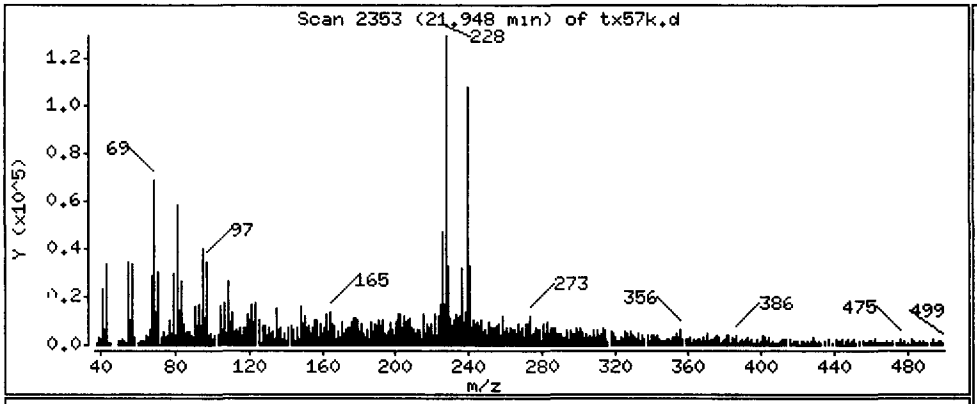
Client ID: SD0022 Instrument: nt10.i

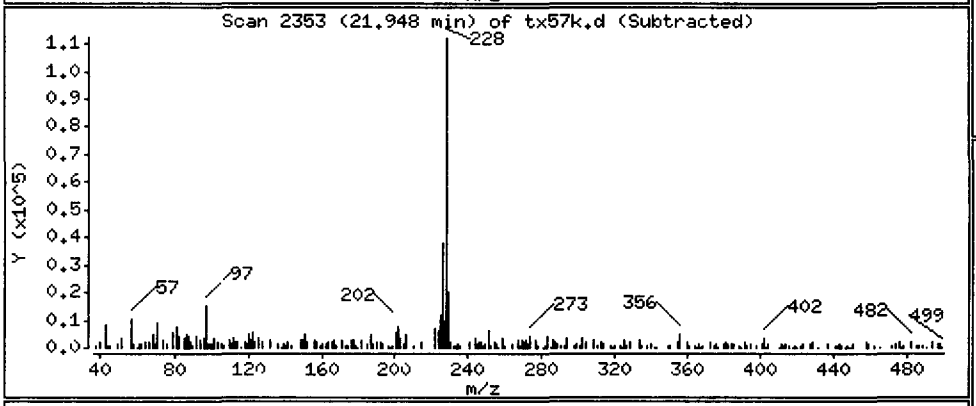
Sample Info: TX57K

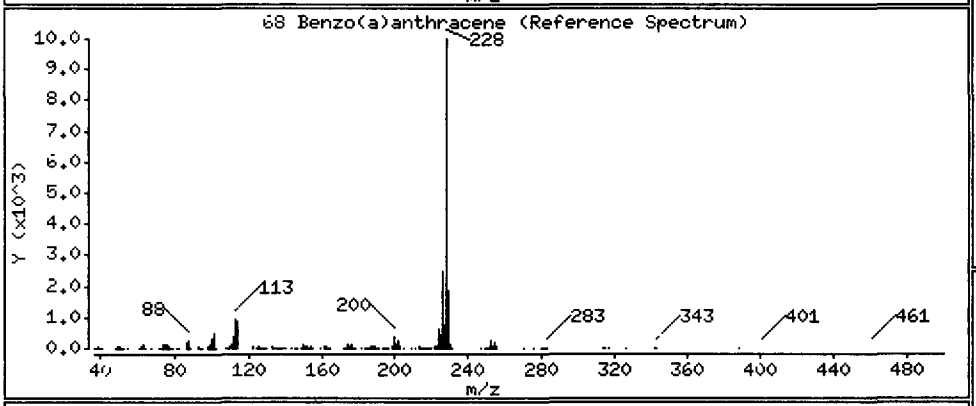
Volume Injected (uL): 1.0 Operator: YZ

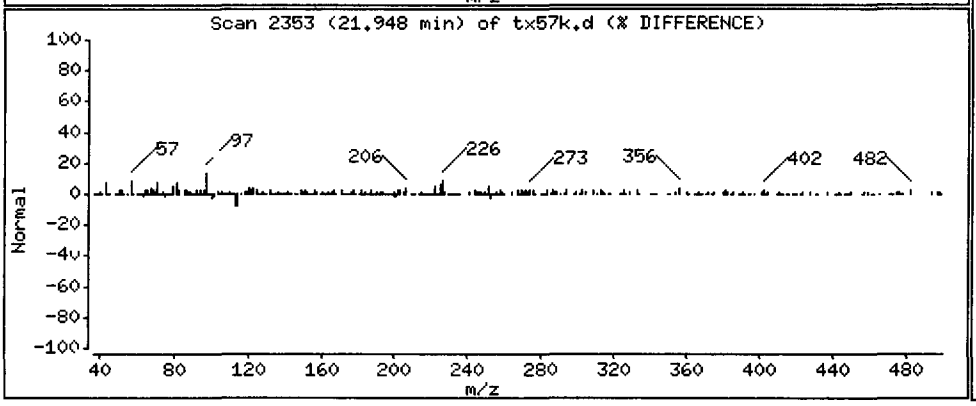
Column phase: ZB-5msi Column diameter: 0.25

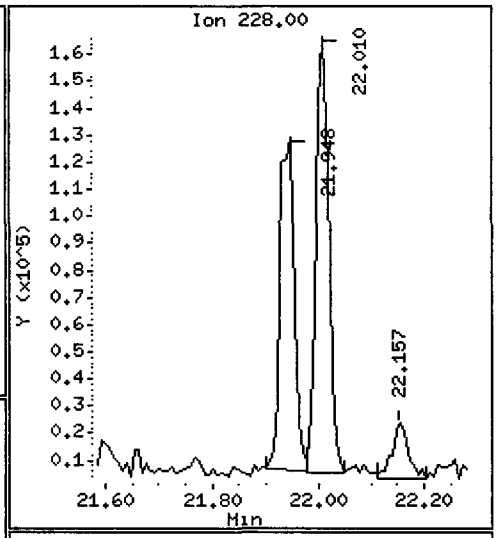
68 Benzo(a)anthracene Concentration: 48.34 ug/kg

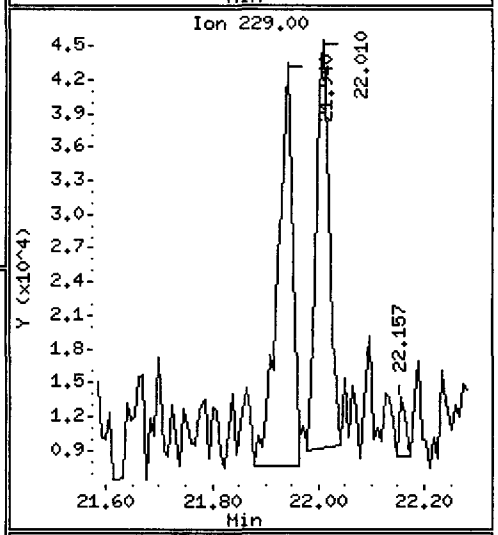


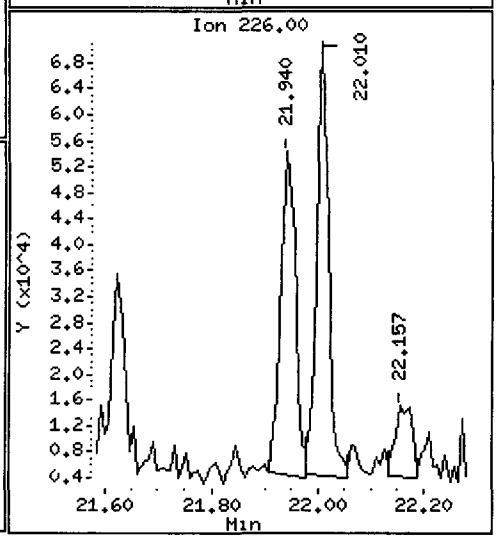












Data File: /chem1/nt10.i/20111206.b/tx57k.d

Date : 06-DEC-2011 23:40

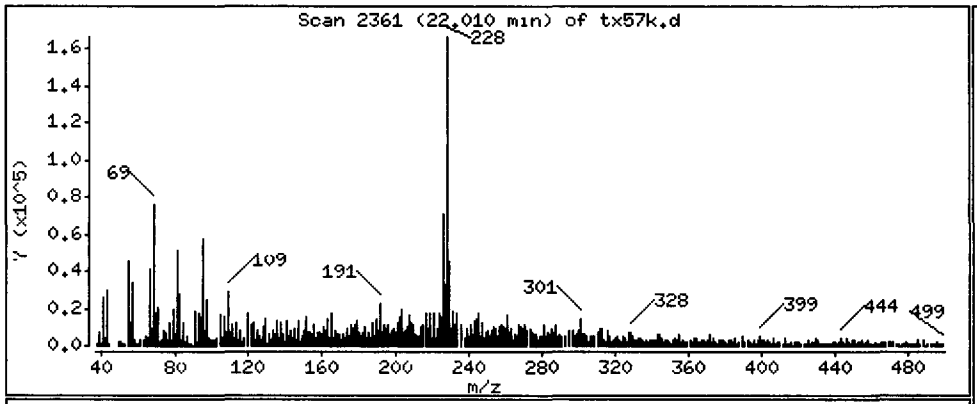
Client ID: SD0022 Instrument: nt10.i

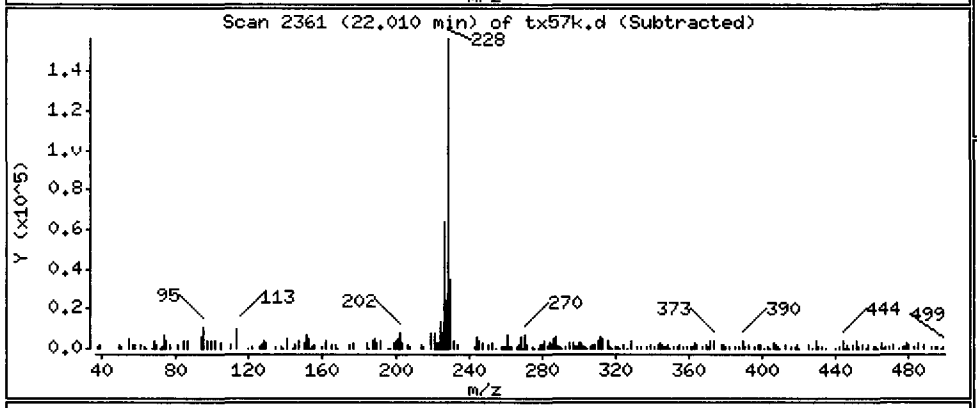
Sample Info: TX57K

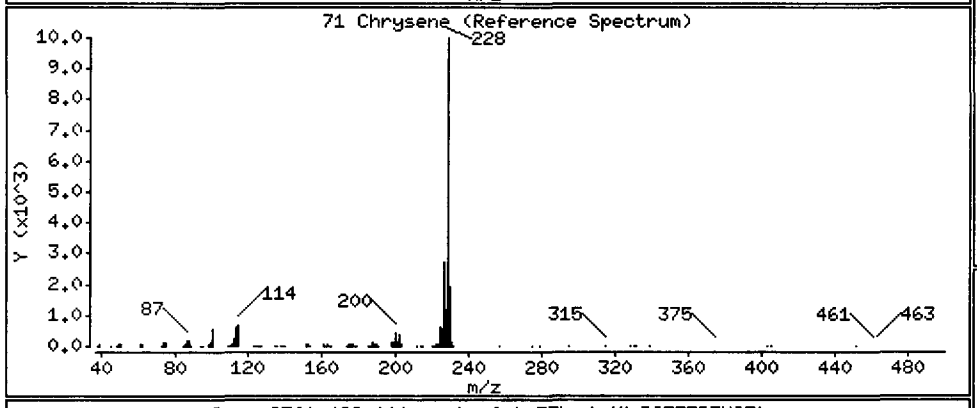
Volume Injected (uL): 1.0 Operator: YZ

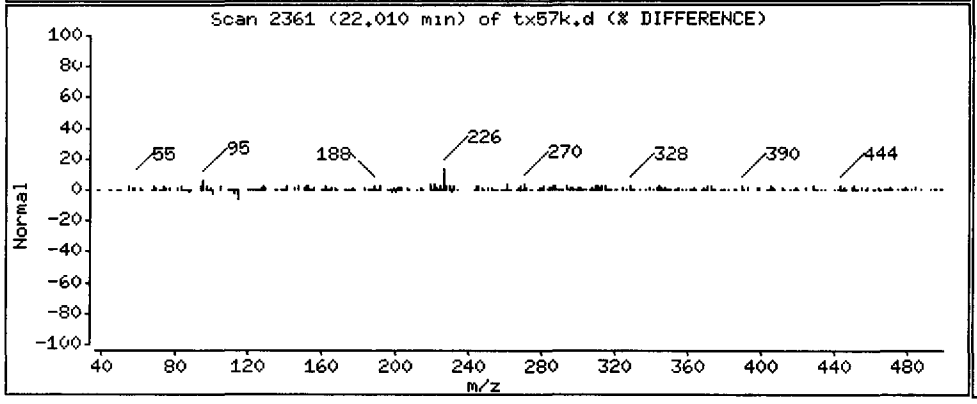
Column phase: ZB-5msi Column diameter: 0.25

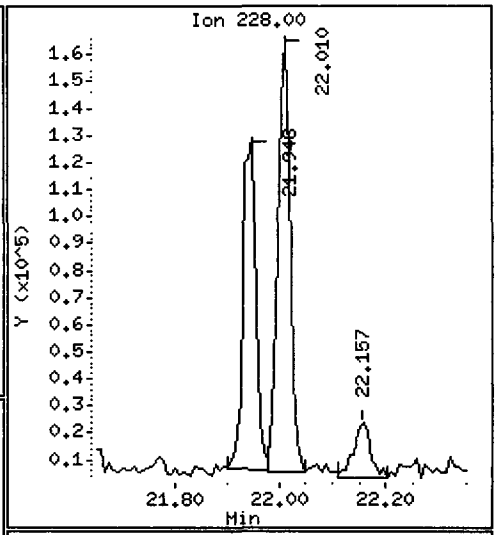
71 Chrysene Concentration: 61.20 ug/kg

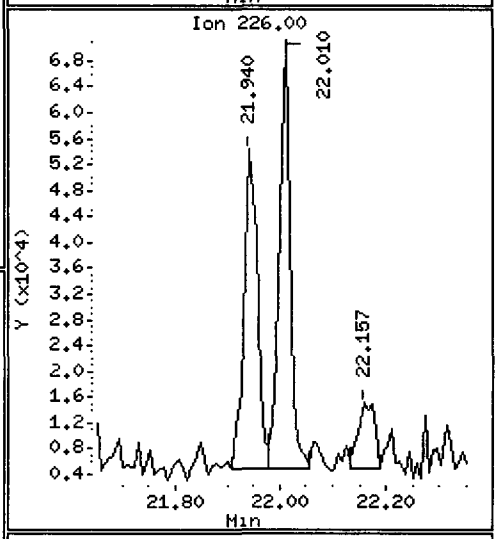


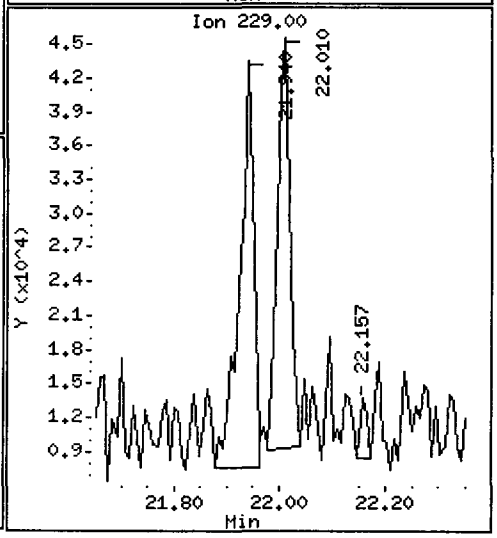












Data File: /chem1/nt10.i/20111206.b/tx57k.d

Date : 06-DEC-2011 23:40

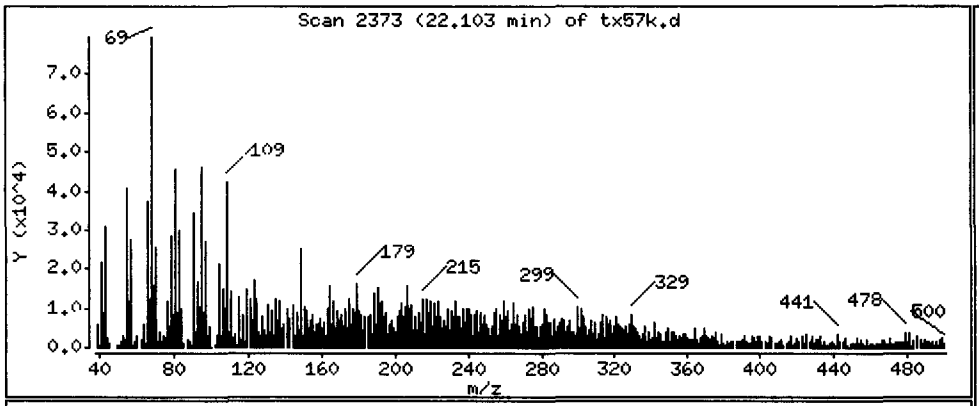
Client ID: SD0022 Instrument: nt10.i

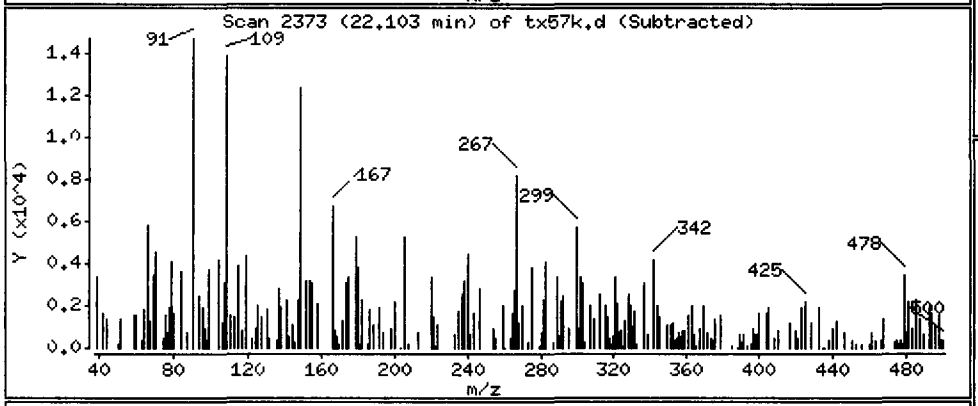
Sample Info: TX57K

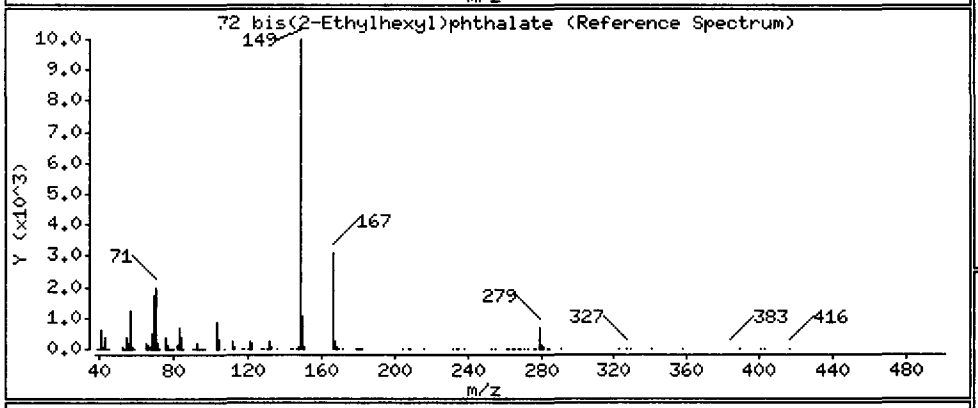
Volume Injected (uL): 1.0 Operator: YZ

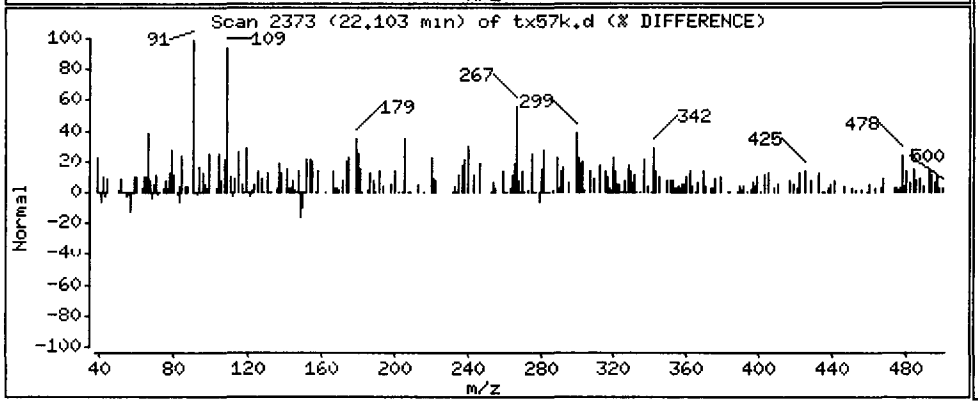
Column phase: ZB-5msi Column diameter: 0.25

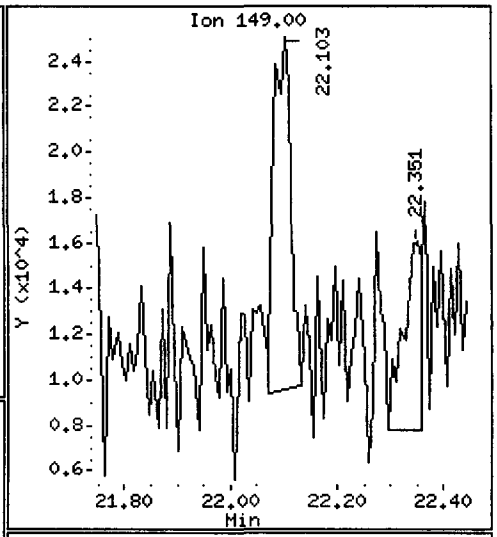
72 bis(2-Ethylhexyl)phthalate Concentration: 17.23 ug/kg

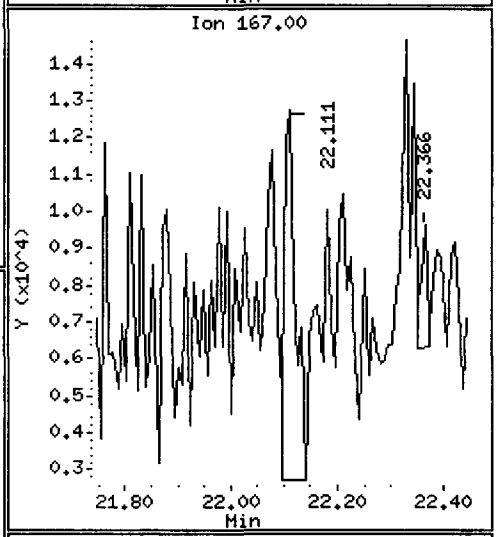


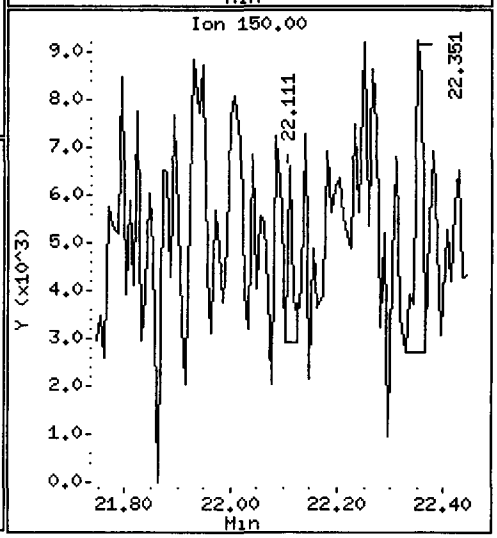












Data File: /chem1/nt10.i/20111206.b/tx57k.d

Date : 06-DEC-2011 23:40

Client ID: SD0022

Instrument: nt10.i

Sample Info: TX57K

Volume Injected (uL): 1.0

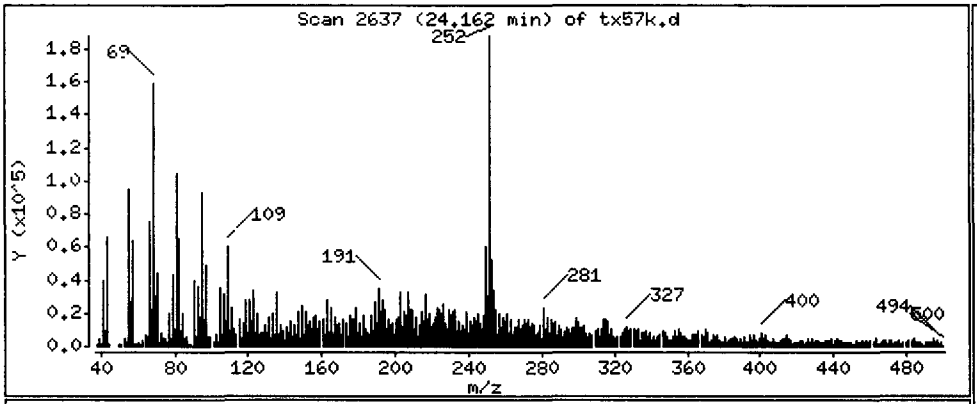
Operator: YZ

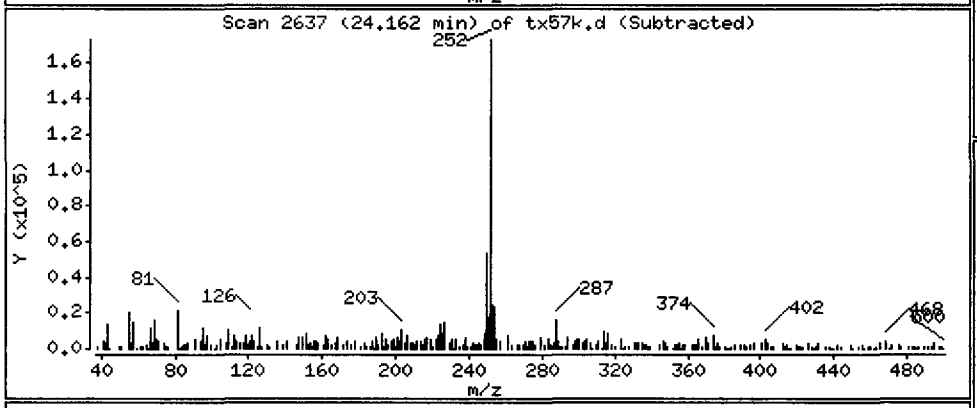
Column phase: ZB-5ms1

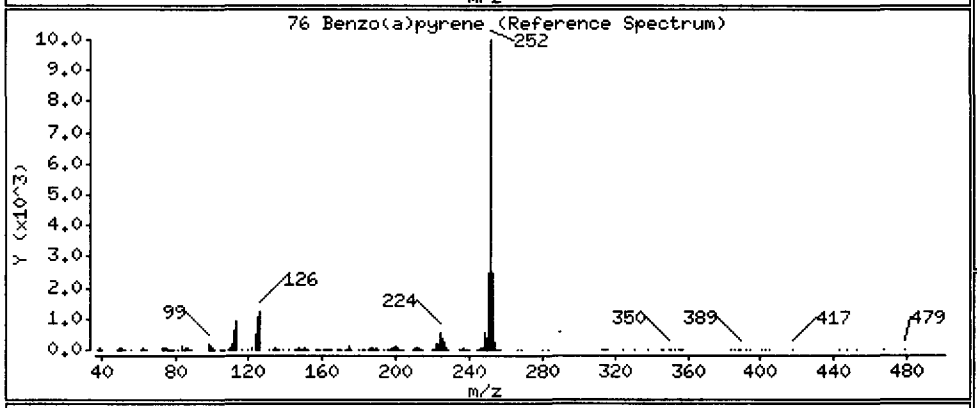
Column diameter: 0.25

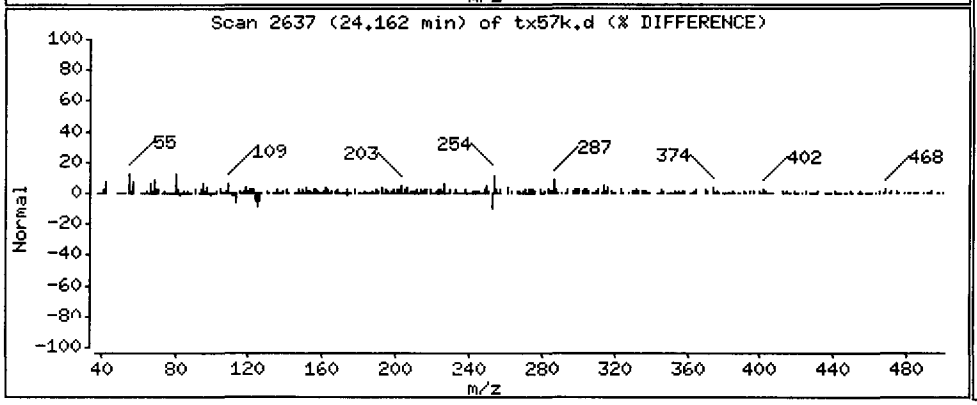
76 Benzo(a)pyrene

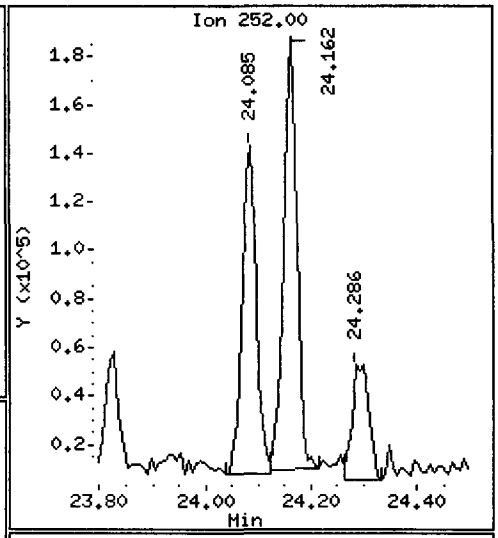
Concentration: 79.26 ug/kg

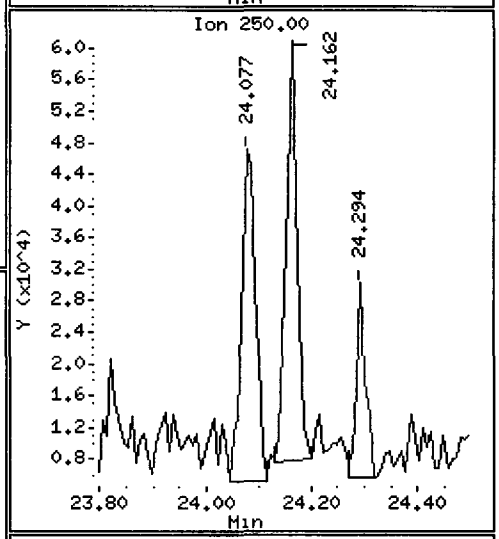


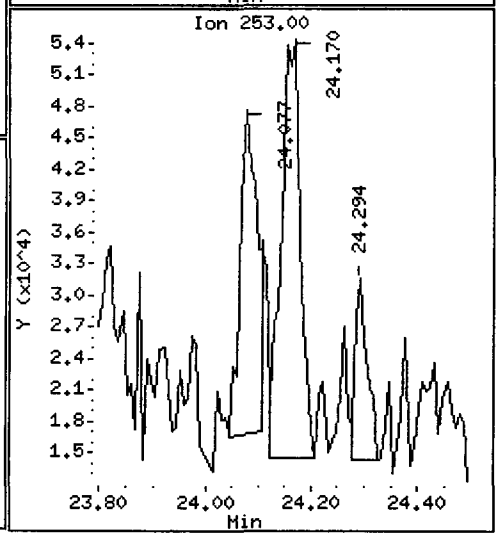












Data File: /chem1/nt10.i/20111206.b/tx57k.d

Date : 06-DEC-2011 23:40

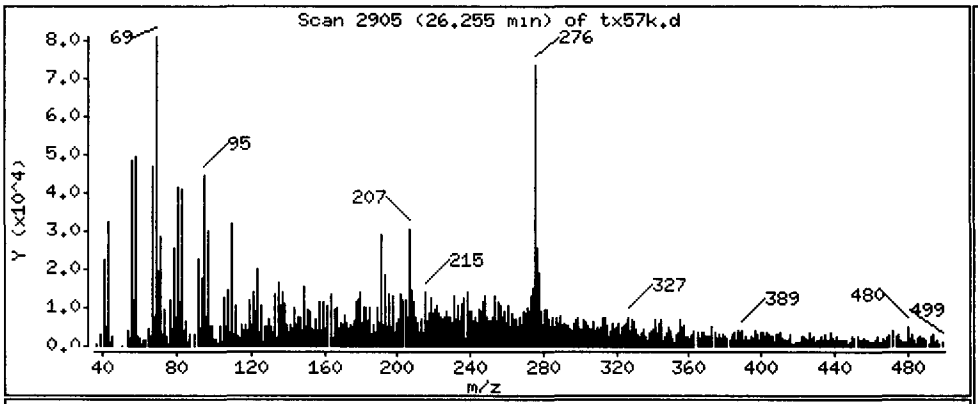
Client ID: SD0022 Instrument: nt10.i

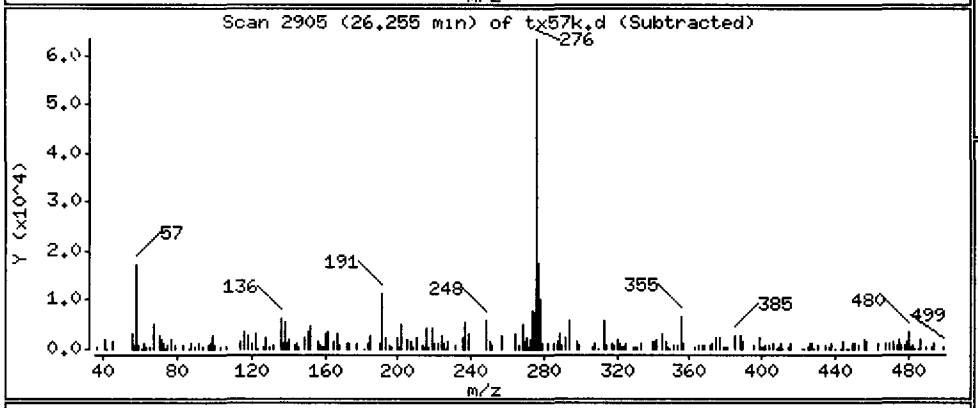
Sample Info: TX57K

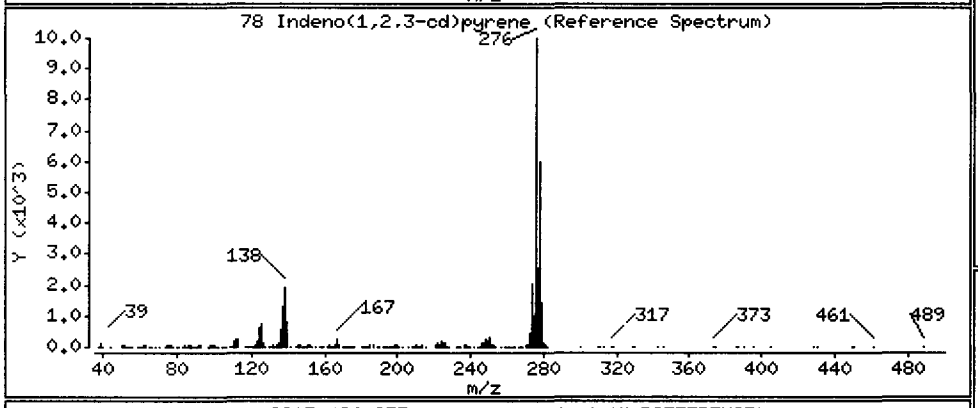
Volume Injected (uL): 1.0 Operator: YZ

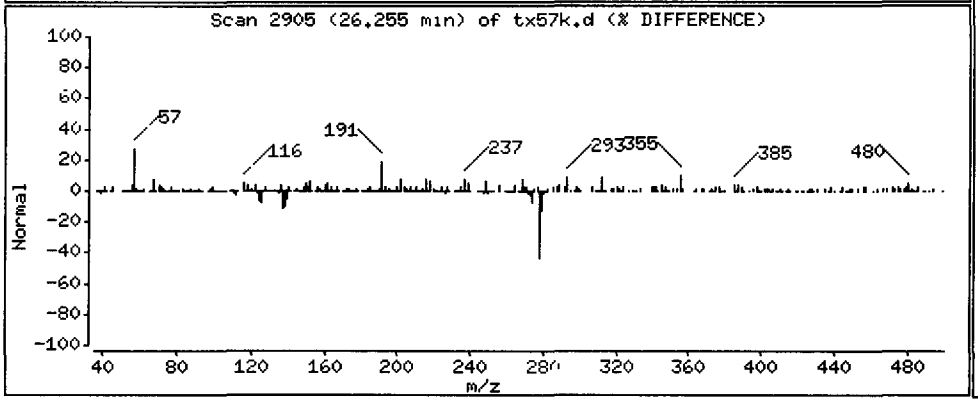
Column phase: ZB-5msi Column diameter: 0.25

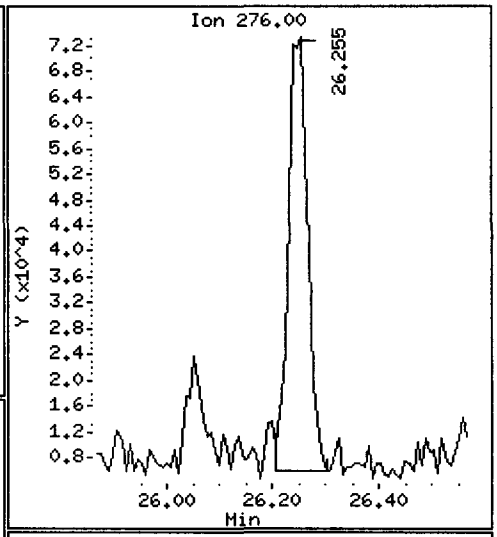
78 Indeno(1,2,3-cd)pyrene Concentration: 33.98 ug/kg

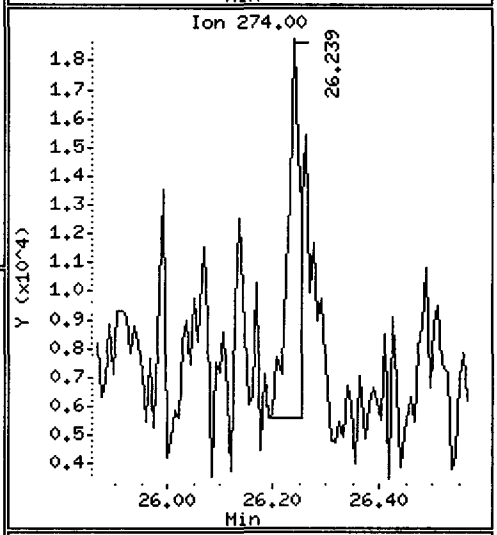


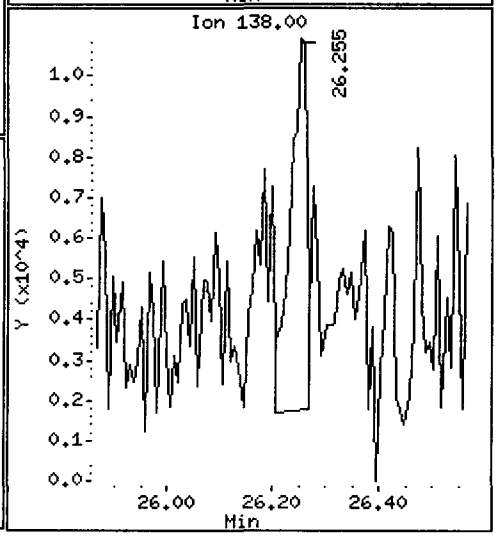












Data File: /chem1/nt10.i/20111206.b/tx57k.d

Date : 06-DEC-2011 23:40

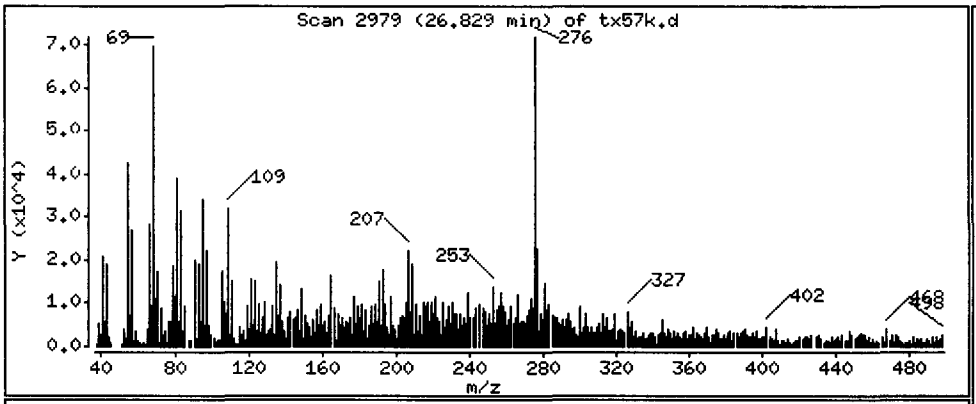
Client ID: SD0022 Instrument: nt10.i

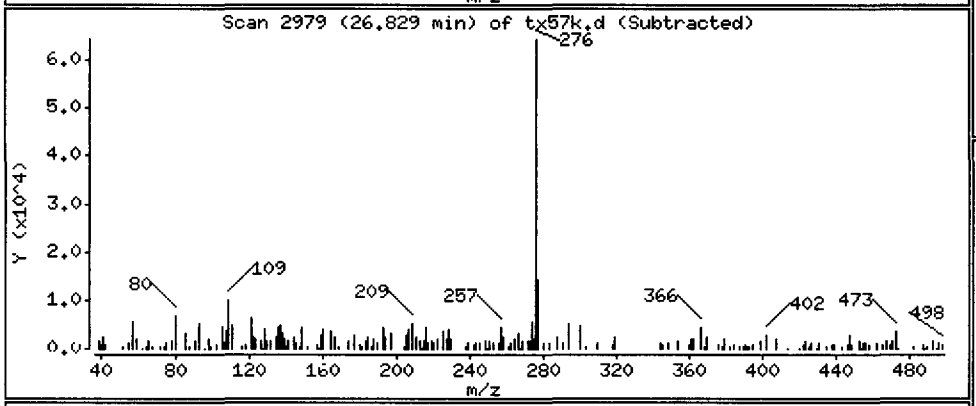
Sample Info: TX57K

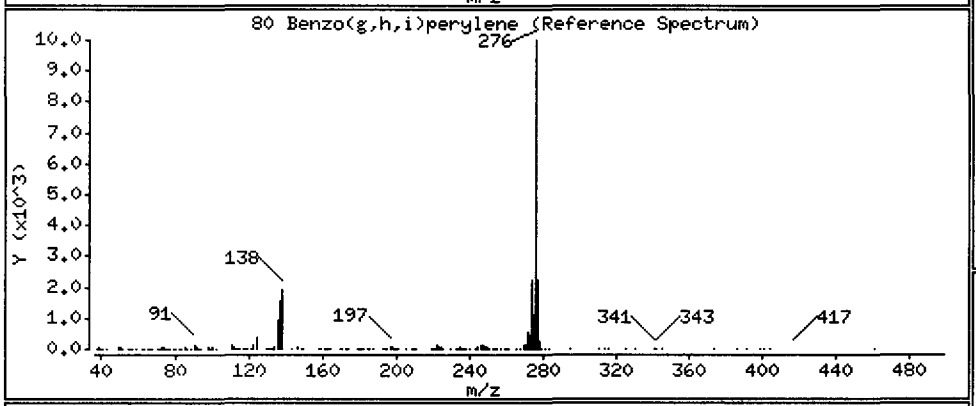
Volume Injected (uL): 1.0 Operator: YZ

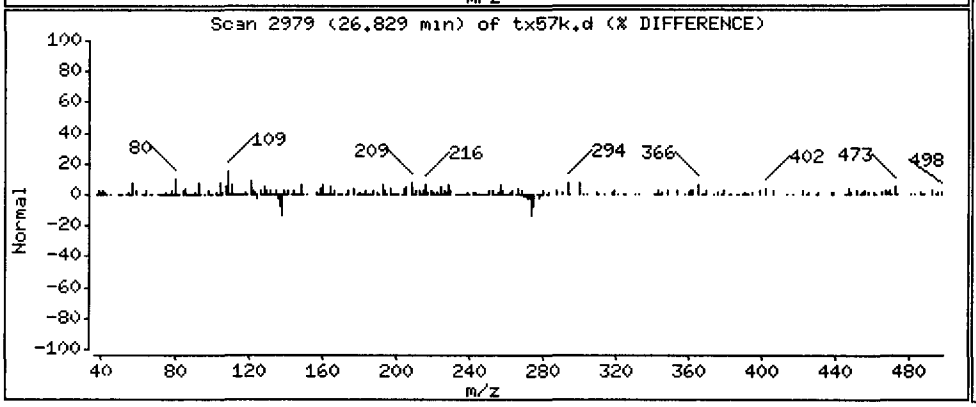
Column phase: ZB-5ms1 Column diameter: 0.25

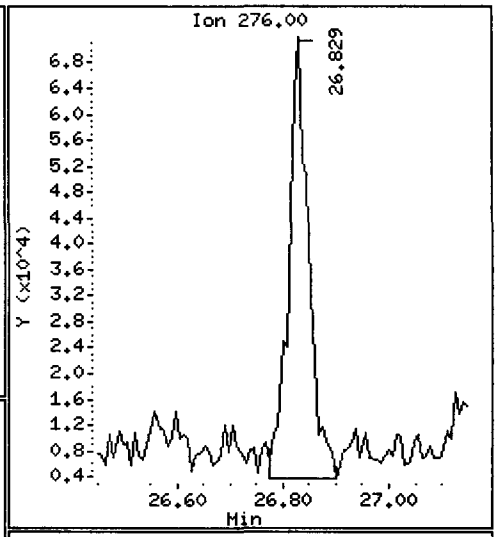
80 Benzo(g,h,i)perylene Concentration: 41.91 ug/kg

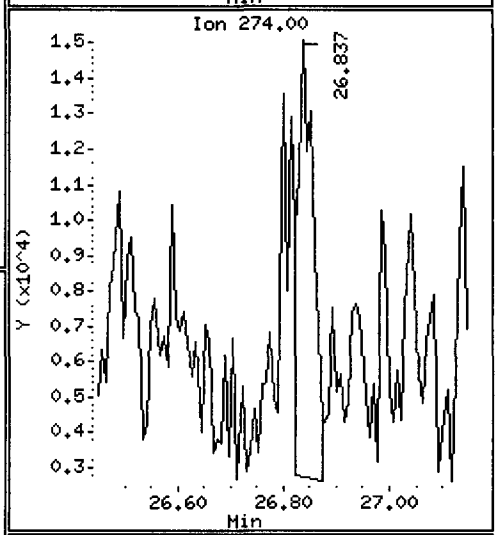


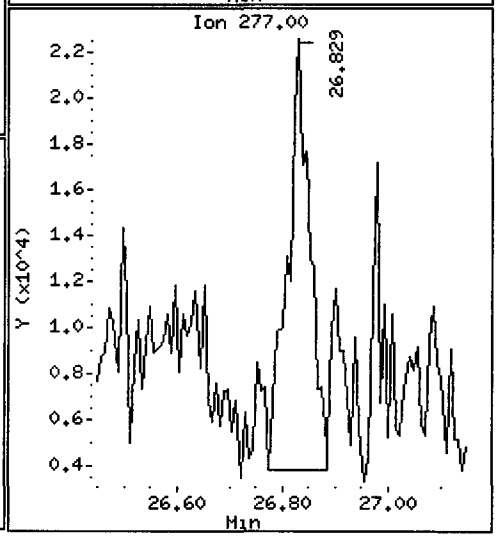












Data File: /chem1/nt10.i/20111206.b/tx57k.d

Date : 06-DEC-2011 23:40

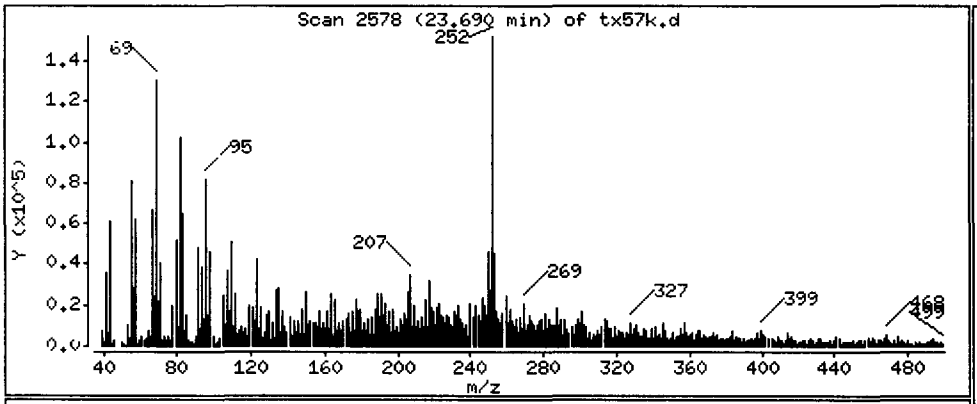
Client ID: SD0022 Instrument: nt10.i

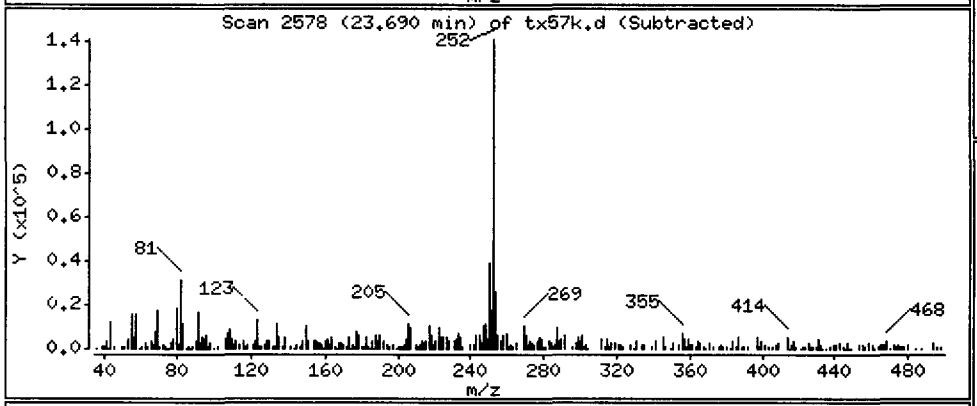
Sample Info: TX57K

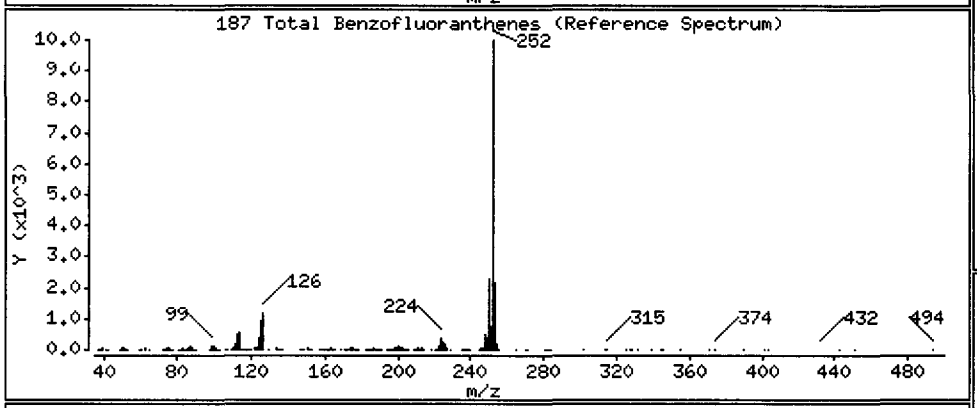
Volume Injected (uL): 1.0 Operator: YZ

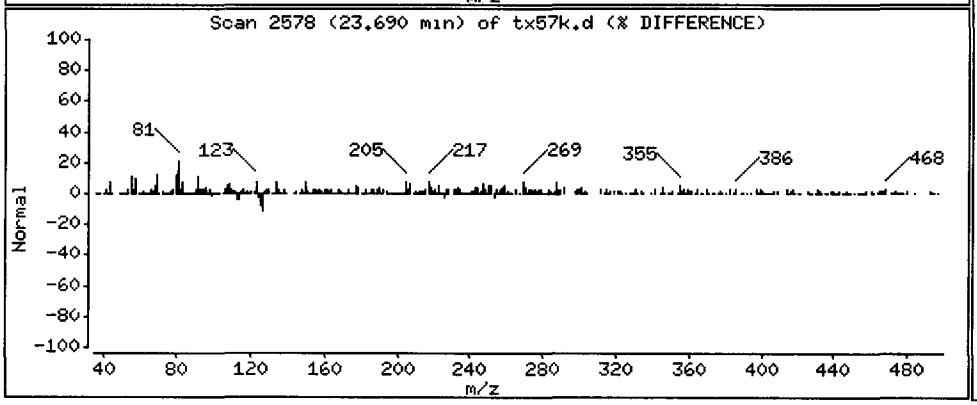
Column phase: ZB-5msi Column diameter: 0.25

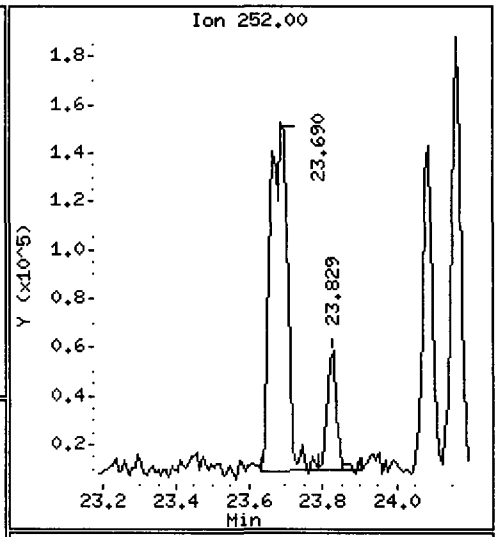
187 Total Benzofluoranthenes Concentration: 104.3 ug/kg

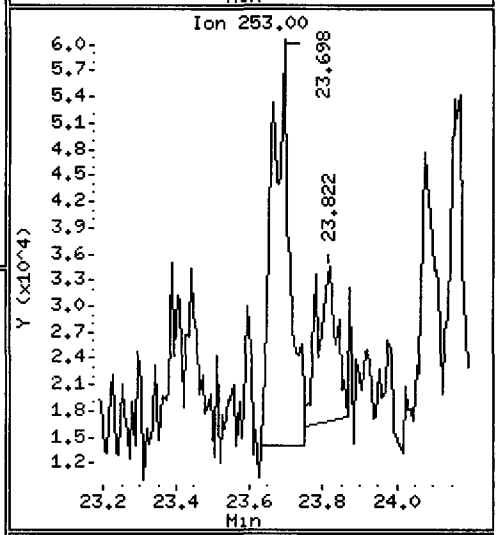


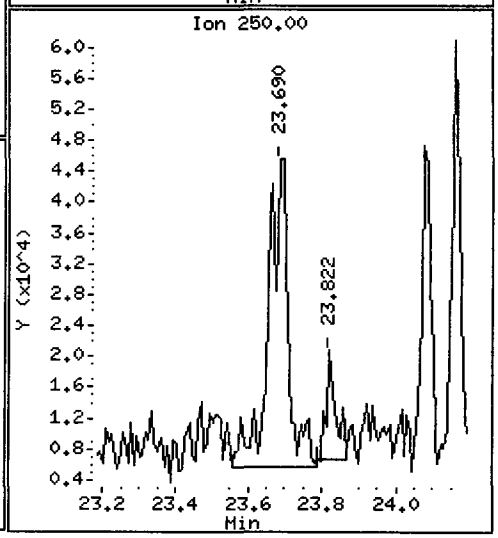












CO-ELUTION SUMMARY FOR FILE - tx57k.d

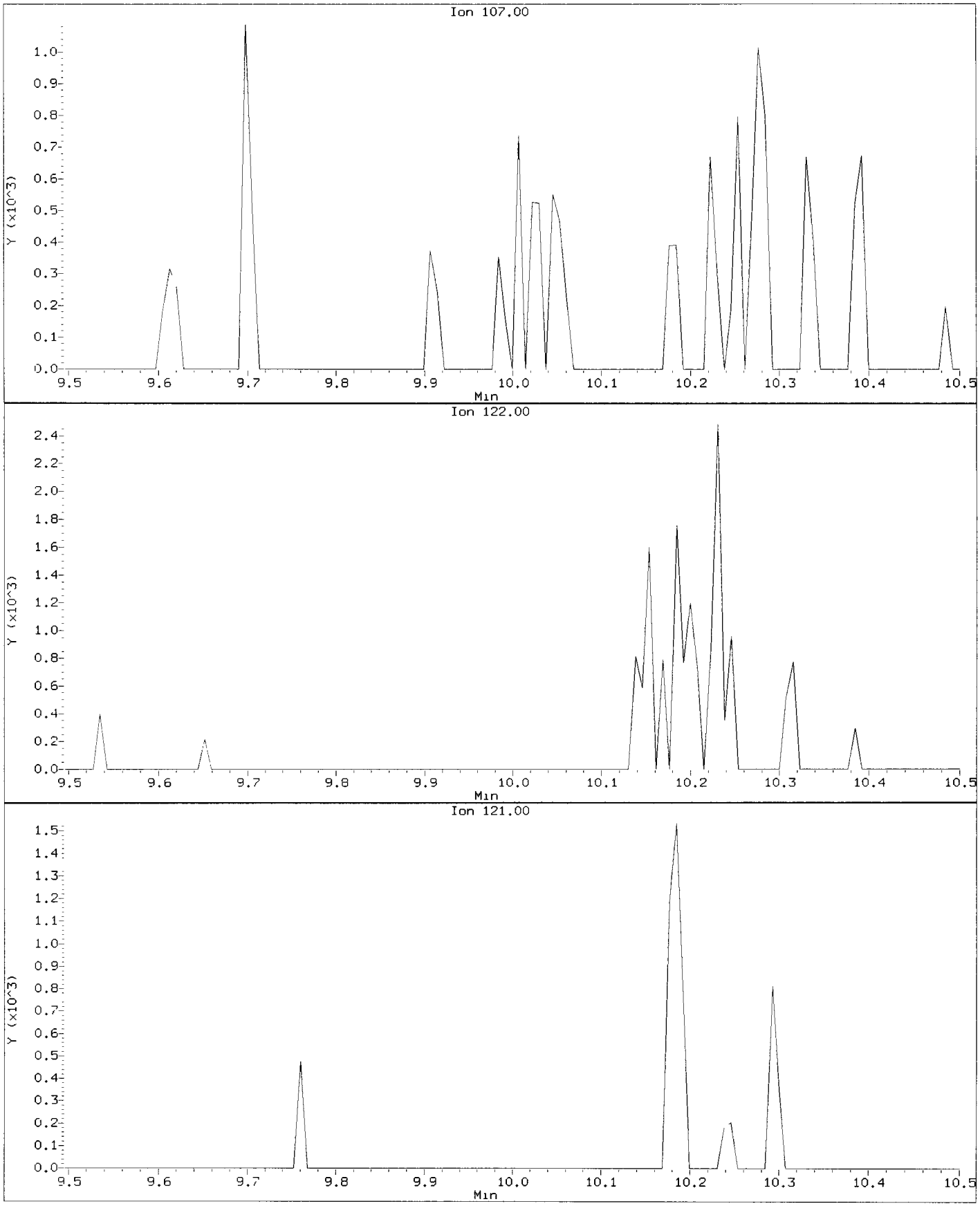
Lab ID: TX57K, Method: ABN.m, Instrument: nt10.i, Date: 06-DEC-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem1/nt10.1/20111206.b/tx57k.d
Injection Date: 06-DEC-2011 23:40
Instrument: nt10.1
Client Sample ID: SD0022

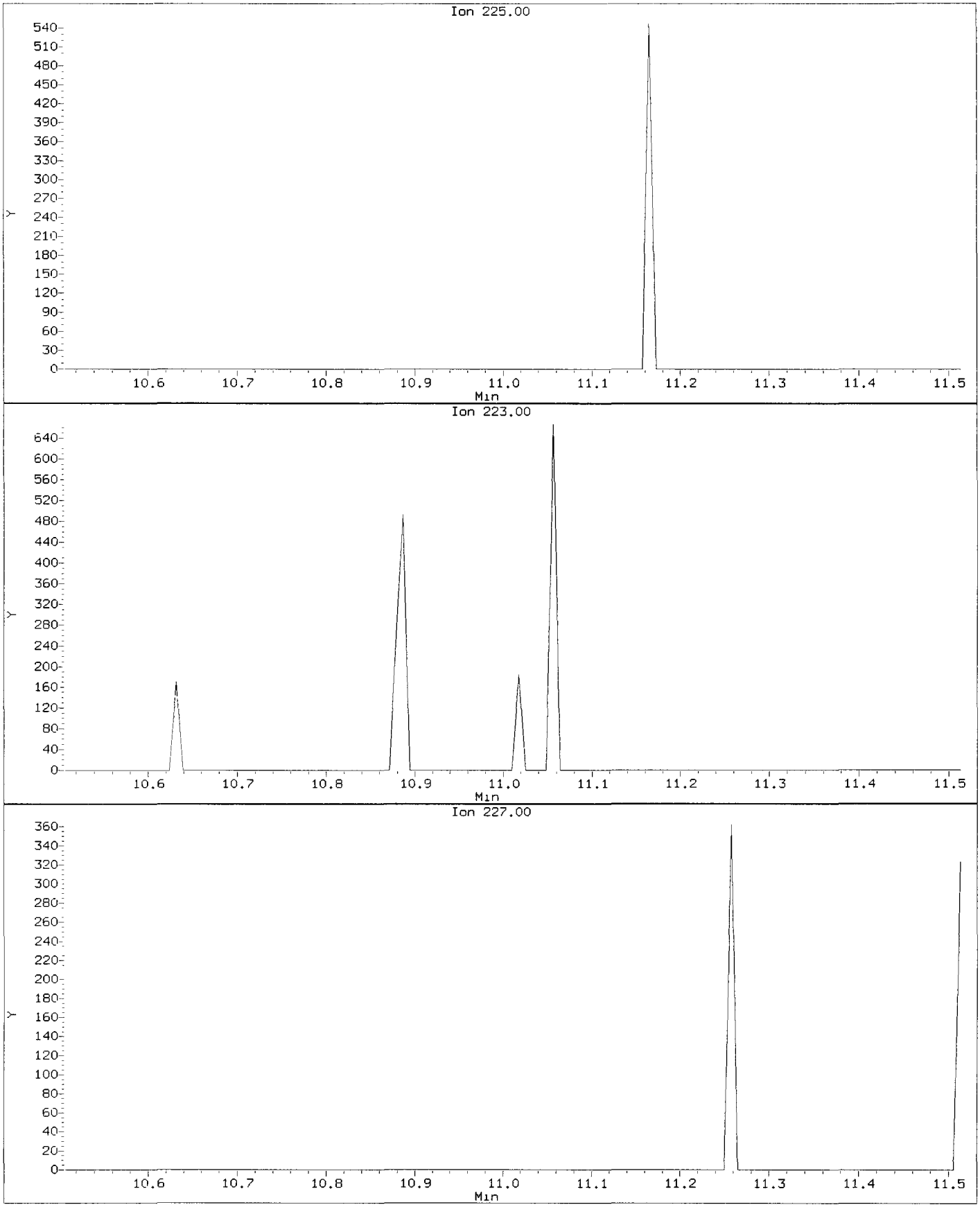
Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



TX57:00834

Data File: /chem1/nt10.1/20111206.b/tx57k.d
Injection Date: 06-DEC-2011 23:40
Instrument: nt10.1
Client Sample ID: SD0022

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

12/9/11

Data file : /chem1/nt10.i/20111206.b/tx57m.d
Lab Smp Id: TX57M Client Smp ID: SD0024
Inj Date : 07-DEC-2011 00:48
Operator : YZ Inst ID: nt10.i
Smp Info : TX57M
Misc Info : 11-26631
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 07-Dec-2011 08:43 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	12.80000	Weight of sample extracted (g)
M	15.60000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.067	6.043	(0.742)	213256	4.67858	433.1
$ 2	Phenol-d5	99	7.628	7.612	(0.933)	256103	4.37490	405.0
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.836	7.828	(0.958)	242501	4.57766	423.7
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.177	8.177	(1.000)	186410	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.526	8.518	(1.043)	124627	2.71125	251.0
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

		QUANT SIG				CONCENTRATIONS	
	Compounds	MASS	RT	EXP RT REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.				
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.				
	15 4-Methylphenol	108	Compound Not Detected.				
$	18 Nitrobenzene-d5	82	9.256	9.248 (0.872)	230411	3.47108	321.3
	19 Nitrobenzene	77	Compound Not Detected.				
	20 Isophorone	82	Compound Not Detected.				
	21 2-Nitrophenol	139	Compound Not Detected.				
	22 2,4-Dimethylphenol	107	Compound Not Detected.				
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.				
	24 Benzoic acid	105	Compound Not Detected.				
	25 2,4-Dichlorophenol	162	Compound Not Detected.				
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.				
*	27 Naphthalene-d8	136	10.608	10.600 (1.000)	624489	4.00000	
	28 Naphthalene	128	10.647	10.639 (1.004)	25432	0.16820 J	15.57
	29 4-Chloroaniline	127	Compound Not Detected.				
	30 Hexachlorobutadiene	225	Compound Not Detected.				
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.				
	32 2-Methylnaphthalene	142	12.016	12.008 (1.133)	24576	0.21664	20.05
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.				
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.				
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.				
$	36 2-Fluorobiphenyl	172	12.790	12.782 (0.905)	611225	3.85615	356.9
	37 2-Chloronaphthalene	162	Compound Not Detected.				
	38 2-Nitroaniline	65	Compound Not Detected.				
	39 Dimethylphthalate	163	Compound Not Detected.				
	40 Acenaphthylene	152	Compound Not Detected.				
	41 2,6-Dinitrotoluene	165	Compound Not Detected.				
*	42 Acenaphthene-d10	164	14.137	14.129 (1.000)	438423	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.				
	44 Acenaphthene	153	Compound Not Detected.				
	45 2,4-Dinitrophenol	184	Compound Not Detected.				
	46 Dibenzofuran	168	14.523	14.523 (1.027)	19450	0.10549 J	9.765
	47 4-Nitrophenol	109	Compound Not Detected.				
	48 2,4-Dinitrotoluene	165	Compound Not Detected.				
	50 Diethylphthalate	149	15.142	15.134 (1.071)	43418	0.28785	26.65
	49 Fluorene	166	Compound Not Detected.				
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.				
	52 4-Nitroaniline	138	Compound Not Detected.				
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.				
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.				
$	55 2,4,6-Tribromophenol	330	15.759	15.751 (1.115)	210769	5.45709	505.1
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.				
	57 Hexachlorobenzene	284	Compound Not Detected.				
	58 Pentachlorophenol	266	Compound Not Detected.				
*	59 Phenanthrene-d10	188	17.119	17.111 (1.000)	884829	4.00000	
	60 Phenanthrene	178	17.165	17.157 (1.003)	100475	0.44112	40.83
	61 Anthracene	178	Compound Not Detected.				

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	62 Carbazole	167	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					
	64 Fluoranthene	202	19.448	19.432	(1.136)	148509	0.47315	43.80
	65 Pyrene	202	19.842	19.834	(0.903)	146419	0.42703	39.53
$	66 Terphenyl-d14	244	20.160	20.152	(0.918)	1014563	3.59028	332.3
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	21.940	21.932	(0.999)	86381	0.22386	20.72
*	69 Chrysene-d12	240	21.971	21.956	(1.000)	1417823	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	22.010	22.002	(1.002)	117206	0.33679	31.18
	72 bis(2-Ethylhexyl)phthalate	149	22.095	22.095	(0.958)	44563	0.26033	24.10
*	134 Di-n-octylphthalate-d4	153	23.063	23.047	(1.000)	1203660	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	23.667	23.651	(0.975)	110159	0.29473	27.28
	75 Benzo(k)fluoranthene	252	23.698	23.690	(0.977)	101671	0.26248	24.30(M)
	76 Benzo(a)pyrene	252	24.162	24.147	(0.996)	91766	0.29902	27.68
*	77 Perylene-d12	264	24.263	24.232	(1.000)	1227059	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	26.262	26.216	(1.082)	81573	0.19505	18.06
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	26.837	26.798	(1.106)	85408	0.24270	22.47
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	12.225	12.217	(1.152)	20157	0.17310	16.02
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	23.667	23.690	(0.975)	224940	0.62469	57.82(M)
	99 Perylene	252	24.302	24.278	(1.002)	87297	0.28818	26.68

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57m.d
Lab Smp Id: TX57M
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26631

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: SD0024
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	186410	7.84
27 Naphthalene-d8	574010	287005	1148020	624489	8.79
42 Acenaphthene-d10	467963	233982	935926	438423	-6.31
59 Phenanthrene-d10	976150	488075	1952300	884829	-9.36
69 Chrysene-d12	1397129	698564	2794258	1417823	1.48
134 Di-n-octylphthala	1264537	632268	2529074	1203660	-4.81
77 Perylene-d12	1407308	703654	2814616	1227059	-12.81

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.61	0.07
42 Acenaphthene-d10	14.13	13.63	14.63	14.14	0.06
59 Phenanthrene-d10	17.11	16.61	17.61	17.12	0.05
69 Chrysene-d12	21.96	21.46	22.46	21.97	0.07
134 Di-n-octylphthala	23.05	22.55	23.55	23.06	0.07
77 Perylene-d12	24.23	23.73	24.73	24.26	0.13

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: INTEGRAL
Client SDG: TX57
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: TX57M
Client Smp ID: SD0024
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26631

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	694.2	433.1	62.38	30-160
$ 2 Phenol-d5	694.2	405.0	58.33	30-160
$ 5 2-Chlorophenol-d4	694.2	423.7	61.04	30-160
$ 10 1,2-Dichlorobenzen	462.8	251.0	54.23	30-160
$ 18 Nitrobenzene-d5	462.8	321.3	69.42	30-160
$ 36 2-Fluorobiphenyl	462.8	356.9	77.12	30-160
$ 55 2,4,6-Tribromophen	694.2	505.1	72.76	30-160
$ 66 Terphenyl-d14	462.8	332.3	71.81	30-160

Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

Client ID: SD0024

Sample Info: TX57M

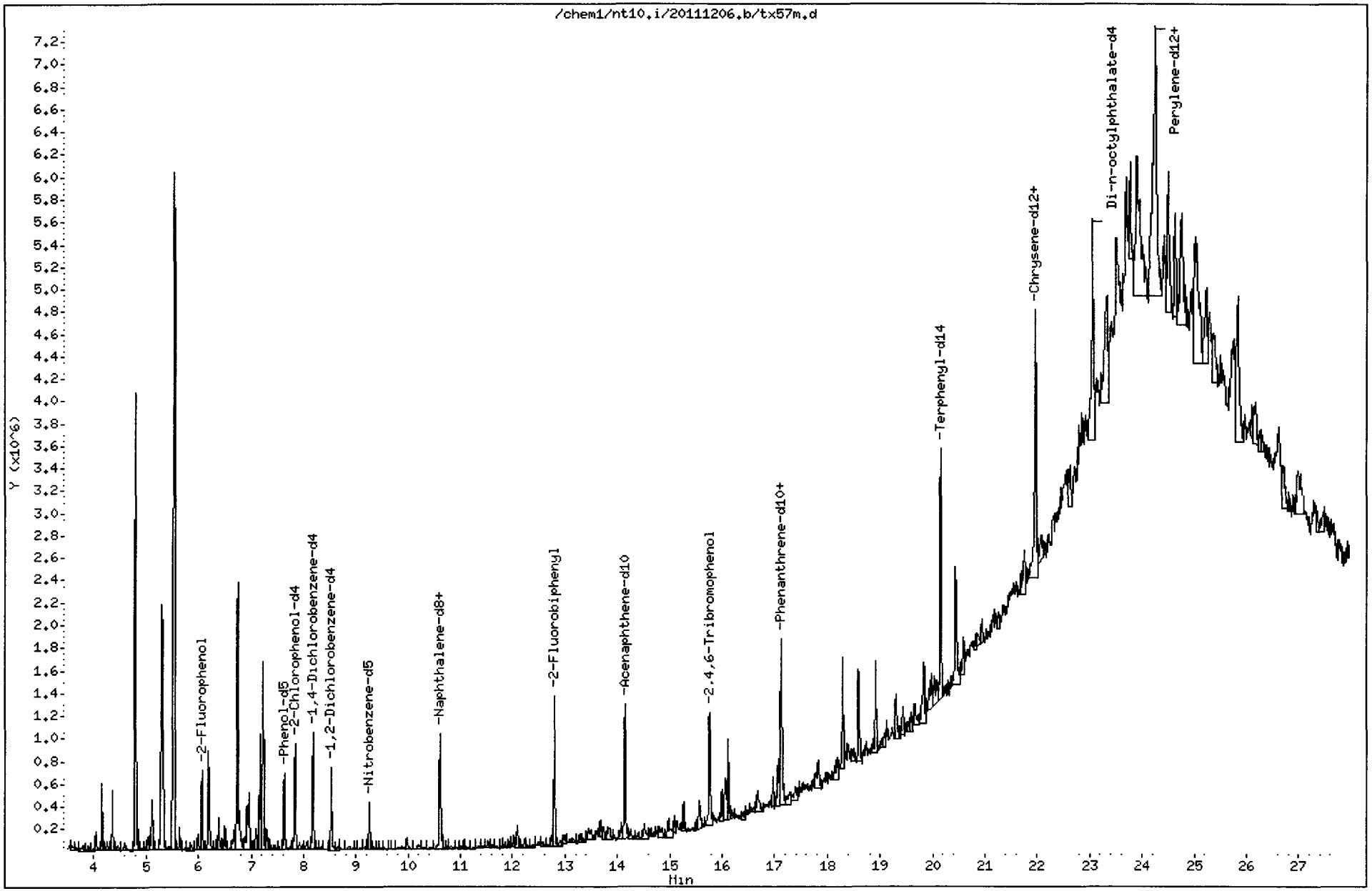
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: YZ

Column diameter: 0.25



TX57.00841

Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

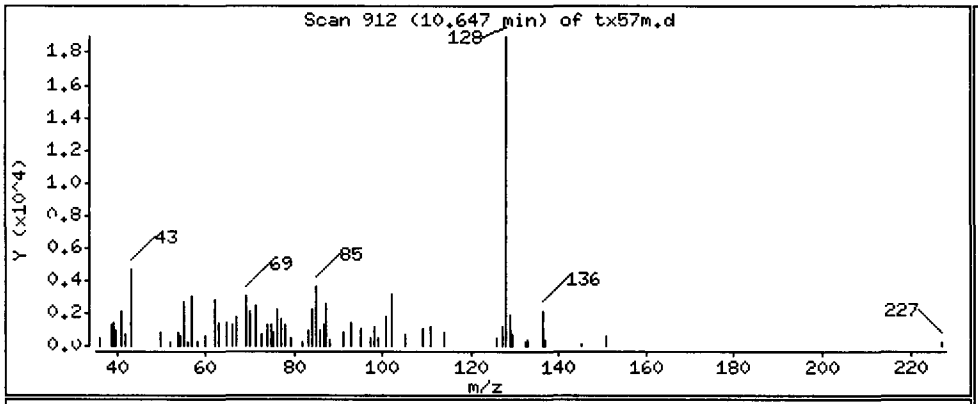
Client ID: SD0024 Instrument: nt10.i

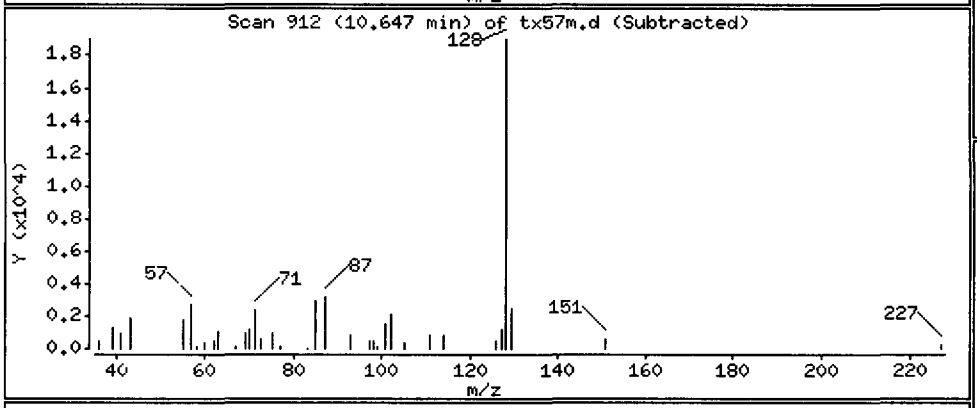
Sample Info: TX57M

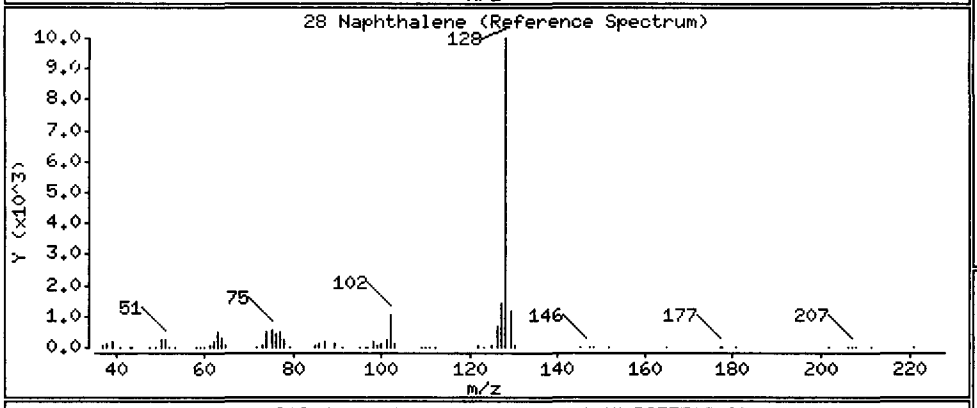
Volume Injected (uL): 1.0 Operator: YZ

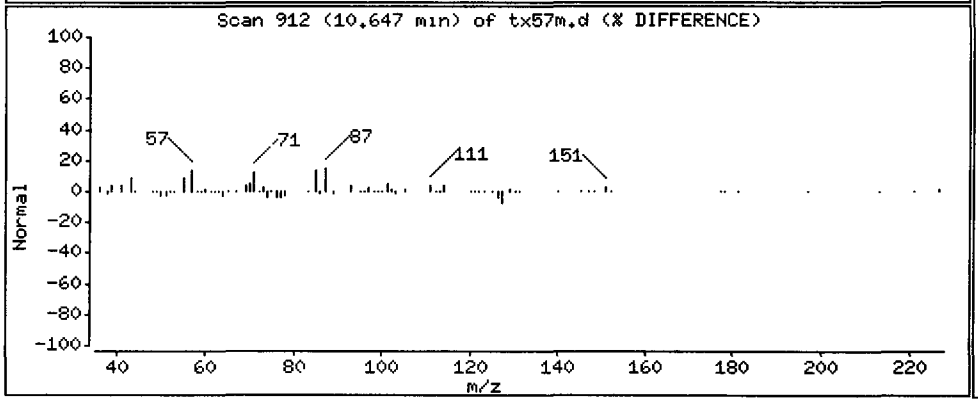
Column phase: ZB-5ms1 Column diameter: 0.25

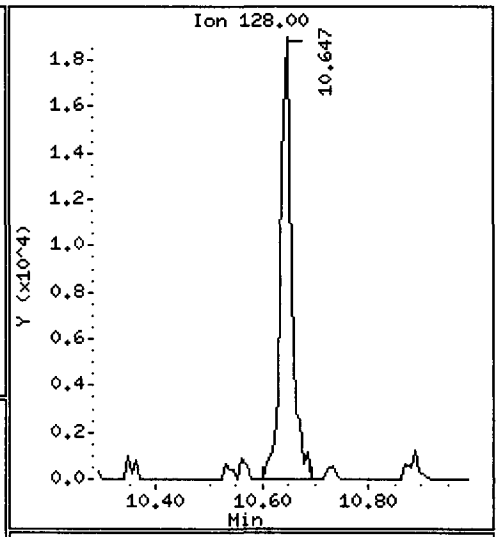
28 Naphthalene Concentration: 15.57 ug/kg

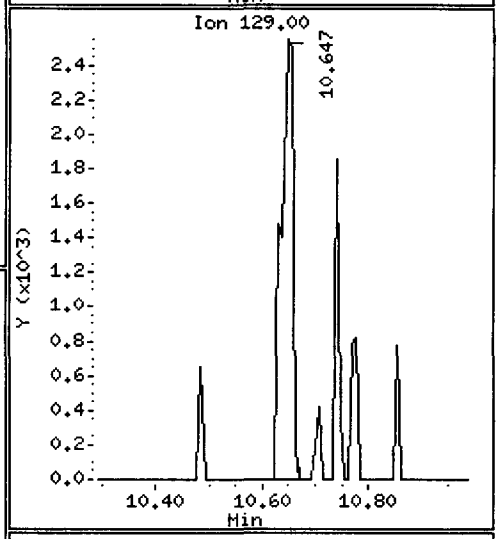


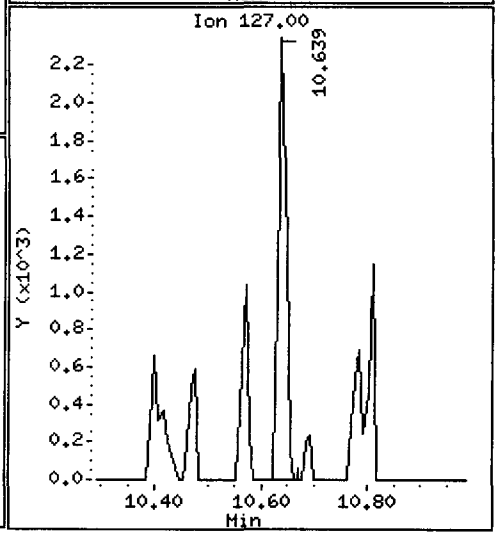












Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

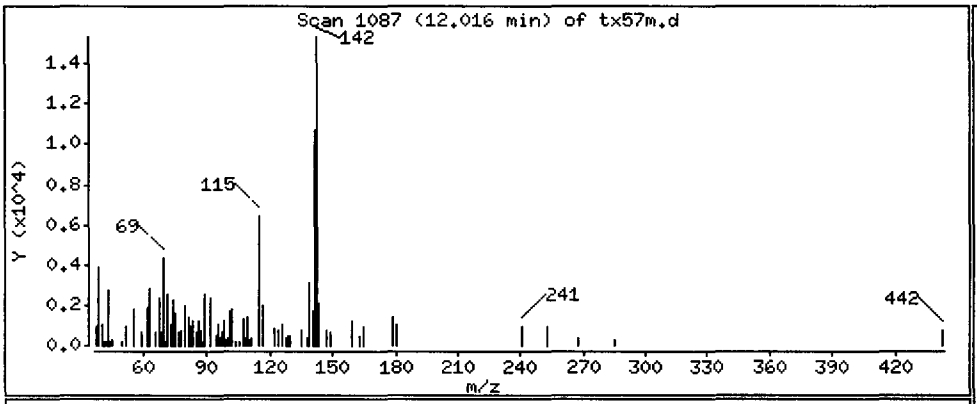
Client ID: SD0024 Instrument: nt10.i

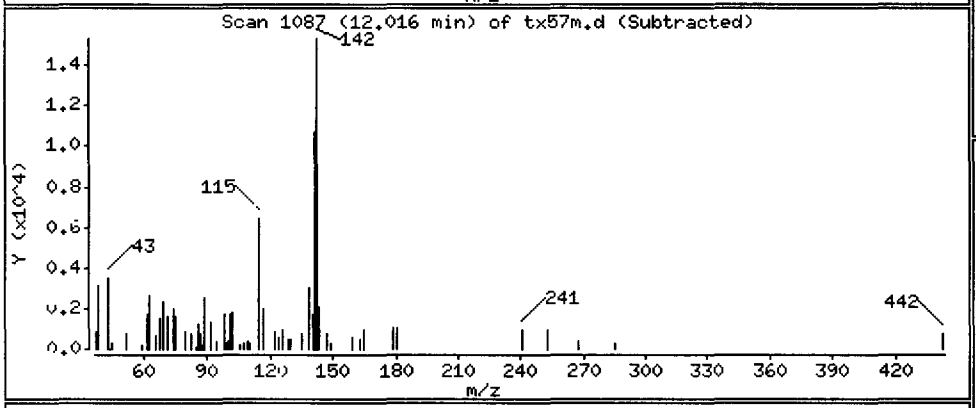
Sample Info: TX57M

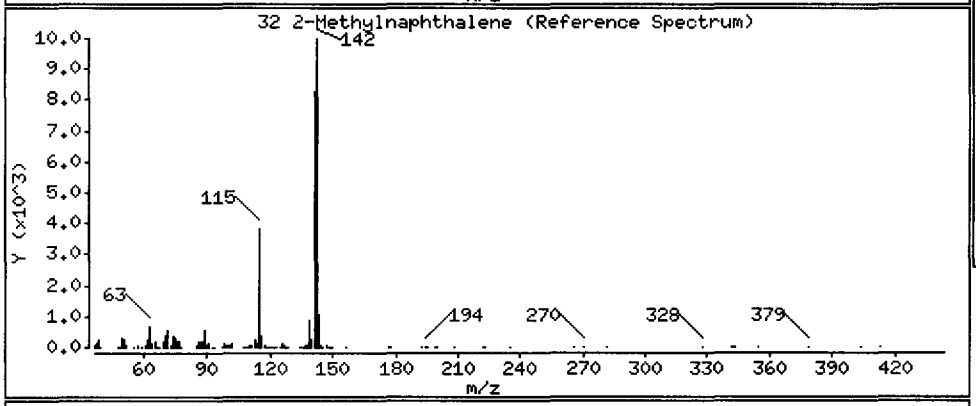
Volume Injected (uL): 1.0 Operator: YZ

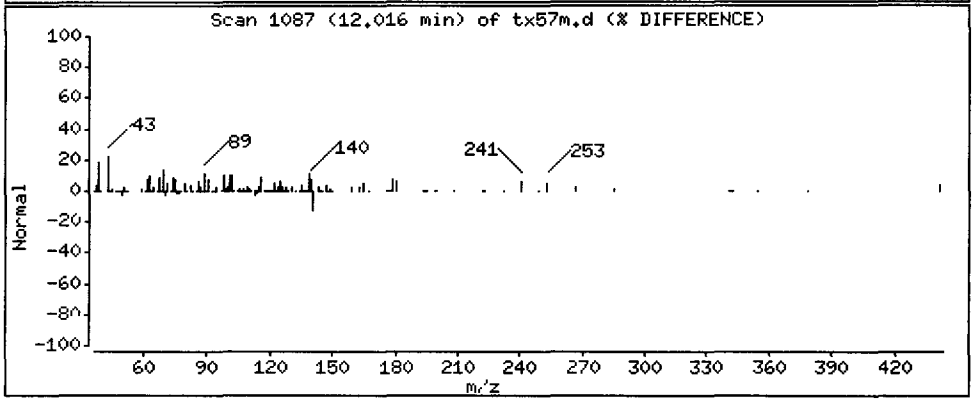
Column phase: ZB-5msi Column diameter: 0.25

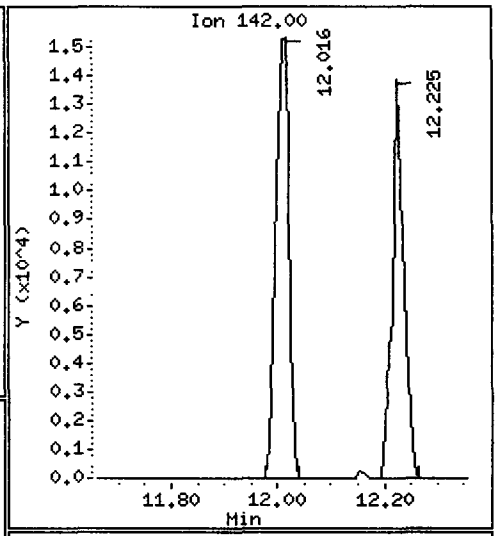
32 2-Methylnaphthalene Concentration: 20.05 ug/kg

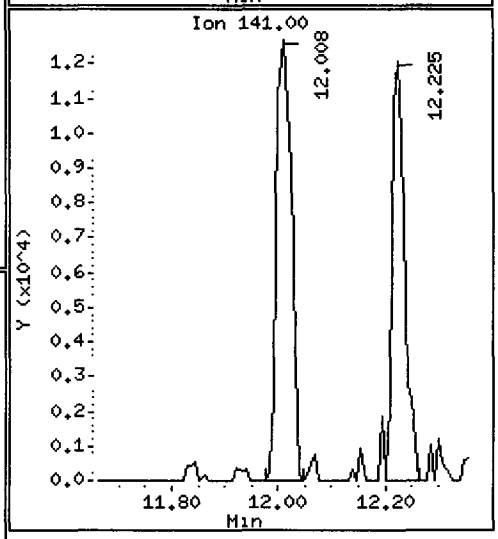












Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

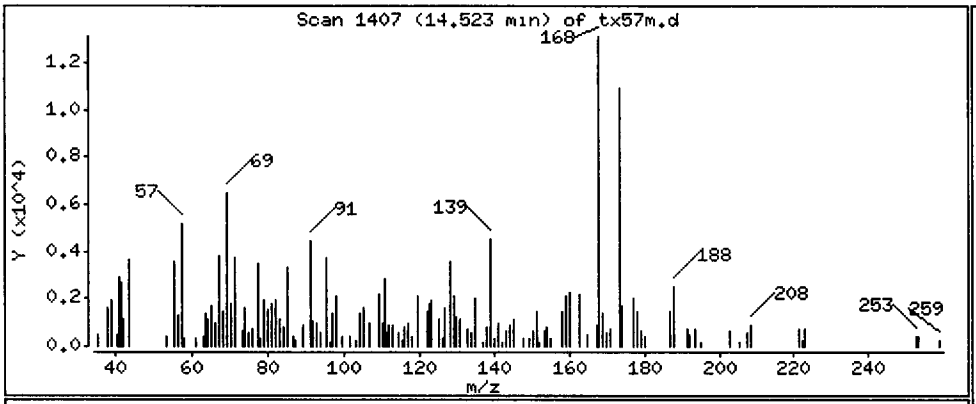
Client ID: SD0024 Instrument: nt10.i

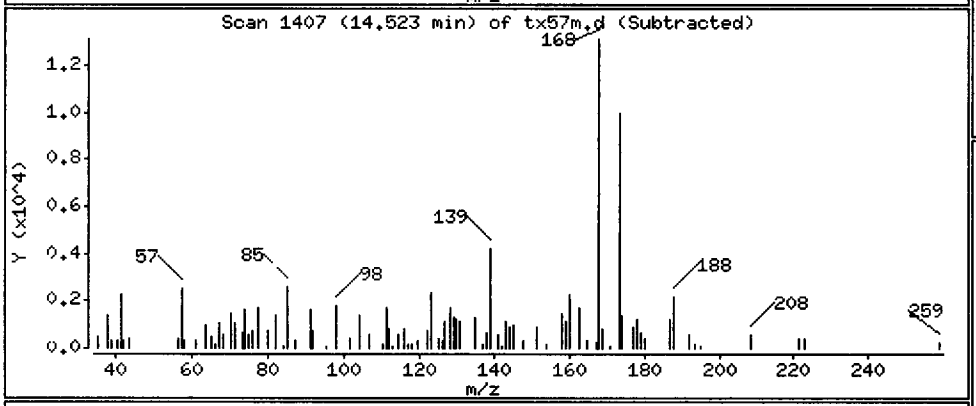
Sample Info: TX57M

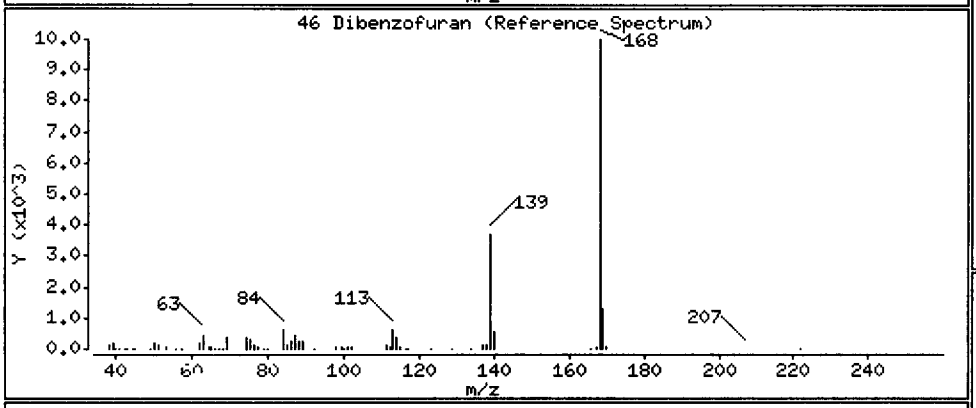
Volume Injected (uL): 1.0 Operator: YZ

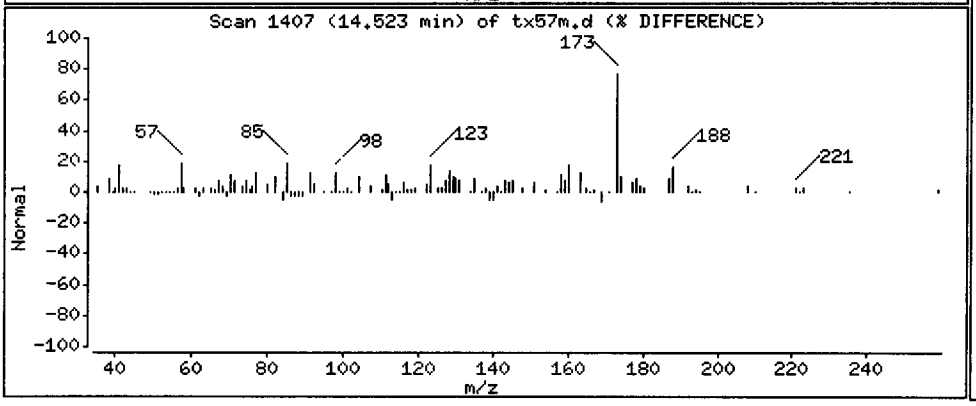
Column phase: ZB-5msi Column diameter: 0.25

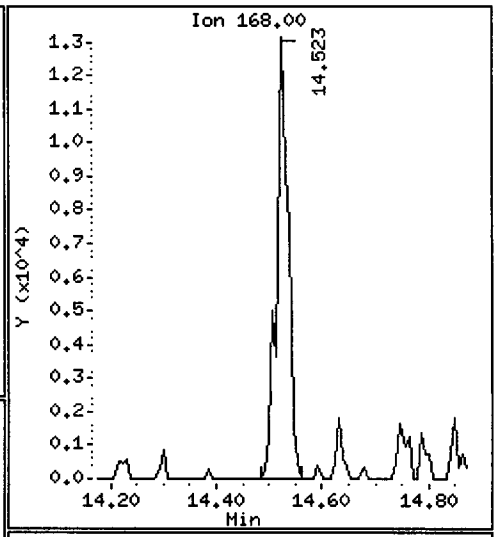
46 Dibenzofuran Concentration: 9.765 ug/kg

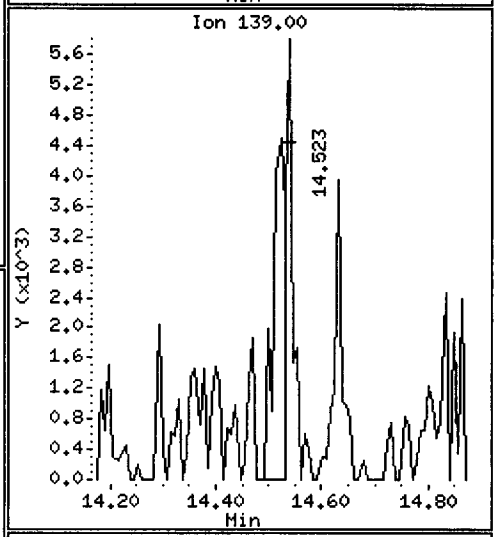


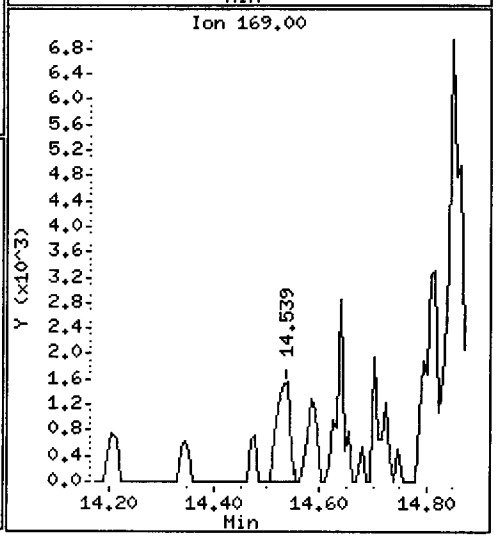












Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

Client ID: SD0024

Instrument: nt10.i

Sample Info: TX57M

Volume Injected (uL): 1.0

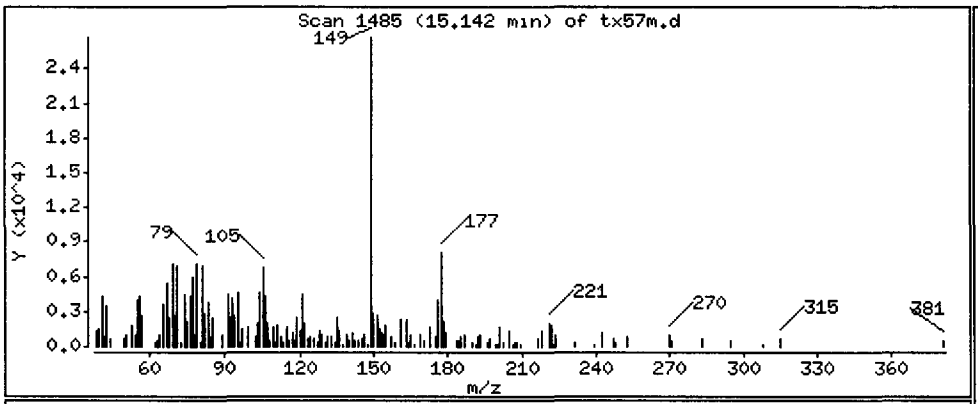
Operator: YZ

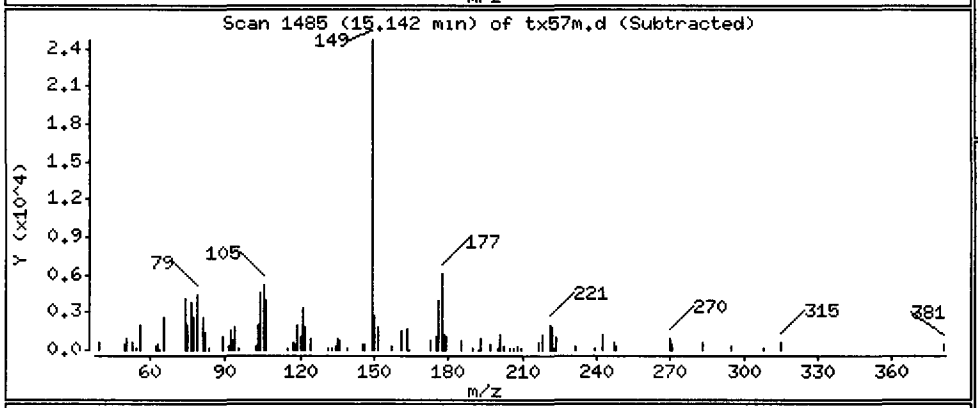
Column phase: ZB-5ms1

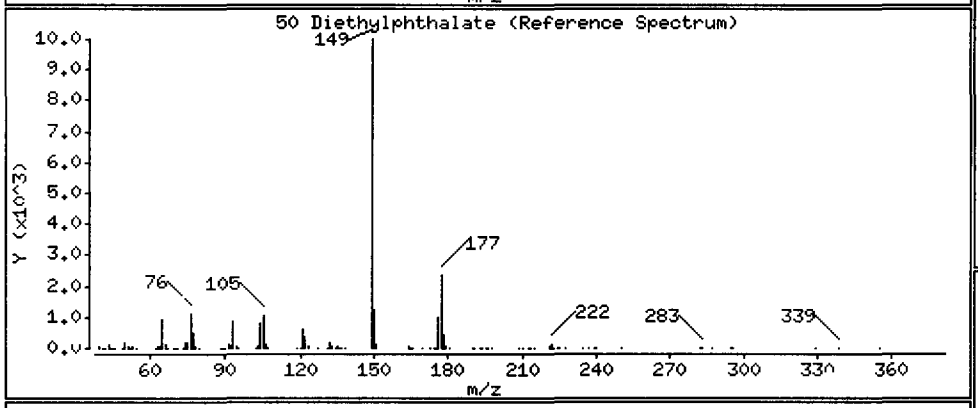
Column diameter: 0.25

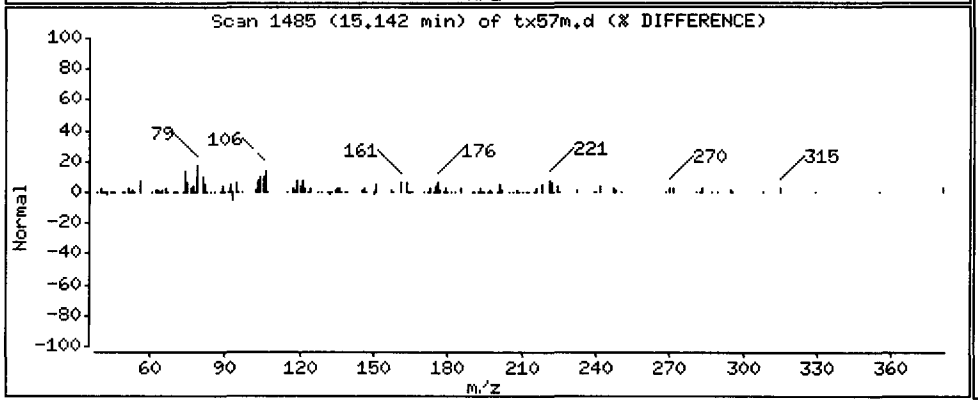
50 Diethylphthalate

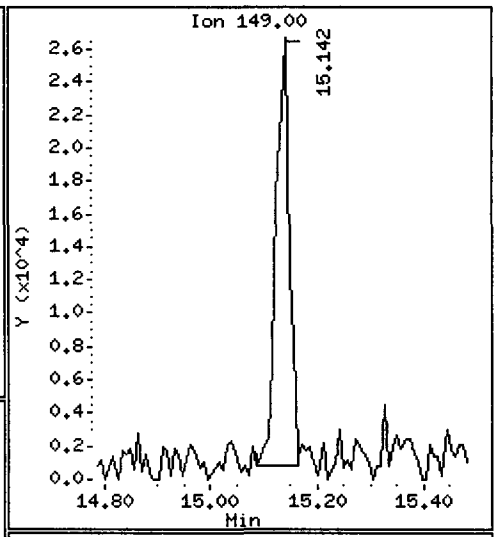
Concentration: 26.65 ug/kg

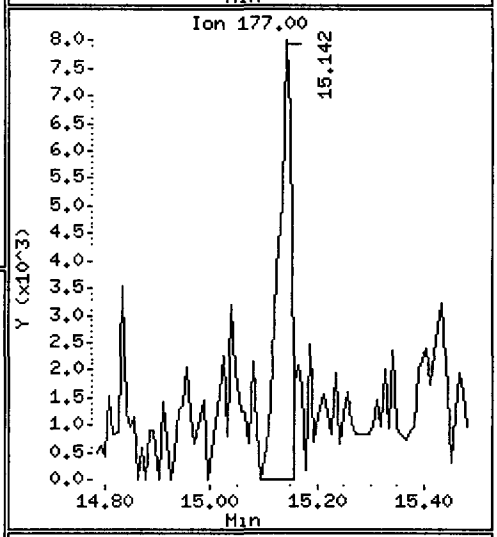


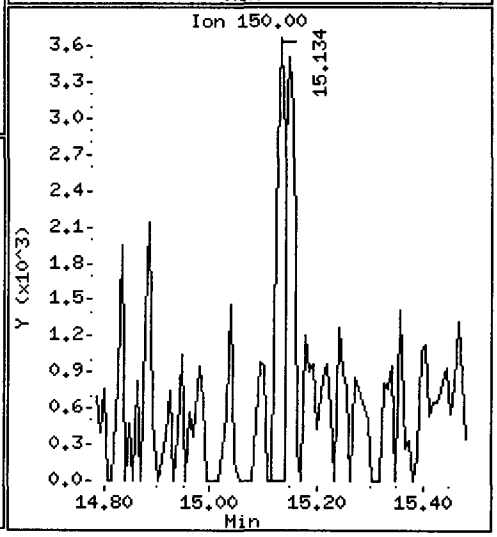












Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

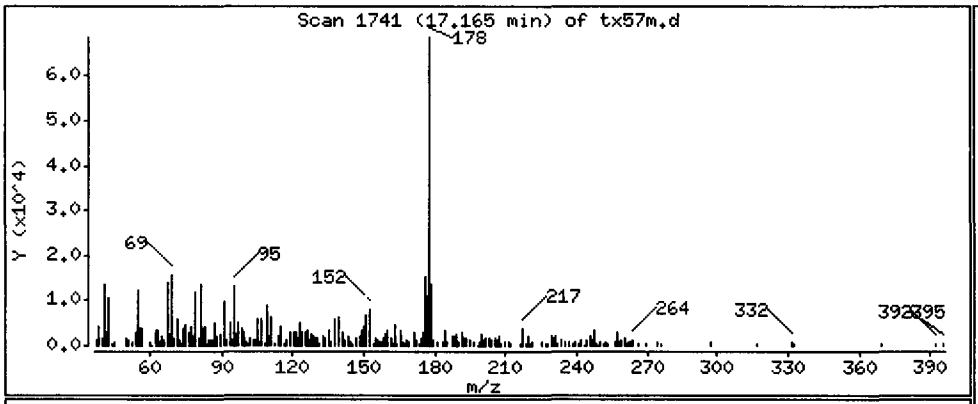
Client ID: SD0024 Instrument: nt10.i

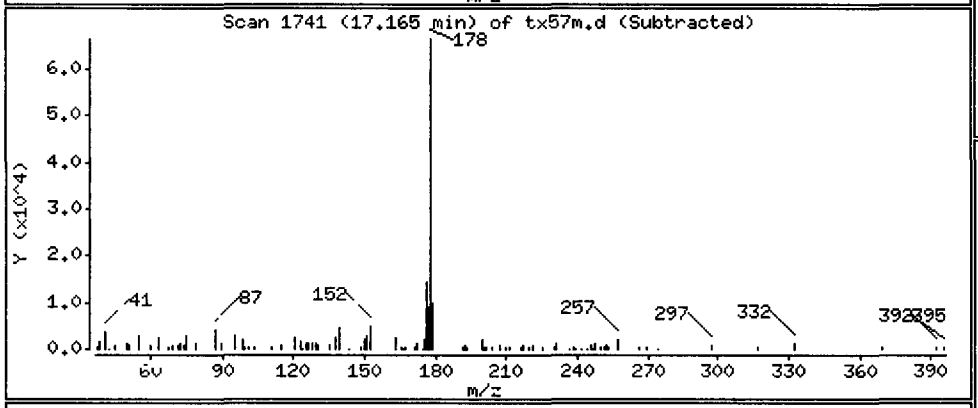
Sample Info: TX57M

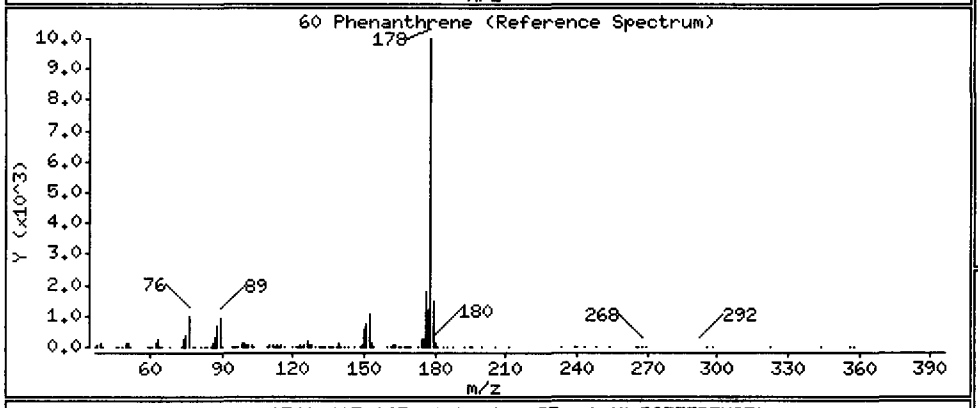
Volume Injected (uL): 1.0 Operator: YZ

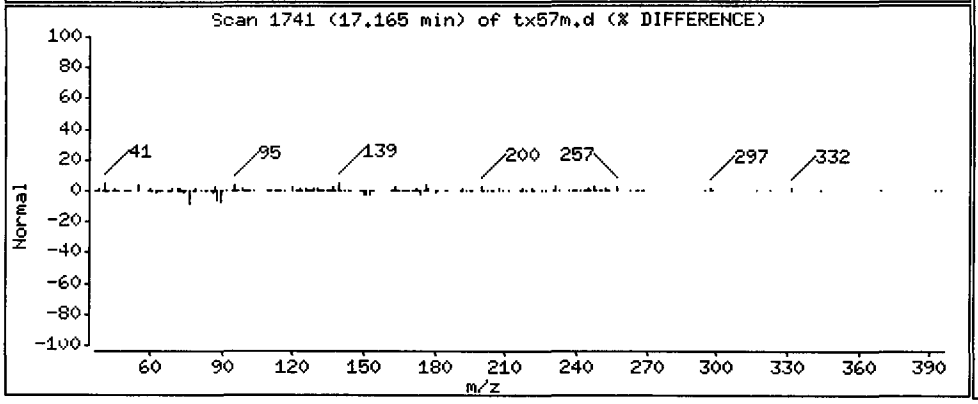
Column phase: ZB-5ms1 Column diameter: 0.25

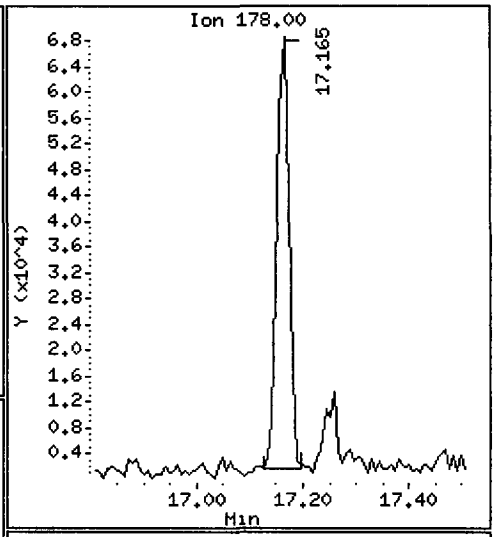
60 Phenanthrene Concentration: 40.83 ug/kg

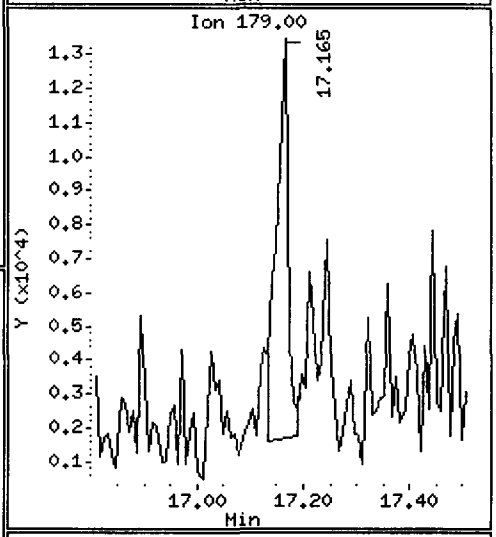


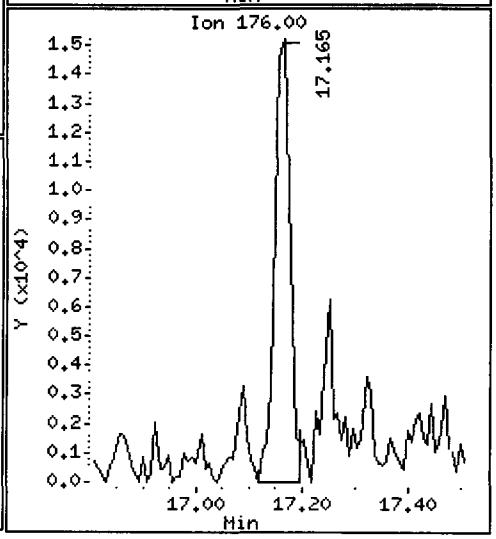












Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

Client ID: SD0024

Instrument: nt10.i

Sample Info: TX57M

Volume Injected (uL): 1.0

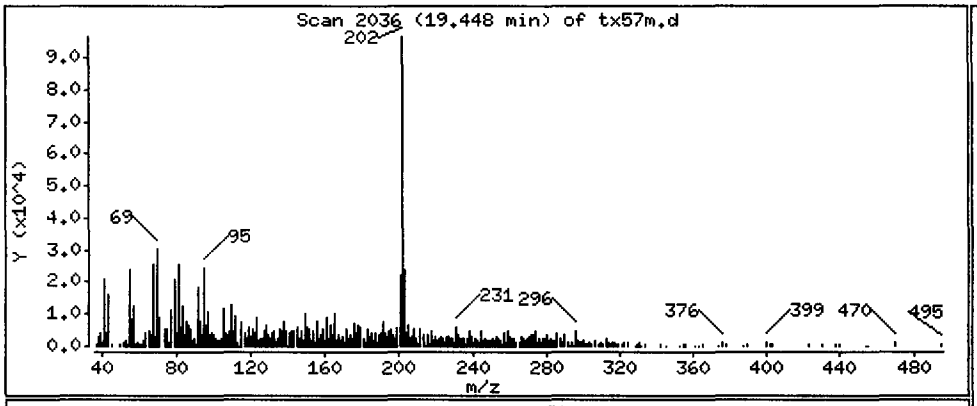
Operator: YZ

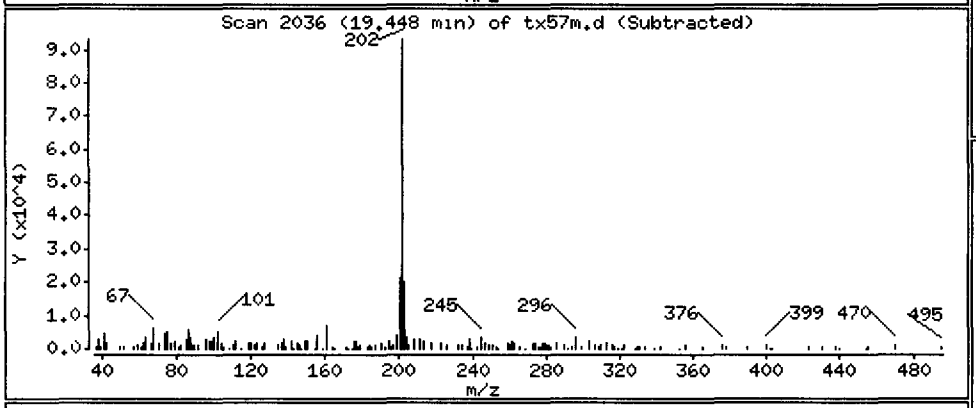
Column phase: ZB-5msi

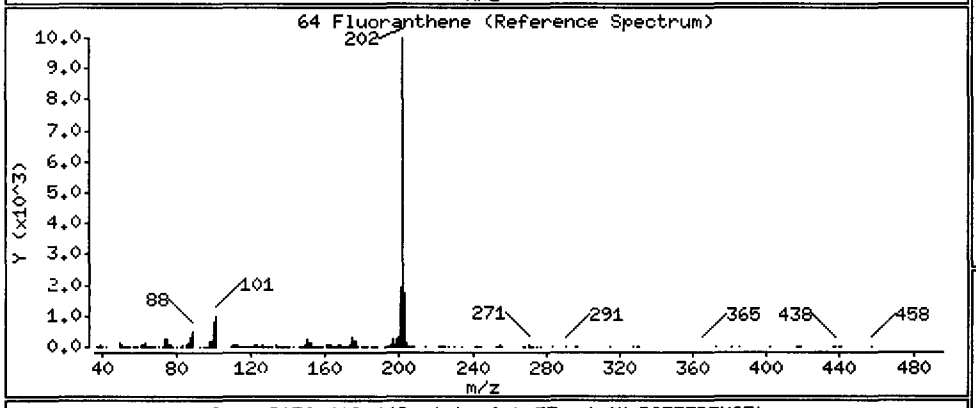
Column diameter: 0.25

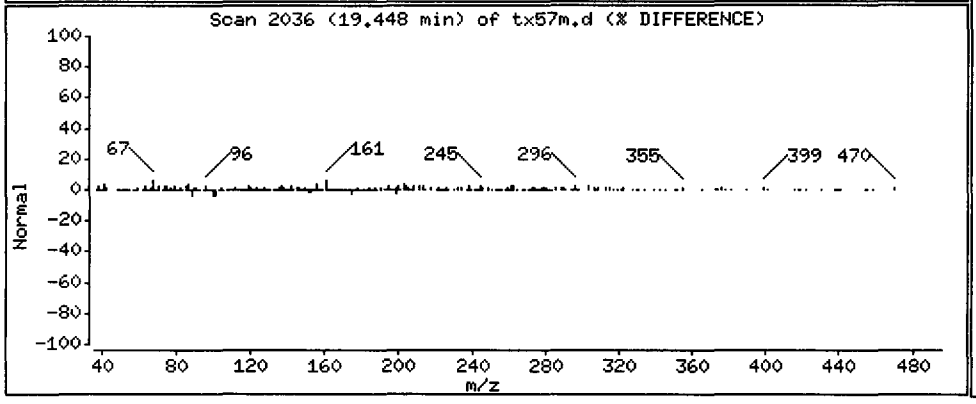
64 Fluoranthene

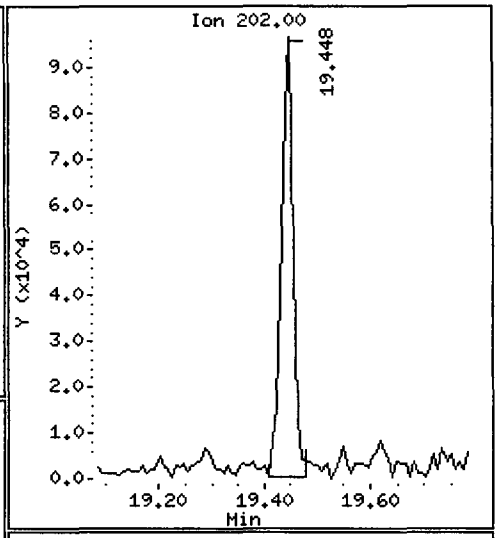
Concentration: 43.80 ug/kg

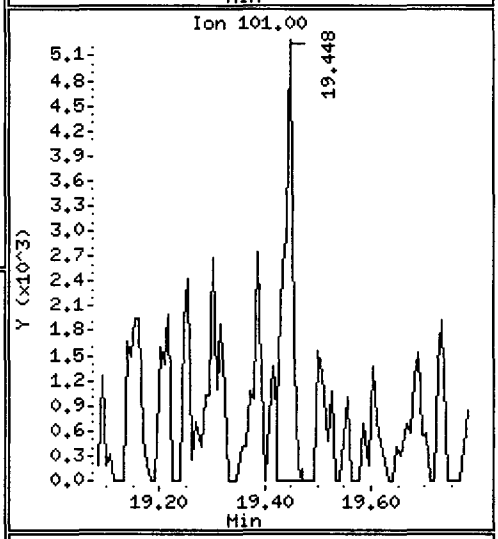


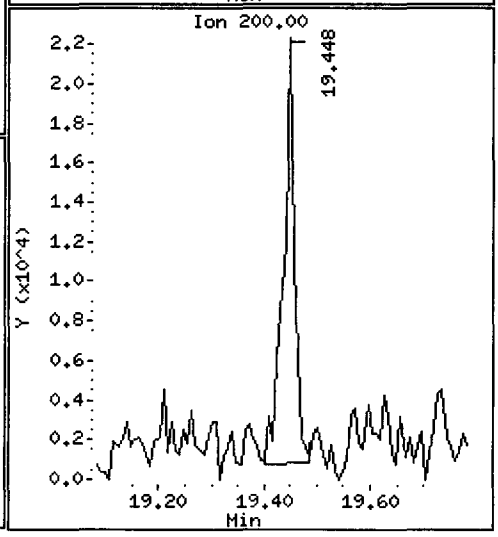












Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

Client ID: SD0024

Instrument: nt10.i

Sample Info: TX57M

Volume Injected (uL): 1.0

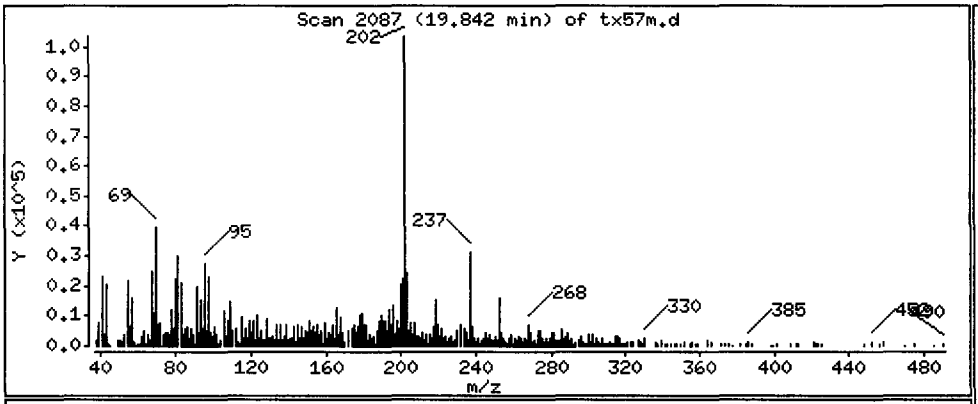
Operator: YZ

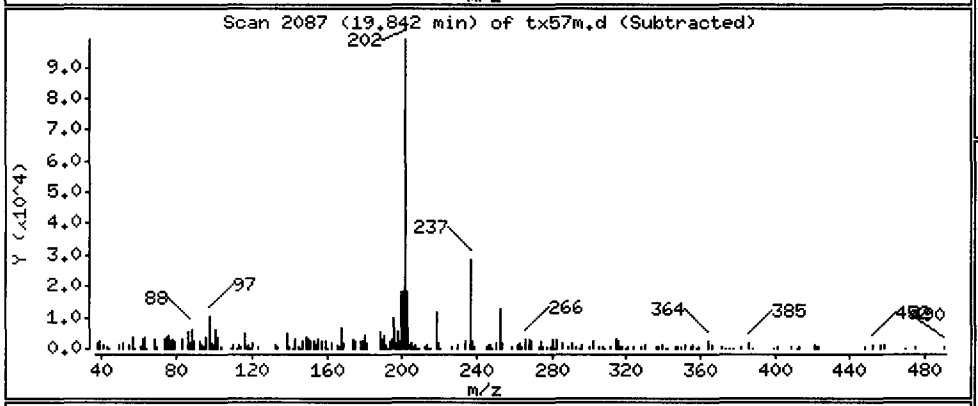
Column phase: ZB-5msi

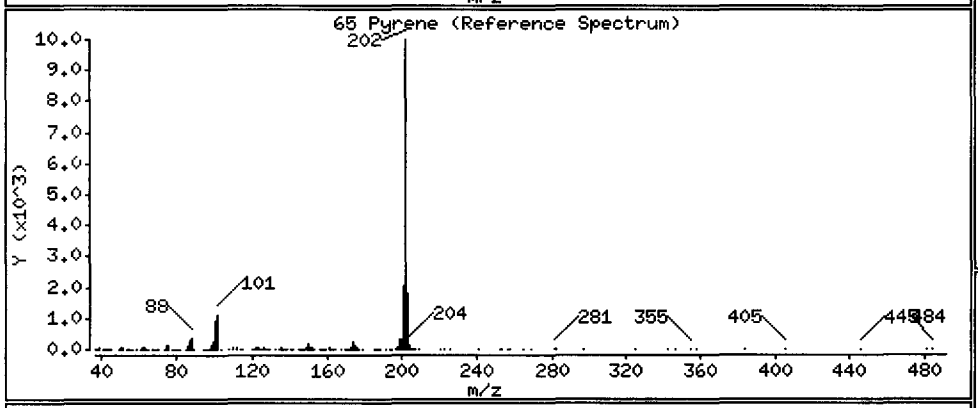
Column diameter: 0.25

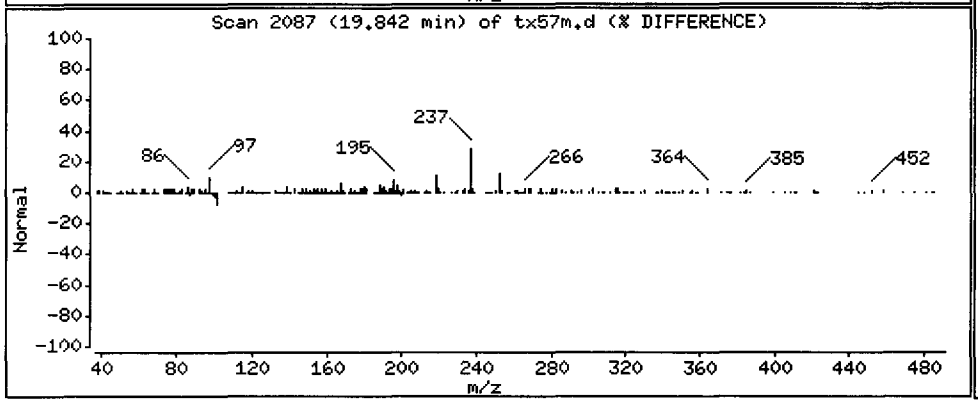
65 Pyrene

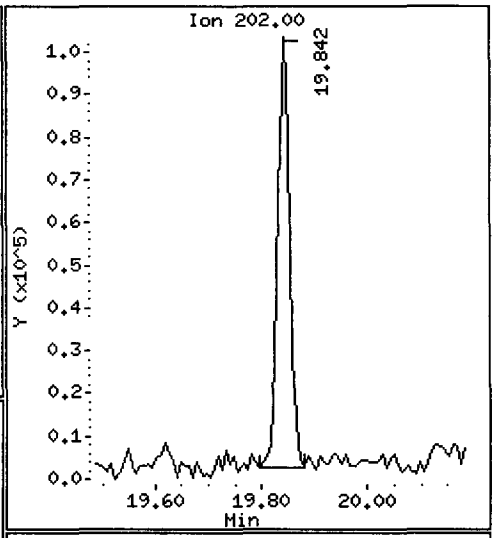
Concentration: 39.53 ug/kg

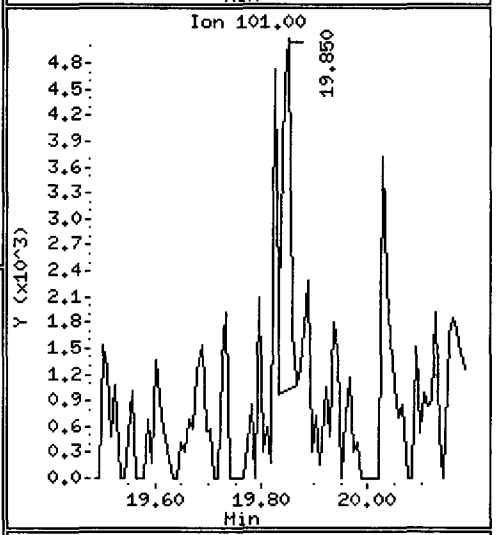


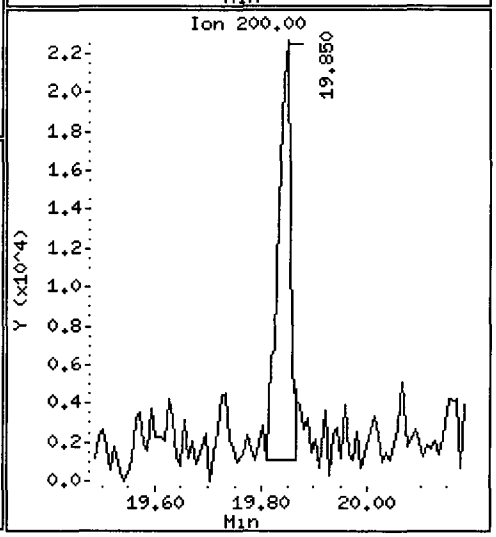












Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

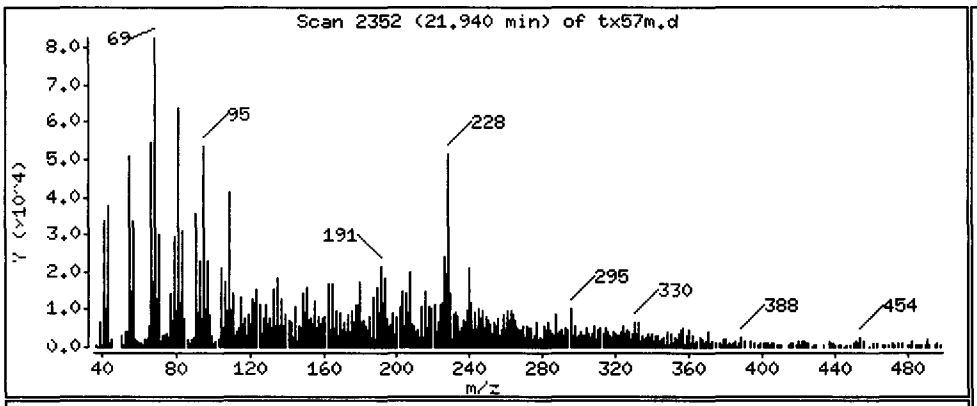
Client ID: SD0024 Instrument: nt10.i

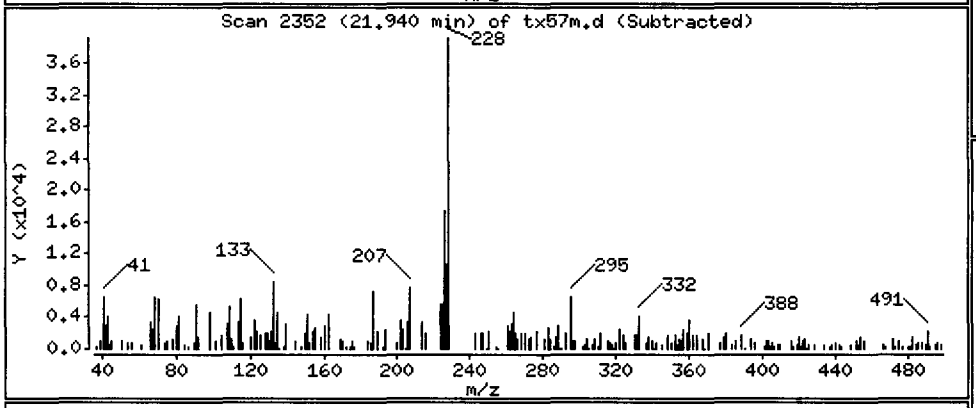
Sample Info: TX57M

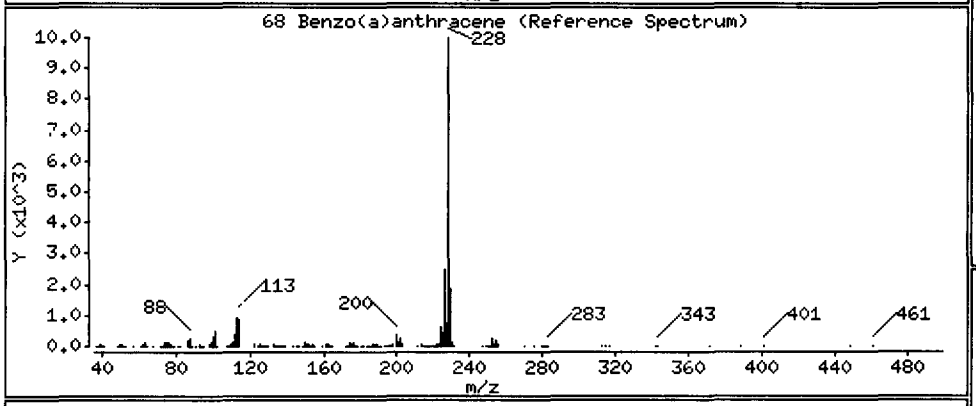
Volume Injected (uL): 1.0 Operator: YZ

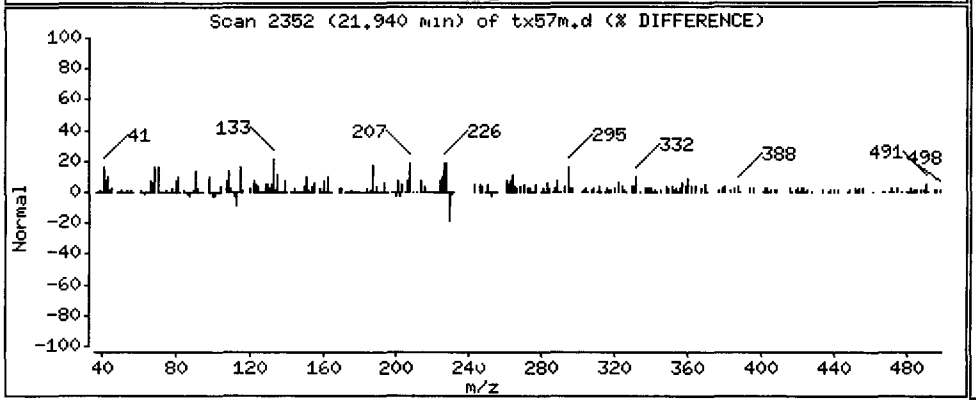
Column phase: ZB-5msi Column diameter: 0.25

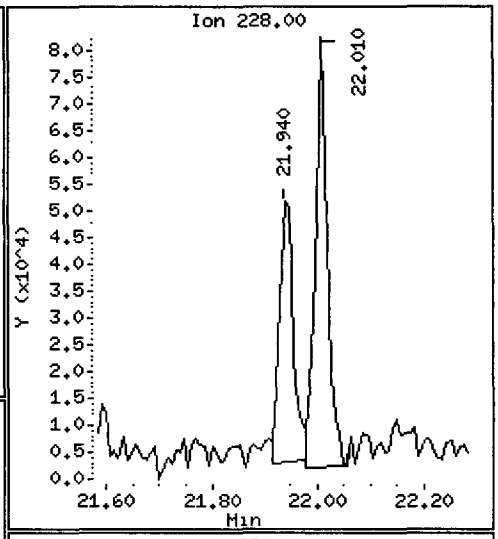
68 Benzo(a)anthracene Concentration: 20.72 ug/kg

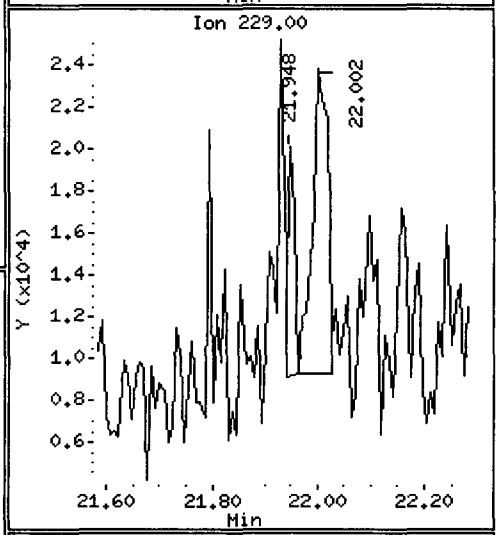


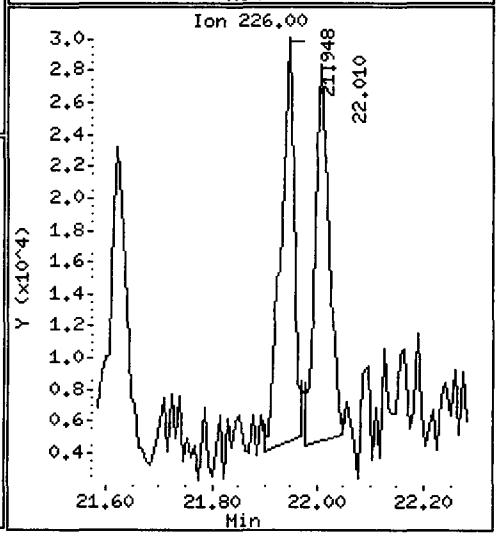












Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

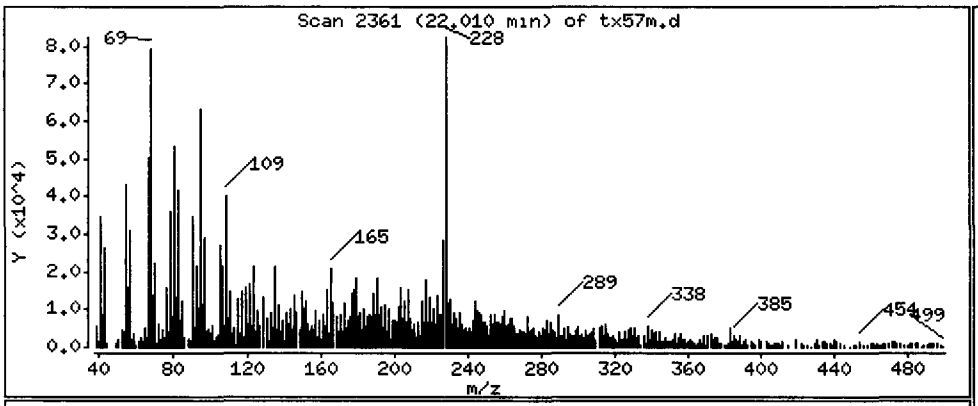
Client ID: SD0024 Instrument: nt10.i

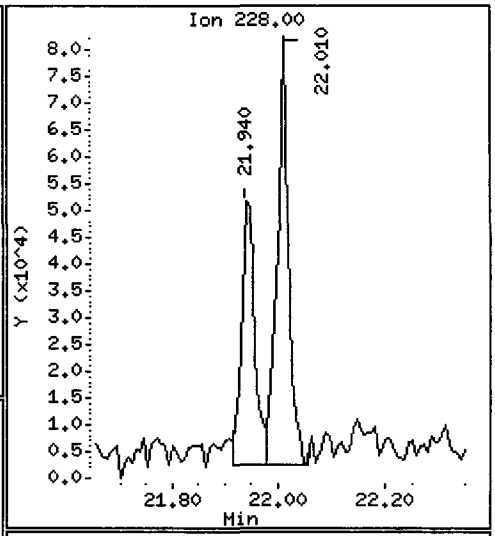
Sample Info: TX57M

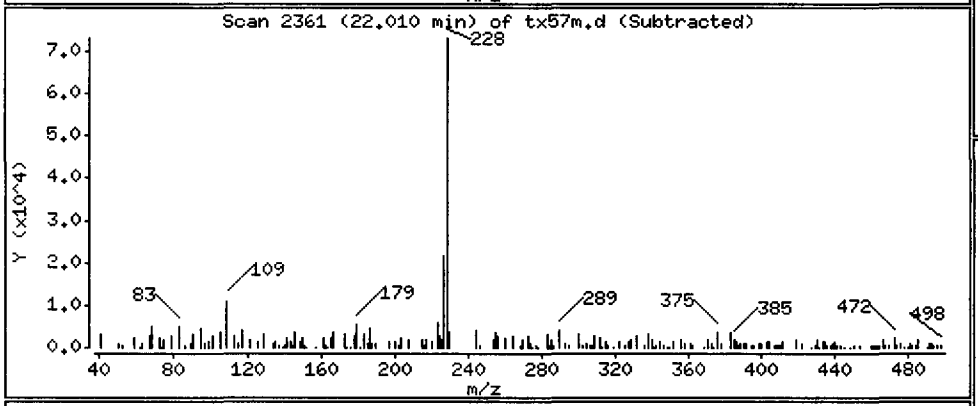
Volume Injected (uL): 1.0 Operator: YZ

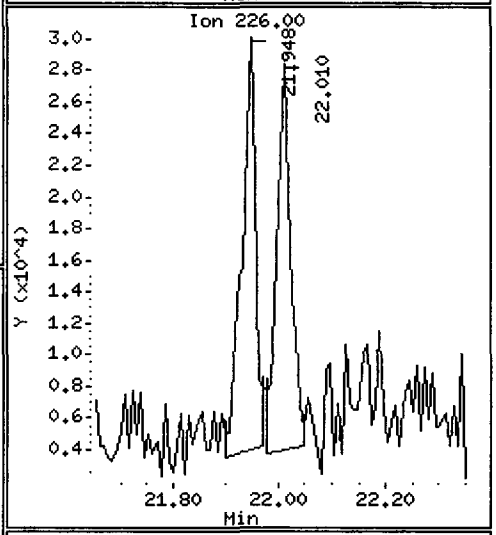
Column phase: ZB-5msi Column diameter: 0.25

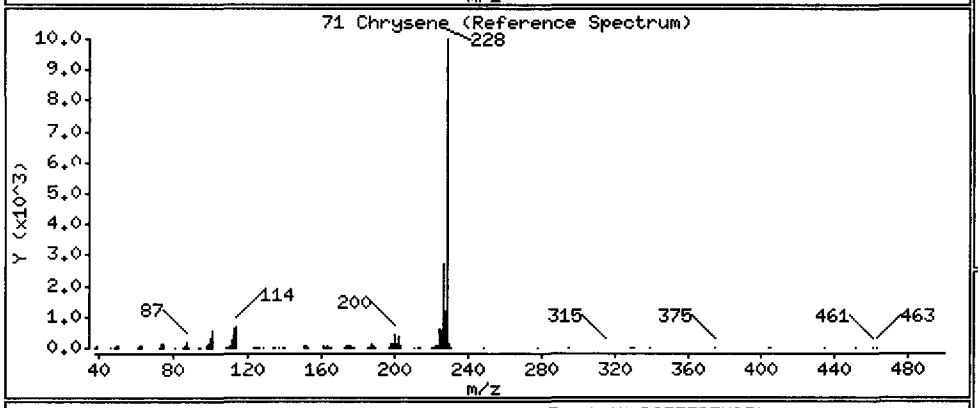
71 Chrysene Concentration: 31.18 ug/kg

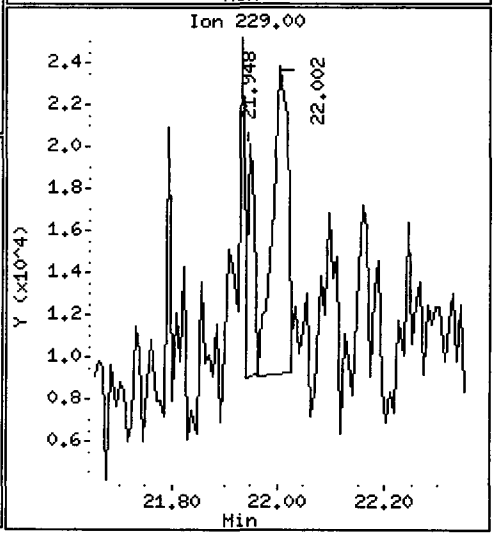


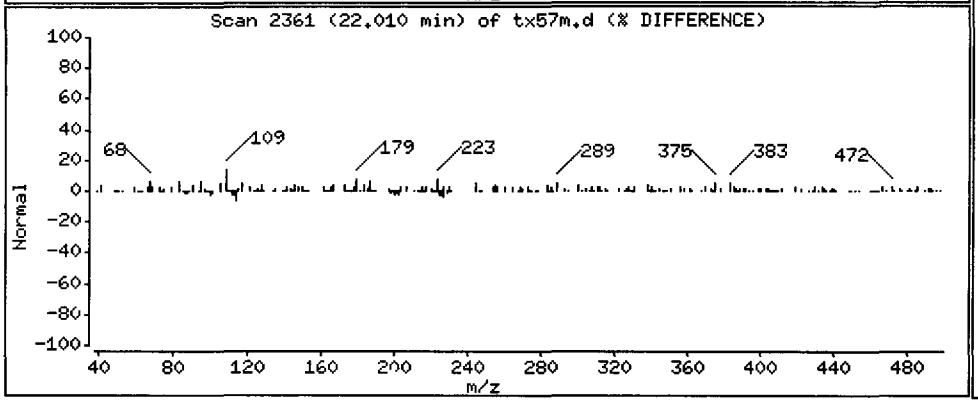












Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

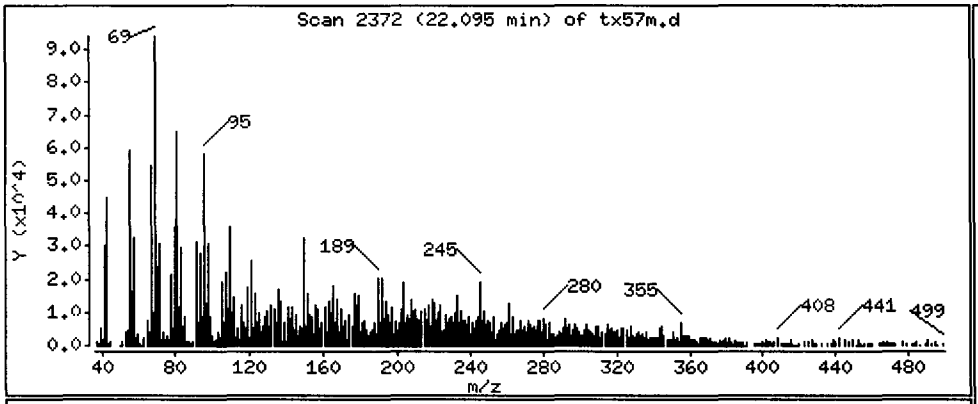
Client ID: SD0024 Instrument: nt10.i

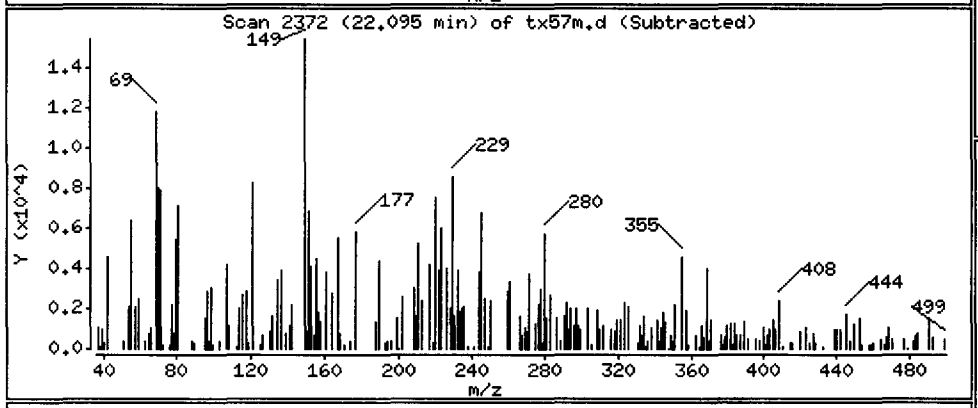
Sample Info: TX57M

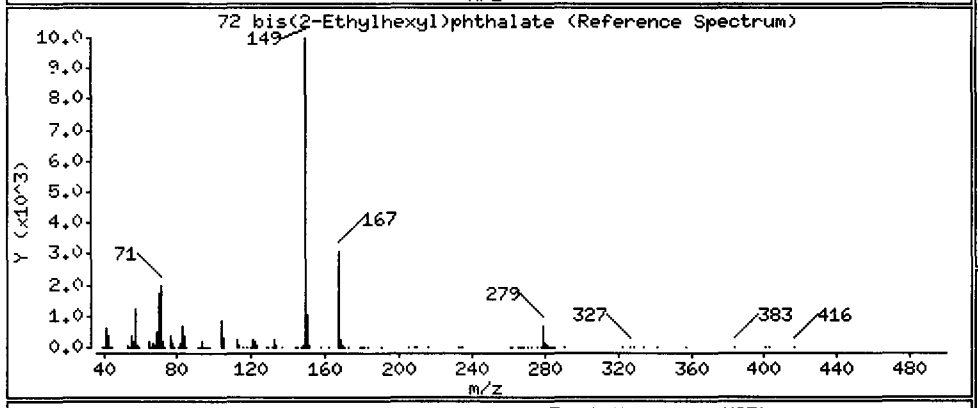
Volume Injected (uL): 1.0 Operator: YZ

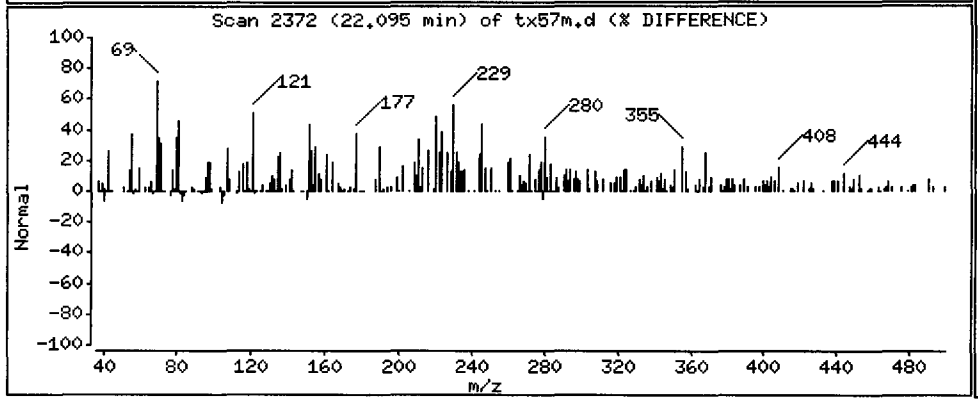
Column phase: ZB-5msi Column diameter: 0.25

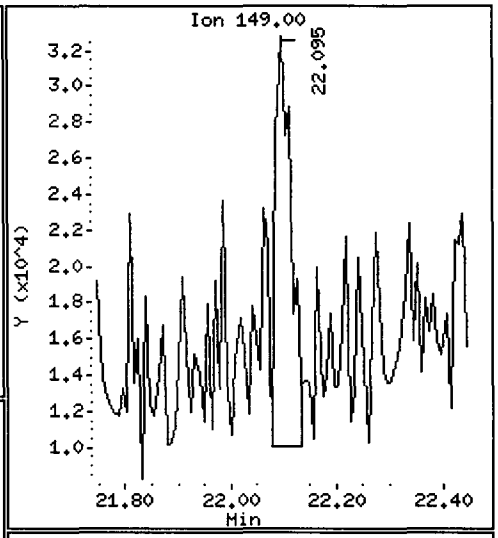
72 bis(2-Ethylhexyl)phthalate Concentration: 24.10 ug/kg

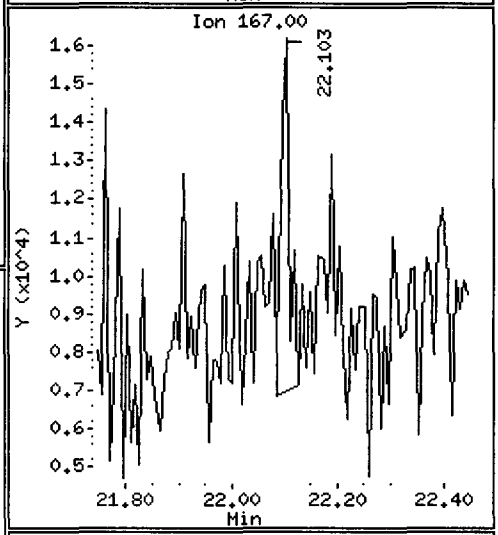


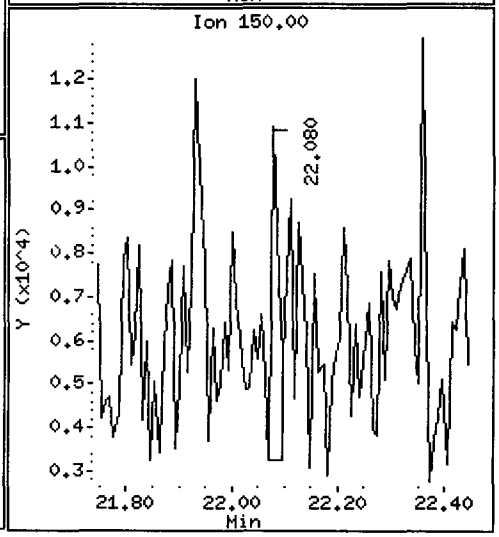












Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

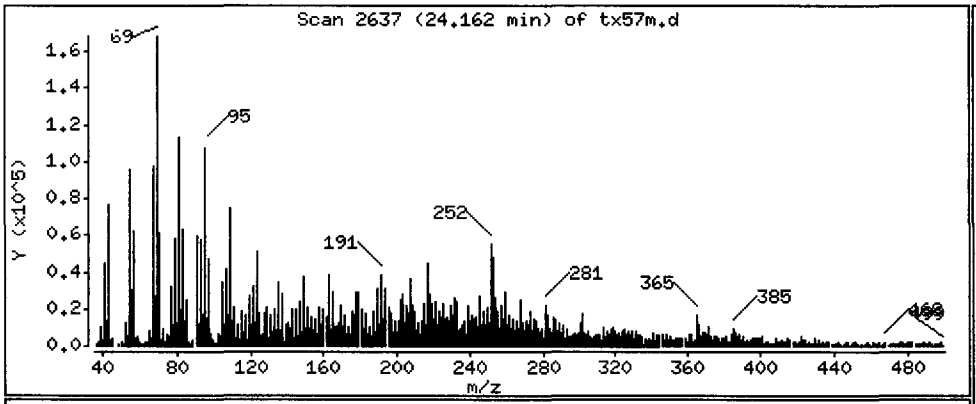
Client ID: SD0024 Instrument: nt10.i

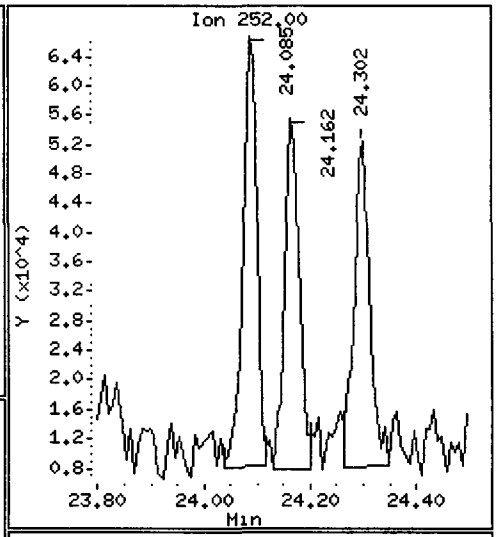
Sample Info: TX57M

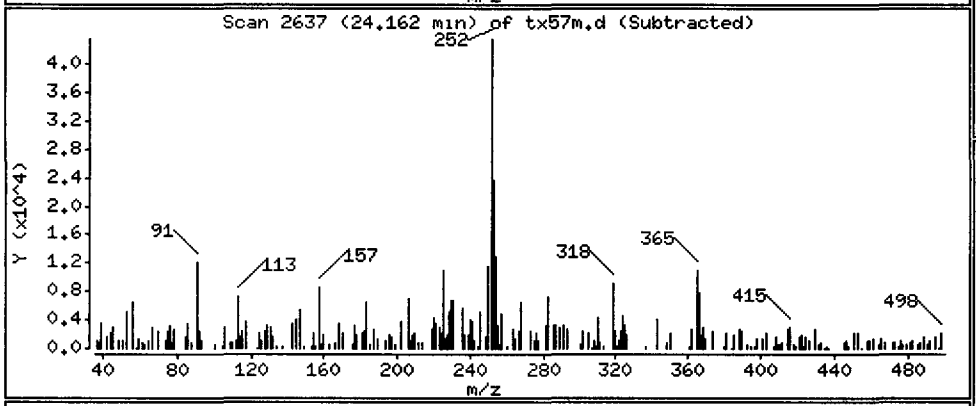
Volume Injected (uL): 1.0 Operator: YZ

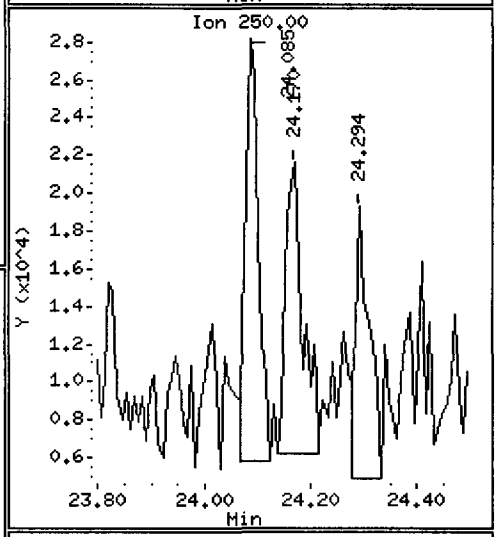
Column phase: ZB-5ms1 Column diameter: 0.25

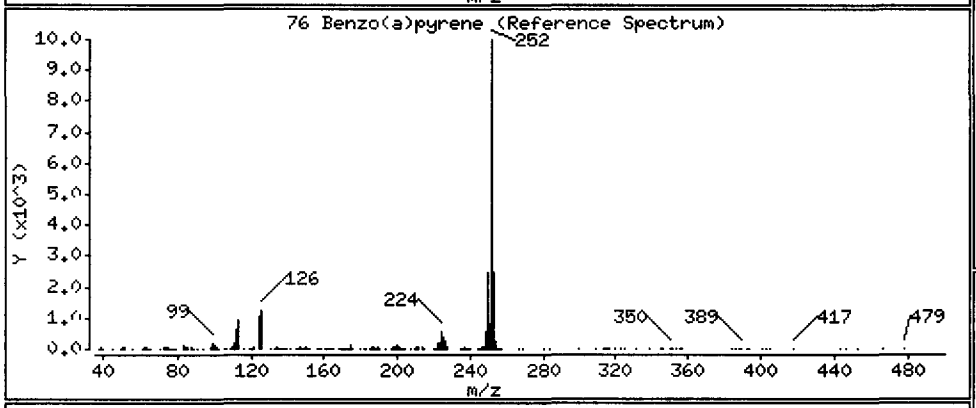
76 Benzo(a)pyrene Concentration: 27.68 ug/kg

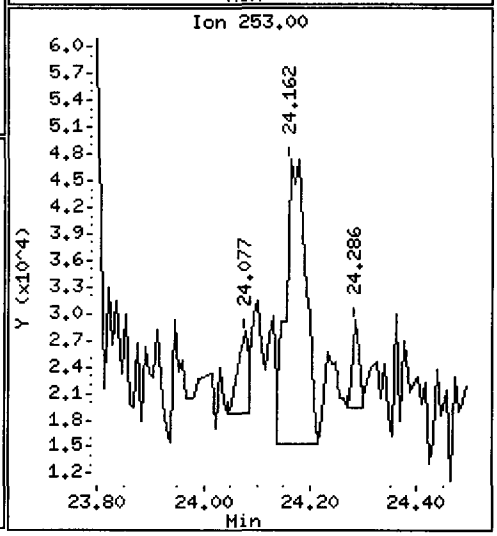


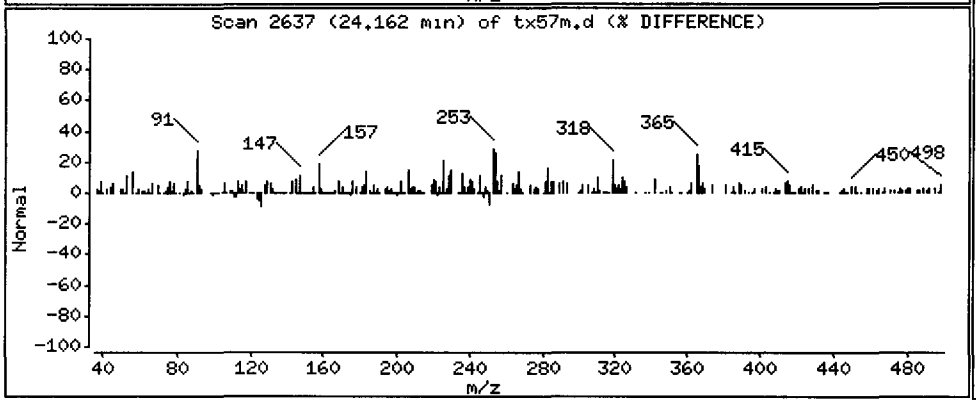












Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

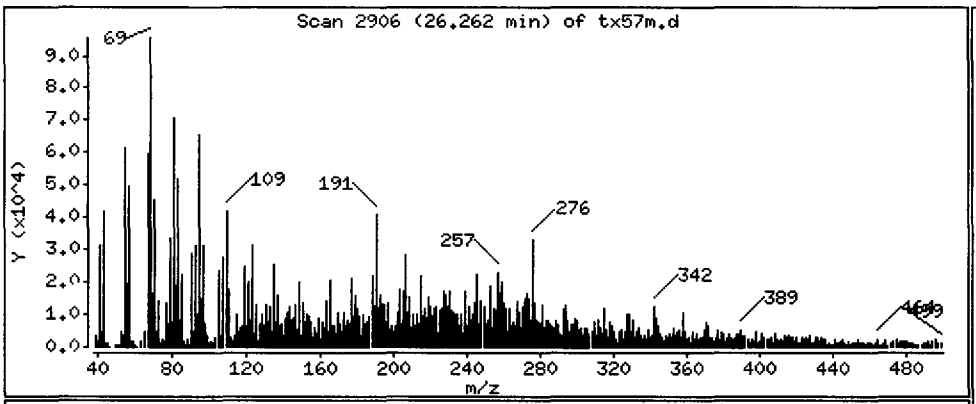
Client ID: SD0024 Instrument: nt10.i

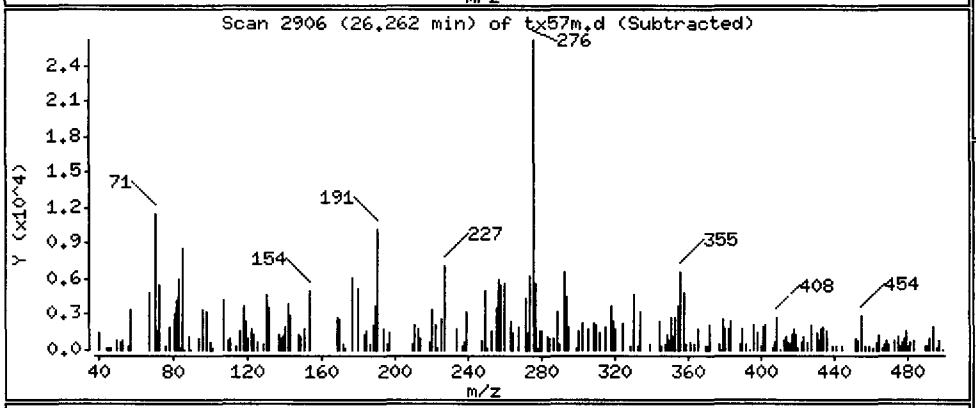
Sample Info: TX57M

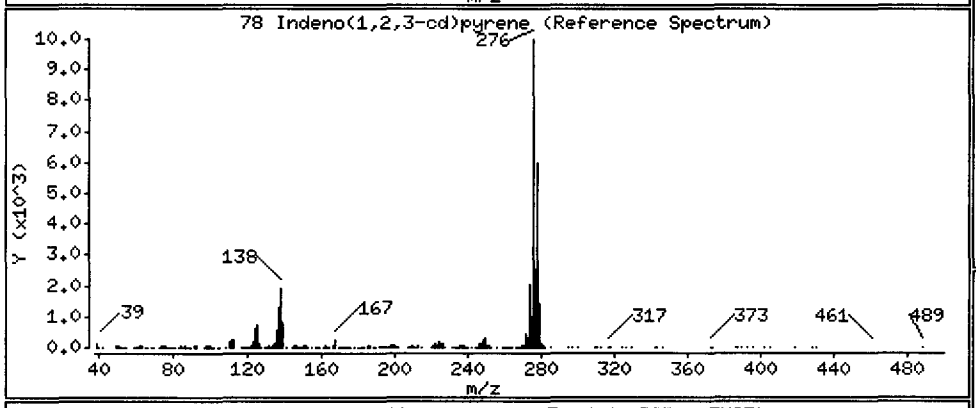
Volume Injected (uL): 1.0 Operator: YZ

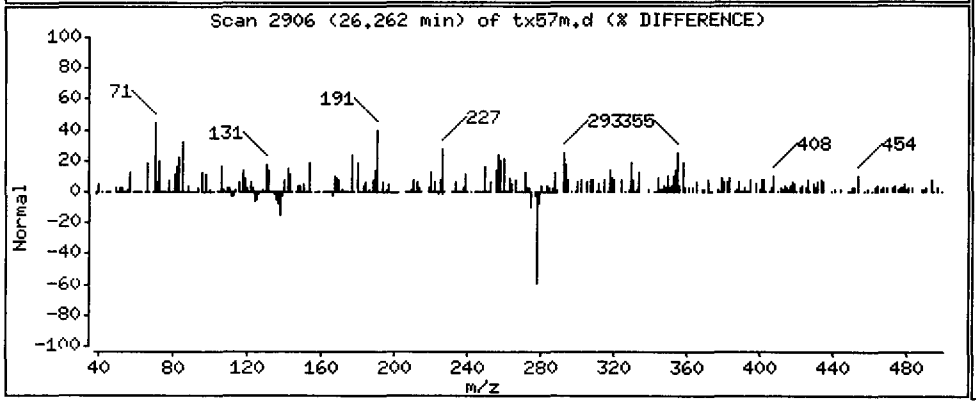
Column phase: ZB-5msi Column diameter: 0.25

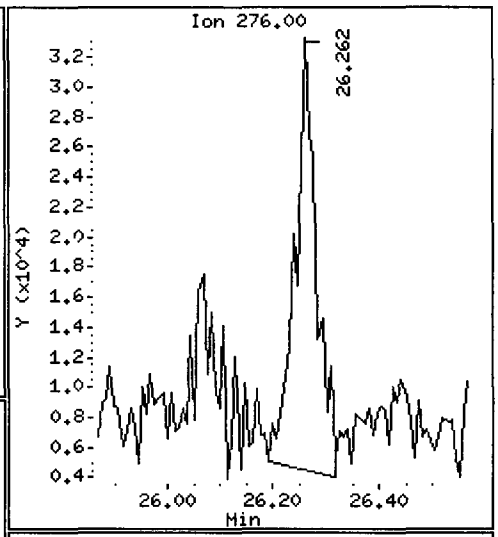
78 Indeno(1,2,3-cd)pyrene Concentration: 18.06 ug/kg

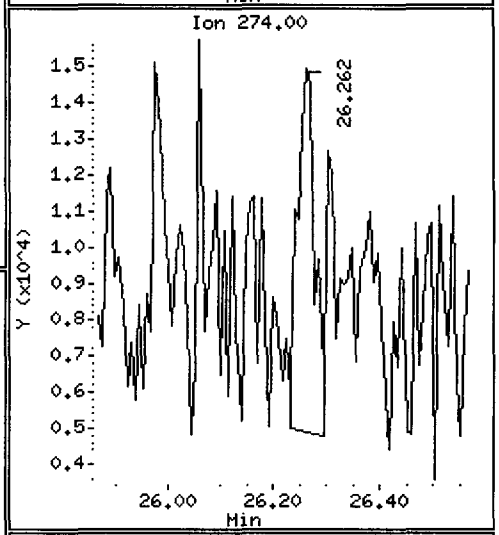


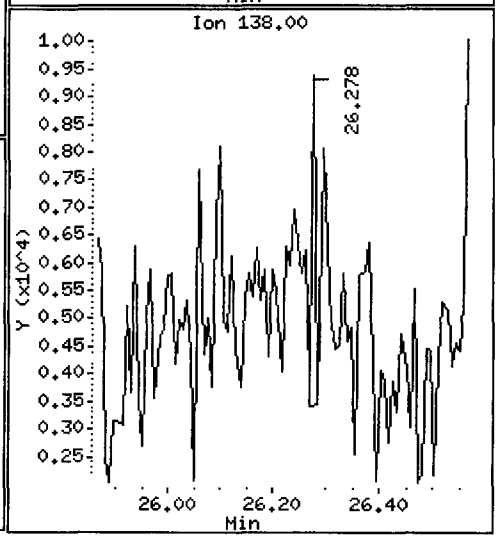












Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

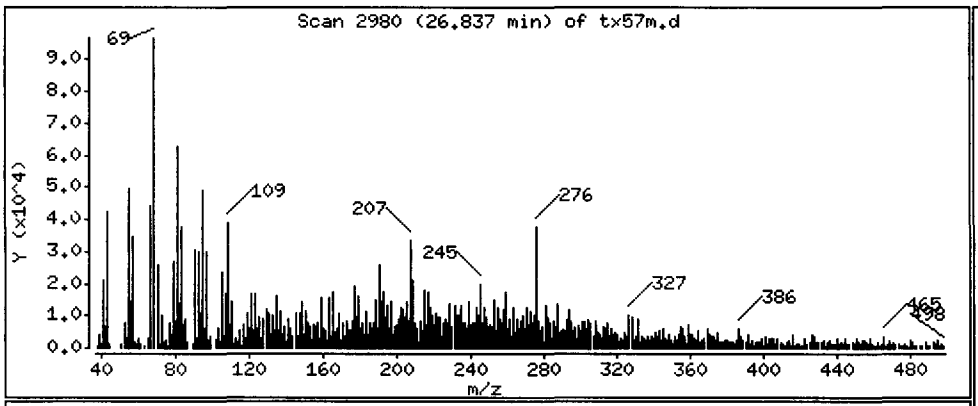
Client ID: SD0024 Instrument: nt10.i

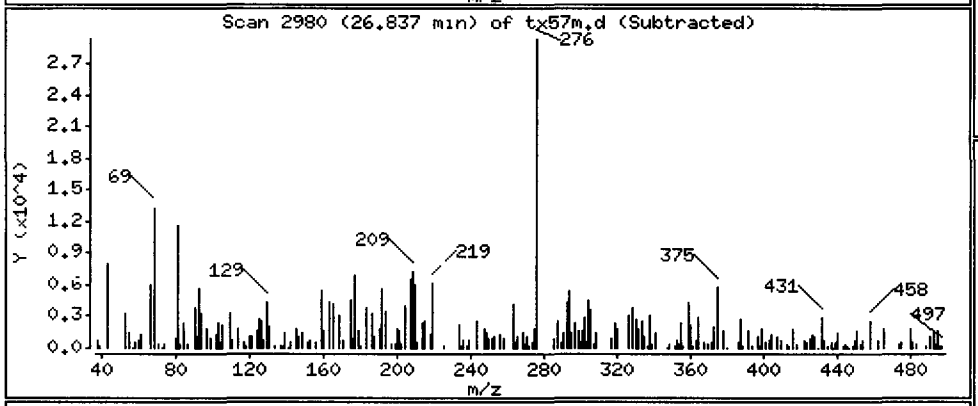
Sample Info: TX57M

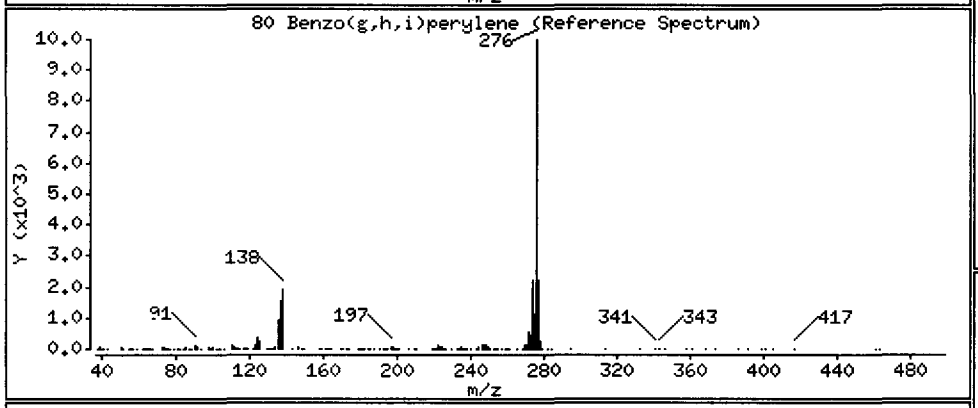
Volume Injected (uL): 1.0 Operator: YZ

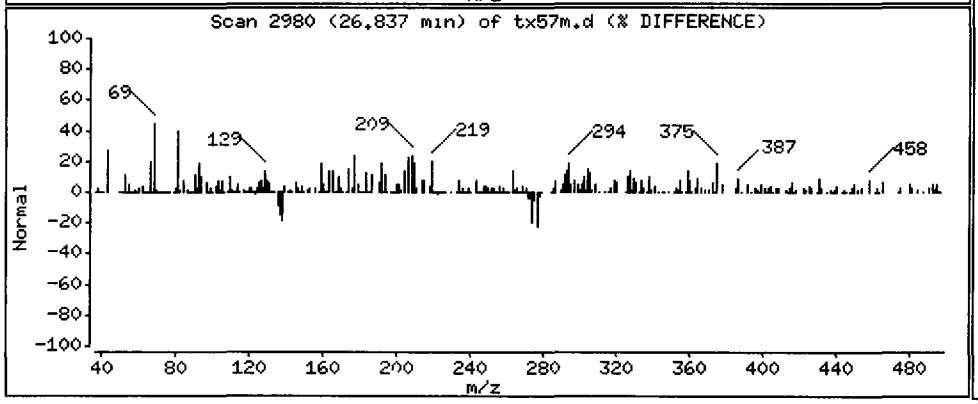
Column phase: ZB-5ms1 Column diameter: 0.25

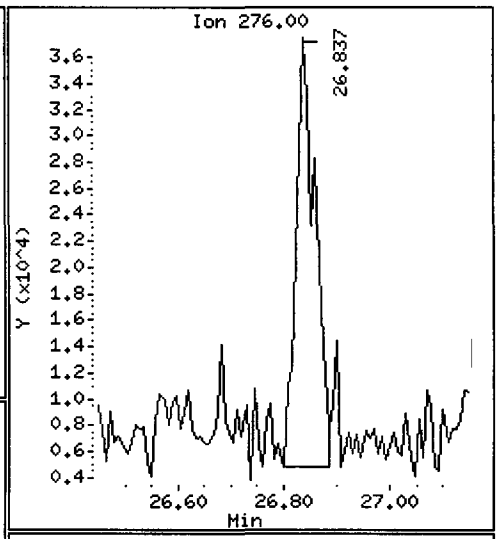
80 Benzo(g,h,i)perylene Concentration: 22.47 ug/kg

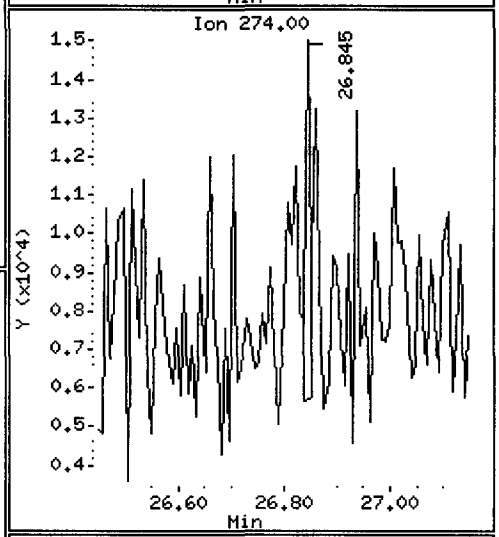


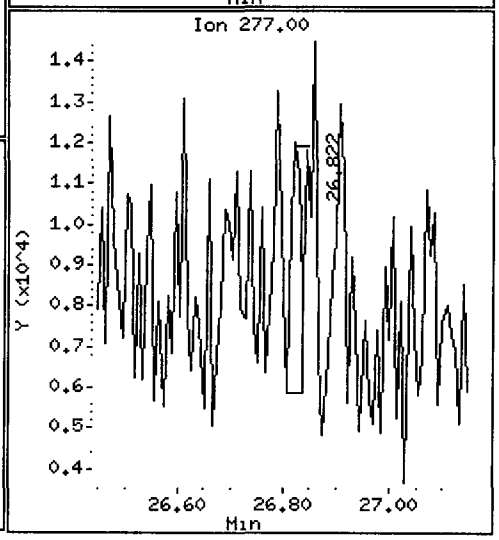












Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

Client ID: SD0024

Instrument: nt10.i

Sample Info: TX57M

Volume Injected (uL): 1.0

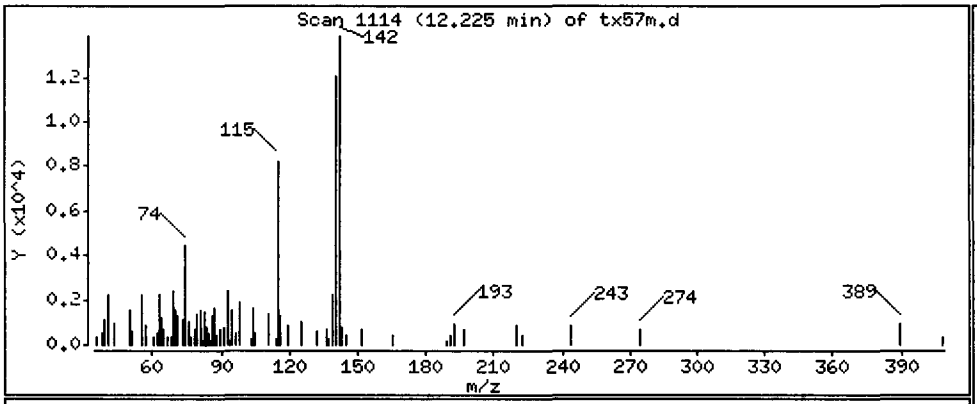
Operator: YZ

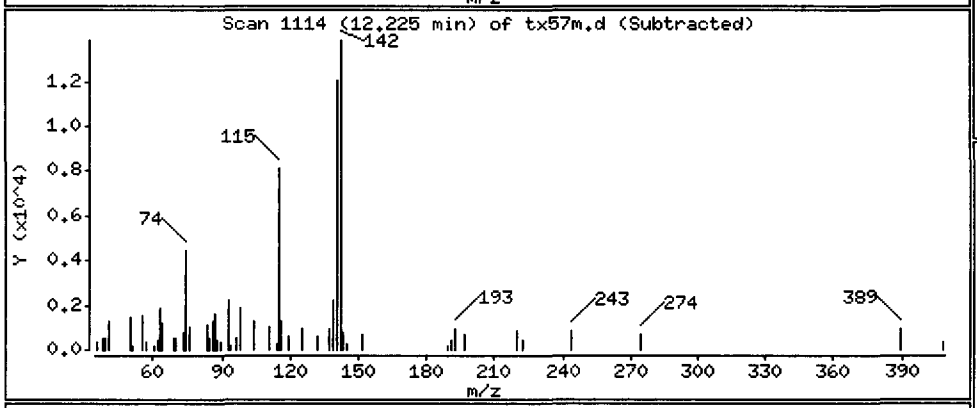
Column phase: ZB-5msi

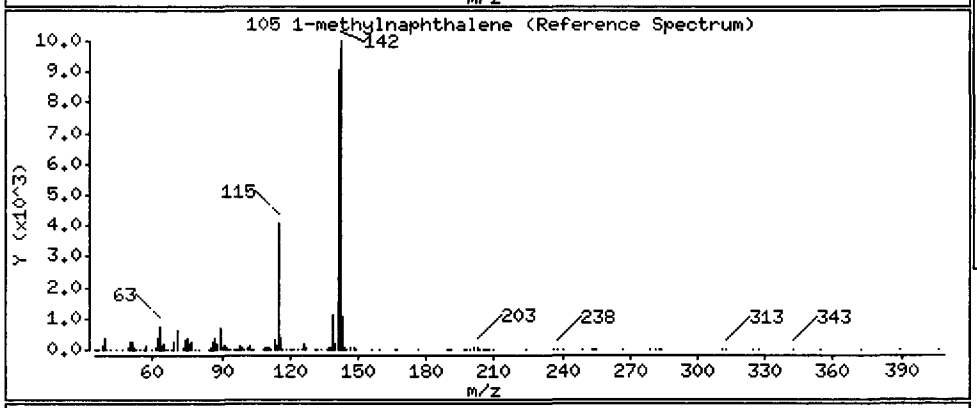
Column diameter: 0.25

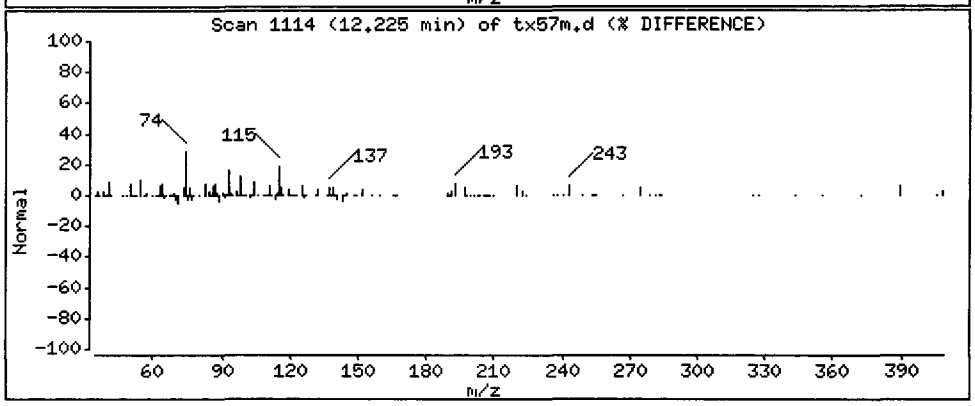
105 1-methylnaphthalene

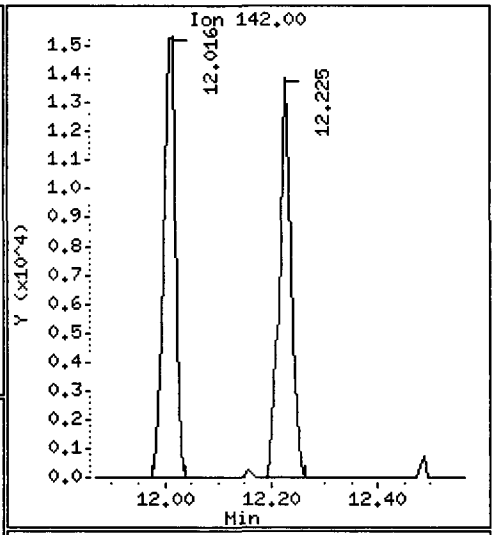
Concentration: 16.02 ug/kg

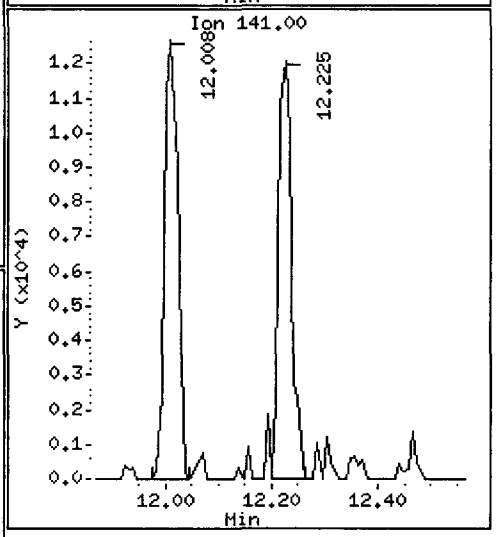












Data File: /chem1/nt10.i/20111206.b/tx57m.d

Date : 07-DEC-2011 00:48

Client ID: SD0024

Instrument: nt10.i

Sample Info: TX57M

Volume Injected (uL): 1.0

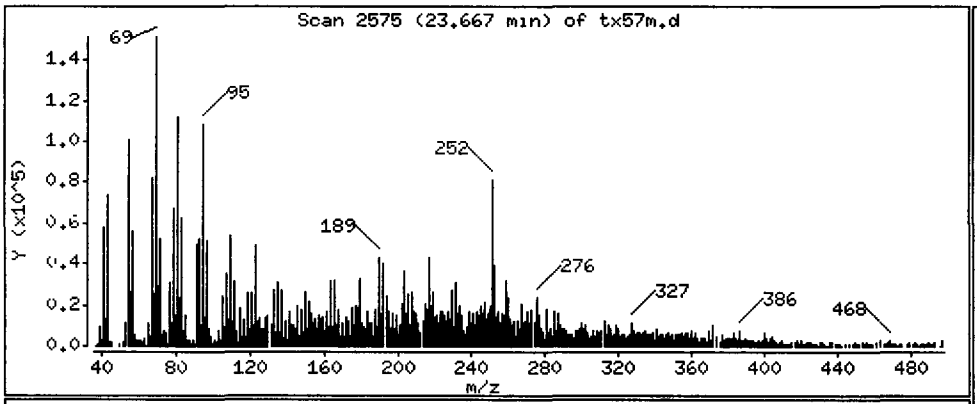
Operator: YZ

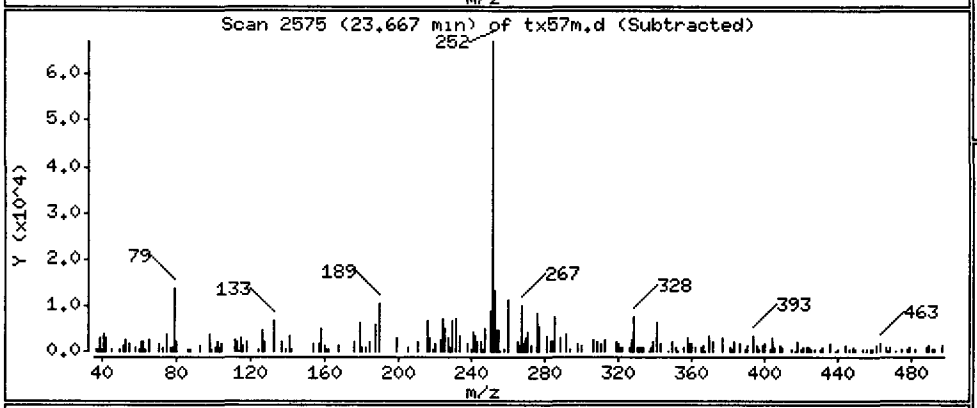
Column phase: ZB-5msi

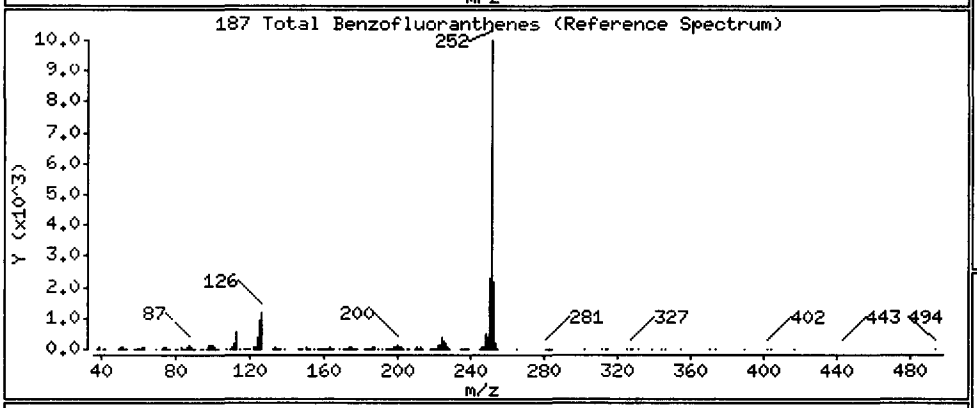
Column diameter: 0.25

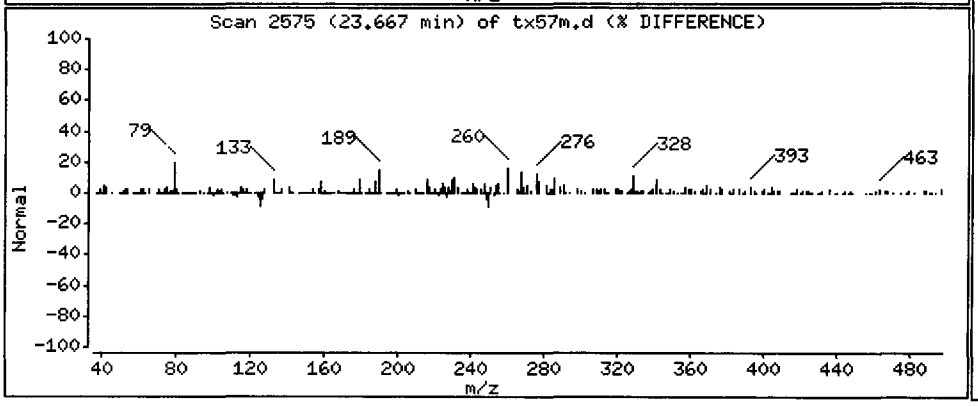
187 Total Benzofluoranthenes

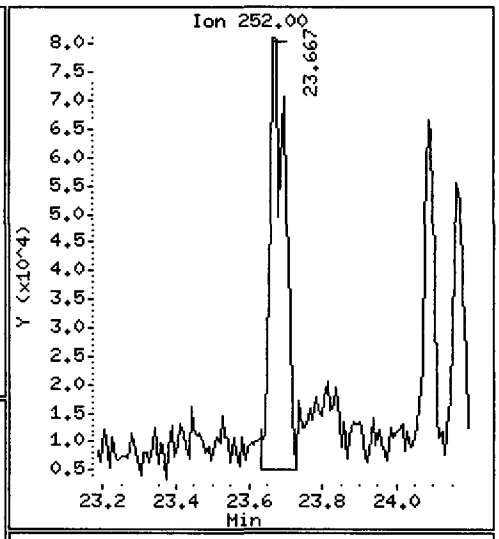
Concentration: 57.82 ug/kg

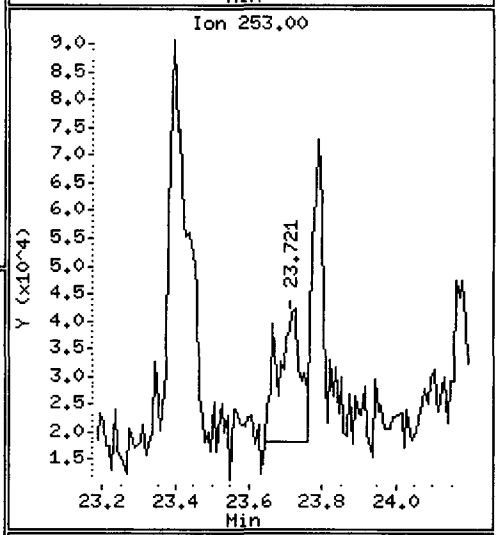


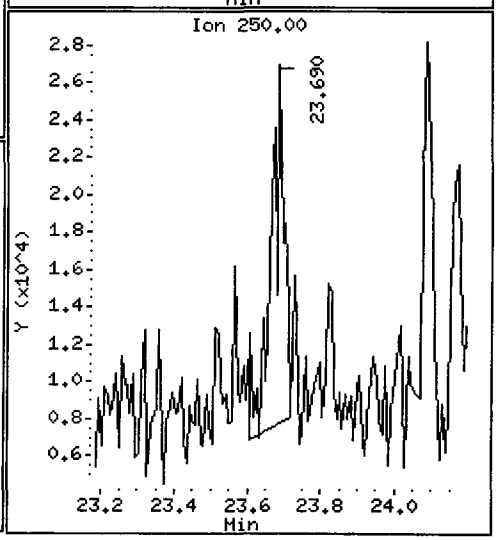






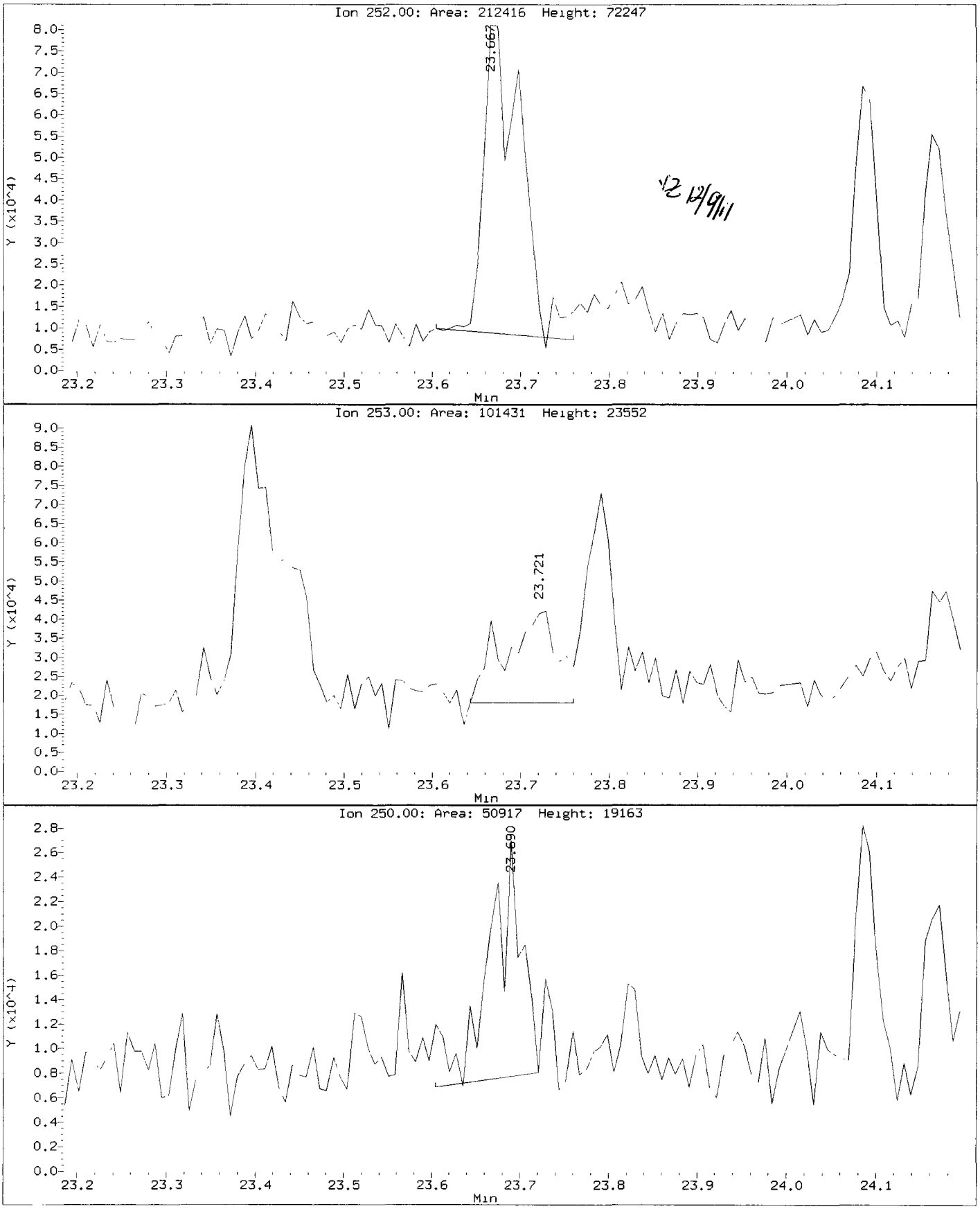






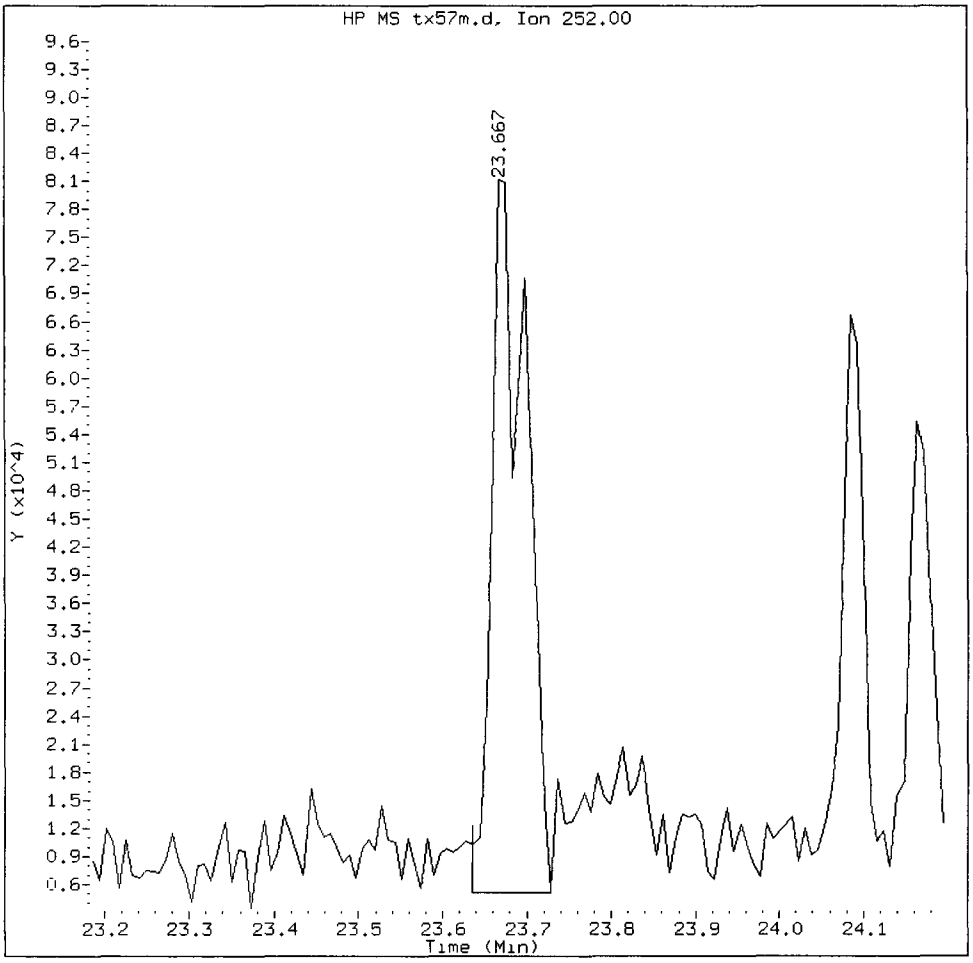
Data File: /chem1/nt10.1/20111206.b/tx57m.d
Injection Date: 07-DEC-2011 00:48
Instrument: nt10.1
Client Sample ID: SD0024

Compound: Total Benzofluoranthenes
CAS Number:



TX57M, /chem1/nt10.i/20111206.b/tx57m.d

Total Benzofluoranthenes Amount: 0.62 Area: 224940



MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 12/8/11

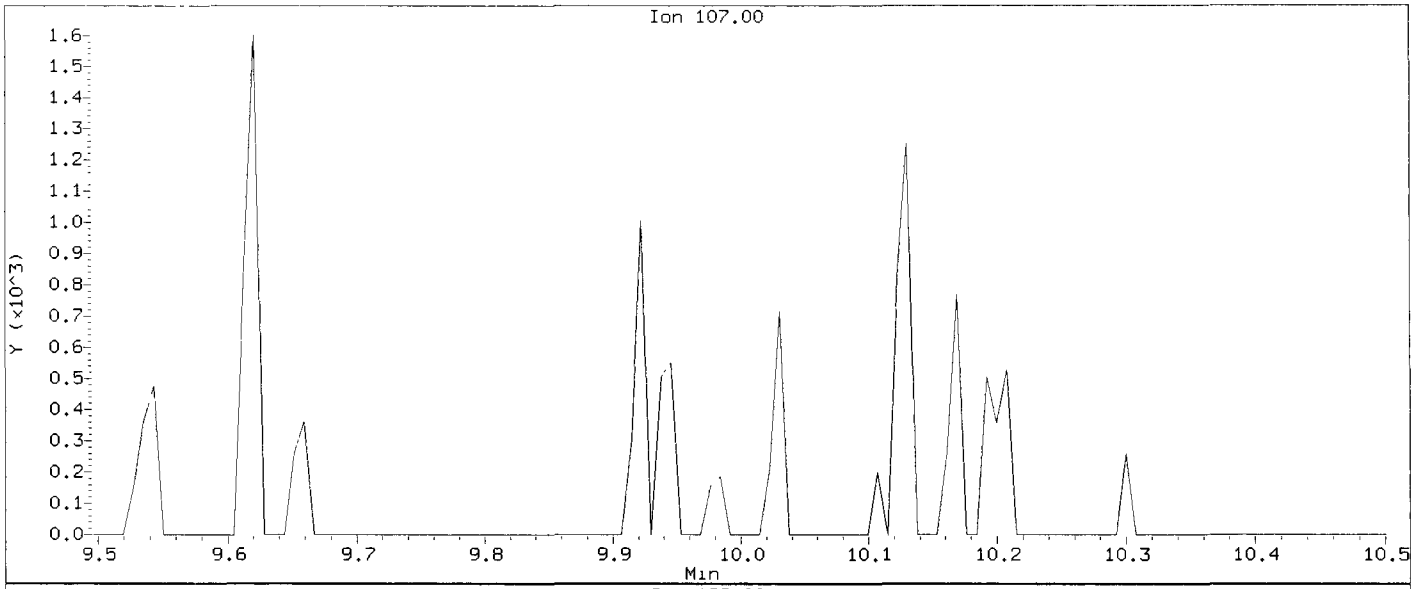
CO-ELUTION SUMMARY FOR FILE - tx57m.d

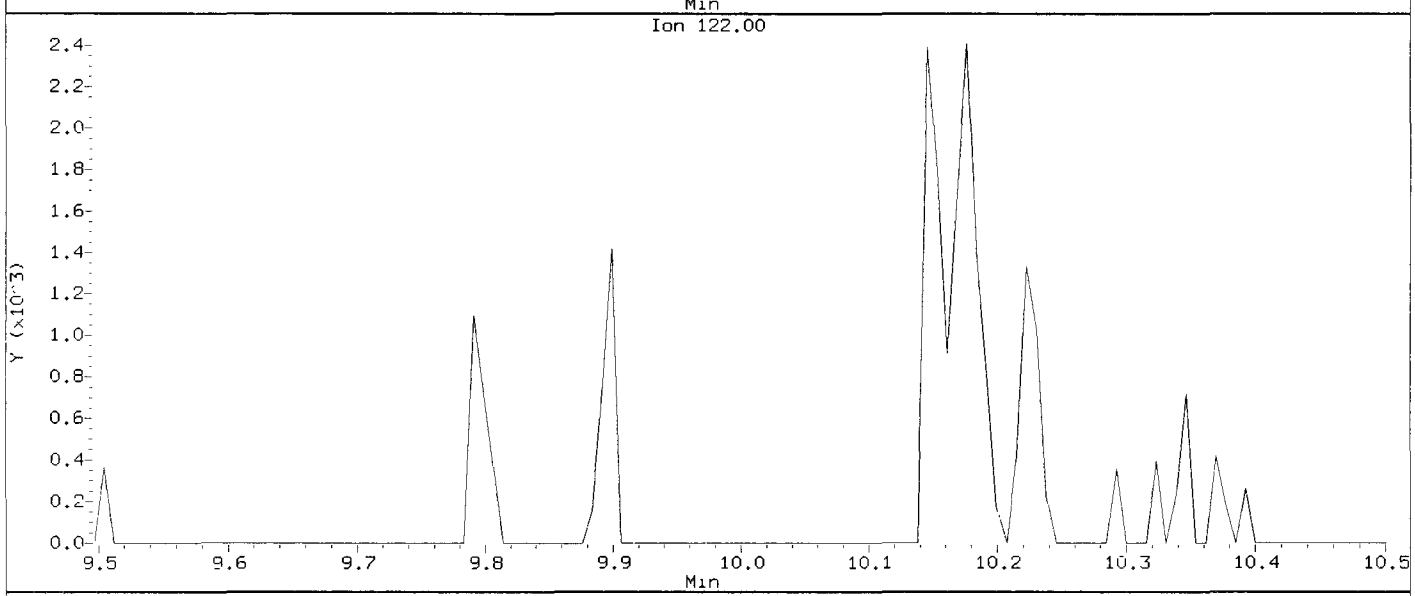
Lab ID: TX57M, Method: ABN.m, Instrument: nt10.i, Date: 07-DEC-2011

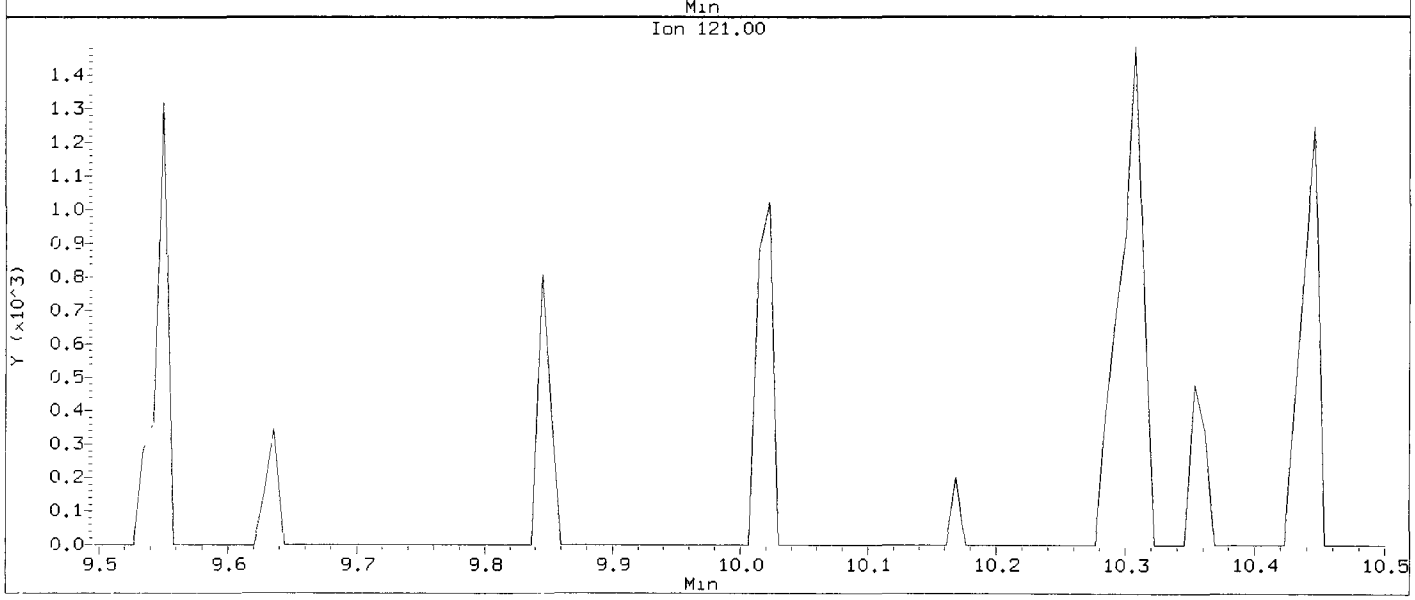
RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Data File: /chem1/nt10.i/20111206.b/tx57m.d
Injection Date: 07-DEC-2011 00:48
Instrument: nt10.i
Client Sample ID: SD0024

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9

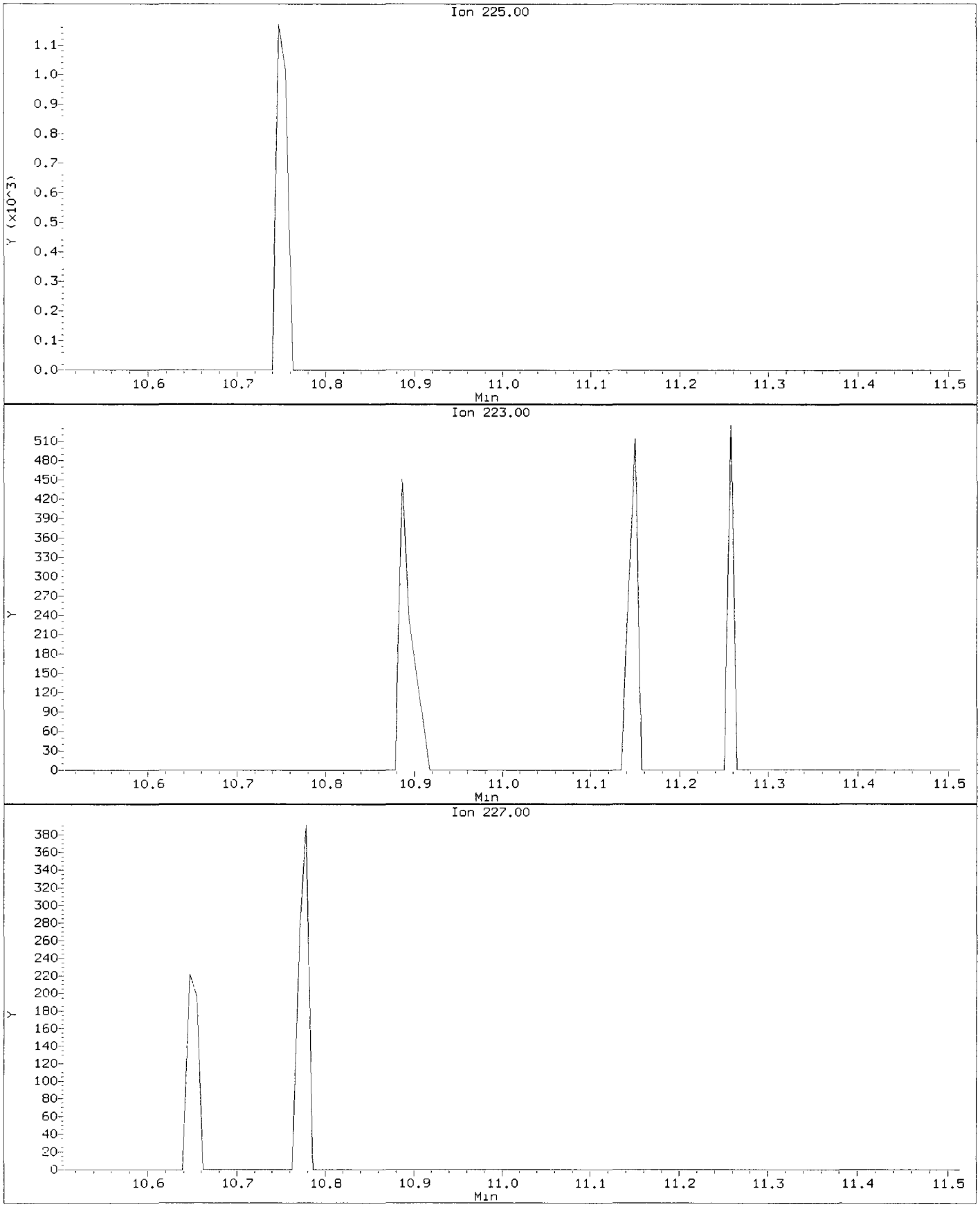






Data File: /chem1/nt10.1/20111206.b/tx57m.d
Injection Date: 07-DEC-2011 00:48
Instrument: nt10.1
Client Sample ID: SD0024

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc. YZ 12/9/11

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111206.b/tx57n.d
Lab Smp Id: TX57N Client Smp ID: SD0011
Inj Date : 07-DEC-2011 01:22
Operator : YZ Inst ID: nt10.i
Smp Info : TX57N
Misc Info : 11-26632
Comment : 1ul Injection
Method : /chem1/nt10.i/20111206.b/ABN.m
Meth Date : 09-Dec-2011 10:00 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	14.30000	Weight of sample extracted (g)
M	28.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.067	6.043	(0.742)	203562	4.58273	445.1
$ 2	Phenol-d5	99	7.628	7.612	(0.933)	258545	4.53215	440.2
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.836	7.828	(0.958)	233866	4.53014	440.0
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.177	8.177	(1.000)	181658	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.526	8.518	(1.043)	127547	2.84736	276.6
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.248	9.248	(0.872)	232803	3.56949	346.7
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.609	10.600	(1.000)	613576	4.00000	
	28 Naphthalene	128	10.647	10.639	(1.004)	106600	0.71757	69.69
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	12.016	12.008	(1.133)	70928	0.63636	61.81
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.798	12.782	(0.905)	567659	3.70339	359.7
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.145	14.129	(1.000)	423970	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.206	14.198	(1.004)	125789	1.13119	109.9
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.531	14.523	(1.027)	153352	0.86012	83.54
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.142	15.134	(1.070)	61026	0.41838	40.64
	49 Fluorene	166	15.227	15.219	(1.077)	210699	1.50020	145.7
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	15.489	15.489	(0.904)	48081	0.38248	37.15(H)
$	55 2,4,6-Tribromophenol	330	15.759	15.751	(1.114)	202818	5.43024	527.4
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.127	17.111	(1.000)	1023816	4.00000	
	60 Phenanthrene	178	17.173	17.157	(1.003)	954281	3.62089	351.7
	61 Anthracene	178	17.266	17.242	(1.008)	208814	0.78654	76.39

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	17.606	17.583	(1.028)	91310	0.45775	44.46
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	19.471	19.432	(1.137)	1979359	5.45019	529.4
65	Pyrene	202	19.866	19.834	(0.904)	1685662	4.34274	421.8
$ 66	Terphenyl-d14	244	20.175	20.152	(0.918)	1141931	3.56965	346.7
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	21.964	21.932	(0.999)	613265	1.40392	136.4
* 69	Chrysene-d12	240	21.987	21.956	(1.000)	1605041	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.026	22.002	(1.002)	585430	1.48602	144.3
72	bis(2-Ethylhexyl)phthalate	149	22.119	22.095	(0.958)	523596	2.61388	253.9
* 134	Di-n-octylphthalate-d4	153	23.079	23.047	(1.000)	1408505	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	23.690	23.651	(0.976)	1147199	2.59363	251.9(M)
75	Benzo(k)fluoranthene	252	23.690	23.690	(0.976)	1163698	2.53861	246.6(M)
76	Benzo(a)pyrene	252	24.178	24.147	(0.996)	429908	1.18373	115.0
* 77	Perylene-d12	264	24.279	24.232	(1.000)	1452118	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.286	26.216	(1.083)	169317	0.34211	33.23(M)
79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276	26.869	26.798	(1.107)	153427	0.36842	35.78(M)
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	12.225	12.217	(1.152)	50982	0.44560	43.28
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	23.690	23.690	(0.976)	1111525	2.60846	253.3
99	Perylene	252	24.317	24.278	(1.002)	142072	0.39632	38.49

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57n.d
Lab Smp Id: TX57N
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26632

Calibration Date: 06-DEC-2011
Calibration Time: 14:00
Client Smp ID: SD0011
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	181658	5.09
27 Naphthalene-d8	574010	287005	1148020	613576	6.89
42 Acenaphthene-d10	467963	233982	935926	423970	-9.40
59 Phenanthrene-d10	976150	488075	1952300	1023816	4.88
69 Chrysene-d12	1397129	698564	2794258	1605041	14.88
134 Di-n-octylphthala	1264537	632268	2529074	1408505	11.39
77 Perylene-d12	1407308	703654	2814616	1452118	3.18

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.18	7.68	8.68	8.18	0.00
27 Naphthalene-d8	10.60	10.10	11.10	10.61	0.08
42 Acenaphthene-d10	14.13	13.63	14.63	14.14	0.11
59 Phenanthrene-d10	17.11	16.61	17.61	17.13	0.09
69 Chrysene-d12	21.96	21.46	22.46	21.99	0.14
134 Di-n-octylphthala	23.05	22.55	23.55	23.08	0.14
77 Perylene-d12	24.23	23.73	24.73	24.28	0.19

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: INTEGRAL
Sample Matrix: SOLID
Lab Smp Id: TX57N
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111206.b/ABN.m
Misc Info: 11-26632

Client SDG: TX57
Fraction: SV
Client Smp ID: SD0011
Operator: YZ
SampleType: SAMPLE
Quant Type: ISTD

	SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	728.4	445.1	61.10	30-160
$ 2	Phenol-d5	728.4	440.2	60.43	30-160
$ 5	2-Chlorophenol-d4	728.4	440.0	60.40	30-160
$ 10	1,2-Dichlorobenzen	485.6	276.6	56.95	30-160
$ 18	Nitrobenzene-d5	485.6	346.7	71.39	30-160
$ 36	2-Fluorobiphenyl	485.6	359.7	74.07	30-160
$ 55	2,4,6-Tribromophen	728.4	527.4	72.40	30-160
$ 66	Terphenyl-d14	485.6	346.7	71.39	30-160

Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

Client ID: SD0011

Sample Info: TX57N

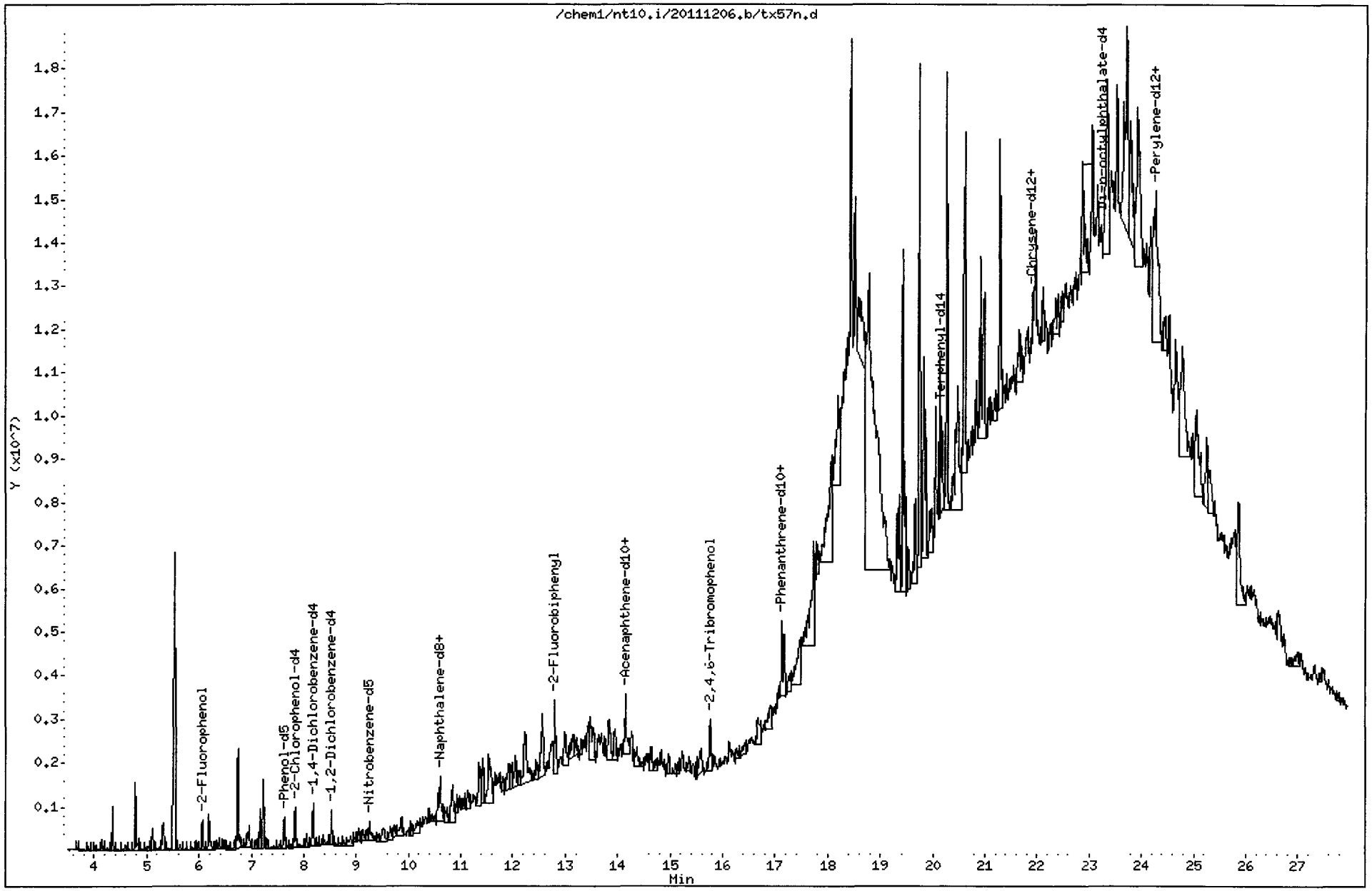
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: YZ

Column diameter: 0.25



TX57 . 00867

Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

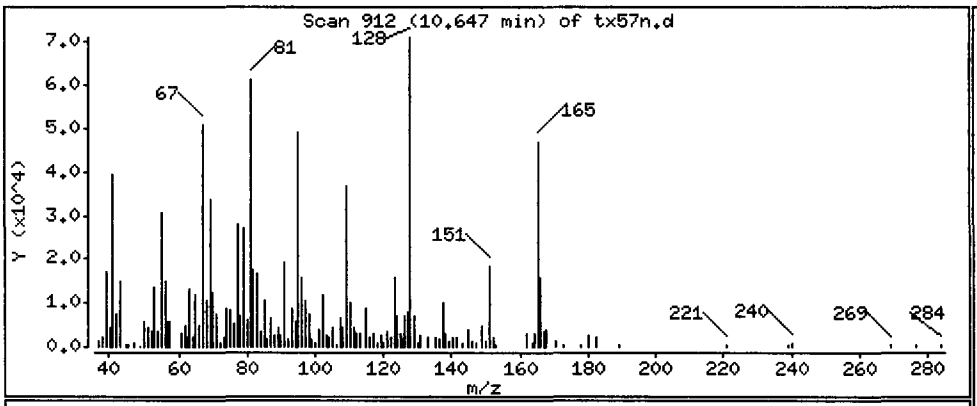
Client ID: SD0011 Instrument: nt10.i

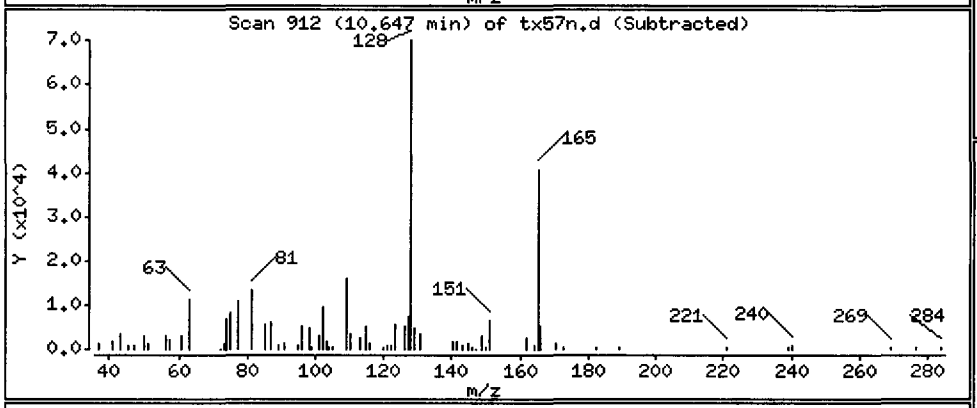
Sample Info: TX57N

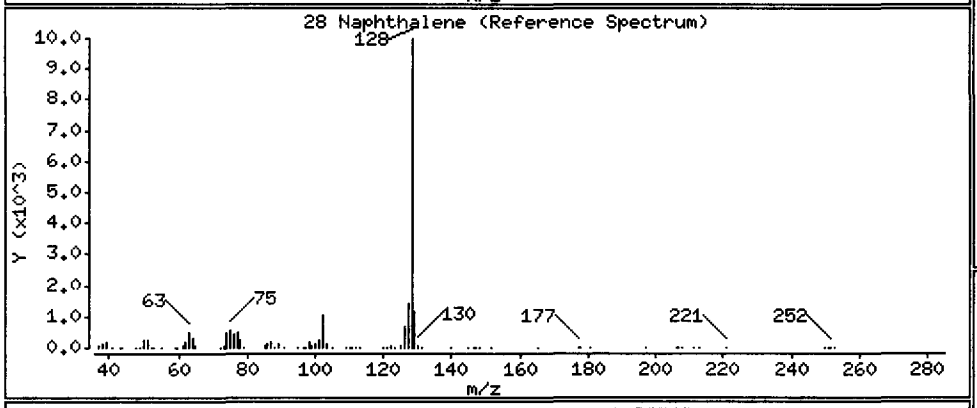
Volume Injected (uL): 1.0 Operator: YZ

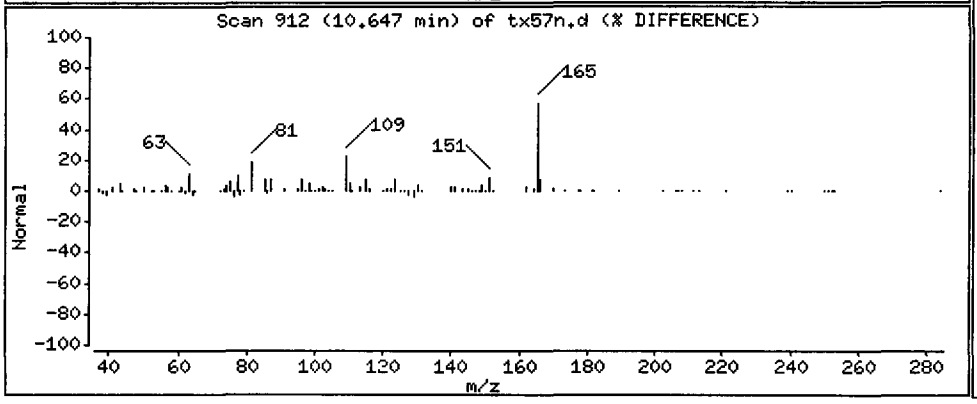
Column phase: ZB-5ms1 Column diameter: 0.25

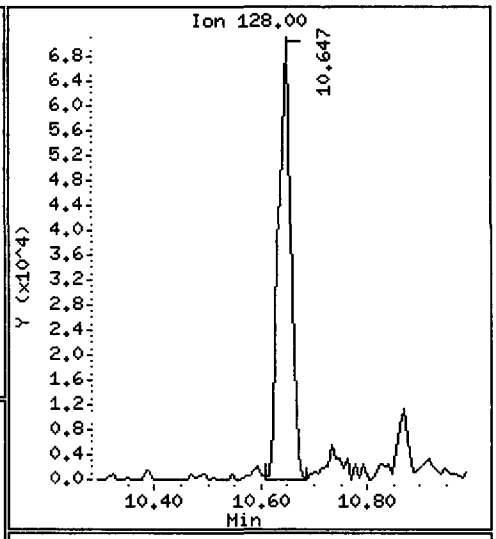
28 Naphthalene Concentration: 69.69 ug/kg

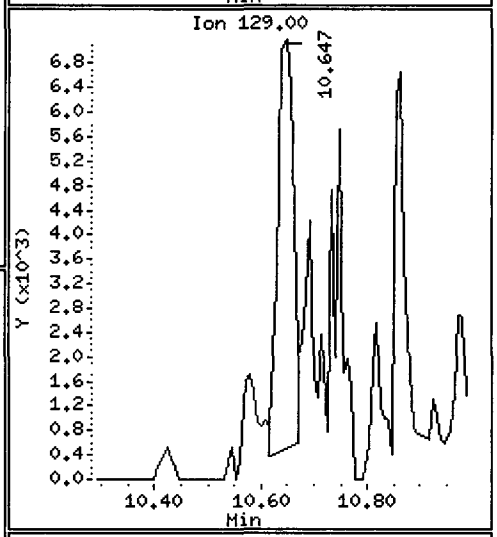


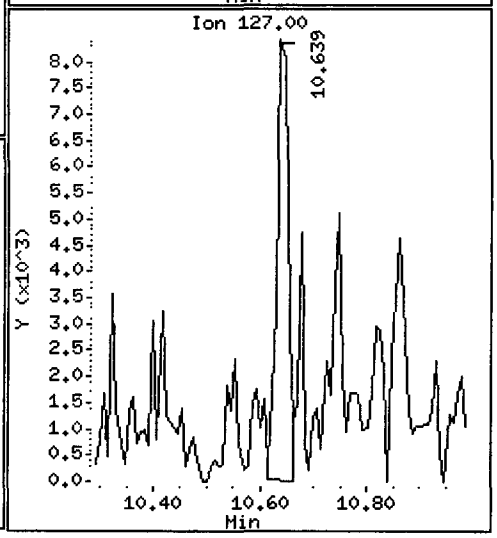












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

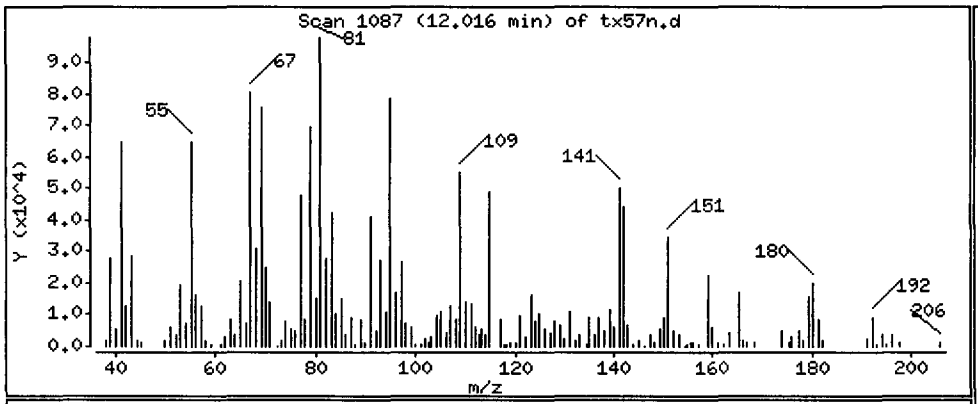
Client ID: SD0011 Instrument: nt10.i

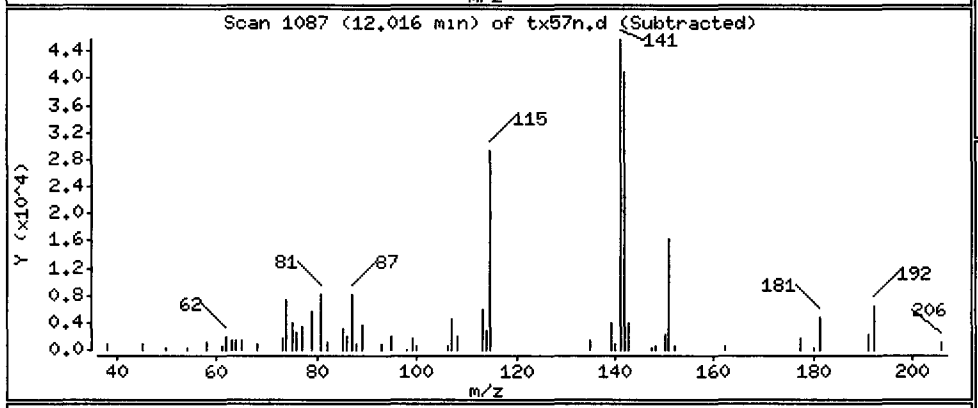
Sample Info: TX57N

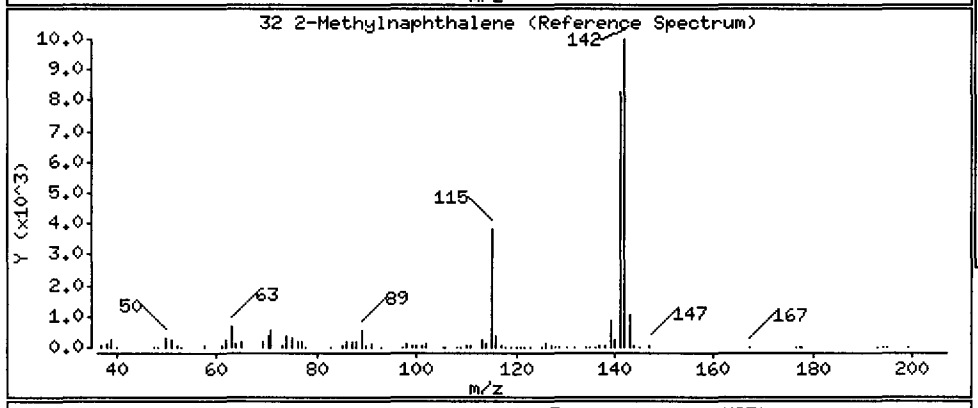
Volume Injected (uL): 1.0 Operator: YZ

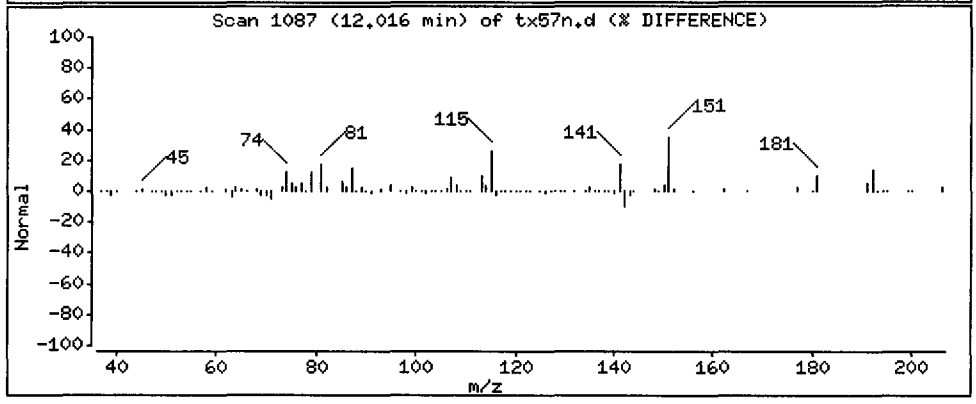
Column phase: ZB-5msi Column diameter: 0.25

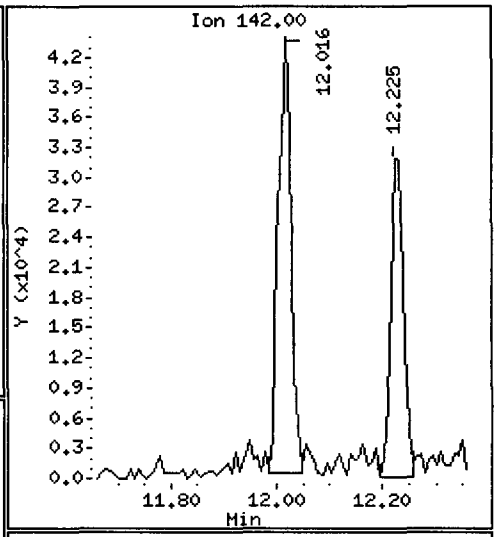
32 2-Methylnaphthalene Concentration: 61.81 ug/kg

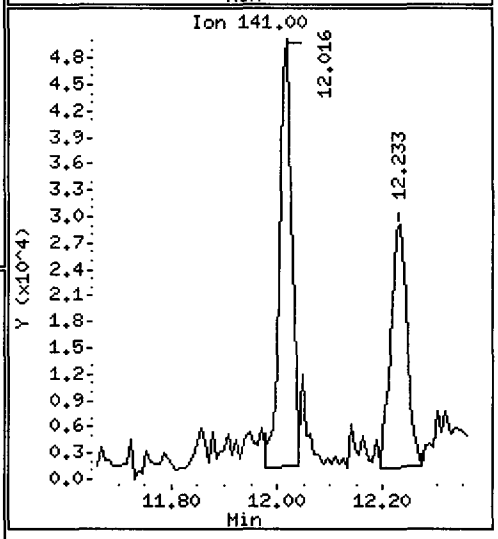












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

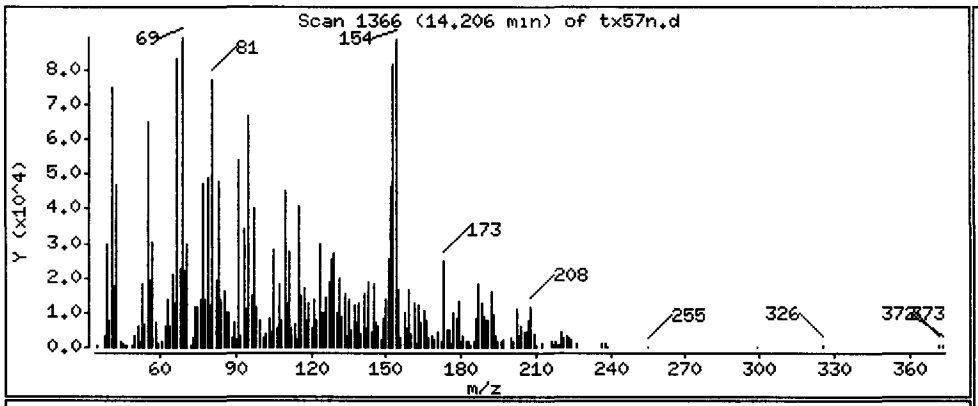
Client ID: SD0011 Instrument: nt10.i

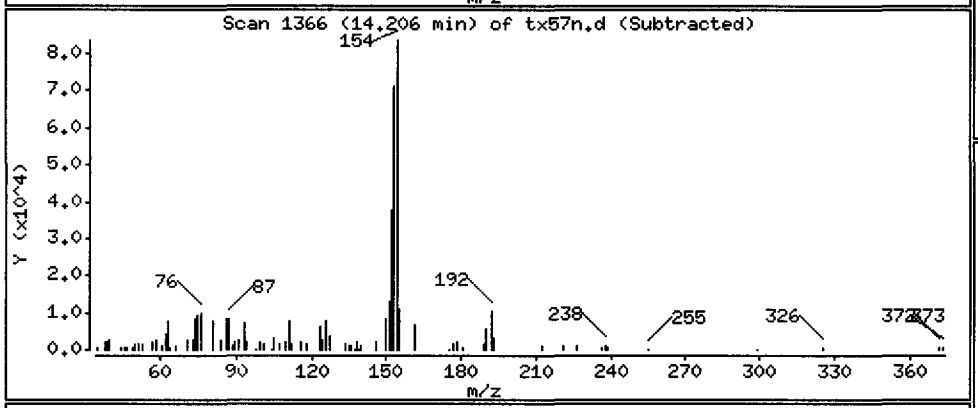
Sample Info: TX57N

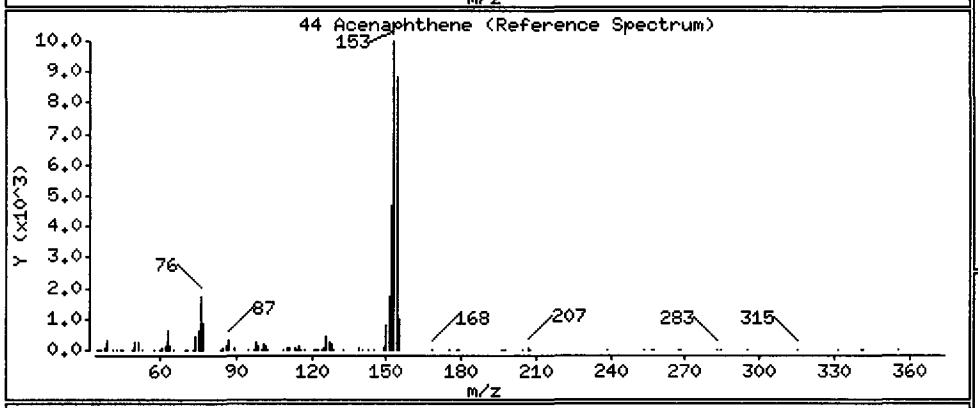
Volume Injected (uL): 1.0 Operator: YZ

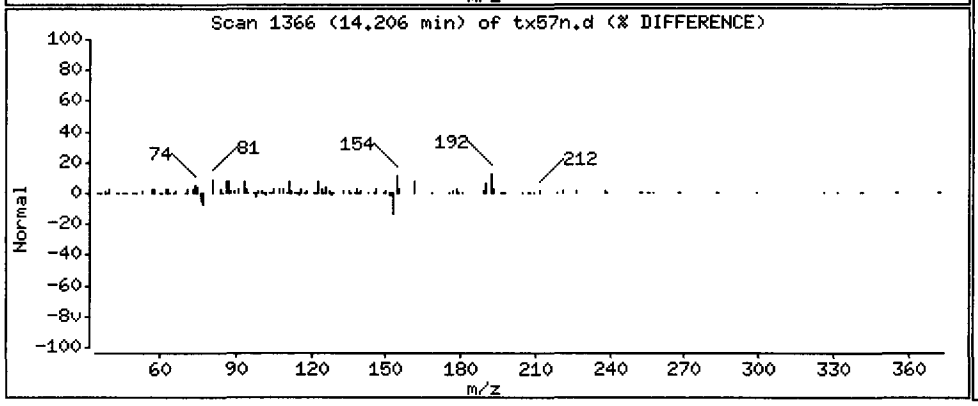
Column phase: ZB-5msi Column diameter: 0.25

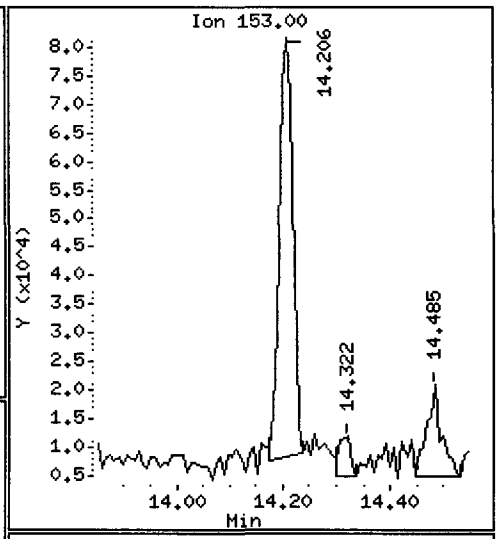
44 Acenaphthene Concentration: 109.9 ug/kg

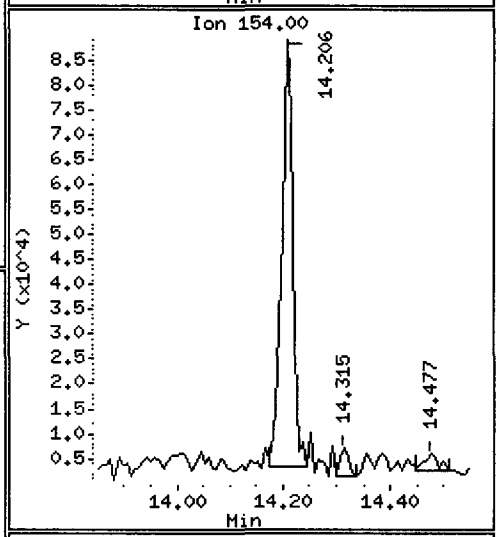


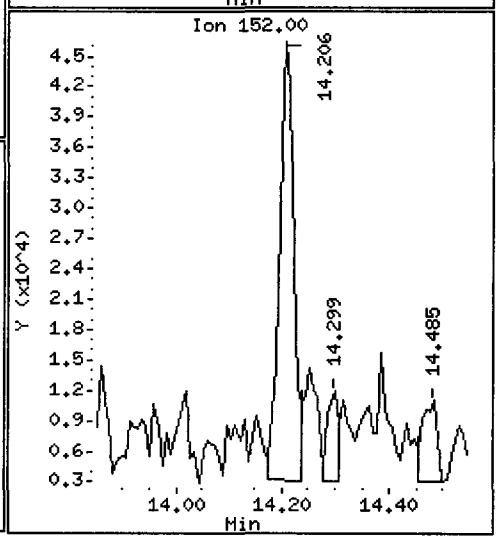












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

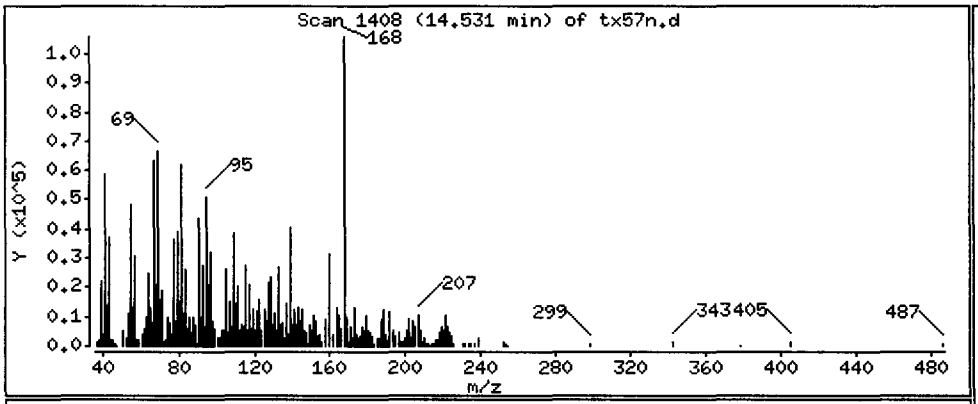
Client ID: SD0011 Instrument: nt10.i

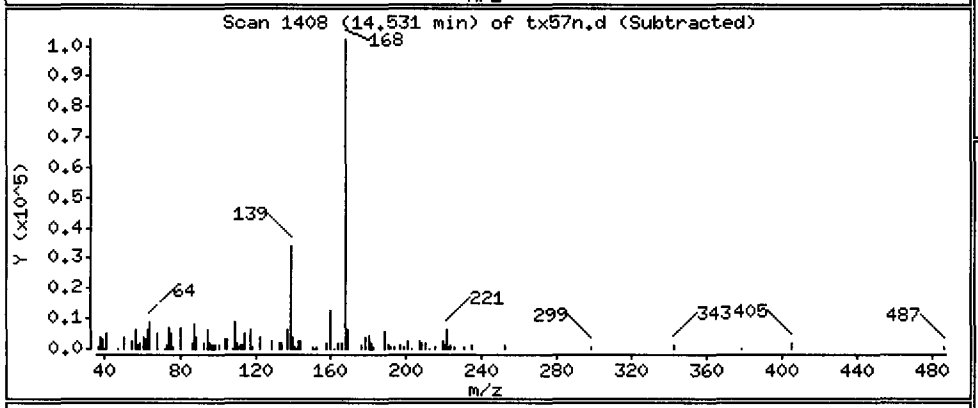
Sample Info: TX57N

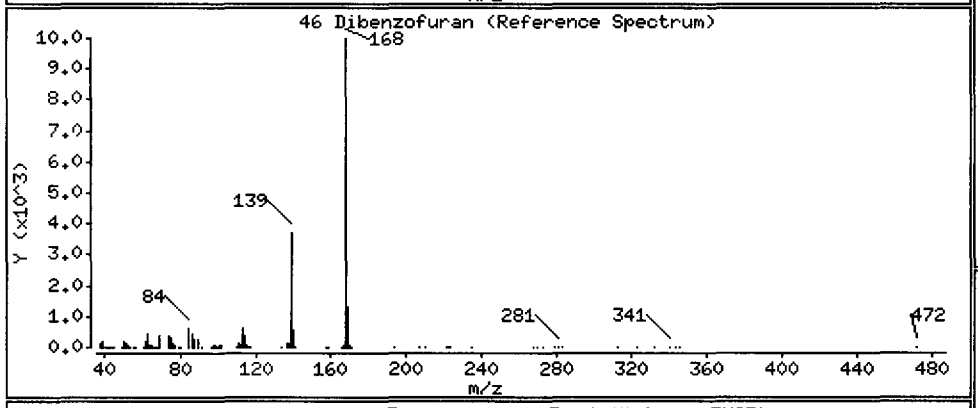
Volume Injected (uL): 1.0 Operator: YZ

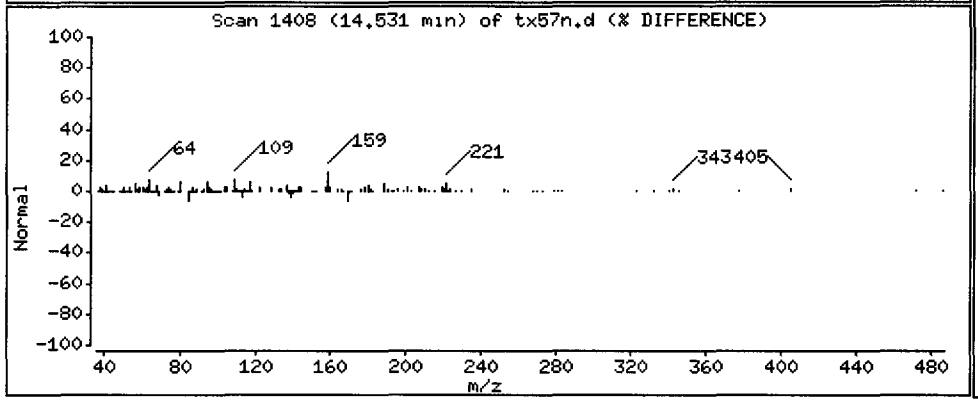
Column phase: ZB-5msi Column diameter: 0.25

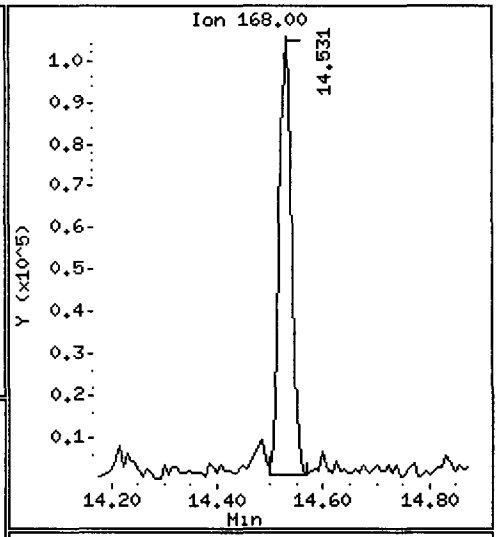
46 Dibenzofuran Concentration: 83.54 ug/kg

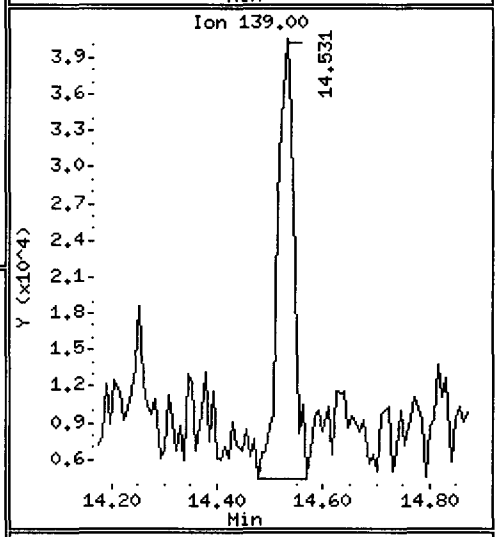


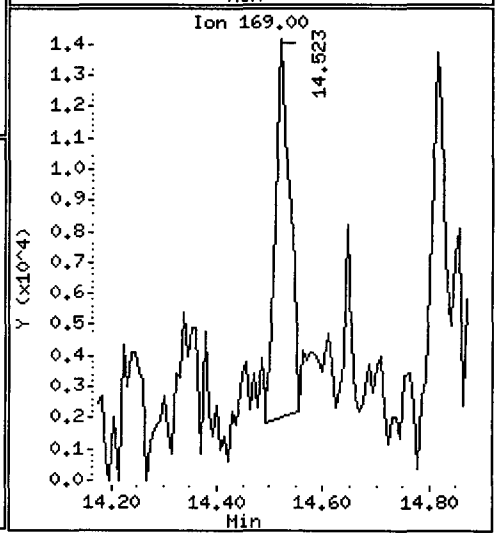












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

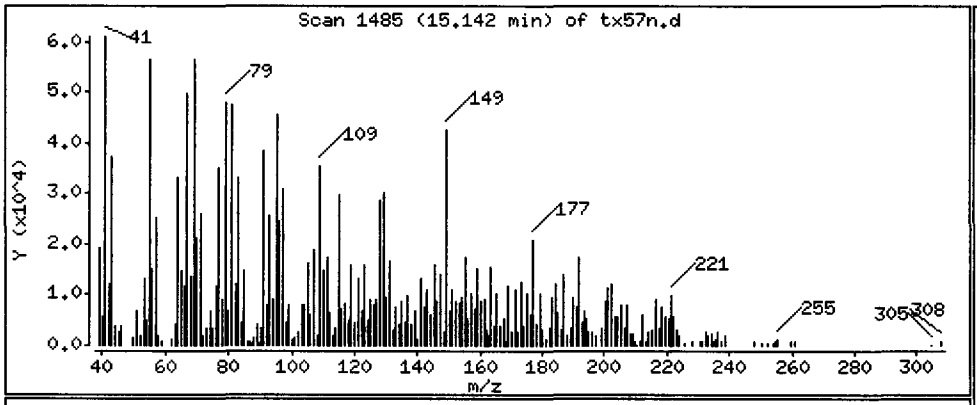
Client ID: SD0011 Instrument: nt10.i

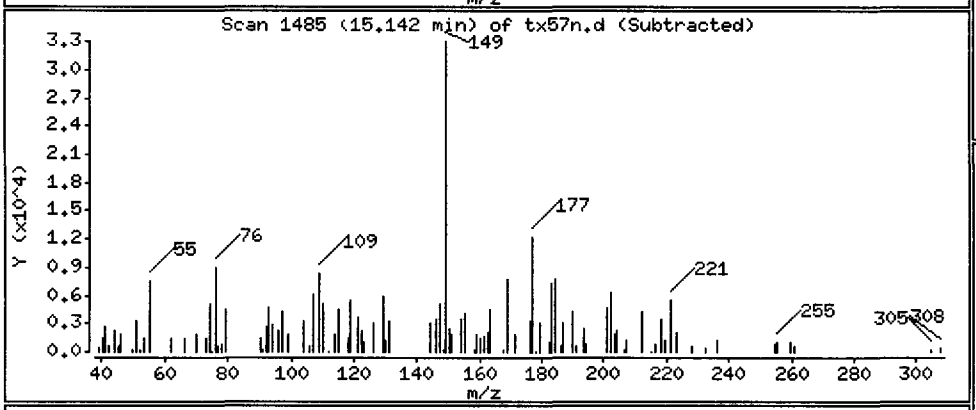
Sample Info: TX57N

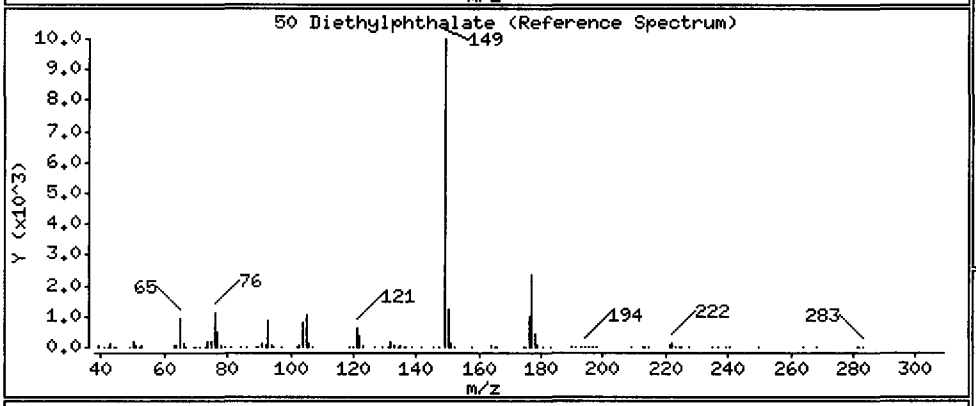
Volume Injected (uL): 1.0 Operator: YZ

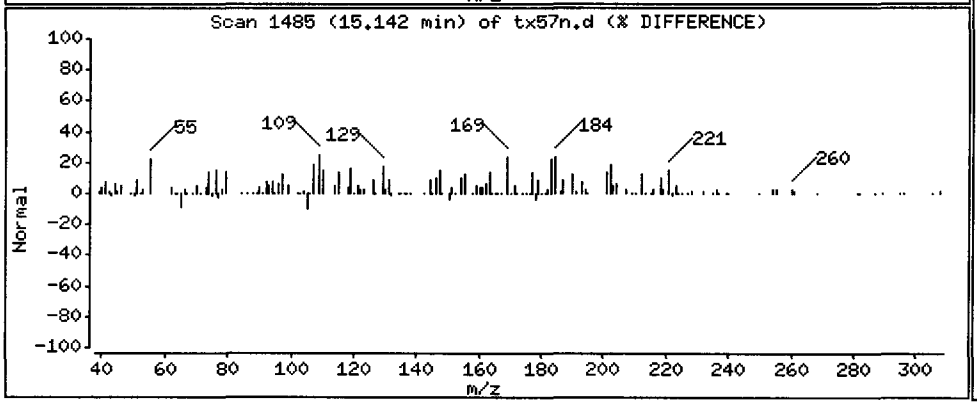
Column phase: ZB-5msi Column diameter: 0.25

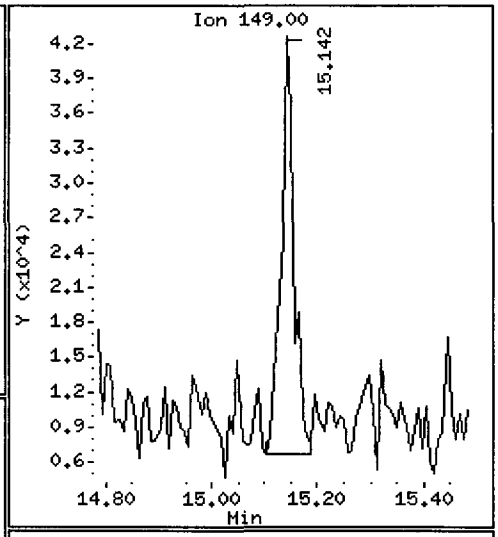
50 Diethylphthalate Concentration: 40.64 ug/kg

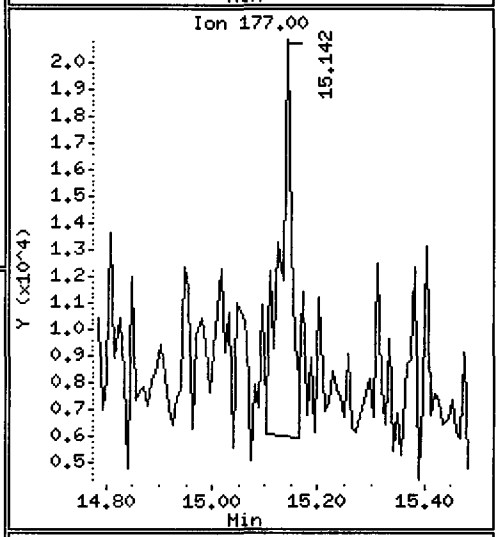


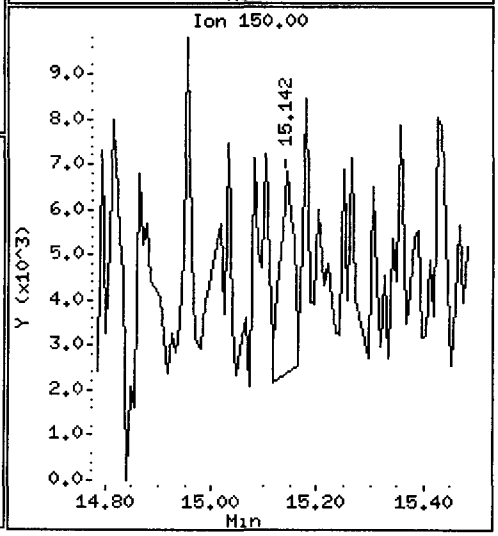












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

Client ID: SD0011

Instrument: nt10.i

Sample Info: TX57N

Volume Injected (uL): 1.0

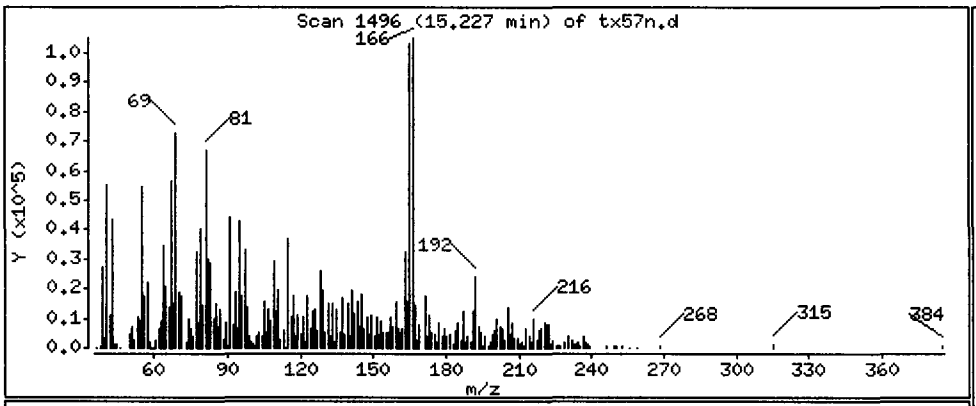
Operator: YZ

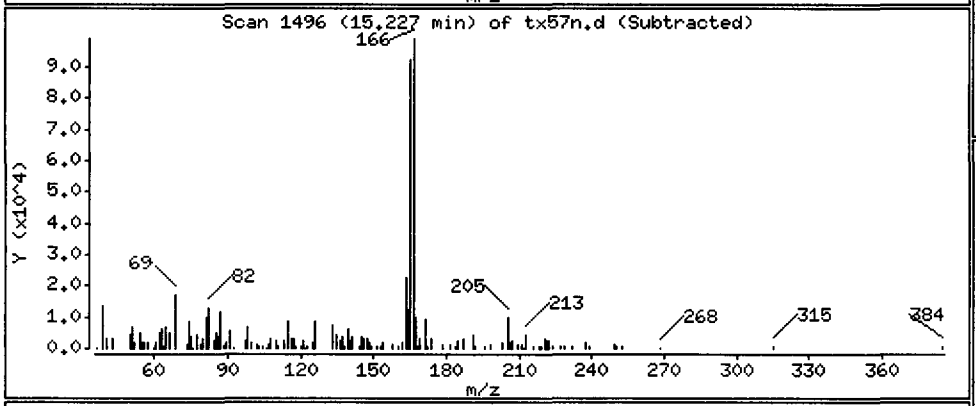
Column phase: ZB-5ms1

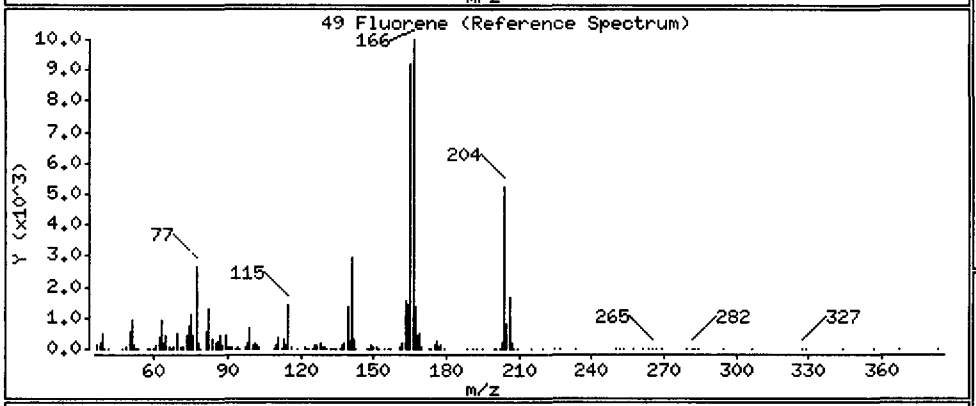
Column diameter: 0.25

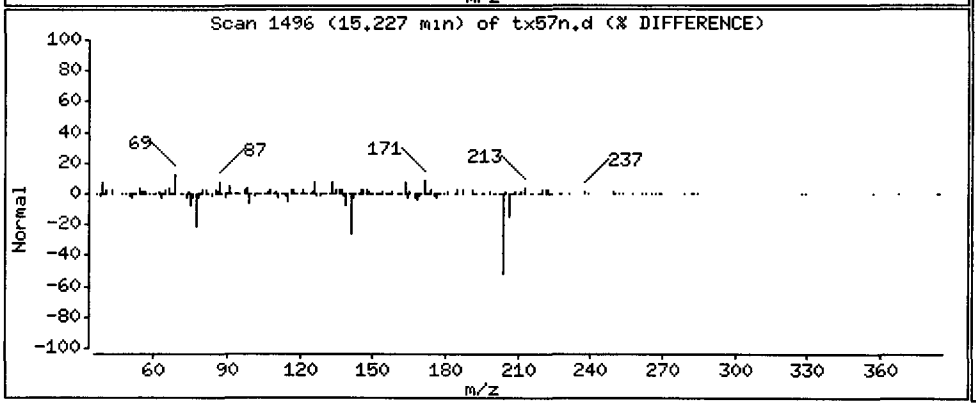
49 Fluorene

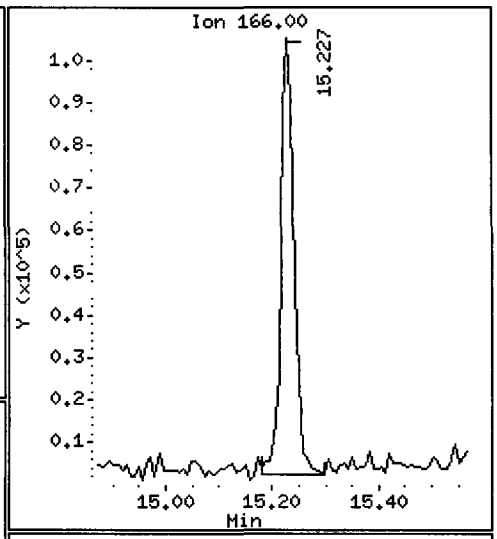
Concentration: 145.7 ug/kg

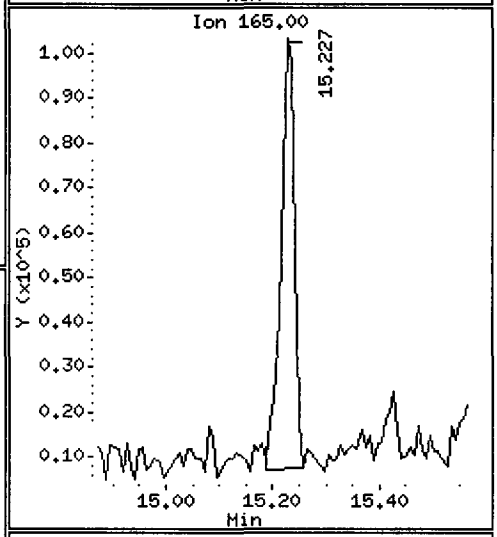


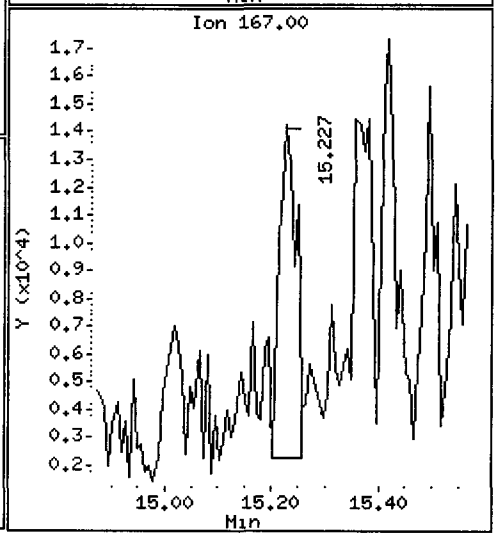












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

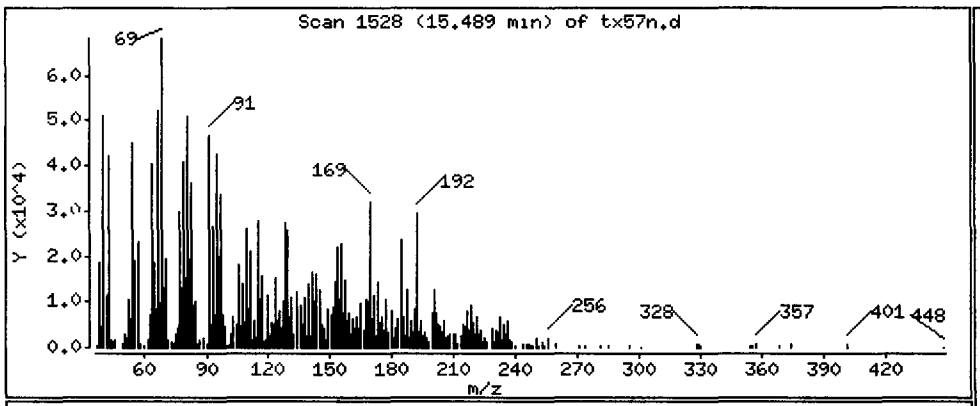
Client ID: SD0011 Instrument: nt10.i

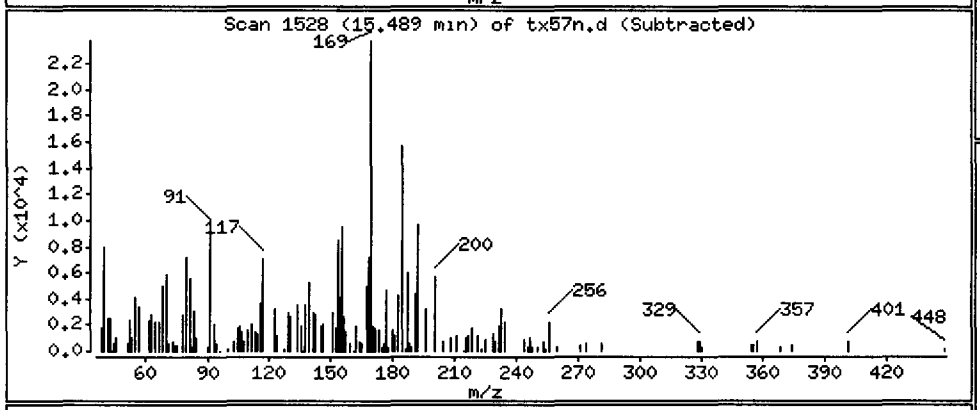
Sample Info: TX57N

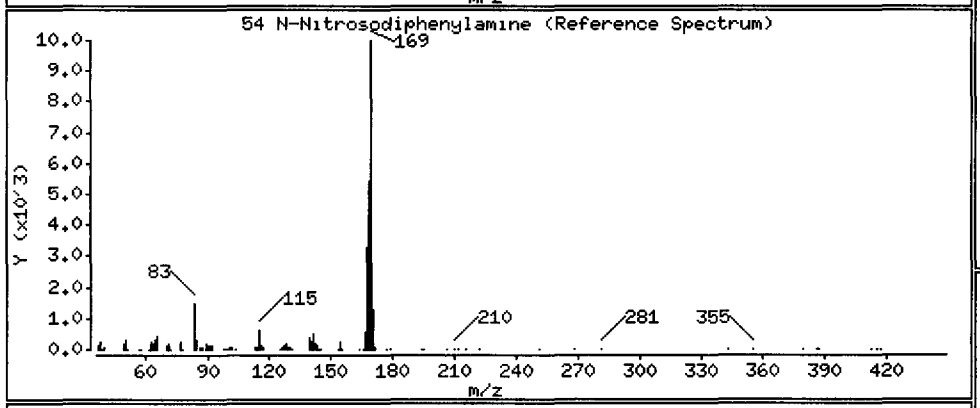
Volume Injected (uL): 1.0 Operator: YZ

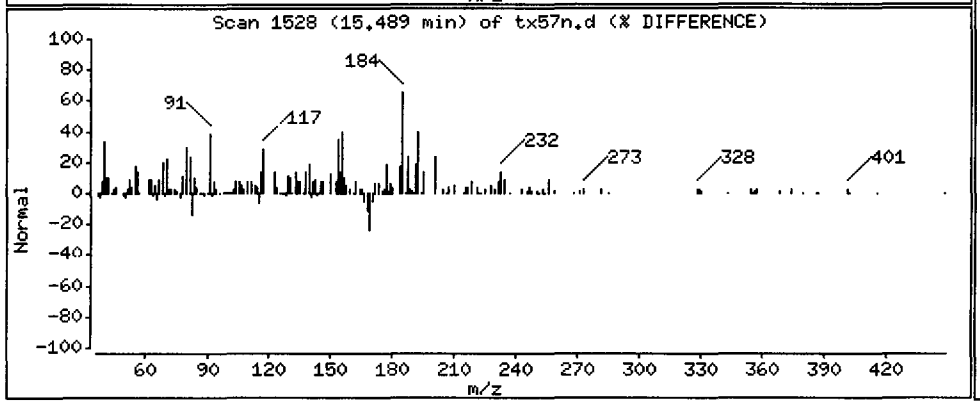
Column phase: ZB-5msi Column diameter: 0.25

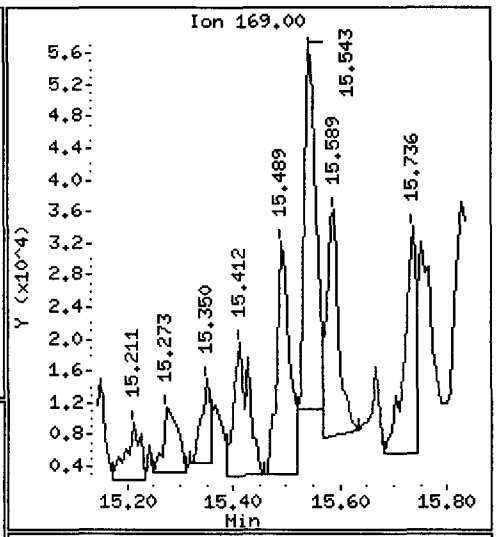
54 N-Nitrosodiphenylamine Concentration: 37.15 ug/kg

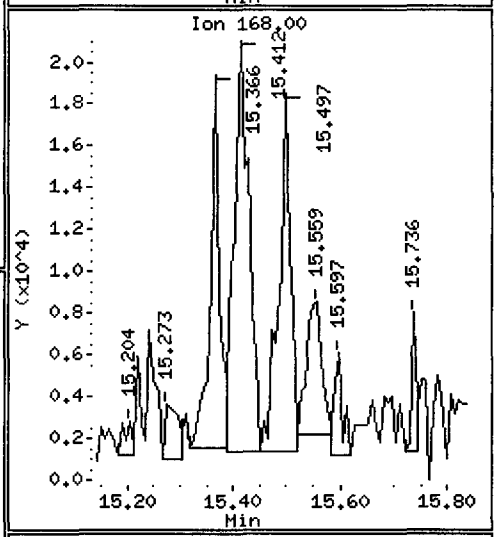


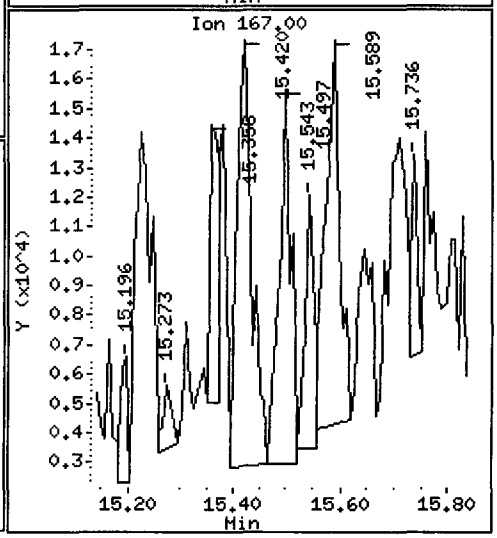












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

Client ID: SD0011

Instrument: nt10.i

Sample Info: TX57N

Volume Injected (uL): 1.0

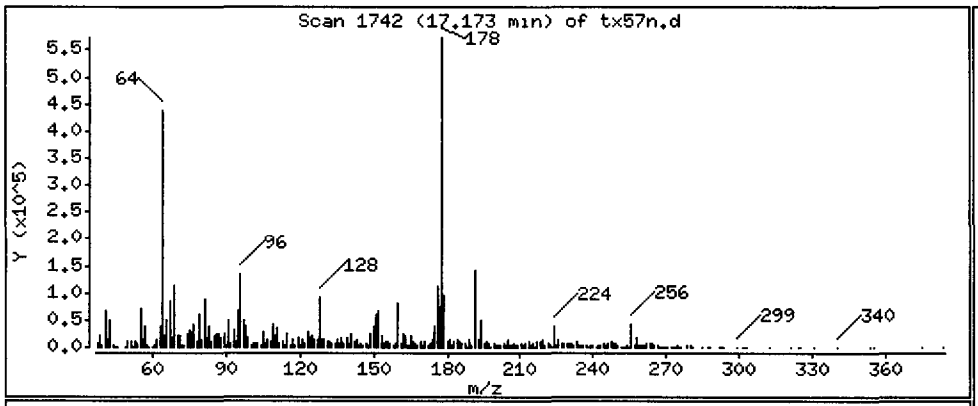
Operator: YZ

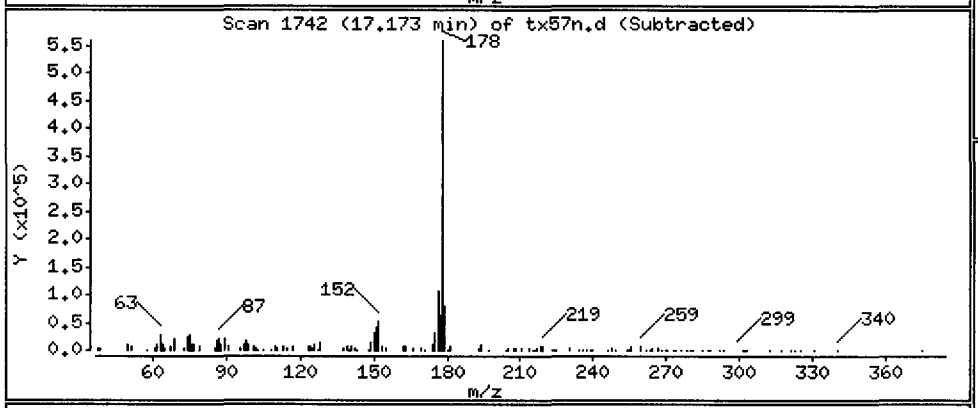
Column phase: ZB-5msi

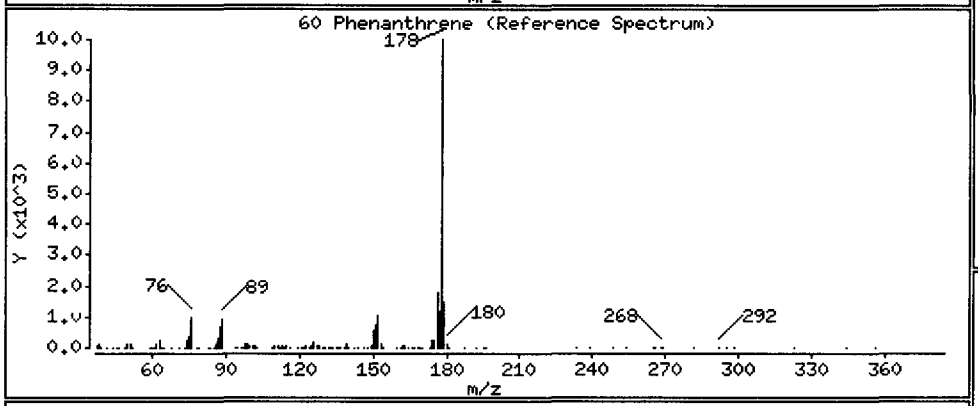
Column diameter: 0.25

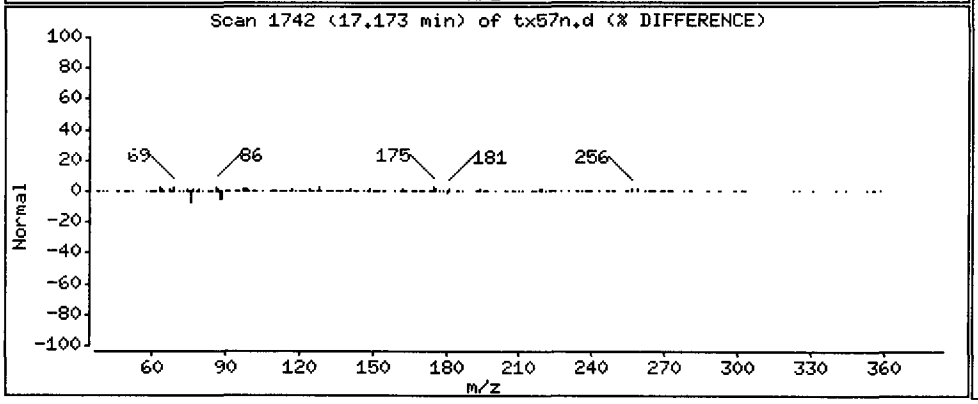
60 Phenanthrene

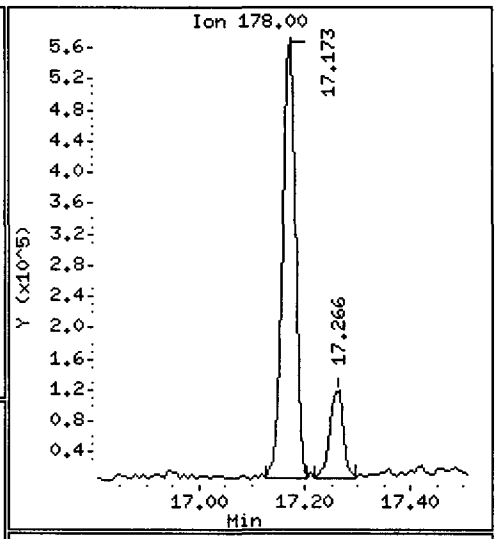
Concentration: 351.7 ug/kg

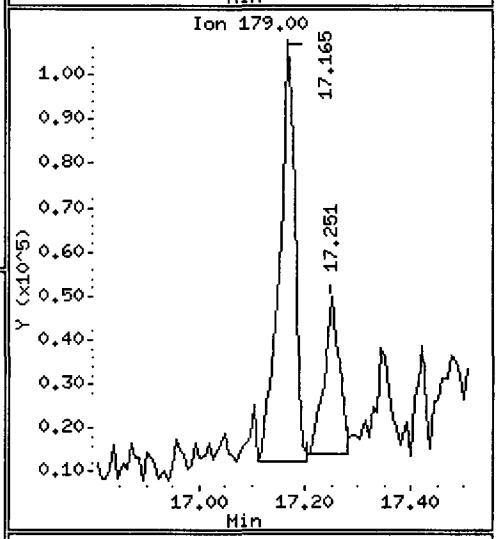


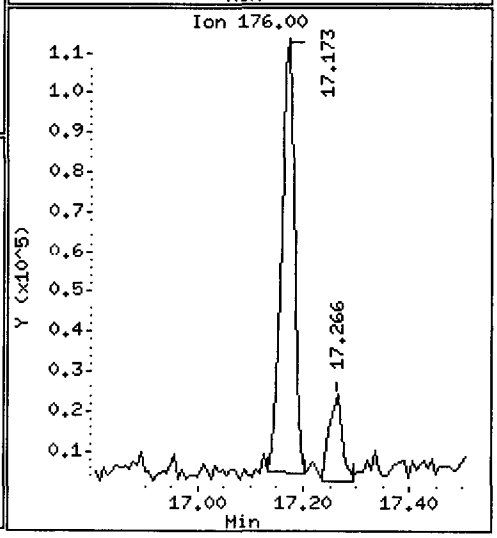












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

Client ID: SD0011

Instrument: nt10.i

Sample Info: TX57N

Volume Injected (uL): 1.0

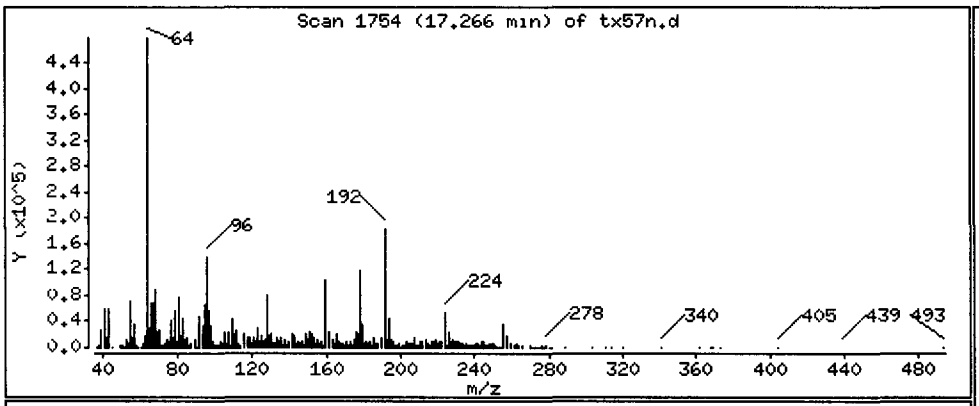
Operator: YZ

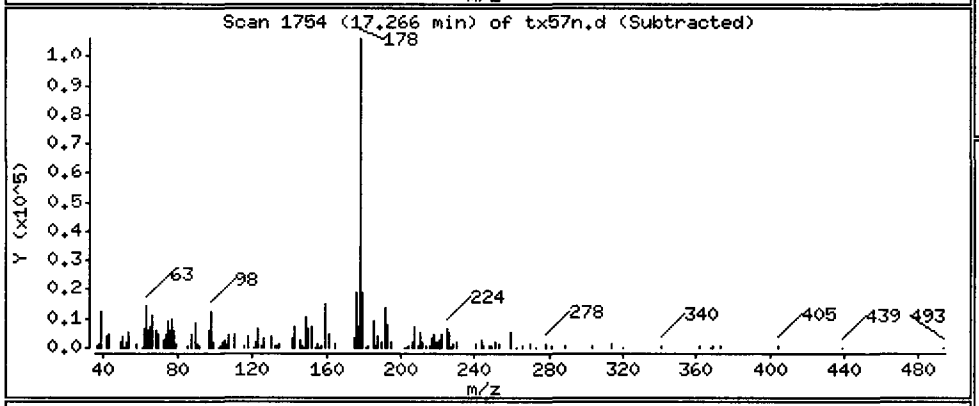
Column phase: ZB-5msi

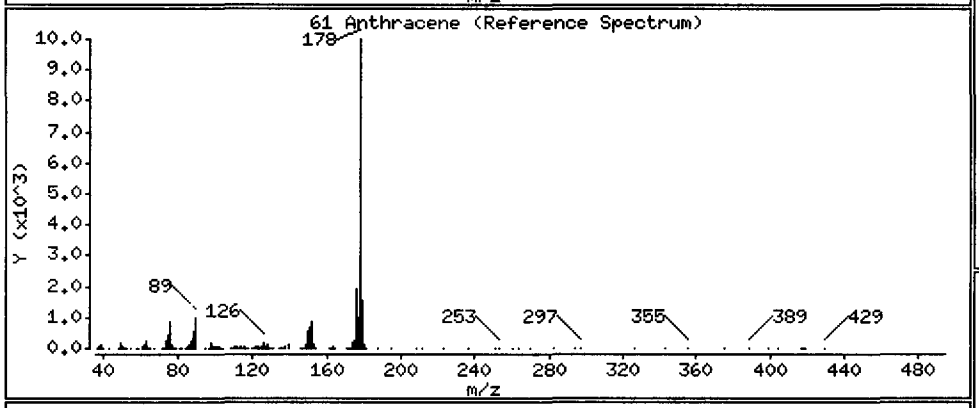
Column diameter: 0.25

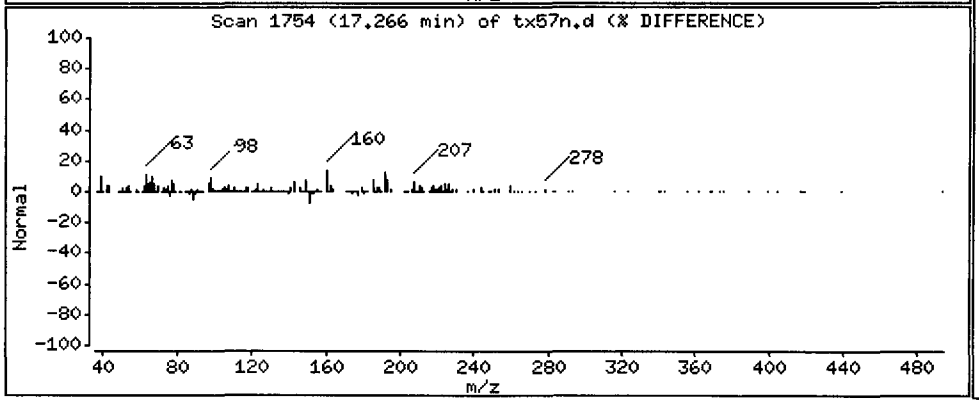
61 Anthracene

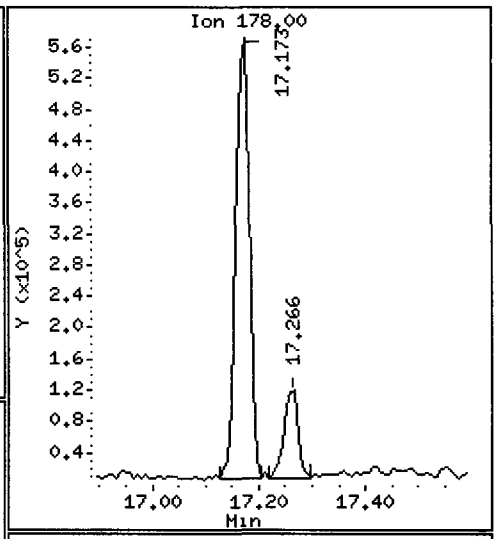
Concentration: 76.39 ug/kg

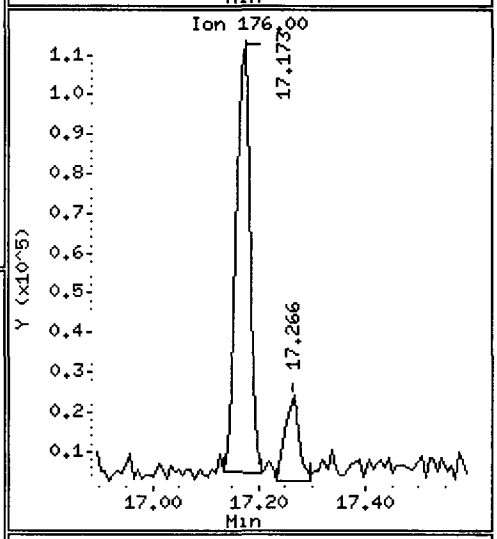


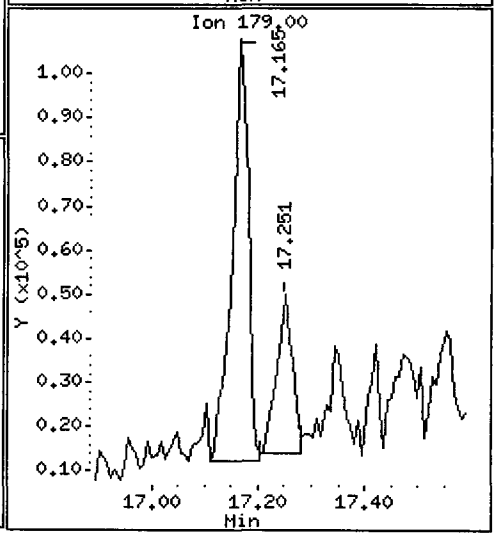












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

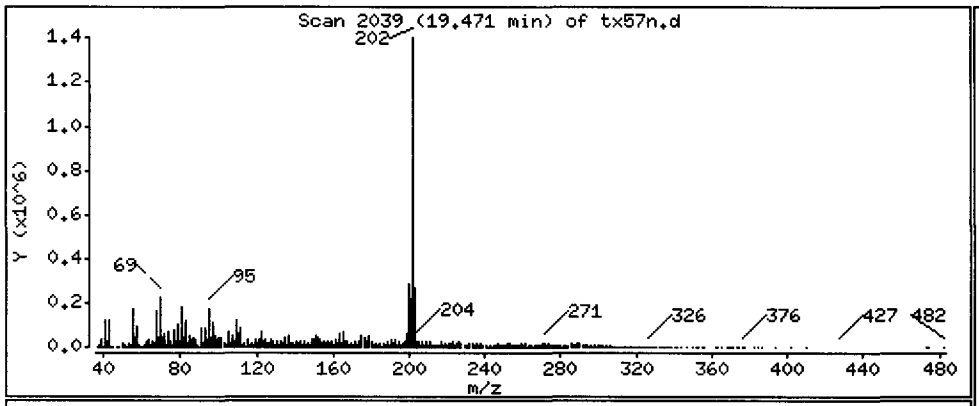
Client ID: SD0011 Instrument: nt10.i

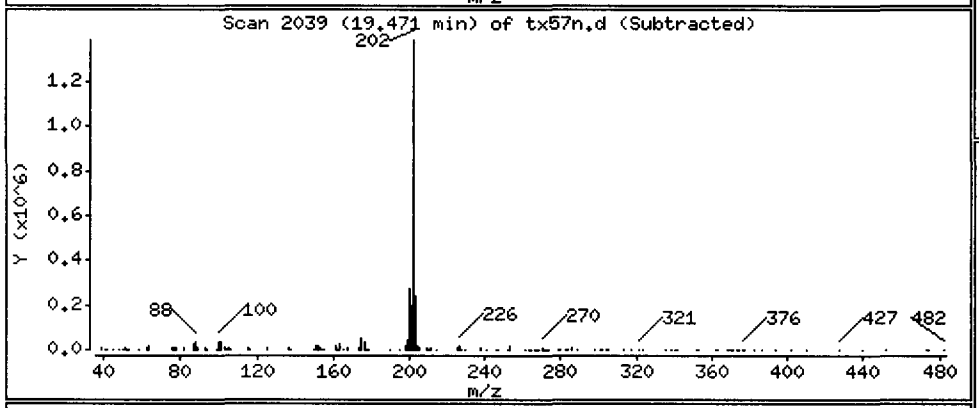
Sample Info: TX57N

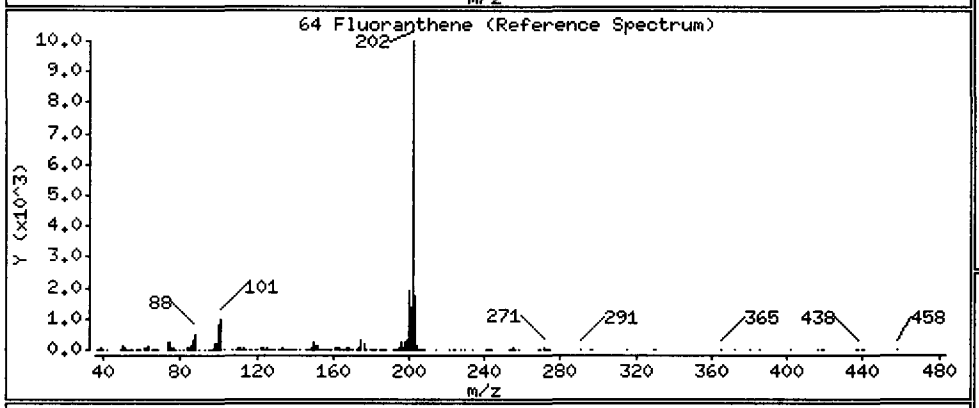
Volume Injected (uL): 1.0 Operator: YZ

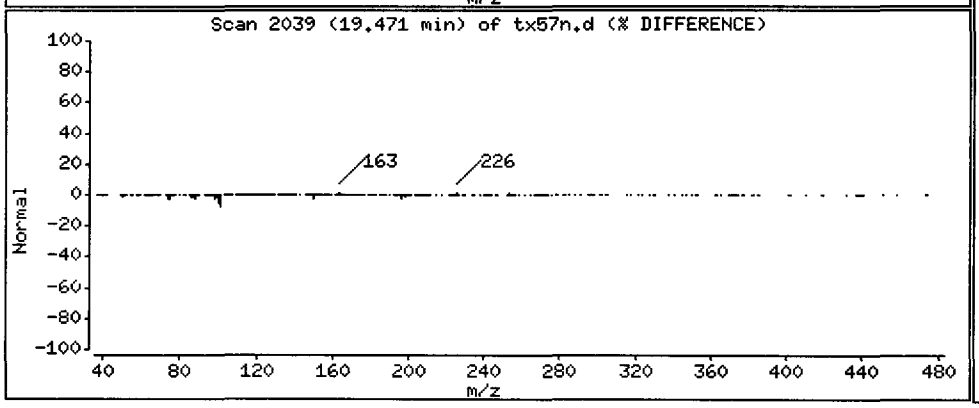
Column phase: ZB-5msi Column diameter: 0.25

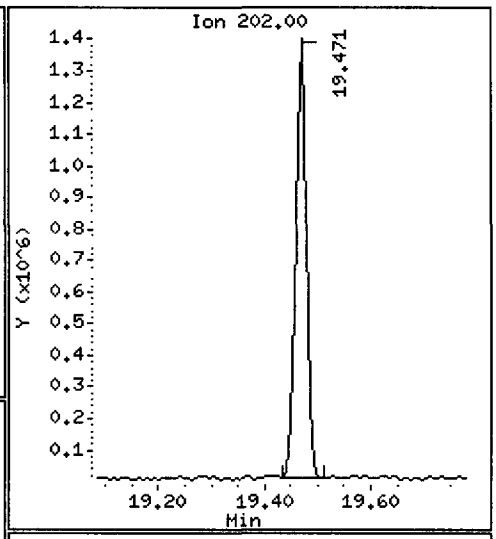
64 Fluoranthene Concentration: 529.4 ug/kg

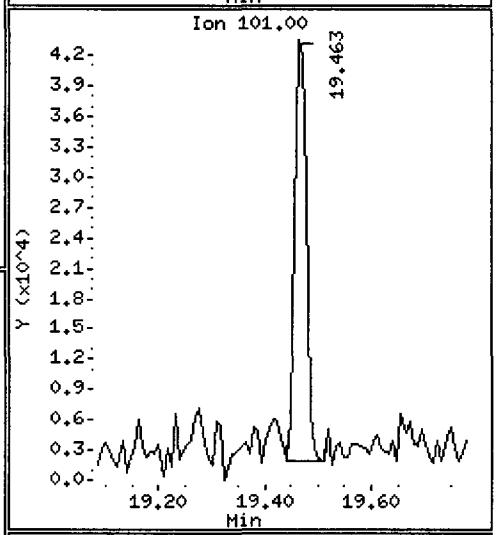


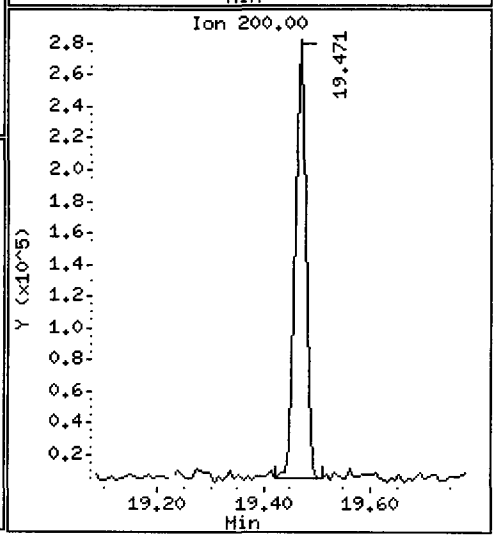












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

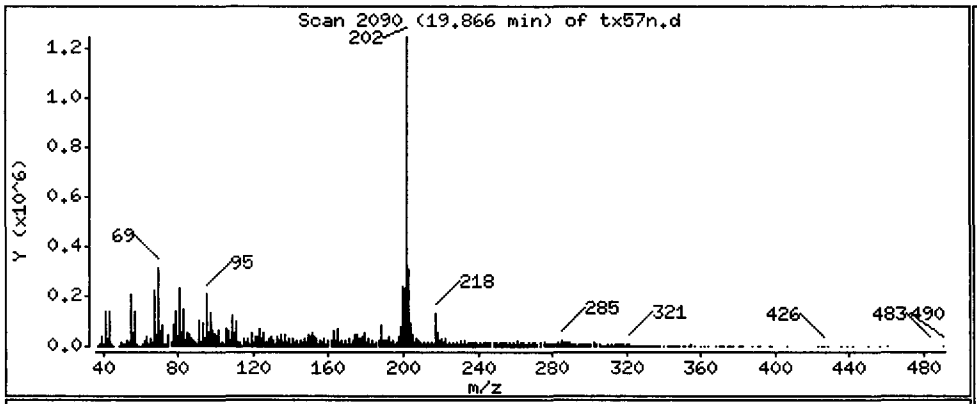
Client ID: SD0011 Instrument: nt10.i

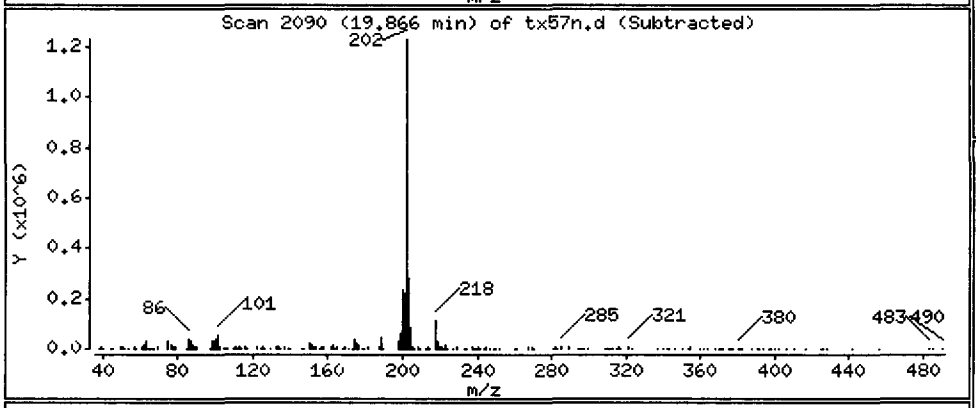
Sample Info: TX57N

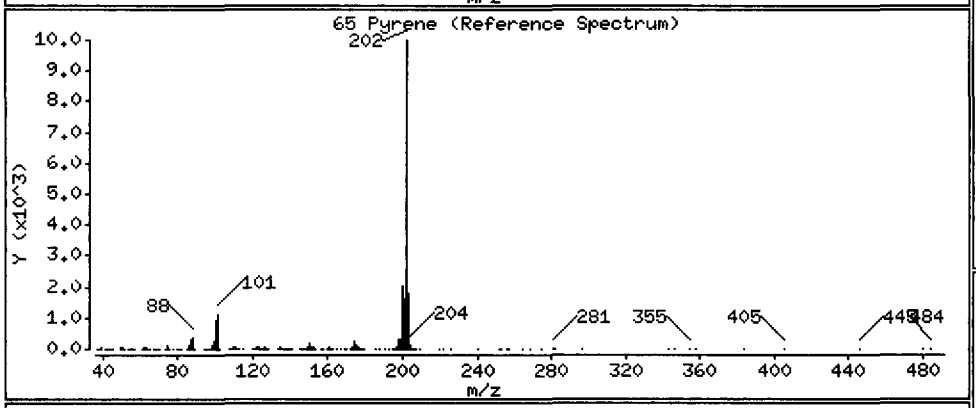
Volume Injected (uL): 1.0 Operator: YZ

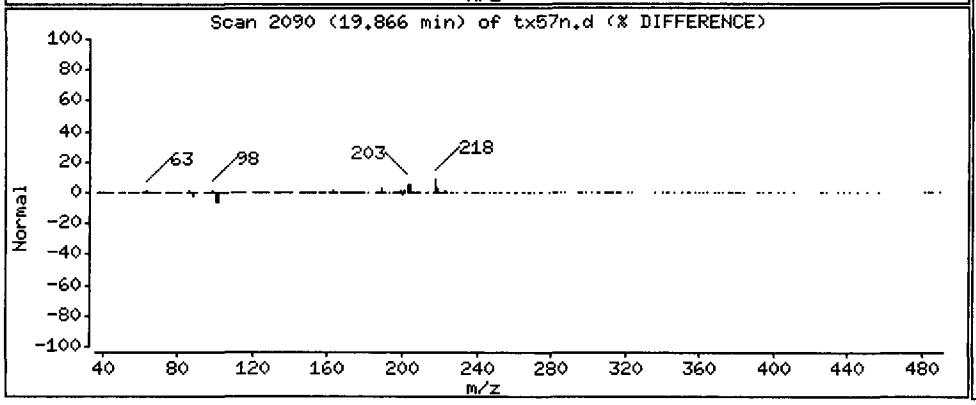
Column phase: ZB-5msi Column diameter: 0.25

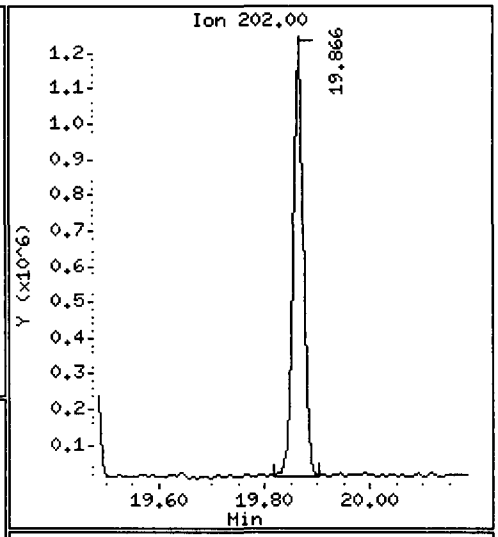
65 Pyrene Concentration: 421.8 ug/kg

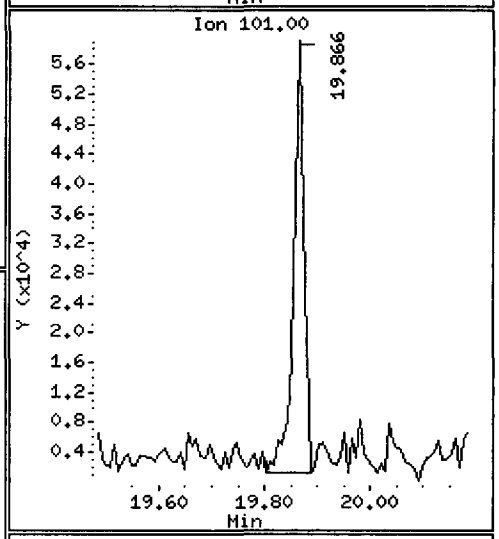


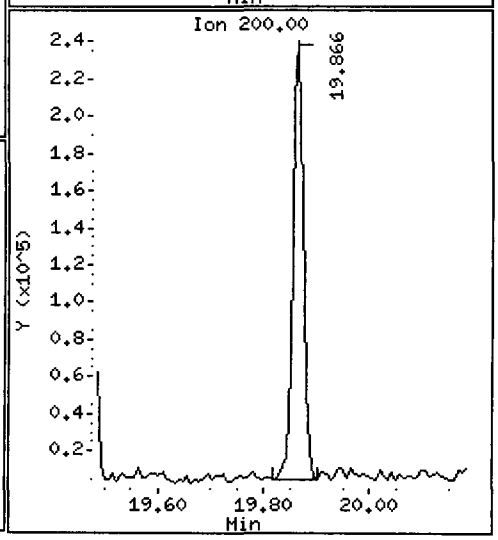












TEST - 00574

Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

Client ID: SD0011

Instrument: nt10.i

Sample Info: TX57N

Volume Injected (uL): 1.0

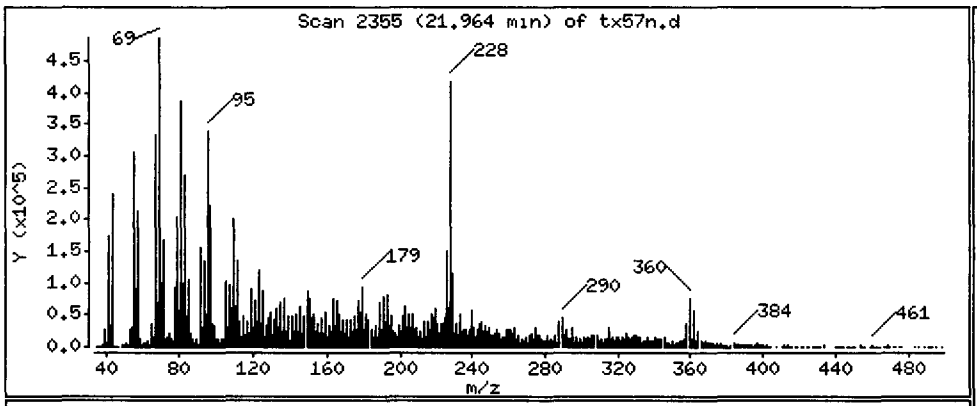
Operator: YZ

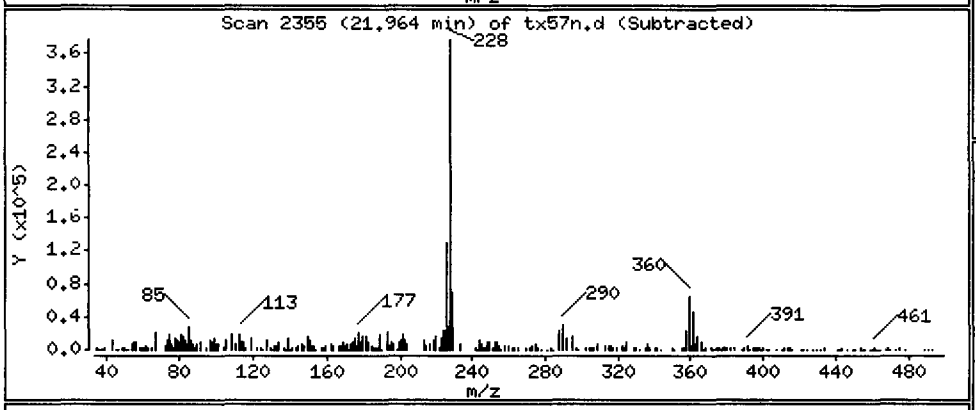
Column phase: ZB-5ms1

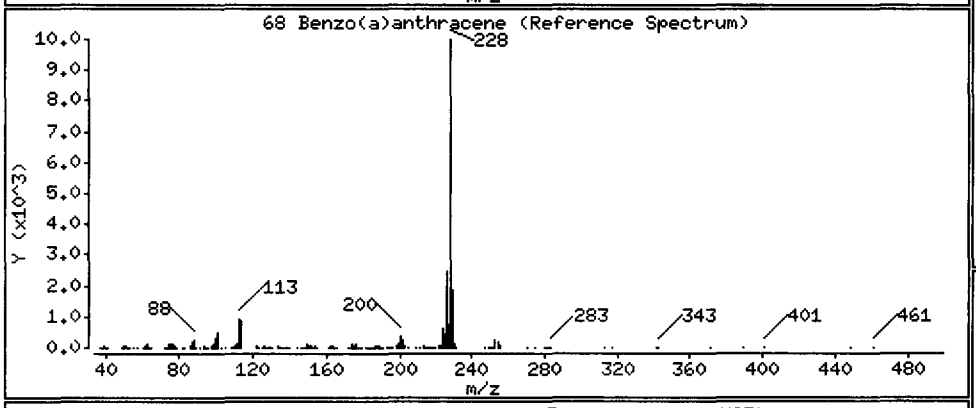
Column diameter: 0.25

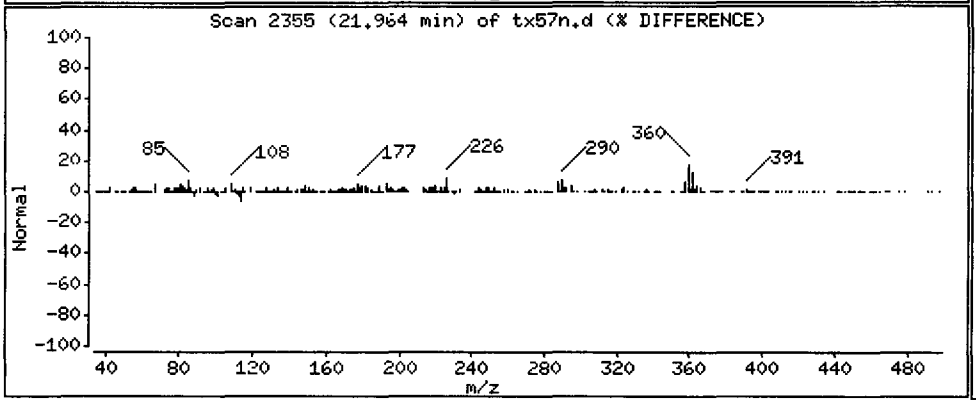
68 Benzo(a)anthracene

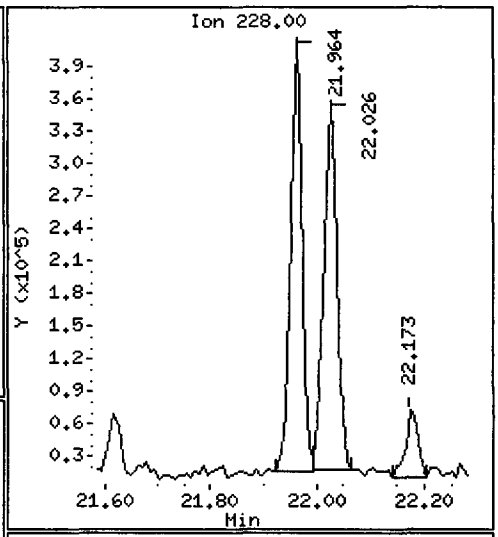
Concentration: 136.4 ug/kg

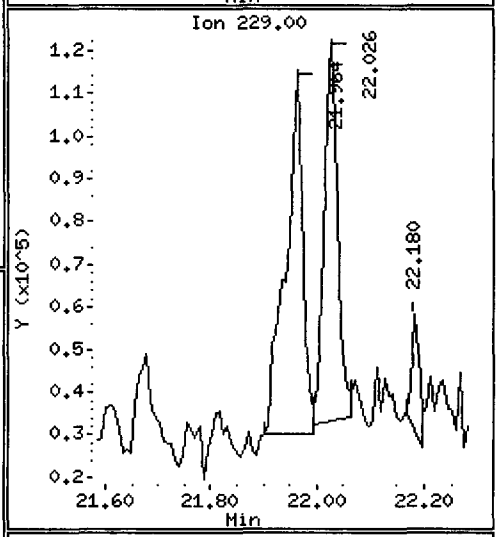


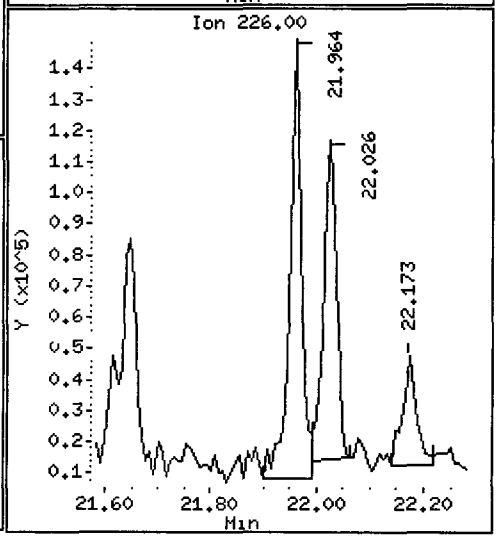












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

Client ID: SD0011

Instrument: nt10.i

Sample Info: TX57N

Volume Injected (uL): 1.0

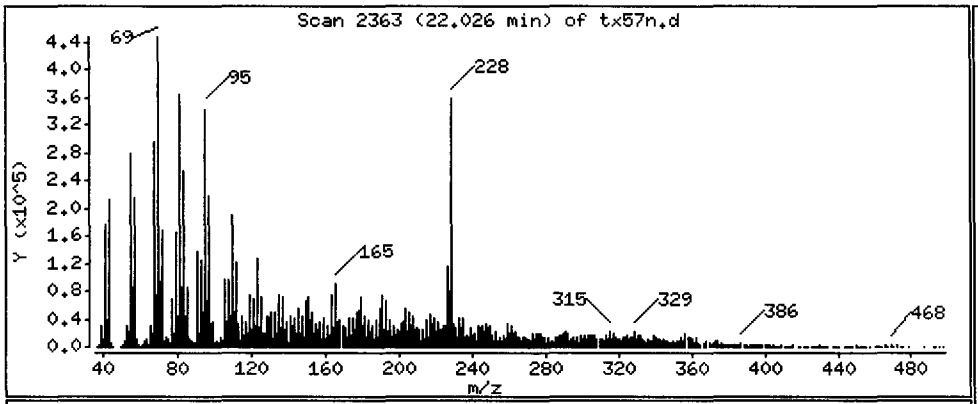
Operator: YZ

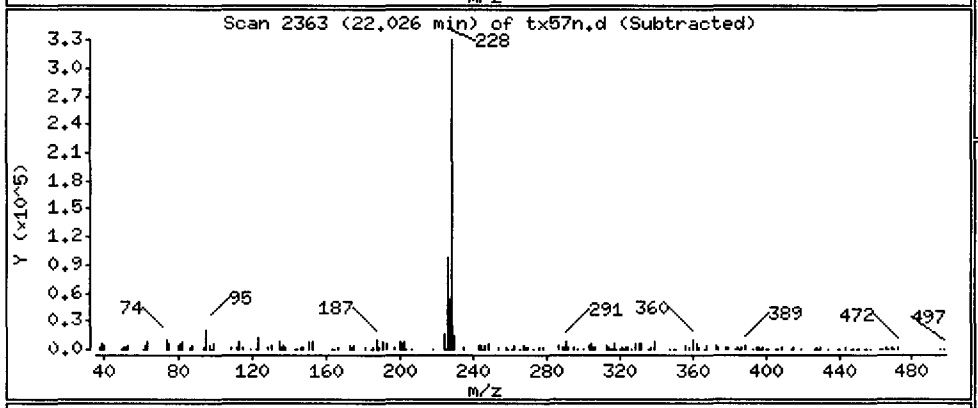
Column phase: ZB-5msi

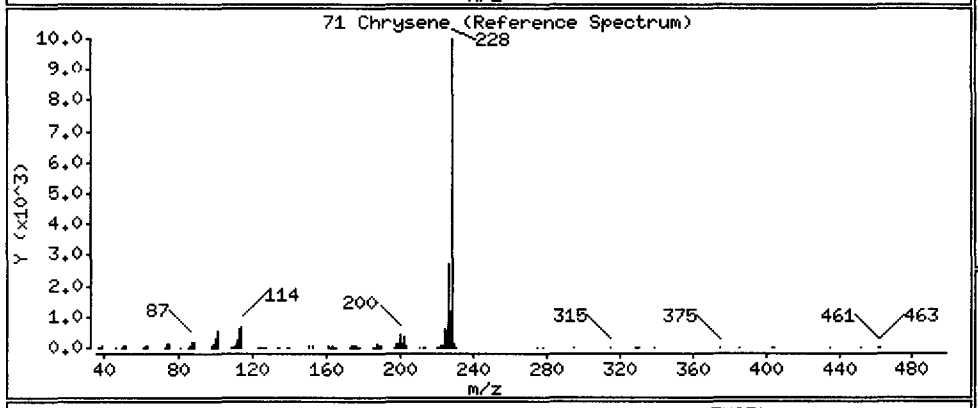
Column diameter: 0.25

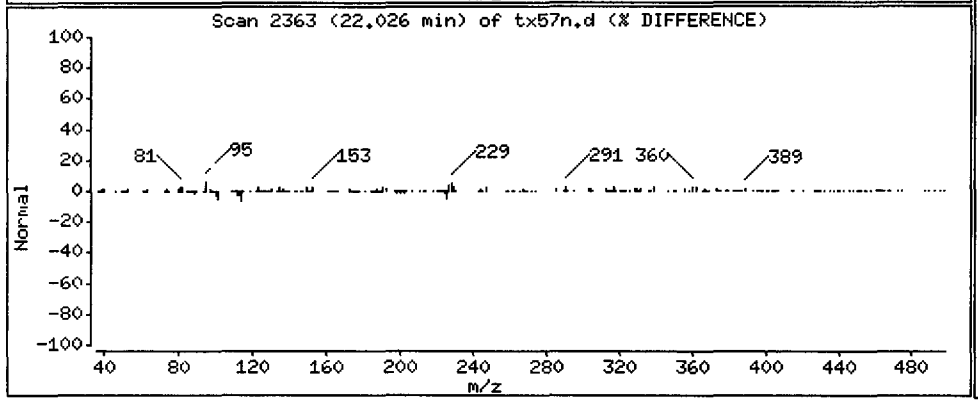
71 Chrysene

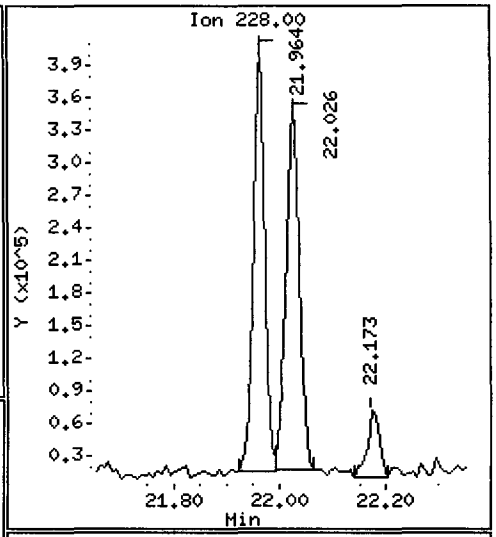
Concentration: 144.3 ug/kg

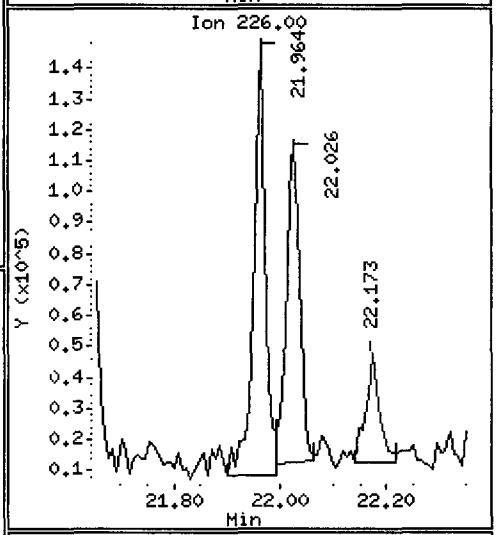


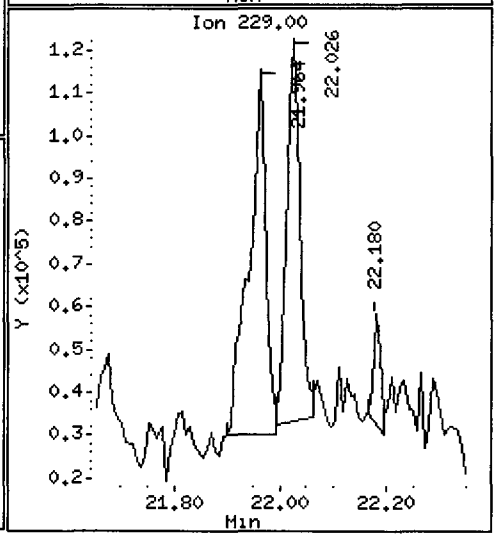












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

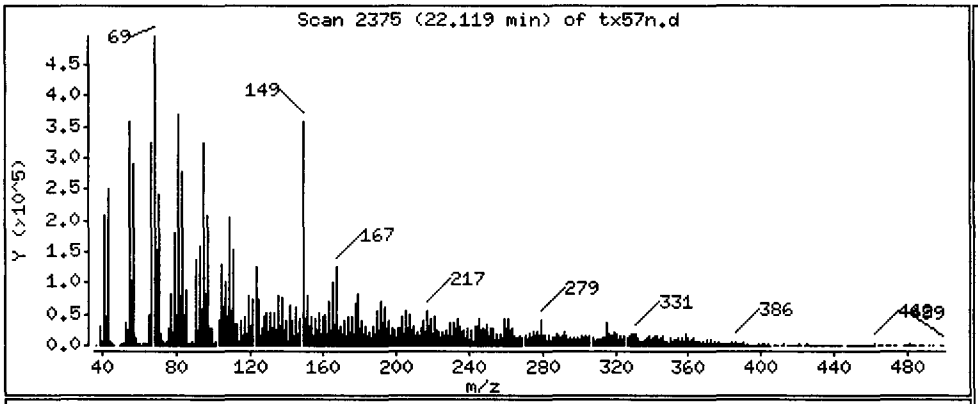
Client ID: SD0011 Instrument: nt10.i

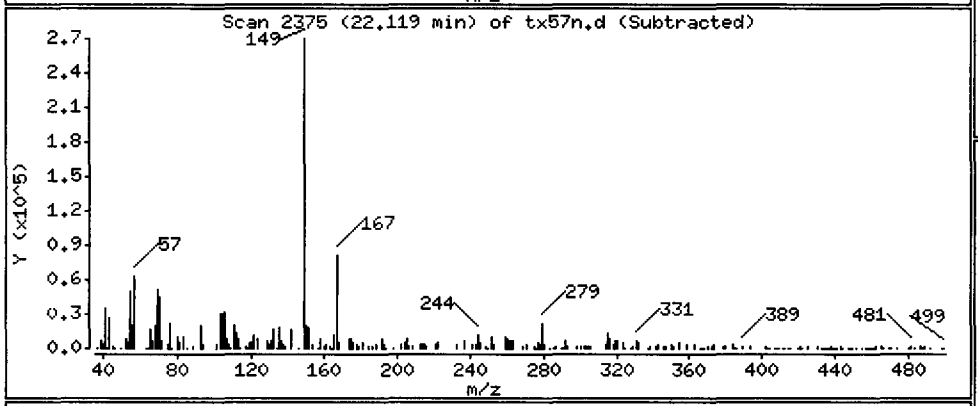
Sample Info: TX57N

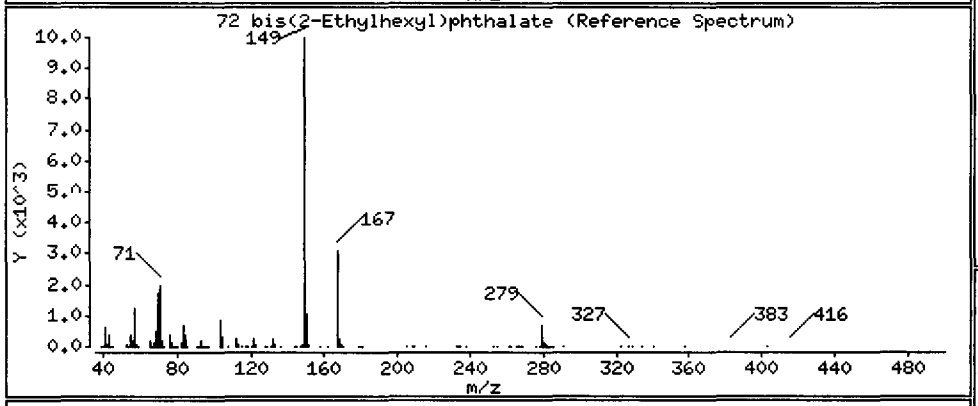
Volume Injected (uL): 1.0 Operator: YZ

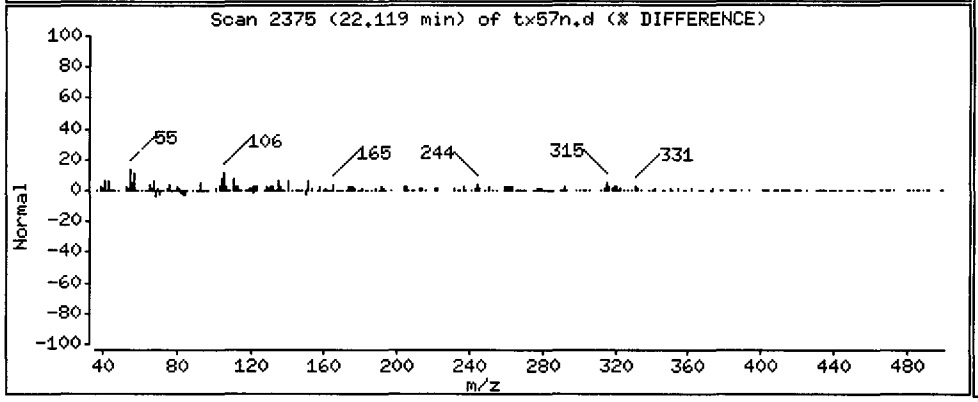
Column phase: ZB-5ms1 Column diameter: 0.25

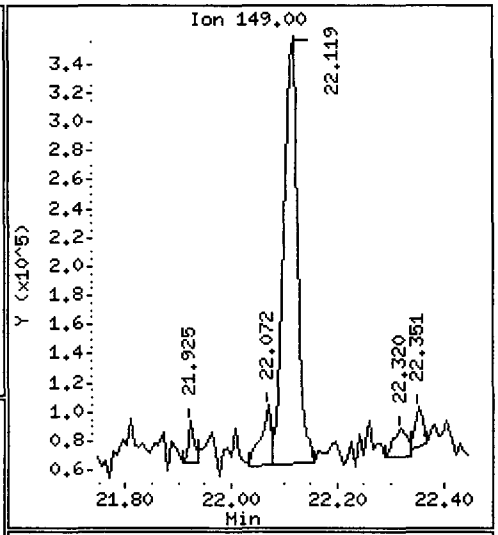
72 bis(2-Ethylhexyl)phthalate Concentration: 253.9 ug/kg

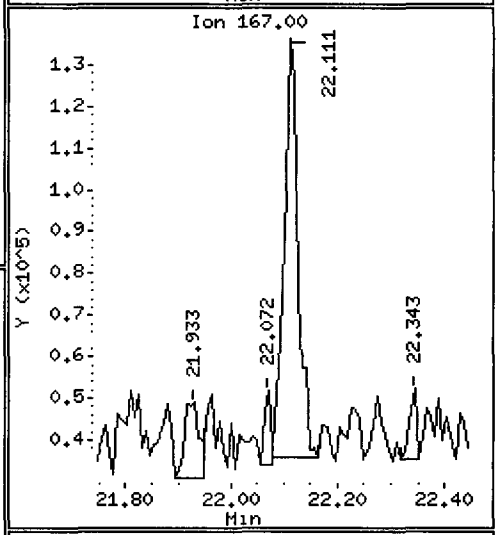


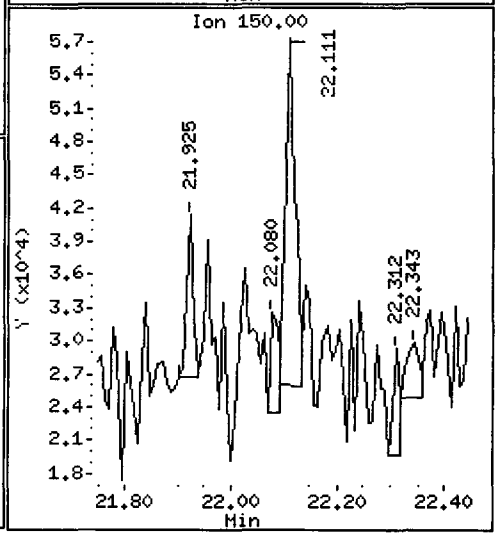












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

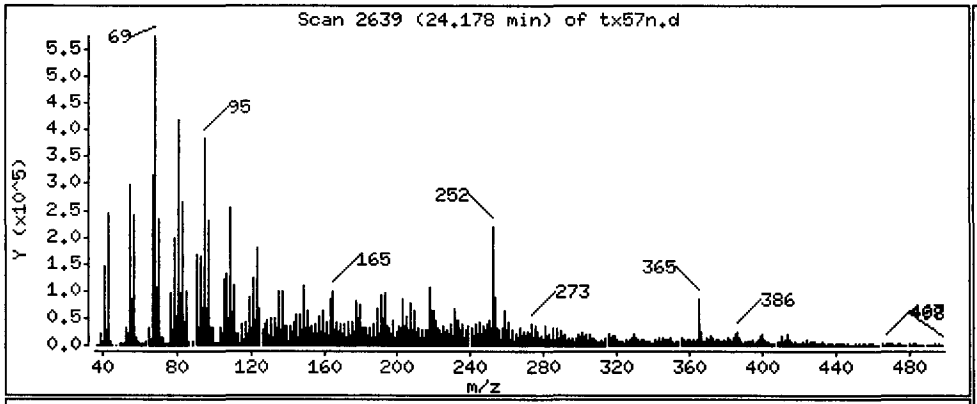
Client ID: SD0011 Instrument: nt10.i

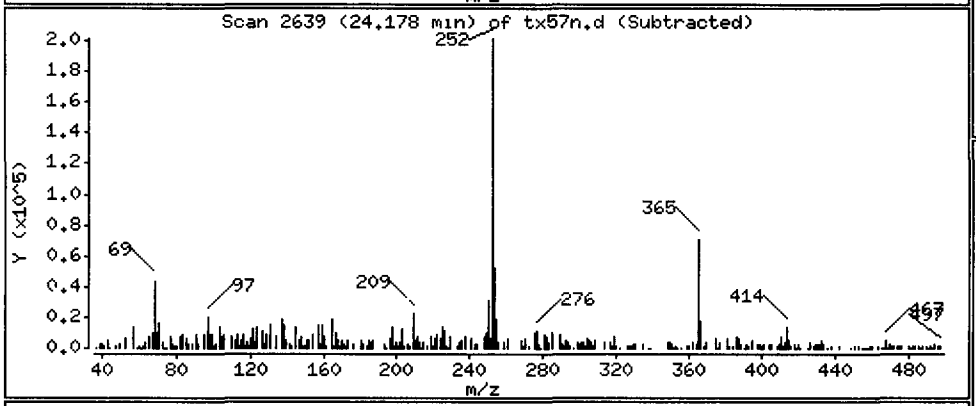
Sample Info: TX57N

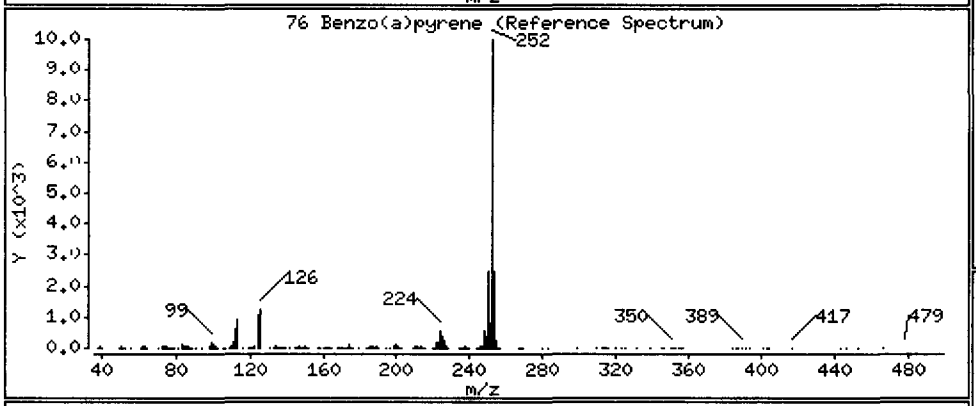
Volume Injected (uL): 1.0 Operator: YZ

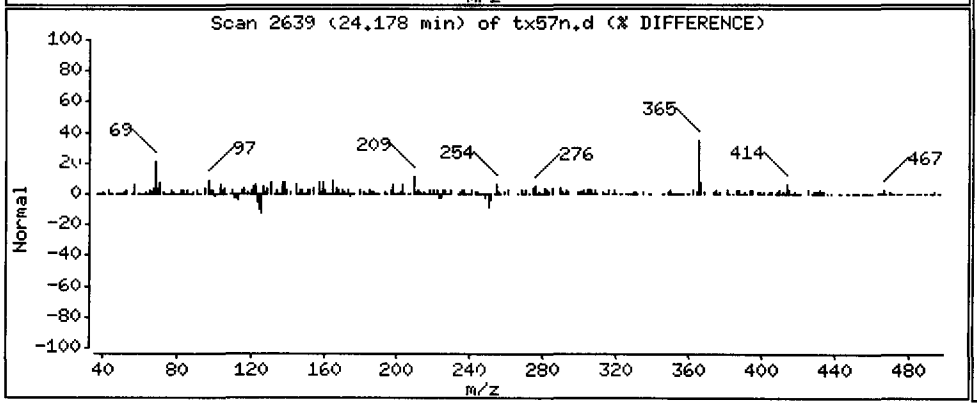
Column phase: ZB-5msi Column diameter: 0.25

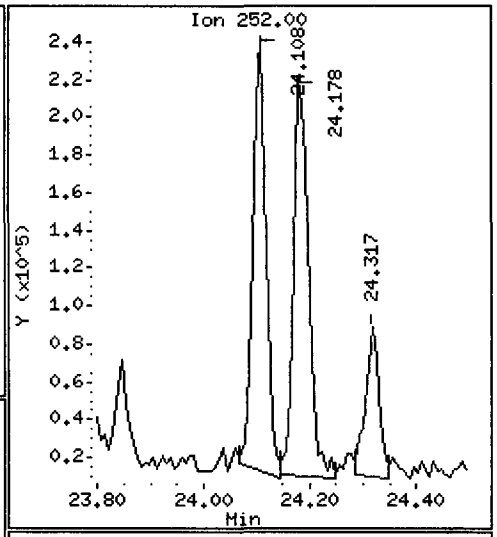
76 Benzo(a)pyrene Concentration: 115.0 ug/kg

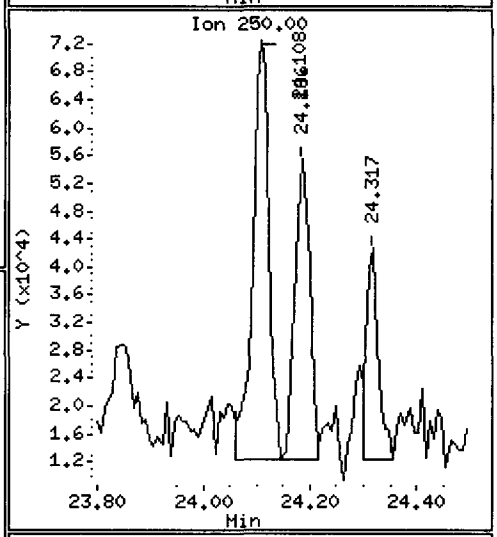


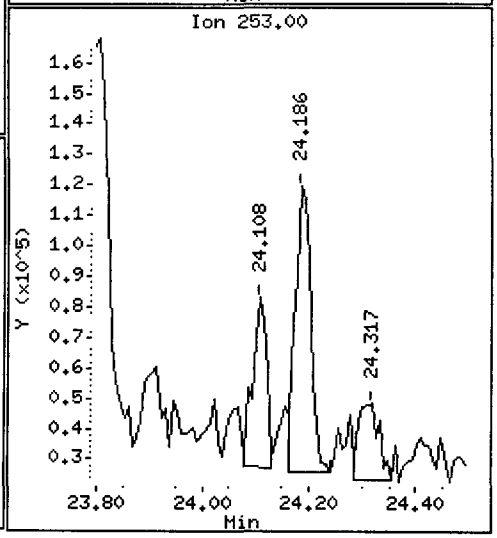












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

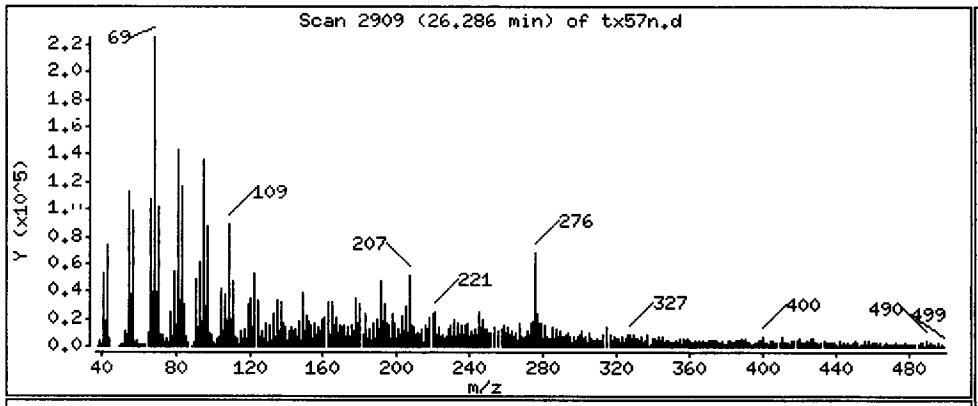
Client ID: SD0011 Instrument: nt10.i

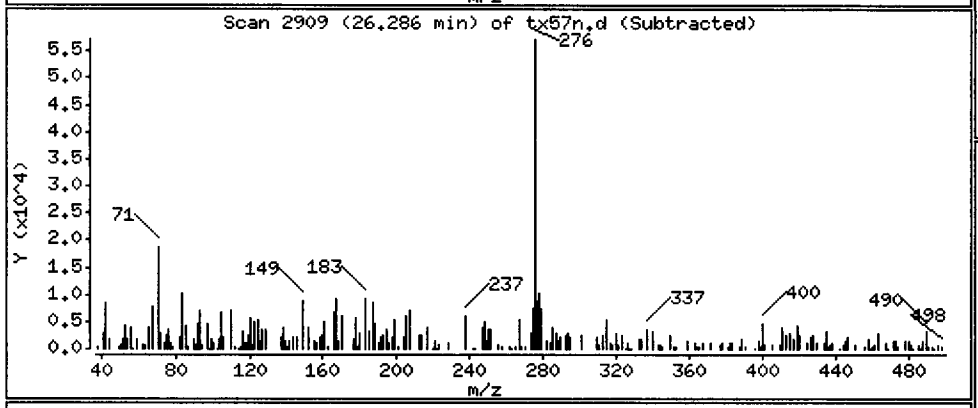
Sample Info: TX57N

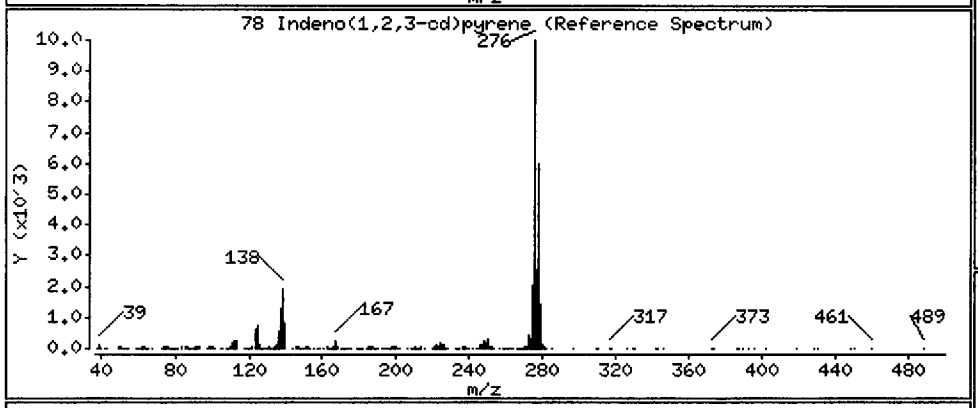
Volume Injected (uL): 1.0 Operator: YZ

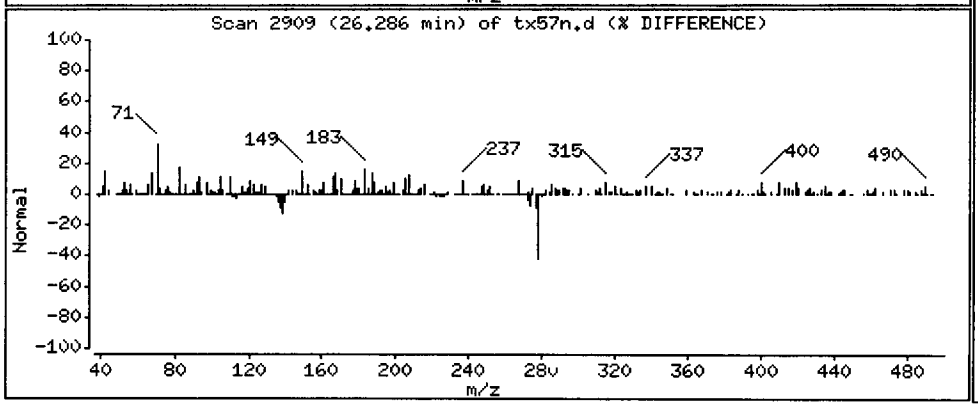
Column phase: ZB-5ms1 Column diameter: 0.25

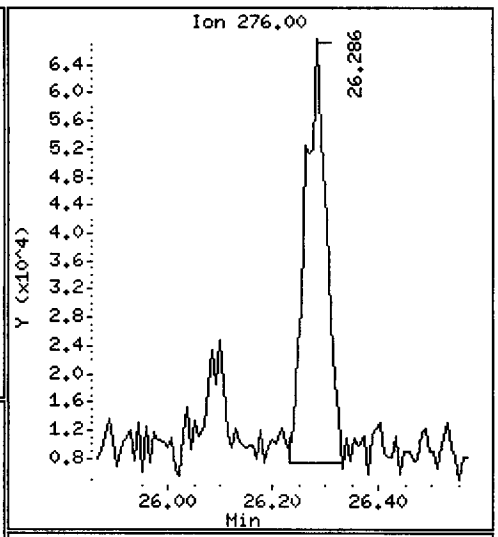
78 Indeno(1,2,3-cd)pyrene Concentration: 33.23 ug/kg

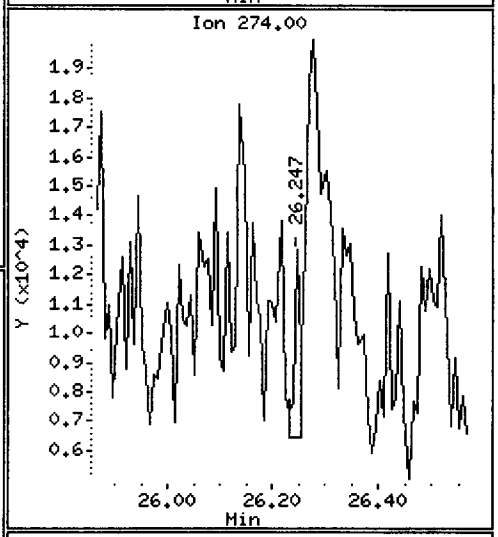


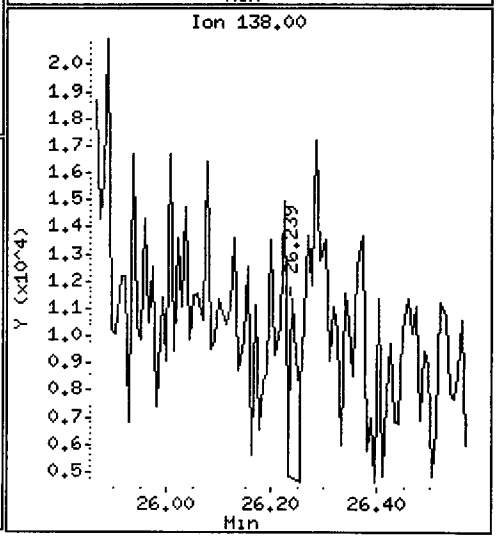












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

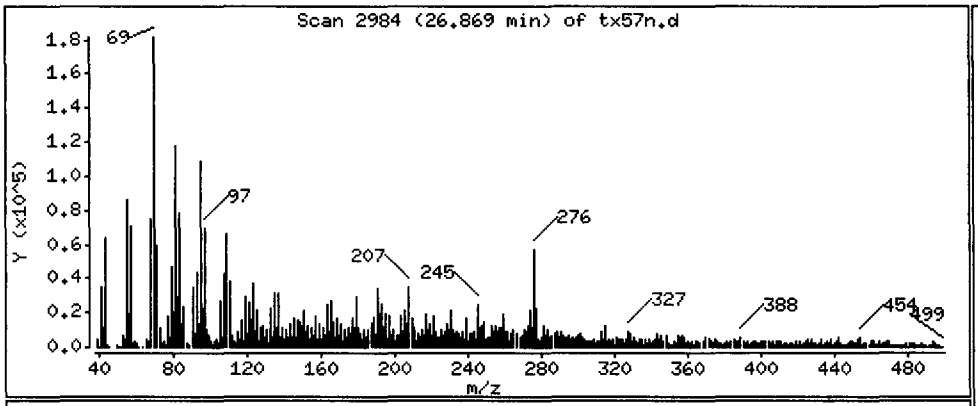
Client ID: SD0011 Instrument: nt10.i

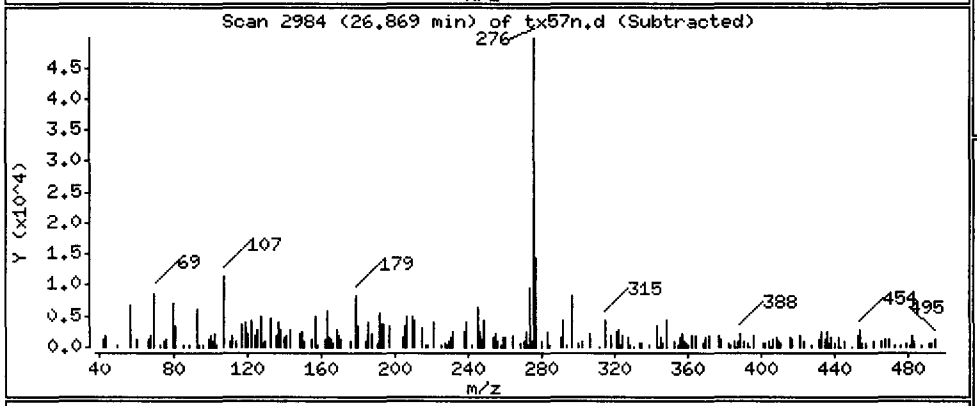
Sample Info: TX57N

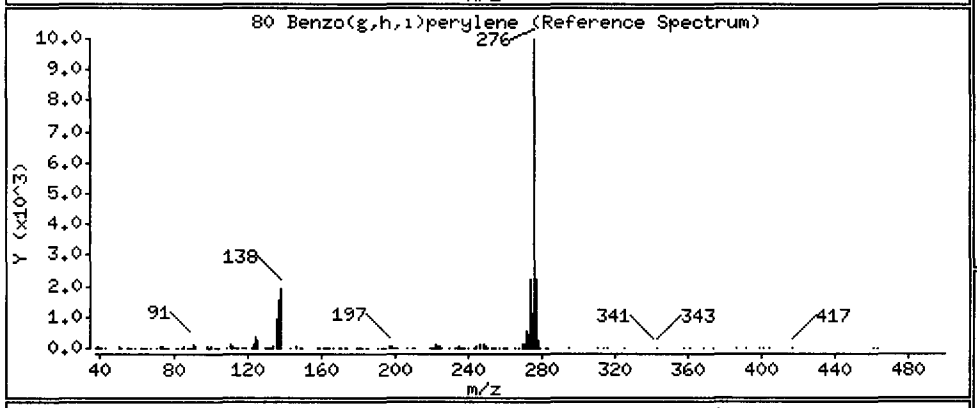
Volume Injected (uL): 1.0 Operator: YZ

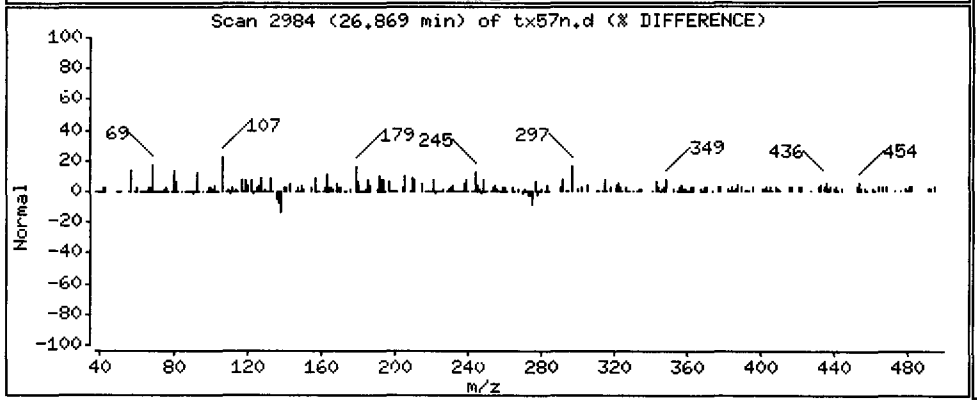
Column phase: ZB-5msi Column diameter: 0.25

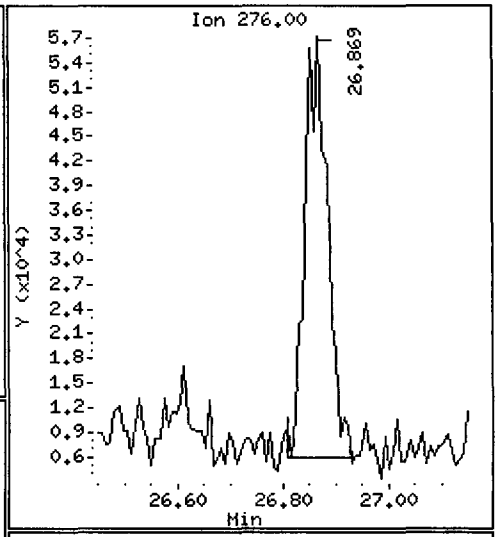
80 Benzo(g,h,i)perylene Concentration: 35.78 ug/kg

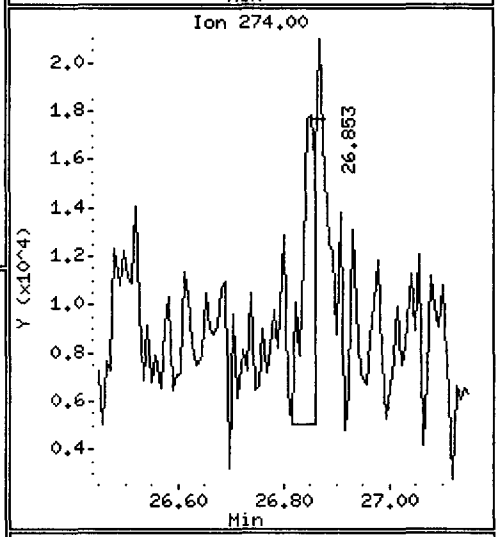


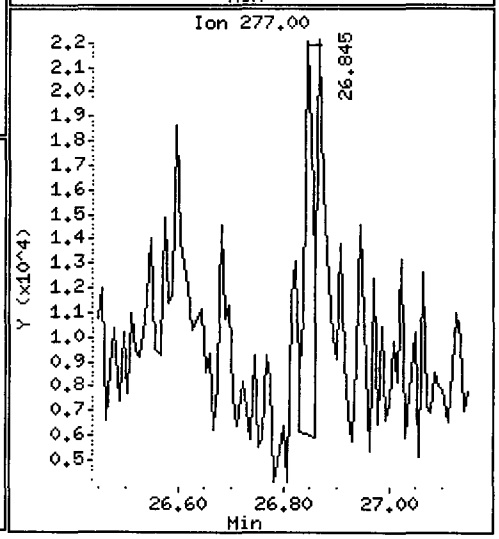












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

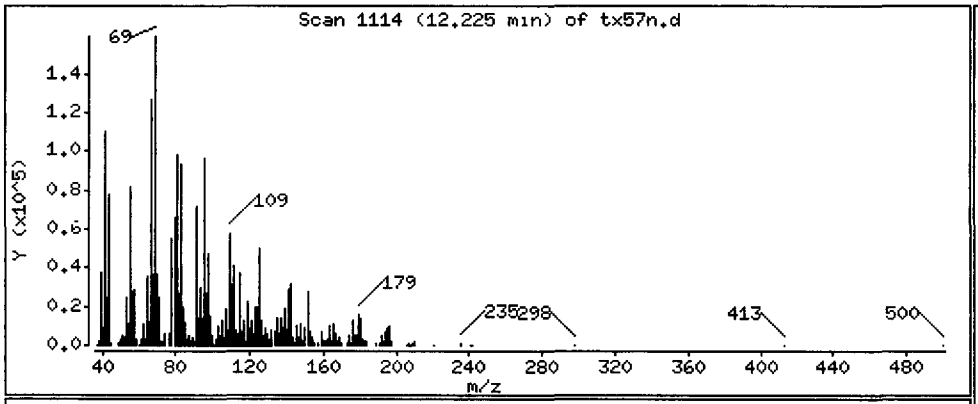
Client ID: SD0011 Instrument: nt10.i

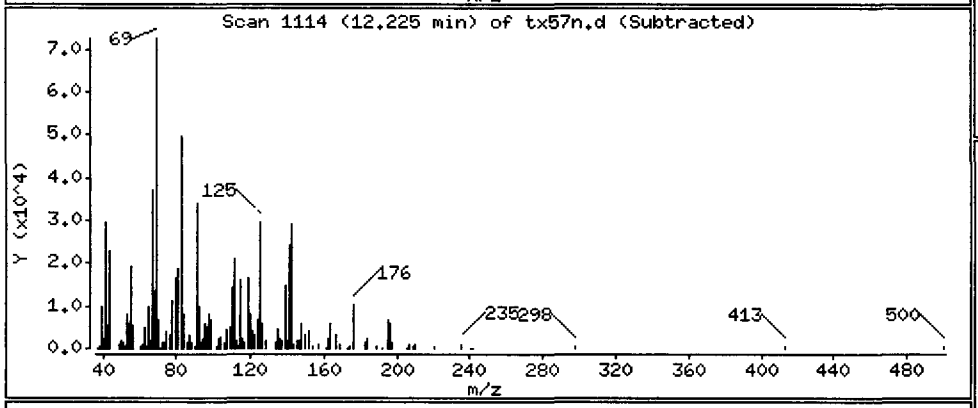
Sample Info: TX57N

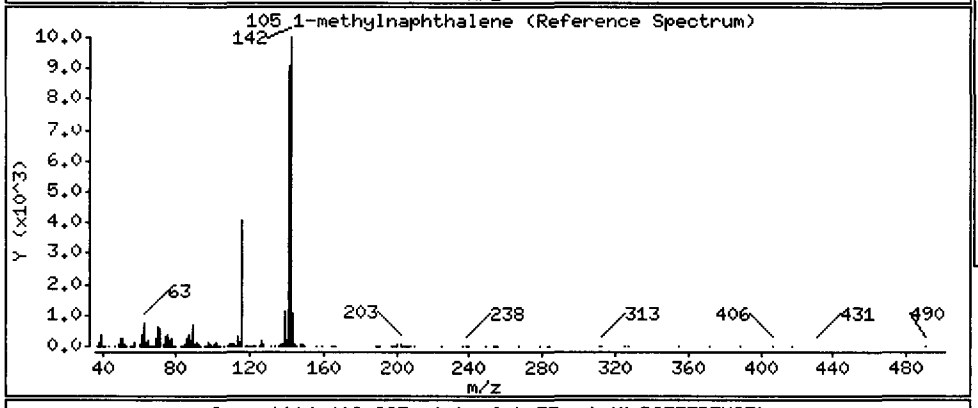
Volume Injected (uL): 1.0 Operator: YZ

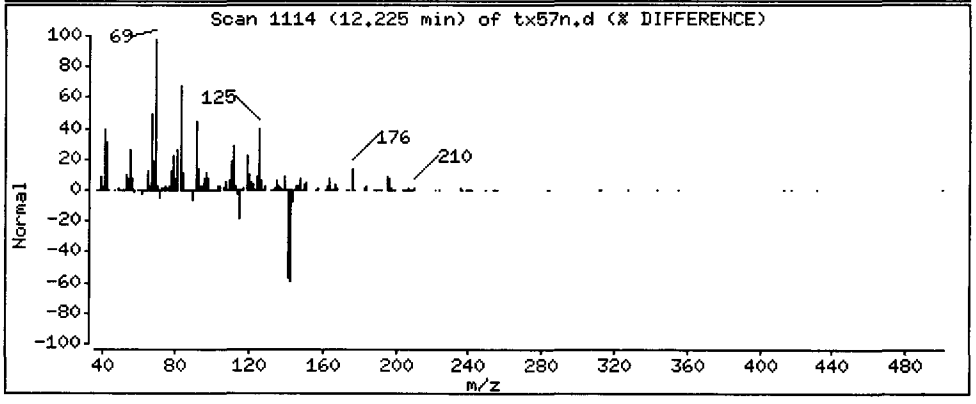
Column phase: ZB-5msi Column diameter: 0.25

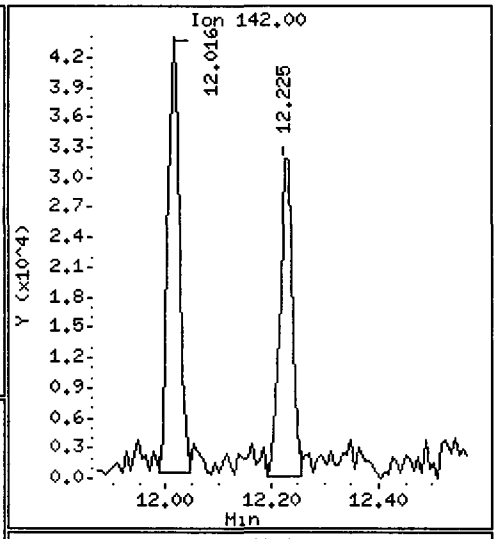
105 1-methylnaphthalene Concentration: 43.28 ug/kg

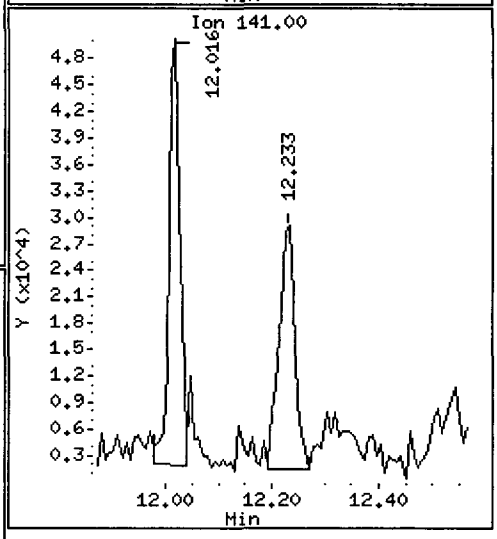












Data File: /chem1/nt10.i/20111206.b/tx57n.d

Date : 07-DEC-2011 01:22

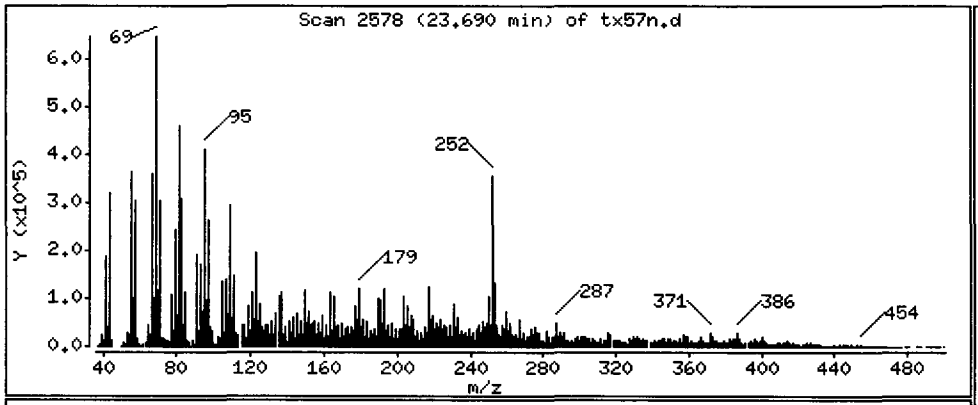
Client ID: SD0011 Instrument: nt10.i

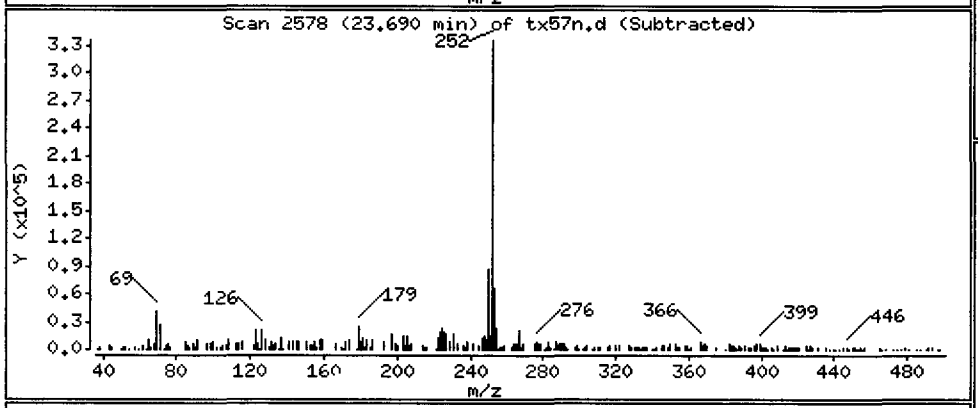
Sample Info: TX57N

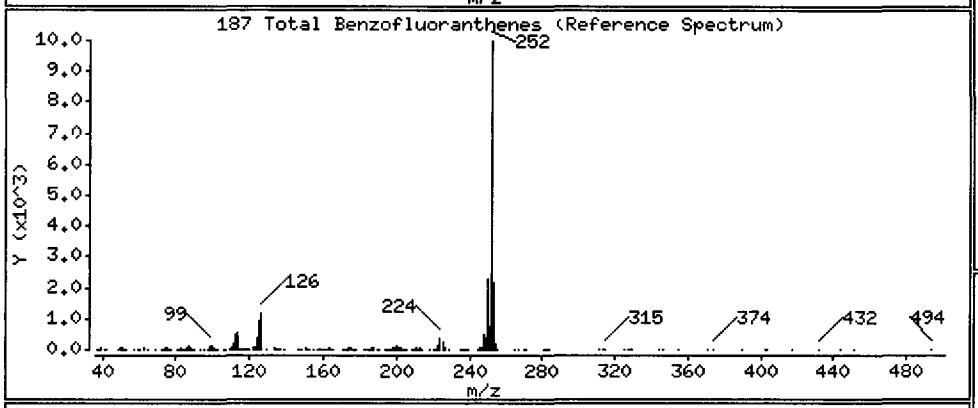
Volume Injected (uL): 1.0 Operator: YZ

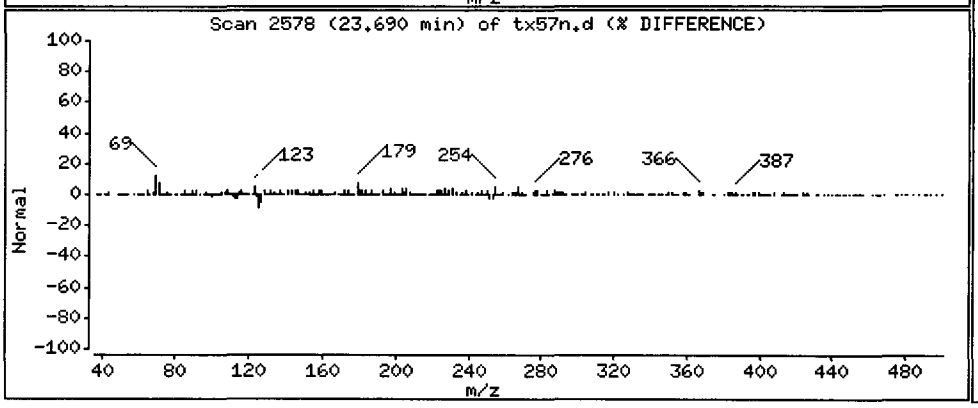
Column phase: ZB-5ms1 Column diameter: 0.25

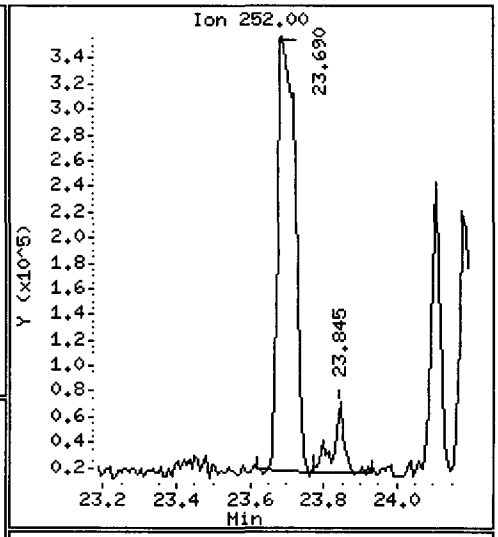
187 Total Benzofluoranthenes Concentration: 253.3 ug/kg

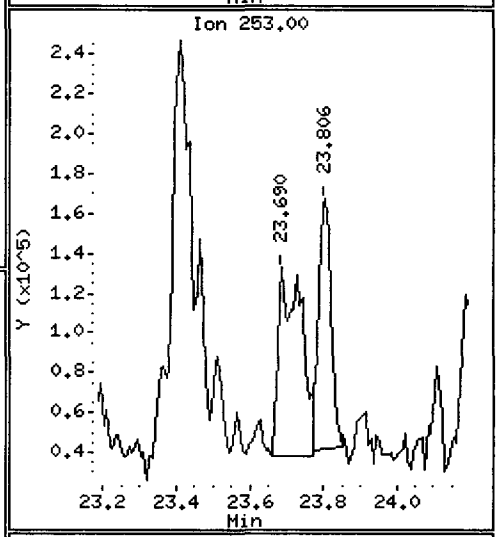


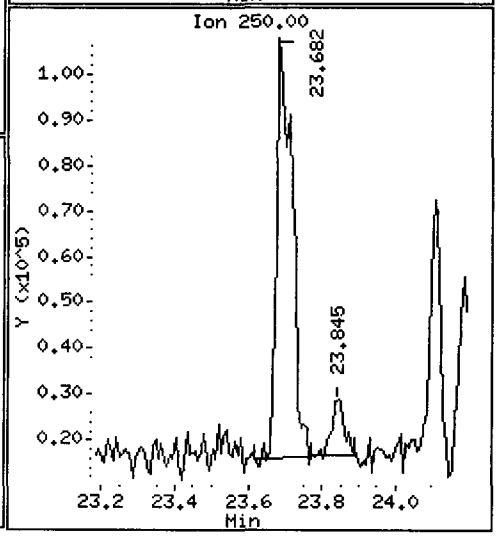






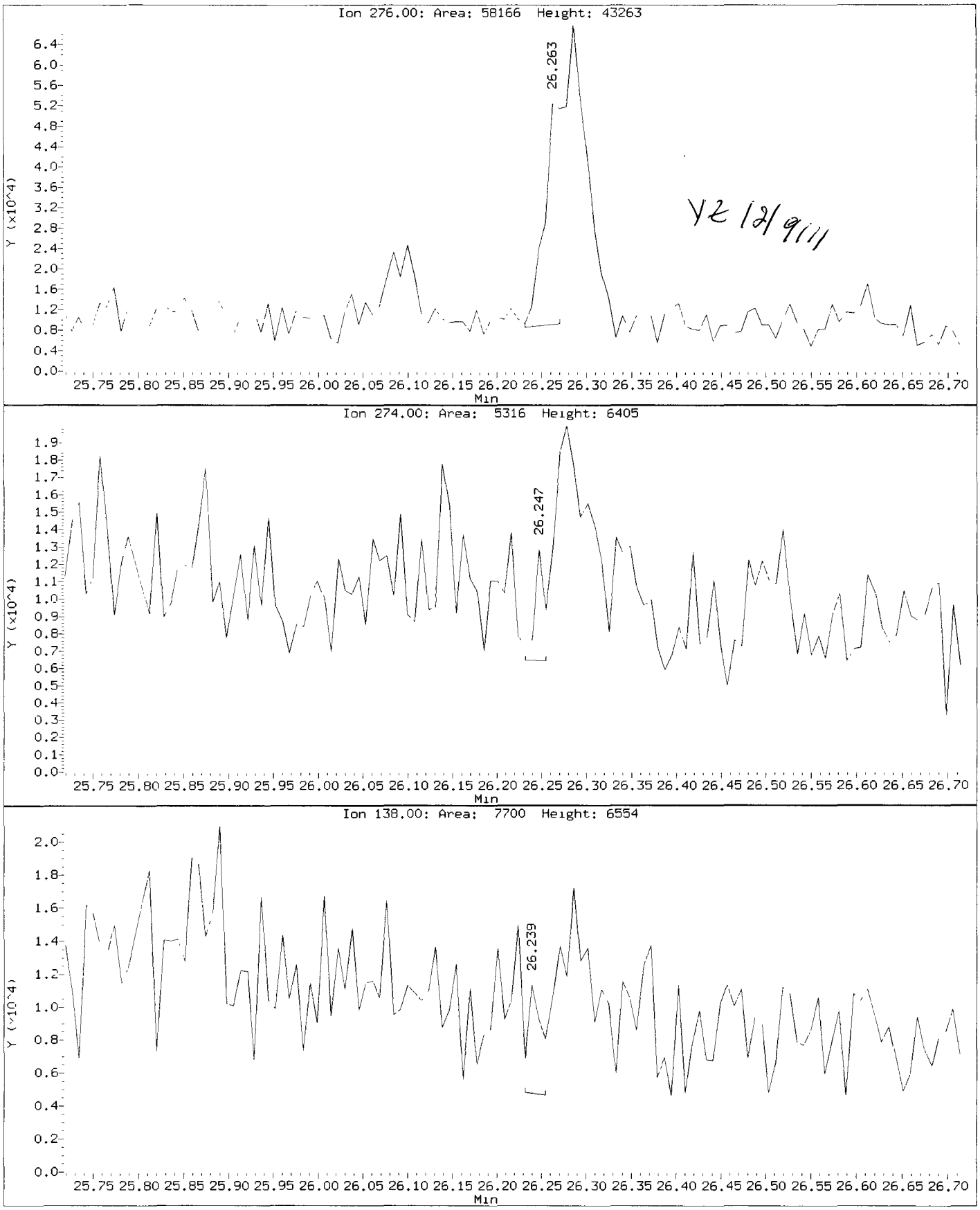






Data File: /chem1/nt10.1/20111206.b/tx57n.d
Injection Date: 07-DEC-2011 01:22
Instrument: nt10.1
Client Sample ID: SD0011

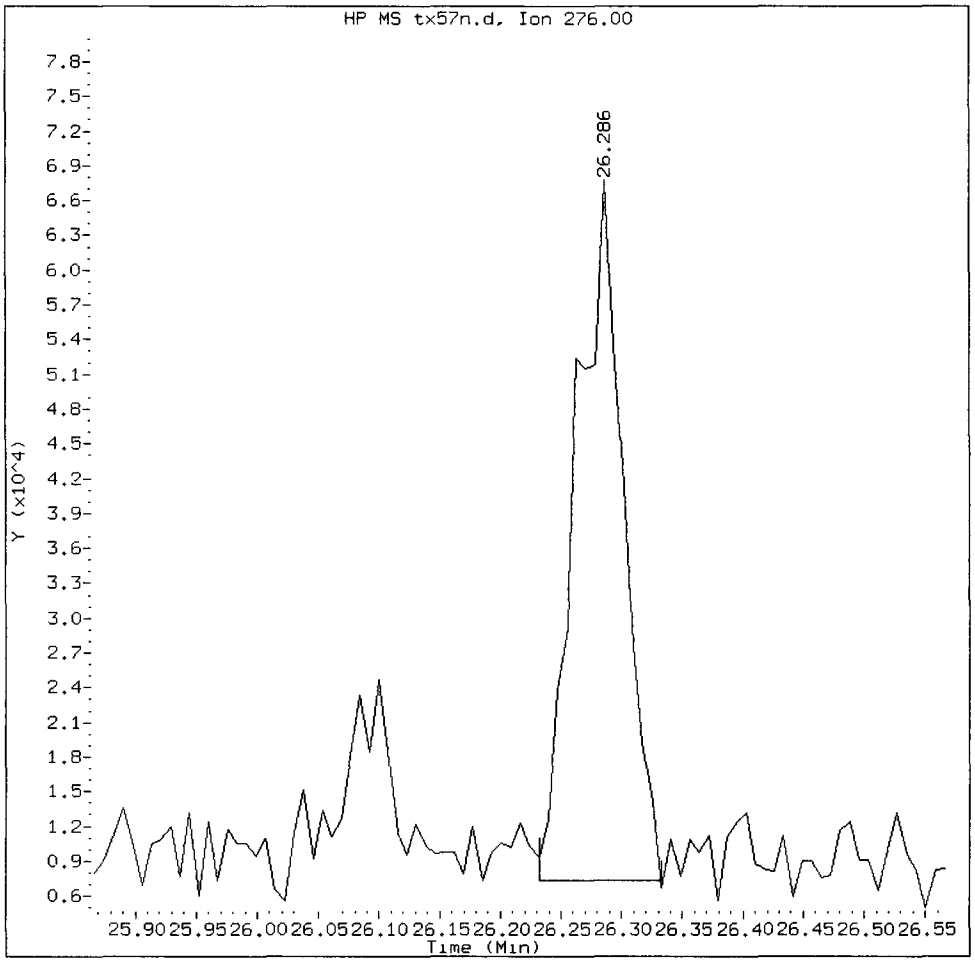
Compound: Indeno(1,2,3-cd)pyrene
CAS Number: 193-39-5



YZ 12/9/11

TX57N, /chem1/nt10.i/20111206.b/tx57n.d

Indeno(1,2,3-cd)pyrene Amount: 0.34 Area: 169317



MANUAL INTEGRATION for Indeno(1,2,3-cd)pyrene

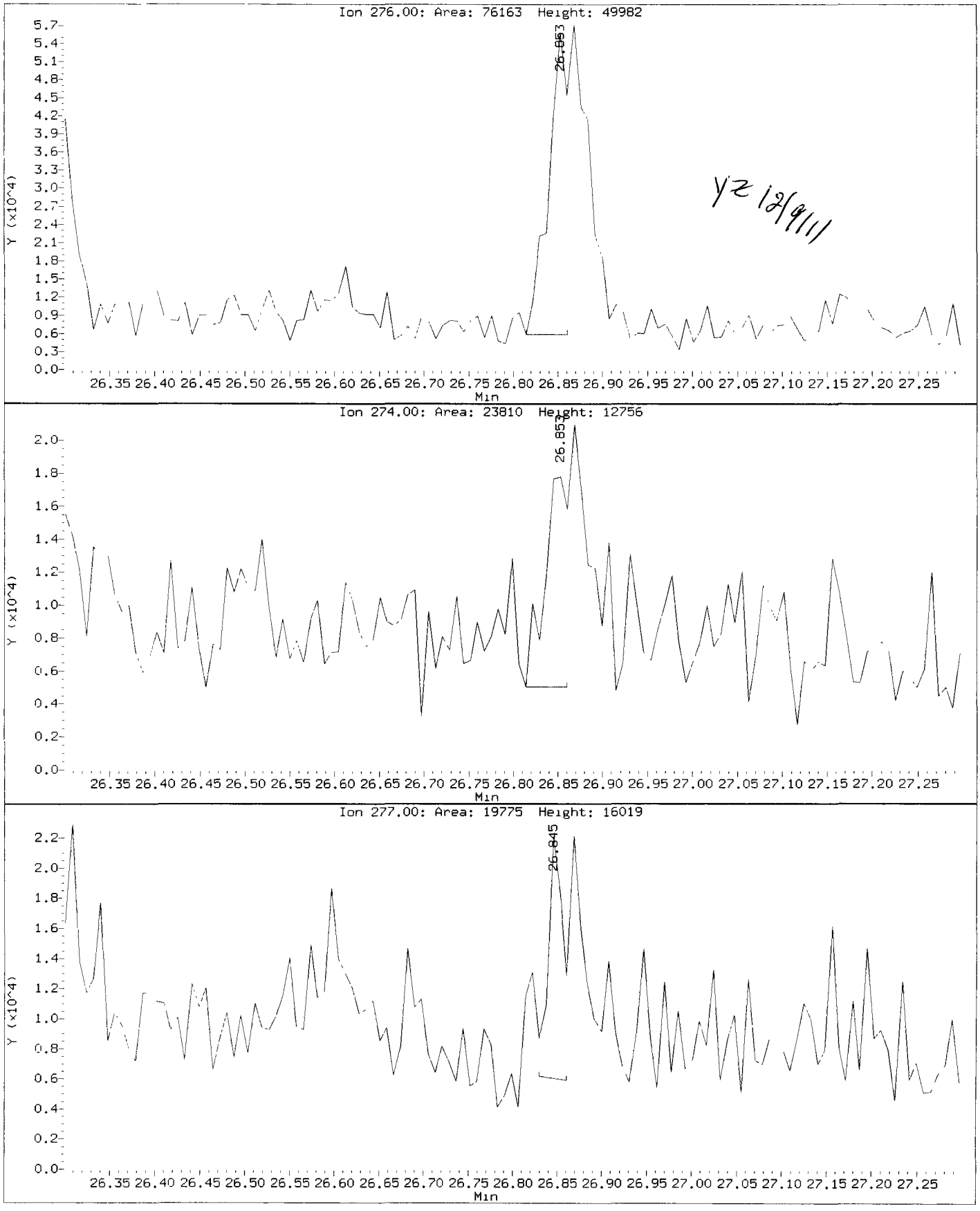
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 2/9/11

Data File: /chem1/nt10.1/20111206.b/tx57n.d
Injection Date: 07-DEC-2011 01:22
Instrument: nt10.1
Client Sample ID: SD0011

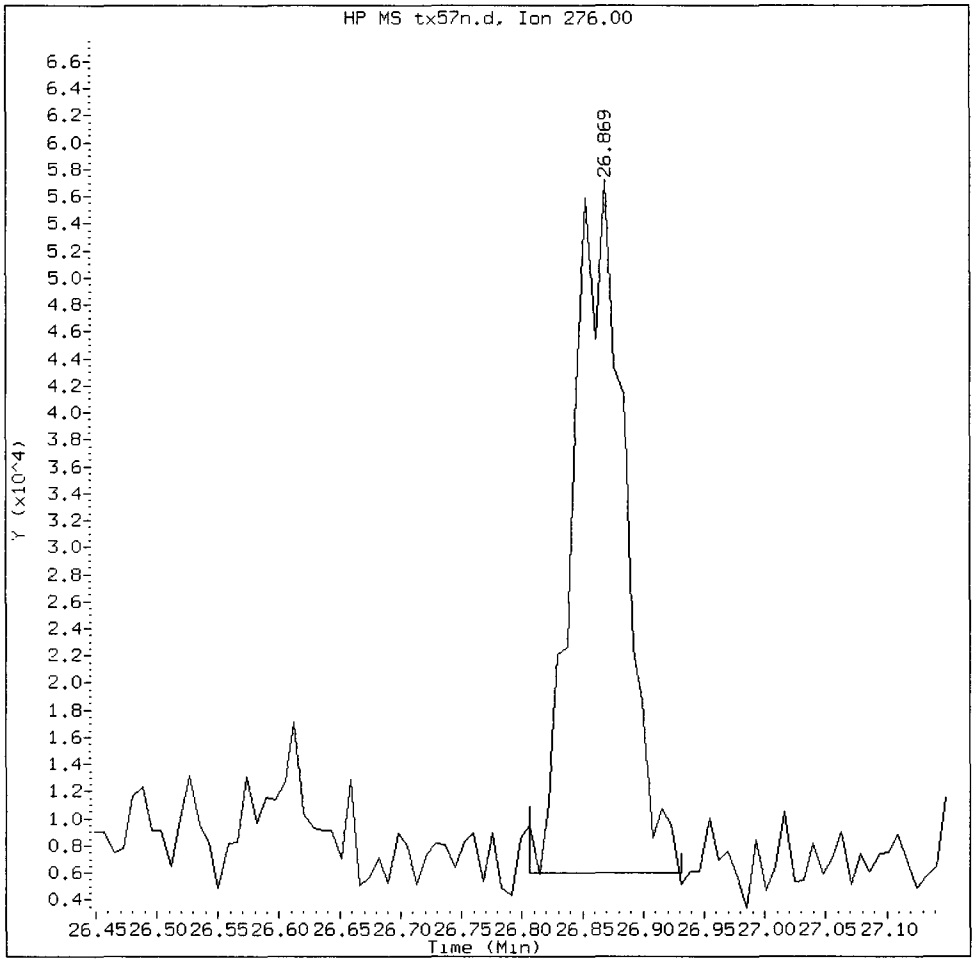
Compound: Benzo(g,h,i)perylene
CAS Number: 191-24-2



YZ 12/9/11

TX57N, /chem1/nt10.i/20111206.b/tx57n.d

Benzo(g,h,i)perylene Amount: 0.37 Area: 153427



MANUAL INTEGRATION for Benzo(g,h,i)perylene

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VZ Date: 12/9/11

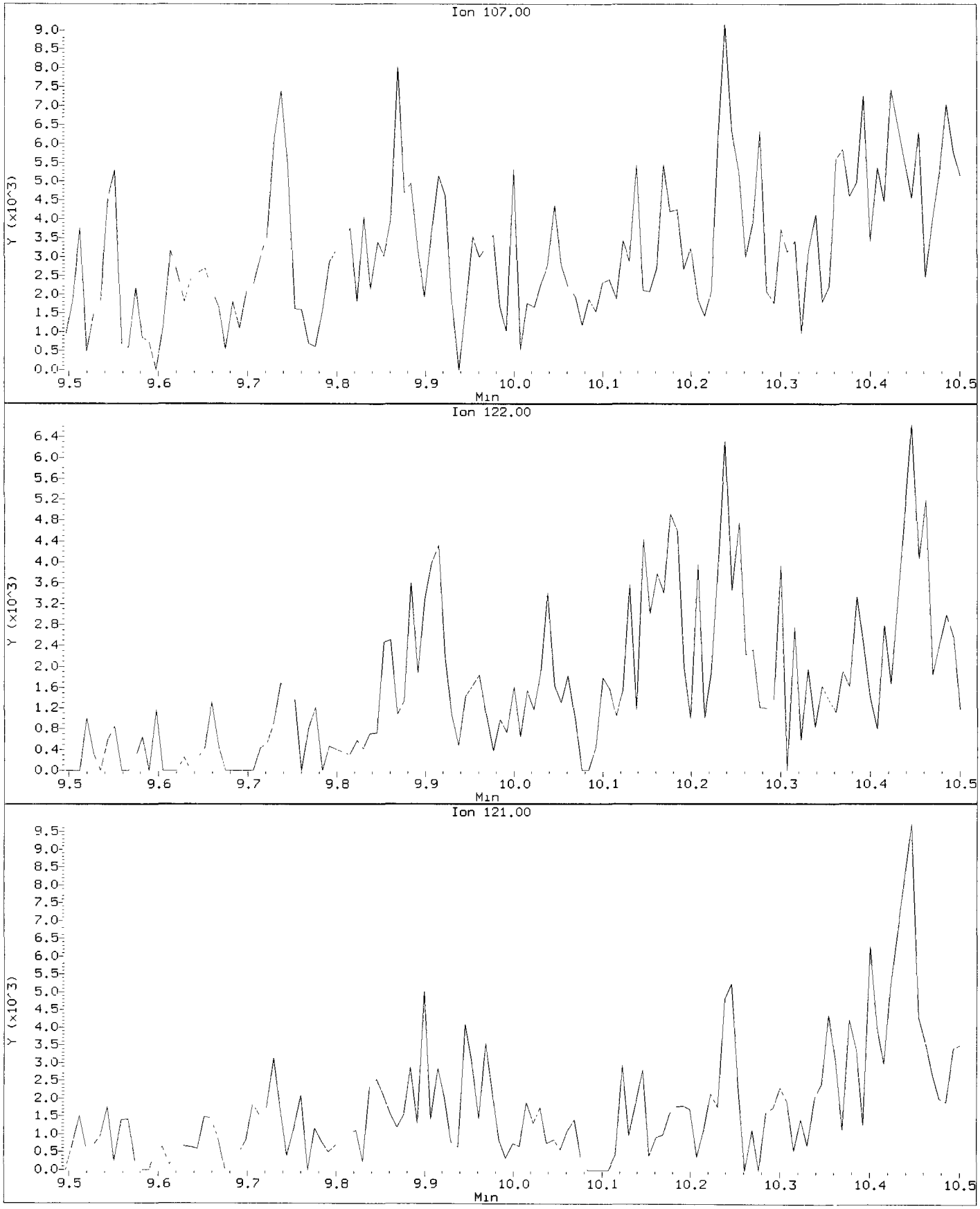
CO-ELUTION SUMMARY FOR FILE - tx57n.d

Lab ID: TX57N, Method: ABN.m, Instrument: nt10.i, Date: 07-DEC-2011

RT	CO-ELUTION COMPOUNDS
23.690	Benzo(k)fluoranthene and Benzo(b)fluoranthene

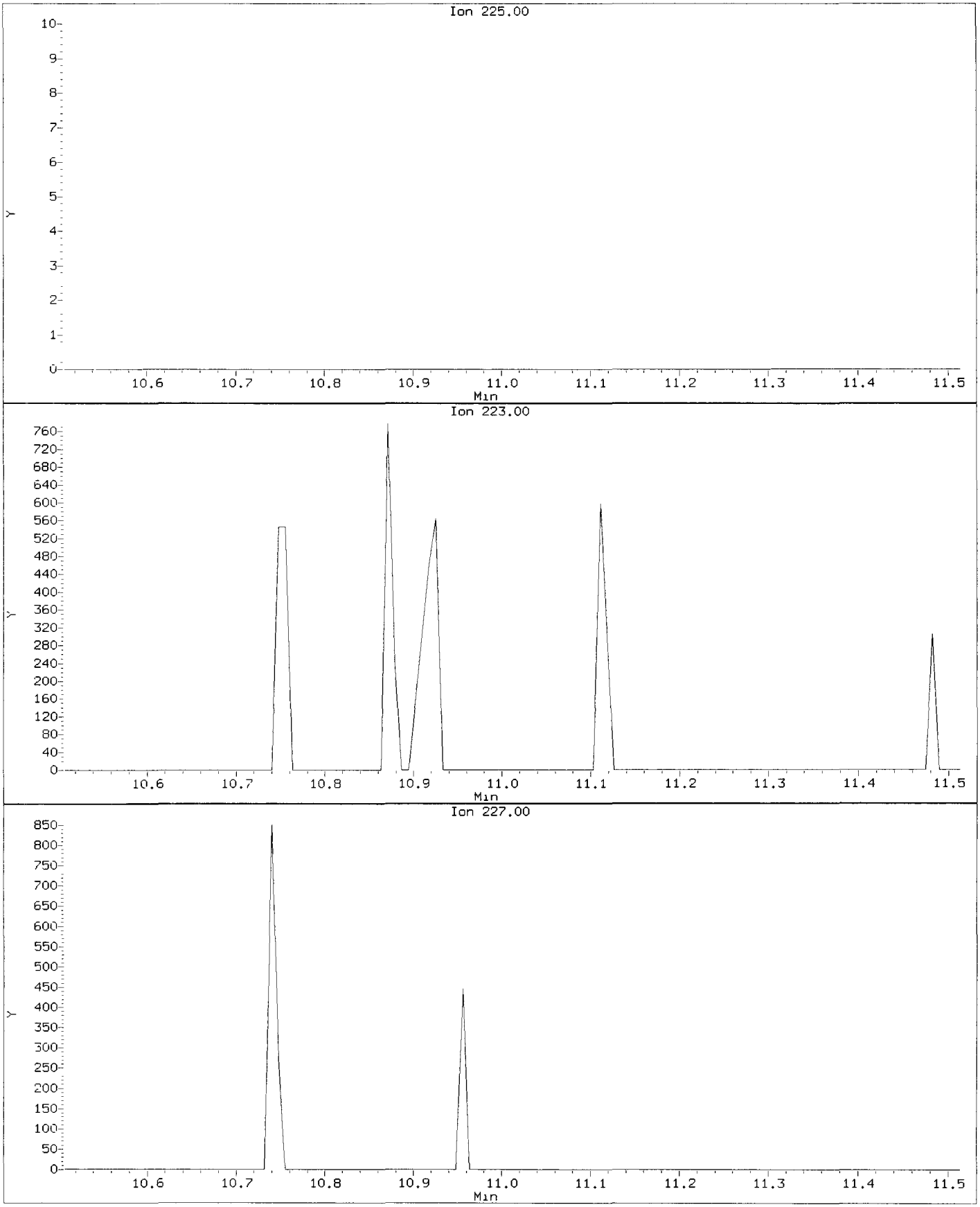
Data File: /chem1/nt10.1/20111206.b/tx57n.d
Injection Date: 07-DEC-2011 01:22
Instrument: nt10.1
Client Sample ID: SD0011

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



Data File: /chem1/nt10.i/20111206.b/tx57n.d
Injection Date: 07-DEC-2011 01:22
Instrument: nt10.i
Client Sample ID: SD0011

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources Inc.: Volatile Organics Instrument Log
NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 12/07/11 Analysis: ABN Analyst: YZ

GC Program: ABN2 Column No: 227807 Column Type: ZB5msi

Instrument Tune (.U or .CT.): 111007U EM Voltage: 2400

Calibration File: DF1207A Curve Date: 10/11/11 Injection Vol.: 1uL

IS/SS	Ical/Ccal		LCS/ICV
1875-1	1890-1	1891-1	
	1891-2	1892-1	

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20111207.b

	Time	Filename	LabID	ClientId	DF													
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2	1159	cc1207 d	CC1207		1	8 08	238021	10 52	773110	14 09	668653	17 10	1356492	21 99	1826643	24 30	1728665	23 13 1511097
3	1233	tx57d3 d	TX57D		3	8.08	192302	10 52	717393	14 10	532055	17 10	1194989	22 01	1767619	24 33	1735176	23 13 1468257
4	1307	tx57l3 d	TX57L		3	8 08	197318	10 53	756736	14 11	577825	17 11	1104934	22 01	1542944	24 32	1638058	23 13 1339525
5	1341	tx57o3 d	TX57O		3	8 09	208416	10 53	705757	14 11	557188	17 12	1311900	22 03	1703772	24 34	1772920	23 15 1414257
6	1415	tx54mb d	TX54MBS1	TX54MBS1	1	8.08	198967	10 53	735897	14 11	589174	17 12	1192745	22 01	1475975	24 32	1599089	23 13 1258921
7	1449	tx54sb d	TX54LCSS1	TX54LCSS1	1	8 08	201044	10.53	718895	14 12	581841	17 12	1251135	22 01	1661209	24 32	1641619	23 13 1286304
8	1523	tx54srm d	TX54SRM1	SRM 1944	5	8 09	202047	10 54	727015	14 12	544865	17 13	1208369	22 03	1754863	24 33	1812134	23 14 1467753
9	1557	tx54a d	TX54A	GH12 NC10	1	8 08	178804	10 54	699283	14 12	549399	17 13	1161738	22 02	1531832	24 33	1510270	23 13 1231945
10	1631	tx54b d	TX54B	GH12 NC9	1	8 08	206958	10.53	692486	14.12	560095	17 12	1254815	22 01	1576052	24 32	1593948	23 13 1299440
11	1705	tx54c d	TX54C	GH12 NC8	1	8 08	217822	10 54	780098	14.12	623672	17 12	1360073	22 01	1762921	24 32	1761881	23 13 1460233
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13	1813	tx54dms d	TX54DMS	GH12 NC7 MS	1	8 09	212393	10.53	768093	14 12	610183	17 12	1293654	22 01	1757212	24 32	1711397	23 13 1446999
14	1847	tx54dmsd d	TX54DMSD	GH12 NC7 MSD	1	8 09	202963	10 54	712772	14 12	587980	17 12	1250999	22 01	1707685	24.32	1742081	23 13 1391995
15	1921	tx54e d	TX54E	GH12 XR6	1	8.08	203048	10 54	758419	14 12	613105	17 13	1259411	22.01	1750471	24 31	1742140	23 13 1408246
16	1954	tx54f d	TX54F	GH12 XR56	1	8 09	195049	10 54	685879	14 12	570375	17 13	1200504	22 01	1611852	24.32	1578869	23 13 1267438

YZ 12/8/11

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20111207.b

Instrument: nt10.i Date: 07-DEC-2011 Method: ABN.m

INITIAL CAL: 11-OCT-2011

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 07-DEC-2011

Compound	%D
Hexachlorocyclopentadiene	-37.0
2,4-Dinitrophenol	-24.9
Benzidine	27.7
Nitrobenzene-d5	22.4

Data File: /chem1/nt10.1/20111207.b/df1207a.d

Date : 07-DEC-2011 11:45

Client ID: DFTPP

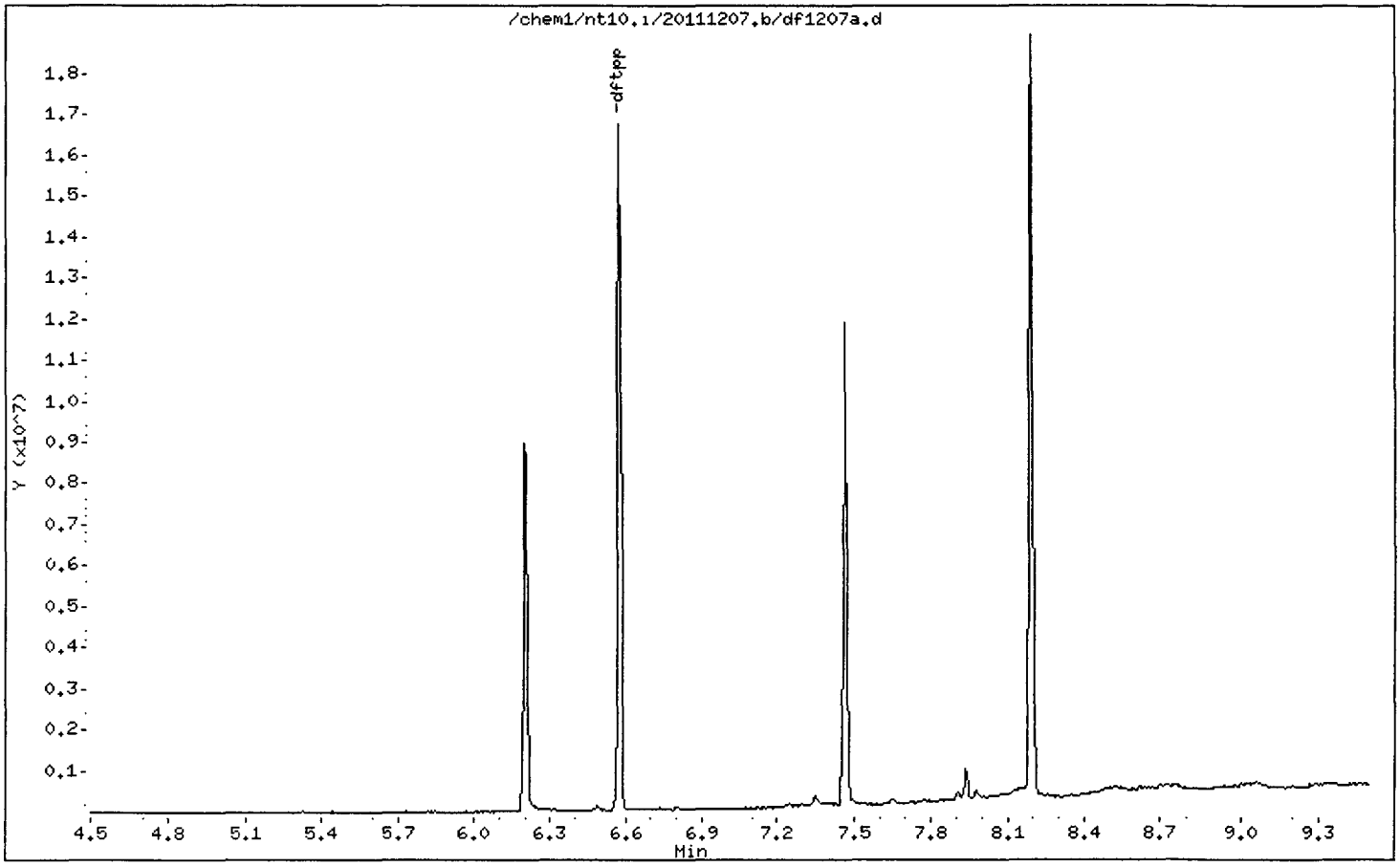
Instrument: nt10.1

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5ms1

Column diameter: 0.25



TX57 . 00850

Data File: /chem1/nt10.i/20111207.b/df1207a.d

Date : 07-DEC-2011 11:45

Client ID: DFTPP

Instrument: nt10.i

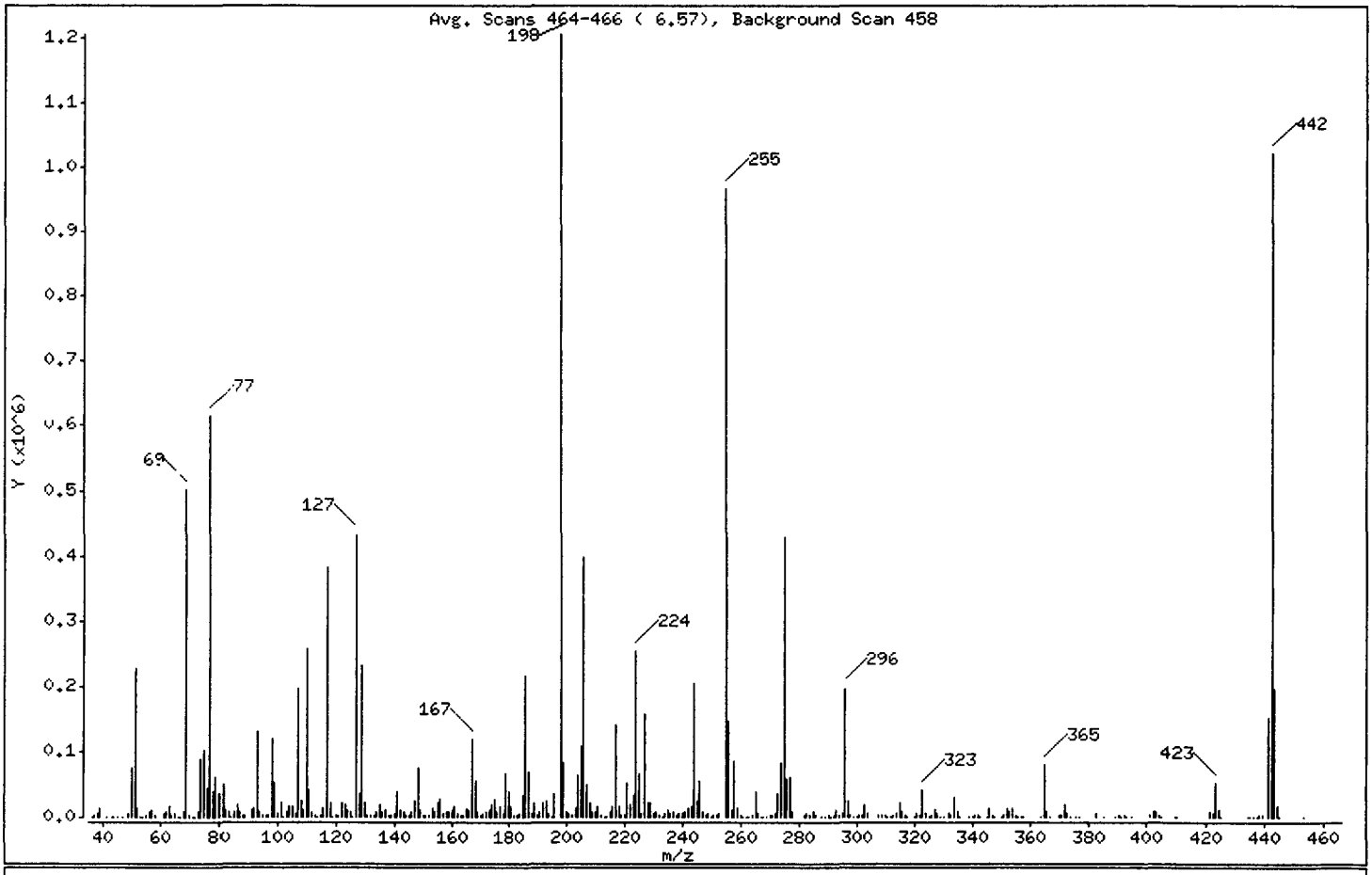
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	18.74
68	Less than 2.00% of mass 69	0.72 (1.74)
69	Mass 69 relative abundance	41.58
70	Less than 2.00% of mass 69	0.20 (0.49)
127	10.00 - 80.00% of mass 198	35.86
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.88
275	10.00 - 60.00% of mass 198	35.60
365	Greater than 1.00% of mass 198	6.60
441	0.01 - 24.00% of mass 442	12.71 (14.97)
442	50.00 - 200.00% of mass 198	84.87
443	15.00 - 24.00% of mass 442	16.29 (19.20)

TX57 : 00267

Data File: /chem1/nt10.i/20111207.b/df1207a.d

Date : 07-DEC-2011 11:45

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1207a.d
Spectrum: Avg. Scans 464-466 (6.57), Background Scan 458
Location of Maximum: 198.00
Number of points: 356

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	370	132.00	2885	223.00	32360	320.00	834
37.00	1403	133.00	1917	224.00	256192	321.00	5029
38.00	4565	134.00	7995	225.00	66848	322.00	2253
39.00	14337	135.00	19928	226.00	5125	323.00	42936
41.00	845	136.00	8437	227.00	159232	324.00	6622
43.00	40	137.00	11088	228.00	21488	325.00	364
44.00	103	138.00	3142	229.00	21144	326.00	1436
45.00	132	139.00	2228	230.00	4691	327.00	9742
47.00	195	140.00	4189	231.00	7467	328.00	4797
49.00	4263	141.00	38824	232.00	1574	329.00	774
50.00	75744	142.00	10763	233.00	860	330.00	587
51.00	225856	143.00	9151	234.00	6258	332.00	5323
52.00	14318	144.00	1711	235.00	10010	333.00	4022
53.00	325	145.00	3188	236.00	5727	334.00	31184
54.00	23	146.00	8892	237.00	7974	335.00	8371
55.00	2231	147.00	23616	238.00	1660	336.00	782
56.00	7519	148.00	74944	239.00	5269	339.00	1253
57.00	12068	149.00	12081	240.00	5447	340.00	928
58.00	1797	150.00	3359	241.00	8054	341.00	3761
61.00	4926	151.00	2538	242.00	14674	342.00	1702
62.00	7475	152.00	3949	243.00	15782	343.00	319
63.00	17888	153.00	14073	244.00	206080	345.00	429
64.00	2494	154.00	8411	245.00	25568	346.00	13881
65.00	5702	155.00	21512	246.00	55248	347.00	2218
66.00	239	156.00	28664	247.00	9526	348.00	323
67.00	1330	157.00	4516	248.00	3190	350.00	133
68.00	8699	158.00	7666	249.00	6218	351.00	1943
69.00	501184	159.00	8002	250.00	1124	352.00	13283
70.00	2435	160.00	11212	251.00	2201	353.00	9372
71.00	912	161.00	16424	252.00	3252	354.00	12644
72.00	1126	162.00	6859	253.00	6911	355.00	2787
73.00	7139	163.00	2011	255.00	965760	356.00	243
74.00	87320	164.00	2836	256.00	145856	357.00	430
75.00	101640	165.00	12947	257.00	11693	358.00	114
76.00	43984	166.00	11050	258.00	86680	359.00	1277

TXST:00898

Date : 07-DEC-2011 11:45

Client ID: DFTPP Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi Column diameter: 0.25

Data File: df1207a.d
Spectrum: Avg. Scans 464-466 (6.57), Background Scan 458
Location of Maximum: 198.00
Number of points: 356

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	615232	167.00	118208	259.00	12636	364.00	727
78.00	39072	168.00	56216	260.00	1681	365.00	79576
79.00	60608	169.00	7089	261.00	925	366.00	8720
80.00	36936	170.00	3368	262.00	232	367.00	787
81.00	48672	171.00	5745	263.00	506	370.00	1502
82.00	11772	172.00	8305	264.00	1565	371.00	3355
83.00	8797	173.00	10238	265.00	39552	372.00	19472
84.00	1311	174.00	18216	266.00	5080	373.00	4341
85.00	7931	175.00	27536	267.00	1276	374.00	592
86.00	19584	176.00	7430	268.00	677	376.00	531
87.00	7349	177.00	16060	269.00	144	377.00	1011
88.00	1772	178.00	6848	270.00	2121	383.00	6804
89.00	1623	179.00	66304	271.00	3775	384.00	1095
90.00	155	180.00	39768	272.00	5107	385.00	59
91.00	9800	181.00	15761	273.00	34896	388.00	182
92.00	14928	182.00	3229	274.00	83672	389.00	571
93.00	129144	183.00	1411	275.00	429120	390.00	2757
94.00	8050	184.00	6504	276.00	57552	391.00	1031
95.00	1774	185.00	32832	277.00	61096	392.00	1782
96.00	2739	186.00	216512	278.00	7393	393.00	67
97.00	2265	187.00	68944	279.00	1298	395.00	218
98.00	118592	188.00	6667	282.00	2401	396.00	223
99.00	51952	189.00	21952	283.00	4694	397.00	487
100.00	4340	190.00	3368	284.00	4033	401.00	1542
101.00	21512	191.00	8161	285.00	8304	402.00	7790
102.00	1153	192.00	23448	286.00	1671	403.00	8878
103.00	7256	193.00	24208	288.00	900	404.00	4094
104.00	17912	194.00	6485	289.00	1145	405.00	612
105.00	16084	195.00	1104	290.00	2144	409.00	132
106.00	4362	196.00	36728	291.00	1050	410.00	505
107.00	196736	198.00	1205248	292.00	1792	419.00	1275
108.00	23624	199.00	82896	293.00	9766	421.00	8003
109.00	11359	200.00	7398	294.00	4105	422.00	6168
110.00	258432	201.00	6583	295.00	5812	423.00	52552
111.00	42632	202.00	2035	296.00	195904	424.00	10663

TX5T : 00809

Data File: /chem1/nt10.1/20111207.b/df1207a.d

Date : 07-DEC-2011 11:45

Client ID: DFTPP

Instrument: nt10.1

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5ms1

Column diameter: 0.25

Data File: df1207a.d

Spectrum: Avg. Scans 464-466 (6.57), Background Scan 458

Location of Maximum: 198.00

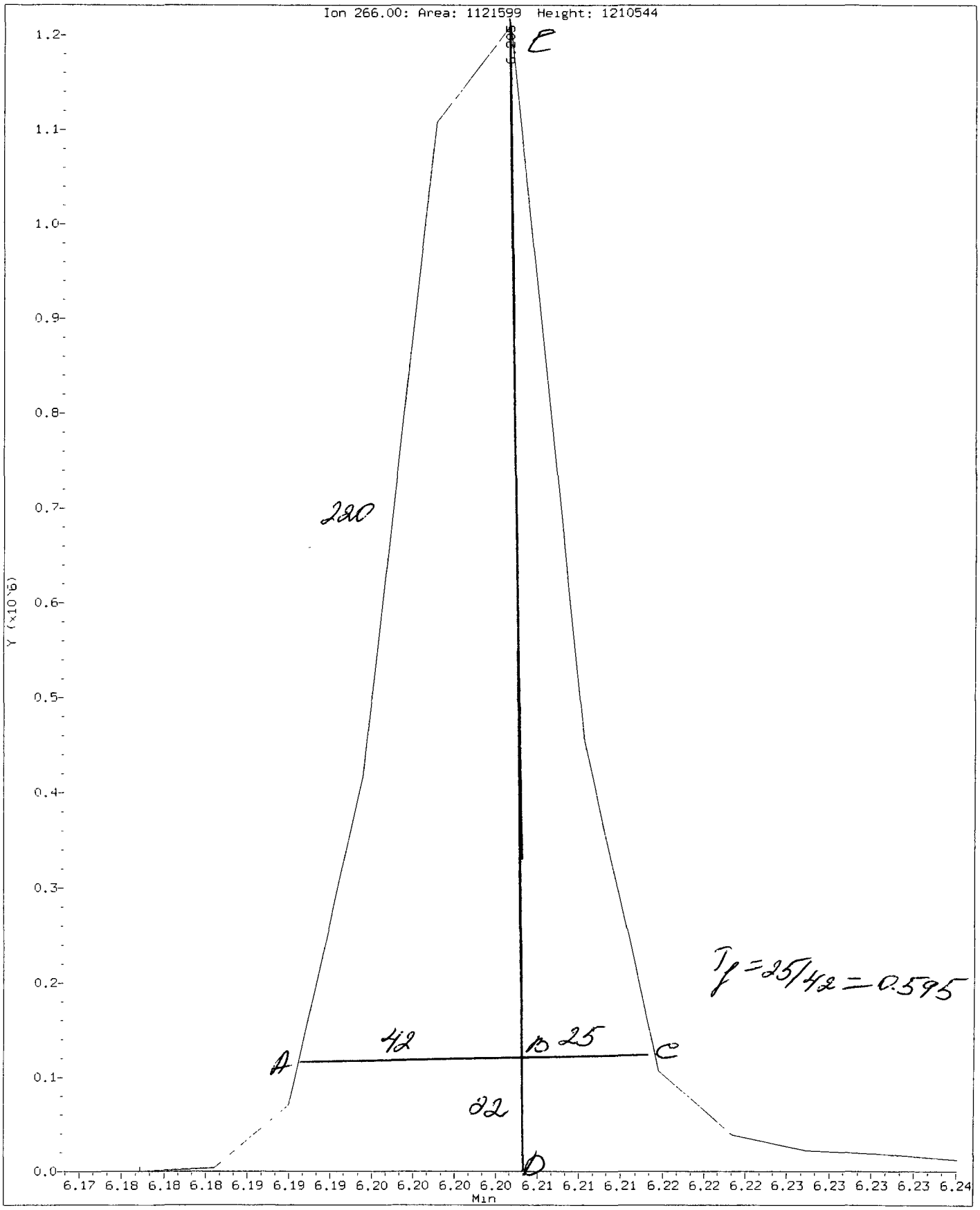
Number of points: 356

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	8062	203.00	15031	297.00	24528	425.00	1330
113.00	2906	204.00	63448	298.00	1431	427.00	185
114.00	271	205.00	108840	299.00	429	432.00	509
115.00	1651	206.00	397824	300.00	530	434.00	713
116.00	13957	207.00	48968	301.00	1705	435.00	369
117.00	383680	208.00	22288	302.00	1615	436.00	192
118.00	23312	209.00	7957	303.00	20360	437.00	390
119.00	972	210.00	8490	304.00	4550	438.00	1536
120.00	2257	211.00	17496	305.00	1206	439.00	2042
121.00	1626	212.00	2193	308.00	3070	441.00	153152
122.00	21880	213.00	1178	309.00	2141	442.00	1022848
123.00	20752	214.00	660	310.00	2233	443.00	196352
124.00	11785	215.00	9253	311.00	76	444.00	16328
125.00	8363	216.00	15889	312.00	907	445.00	1358
126.00	1018	217.00	140480	313.00	1441	453.00	164
127.00	432256	218.00	17224	314.00	6043	465.00	402
128.00	37384	219.00	2212	315.00	21272		
129.00	231552	220.00	2939	316.00	8073		
130.00	21104	221.00	51616	317.00	2135		
131.00	2140	222.00	20232	318.00	342		

TX57 : 00902

Data File: /chem1/nt10.1/20111207.b/ddt.b/df1207a.d
Injection Date: 07-DEC-2011 11:45
Instrument: nt10.1
Client Sample ID: DFTPP

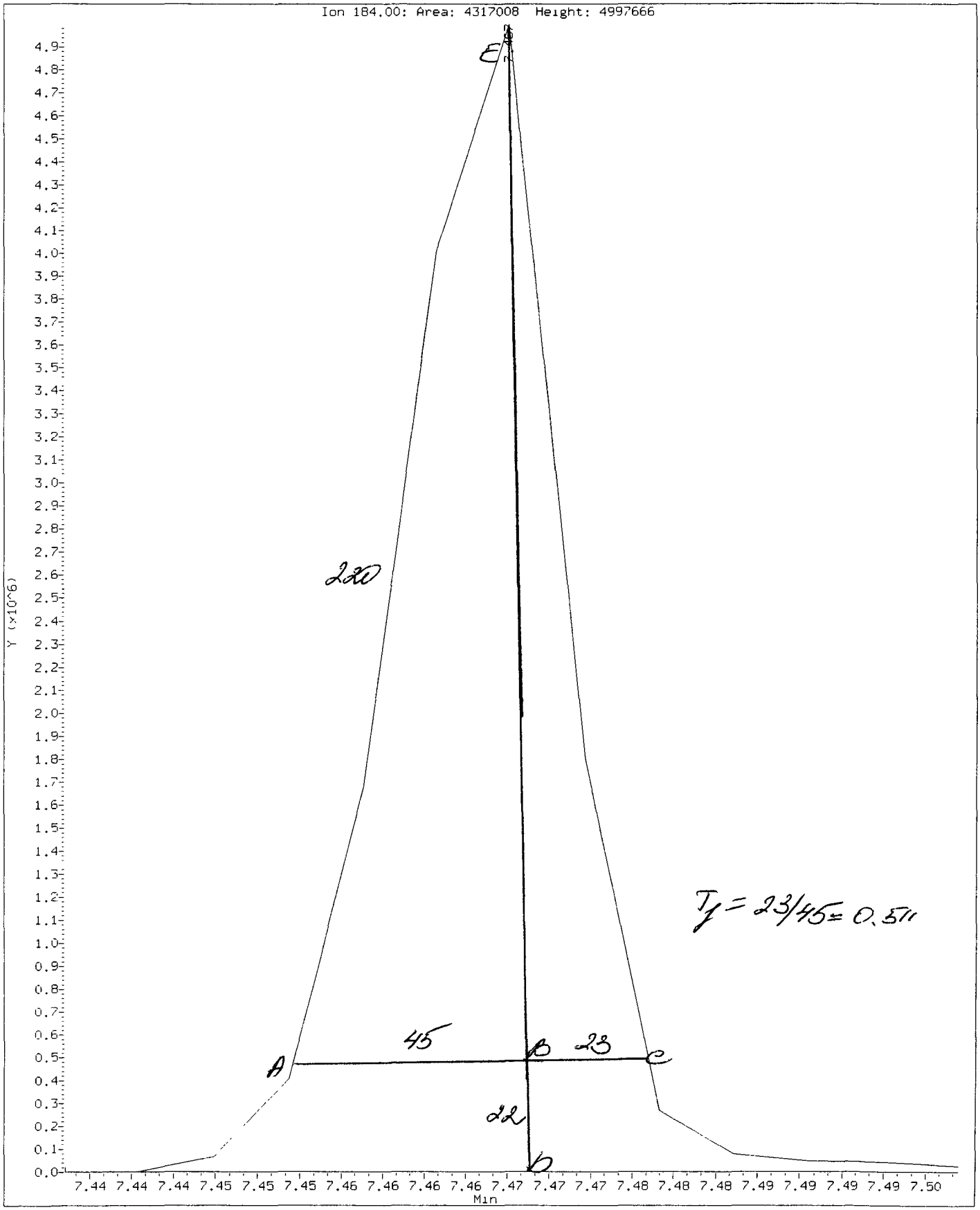
Compound: Pentachlorophenol
CAS Number: 87-86-5



TX57 : 00501

Data File: /chem1/nt10.1/20111207.b/ddt.b/df1207a.d
Injection Date: 07-DEC-2011 11:45
Instrument: nt10.1
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20111207.b/ddt.b/df1207a.d ARI ID: DFTPP
Method: /chem1/nt10.i/20111207.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 07-DEC-2011 11:45 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.205	1121599
Benzidine	7.467	4317008
4,4'-DDE	7.649	15950
4,4'-DDD	7.938	135636
4,4'-DDT	8.195	3233299

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

$$\text{DDT Percent Breakdown} = \frac{(15950 + 135636) * 100}{(15950 + 135636 + 3233299)}$$

DDT Percent Breakdown = 4.5 %

TX57 : 00305

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 07-DEC-2011 11:59
Lab File ID: cc1207.d Init. Cal. Date(s): 11-OCT-2011 21-OCT-2011
Analysis Type: Init. Cal. Times: 12:37 15:42
Lab Sample ID: CC1207 Quant Type: ISTD
Method: /chem1/nt10.i/20111207.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 2-Fluorophenol	0.97809	1.08096	1.08096	0.010	10.51792	20.00000	Averaged	
$ 2 Phenol-d5	1.25614	1.36044	1.36044	0.010	8.30334	20.00000	Averaged	
3 Phenol	1.54900	1.51167	1.51167	0.100	-2.40966	20.00000	Averaged	
$ 5 2-Chlorophenol-d4	1.13674	1.17262	1.17262	0.010	3.15619	20.00000	Averaged	
4 Bis(2-Chloroethyl)ether	0.93959	0.87361	0.87361	0.700	-7.02209	20.00000	Averaged	
6 2-Chlorophenol	1.20742	1.16376	1.16376	0.800	-3.61624	20.00000	Averaged	
7 1,3-Dichlorobenzene	1.56249	1.52751	1.52751	0.010	-2.23905	20.00000	Averaged	
9 1,4-Dichlorobenzene	1.59650	1.54334	1.54334	0.010	-3.32965	20.00000	Averaged	
$ 10 1,2-Dichlorobenzene-d4	0.98635	1.05035	1.05035	0.010	6.48851	20.00000	Averaged	
12 1,2-Dichlorobenzene	1.46522	1.49208	1.49208	0.010	1.83316	20.00000	Averaged	
11 Benzyl alcohol	0.71756	0.71850	0.71850	0.010	0.13111	20.00000	Averaged	
14 2,2'-oxybis(1-Chloropropane	0.38858	0.36244	0.36244	0.010	-6.72692	20.00000	Averaged	
13 2-Methylphenol	0.99793	1.05309	1.05309	0.700	5.52734	20.00000	Averaged	
17 Hexachloroethane	0.63062	0.65786	0.65786	0.300	4.32051	20.00000	Averaged	
16 N-Nitroso-di-n-propylamine	0.87177	0.85796	0.85796	0.500	-1.58335	20.00000	Averaged	
15 4-Methylphenol	1.08588	1.05061	1.05061	0.600	-3.24800	20.00000	Averaged	
$ 18 Nitrobenzene-d5	0.42518	0.52035	0.52035	0.010	22.38247	20.00000	Averaged	<-
19 Nitrobenzene	0.41040	0.47289	0.47289	0.200	15.22490	20.00000	Averaged	
20 Isophorone	0.68055	0.72603	0.72603	0.300	6.68202	20.00000	Averaged	
21 2-Nitrophenol	0.21253	0.23141	0.23141	0.100	8.88510	20.00000	Averaged	
22 2,4-Dimethylphenol	0.39727	0.43748	0.43748	0.200	10.12241	20.00000	Averaged	
23 Bis(2-Chloroethoxy)methane	0.32292	0.37518	0.37518	0.050	16.18437	20.00000	Averaged	
24 Benzoic acid	17.44292	20.00000	0.22640	0.010	-12.78541	20.00000	Quadratic	
25 2,4-Dichlorophenol	0.39402	0.41410	0.41410	0.100	5.09540	20.00000	Averaged	
26 1,2,4-Trichlorobenzene	0.51046	0.56181	0.56181	0.010	10.06022	20.00000	Averaged	
28 Naphthalene	0.96846	1.03477	1.03477	0.100	6.84708	20.00000	Averaged	
29 4-Chloroaniline	0.39469	0.43108	0.43108	0.010	9.22217	20.00000	Averaged	
30 Hexachlorobutadiene	0.45340	0.51086	0.51086	0.010	12.67253	20.00000	Averaged	
31 4-Chloro-3-methylphenol	0.36318	0.37632	0.37632	0.200	3.61835	20.00000	Averaged	
32 2-Methylnaphthalene	0.72662	0.82366	0.82366	0.300	13.35520	20.00000	Averaged	
33 Hexachlorocyclopentadiene	6.29578	10.00000	0.40839	0.001	-37.04221	20.00000	Quadratic	<-
34 2,4,6-Trichlorophenol	0.51233	0.49589	0.49589	0.200	-3.20807	20.00000	Averaged	
35 2,4,5-Trichlorophenol	0.52115	0.52879	0.52879	0.200	1.46558	20.00000	Averaged	
$ 36 2-Fluorobiphenyl	1.44615	1.60585	1.60585	0.010	11.04323	20.00000	Averaged	
37 2-Chloronaphthalene	1.15251	1.14996	1.14996	0.700	-0.22147	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 07-DEC-2011 11:59
Lab File ID: cc1207.d Init. Cal. Date(s): 11-OCT-2011 21-OCT-2011
Analysis Type: Init. Cal. Times: 12:37 15:42
Lab Sample ID: CC1207 Quant Type: ISTD
Method: /chem1/nt10.i/20111207.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
38 2-Nitroaniline	0.28387	0.30809	0.30809	0.010	8.53259	20.00000	Averaged	
39 Dimethylphthalate	1.59356	1.40612	1.40612	0.010	-11.76289	20.00000	Averaged	
40 Acenaphthylene	1.68057	1.65702	1.65702	0.900	-1.40112	20.00000	Averaged	
41 2,6-Dinitrotoluene	0.31893	0.30860	0.30860	0.100	-3.23732	20.00000	Averaged	
43 3-Nitroaniline	0.22541	0.24595	0.24595	0.010	9.11146	20.00000	Averaged	
44 Acenaphthene	1.04914	1.02687	1.02687	0.100	-2.12247	20.00000	Averaged	
45 2,4-Dinitrophenol	15.02035	20.00000	0.18083	0.030	-24.89823	20.00000	Quadratic	<-
46 Dibenzofuran	1.68212	1.71000	1.71000	0.800	1.65724	20.00000	Averaged	
47 4-Nitrophenol	9.07338	10.00000	0.26680	0.010	-9.26617	20.00000	Quadratic	
48 2,4-Dinitrotoluene	0.42646	0.43407	0.43407	0.200	1.78566	20.00000	Averaged	
50 Diethylphthalate	1.37615	1.37183	1.37183	0.010	-0.31369	20.00000	Averaged	
49 Fluorene	1.32507	1.32397	1.32397	0.100	-0.08288	20.00000	Averaged	
51 4-Chlorophenyl-phenylether	0.93583	1.08142	1.08142	0.100	15.55664	20.00000	Averaged	
52 4-Nitroaniline	0.22849	0.20257	0.20257	0.010	-11.34287	20.00000	Averaged	
53 4,6-Dinitro-2-methylphenol	0.17788	0.17778	0.17778	0.001	-0.05708	20.00000	Averaged	
54 N-Nitrosodiphenylamine	0.49114	0.47823	0.47823	0.010	-2.62873	20.00000	Averaged	
$ 55 2,4,6-Tribromophenol	0.35238	0.36620	0.36620	0.010	3.92108	20.00000	Averaged	
56 4-Bromophenyl-phenylether	0.32222	0.36294	0.36294	0.100	12.63956	20.00000	Averaged	
57 Hexachlorobenzene	0.46628	0.41544	0.41544	0.100	-10.90343	20.00000	Averaged	
58 Pentachlorophenol	8.06246	10.00000	0.14393	0.010	-19.37539	20.00000	Quadratic	
60 Phenanthrene	1.02967	1.01214	1.01214	0.700	-1.70246	20.00000	Averaged	
61 Anthracene	1.03724	1.07630	1.07630	0.700	3.76607	20.00000	Averaged	
62 Carbazole	0.77935	0.76507	0.76507	0.010	-1.83228	20.00000	Averaged	
63 Di-n-butylphthalate	1.13559	1.10840	1.10840	0.010	-2.39453	20.00000	Averaged	
64 Fluoranthene	1.41890	1.43243	1.43243	0.600	0.95359	20.00000	Averaged	
65 Pyrene	0.96734	1.03505	1.03505	0.600	6.99900	20.00000	Averaged	
$ 66 Terphenyl-d14	0.79724	0.89007	0.89007	0.010	11.64459	20.00000	Averaged	
67 Butylbenzylphthalate	0.35201	0.34771	0.34771	0.010	-1.22331	20.00000	Averaged	
68 Benzo(a)anthracene	1.08863	1.14365	1.14365	0.700	5.05440	20.00000	Averaged	
70 3,3'-Dichlorobenzidine	0.57099	0.60739	0.60739	0.010	6.37424	20.00000	Averaged	
71 Chrysene	0.98180	0.97439	0.97439	0.700	-0.75491	20.00000	Averaged	
72 bis(2-Ethylhexyl)phthalate	0.56887	0.60287	0.60287	0.010	5.97761	20.00000	Averaged	
73 Di-n-octylphthalate	0.96472	0.96746	0.96746	0.010	0.28412	20.00000	Averaged	
74 Benzo(b)fluoranthene	1.21840	1.41977	1.41977	0.700	16.52788	20.00000	Averaged	
75 Benzo(k)fluoranthene	1.26271	1.24356	1.24356	0.700	-1.51663	20.00000	Averaged	

TXST 02565

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 07-DEC-2011 11:59
Lab File ID: cc1207.d Init. Cal. Date(s): 11-OCT-2011 21-OCT-2011
Analysis Type: Init. Cal. Times: 12:37 15:42
Lab Sample ID: CC1207 Quant Type: ISTD
Method: /chem1/nt10.i/20111207.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
76 Benzo(a)pyrene	1.00042	1.04662	1.04662	0.700	4.61795	20.00000	Averaged	
78 Indeno(1,2,3-cd)pyrene	1.36330	1.44378	1.44378	0.500	5.90340	20.00000	Averaged	
79 Dibenzo(a,h)anthracene	1.14057	1.19184	1.19184	0.400	4.49553	20.00000	Averaged	
80 Benzo(g,h,i)perylene	1.14714	1.19675	1.19675	0.500	4.32459	20.00000	Averaged	
90 N-Nitrosodimethylamine	0.63235	0.60505	0.60505	0.010	-4.31720	20.00000	Averaged	
91 Aniline	3.15204	3.15755	3.15755	0.010	0.17480	20.00000	Averaged	
93 Benzidine	12.76891	10.00000	0.27210	0.010	27.68905	20.00000	Quadratic	<-
103 Pyridine	0.58873	0.51637	0.51637	0.010	-12.29176	20.00000	Averaged	
105 1-methylnaphthalene	0.74587	0.78779	0.78779	0.010	5.61964	20.00000	Averaged	
111 Azobenzene (1,2-DP-Hydrazin	1.33762	1.52869	1.52869	0.010	14.28422	20.00000	Averaged	
187 Total Benzofluoranthenes	1.17380	1.24492	1.24492	0.010	6.05913	20.00000	Averaged	
99 Perylene	0.98747	1.04545	1.04545	0.010	5.87171	20.00000	Averaged	

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 12/8/11

Data file : /chem1/nt10.i/20111207.b/cc1207.d
Lab Smp Id: CC1207
Inj Date : 07-DEC-2011 11:59
Operator : YZ Inst ID: nt10.i
Smp Info : CC1207
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20111207.b/ABN.m
Meth Date : 08-Dec-2011 10:57 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
$	1 2-Fluorophenol	112	5.935	5.935	(0.735)	321615	5.00000	5.526
$	2 Phenol-d5	99	7.520	7.520	(0.931)	404766	5.00000	5.415
	3 Phenol	94	7.543	7.543	(0.934)	449762	5.00000	4.880
$	5 2-Chlorophenol-d4	132	7.728	7.728	(0.957)	348884	5.00000	5.158
	4 Bis(2-Chloroethyl)ether	93	7.667	7.667	(0.949)	259923	5.00000	4.649
	6 2-Chlorophenol	128	7.752	7.752	(0.960)	346249	5.00000	4.819
	7 1,3-Dichlorobenzene	146	8.007	8.007	(0.991)	454474	5.00000	4.888
*	8 1,4-Dichlorobenzene-d4	152	8.077	8.077	(1.000)	238021	4.00000	
	9 1,4-Dichlorobenzene	146	8.108	8.108	(1.004)	459184	5.00000	4.834
$	10 1,2-Dichlorobenzene-d4	152	8.426	8.426	(1.043)	312508	5.00000	5.324
	12 1,2-Dichlorobenzene	146	8.449	8.449	(1.046)	443934	5.00000	5.092
	11 Benzyl alcohol	108	8.371	8.371	(1.036)	213774	5.00000	5.007
	14 2,2'-oxybis(1-Chloropropane)	121	8.666	8.666	(1.073)	107835	5.00000	4.664
	13 2-Methylphenol	108	8.628	8.628	(1.068)	313322	5.00000	5.276
	17 Hexachloroethane	117	9.024	9.024	(1.117)	195732	5.00000	5.216
	16 N-Nitroso-di-n-propylamine	70	8.923	8.923	(1.105)	255267	5.00000	4.921
	15 4-Methylphenol	108	8.899	8.899	(1.102)	312585	5.00000	4.838
$	18 Nitrobenzene-d5	82	9.155	9.155	(0.871)	502857	5.00000	6.119
	19 Nitrobenzene	77	9.194	9.194	(0.874)	456993	5.00000	5.761
	20 Isophorone	82	9.644	9.644	(0.917)	701625	5.00000	5.334
	21 2-Nitrophenol	139	9.814	9.814	(0.933)	223633	5.00000	5.444
	22 2,4-Dimethylphenol	107	9.922	9.922	(0.944)	845559	10.0000	11.01
	23 Bis(2-Chloroethoxy)methane	93	10.099	10.099	(0.960)	362573	5.00000	5.809
	24 Benzoic acid	105	10.192	10.192	(0.969)	875175	20.0000	17.44 (M)
	25 2,4-Dichlorophenol	162	10.277	10.277	(0.977)	800360	10.0000	10.51
	26 1,2,4-Trichlorobenzene	180	10.439	10.439	(0.993)	542930	5.00000	5.503

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
*	27 Naphthalene-d8	136	10.516	10.516	(1.000)	773110	4.00000	
	28 Naphthalene	128	10.554	10.554	(1.004)	999993	5.00000	5.342
	29 4-Chloroaniline	127	10.724	10.724	(1.020)	833188	10.0000	10.92
	30 Hexachlorobutadiene	225	10.941	10.941	(1.040)	493685	5.00000	5.634
	31 4-Chloro-3-methylphenol	107	11.722	11.722	(1.115)	727348	10.0000	10.36
	32 2-Methylnaphthalene	142	11.947	11.947	(1.136)	795971	5.00000	5.668
	33 Hexachlorocyclopentadiene	237	12.419	12.419	(0.881)	682675	10.0000	6.296
	34 2,4,6-Trichlorophenol	196	12.589	12.589	(0.893)	828945	10.0000	9.679
	35 2,4,5-Trichlorophenol	196	12.659	12.659	(0.898)	883939	10.0000	10.15
$	36 2-Fluorobiphenyl	172	12.744	12.744	(0.904)	1342197	5.00000	5.552
	37 2-Chloronaphthalene	162	12.922	12.922	(0.917)	961157	5.00000	4.989
	38 2-Nitroaniline	65	13.208	13.208	(0.937)	515014	10.0000	10.85
	39 Dimethylphthalate	163	13.665	13.665	(0.970)	1175254	5.00000	4.412
	40 Acenaphthylene	152	13.773	13.773	(0.977)	1384963	5.00000	4.930
	41 2,6-Dinitrotoluene	165	13.789	13.789	(0.979)	515874	10.0000	9.676
*	42 Acenaphthene-d10	164	14.090	14.090	(1.000)	668653	4.00000	
	43 3-Nitroaniline	138	14.059	14.059	(0.998)	411135	10.0000	10.91
	44 Acenaphthene	153	14.152	14.152	(1.004)	858275	5.00000	4.894
	45 2,4-Dinitrophenol	184	14.284	14.284	(1.014)	604568	20.0000	15.02
	46 Dibenzofuran	168	14.485	14.485	(1.028)	1429245	5.00000	5.083
	47 4-Nitrophenol	109	14.446	14.446	(1.025)	445989	10.0000	9.073
	48 2,4-Dinitrotoluene	165	14.593	14.593	(1.036)	725608	10.0000	10.18
	50 Diethylphthalate	149	15.126	15.126	(1.074)	1146599	5.00000	4.984
	49 Fluorene	166	15.188	15.188	(1.078)	1106595	5.00000	4.996
	51 4-Chlorophenyl-phenylether	204	15.211	15.211	(1.080)	903865	5.00000	5.778
	52 4-Nitroaniline	138	15.319	15.319	(1.087)	338626	10.0000	8.866
	53 4,6-Dinitro-2-methylphenol	198	15.427	15.427	(0.902)	1205789	20.0000	19.99
	54 N-Nitrosodiphenylamine	169	15.474	15.474	(0.905)	810898	5.00000	4.869
$	55 2,4,6-Tribromophenol	330	15.728	15.728	(1.116)	306074	5.00000	5.196
	56 4-Bromophenyl-phenylether	248	16.198	16.198	(0.947)	615412	5.00000	5.632
	57 Hexachlorobenzene	284	16.492	16.492	(0.965)	704429	5.00000	4.455
	58 Pentachlorophenol	266	16.864	16.864	(0.986)	488094	10.0000	8.062
*	59 Phenanthrene-d10	188	17.096	17.096	(1.000)	1356492	4.00000	
	60 Phenanthrene	178	17.142	17.142	(1.003)	1716204	5.00000	4.915
	61 Anthracene	178	17.235	17.235	(1.008)	1824995	5.00000	5.188
	62 Carbazole	167	17.583	17.583	(1.028)	1297259	5.00000	4.908
	63 Di-n-butylphthalate	149	18.419	18.419	(1.077)	1879422	5.00000	4.880
	64 Fluoranthene	202	19.448	19.448	(1.138)	2428844	5.00000	5.048
	65 Pyrene	202	19.850	19.850	(0.902)	2363327	5.00000	5.350
$	66 Terphenyl-d14	244	20.175	20.175	(0.917)	2032310	5.00000	5.582
	67 Butylbenzylphthalate	149	21.112	21.112	(0.960)	793922	5.00000	4.939
	68 Benzo(a)anthracene	228	21.972	21.972	(0.999)	2611310	5.00000	5.253
*	69 Chrysene-d12	240	21.995	21.995	(1.000)	1826643	4.00000	
	70 3,3'-Dichlorobenzidine	252	21.964	21.964	(0.999)	2773701	10.0000	10.64
	71 Chrysene	228	22.041	22.041	(1.002)	2224830	5.00000	4.962
	72 bis(2-Ethylhexyl)phthalate	149	22.150	22.150	(0.958)	1138752	5.00000	5.299
*	134 Di-n-octylphthalate-d4	153	23.125	23.125	(1.000)	1511097	4.00000	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
73 Di-n-octylphthalate	149	23.133	23.133	(1.000)	1827404	5.00000	5.014
74 Benzo(b)fluoranthene	252	23.706	23.706	(0.975)	3067890	5.00000	5.826
75 Benzo(k)fluoranthene	252	23.744	23.744	(0.977)	2687115	5.00000	4.924
76 Benzo(a)pyrene	252	24.209	24.209	(0.996)	2261559	5.00000	5.231
* 77 Perylene-d12	264	24.302	24.302	(1.000)	1728665	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	26.333	26.333	(1.084)	3119764	5.00000	5.295(M)
79 Dibenzo(a,h)anthracene	278	26.356	26.356	(1.085)	2575374	5.00000	5.225
80 Benzo(g,h,i)perylene	276	26.923	26.923	(1.108)	2585977	5.00000	5.216
90 N-Nitrosodimethylamine	74	3.789	3.789	(0.469)	360035	10.0000	9.568
91 Aniline	93	7.558	7.558	(0.936)	939453	5.00000	5.009
93 Benzidine	184	19.711	19.711	(0.896)	1242566	10.0000	12.77
103 Pyridine	79	3.797	3.797	(0.470)	307265	10.0000	8.771
105 1-methylnaphthalene	142	12.163	12.163	(1.157)	761308	5.00000	5.281
111 Azobenzene (1,2-DP-Hydrazine)	77	15.535	15.535	(1.103)	1277701	5.00000	5.714
187 Total Benzofluoranthenes	252	23.744	23.744	(0.977)	5380131	10.0000	10.61
99 Perylene	252	24.349	24.349	(1.002)	2259037	5.00000	5.294

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc1207.d
Lab Smp Id: CC1207
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111207.b/ABN.m
Misc Info:

Calibration Date: 07-DEC-2011
Calibration Time: 10:10

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	238021	37.70
27 Naphthalene-d8	574010	287005	1148020	773110	34.69
42 Acenaphthene-d10	467963	233982	935926	668653	42.89
59 Phenanthrene-d10	976150	488075	1952300	1356492	38.96
69 Chrysene-d12	1397129	698564	2794258	1826643	30.74
134 Di-n-octylphthala	1264537	632268	2529074	1511097	19.50
77 Perylene-d12	1407308	703654	2814616	1728665	22.83

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.08	7.58	8.58	8.08	0.00
27 Naphthalene-d8	10.52	10.02	11.02	10.52	0.00
42 Acenaphthene-d10	14.09	13.59	14.59	14.09	0.00
59 Phenanthrene-d10	17.10	16.60	17.60	17.10	0.00
69 Chrysene-d12	21.99	21.49	22.49	21.99	0.00
134 Di-n-octylphthala	23.13	22.63	23.63	23.13	0.00
77 Perylene-d12	24.30	23.80	24.80	24.30	0.00

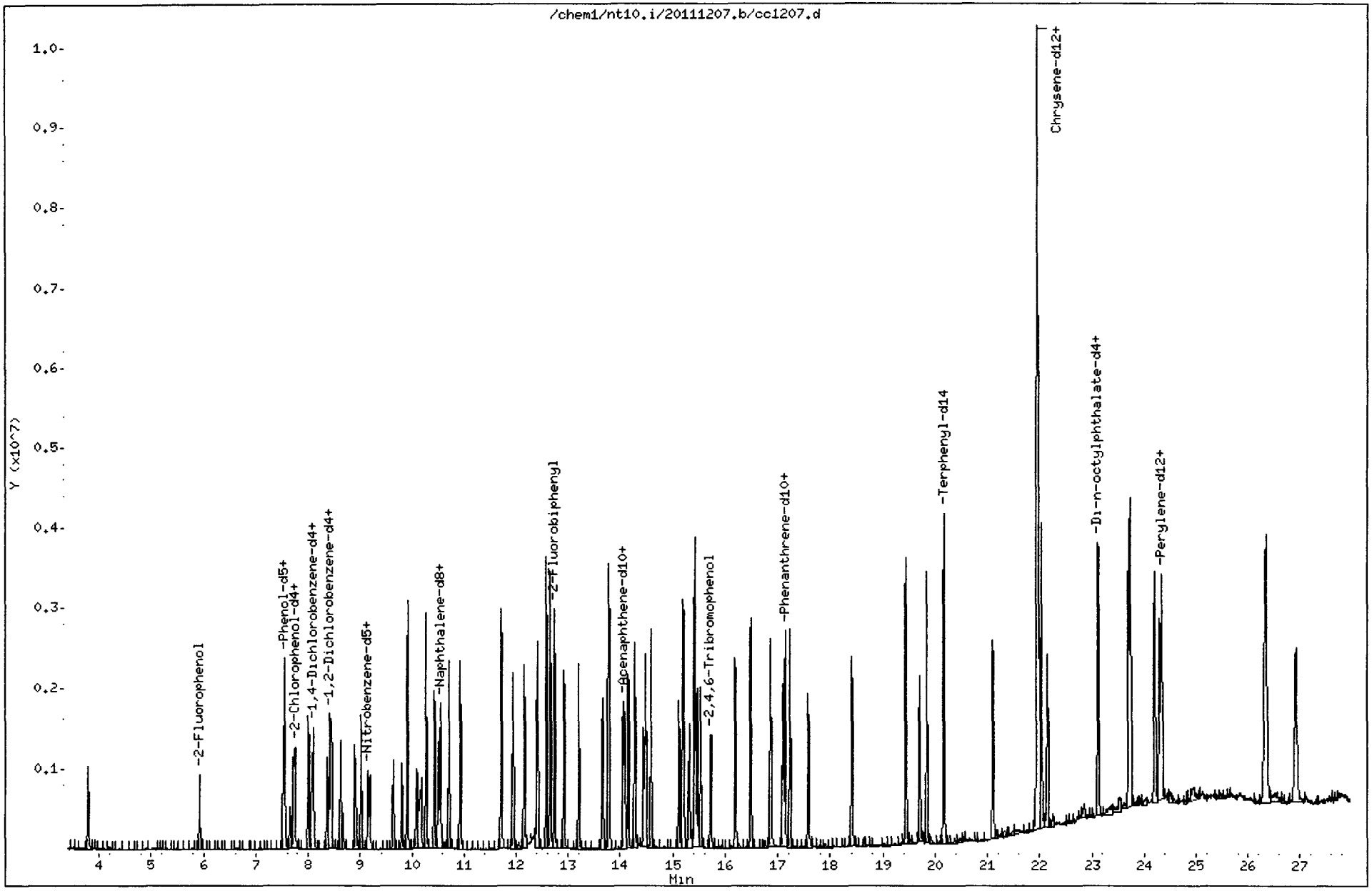
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.1/20111207.b/cc1207.d
Date : 07-DEC-2011 11:59
Client ID:
Sample Info: CC1207

Instrument: nt10.1

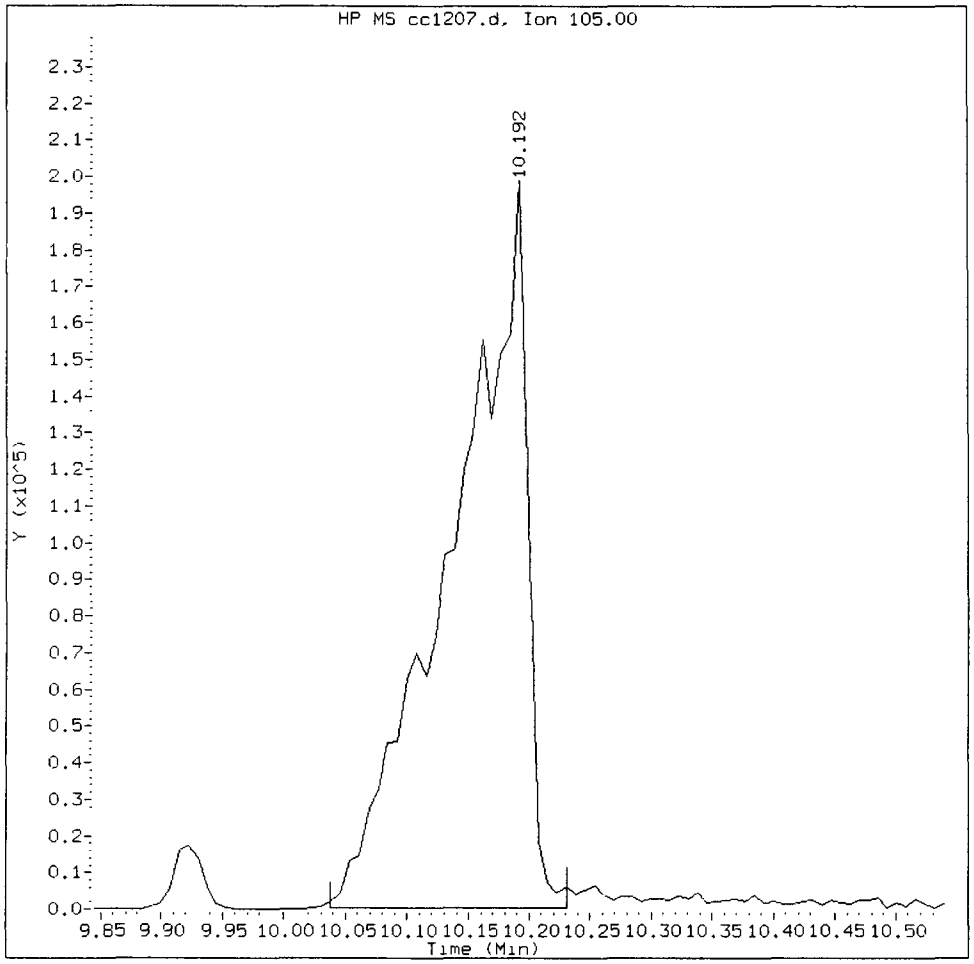
Operator: YZ
Column diameter: 0.25

Column phase: ZB-5ms1



CC1207, /chem1/nt10.i/20111207.b/cc1207.d

Benzoic acid Amount: 17.44 Area: 875175



MANUAL INTEGRATION for Benzoic acid

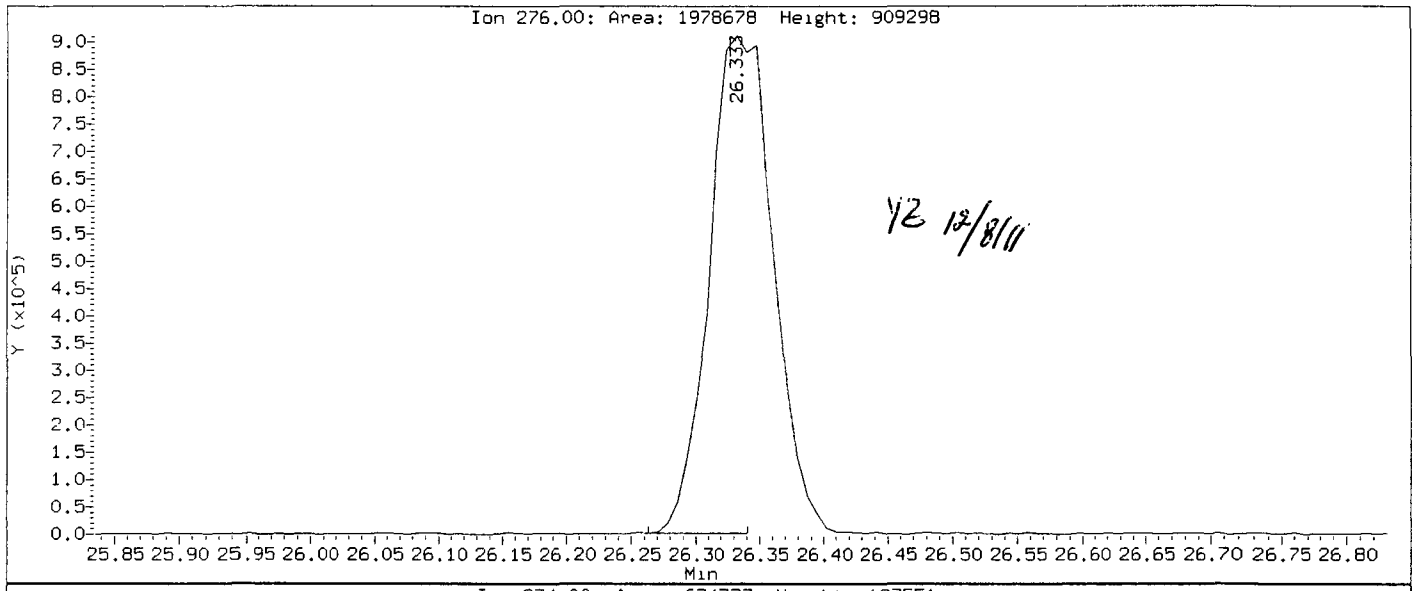
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

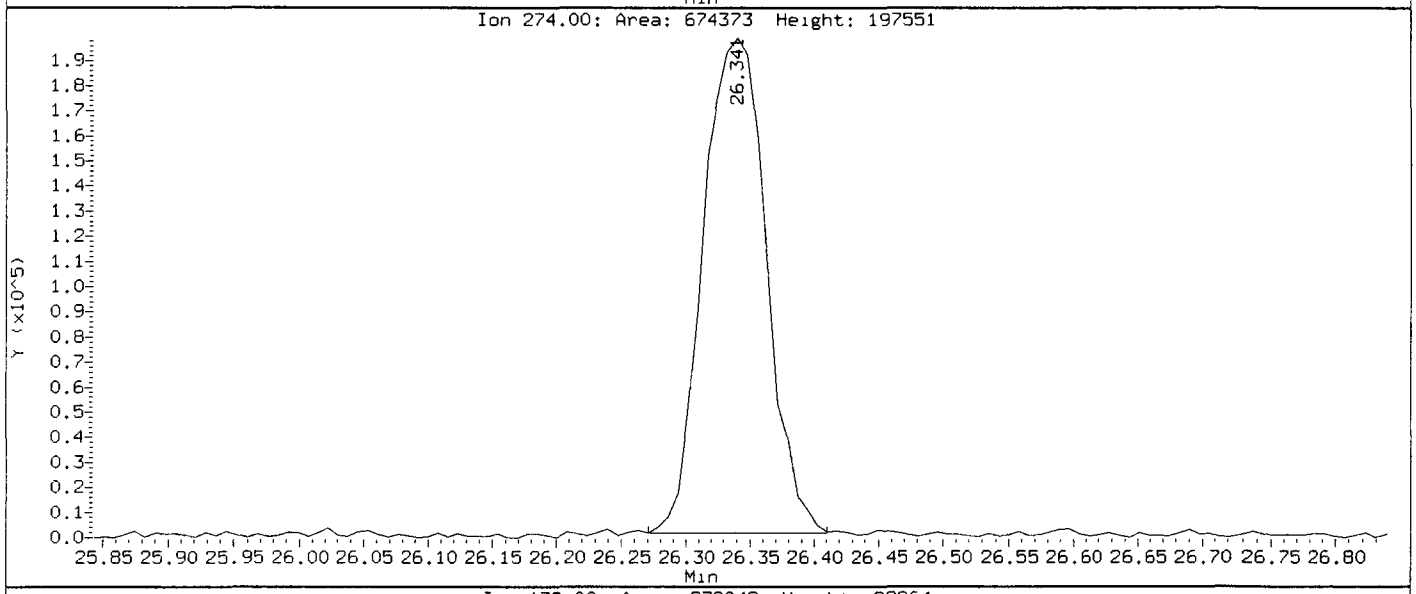
Analyst: YZ Date: 12/8/11

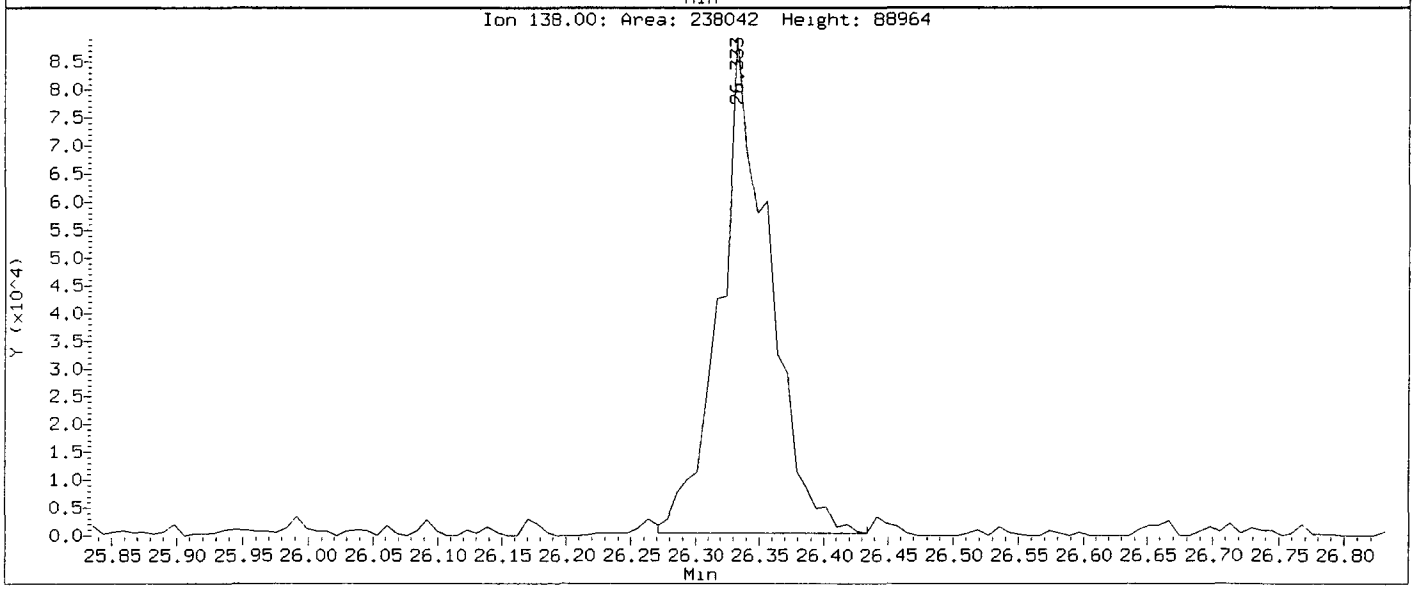
Data File: /chem1/nt10.i/20111207.b/cc1207.d
Injection Date: 07-DEC-2011 11:59
Instrument: nt10.i
Client Sample ID:

Compound: Indeno(1,2,3-cd)pyrene
CAS Number: 193-39-5



YZ 12/8/11

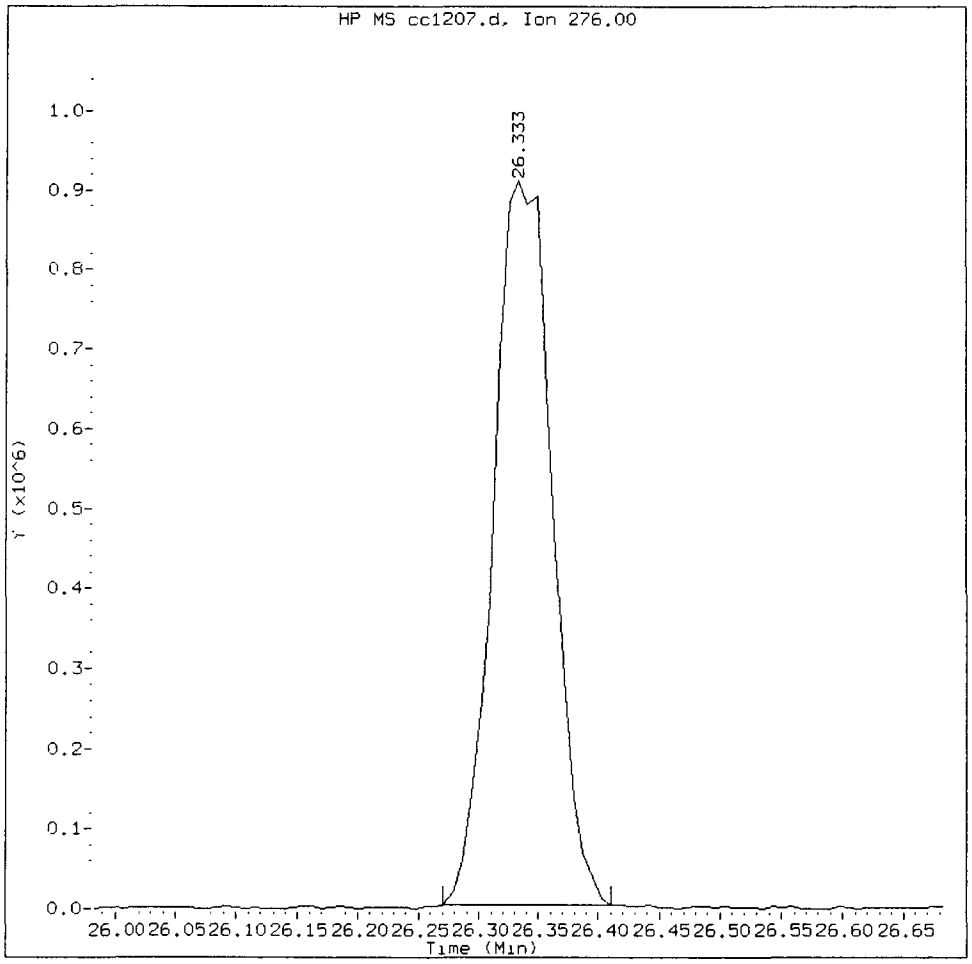




TX57:00913

CC1207, /chem1/nt10.i/20111207.b/cc1207.d

Indeno(1,2,3-cd)pyrene Amount: 5.30 Area: 3119764



MANUAL INTEGRATION for Indeno(1,2,3-cd)pyrene

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 12/8/11

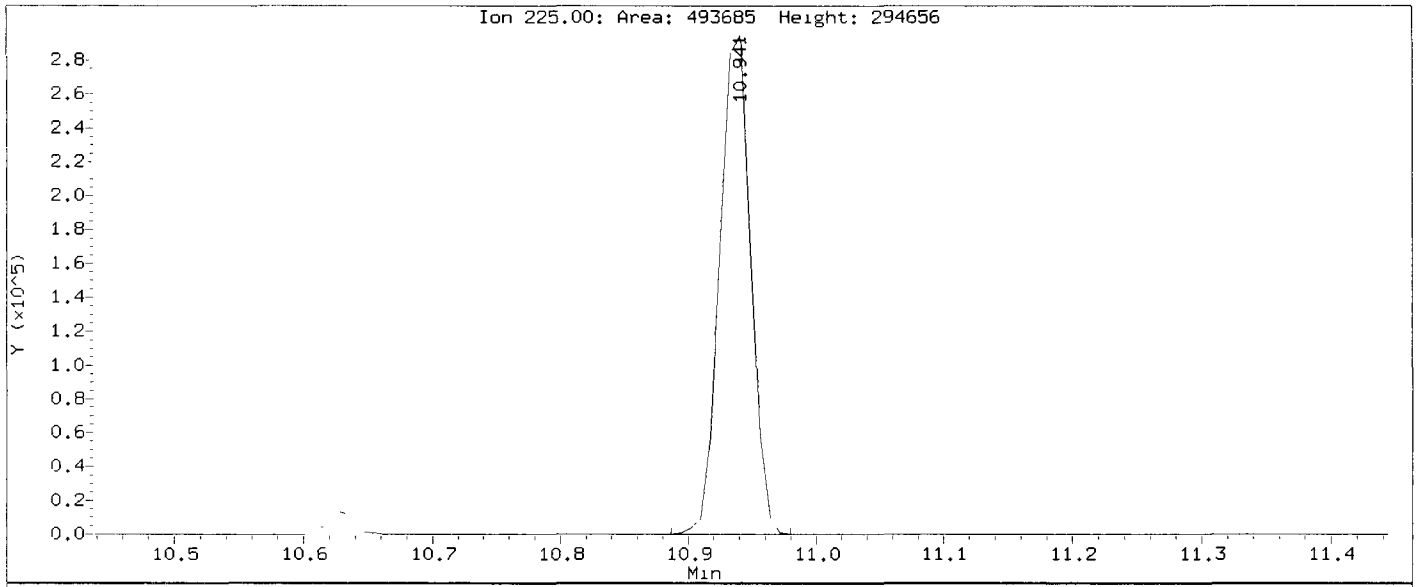
CO-ELUTION SUMMARY FOR FILE - cc1207.d

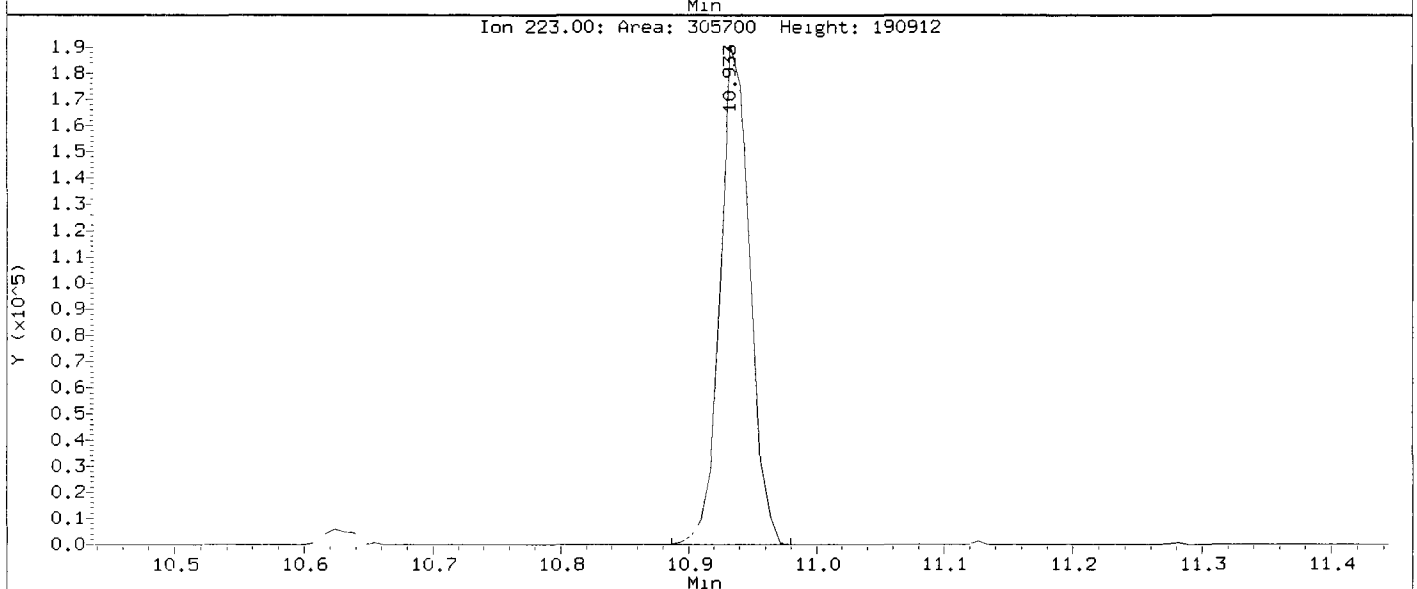
Lab ID: CC1207, Method: ABN.m, Instrument: nt10.i, Date: 07-DEC-2011

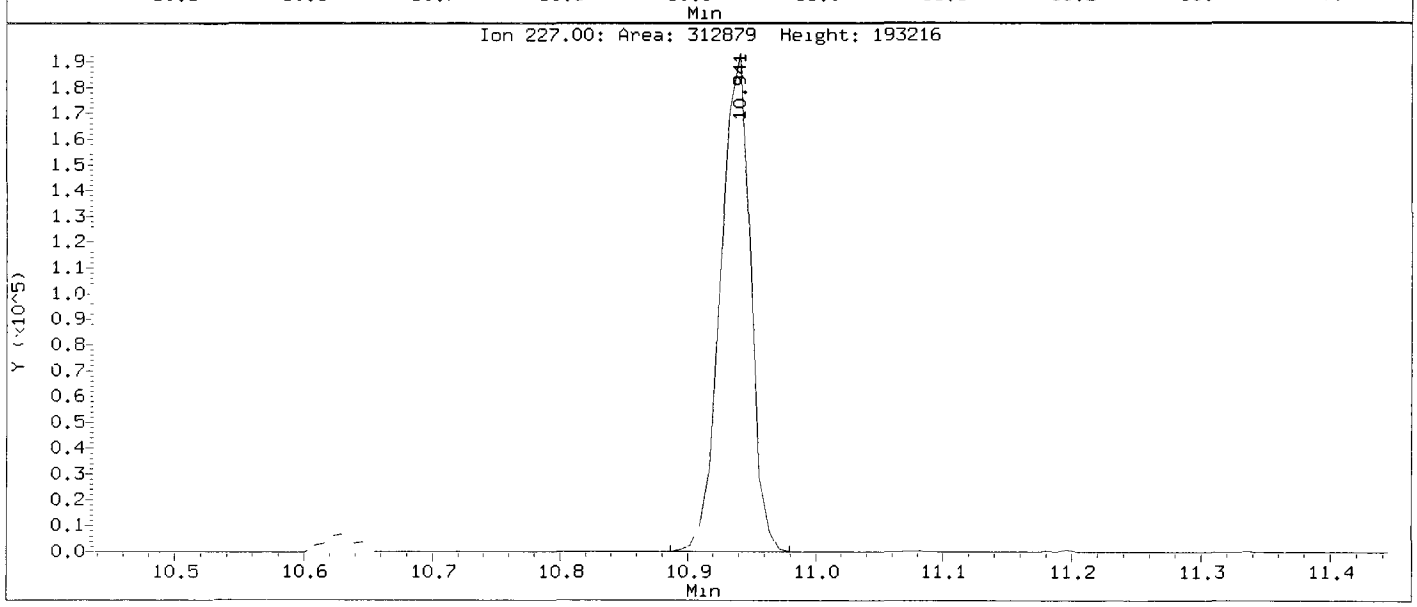
RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Data File: /chem1/nt10.i/20111207.b/cc1207.d
Injection Date: 07-DEC-2011 11:59
Instrument: nt10.i
Client Sample ID:

Compound: Hexachlorobutadiene
CAS Number: 87-68-3

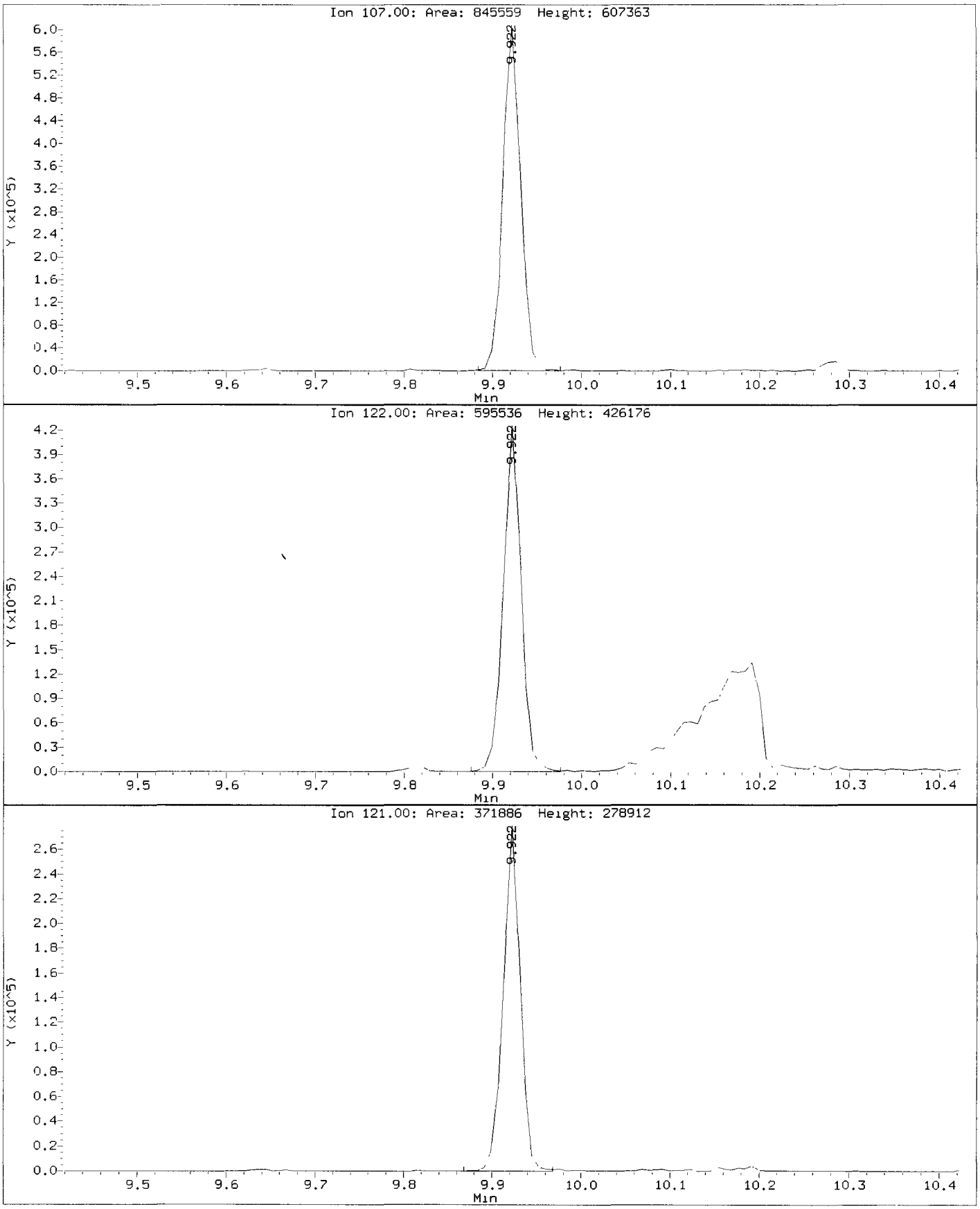






Data File: /chem1/nt10.1/20111207.b/cc1207.d
Injection Date: 07-DEC-2011 11:59
Instrument: nt10.1
Client Sample ID:

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111207.b/tx57d3.d
Lab Smp Id: TX57D Client Smp ID: SD0015
Inj Date : 07-DEC-2011 12:33
Operator : YZ Inst ID: nt10.i
Smp Info : TX57D,3
Misc Info : 11-26622
Comment : 1ul Injection
Method : /chem1/nt10.i/20111207.b/ABN.m
Meth Date : 09-Dec-2011 09:11 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 2
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

YZ 12/9/11

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

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	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)
$ 1	2-Fluorophenol	112	5.943	5.935	(0.735)	72834	1.54893	464.7
$ 2	Phenol-d5	99	7.528	7.520	(0.931)	95917	1.58831	476.5
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.736	7.728	(0.957)	86944	1.59095	477.3
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.085	8.077	(1.000)	192302	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.434	8.426	(1.043)	51645	1.08911	326.7
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.163	9.155	(0.871)	80279	1.05276	315.8
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.524	10.516	(1.000)	717393	4.00000	
	28 Naphthalene	128	10.562	10.554	(1.004)	357481	2.05813	617.4
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	11.955	11.947	(1.136)	94935	0.72849	218.5
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.752	12.744	(0.904)	224389	1.16652	350.0
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	13.789	13.773	(0.978)	30826	0.13790 J	41.37
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.098	14.090	(1.000)	532055	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.160	14.152	(1.004)	417443	2.99136	897.4(H)
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.493	14.485	(1.028)	265017	1.18446	355.3
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.119	15.126	(1.072)	37590	0.20536 J	61.61
	49 Fluorene	166	15.196	15.188	(1.078)	572688	3.24925	974.8
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	15.458	15.474	(0.904)	33544	0.22861 M	68.58(M)
$	55 2,4,6-Tribromophenol	330	15.728	15.728	(1.116)	69370	1.48000	444.0
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.104	17.096	(1.000)	1194989	4.00000	
	60 Phenanthrene	178	17.150	17.142	(1.003)	3036866	9.87240	2962
	61 Anthracene	178	17.243	17.235	(1.008)	656412	2.11833	635.5

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	17.591	17.583	(1.028)	152557	0.65524	196.6
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	19.479	19.448	(1.139)	4539974	10.7102	3213
65	Pyrene	202	19.874	19.850	(0.903)	3741027	8.75149	2625
$ 66	Terphenyl-d14	244	20.191	20.175	(0.917)	414718	1.17716	353.1
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	21.980	21.972	(0.999)	1297927	2.69799	809.4
* 69	Chrysene-d12	240	22.011	21.995	(1.000)	1767619	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.049	22.041	(1.002)	1383444	3.18866	956.6
72	bis(2-Ethylhexyl)phthalate	149	22.158	22.150	(0.958)	64230	0.30760	92.28
* 134	Di-n-octylphthalate-d4	153	23.133	23.125	(1.000)	1468257	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	23.721	23.706	(0.975)	957698	1.81199	543.6
75	Benzo(k)fluoranthene	252	23.752	23.744	(0.976)	1030233	1.88083	564.2
76	Benzo(a)pyrene	252	24.233	24.209	(0.996)	881524	2.03128	609.4
* 77	Perylene-d12	264	24.326	24.302	(1.000)	1735176	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.372	26.333	(1.084)	546119	0.92345	277.0
79	Dibenzo(a,h)anthracene	278	26.380	26.356	(1.084)	152592	0.30841	92.52
80	Benzo(g,h,i)perylene	276	26.954	26.923	(1.108)	591338	1.18832	356.5
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	12.171	12.163	(1.157)	49384	0.36917	110.8
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	23.752	23.744	(0.976)	1772216	3.48048	1044
99	Perylene	252	24.364	24.349	(1.002)	446487	1.04232	312.7

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57d3.d
Lab Smp Id: TX57D
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111207.b/ABN.m
Misc Info: 11-26622

Calibration Date: 07-DEC-2011
Calibration Time: 11:59
Client Smp ID: SD0015
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	192302	11.25
27 Naphthalene-d8	574010	287005	1148020	717393	24.98
42 Acenaphthene-d10	467963	233982	935926	532055	13.70
59 Phenanthrene-d10	976150	488075	1952300	1194989	22.42
69 Chrysene-d12	1397129	698564	2794258	1767619	26.52
134 Di-n-octylphthala	1264537	632268	2529074	1468257	16.11
77 Perylene-d12	1407308	703654	2814616	1735176	23.30

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.08	7.58	8.58	8.08	0.10
27 Naphthalene-d8	10.52	10.02	11.02	10.52	0.08
42 Acenaphthene-d10	14.09	13.59	14.59	14.10	0.06
59 Phenanthrene-d10	17.10	16.60	17.60	17.10	0.05
69 Chrysene-d12	21.99	21.49	22.49	22.01	0.07
134 Di-n-octylphthala	23.13	22.63	23.63	23.13	0.03
77 Perylene-d12	24.30	23.80	24.80	24.33	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.

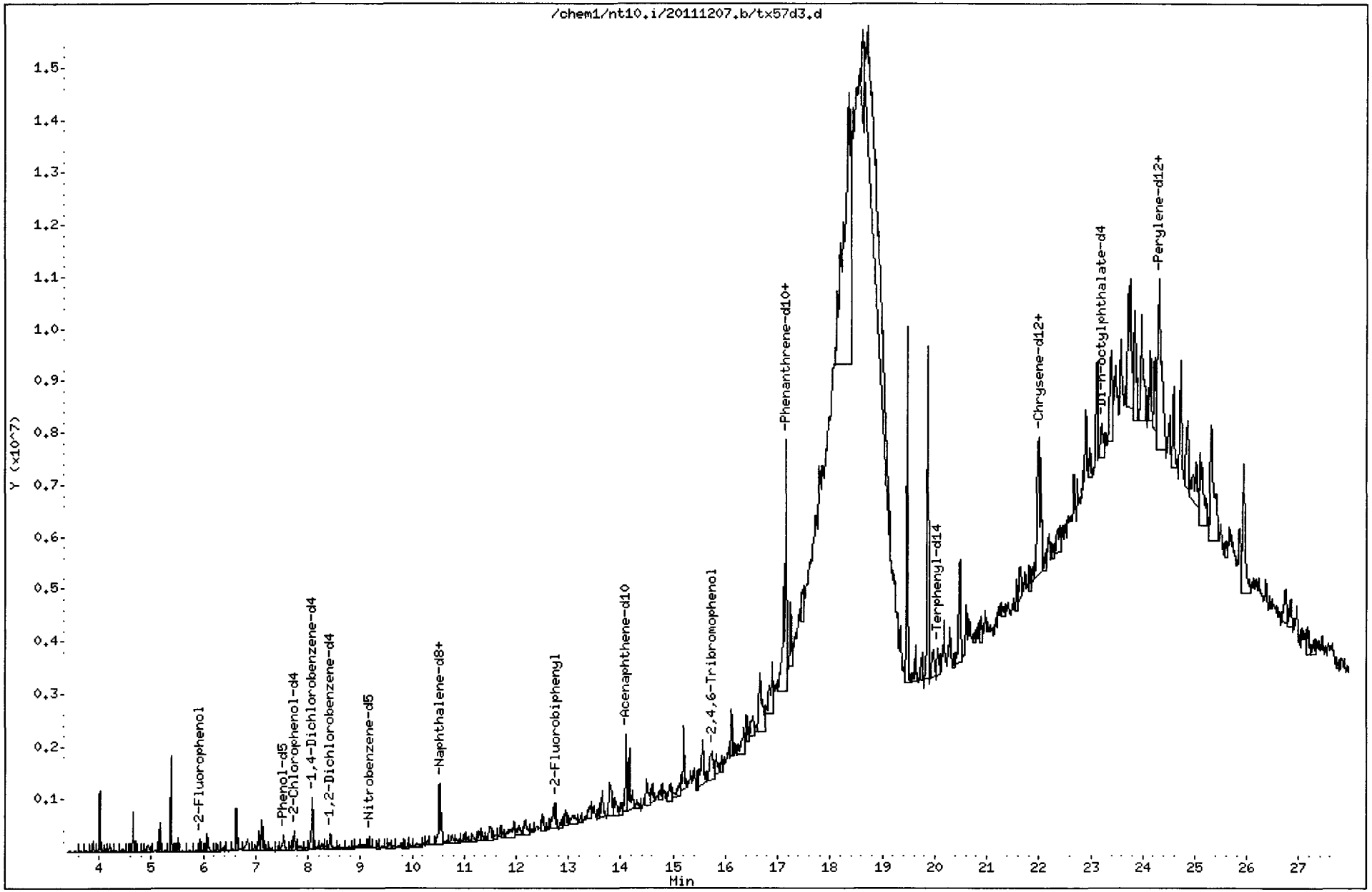
RECOVERY REPORT

Client Name: INTEGRAL
Client SDG: TX57
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: TX57D
Client Smp ID: SD0015
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111207.b/ABN.m
Misc Info: 11-26622

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.0	464.7	61.96	30-160
$ 2 Phenol-d5	750.0	476.5	63.53	30-160
$ 5 2-Chlorophenol-d4	750.0	477.3	63.64	30-160
$ 10 1,2-Dichlorobenzen	500.0	326.7	65.35	30-160
$ 18 Nitrobenzene-d5	500.0	315.8	63.17	30-160
$ 36 2-Fluorobiphenyl	500.0	350.0	69.99	30-160
$ 55 2,4,6-Tribromophen	750.0	444.0	59.20	30-160
$ 66 Terphenyl-d14	500.0	353.1	70.63	30-160

Data File: /chem1/nt10.i/20111207.b/tx57d3.d
Date : 07-DEC-2011 12:33
Client ID: SD0015
Sample Info: TX57D,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

Client ID: SD0015

Instrument: nt10.i

Sample Info: TX57D,3

Volume Injected (uL): 1.0

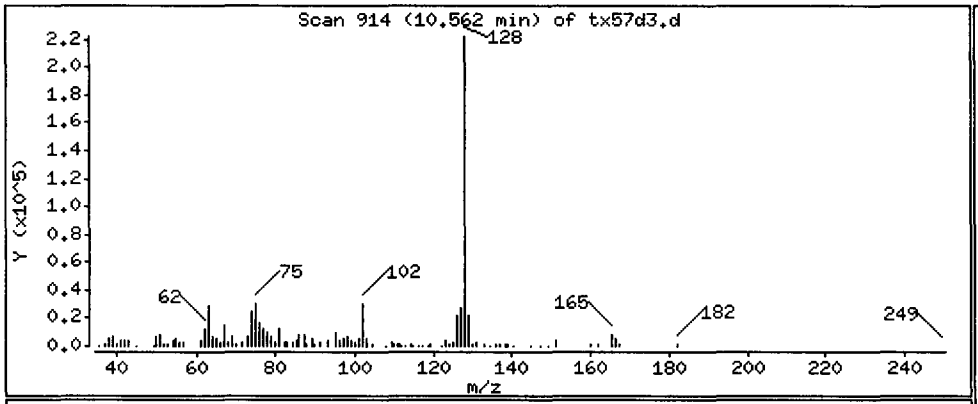
Operator: YZ

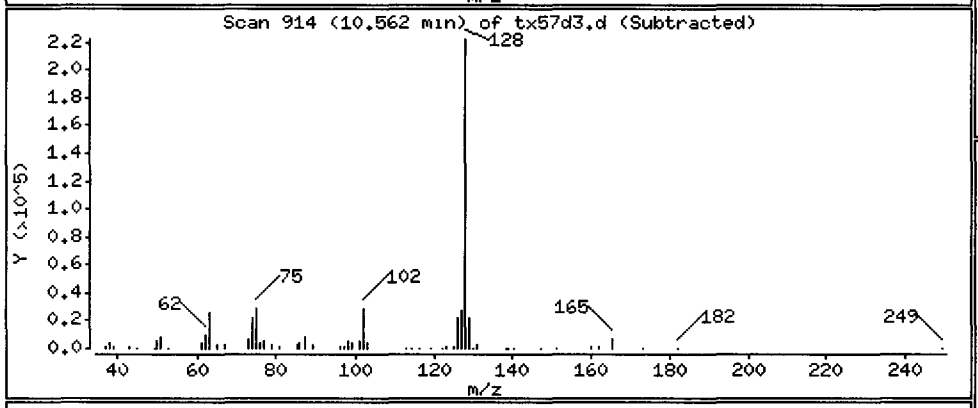
Column phase: ZB-5msi

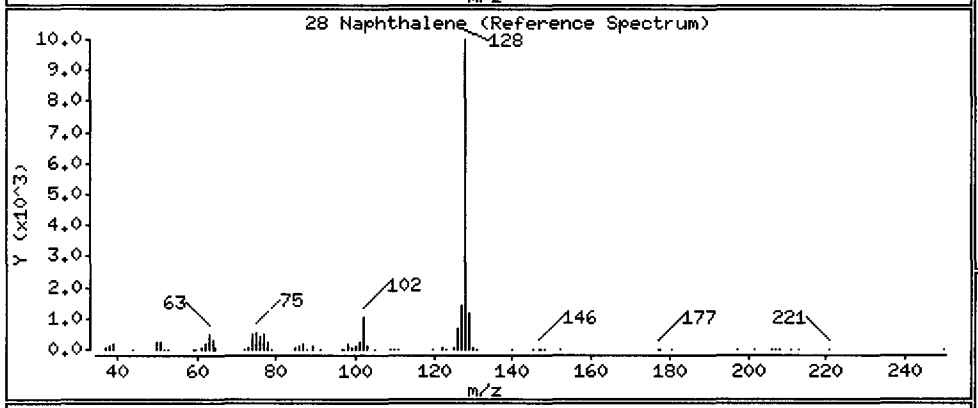
Column diameter: 0.25

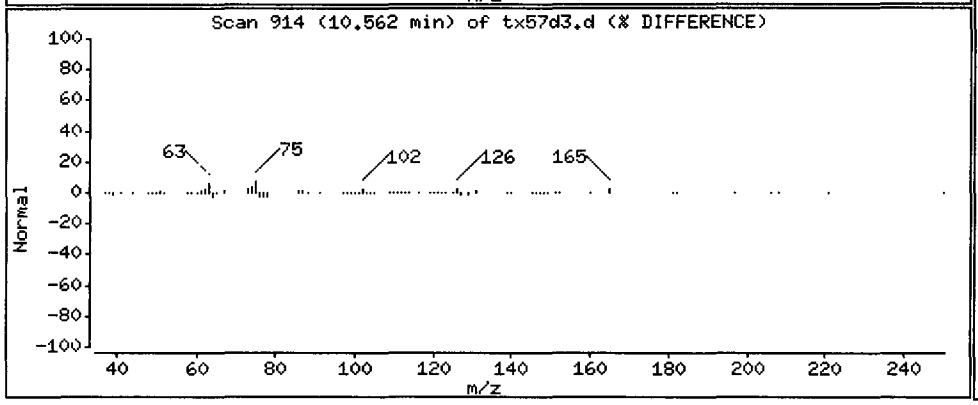
28 Naphthalene

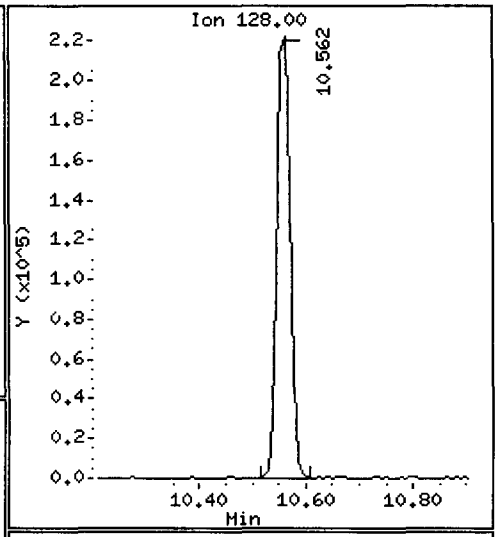
Concentration: 617.4 ug/kg

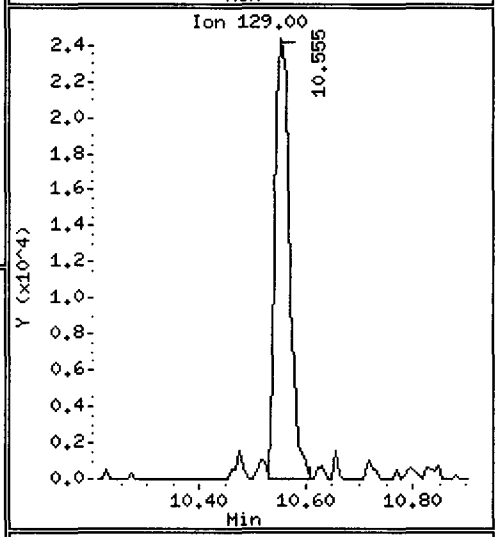


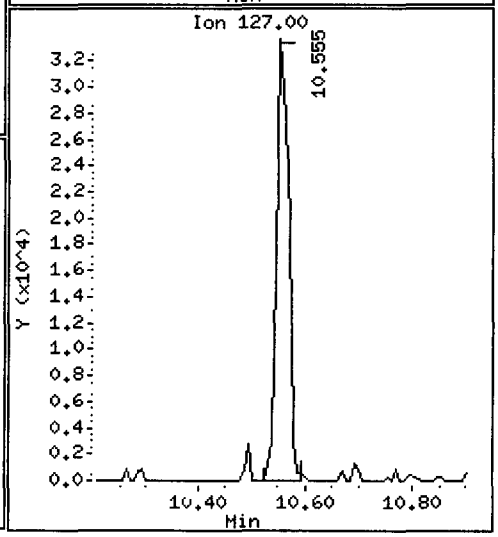












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

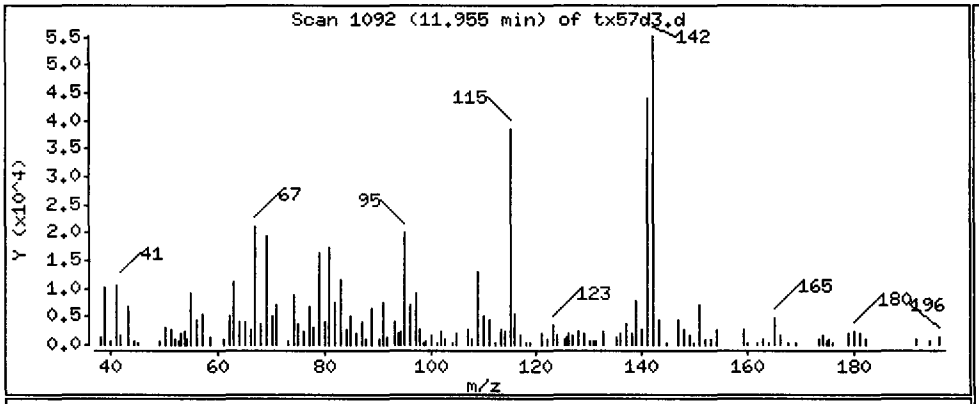
Client ID: SD0015 Instrument: nt10.i

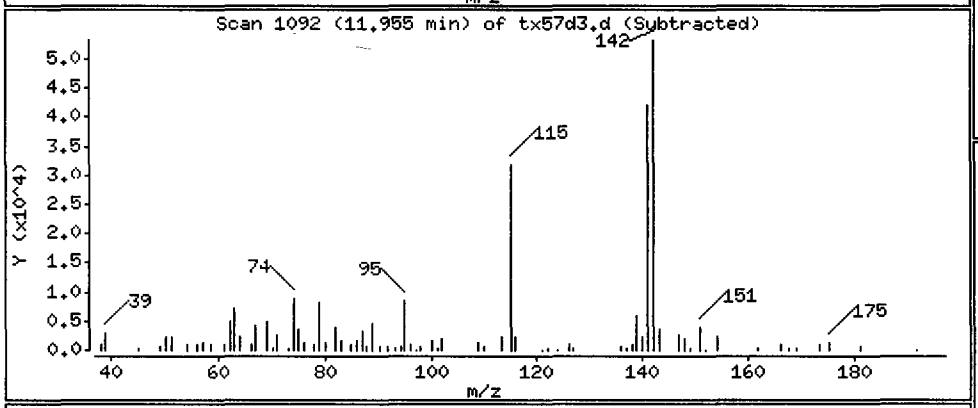
Sample Info: TX57D,3

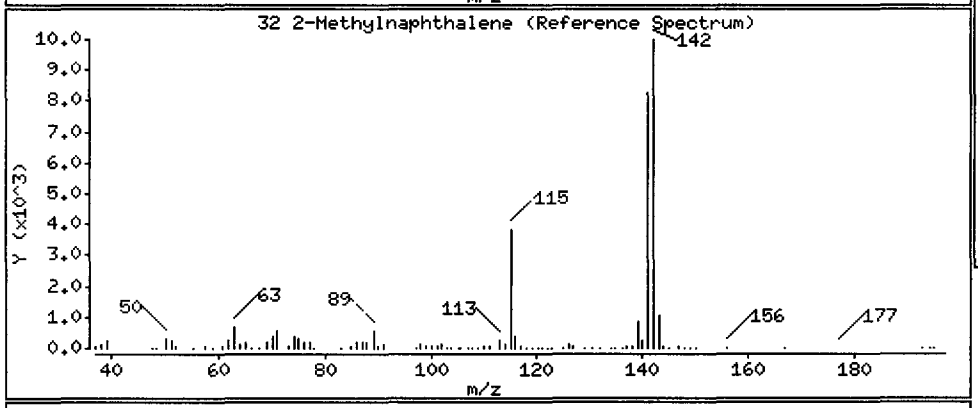
Volume Injected (uL): 1.0 Operator: YZ

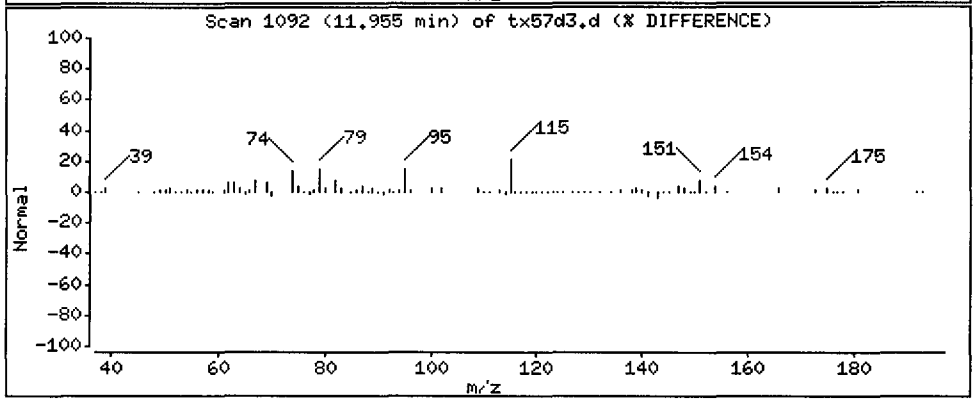
Column phase: ZB-5msi Column diameter: 0.25

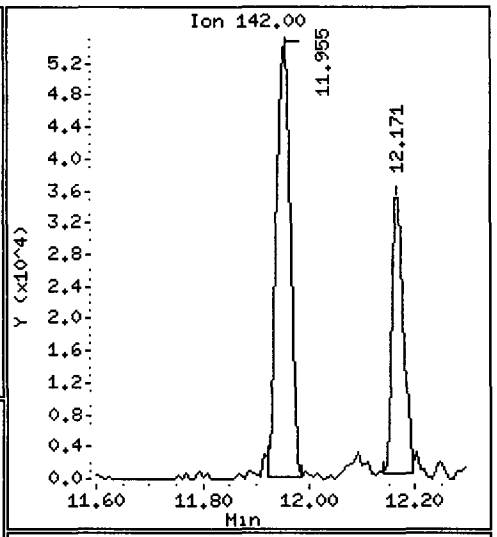
32 2-Methylnaphthalene Concentration: 218.5 ug/kg

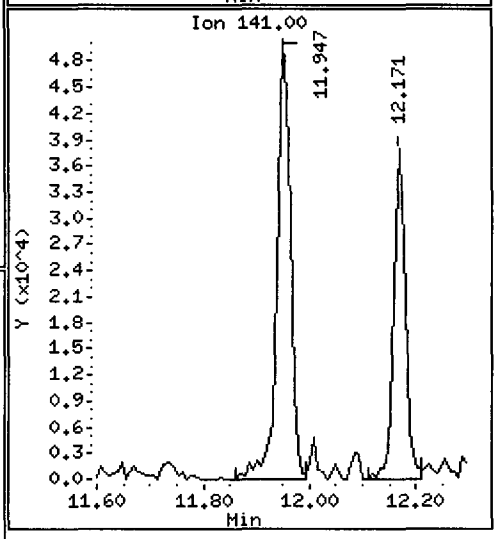












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

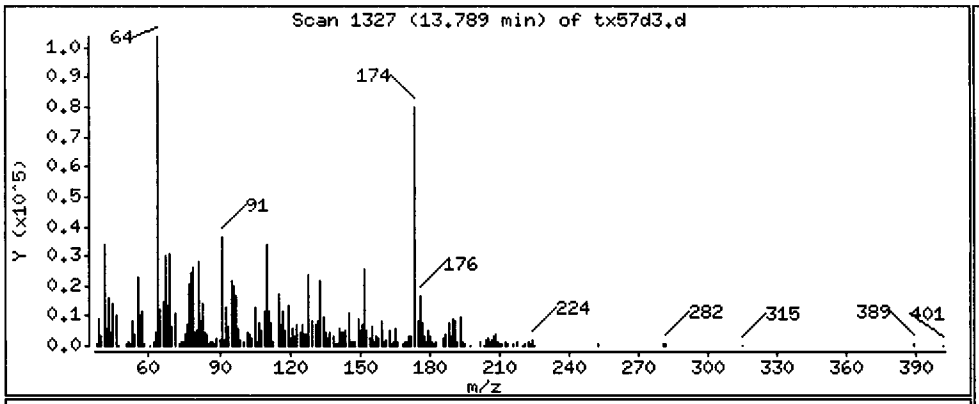
Client ID: SD0015 Instrument: nt10.i

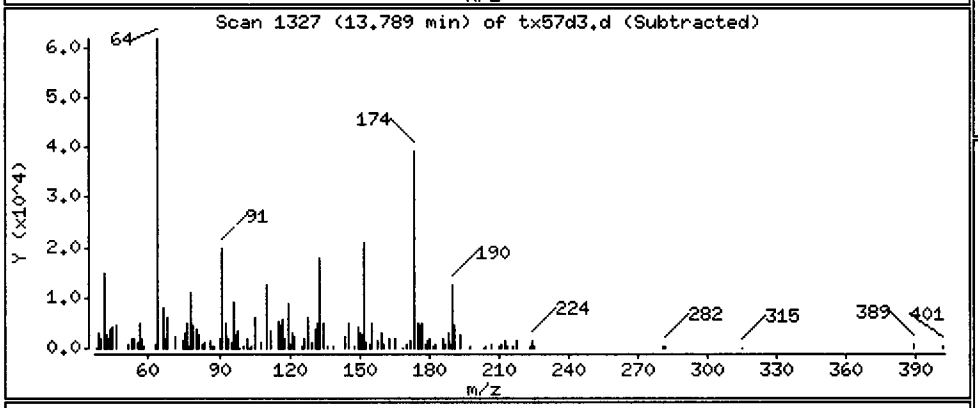
Sample Info: TX57D,3

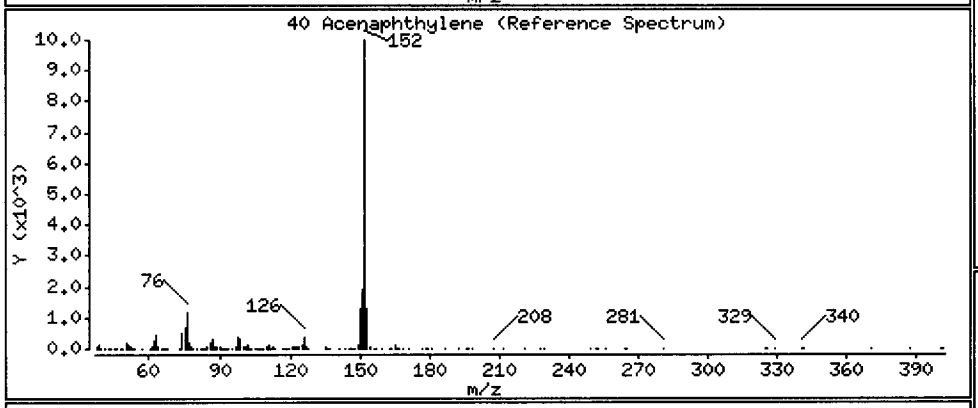
Volume Injected (uL): 1.0 Operator: YZ

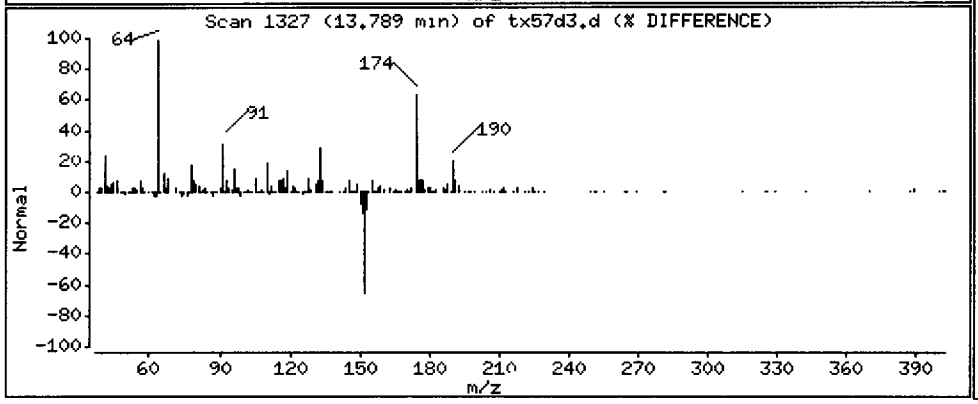
Column phase: ZB-5msi Column diameter: 0.25

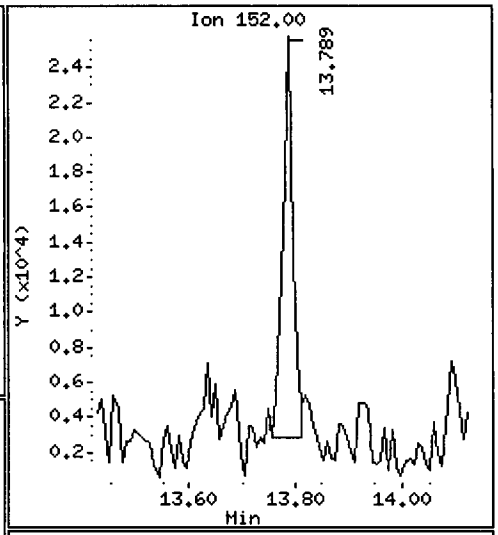
40 Acenaphthylene Concentration: 41.37 ug/kg

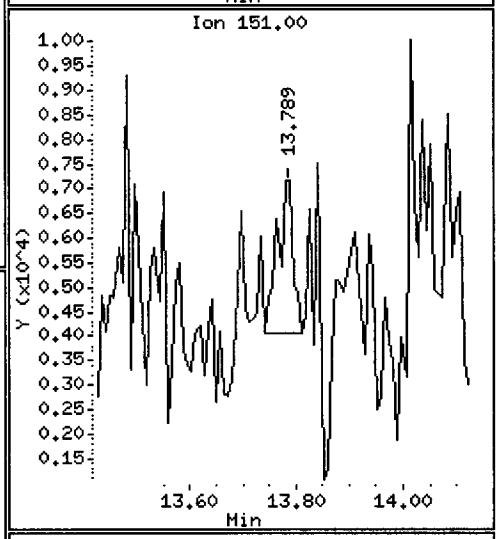


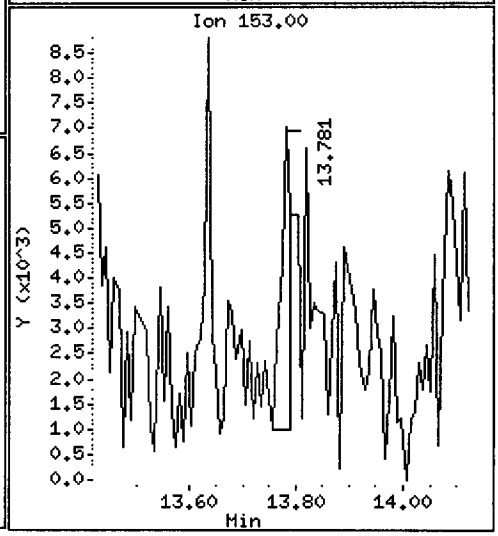












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

Client ID: SD0015

Instrument: nt10.i

Sample Info: TX57D,3

Volume Injected (uL): 1.0

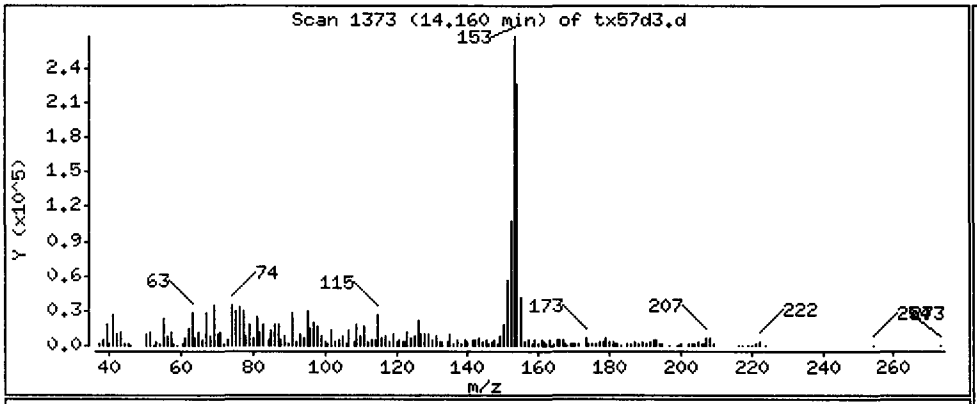
Operator: YZ

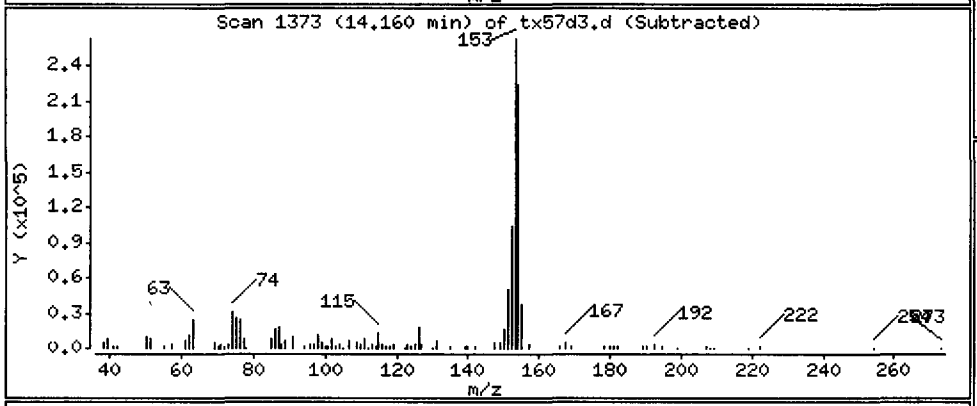
Column phase: ZB-5msi

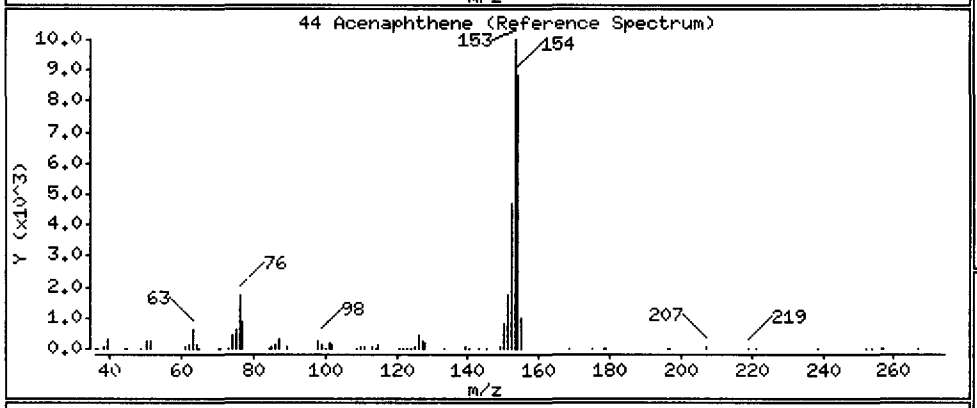
Column diameter: 0.25

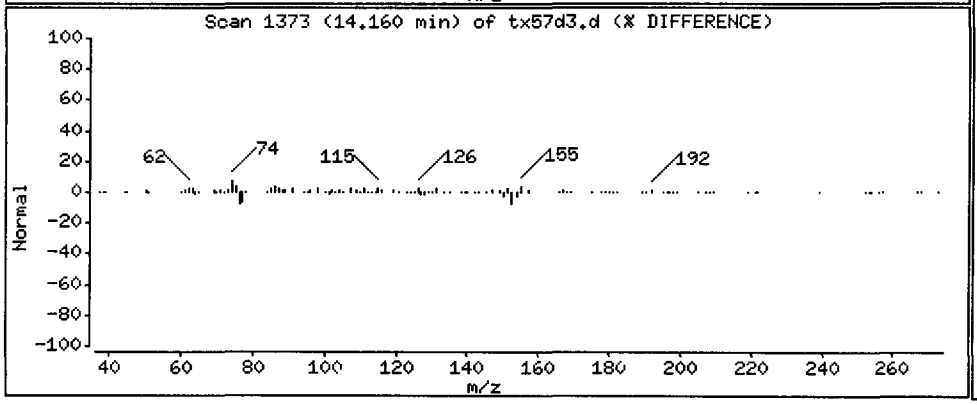
44 Acenaphthene

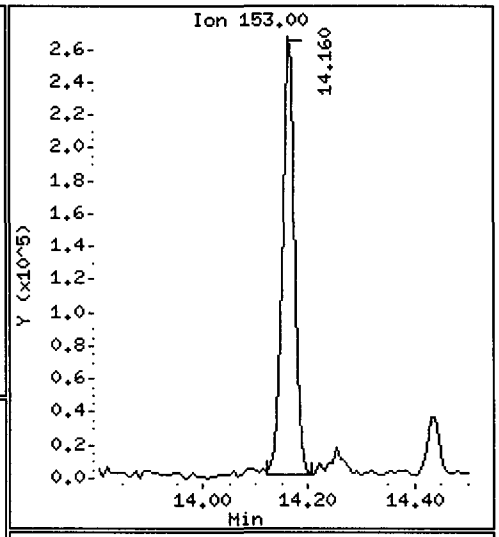
Concentration: 897.4 ug/kg

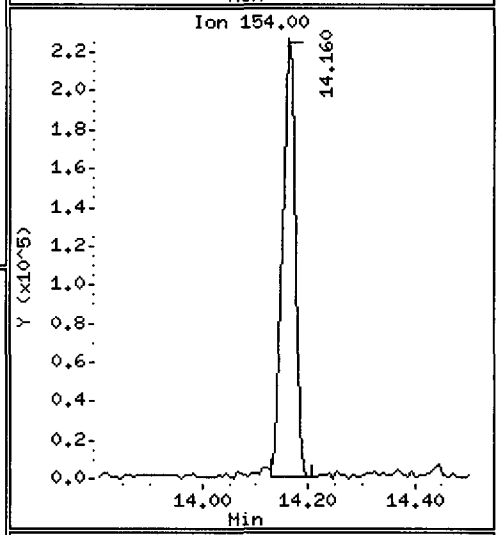


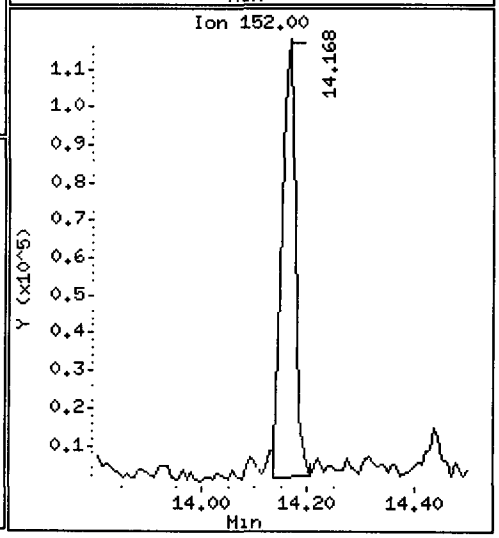












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

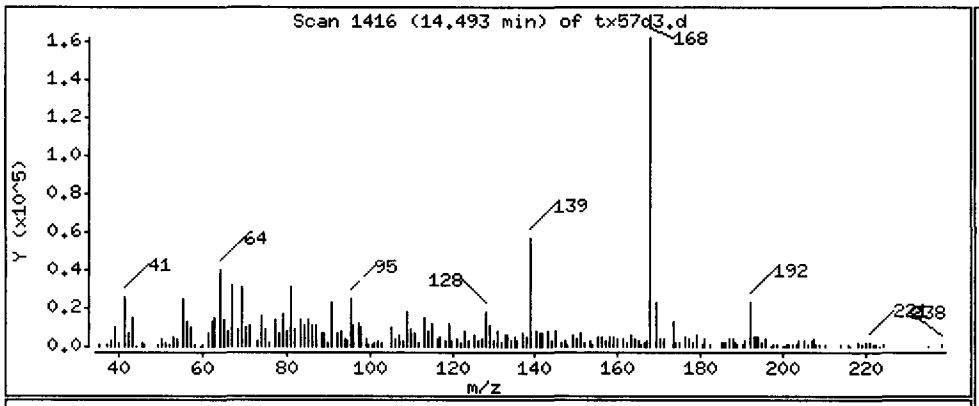
Client ID: SD0015 Instrument: nt10.i

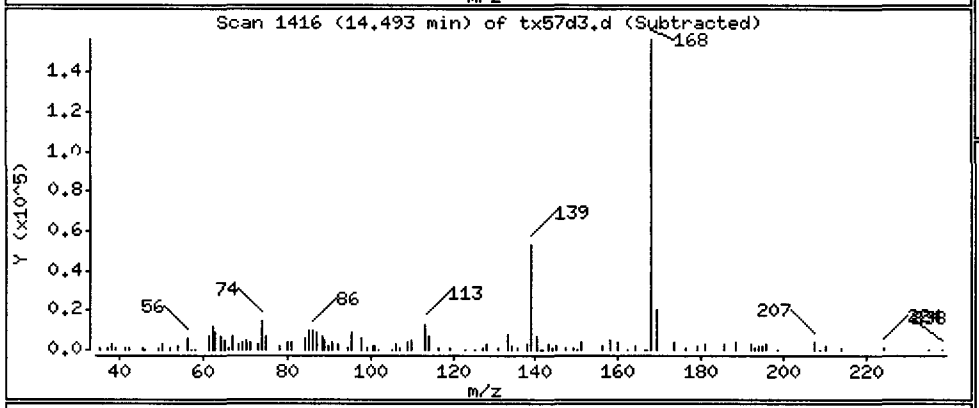
Sample Info: TX57D,3

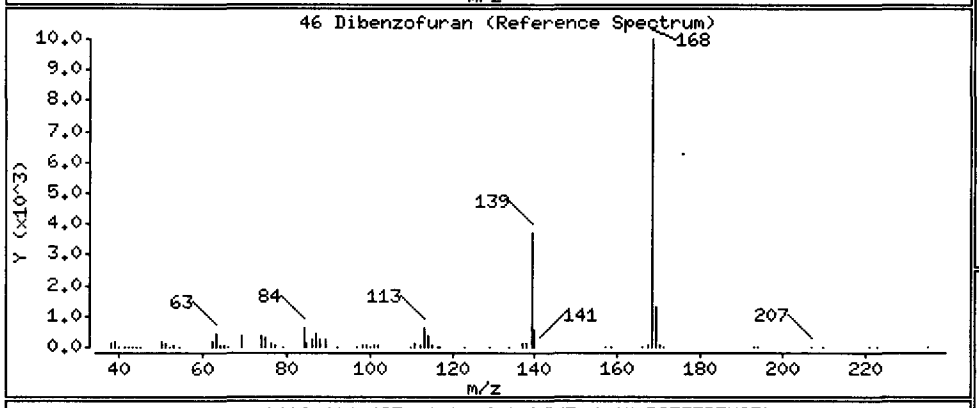
Volume Injected (uL): 1.0 Operator: YZ

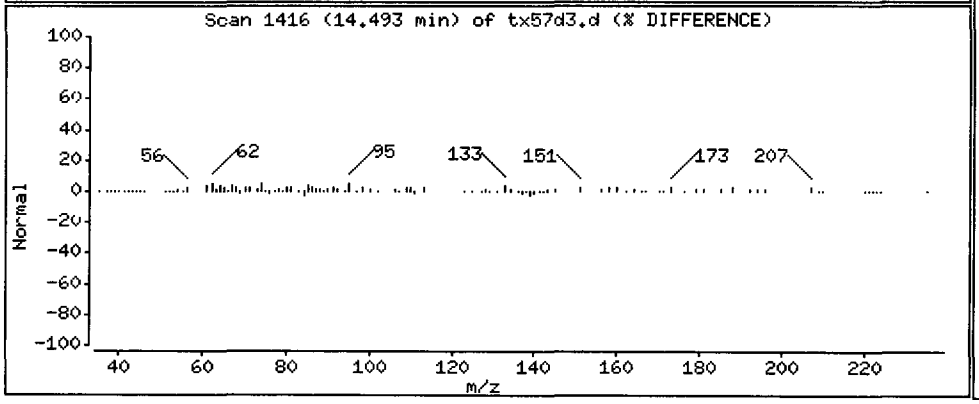
Column phase: ZB-5ms1 Column diameter: 0.25

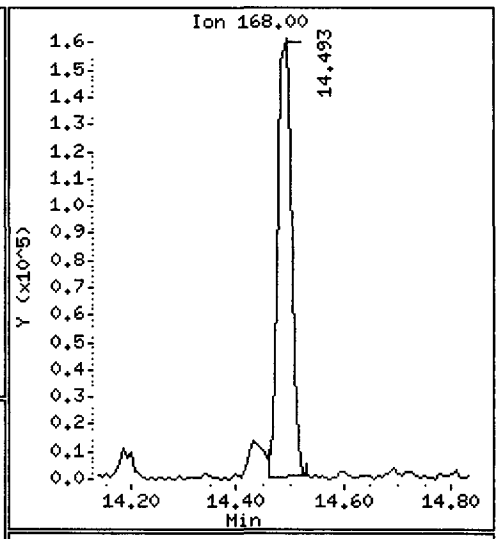
46 Dibenzofuran Concentration: 355.3 ug/kg

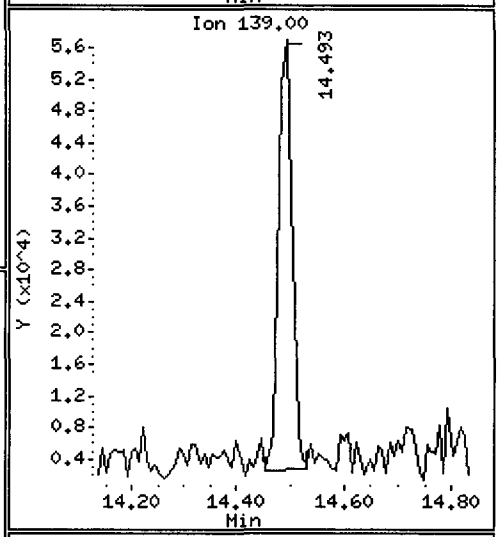


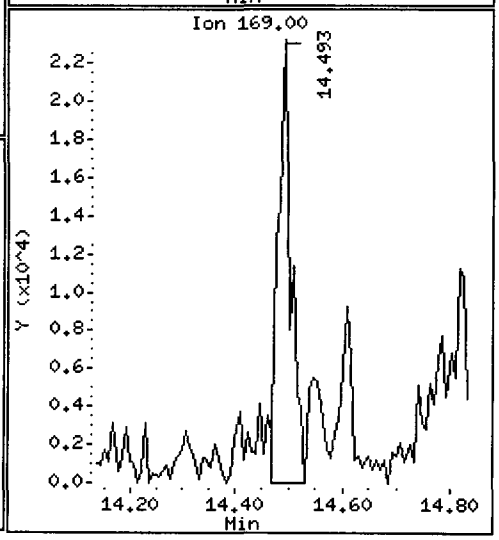












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

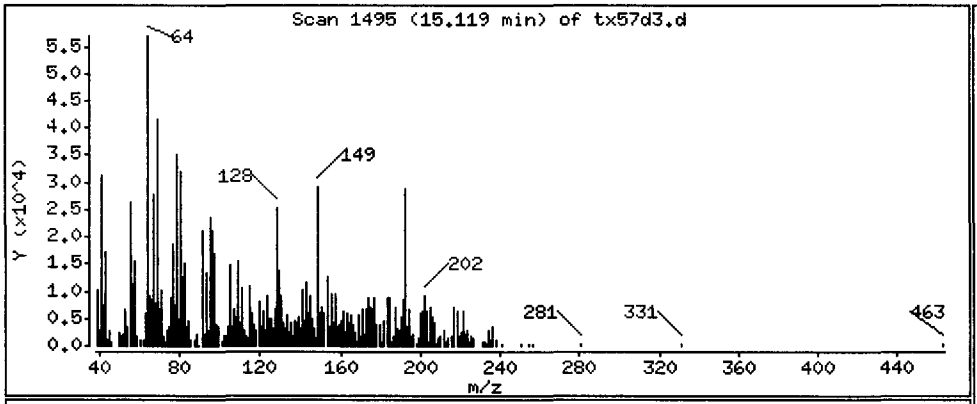
Client ID: SD0015 Instrument: nt10.i

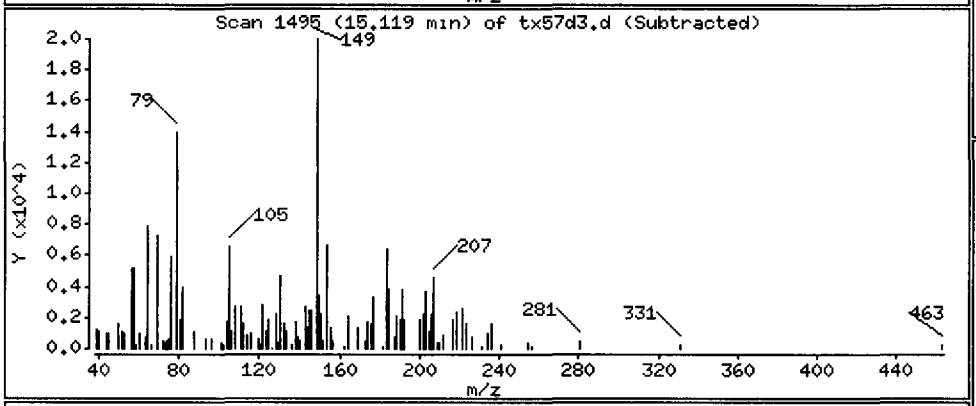
Sample Info: TX57D,3

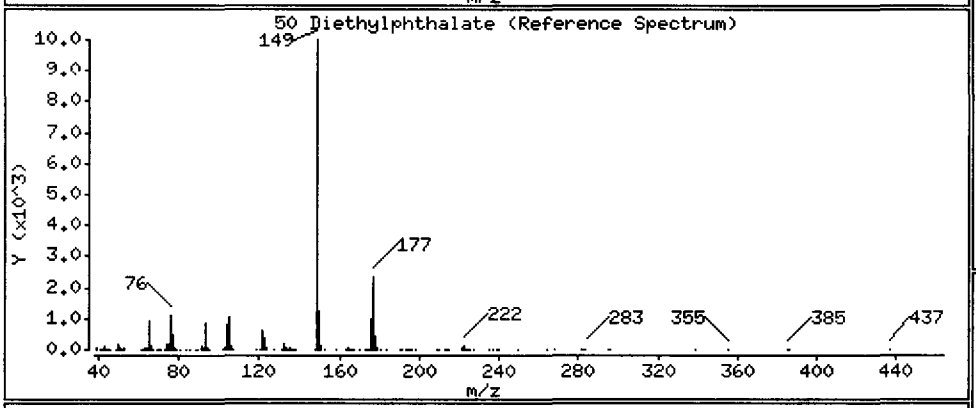
Volume Injected (uL): 1.0 Operator: YZ

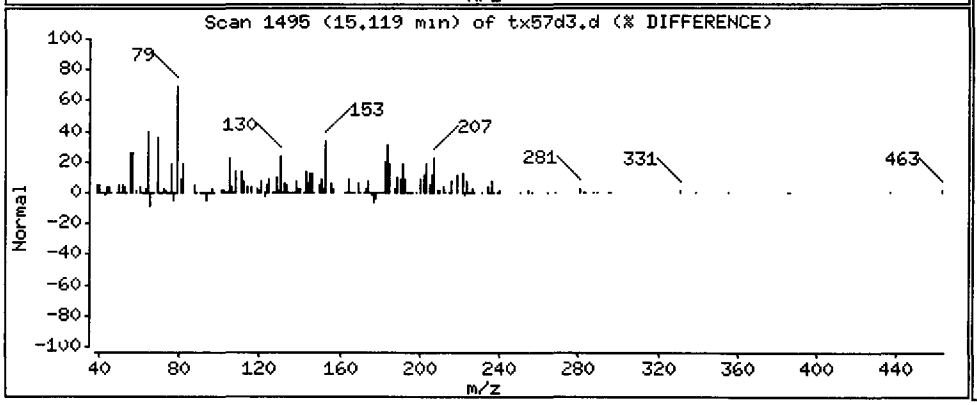
Column phase: ZB-5msi Column diameter: 0.25

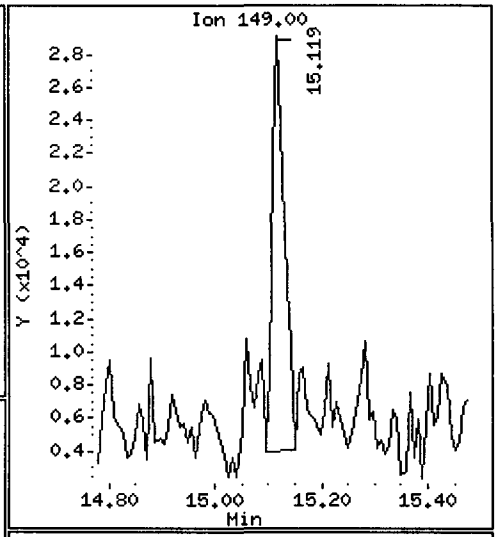
50 Diethylphthalate Concentration: 61.61 ug/kg

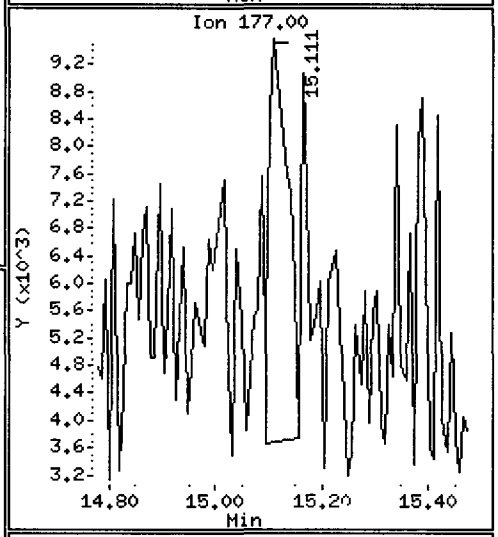


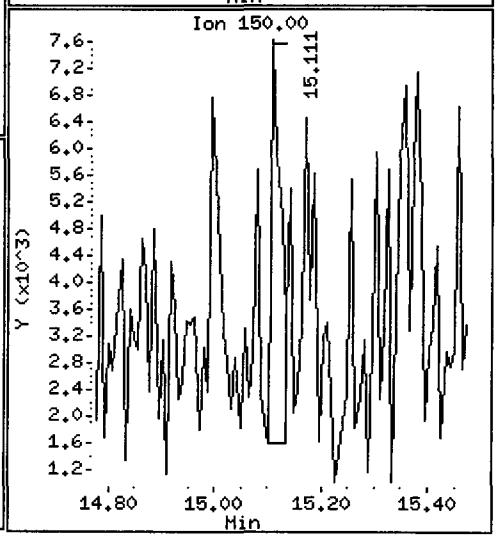












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

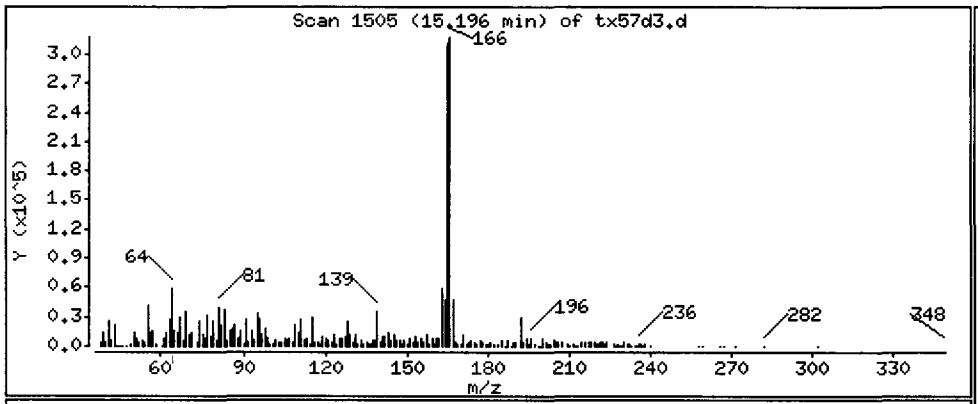
Client ID: SD0015 Instrument: nt10.i

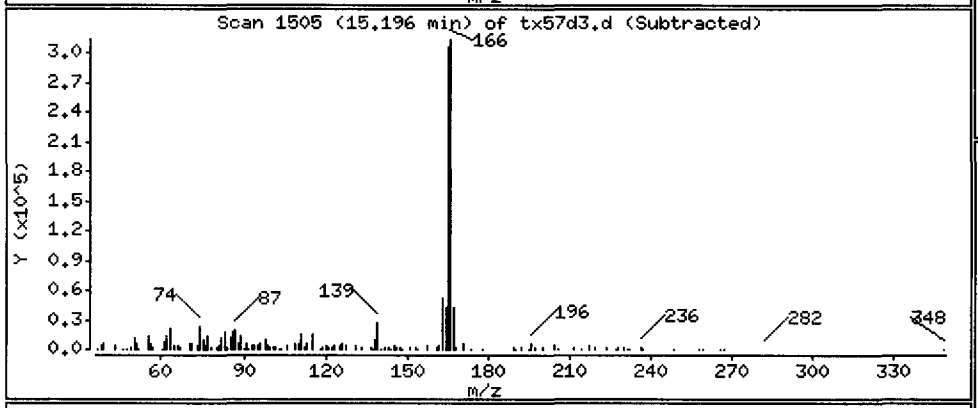
Sample Info: TX57D,3

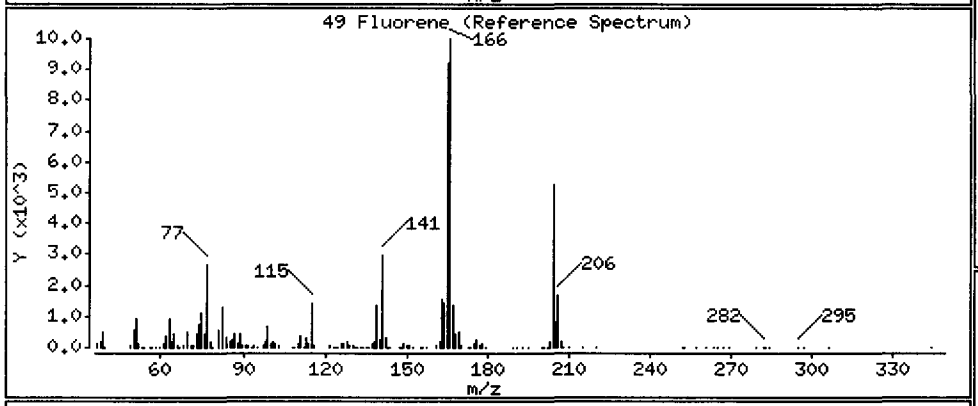
Volume Injected (uL): 1.0 Operator: YZ

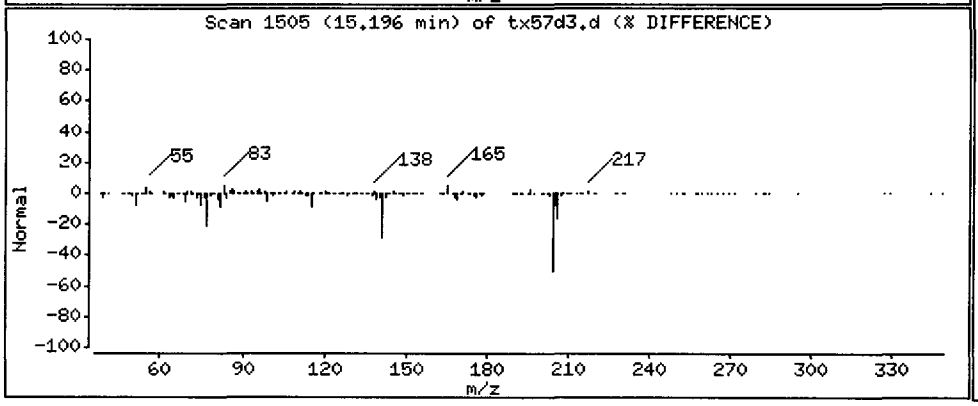
Column phase: ZB-5msi Column diameter: 0.25

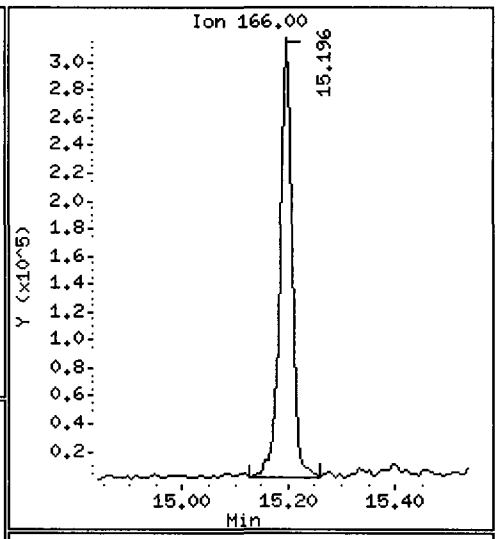
49 Fluorene Concentration: 974.8 ug/kg

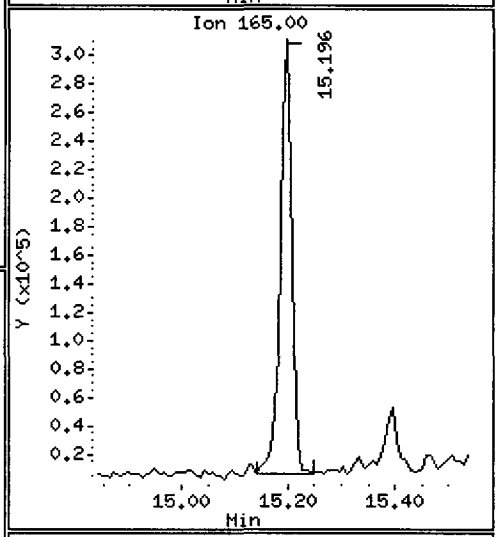


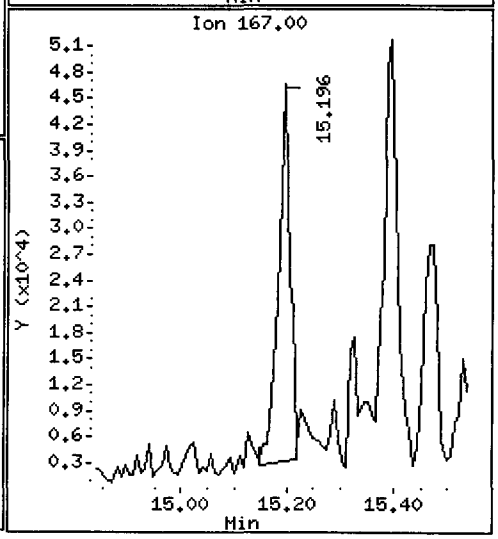












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

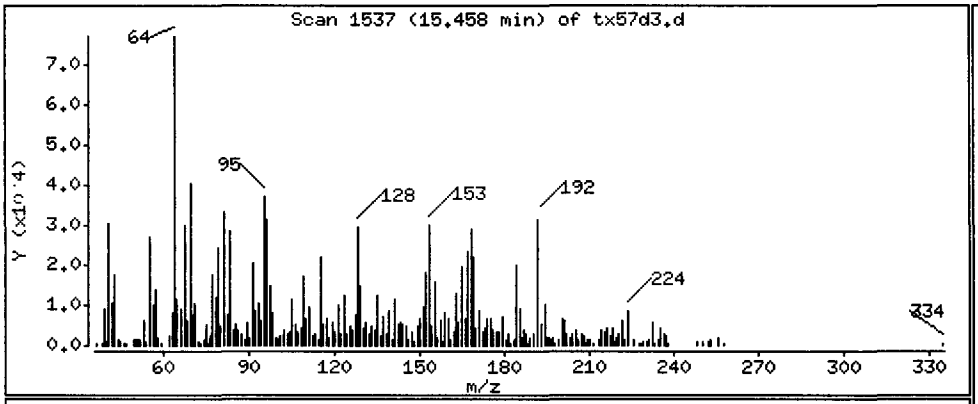
Client ID: SD0015 Instrument: nt10.i

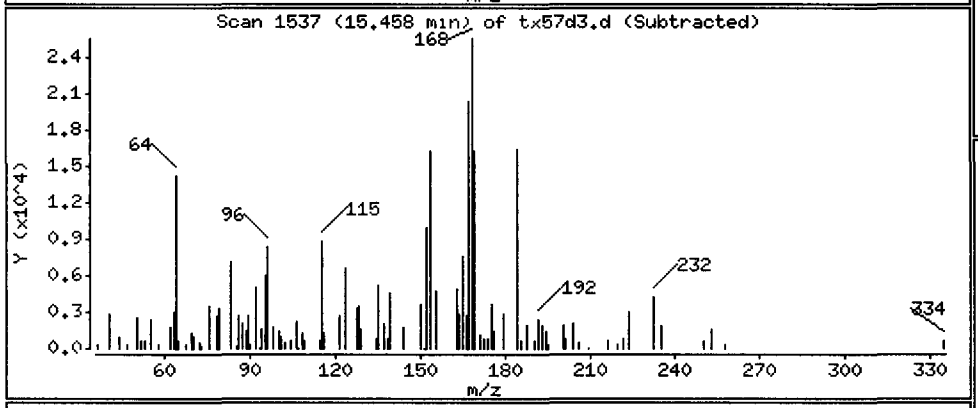
Sample Info: TX57D,3

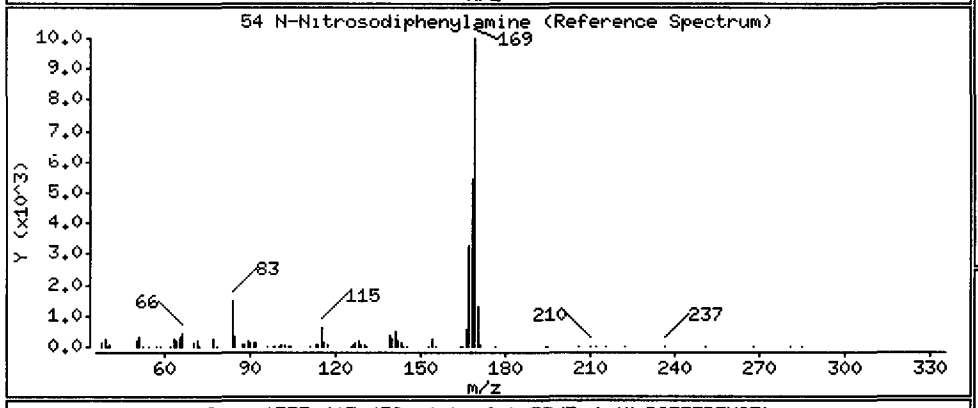
Volume Injected (uL): 1.0 Operator: YZ

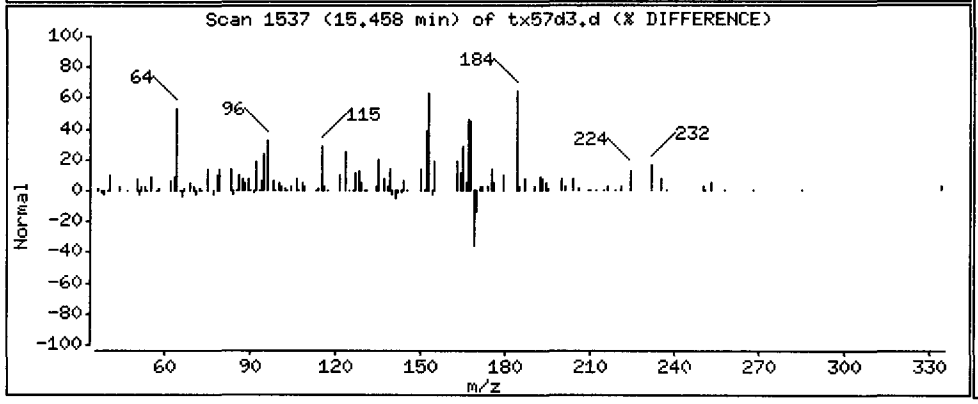
Column phase: ZB-5ms1 Column diameter: 0.25

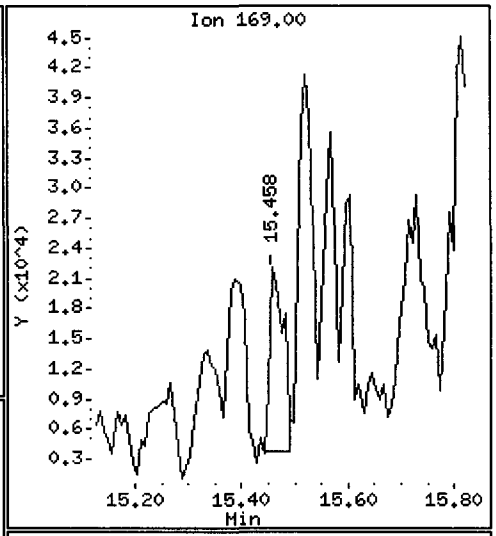
54 N-Nitrosodiphenylamine Concentration: 68.58 ug/kg

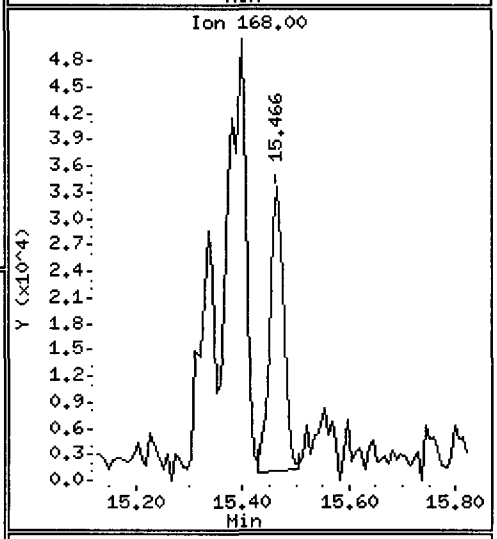


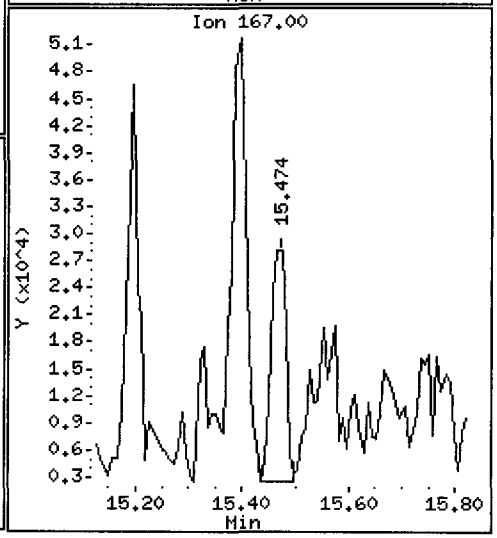












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

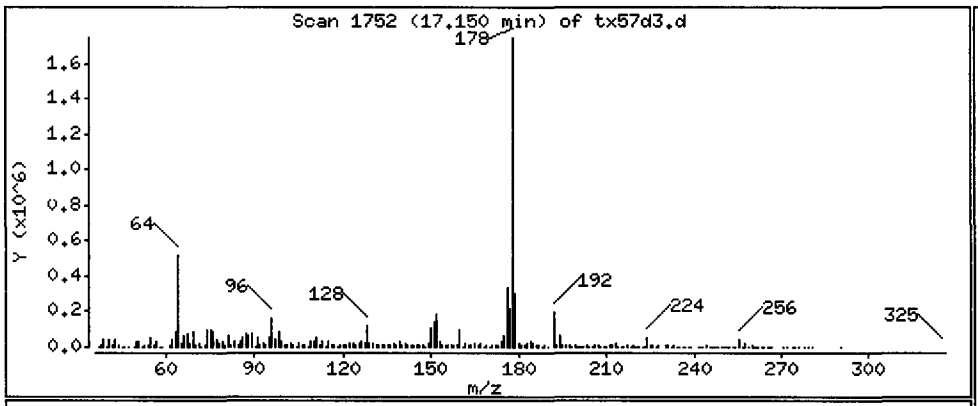
Client ID: SD0015 Instrument: nt10.i

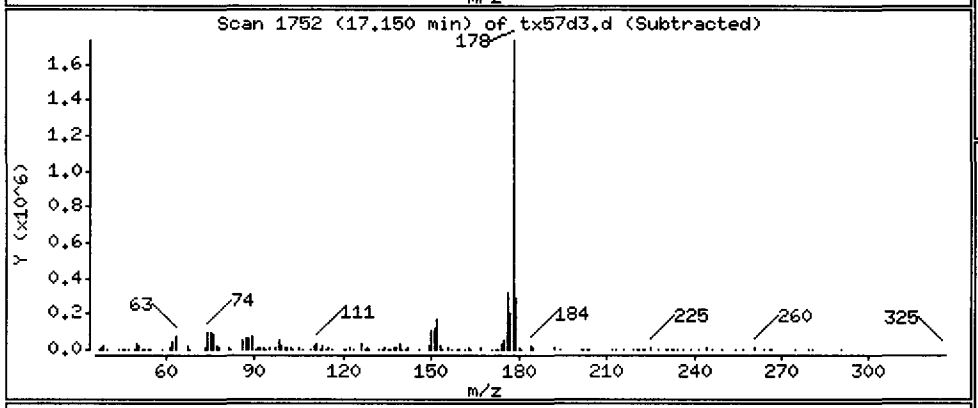
Sample Info: TX57D,3

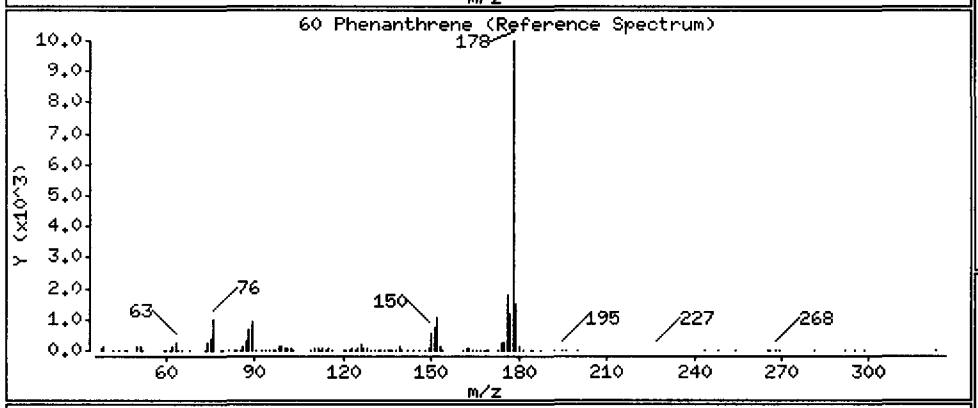
Volume Injected (uL): 1.0 Operator: YZ

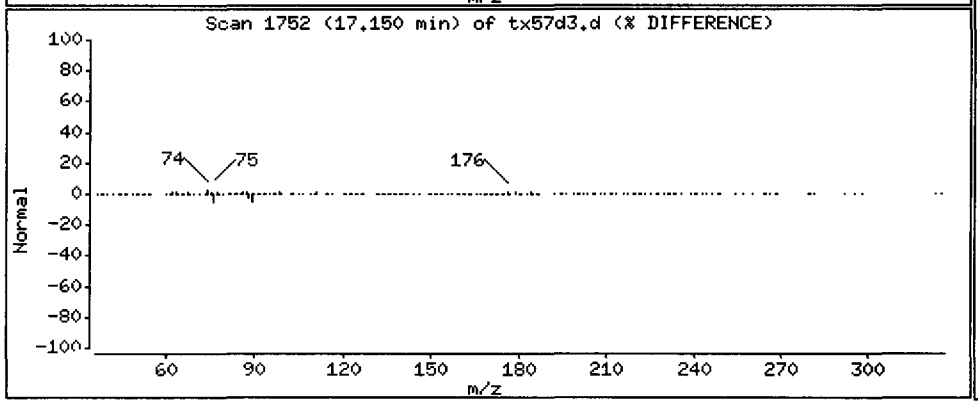
Column phase: ZB-5msi Column diameter: 0.25

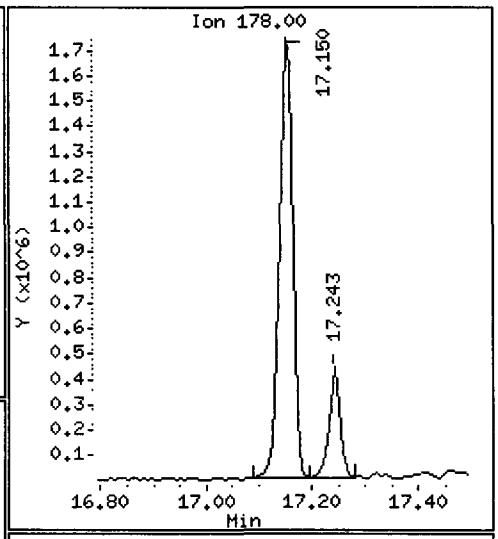
60 Phenanthrene Concentration: 2962 ug/kg

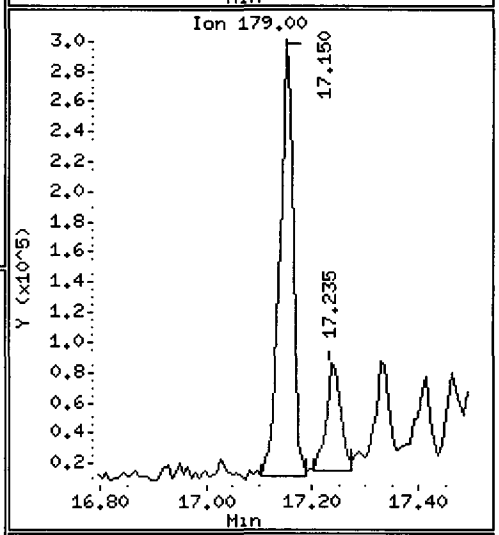


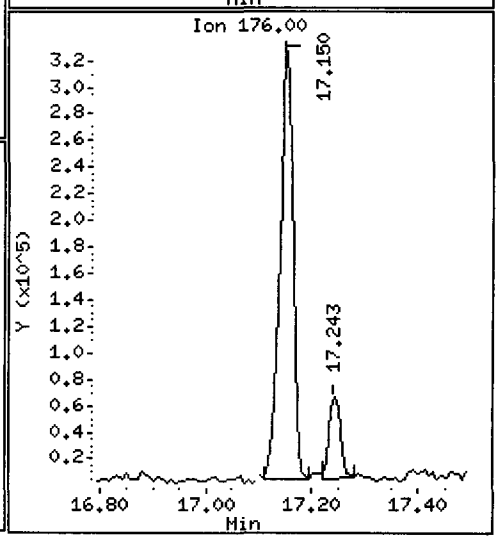












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

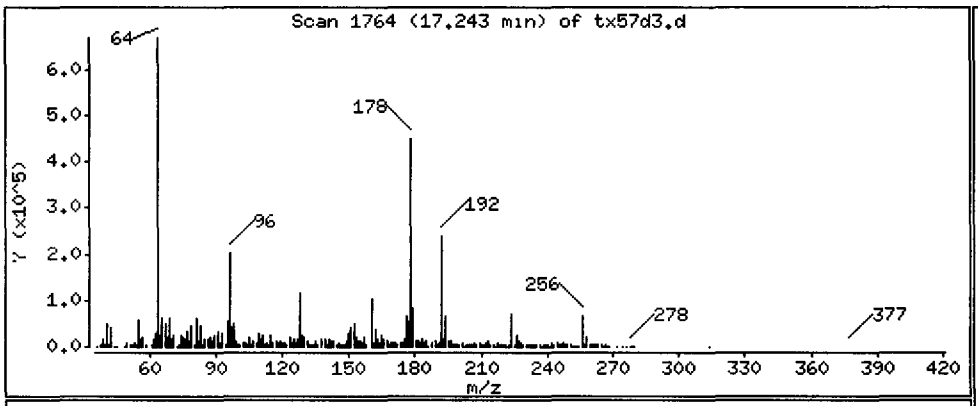
Client ID: SD0015 Instrument: nt10.i

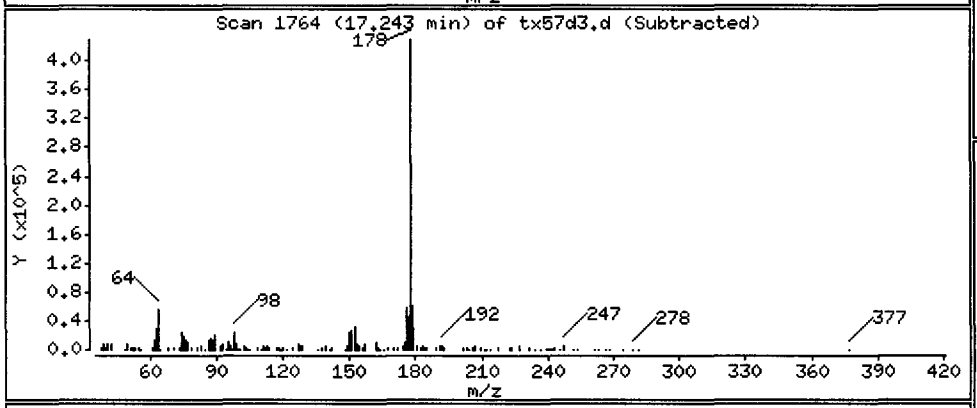
Sample Info: TX57D,3

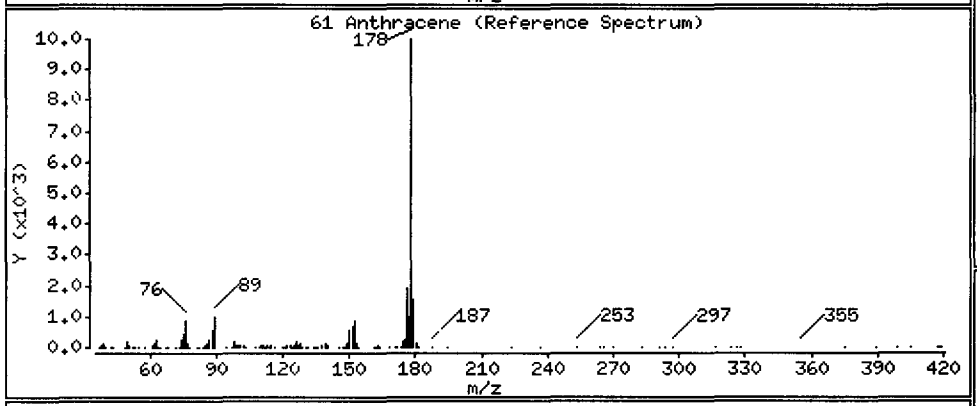
Volume Injected (uL): 1.0 Operator: YZ

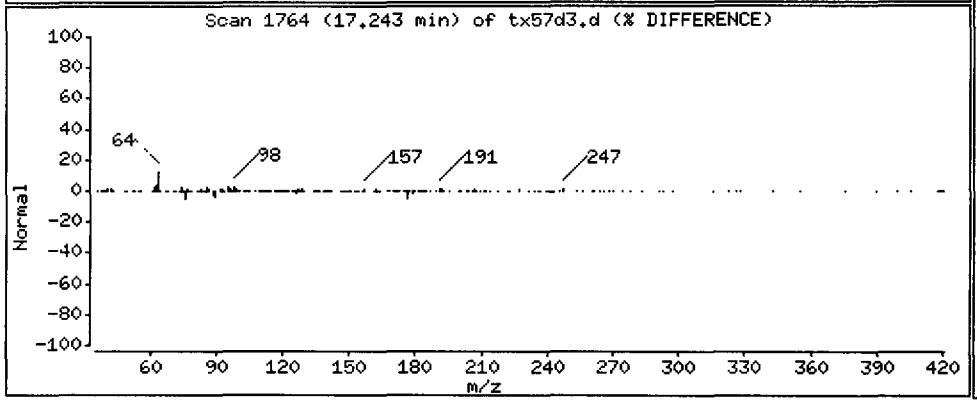
Column phase: ZB-5msi Column diameter: 0.25

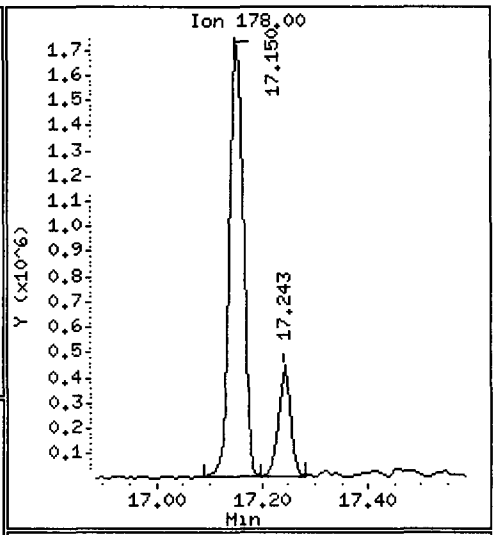
61 Anthracene Concentration: 635.5 ug/kg

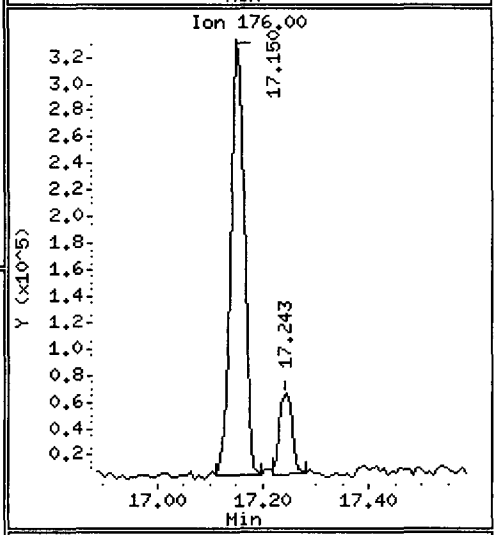


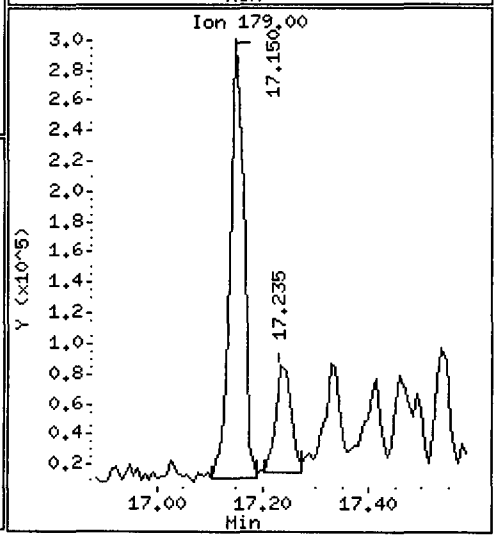












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

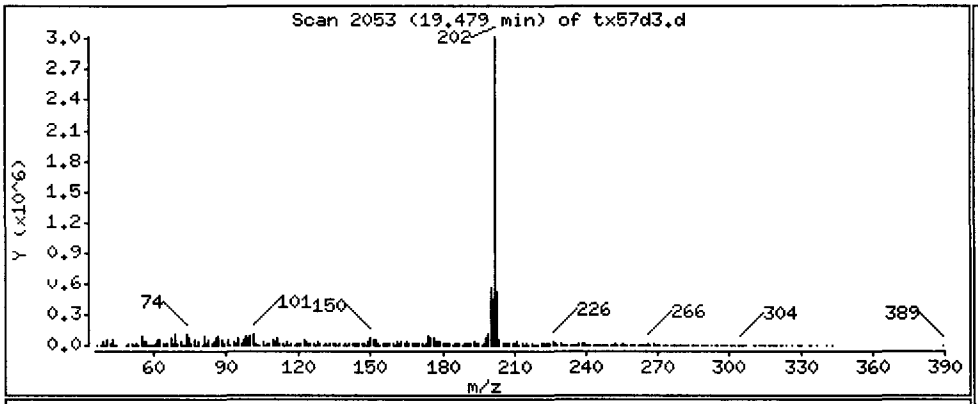
Client ID: SD0015 Instrument: nt10.1

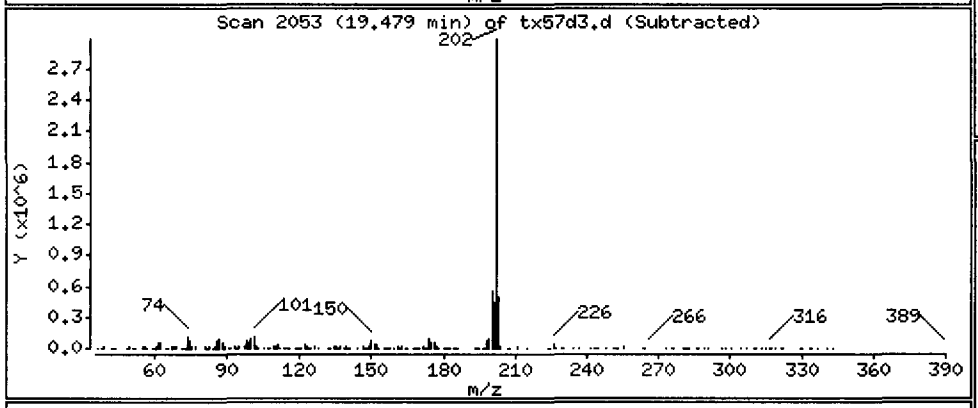
Sample Info: TX57D,3

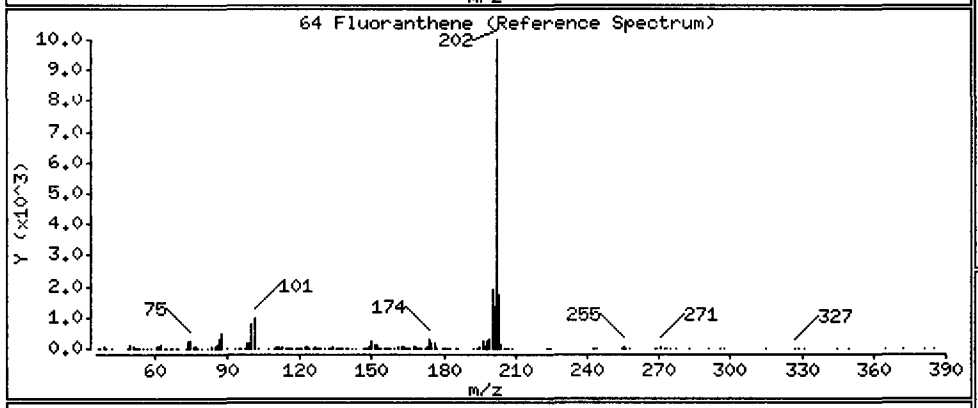
Volume Injected (uL): 1.0 Operator: YZ

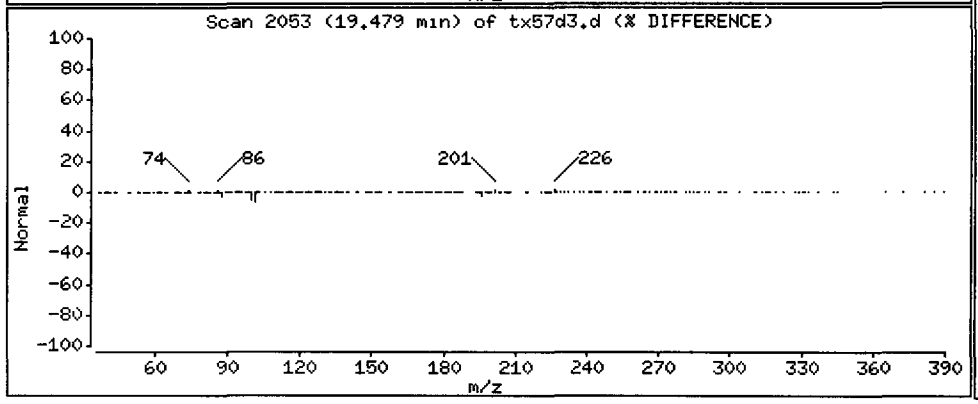
Column phase: ZB-5ms1 Column diameter: 0.25

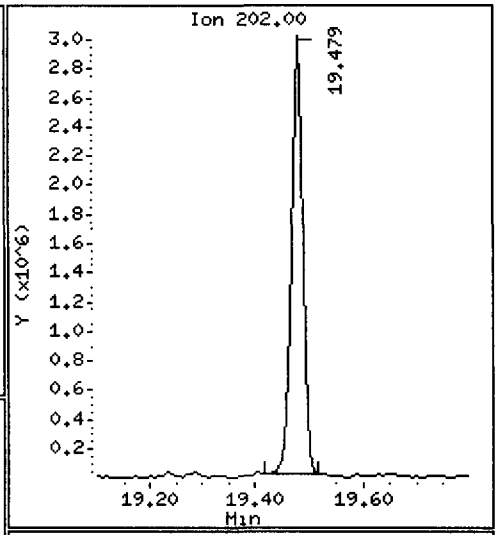
64 Fluoranthene Concentration: 3213 ug/kg

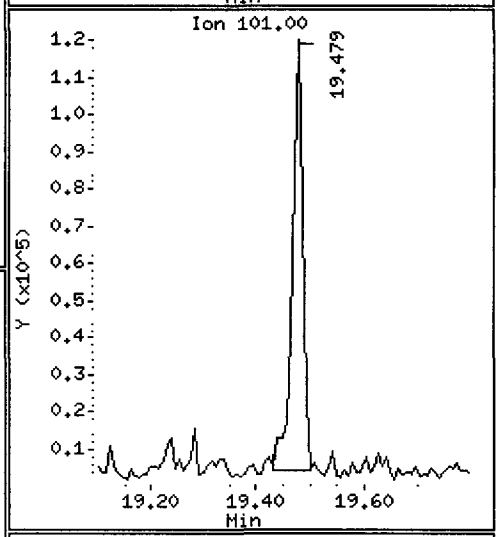


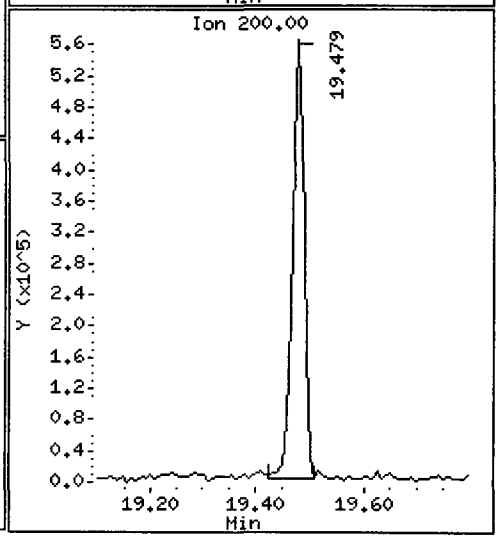












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

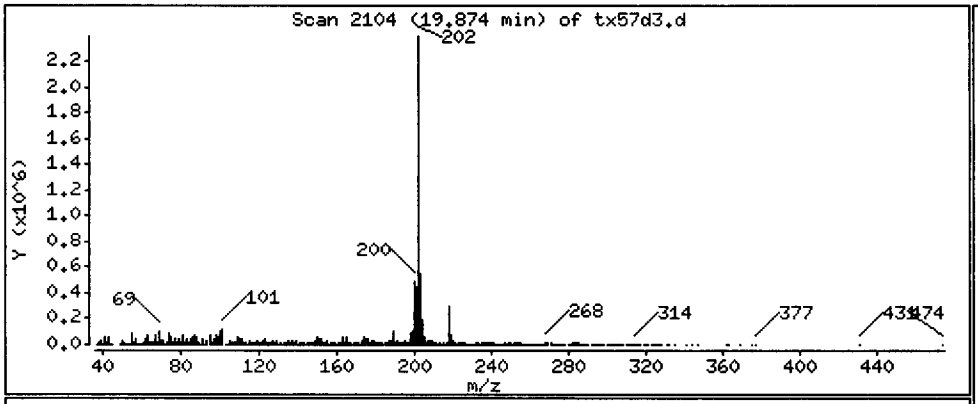
Client ID: SD0015 Instrument: nt10.i

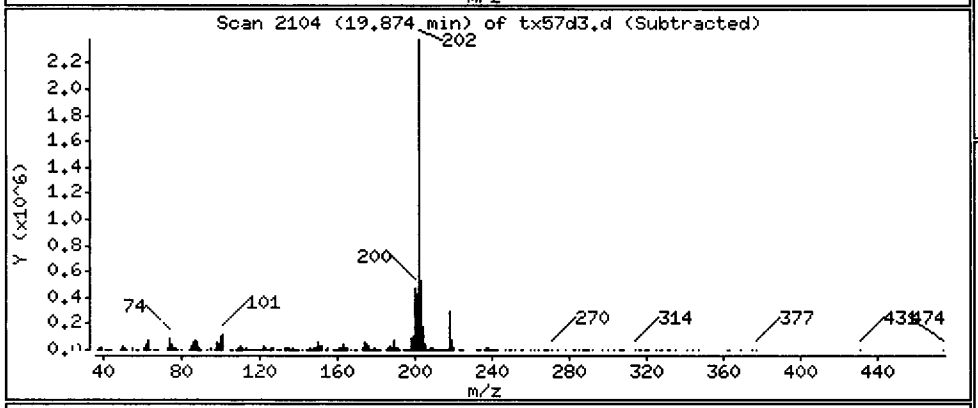
Sample Info: TX57D,3

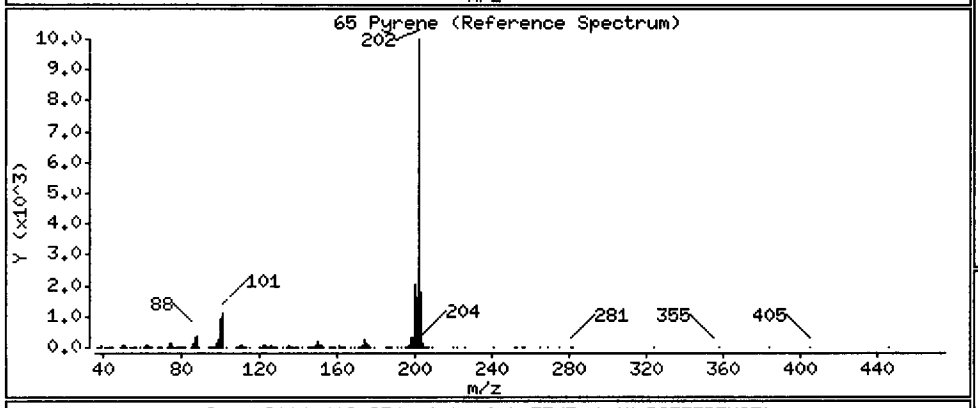
Volume Injected (uL): 1.0 Operator: YZ

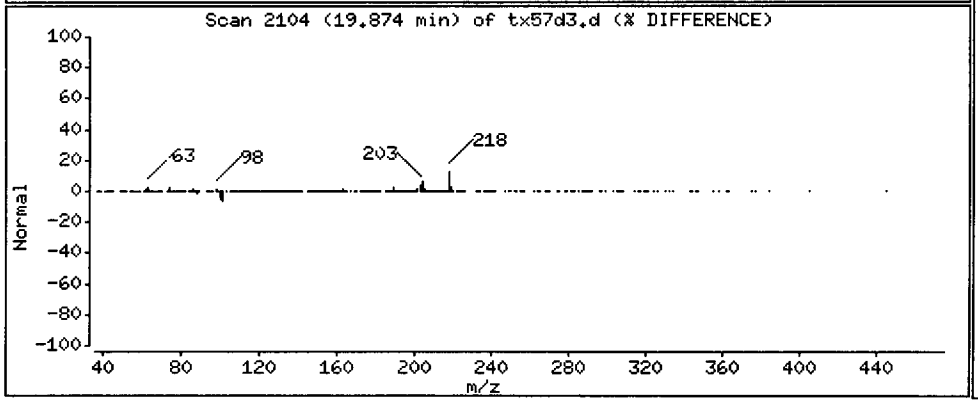
Column phase: ZB-5msi Column diameter: 0.25

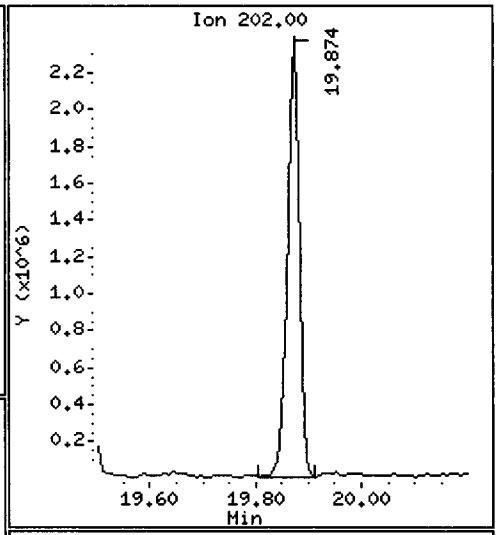
65 Pyrene Concentration: 2625 ug/kg

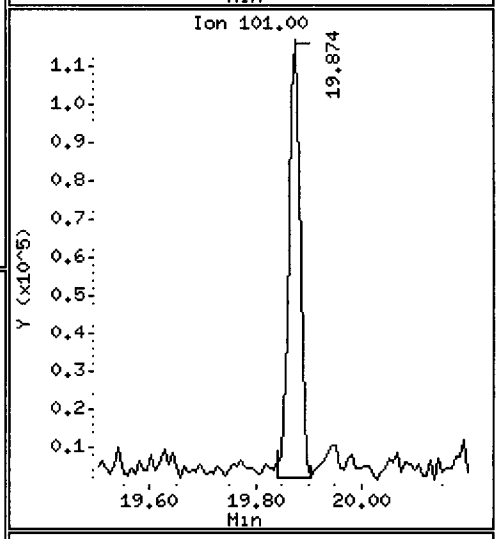


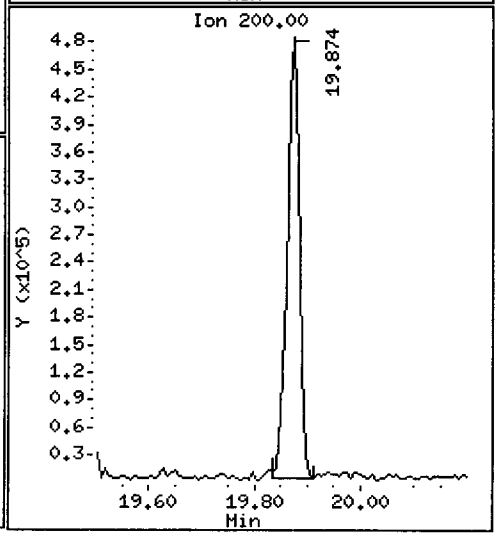












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

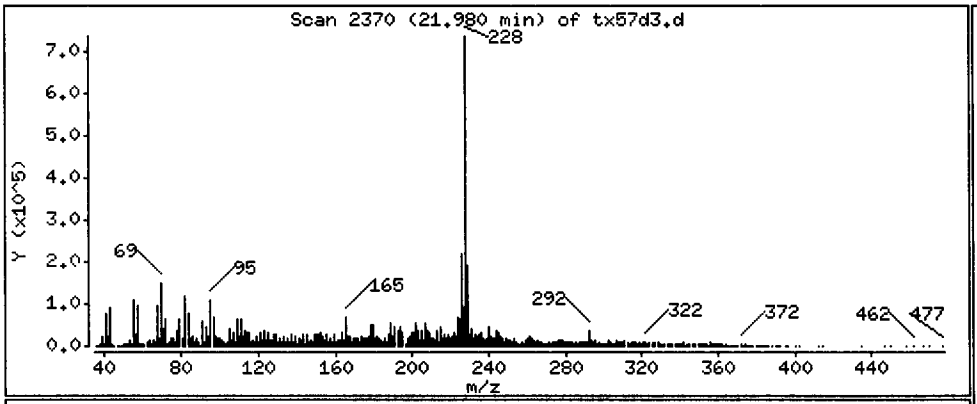
Client ID: SD0015 Instrument: nt10.i

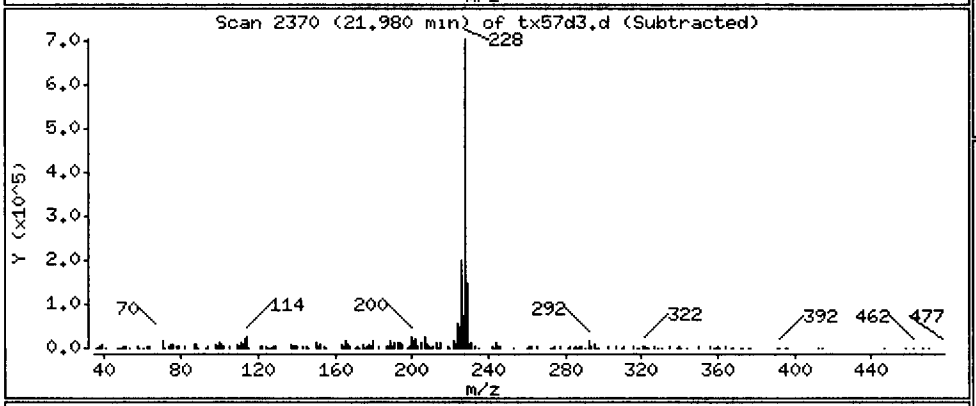
Sample Info: TX57D,3

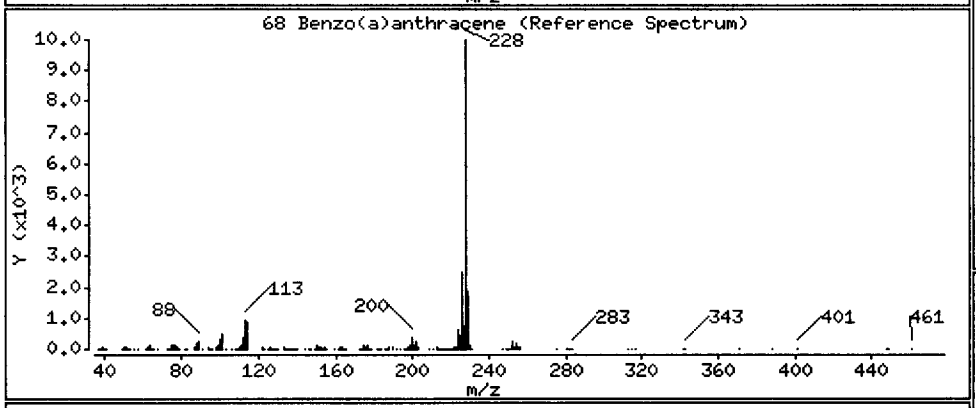
Volume Injected (uL): 1.0 Operator: YZ

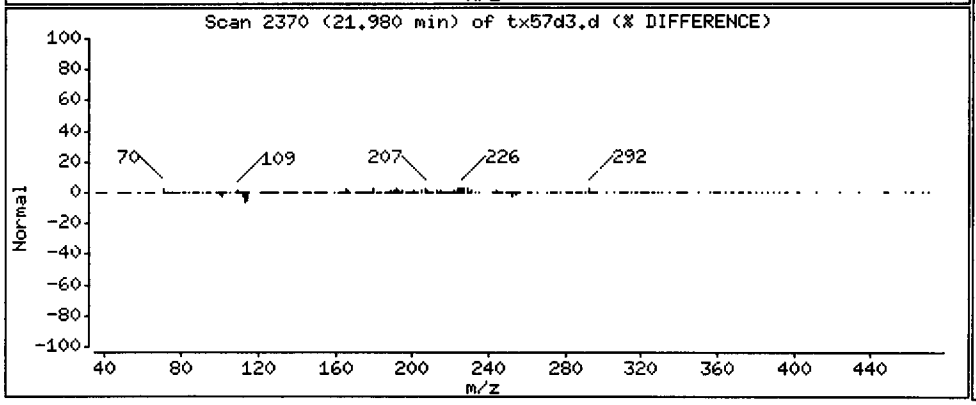
Column phase: ZB-5msi Column diameter: 0.25

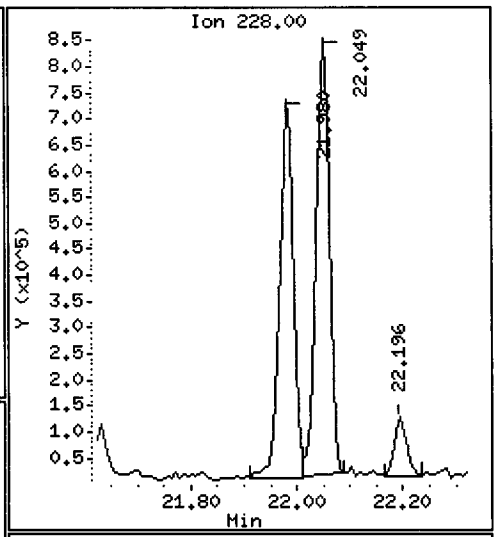
68 Benzo(a)anthracene Concentration: 809.4 ug/kg

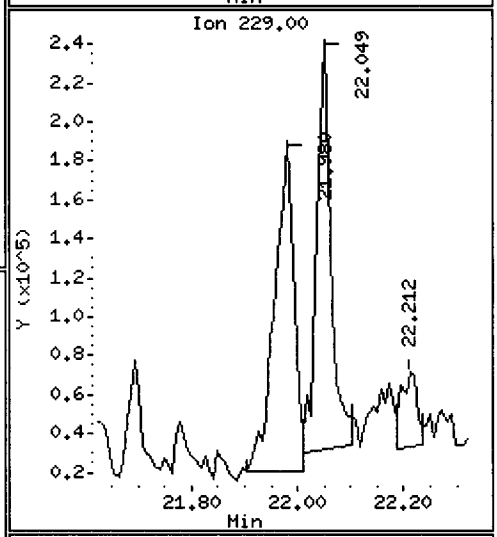


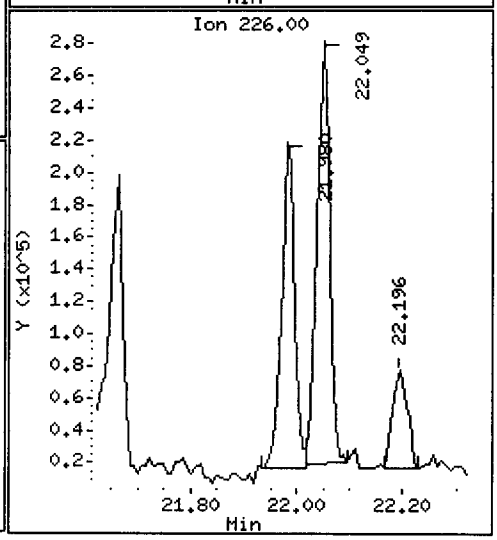












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

Client ID: SD0015

Instrument: nt10.i

Sample Info: TX57D,3

Volume Injected (uL): 1.0

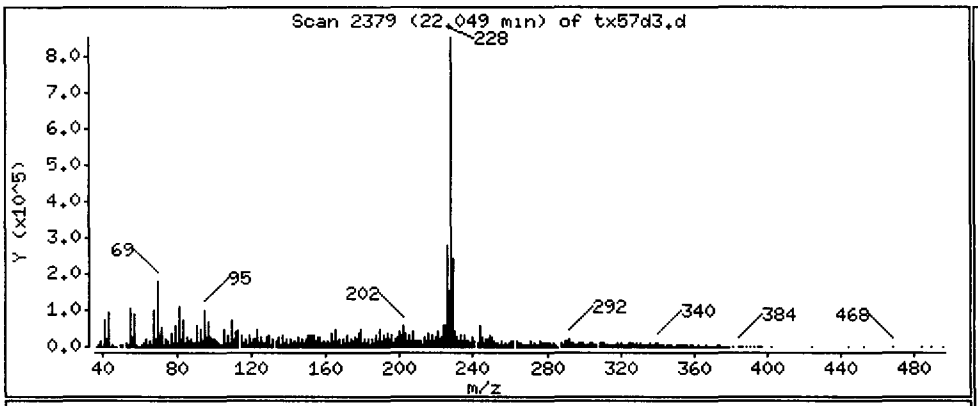
Operator: YZ

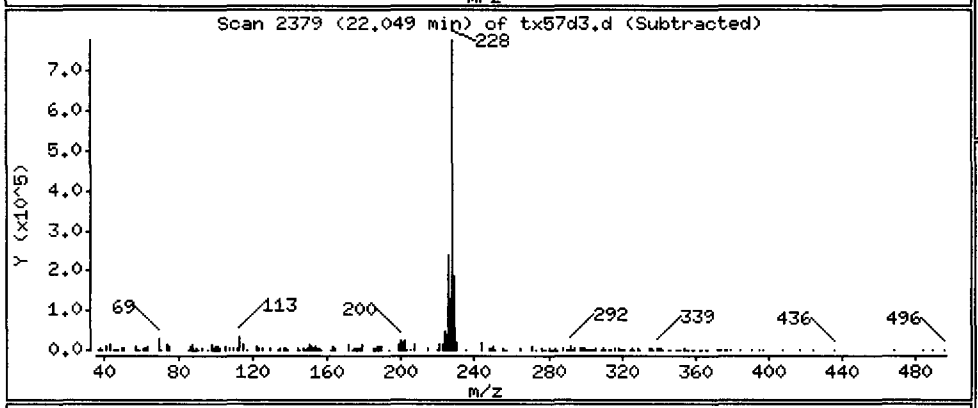
Column phase: ZB-5msi

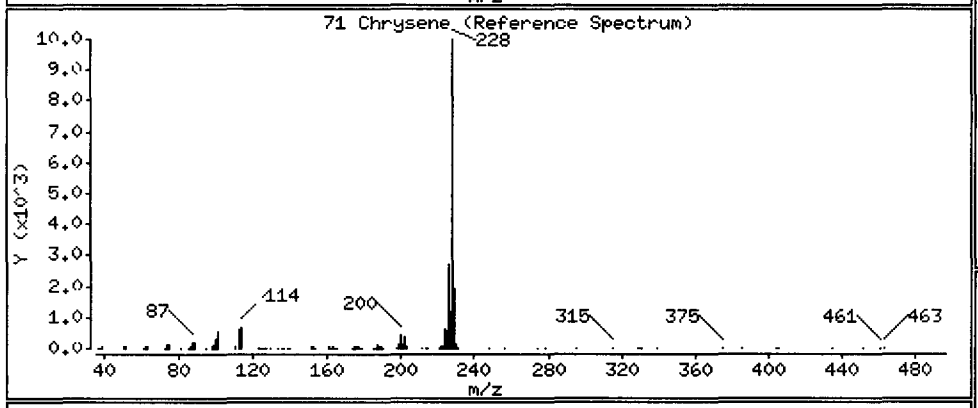
Column diameter: 0.25

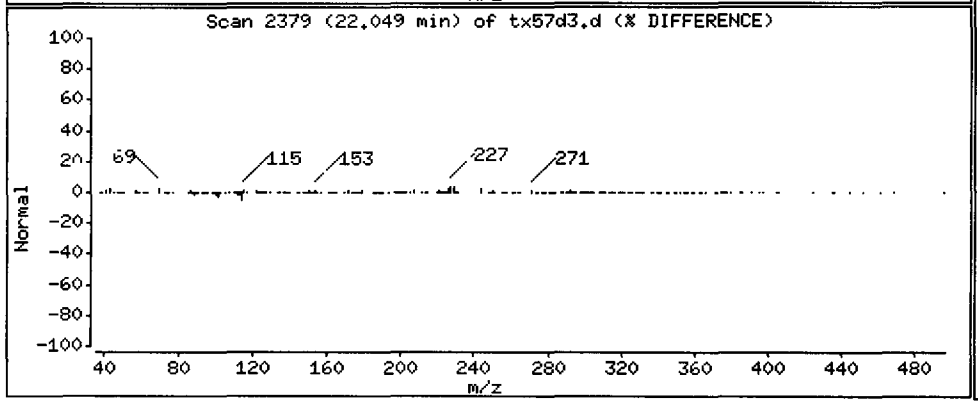
71 Chrysene

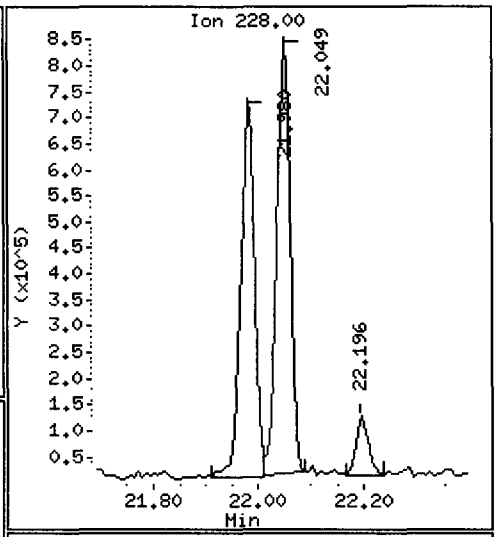
Concentration: 956.6 ug/kg

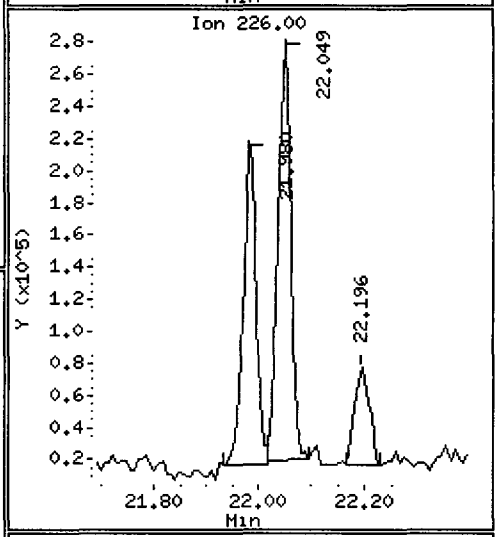


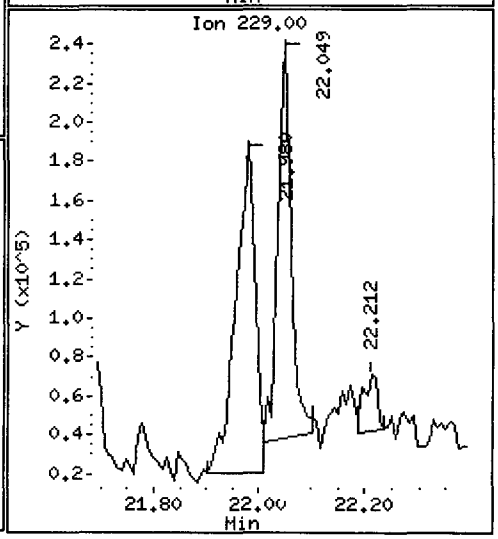












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

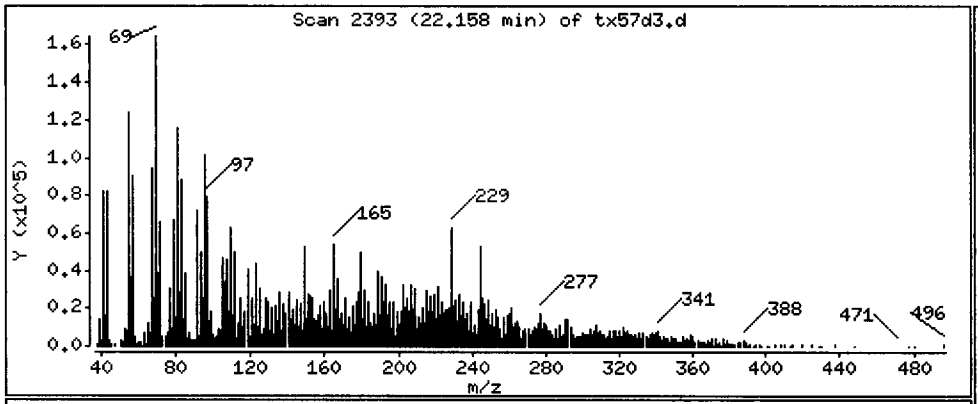
Client ID: SD0015 Instrument: nt10.i

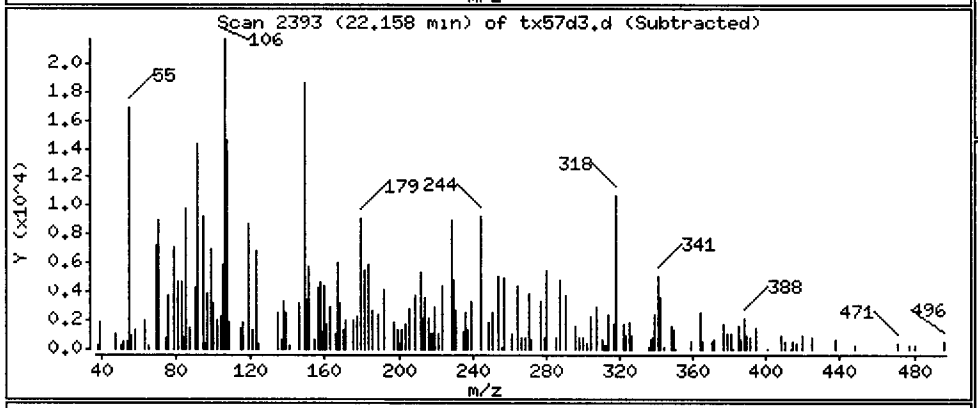
Sample Info: TX57D,3

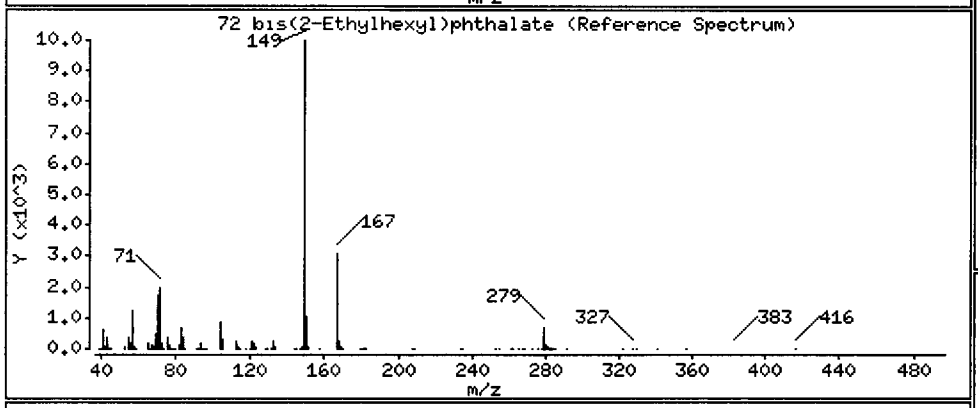
Volume Injected (uL): 1.0 Operator: YZ

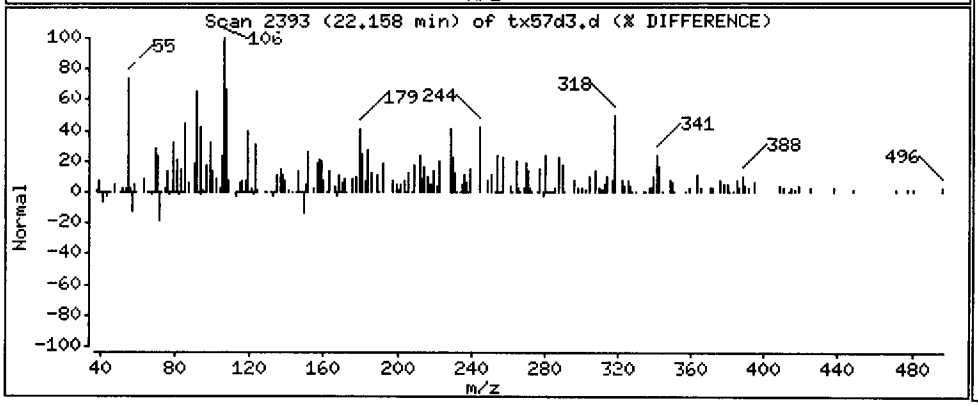
Column phase: ZB-5msi Column diameter: 0.25

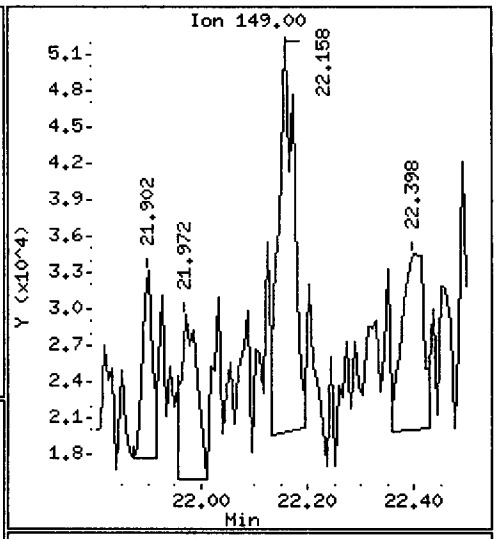
72 bis(2-Ethylhexyl)phthalate Concentration: 92.28 ug/kg

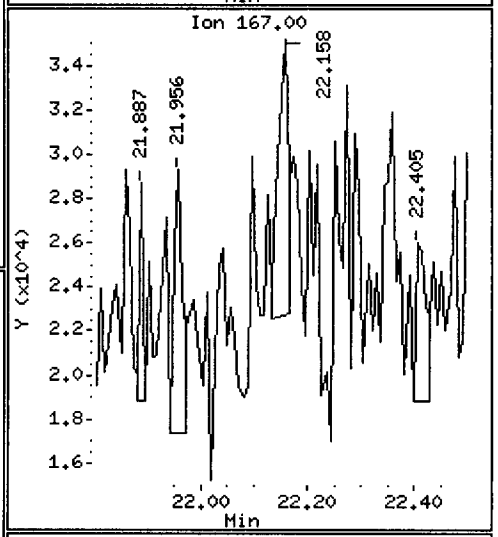


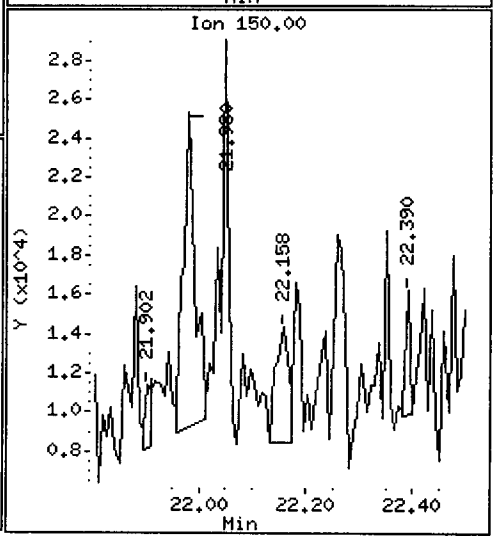












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

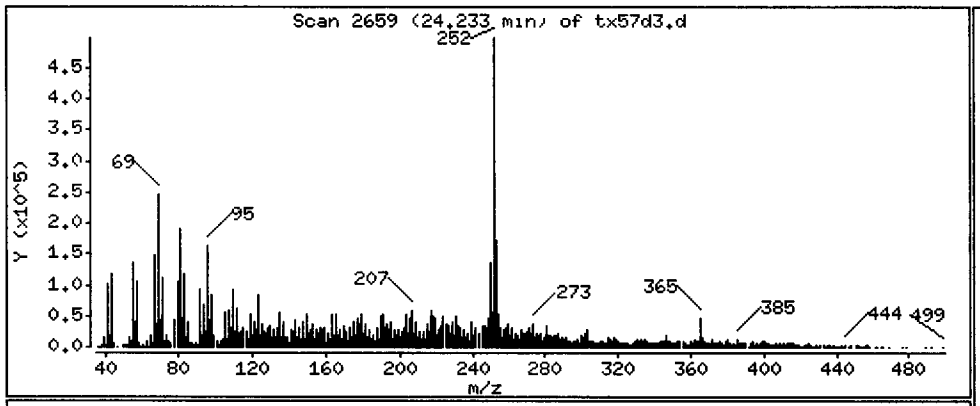
Client ID: SD0015 Instrument: nt10.i

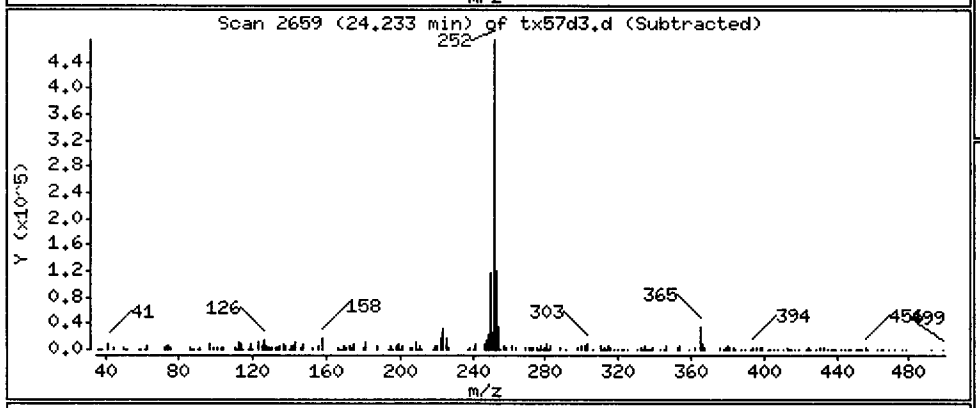
Sample Info: TX57D,3

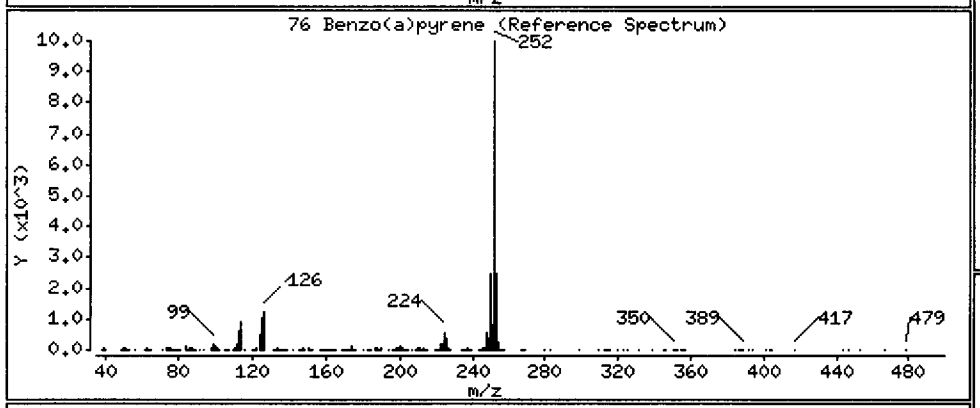
Volume Injected (uL): 1.0 Operator: YZ

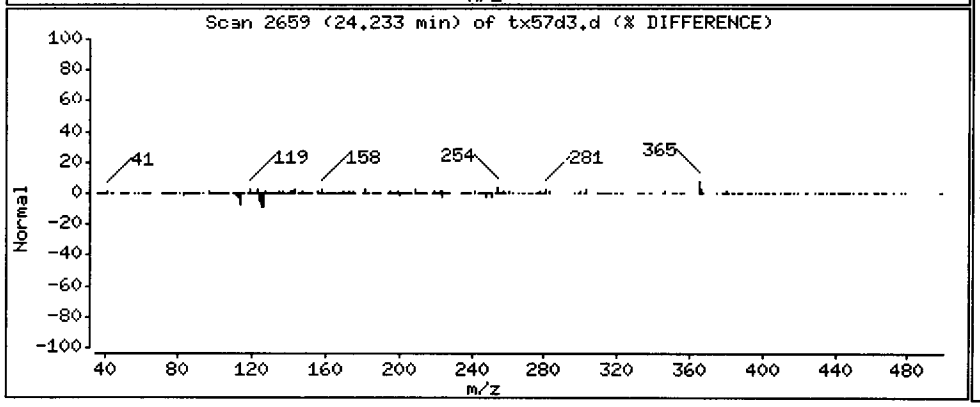
Column phase: ZB-5ms1 Column diameter: 0.25

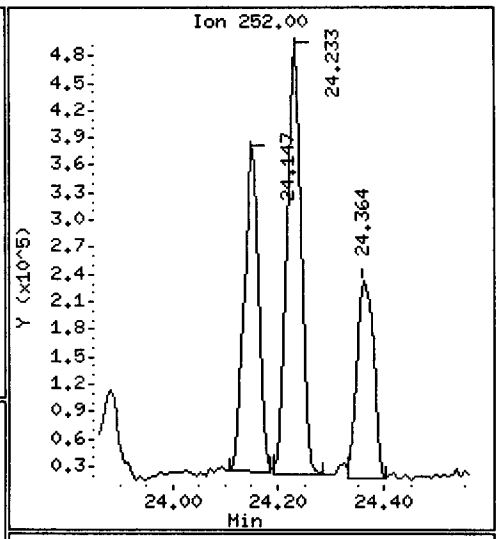
76 Benzo(a)pyrene Concentration: 609.4 ug/kg

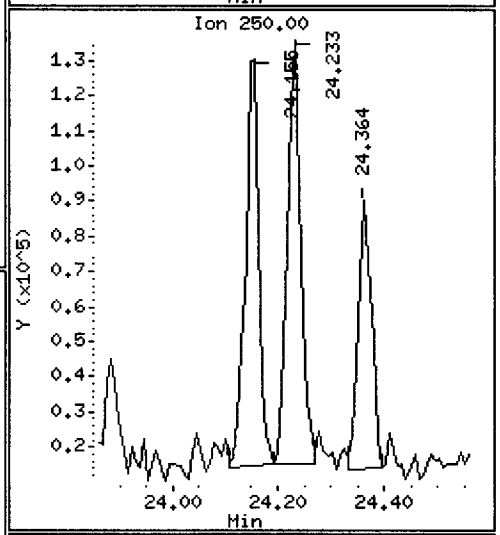


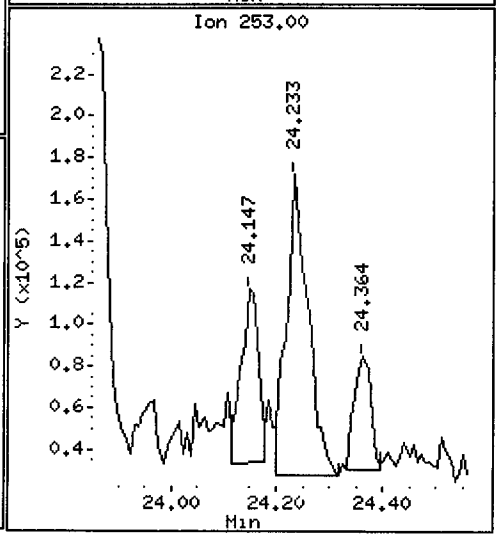












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

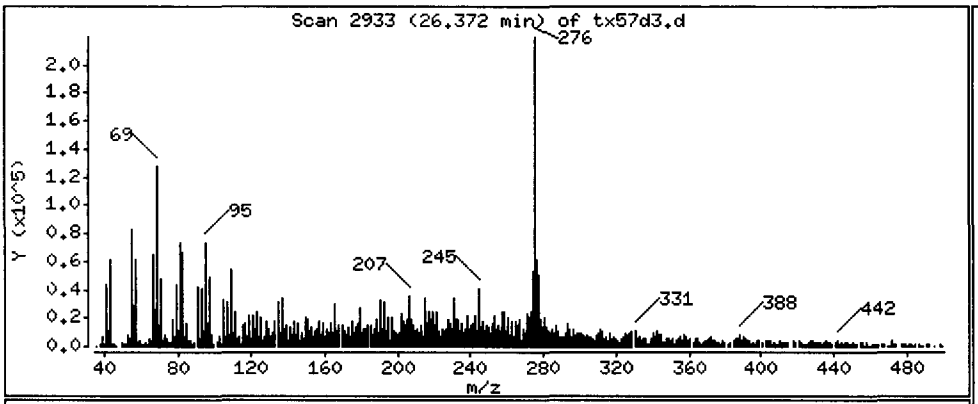
Client ID: SD0015 Instrument: nt10.i

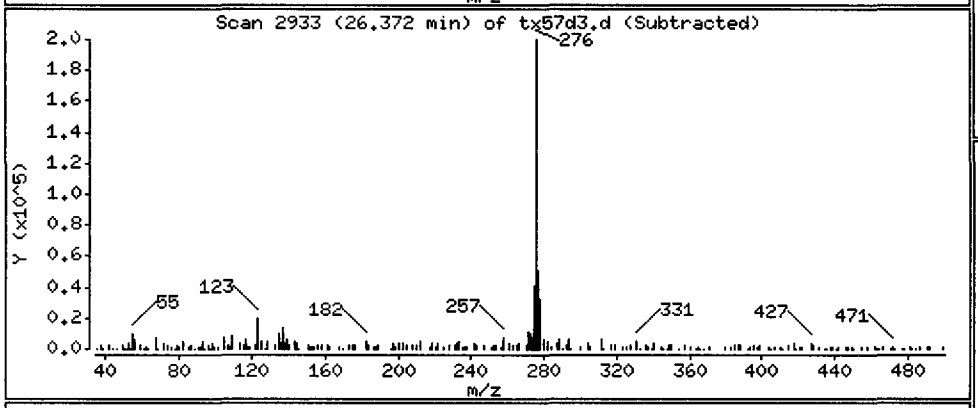
Sample Info: TX57D,3

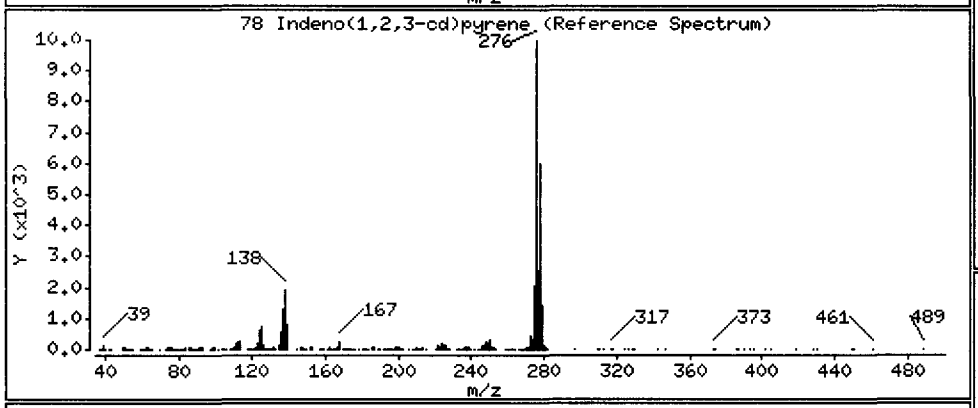
Volume Injected (uL): 1.0 Operator: YZ

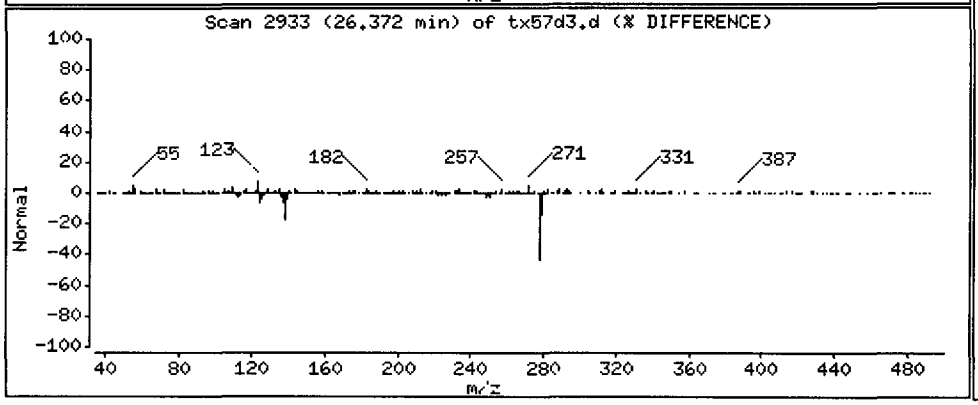
Column phase: ZB-5ms Column diameter: 0.25

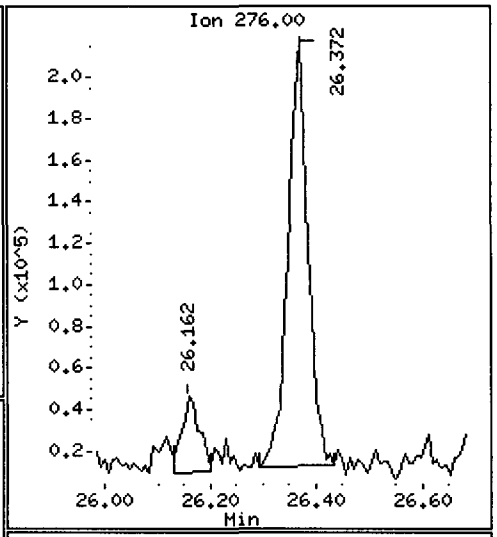
78 Indeno(1,2,3-cd)pyrene Concentration: 277.0 ug/kg

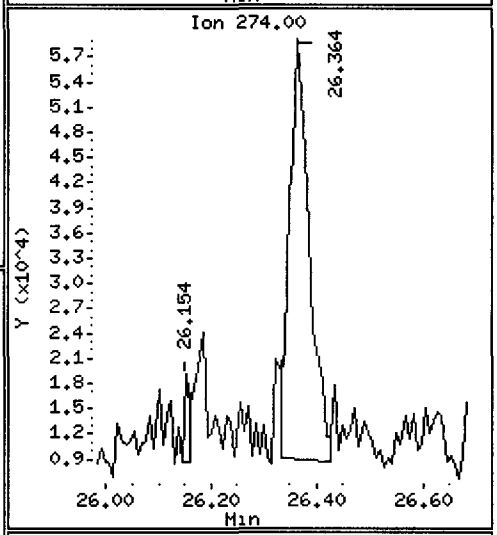


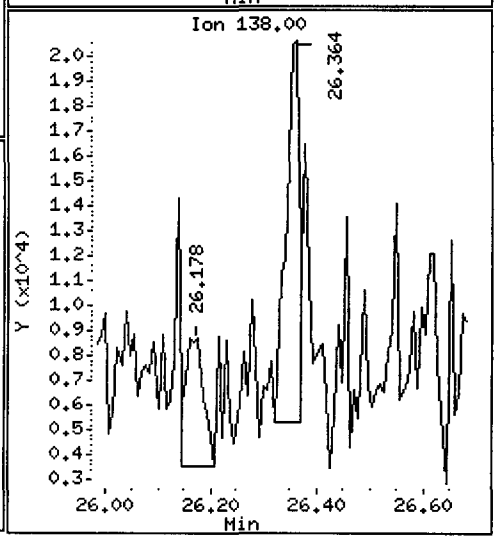












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

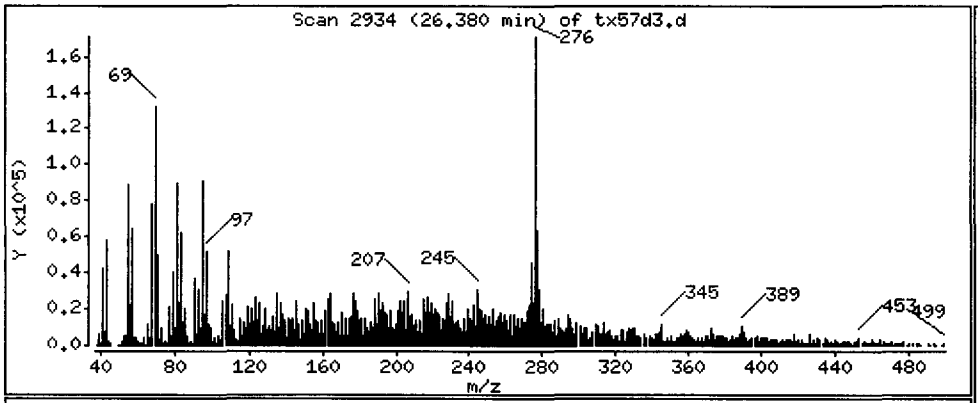
Client ID: SD0015 Instrument: nt10.i

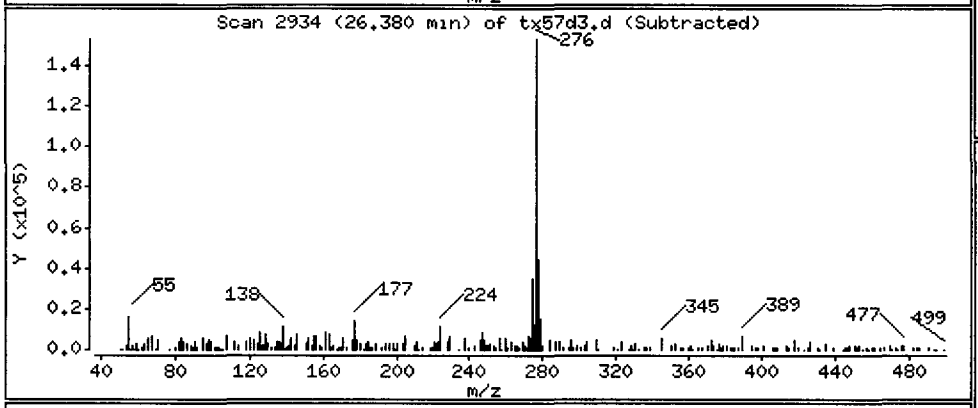
Sample Info: TX57D,3

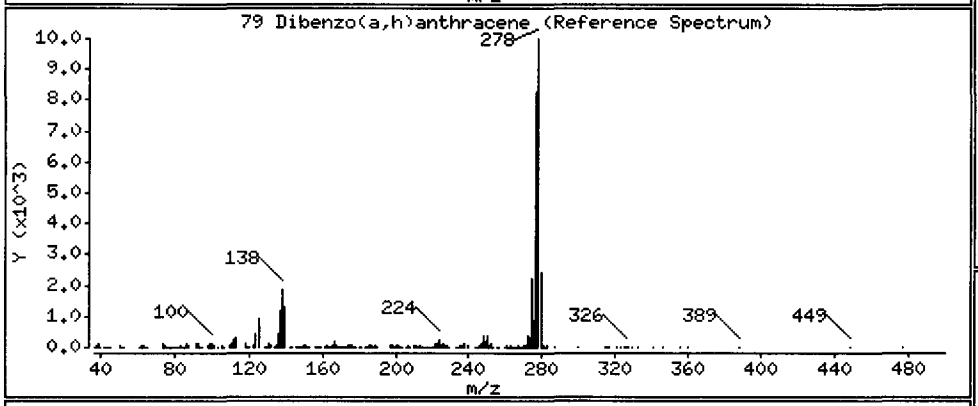
Volume Injected (uL): 1.0 Operator: YZ

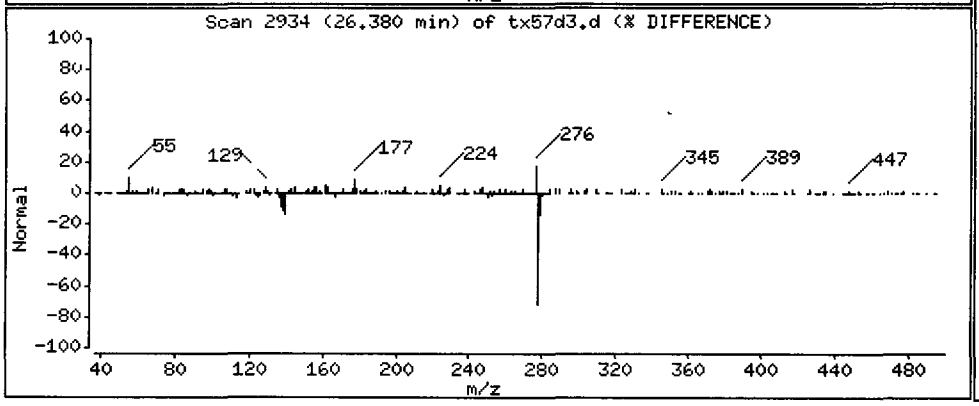
Column phase: ZB-5msi Column diameter: 0.25

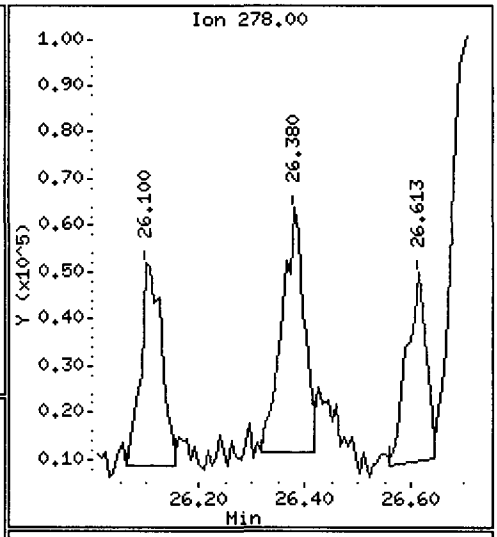
79 Dibenzo(a,h)anthracene Concentration: 92.52 ug/kg

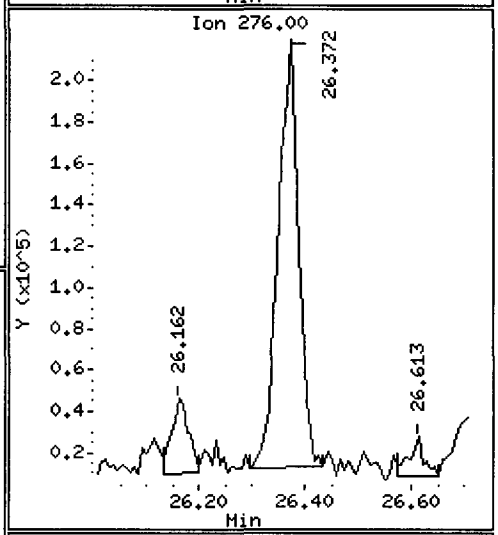


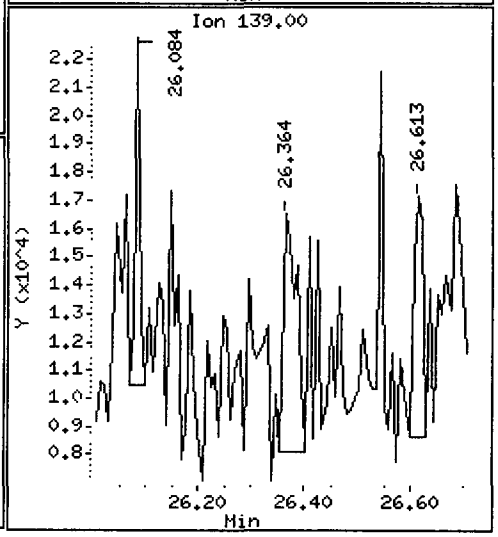












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

Client ID: SD0015

Instrument: nt10.i

Sample Info: TX57D,3

Volume Injected (uL): 1.0

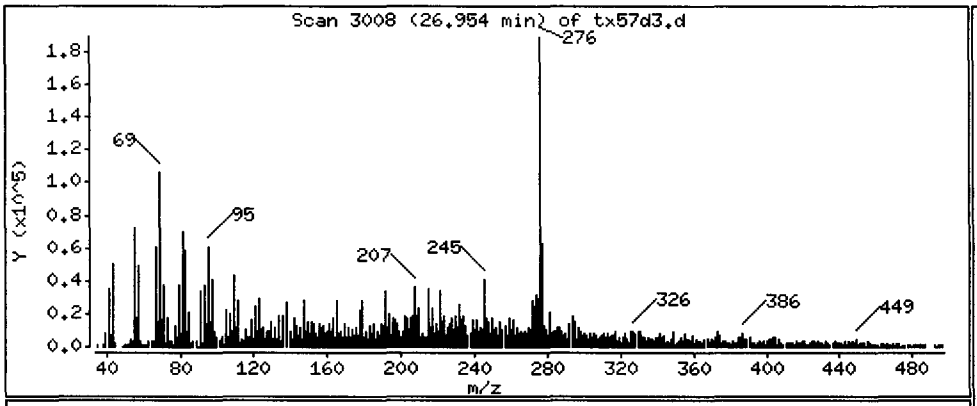
Operator: YZ

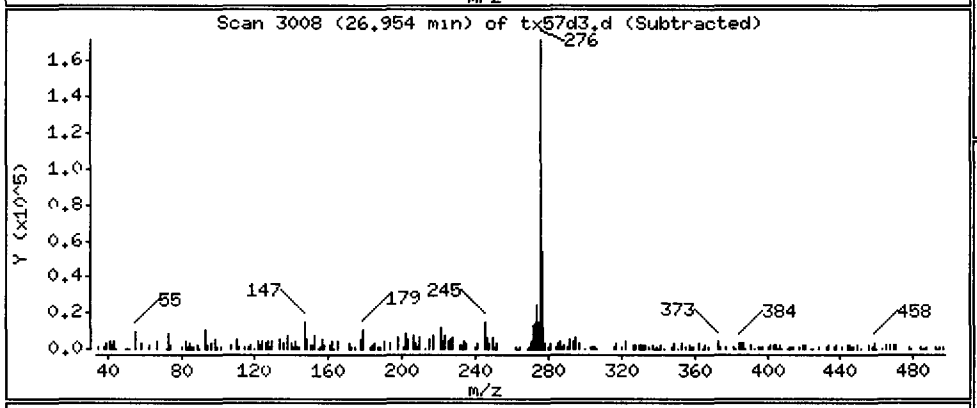
Column phase: ZB-5ms1

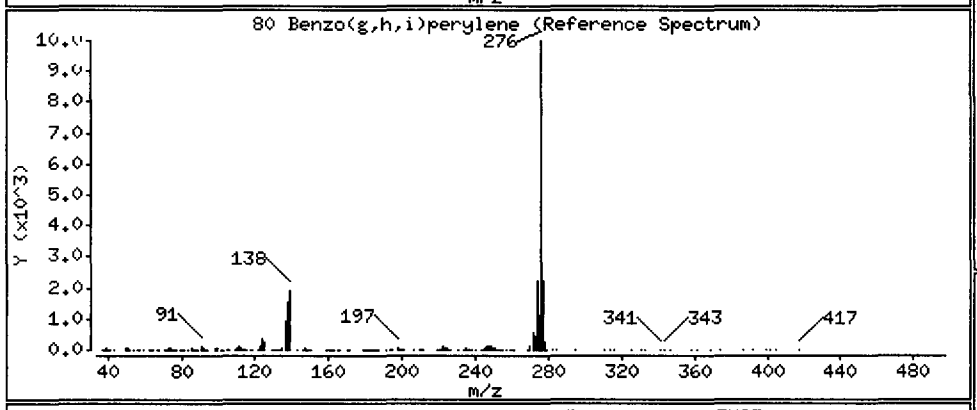
Column diameter: 0.25

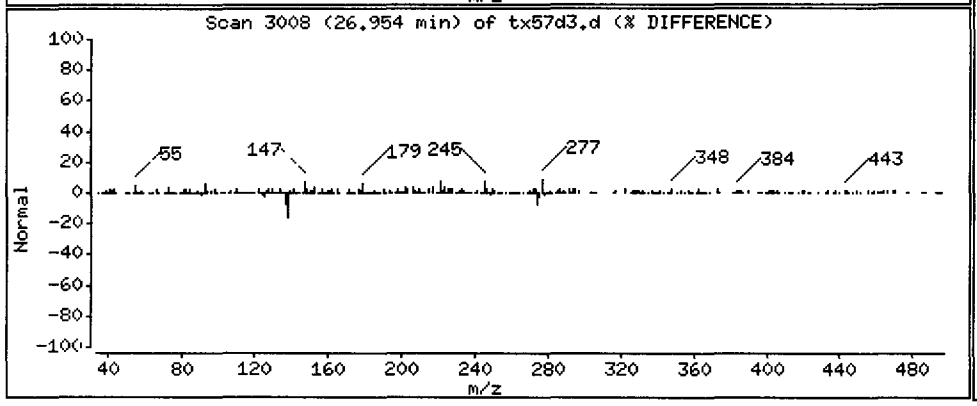
80 Benzo(g,h,i)perylene

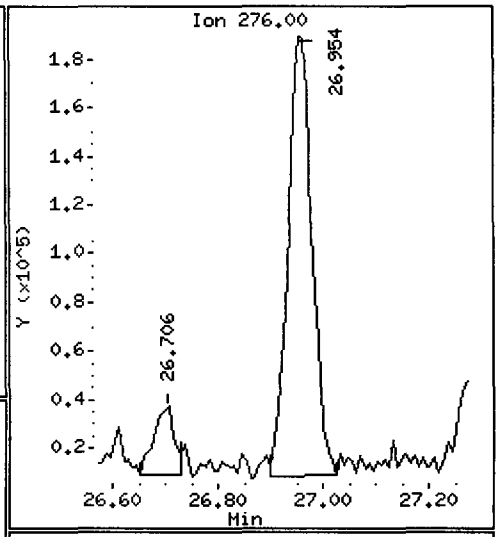
Concentration: 356.5 ug/kg

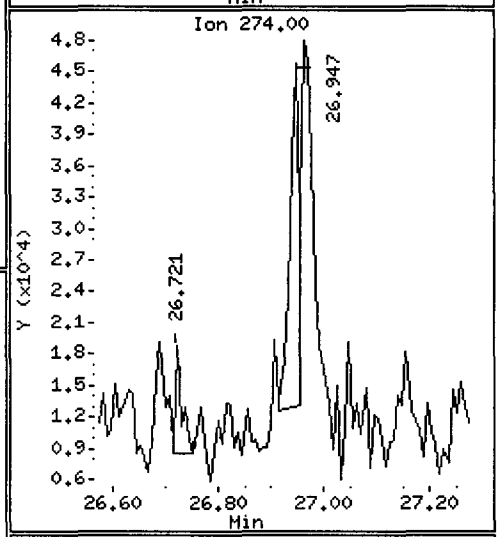


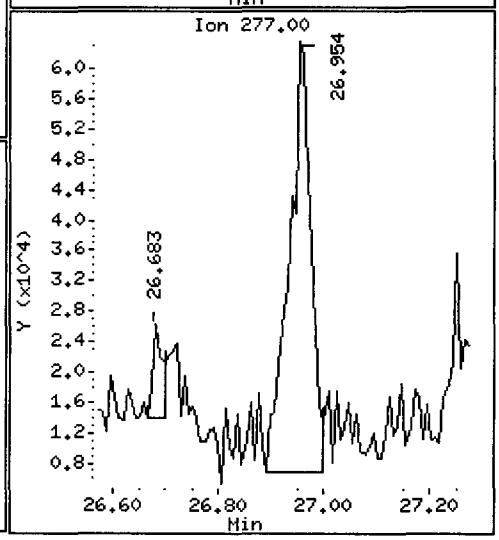












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

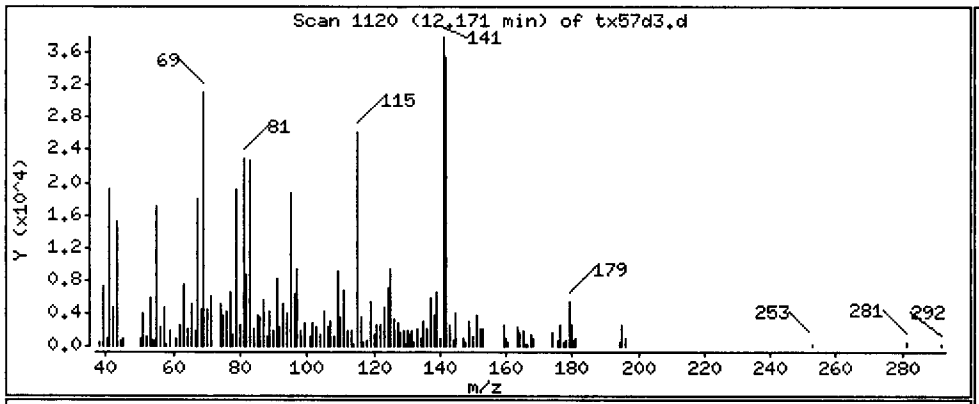
Client ID: SD0015 Instrument: nt10.i

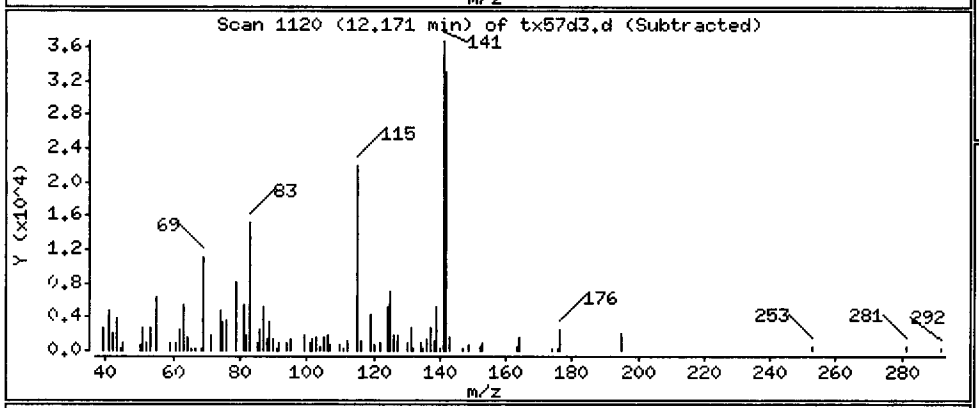
Sample Info: TX57D,3

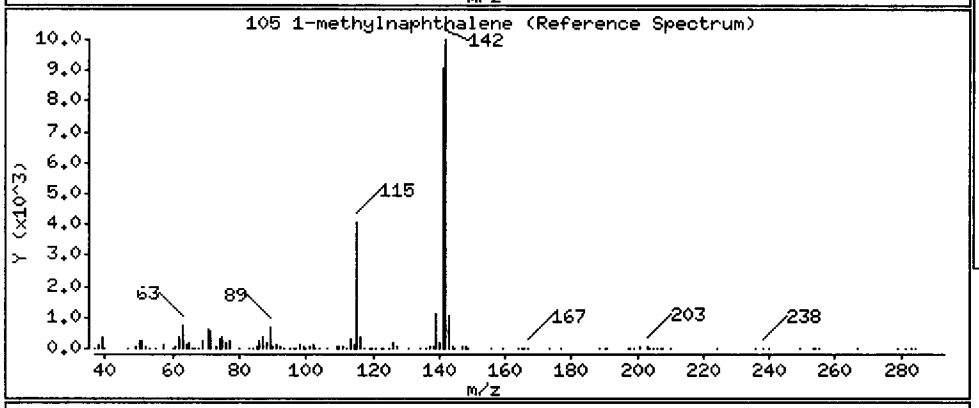
Volume Injected (uL): 1.0 Operator: YZ

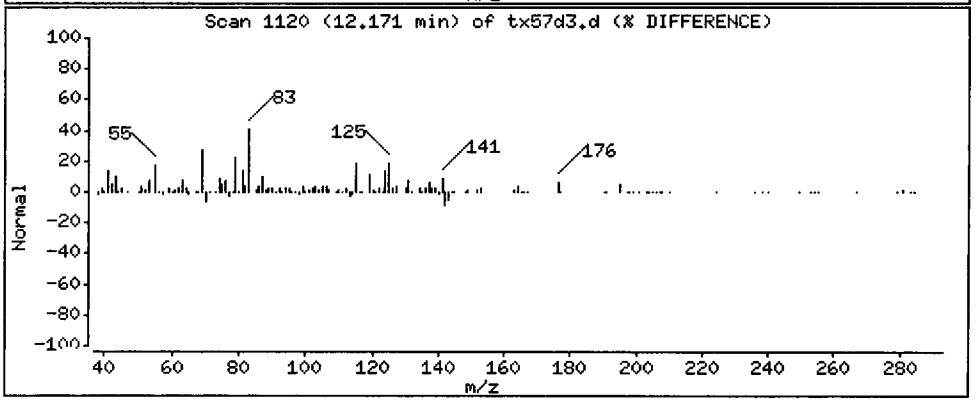
Column phase: ZB-5ms1 Column diameter: 0.25

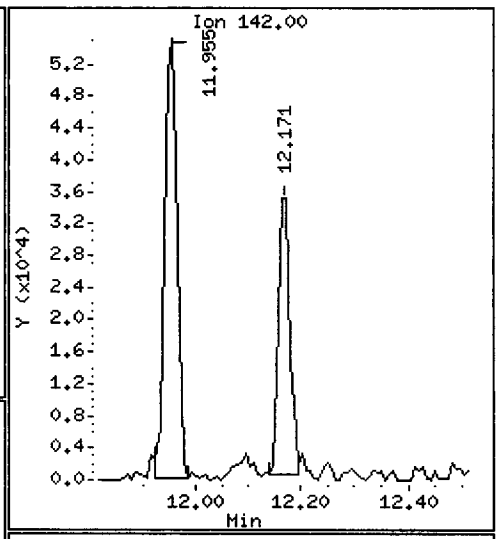
105 1-methylnaphthalene Concentration: 110.8 ug/kg

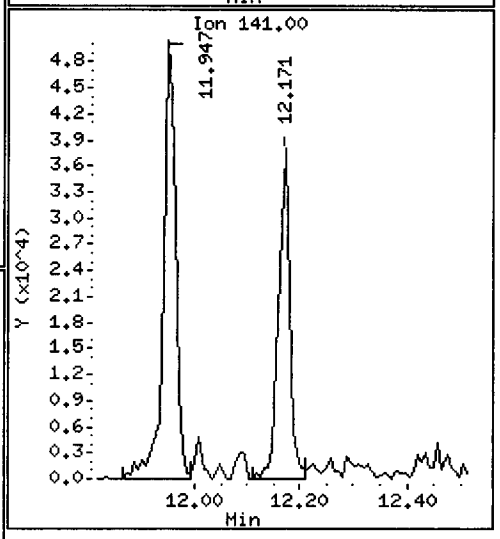












Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

Client ID: SD0015

Instrument: nt10.i

Sample Info: TX57D.3

Volume Injected (uL): 1.0

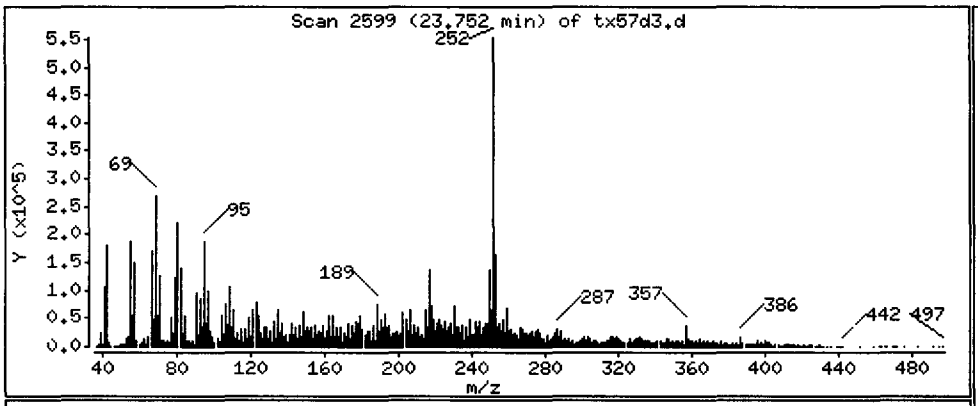
Operator: YZ

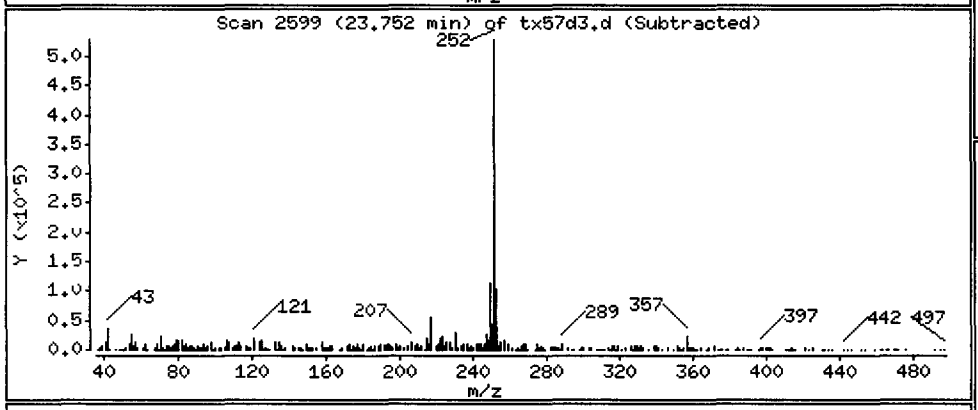
Column phase: ZB-5msi

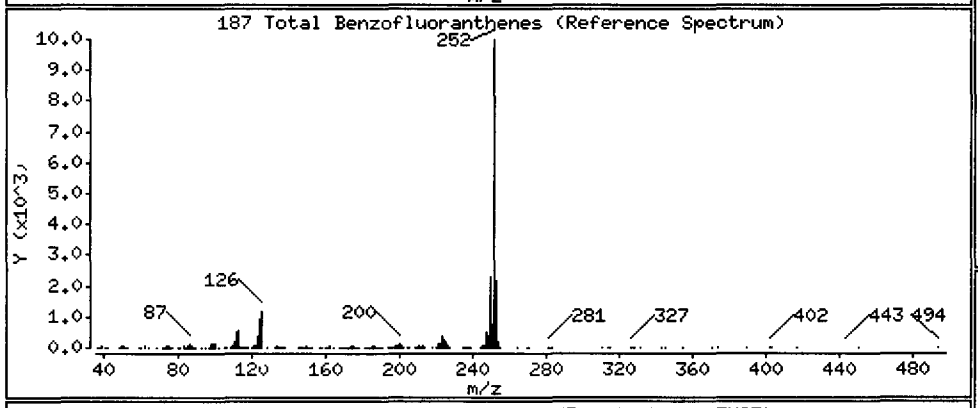
Column diameter: 0.25

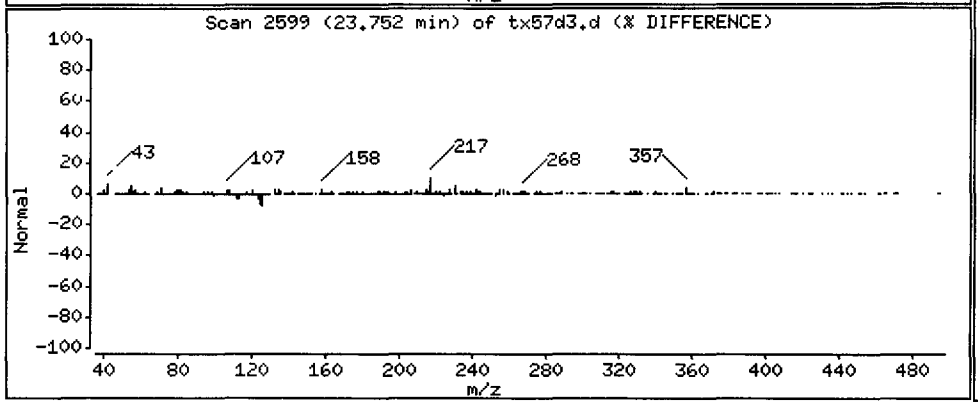
187 Total Benzofluoranthenes

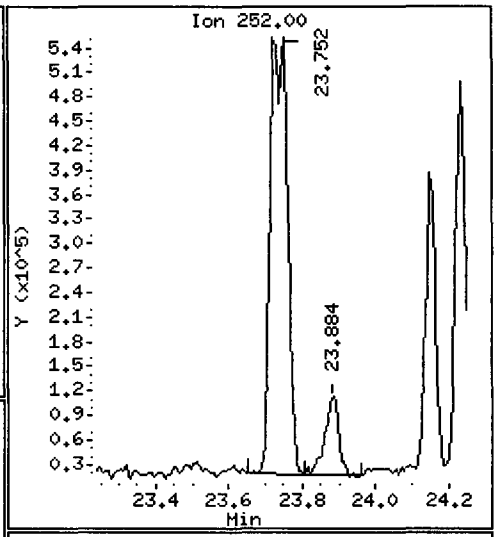
Concentration: 1044 ug/kg

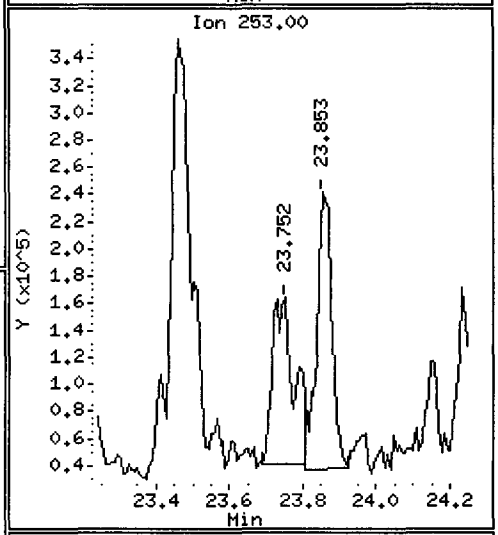


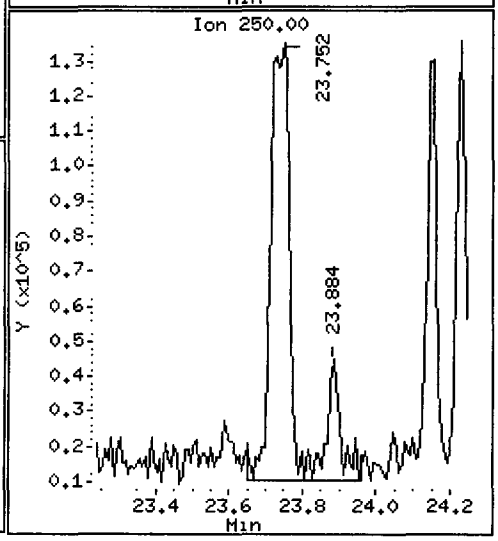












TX57 00944

Data File: /chem1/nt10.i/20111207.b/tx57d3.d

Date : 07-DEC-2011 12:33

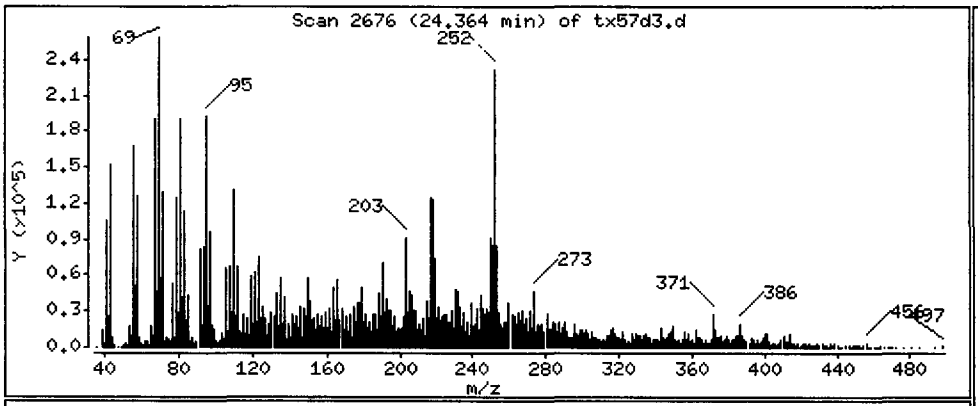
Client ID: SD0015 Instrument: nt10.1

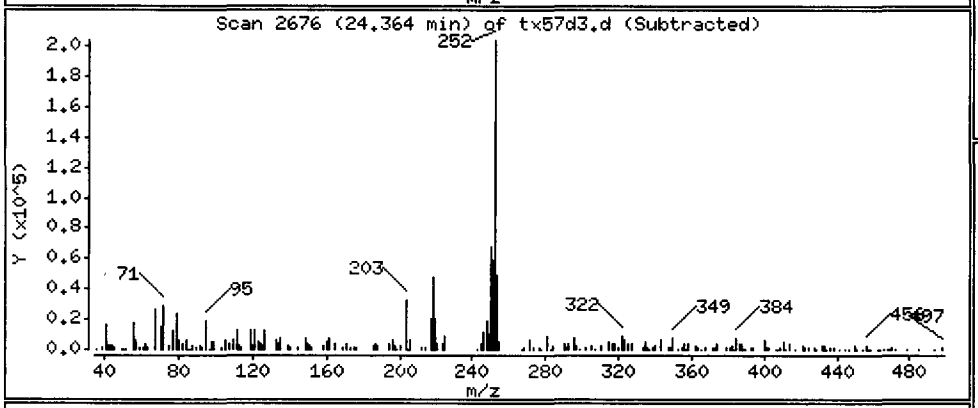
Sample Info: TX57D,3

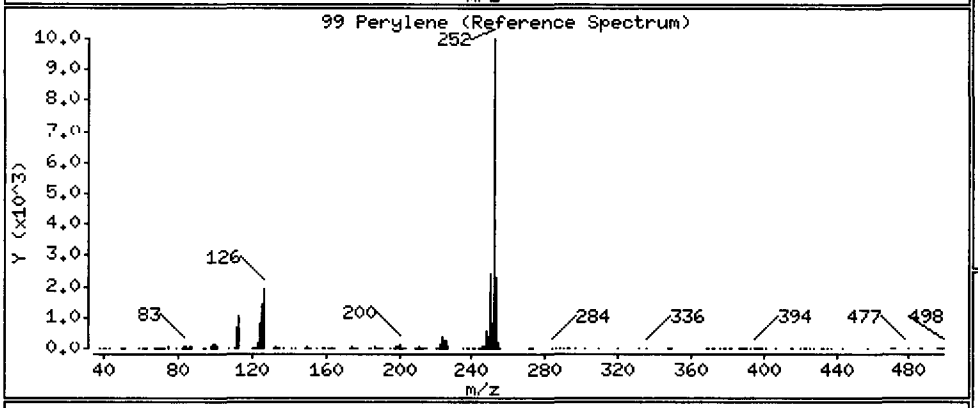
Volume Injected (uL): 1.0 Operator: YZ

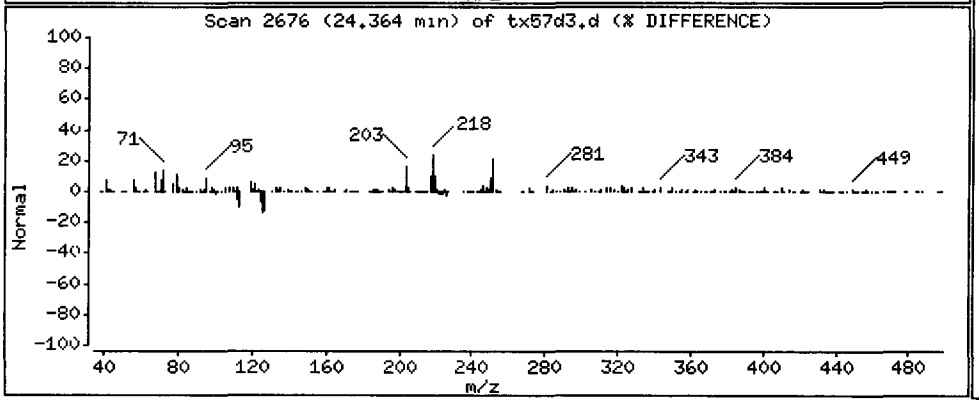
Column phase: ZB-5ms1 Column diameter: 0.25

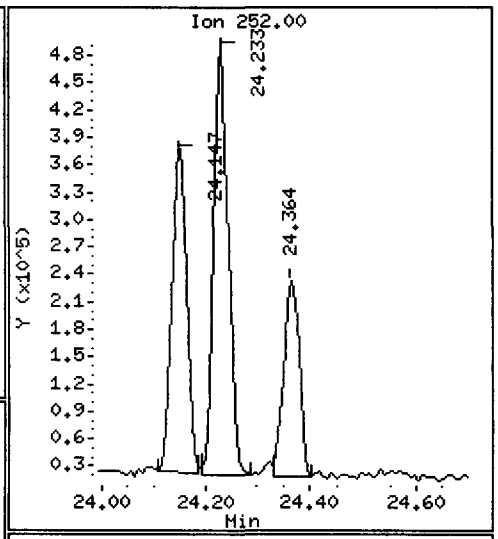
99 Perylene Concentration: 312.7 ug/kg

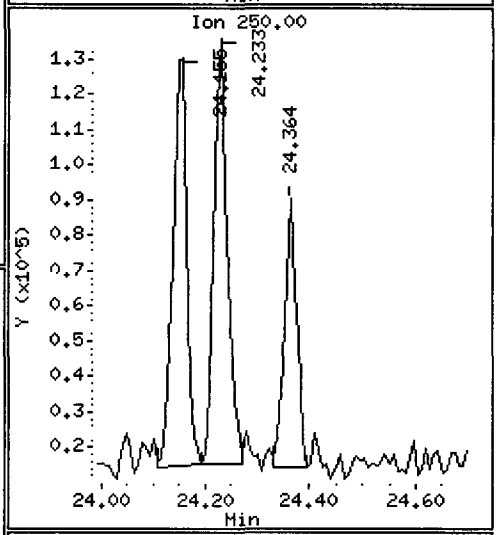


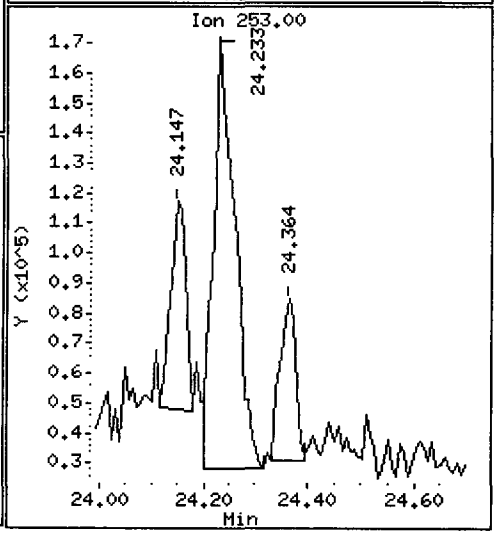






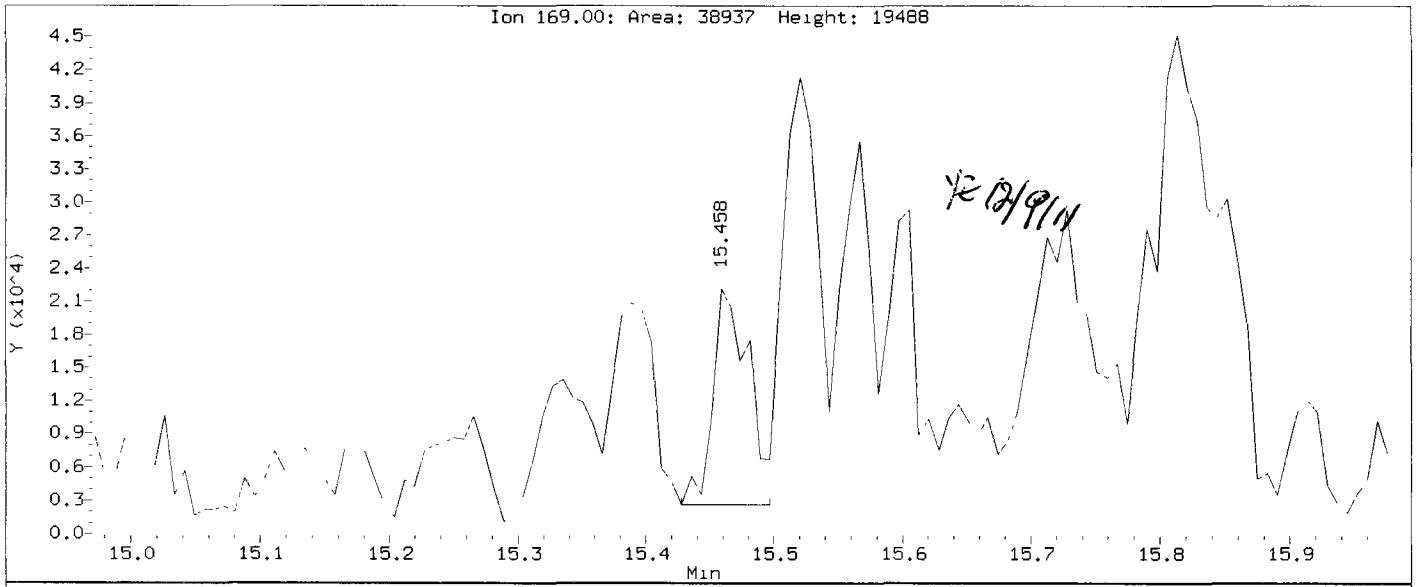


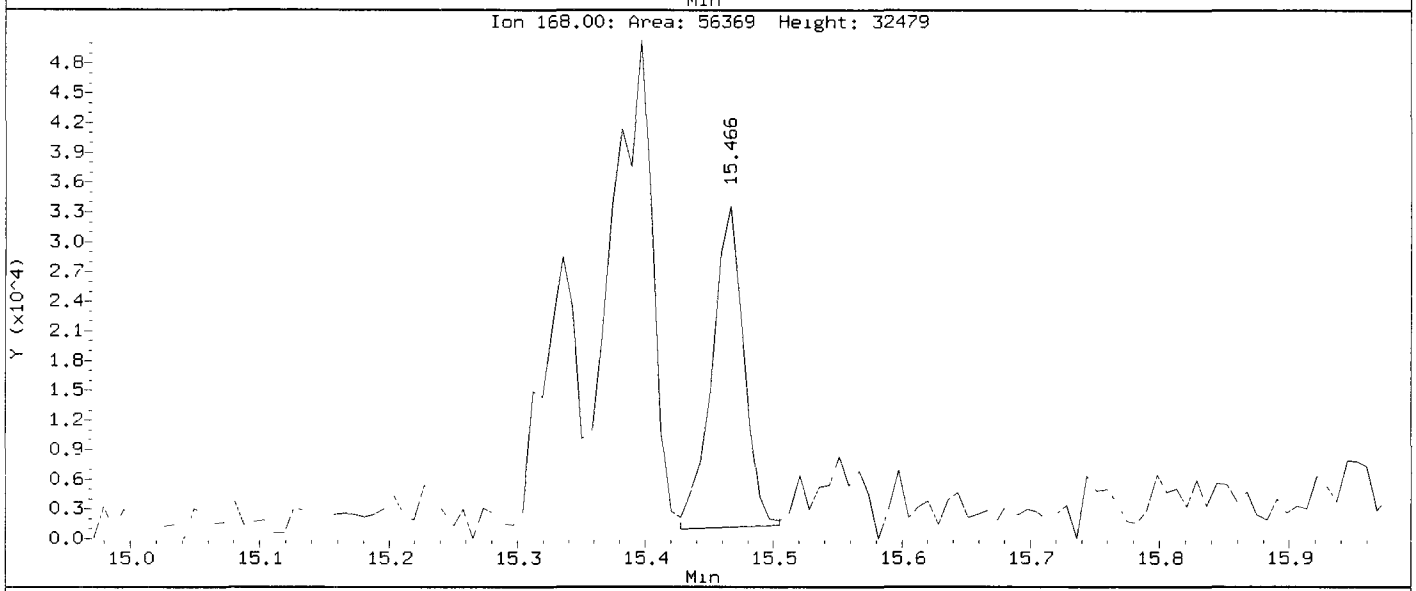


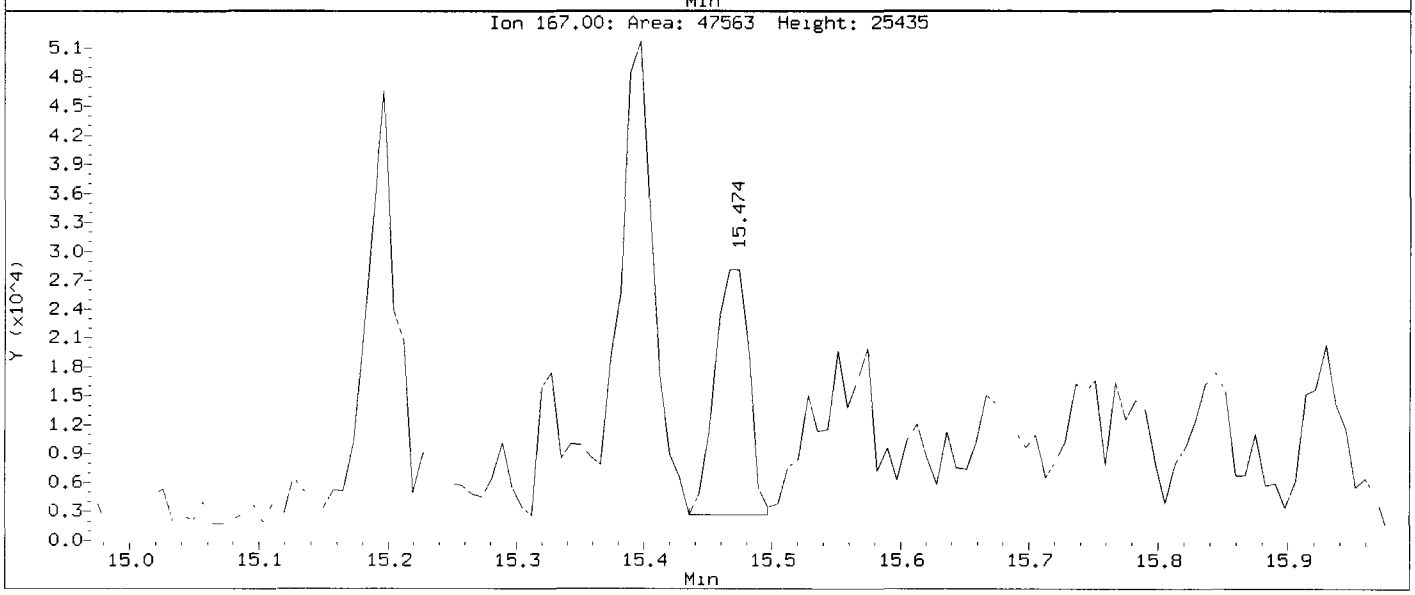


Data File: /chem1/nt10.i/20111207.b/tx57d3.d
Injection Date: 07-DEC-2011 12:33
Instrument: nt10.i
Client Sample ID: SD0015

Compound: N-Nitrosodiphenylamine
CAS Number: 86-30-6

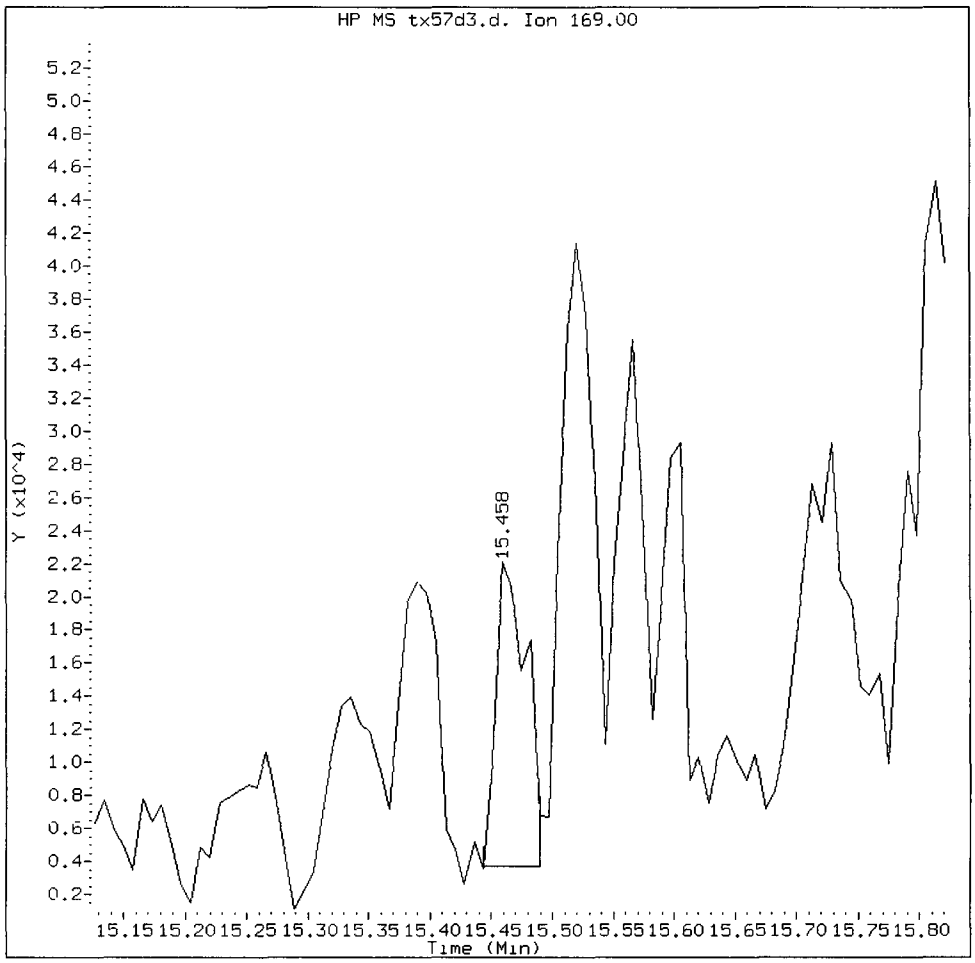






TX57D, /chem1/nt10.i/20111207.b/tx57d3.d

N-Nitrosodiphenylamine Amount: 0.23 Area: 33544



MANUAL INTEGRATION for N-Nitrosodiphenylamine

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VZ Date: 12/9/11

CO-ELUTION SUMMARY FOR FILE - tx57d3.d

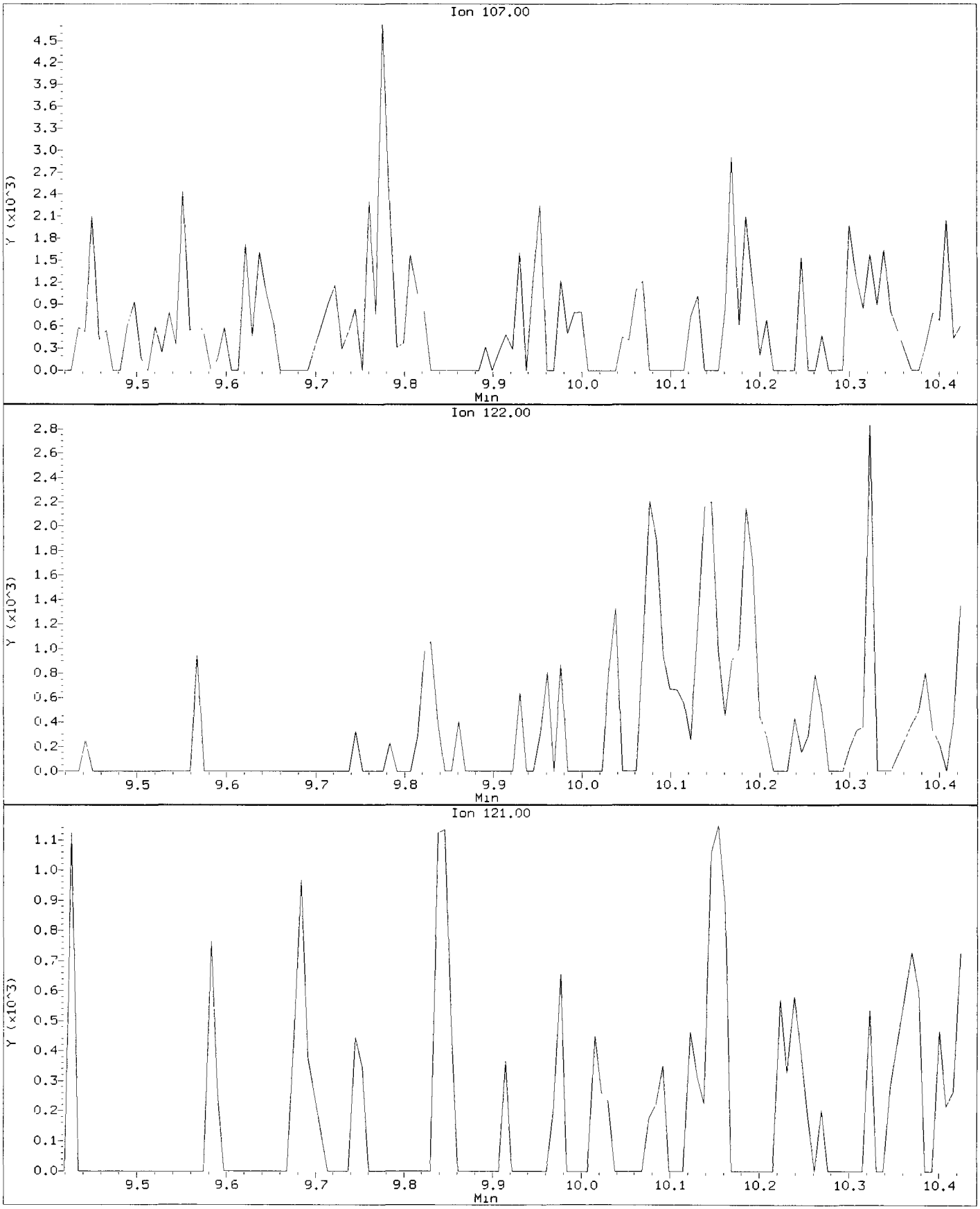
Lab ID: TX57D, Method: ABN.m, Instrument: nt10.i, Date: 07-DEC-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

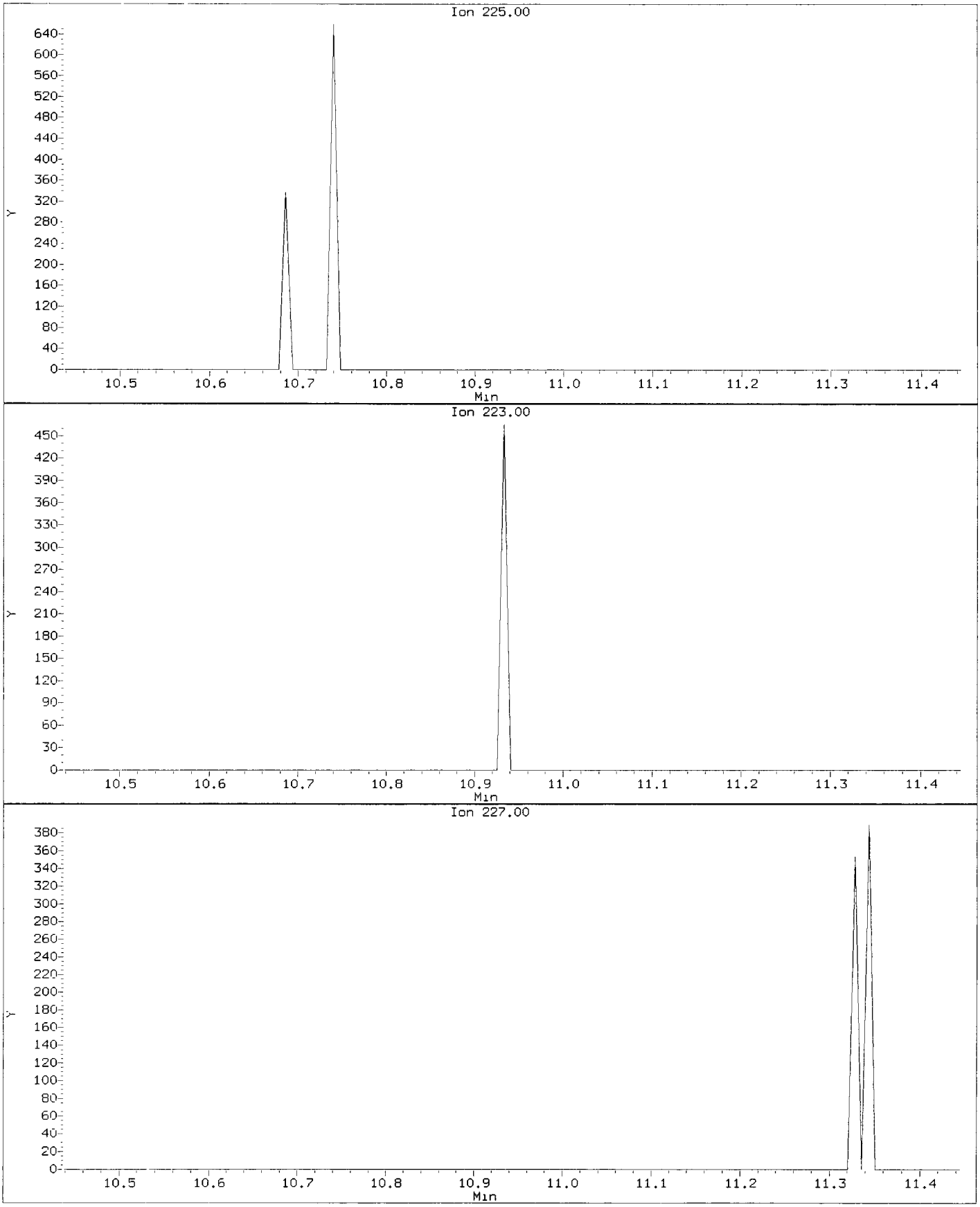
Data File: /chem1/nt10.1/20111207.b/tx57d3.d
Injection Date: 07-DEC-2011 12:33
Instrument: nt10.1
Client Sample ID: SD0015

Compound: 2.4-Dimethylphenol
CAS Number: 105-67-9



Data File: /chem1/nt10.1/20111207.b/tx57d3.d
Injection Date: 07-DEC-2011 12:33
Instrument: nt10.1
Client Sample ID: SD0015

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111207.b/tx57l3.d
Lab Smp Id: TX57L Client Smp ID: SD0023
Inj Date : 07-DEC-2011 13:07
Operator : YZ Inst ID: nt10.i
Smp Info : TX57L,3
Misc Info : 11-26630
Comment : 1ul Injection
Method : /chem1/nt10.i/20111207.b/ABN.m
Meth Date : 09-Dec-2011 09:11 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 3
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

YZ 12/9/11

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

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	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)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	5.951	5.935	(0.736)	66217	1.37241	411.7
$ 2	Phenol-d5	99	7.535	7.520	(0.932)	106628	1.72079	516.2
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.736	7.728	(0.957)	91224	1.62683	488.0
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.084	8.077	(1.000)	197318	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.434	8.426	(1.043)	55743	1.14565	343.7
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.171	9.155	(0.871)	87992	1.09392	328.2
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.531	10.516	(1.000)	756736	4.00000	
	28 Naphthalene	128	10.570	10.554	(1.004)	34156	0.18642 J	55.93
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	11.955	11.947	(1.135)	38689	0.28145	84.43
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.752	12.744	(0.904)	250344	1.19836	359.5
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.106	14.090	(1.000)	577825	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.168	14.152	(1.004)	222160	1.46587	439.8
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.492	14.485	(1.027)	238549	0.98171	294.5
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.126	15.126	(1.072)	21508	0.10819 J	32.46
	49 Fluorene	166	15.204	15.188	(1.078)	355129	1.85529	556.6
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.736	15.728	(1.116)	69208	1.35959	407.9
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.112	17.096	(1.000)	1104934	4.00000	
	60 Phenanthrene	178	17.158	17.142	(1.003)	2028162	7.13062	2139
	61 Anthracene	178	17.243	17.235	(1.008)	206395	0.72035	216.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	17.591	17.583	(1.028)	42110	0.19560	58.68
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	19.464	19.448	(1.137)	2599289	6.63174	1990
65	Pyrene	202	19.858	19.850	(0.902)	1847837	4.95214	1486
$ 66	Terphenyl-d14	244	20.191	20.175	(0.917)	378973	1.23234	369.7
67	Butylbenzylphthalate	149	21.120	21.112	(0.960)	24941	0.18368 J	55.10
68	Benzo(a)anthracene	228	21.979	21.972	(0.999)	623914	1.48578	445.7
* 69	Chrysene-d12	240	22.010	21.995	(1.000)	1542944	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.049	22.041	(1.002)	616795	1.62865	488.6
72	bis(2-Ethylhexyl)phthalate	149	22.157	22.150	(0.958)	25304	0.13283 J	39.85
* 134	Di-n-octylphthalate-d4	153	23.133	23.125	(1.000)	1339525	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	23.721	23.706	(0.975)	491766	0.98560 MFB	295.7
75	Benzo(k)fluoranthene	252	23.745	23.744	(0.976)	593256	1.14728	344.2(M)
76	Benzo(a)pyrene	252	24.217	24.209	(0.996)	388112	0.94734	284.2
* 77	Perylene-d12	264	24.318	24.302	(1.000)	1638058	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.341	26.333	(1.083)	267326	0.47883	143.6
79	Dibenzo(a,h)anthracene	278	26.364	26.356	(1.084)	71175	0.15238 J	45.71(M)
80	Benzo(g,h,i)perylene	276	26.931	26.923	(1.107)	259400	0.55218	165.7
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	12.179	12.163	(1.156)	40144	0.28449	85.35
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	23.721	23.744	(0.975)	948661	1.97355	592.1
99	Perylene	252	24.356	24.349	(1.002)	117095	0.28957	86.87

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57l3.d
Lab Smp Id: TX57L
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111207.b/ABN.m
Misc Info: 11-26630

Calibration Date: 07-DEC-2011
Calibration Time: 11:59
Client Smp ID: SD0023
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	197318	14.15
27 Naphthalene-d8	574010	287005	1148020	756736	31.83
42 Acenaphthene-d10	467963	233982	935926	577825	23.48
59 Phenanthrene-d10	976150	488075	1952300	1104934	13.19
69 Chrysene-d12	1397129	698564	2794258	1542944	10.44
134 Di-n-octylphthala	1264537	632268	2529074	1339525	5.93
77 Perylene-d12	1407308	703654	2814616	1638058	16.40

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.08	7.58	8.58	8.08	0.10
27 Naphthalene-d8	10.52	10.02	11.02	10.53	0.15
42 Acenaphthene-d10	14.09	13.59	14.59	14.11	0.11
59 Phenanthrene-d10	17.10	16.60	17.60	17.11	0.09
69 Chrysene-d12	21.99	21.49	22.49	22.01	0.07
134 Di-n-octylphthala	23.13	22.63	23.63	23.13	0.03
77 Perylene-d12	24.30	23.80	24.80	24.32	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

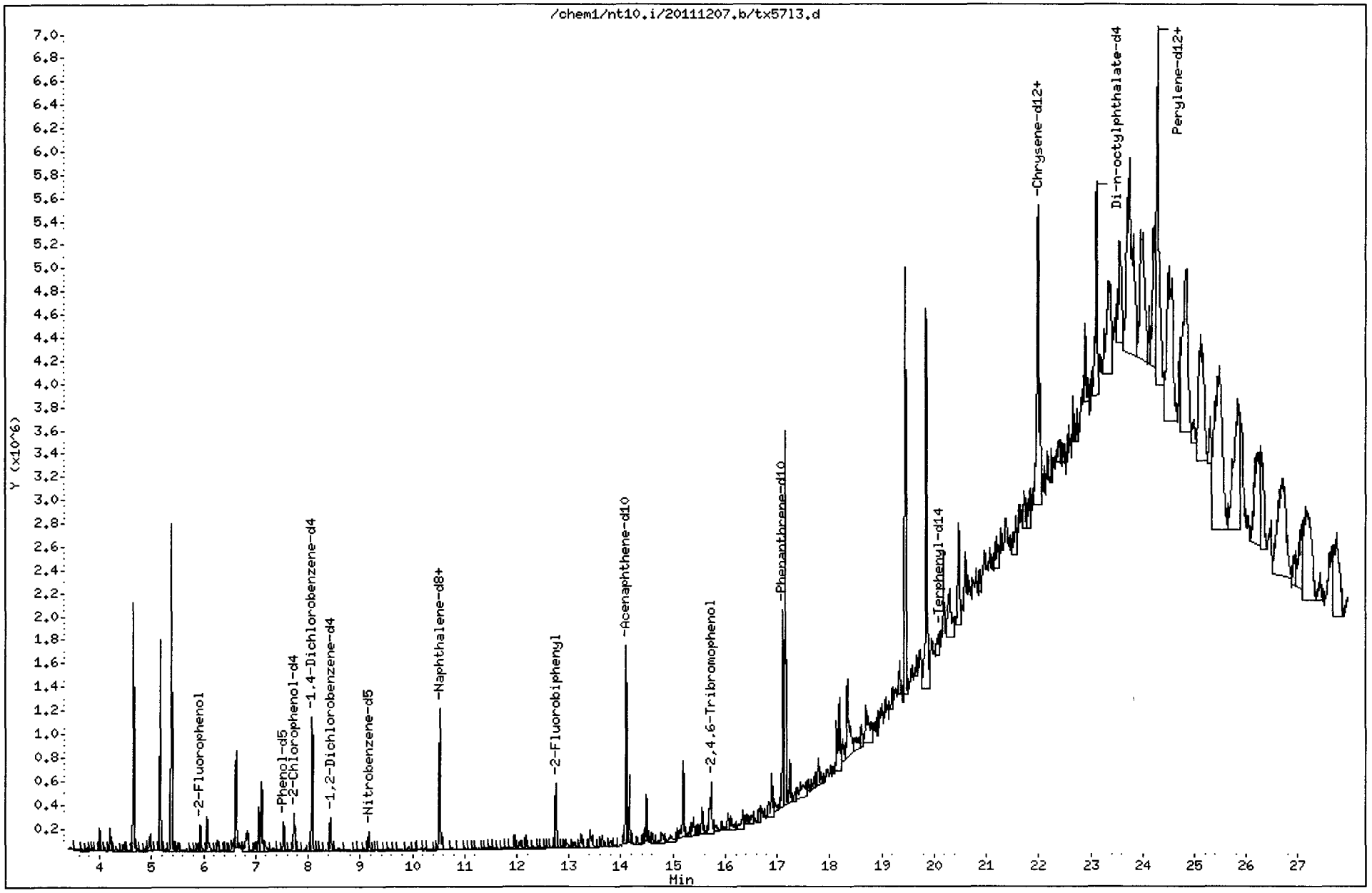
Client Name: INTEGRAL
Sample Matrix: SOLID
Lab Smp Id: TX57L
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111207.b/ABN.m
Misc Info: 11-26630

Client SDG: TX57
Fraction: SV
Client Smp ID: SD0023
Operator: YZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.0	411.7	54.90	30-160
$ 2 Phenol-d5	750.0	516.2	68.83	30-160
$ 5 2-Chlorophenol-d4	750.0	488.0	65.07	30-160
$ 10 1,2-Dichlorobenzen	500.0	343.7	68.74	30-160
$ 18 Nitrobenzene-d5	500.0	328.2	65.64	30-160
$ 36 2-Fluorobiphenyl	500.0	359.5	71.90	30-160
$ 55 2,4,6-Tribromophen	750.0	407.9	54.38	30-160
$ 66 Terphenyl-d14	500.0	369.7	73.94	30-160

Data File: /chem1/nt10.i/20111207.b/tx5713.d
Date : 07-DEC-2011 13:07
Client ID: SD0023
Sample Info: TX57L,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

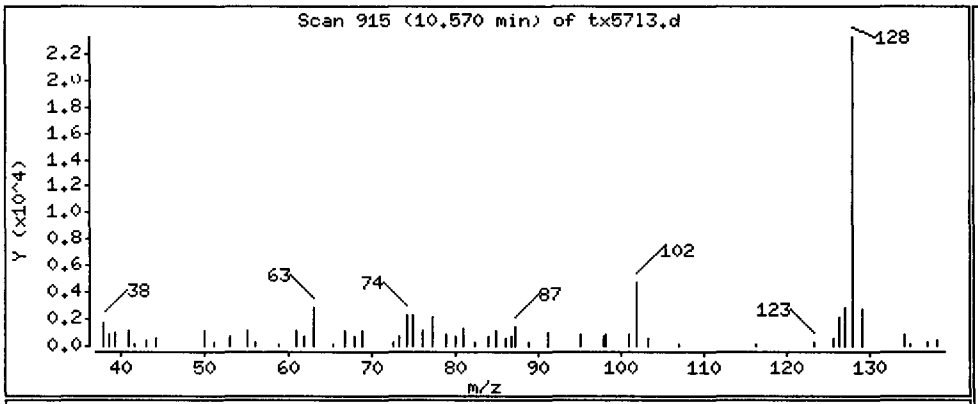
Client ID: SD0023 Instrument: nt10.i

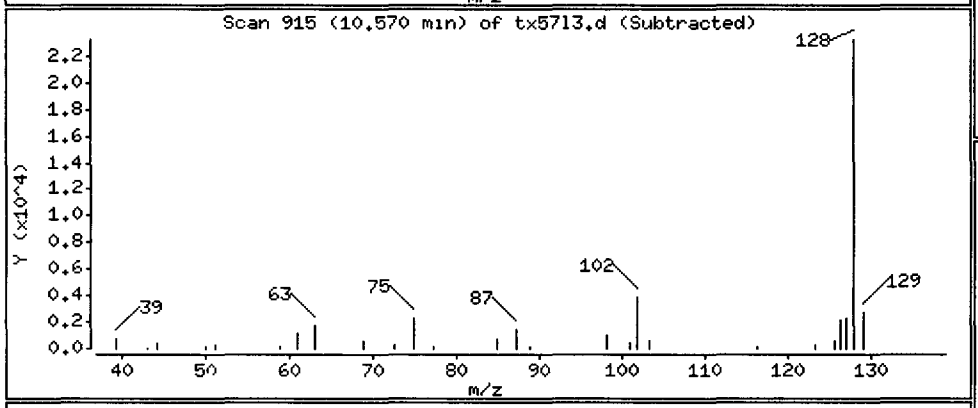
Sample Info: TX57L,3

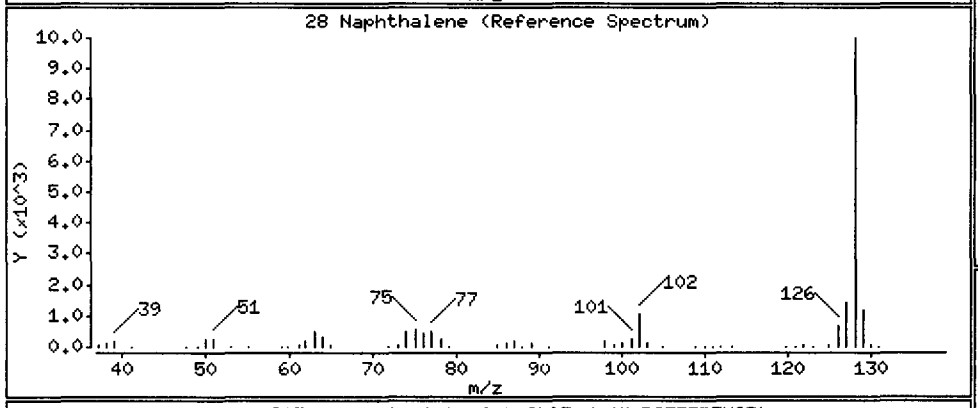
Volume Injected (uL): 1.0 Operator: YZ

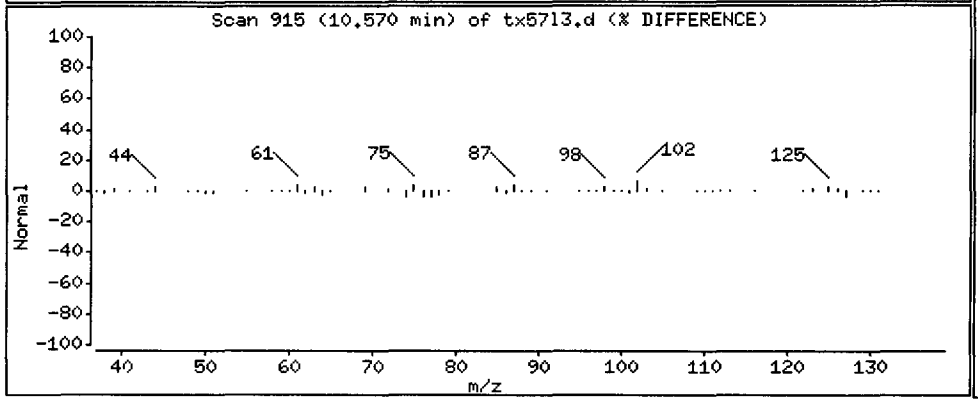
Column phase: ZB-5msi Column diameter: 0.25

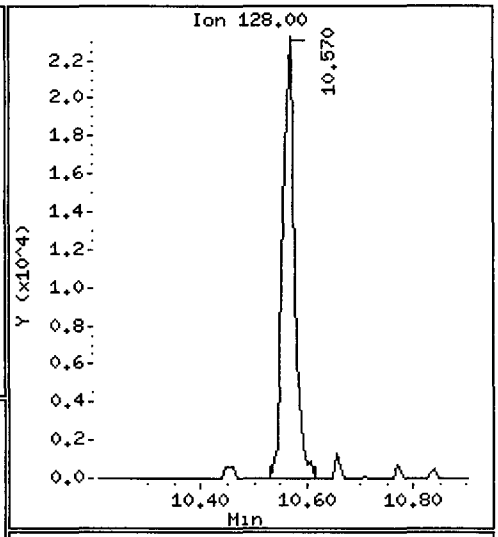
28 Naphthalene Concentration: 55.93 ug/kg

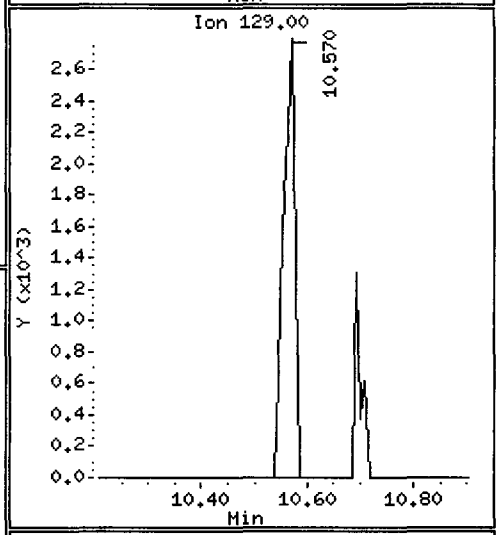


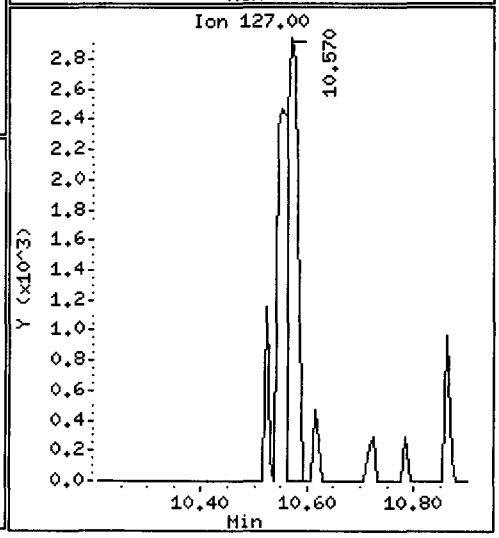












Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

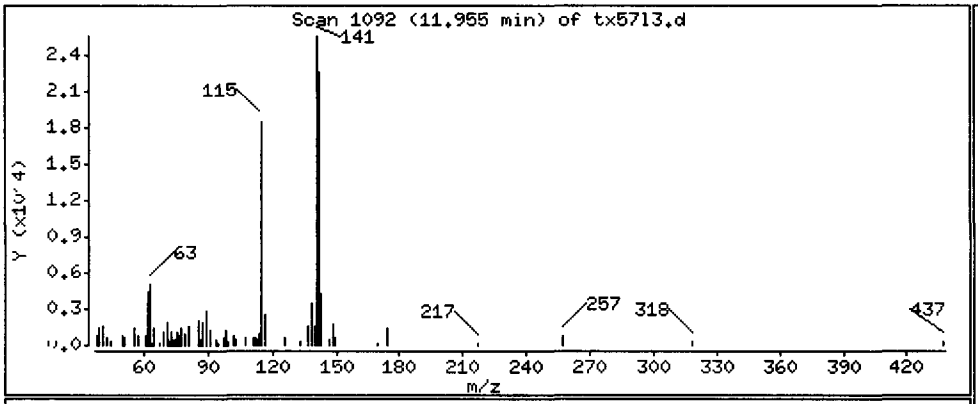
Client ID: SD0023 Instrument: nt10.i

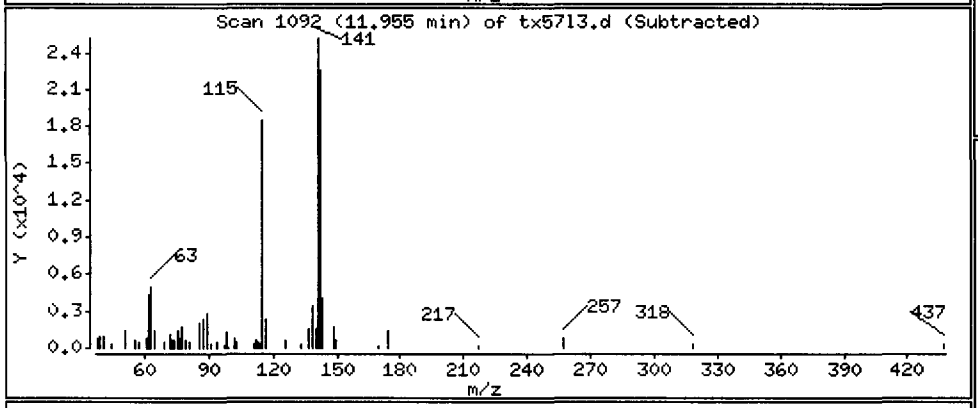
Sample Info: TX57L,3

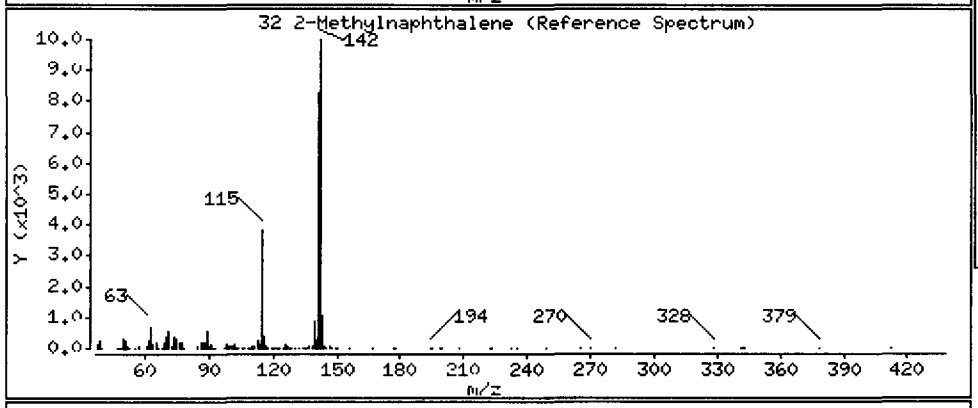
Volume Injected (uL): 1.0 Operator: YZ

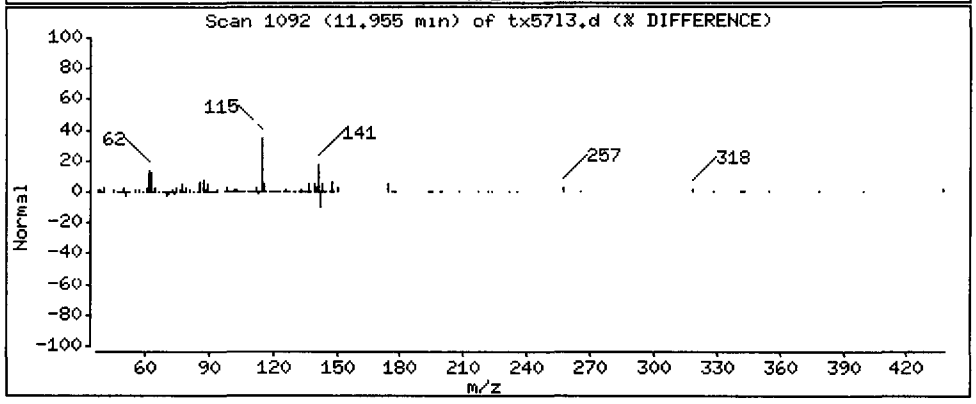
Column phase: ZB-5ms1 Column diameter: 0.25

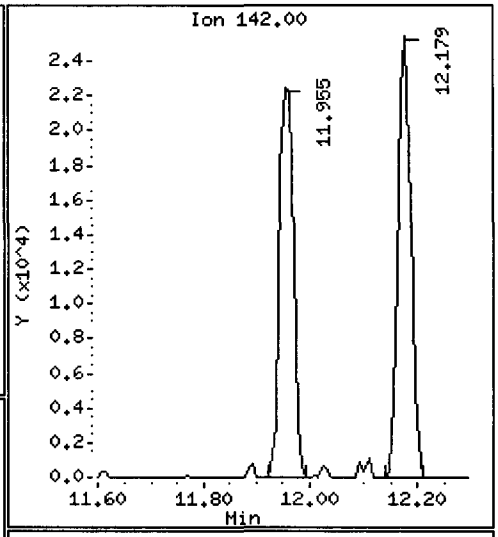
32 2-Methylnaphthalene Concentration: 84.43 ug/kg

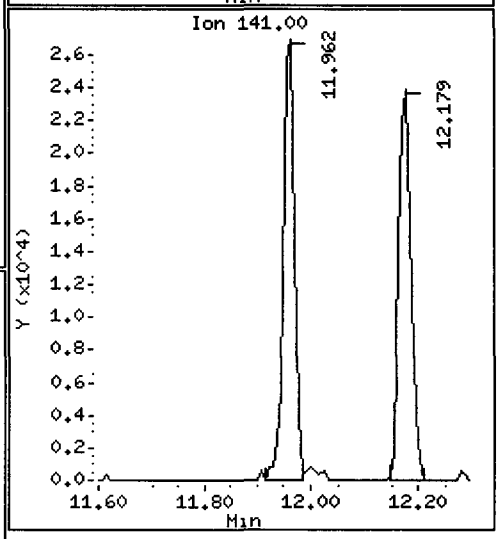












Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

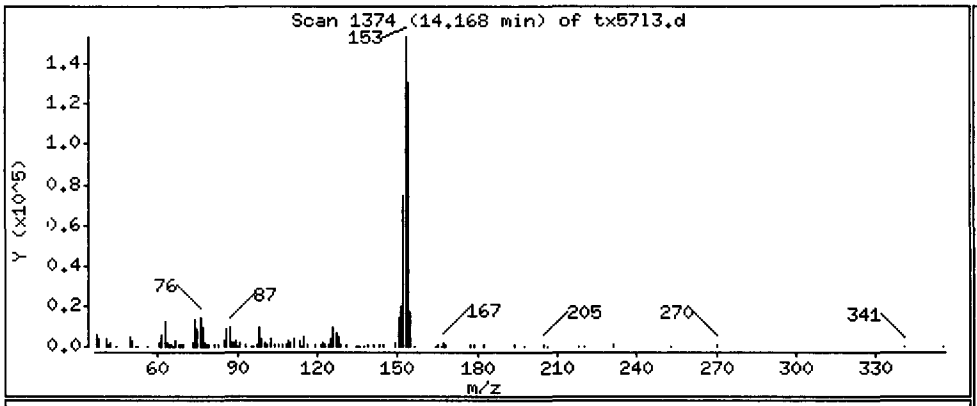
Client ID: SD0023 Instrument: nt10.i

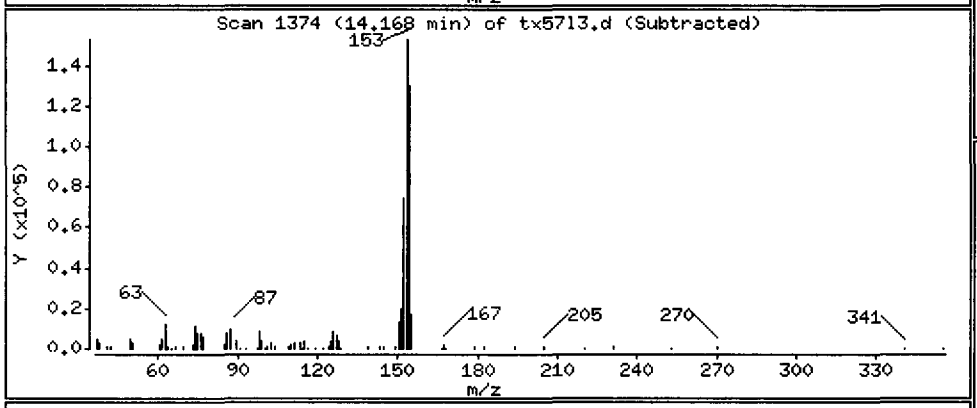
Sample Info: TX57L,3

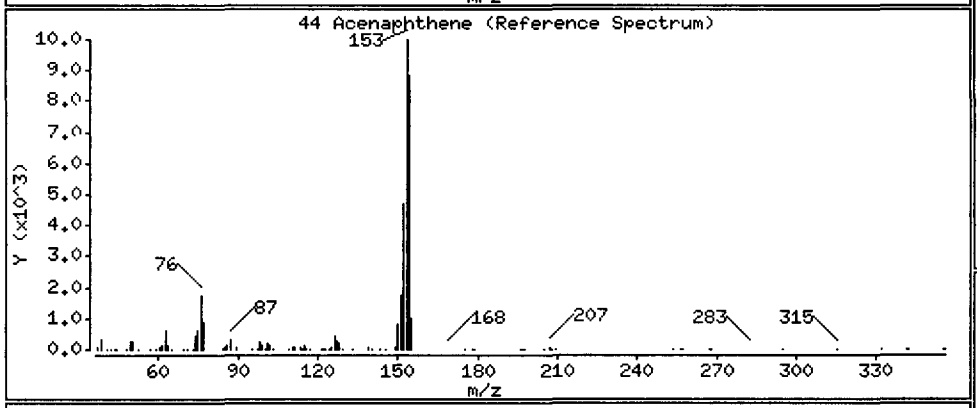
Volume Injected (uL): 1.0 Operator: YZ

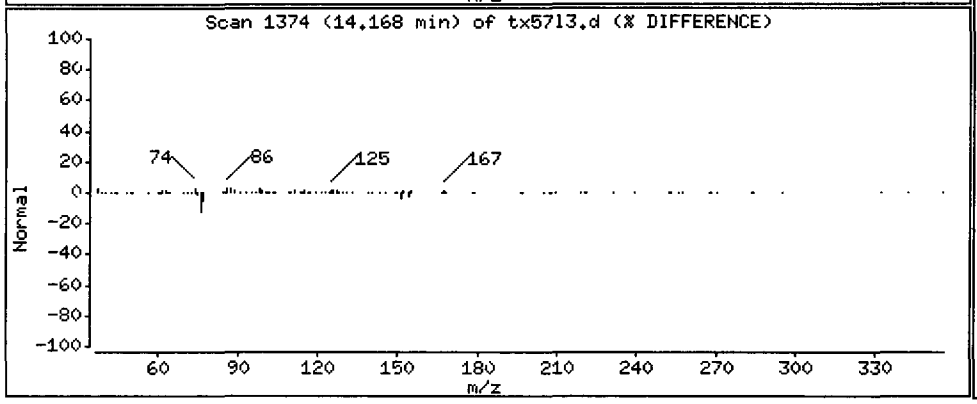
Column phase: ZB-5msi Column diameter: 0.25

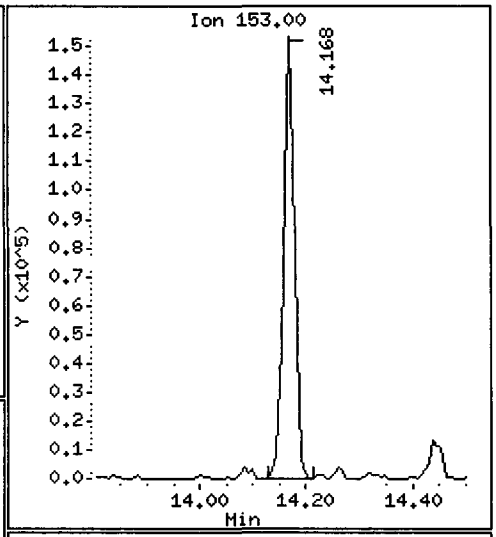
44 Acenaphthene Concentration: 439.8 ug/kg

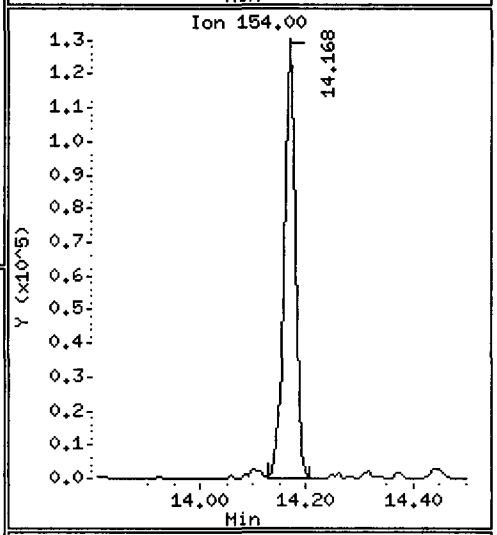


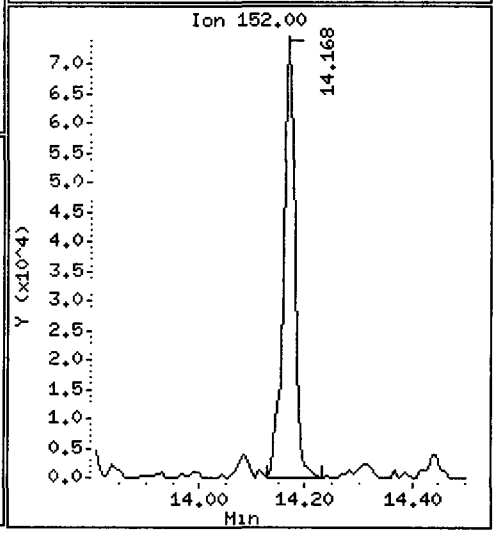












Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

Client ID: SD0023

Instrument: nt10.i

Sample Info: TX57L,3

Volume Injected (uL): 1.0

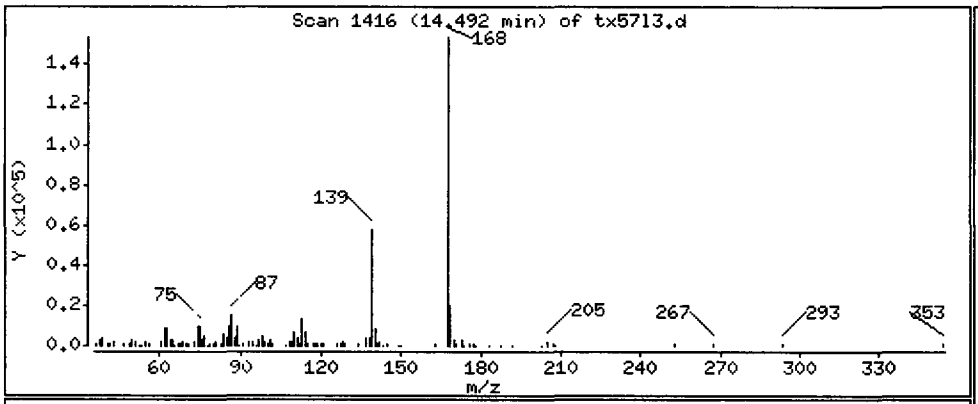
Operator: YZ

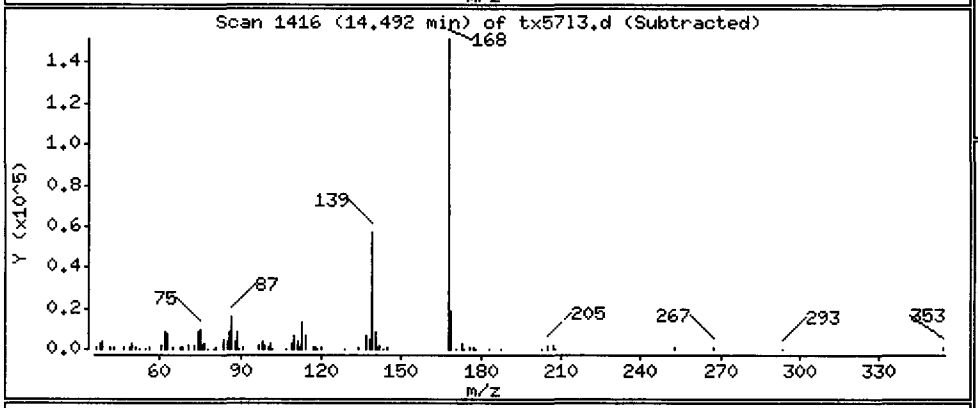
Column phase: ZB-5ms1

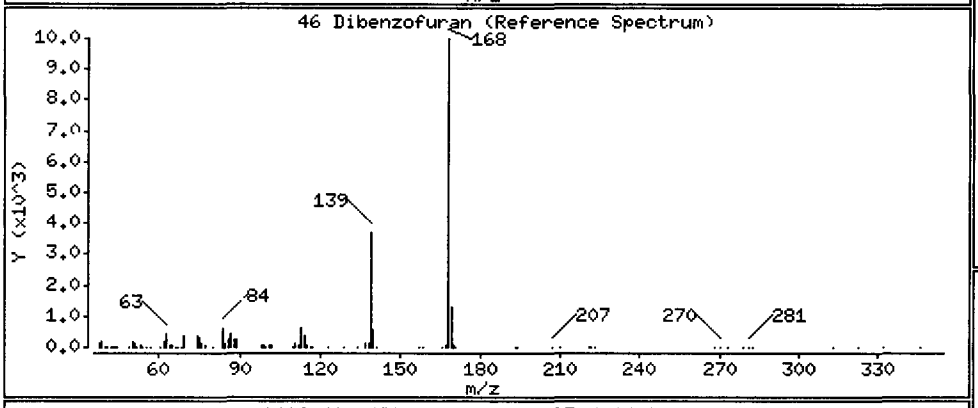
Column diameter: 0.25

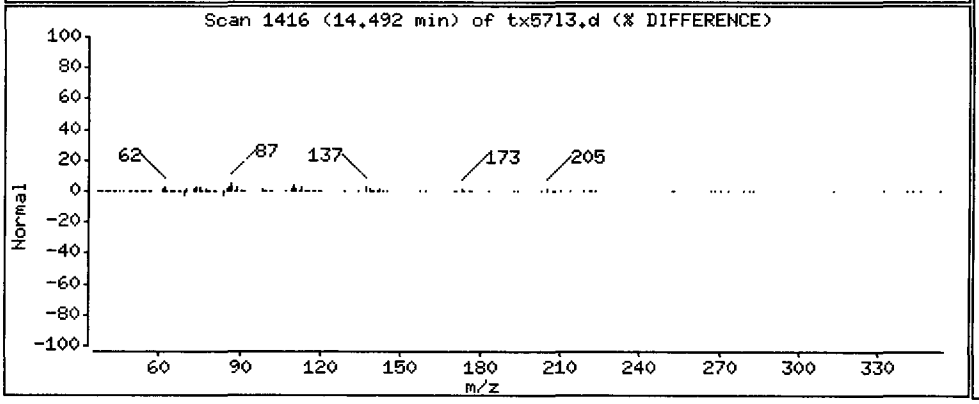
46 Dibenzofuran

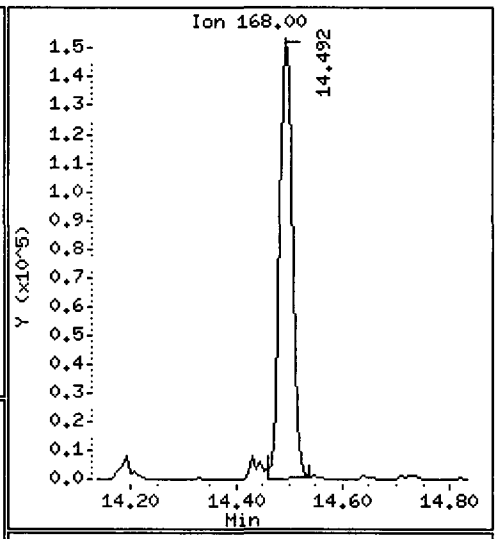
Concentration: 294.5 ug/kg

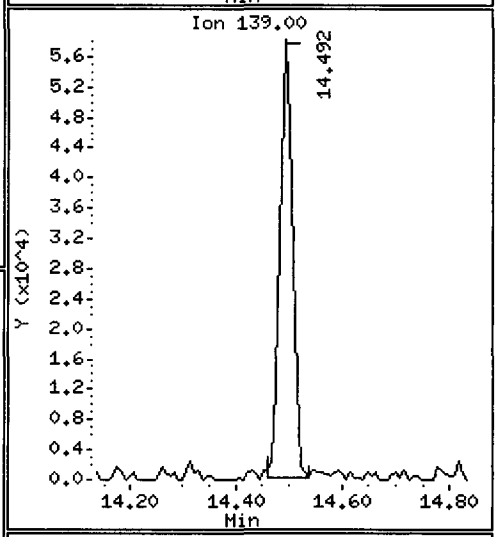


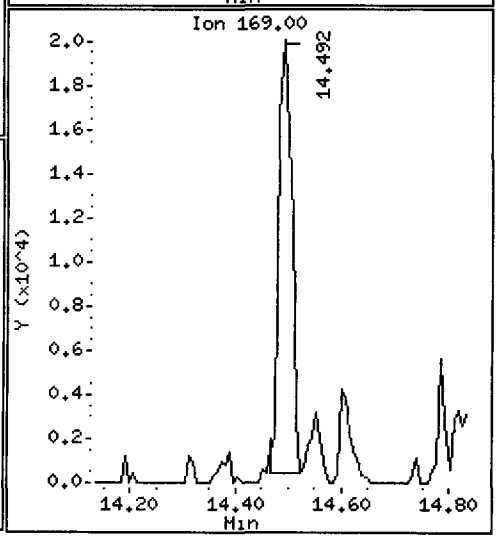












Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

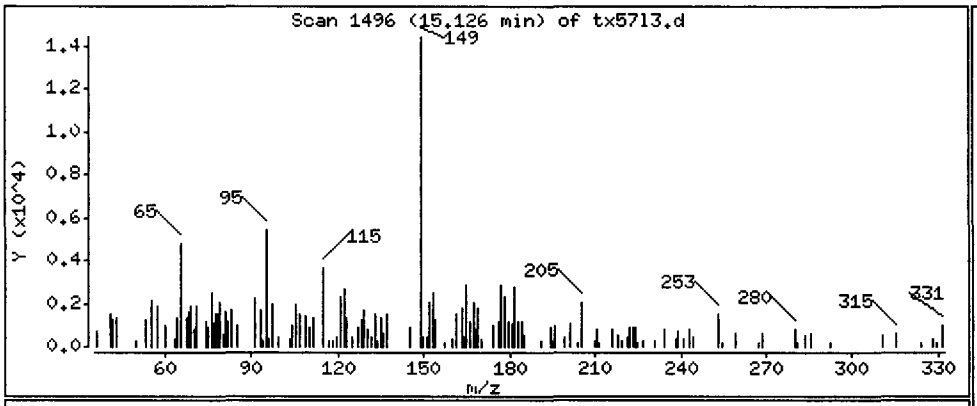
Client ID: SD0023 Instrument: nt10.i

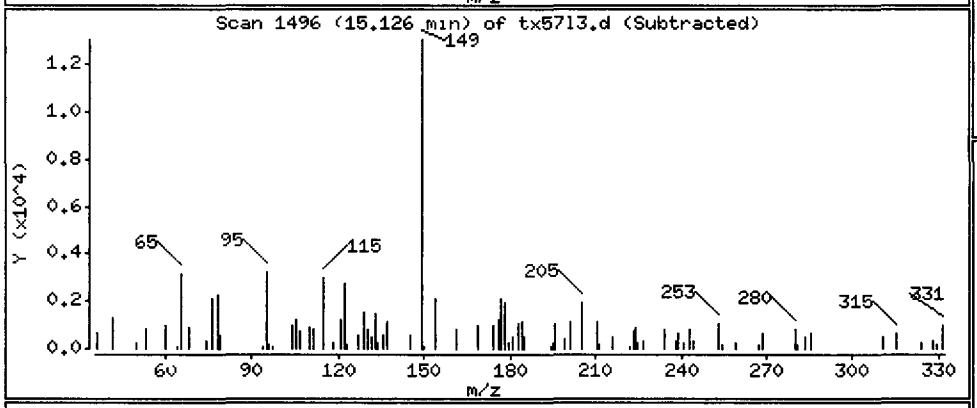
Sample Info: TX57L,3

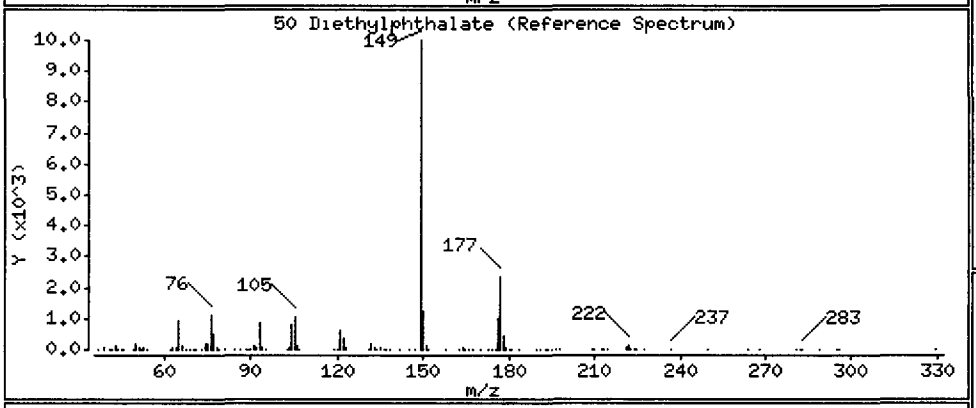
Volume Injected (uL): 1.0 Operator: YZ

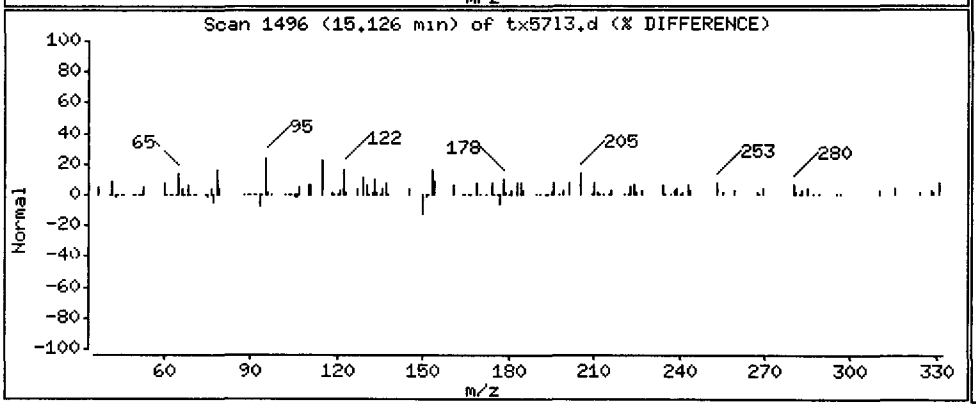
Column phase: ZB-5msi Column diameter: 0.25

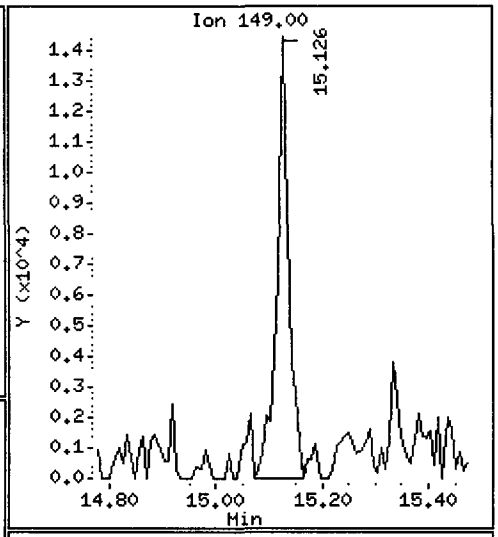
50 Diethylphthalate Concentration: 32.46 ug/kg

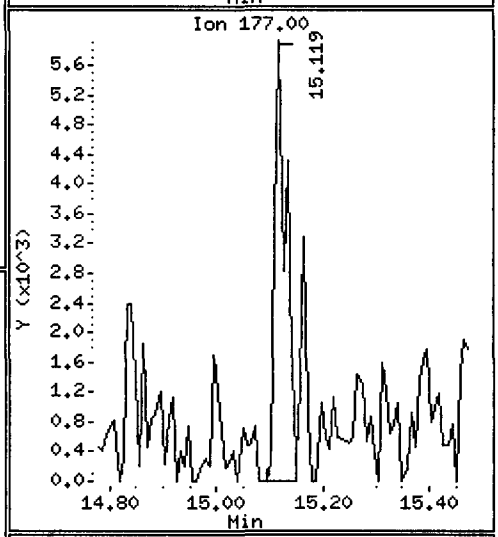


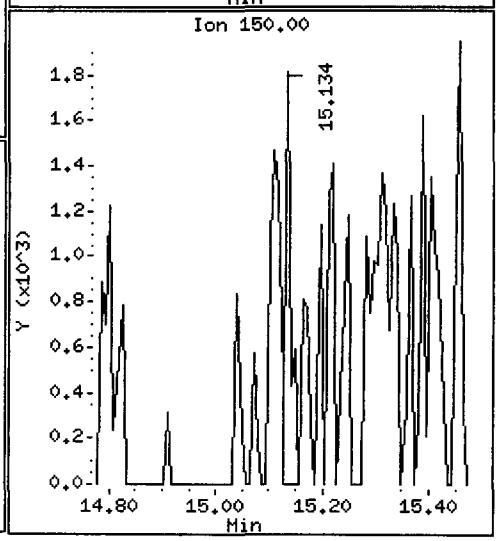












TX57 : 005561

Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

Client ID: SD0023

Instrument: nt10.i

Sample Info: TX57L,3

Volume Injected (uL): 1.0

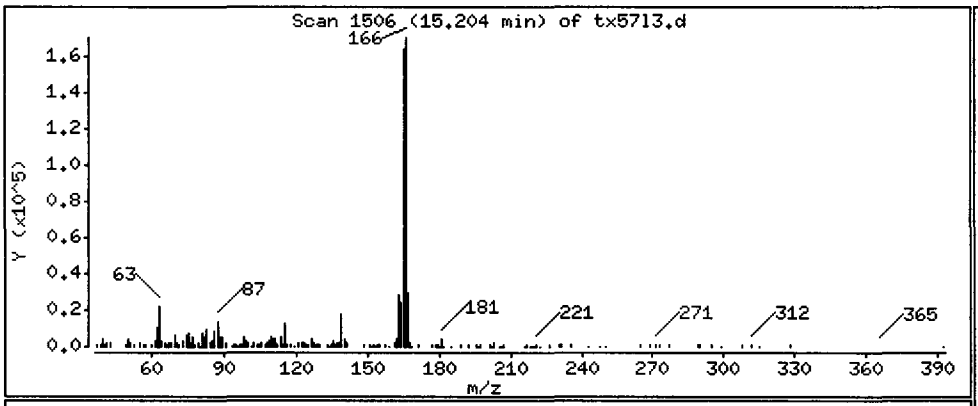
Operator: YZ

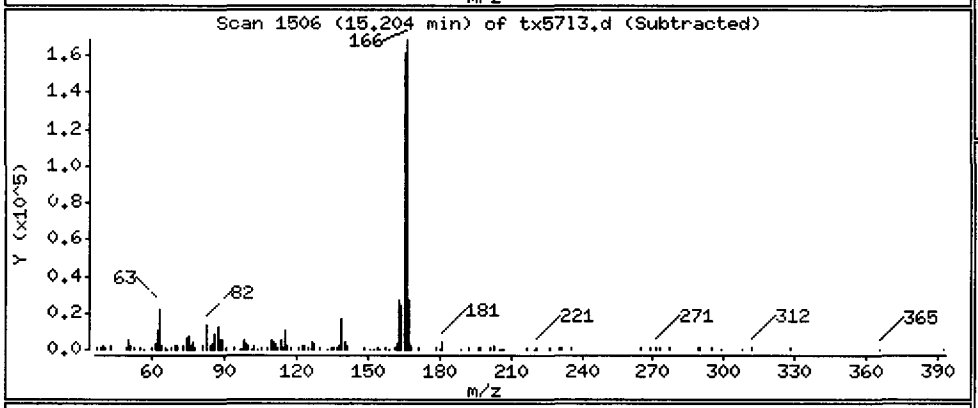
Column phase: ZB-5ms1

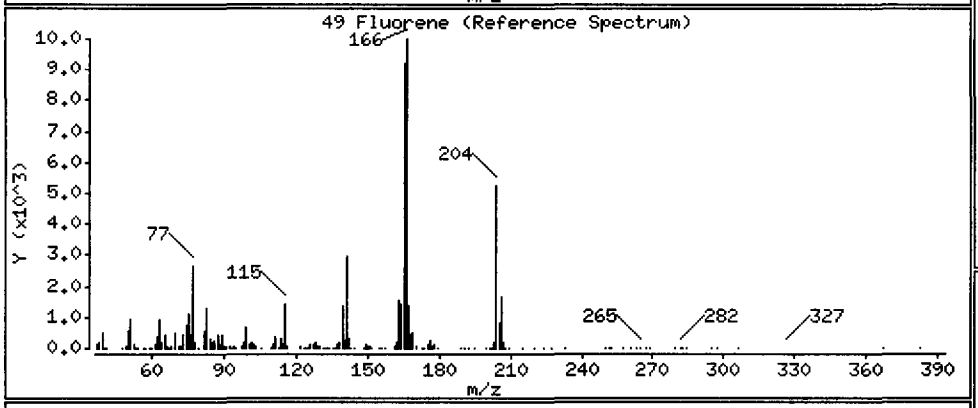
Column diameter: 0.25

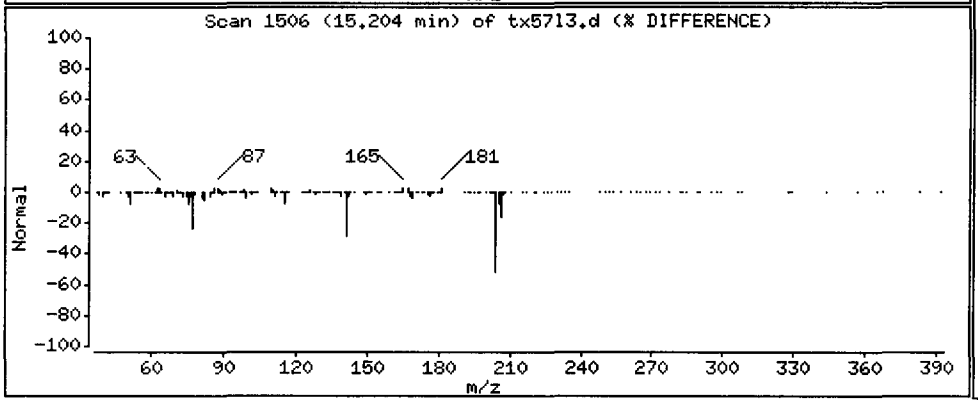
49 Fluorene

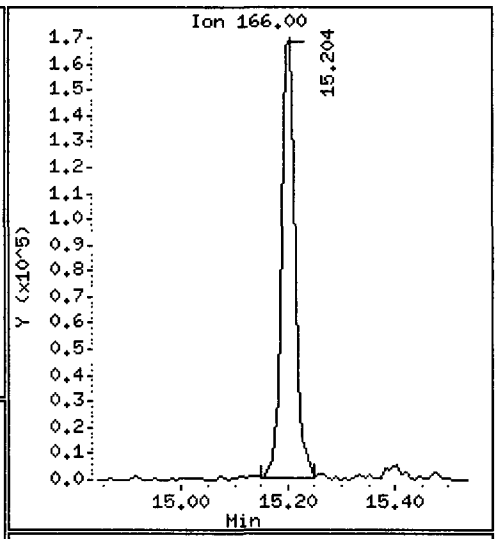
Concentration: 556.6 ug/kg

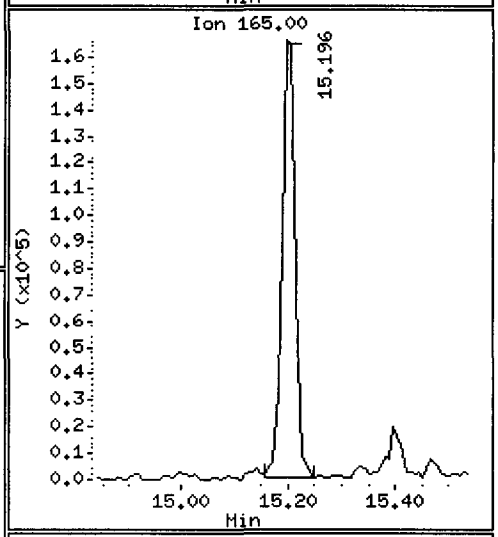


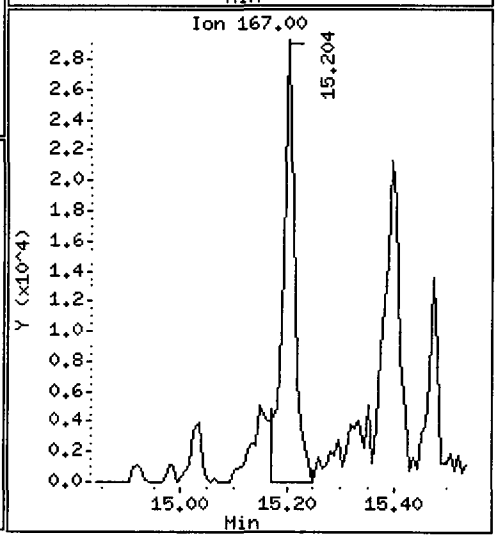












Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

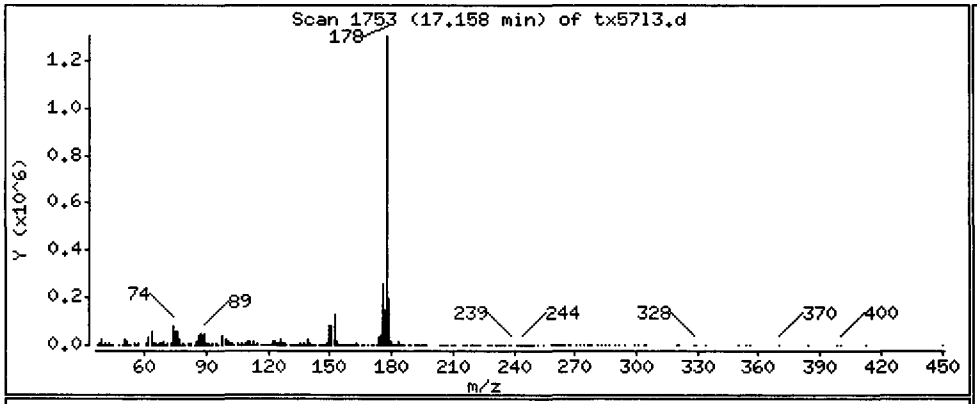
Client ID: SD0023 Instrument: nt10.i

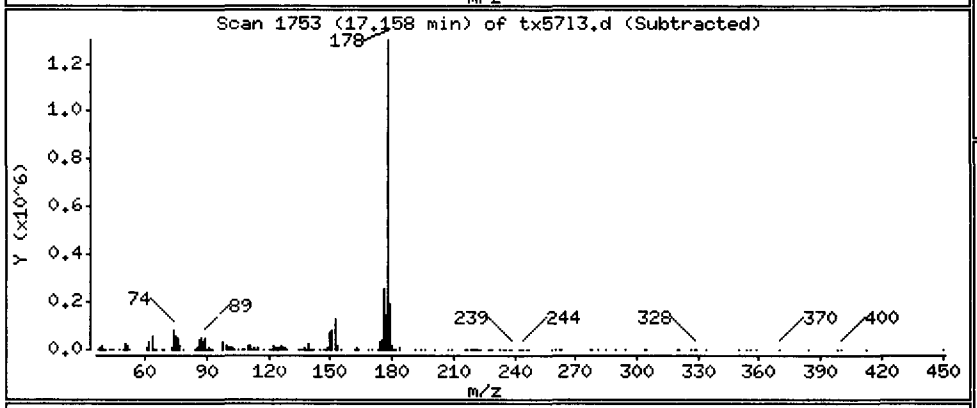
Sample Info: TX57L,3

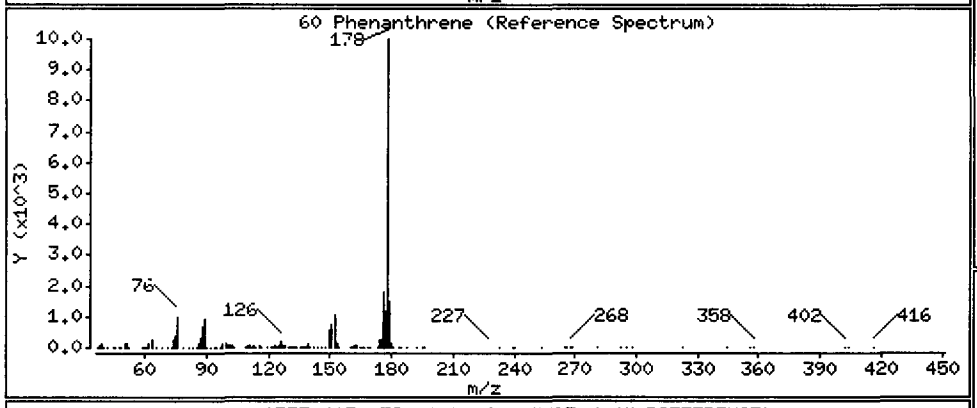
Volume Injected (uL): 1.0 Operator: YZ

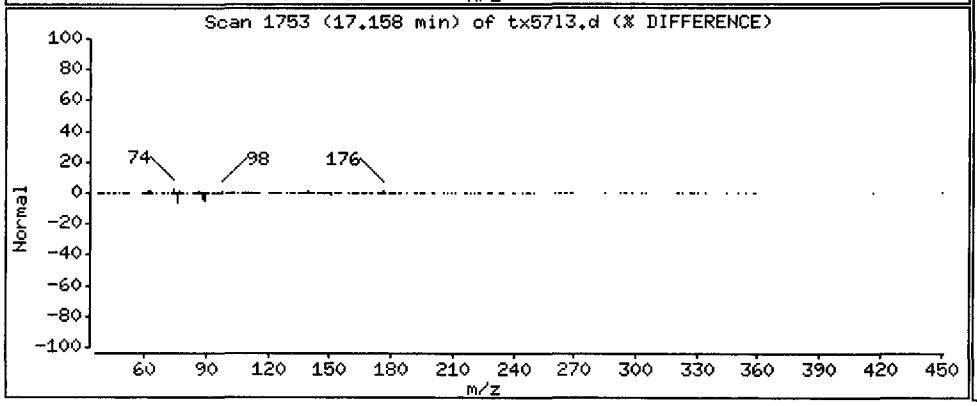
Column phase: ZB-5msi Column diameter: 0.25

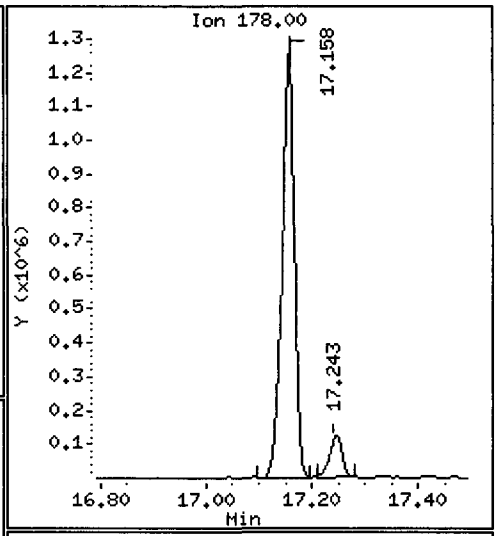
60 Phenanthrene Concentration: 2139 ug/kg

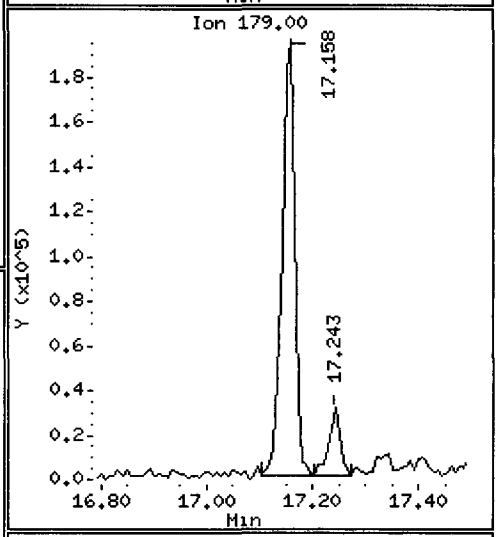


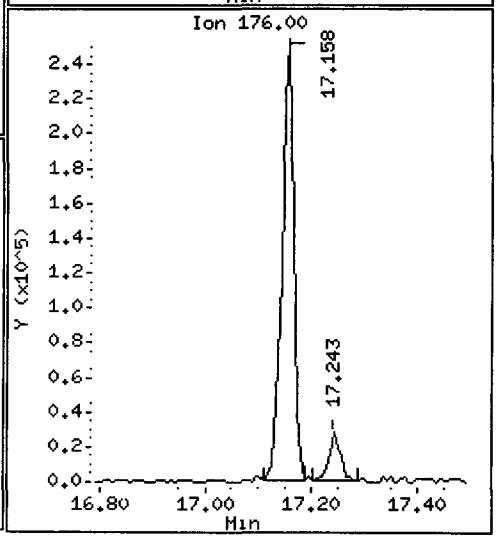












TX57L:00363

Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

Client ID: SD0023

Instrument: nt10.i

Sample Info: TX57L,3

Volume Injected (uL): 1.0

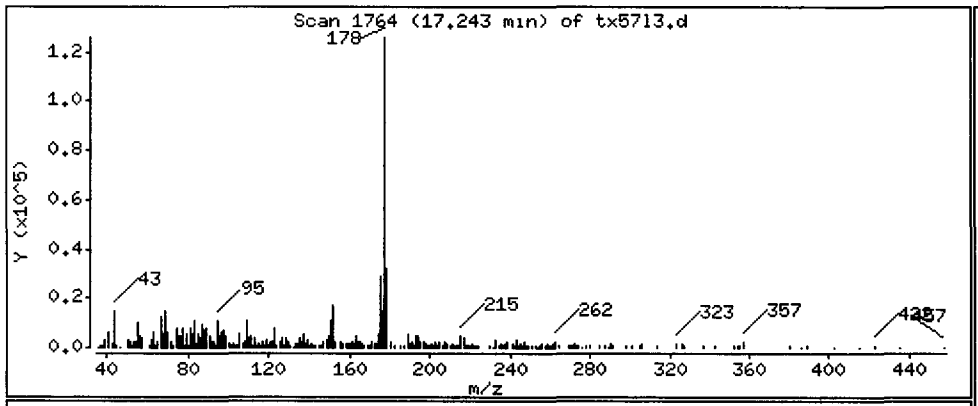
Operator: YZ

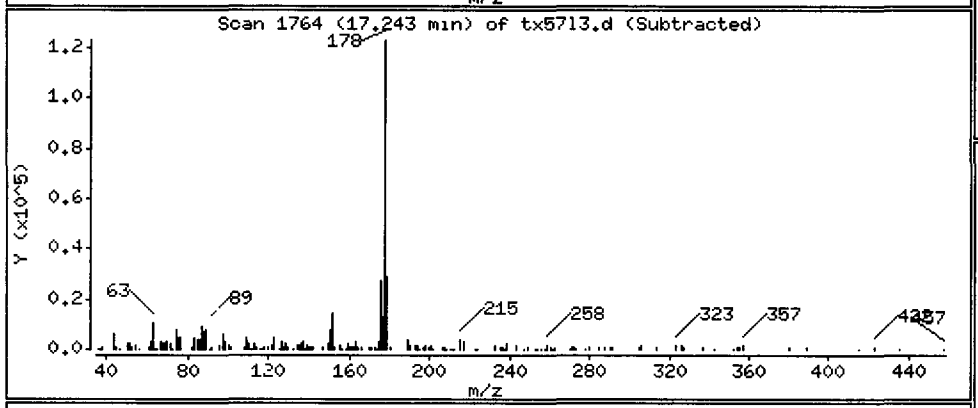
Column phase: ZB-5msi

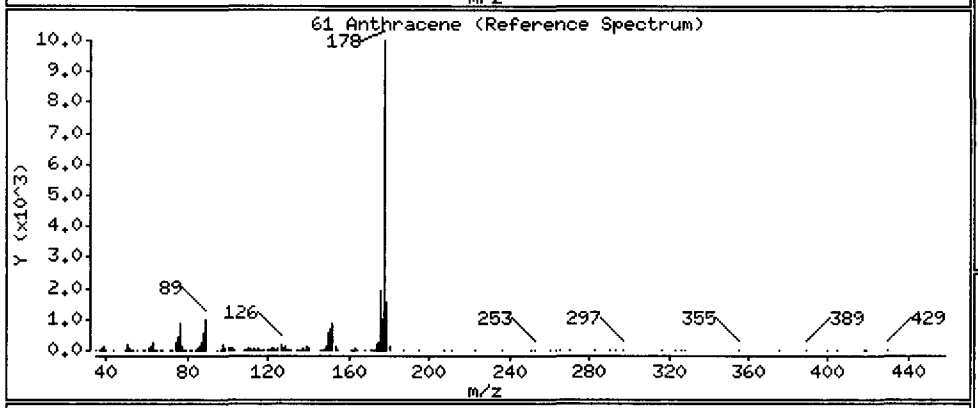
Column diameter: 0.25

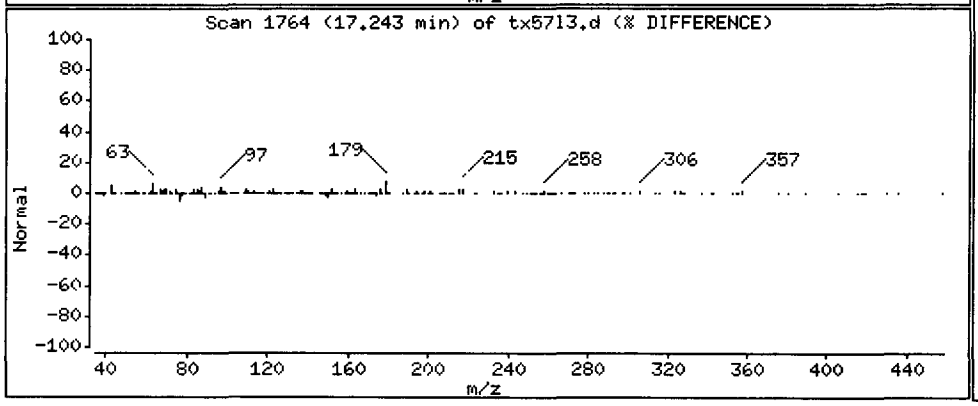
61 Anthracene

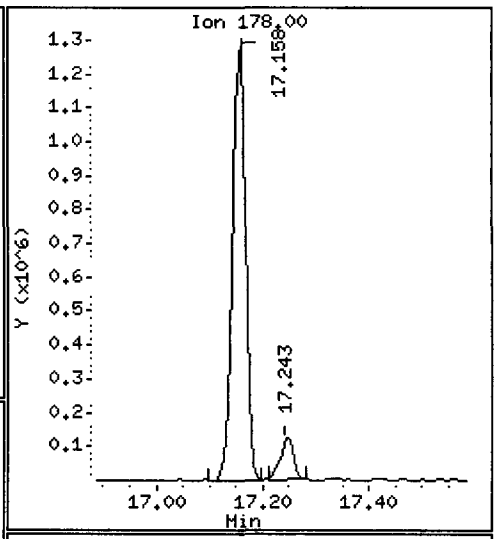
Concentration: 216.1 ug/kg

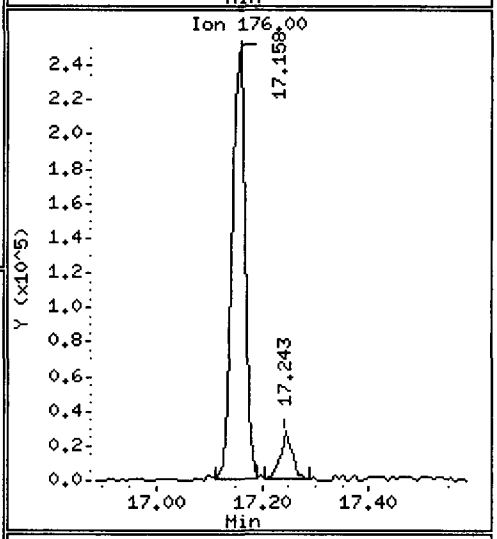


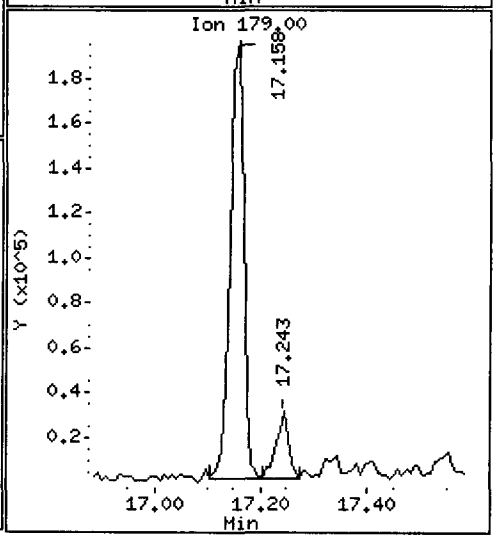












TX57 0056

Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

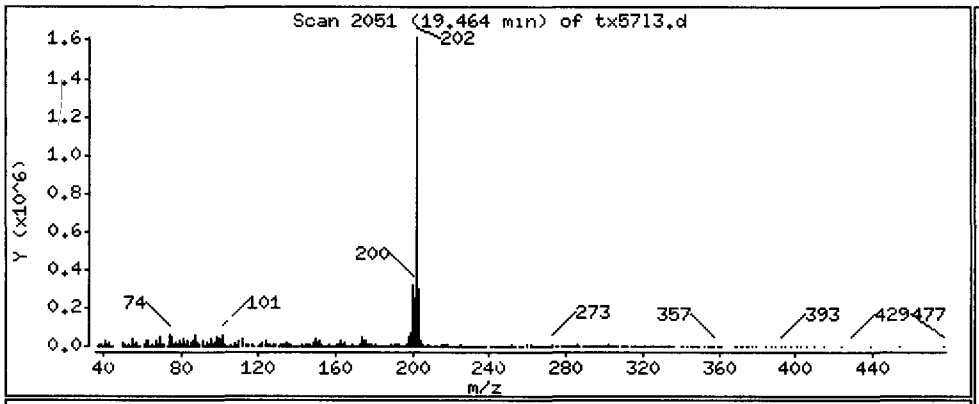
Client ID: SD0023 Instrument: nt10.i

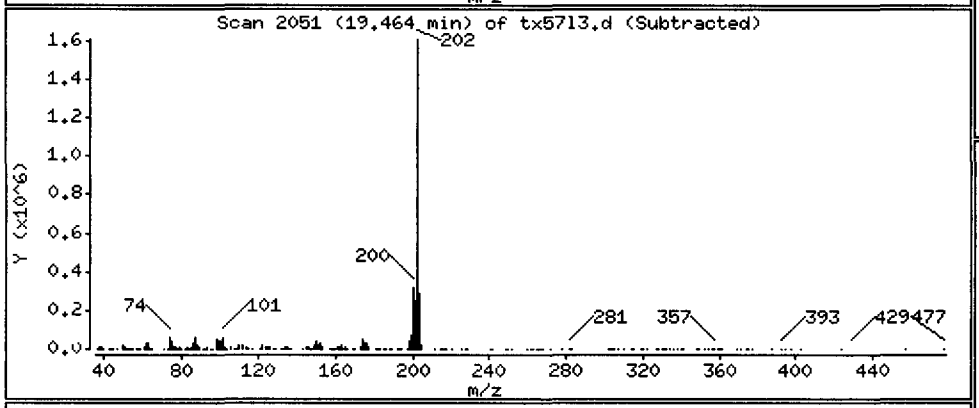
Sample Info: TX57L,3

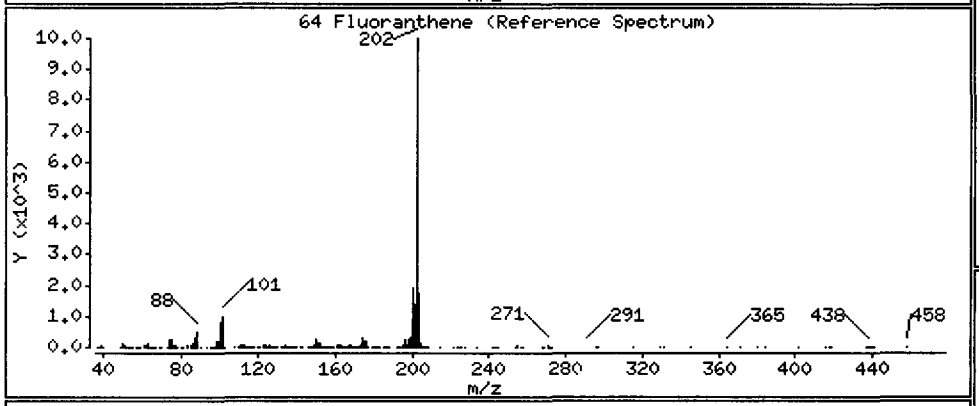
Volume Injected (uL): 1.0 Operator: YZ

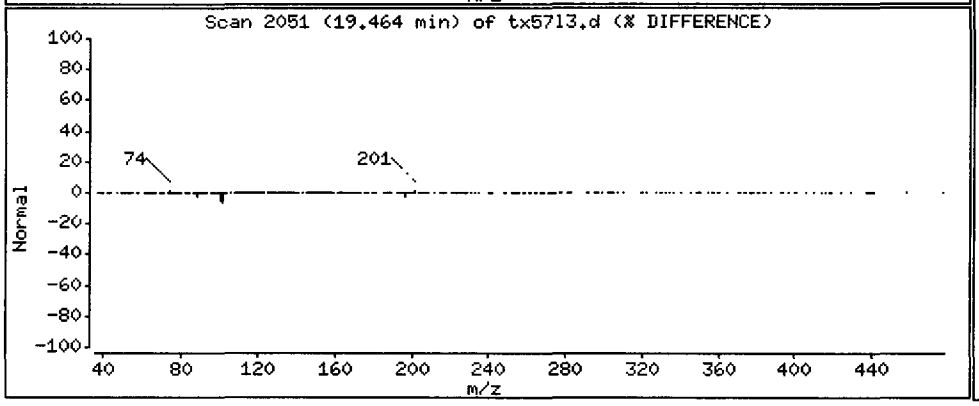
Column phase: ZB-5ms1 Column diameter: 0.25

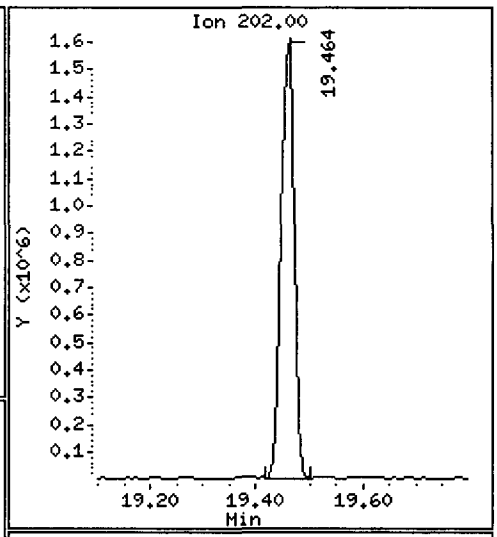
64 Fluoranthene Concentration: 1990 ug/kg

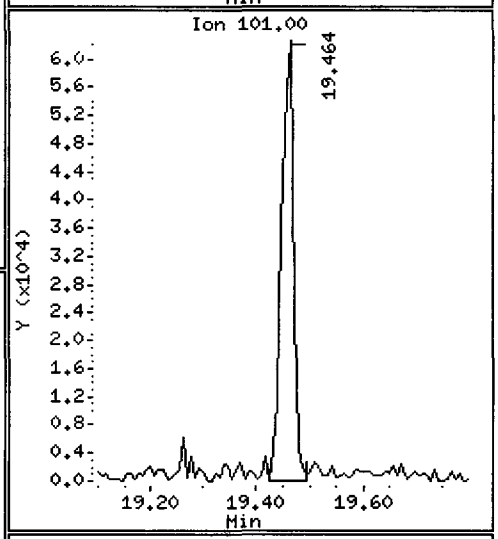


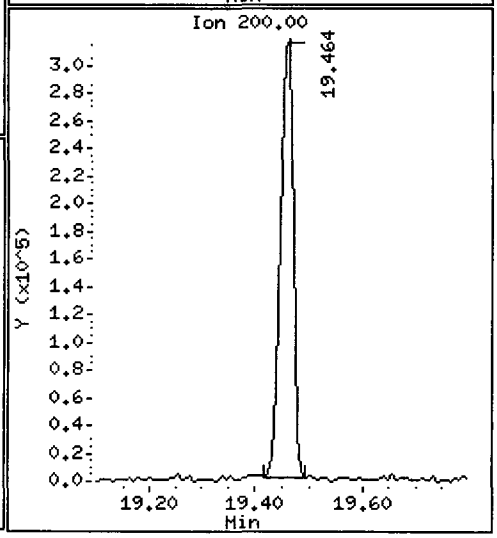












Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

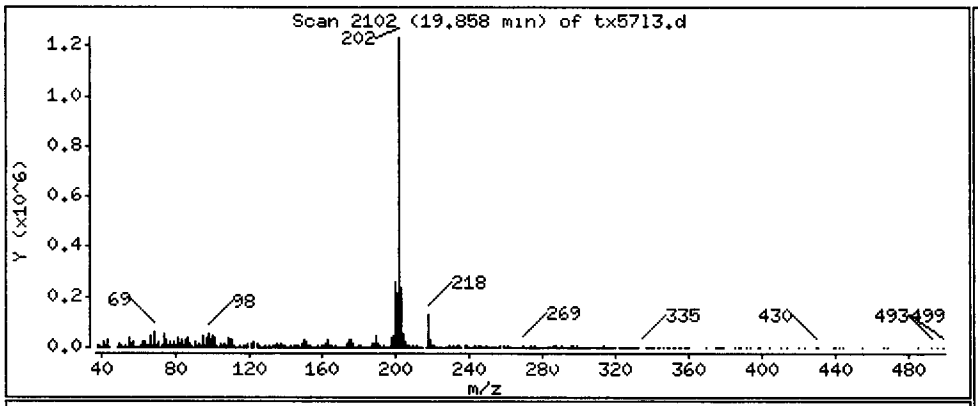
Client ID: SD0023 Instrument: nt10.i

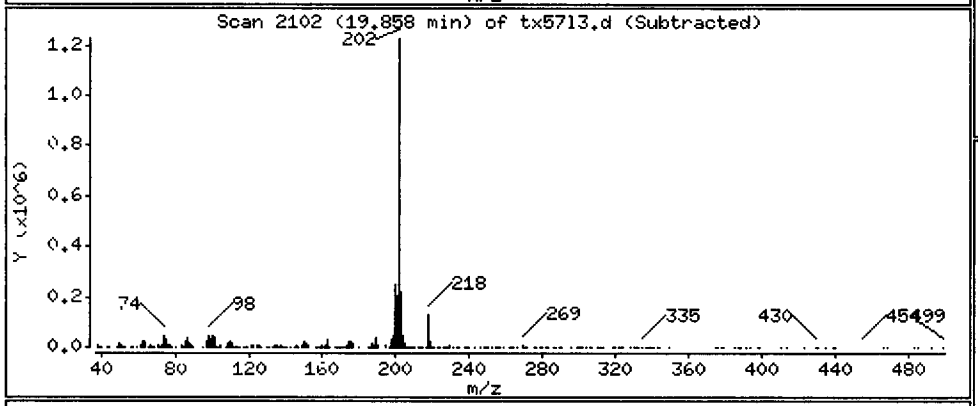
Sample Info: TX57L,3

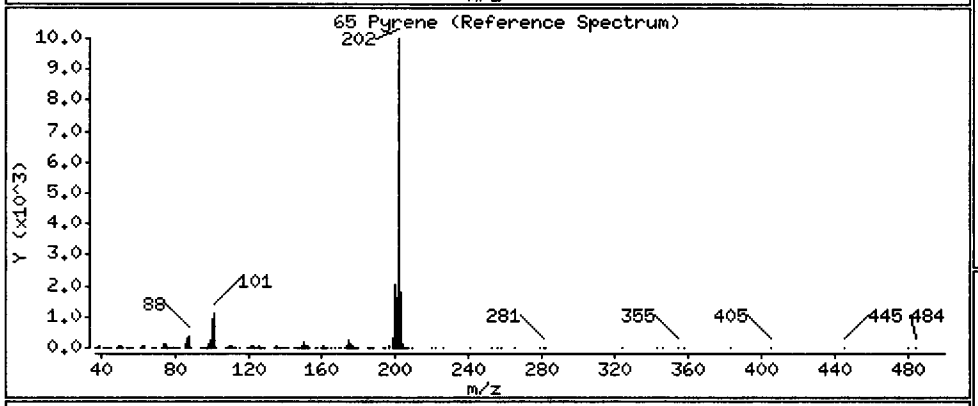
Volume Injected (uL): 1.0 Operator: YZ

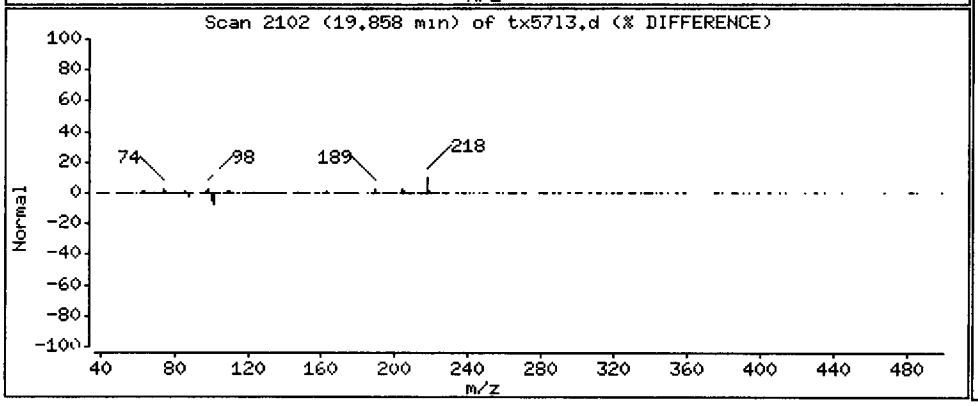
Column phase: ZB-5msi Column diameter: 0.25

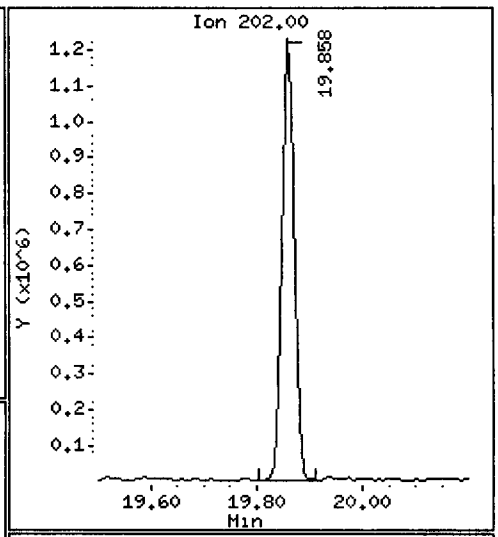
65 Pyrene Concentration: 1486 ug/kg

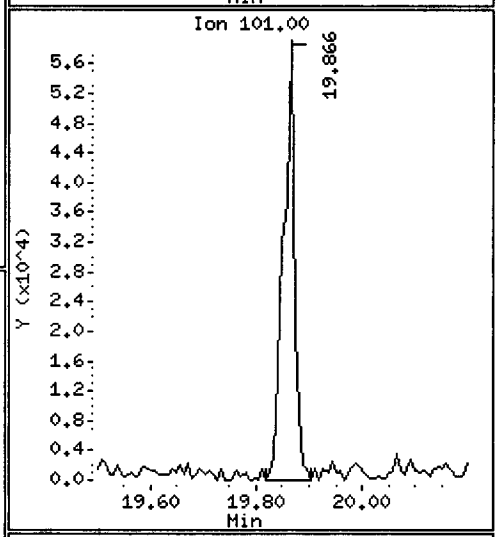


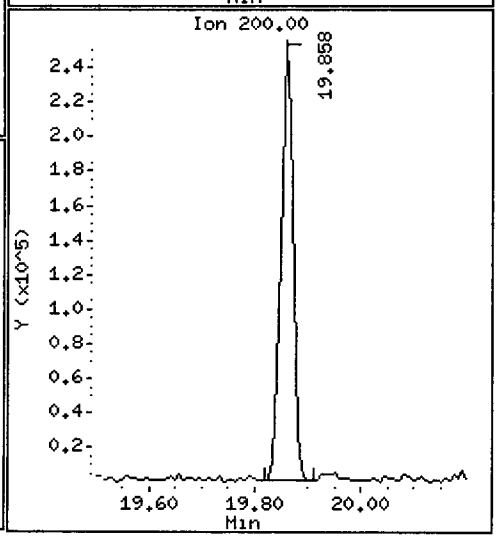












TX57-00956

Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

Client ID: SD0023

Instrument: nt10.i

Sample Info: TX57L,3

Volume Injected (uL): 1.0

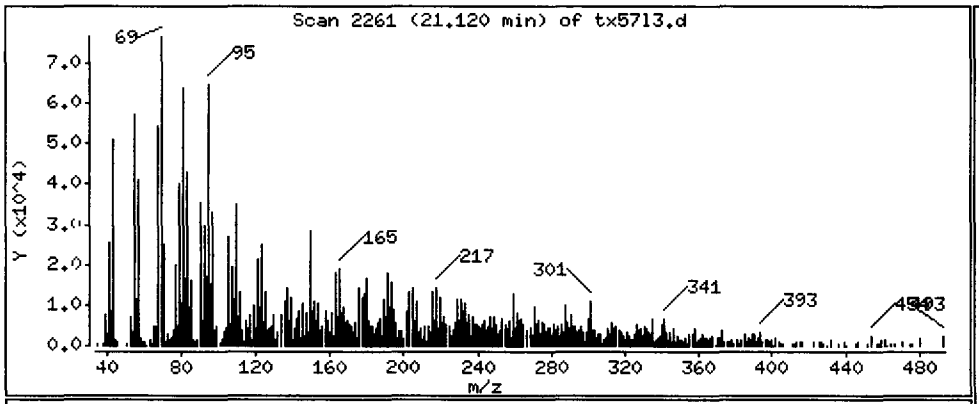
Operator: YZ

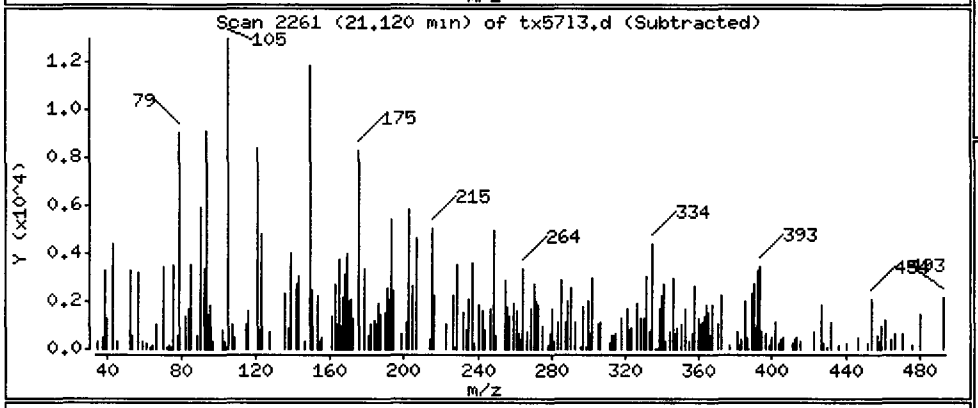
Column phase: ZB-5ms1

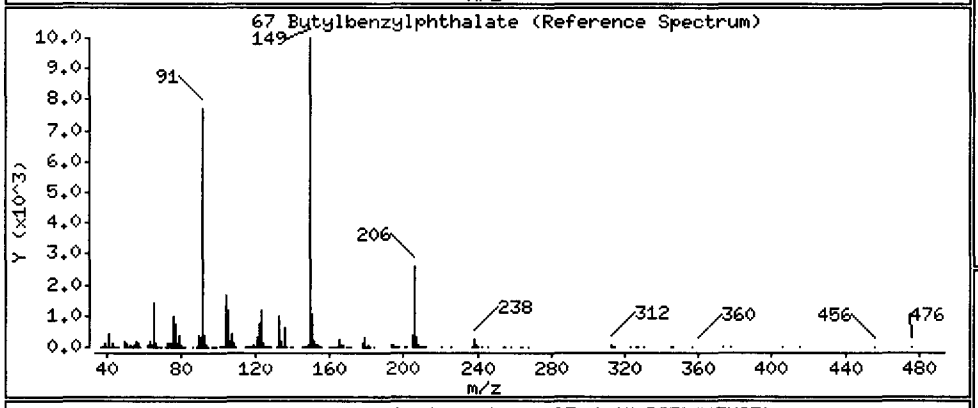
Column diameter: 0.25

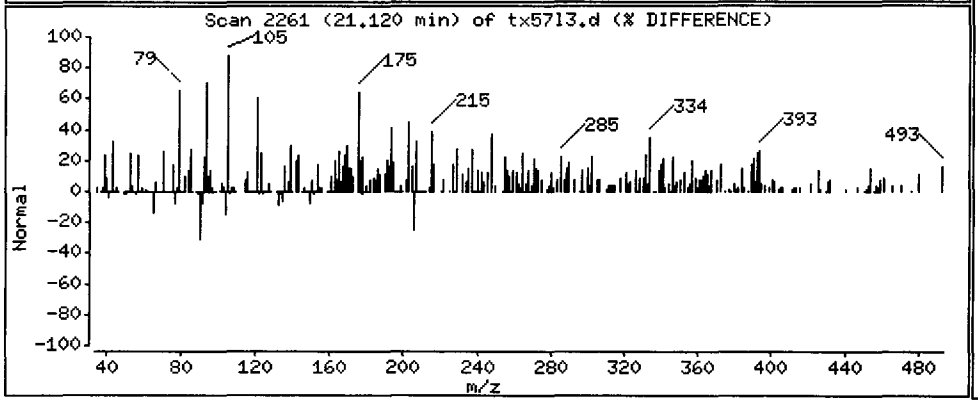
67 Butylbenzylphthalate

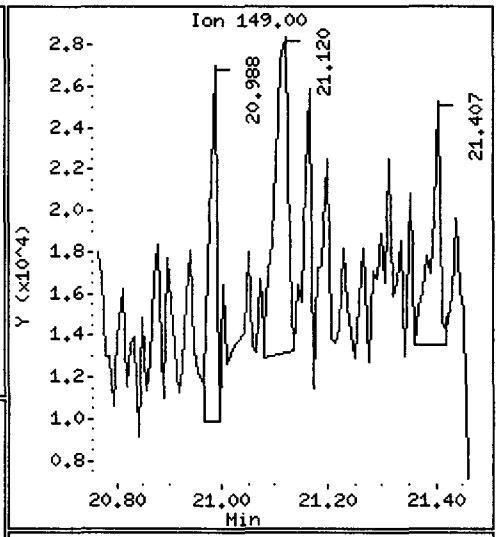
Concentration: 55.10 ug/kg

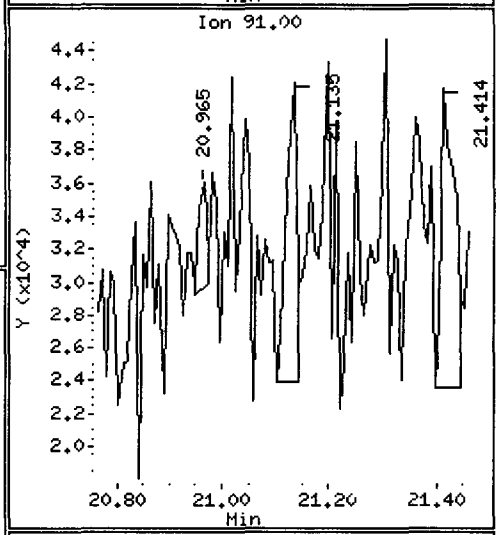


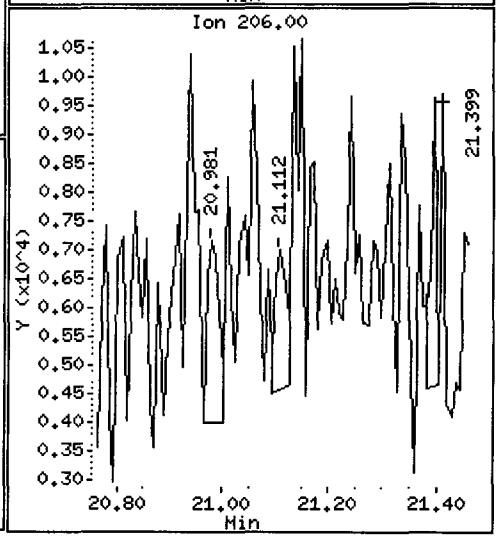












Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

Client ID: SD0023

Instrument: nt10.i

Sample Info: TX57L.3

Volume Injected (uL): 1.0

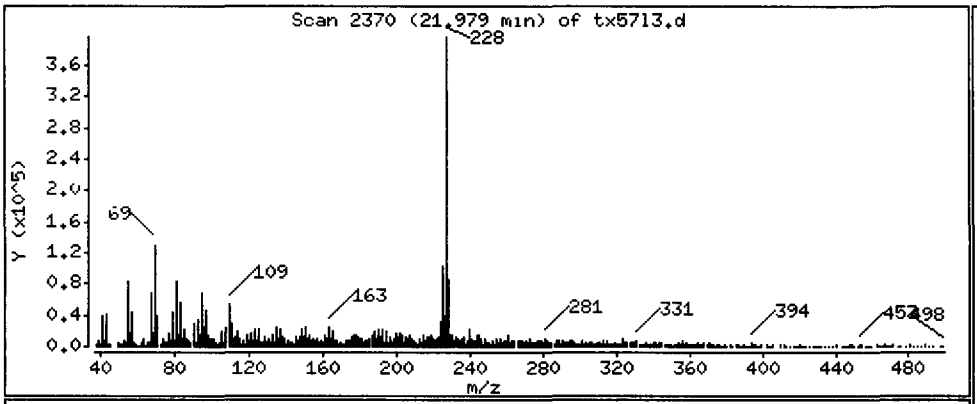
Operator: YZ

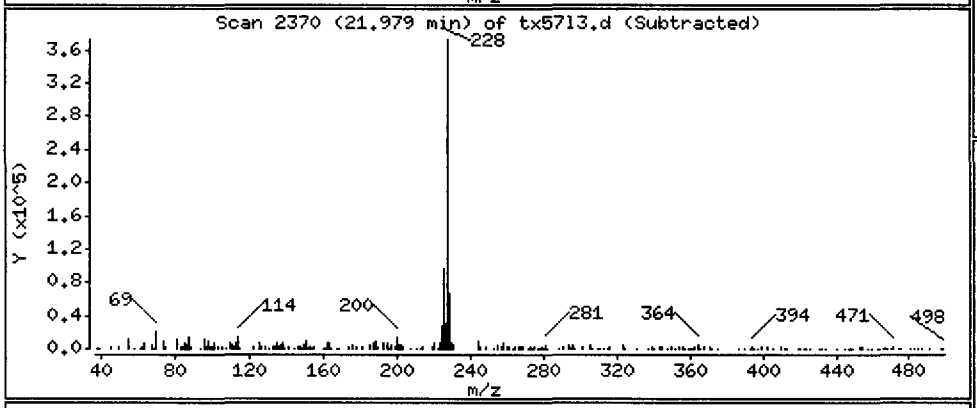
Column phase: ZB-5msi

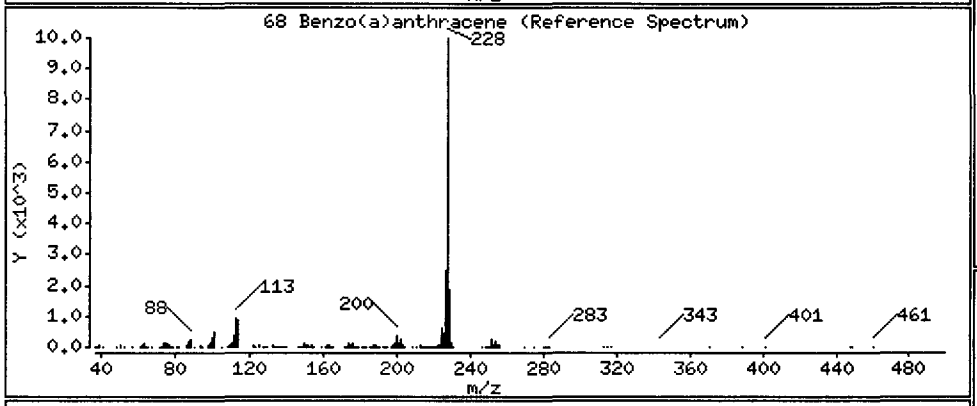
Column diameter: 0.25

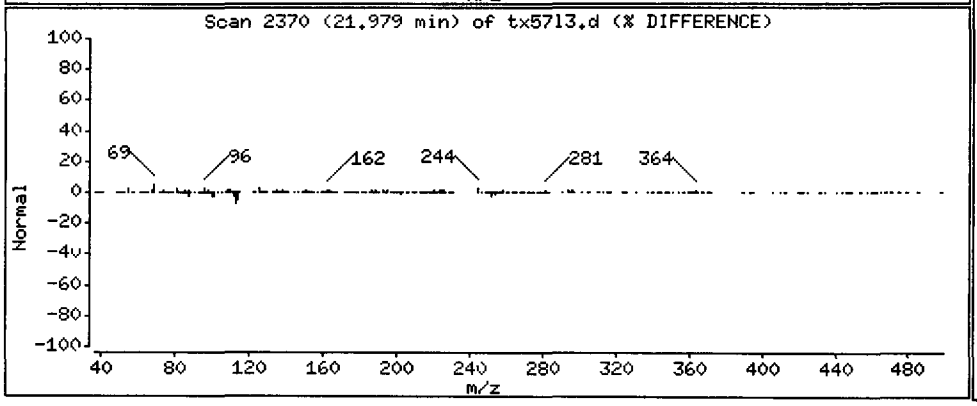
68 Benzo(a)anthracene

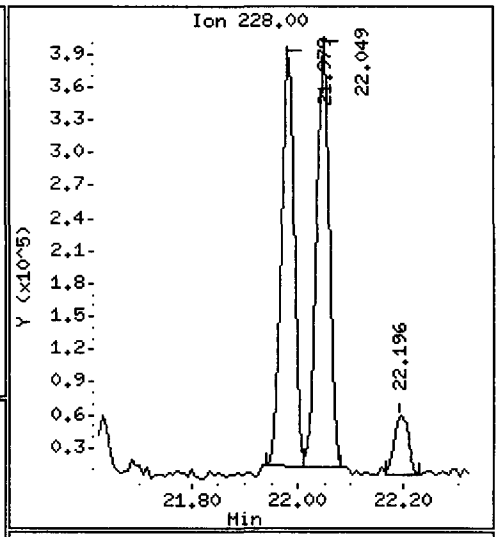
Concentration: 445.7 ug/kg

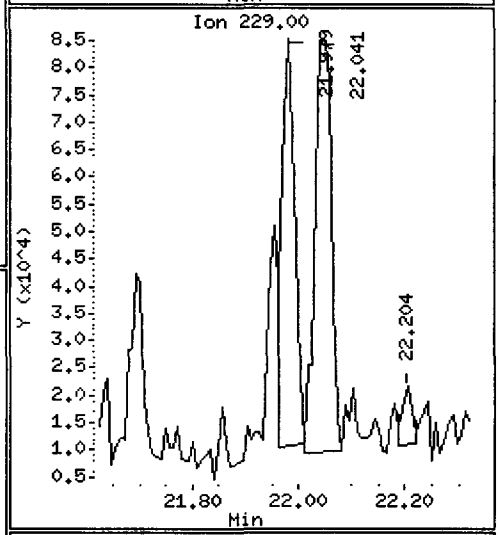


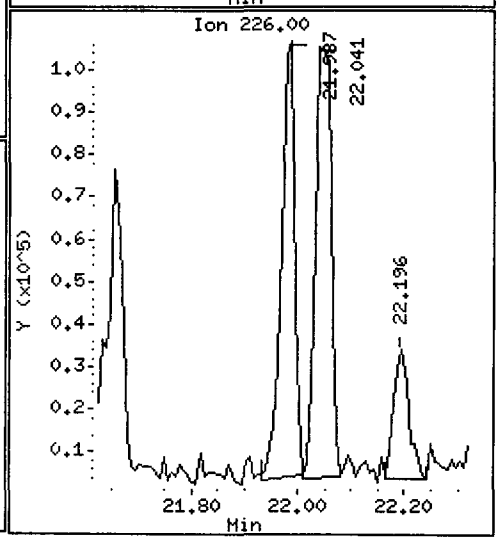












Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

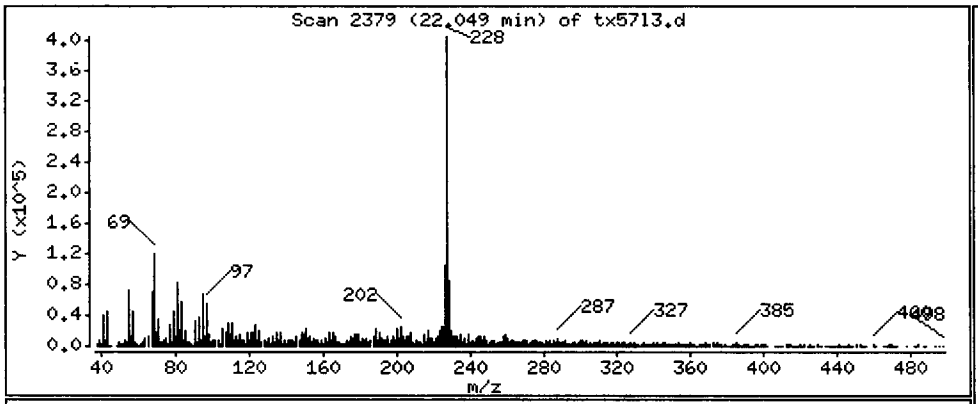
Client ID: SD0023 Instrument: nt10.i

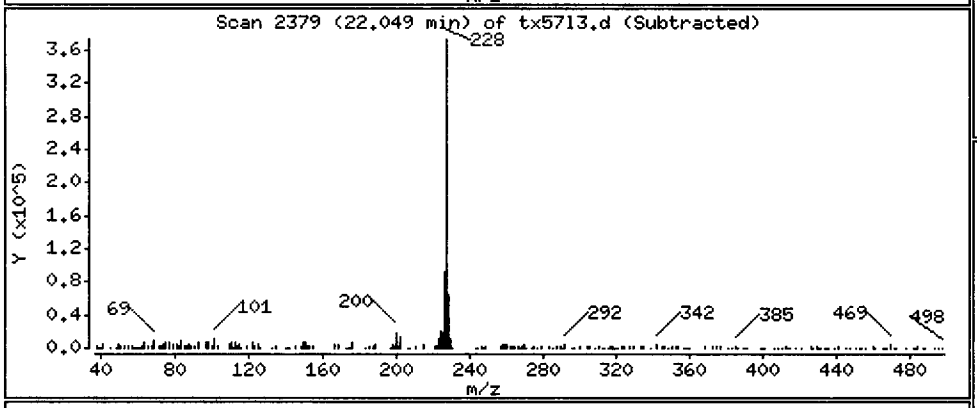
Sample Info: TX57L,3

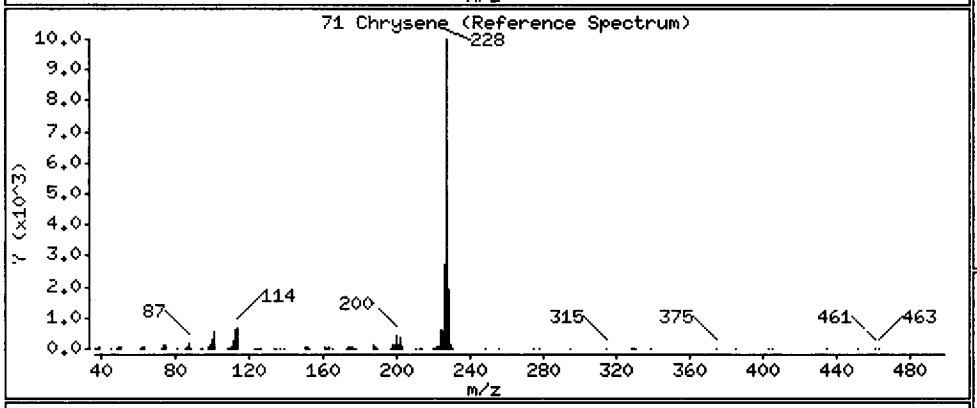
Volume Injected (uL): 1.0 Operator: YZ

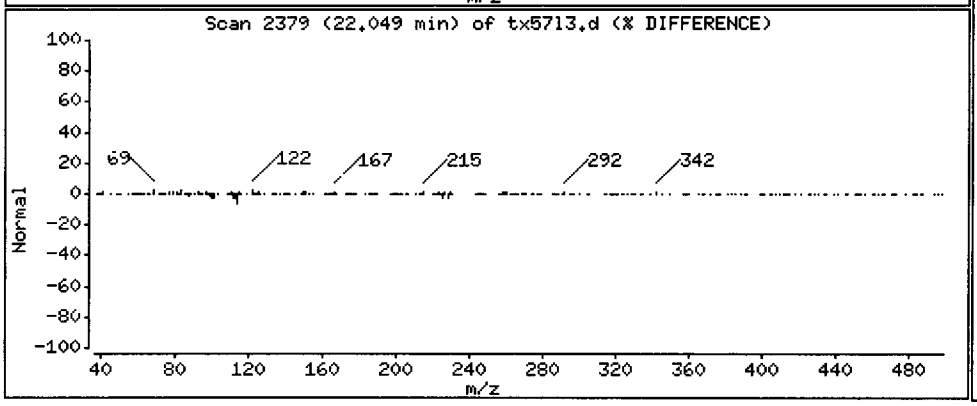
Column phase: ZB-5msi Column diameter: 0.25

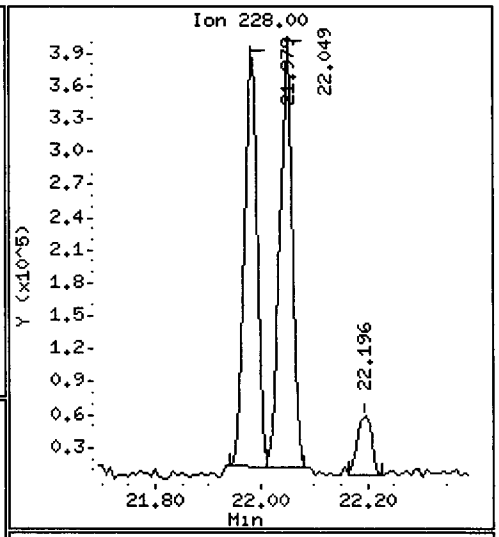
71 Chrysene Concentration: 488.6 ug/kg

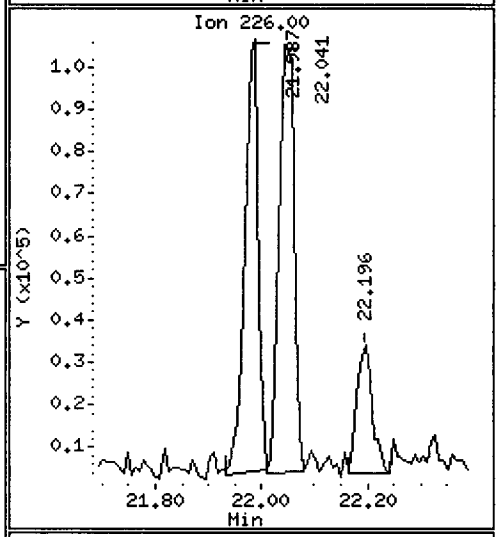


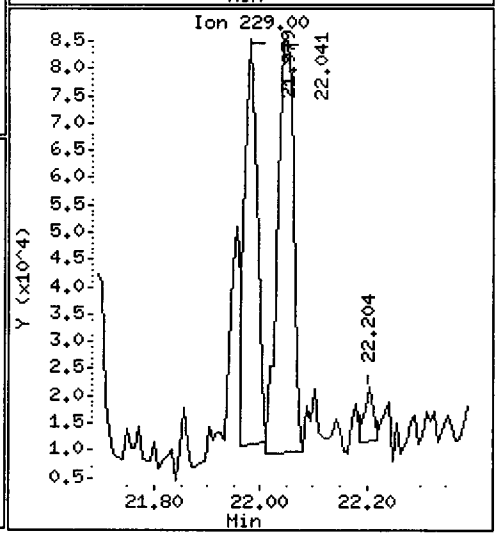












Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

Client ID: SD0023

Instrument: nt10.i

Sample Info: TX57L,3

Volume Injected (uL): 1.0

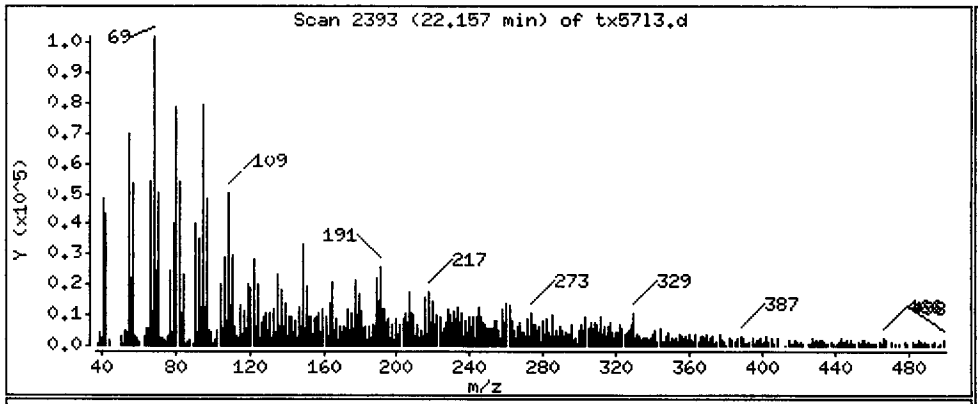
Operator: YZ

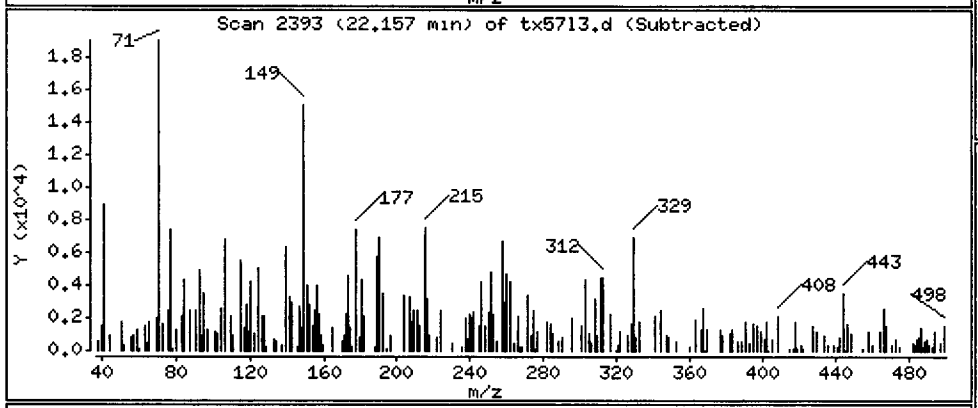
Column phase: ZB-5msi

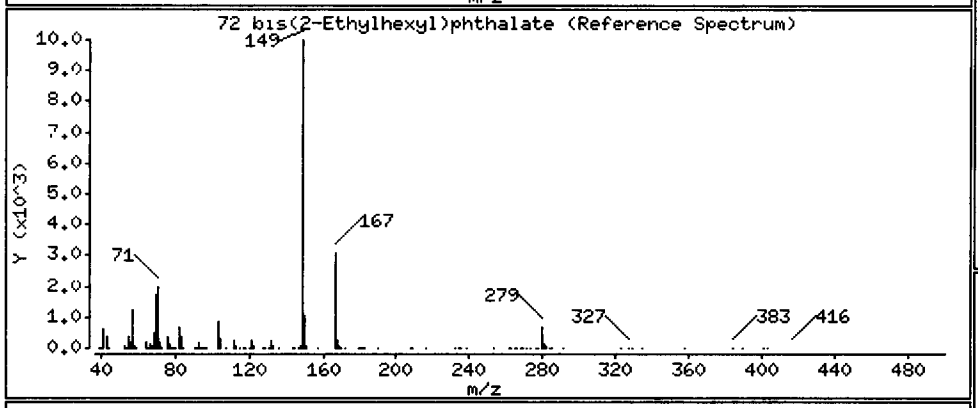
Column diameter: 0.25

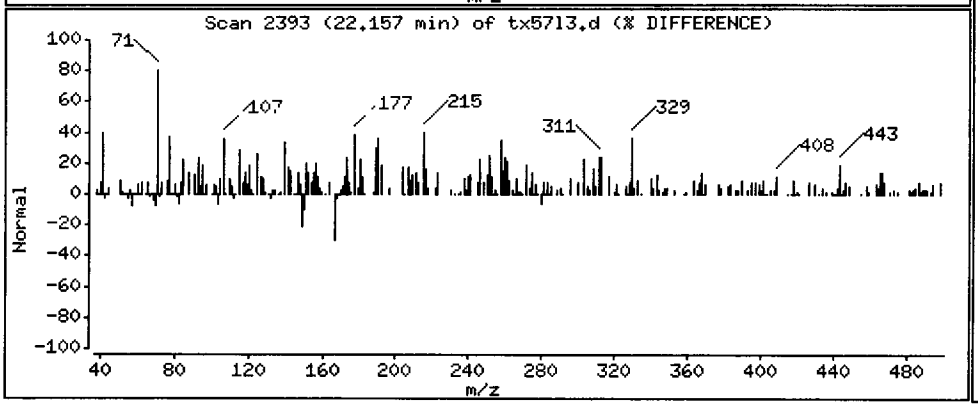
72 bis(2-Ethylhexyl)phthalate

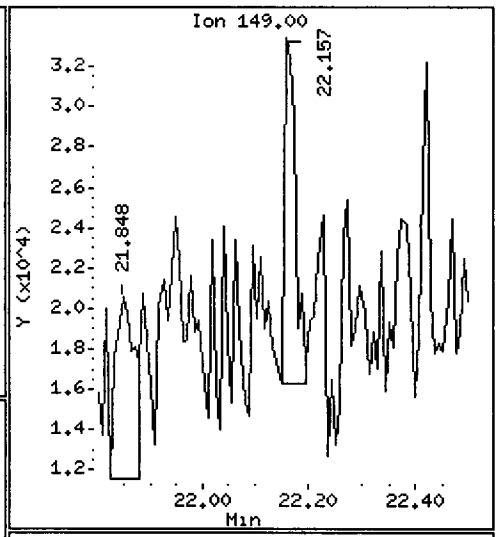
Concentration: 39.85 ug/kg

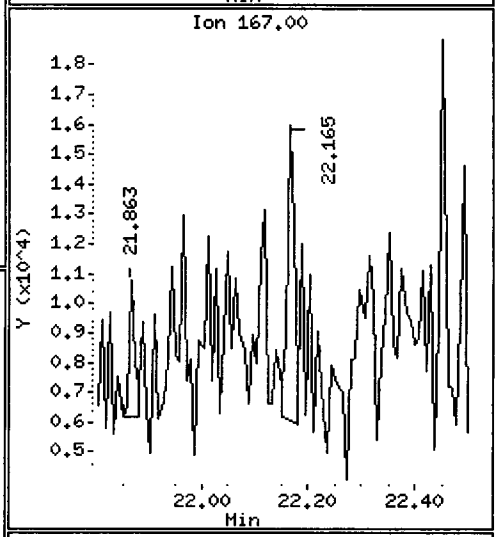


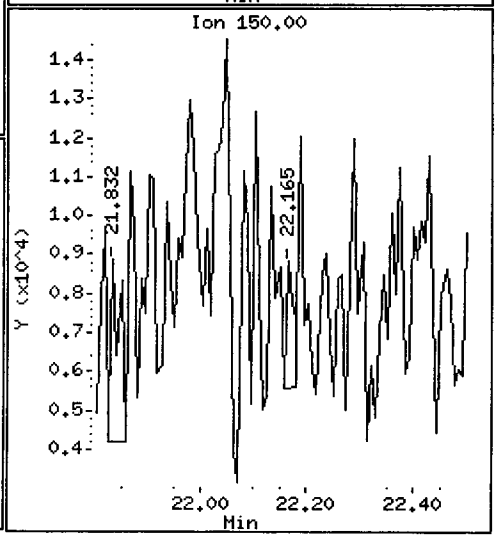












Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

Client ID: SD0023

Instrument: nt10.i

Sample Info: TX57L,3

Volume Injected (uL): 1.0

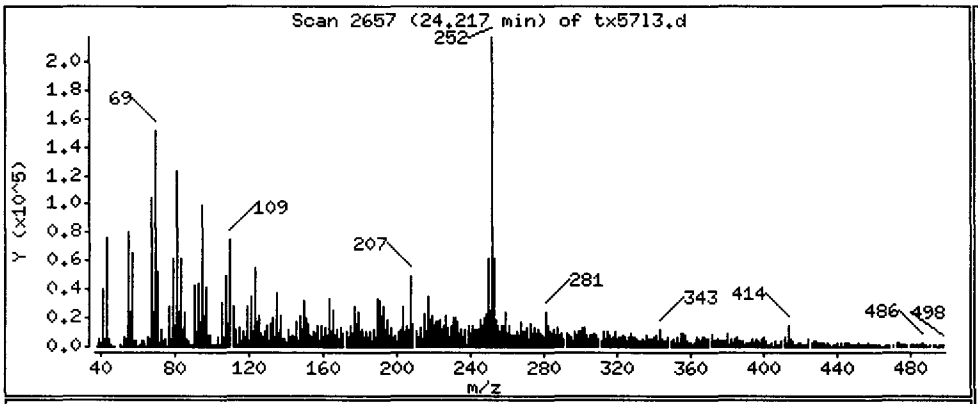
Operator: YZ

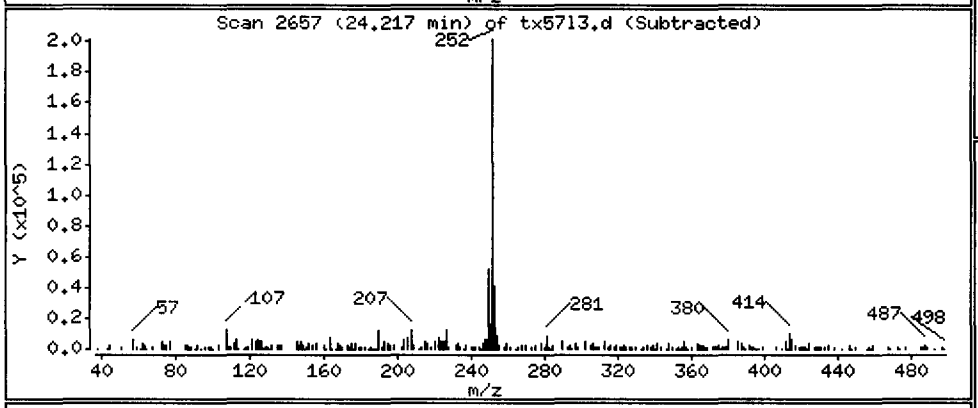
Column phase: ZB-5ms1

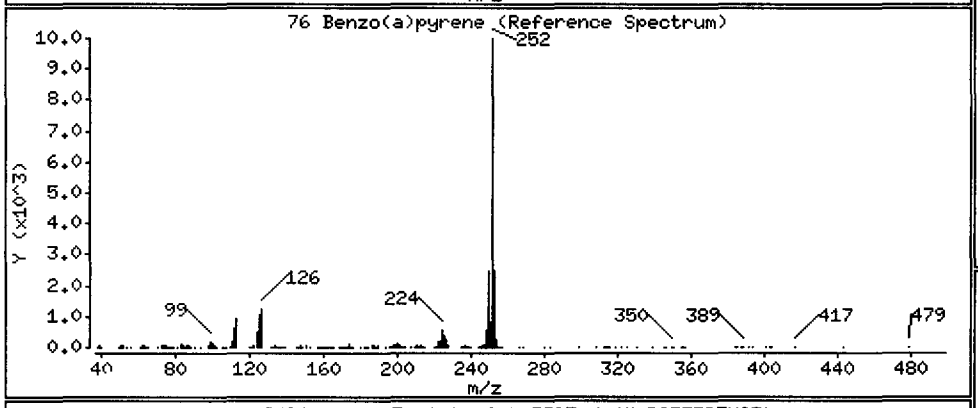
Column diameter: 0.25

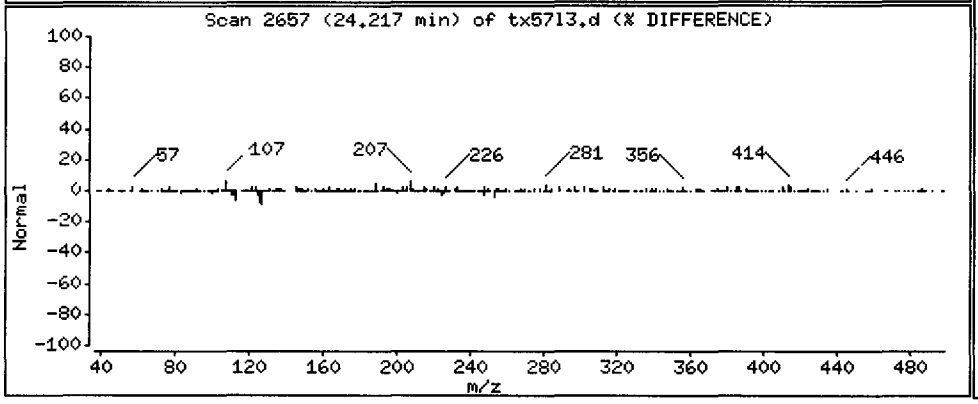
76 Benzo(a)pyrene

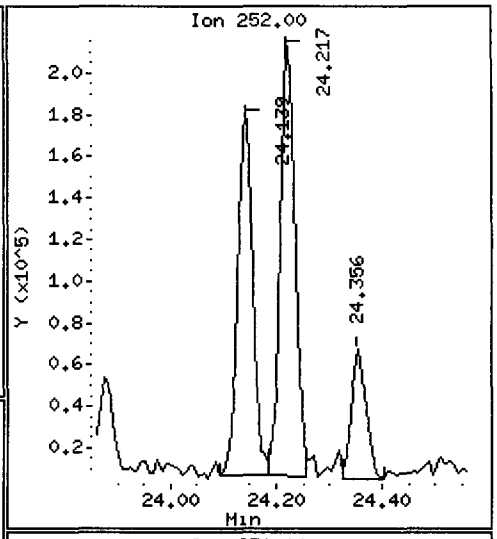
Concentration: 284.2 ug/kg

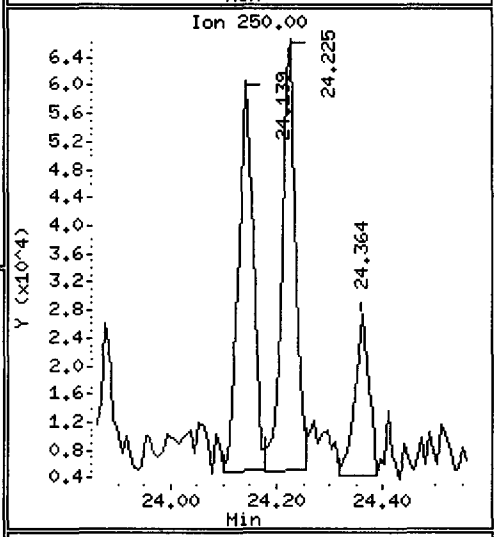


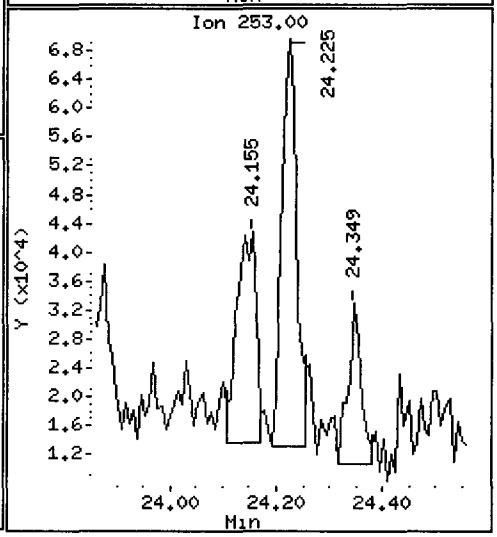












Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

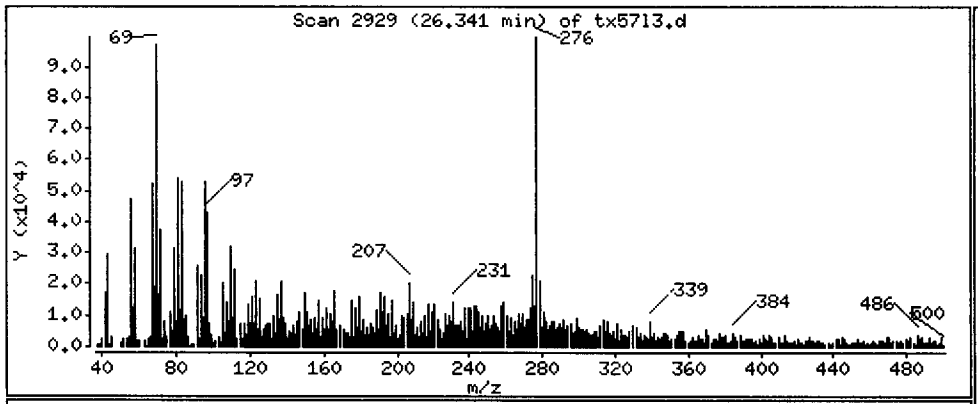
Client ID: SD0023 Instrument: nt10.i

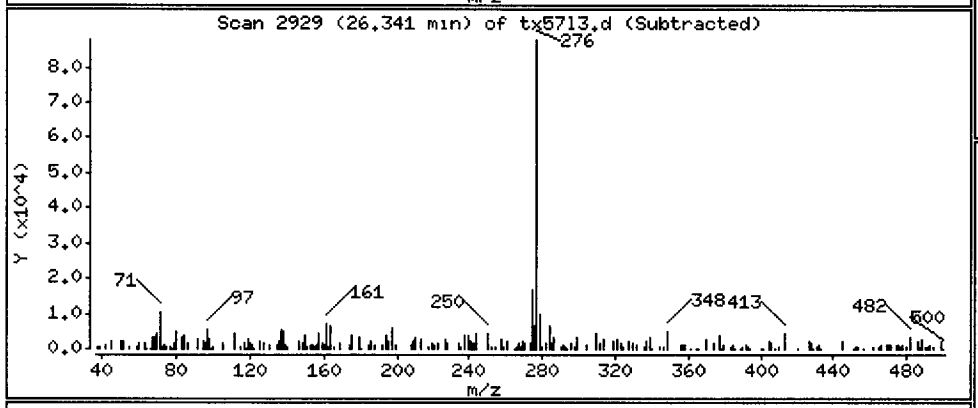
Sample Info: TX57L,3

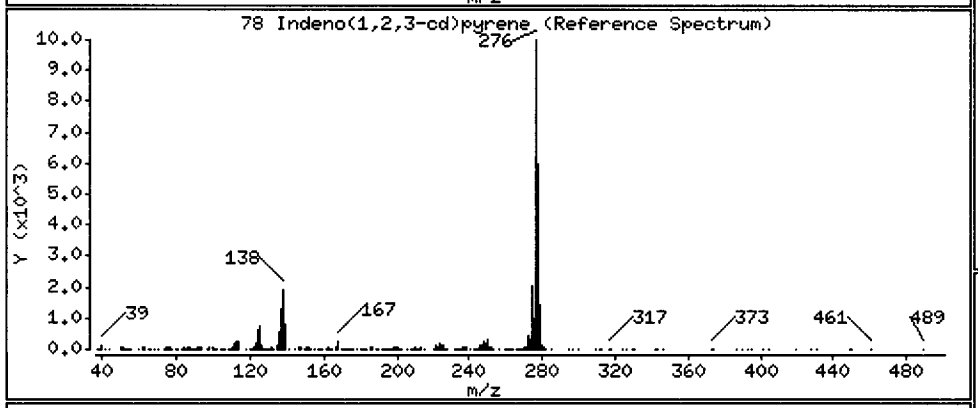
Volume Injected (uL): 1.0 Operator: YZ

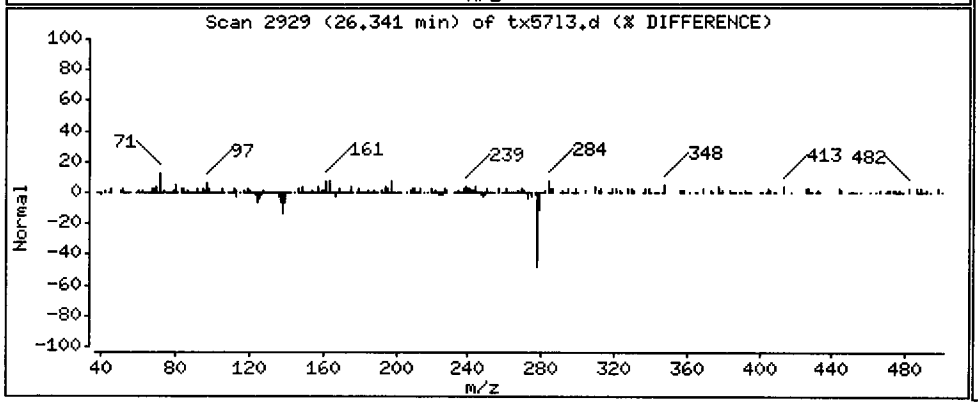
Column phase: ZB-5msi Column diameter: 0.25

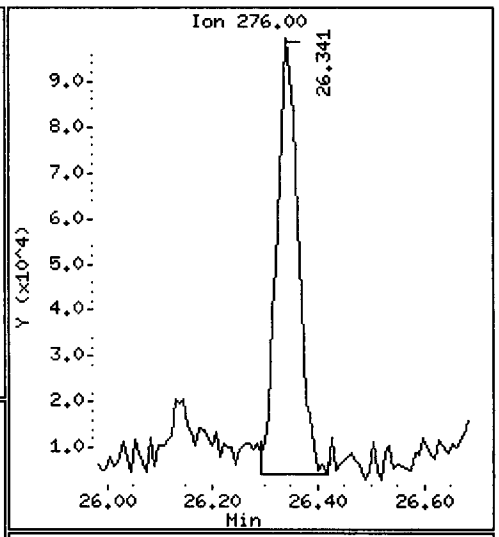
78 Indeno(1,2,3-cd)pyrene Concentration: 143.6 ug/kg

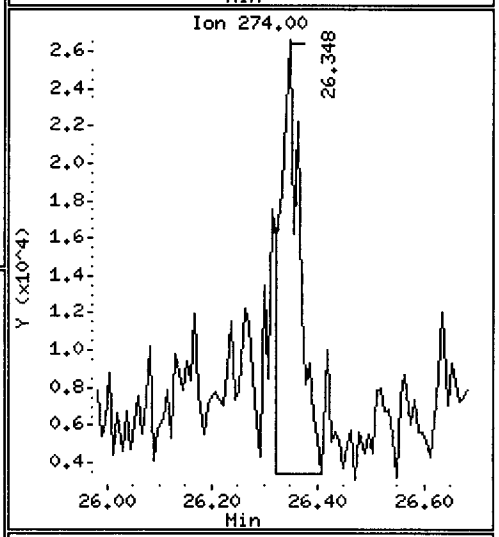


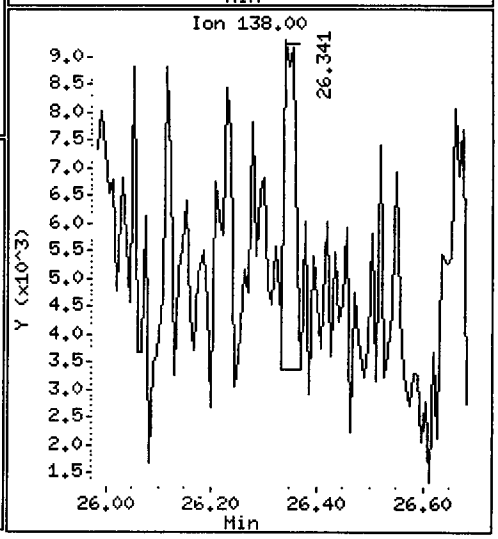












Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

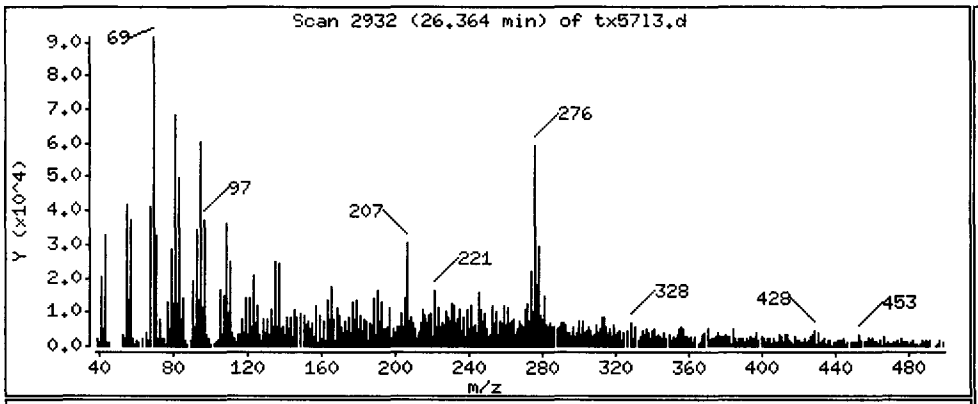
Client ID: SD0023 Instrument: nt10.i

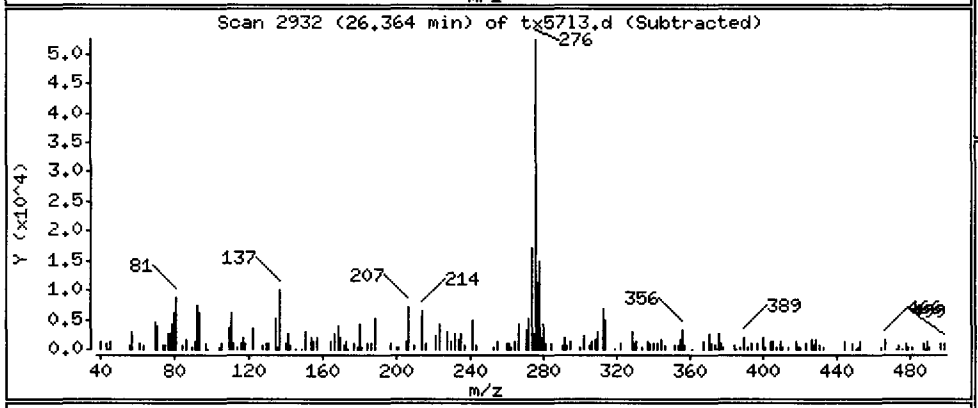
Sample Info: TX57L,3

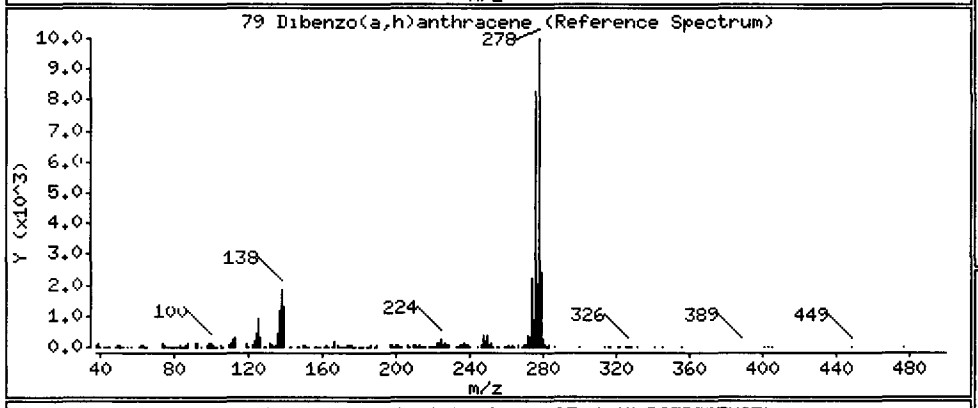
Volume Injected (uL): 1.0 Operator: YZ

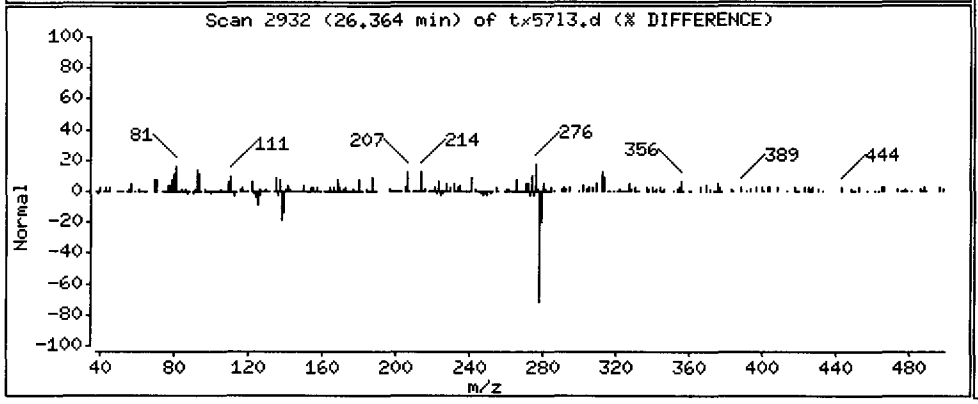
Column phase: ZB-5msi Column diameter: 0.25

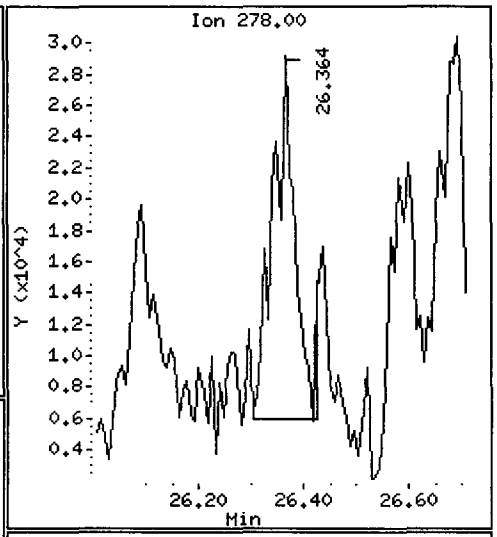
79 Dibenzo(a,h)anthracene Concentration: 45.71 ug/kg

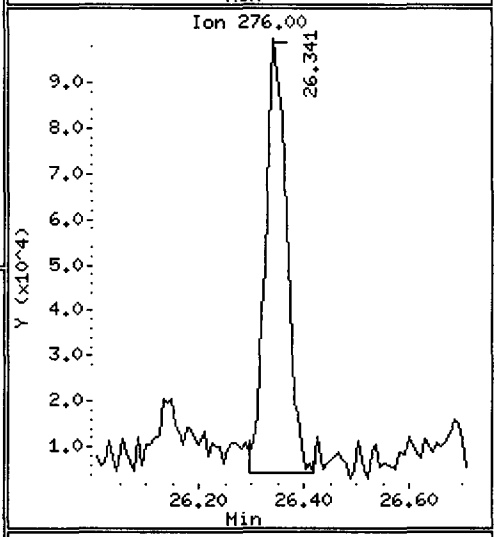


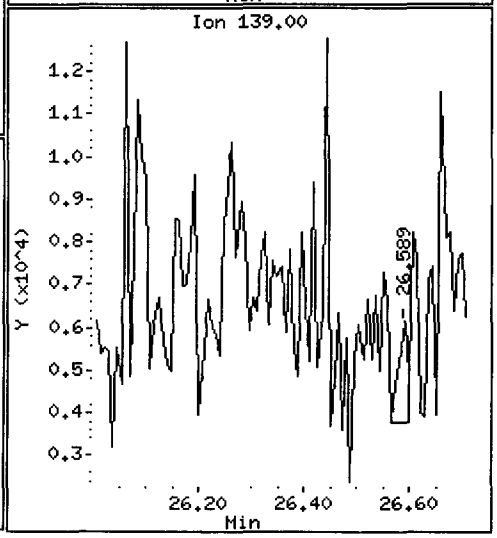












Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

Client ID: SD0023

Instrument: nt10.i

Sample Info: TX57L,3

Volume Injected (uL): 1.0

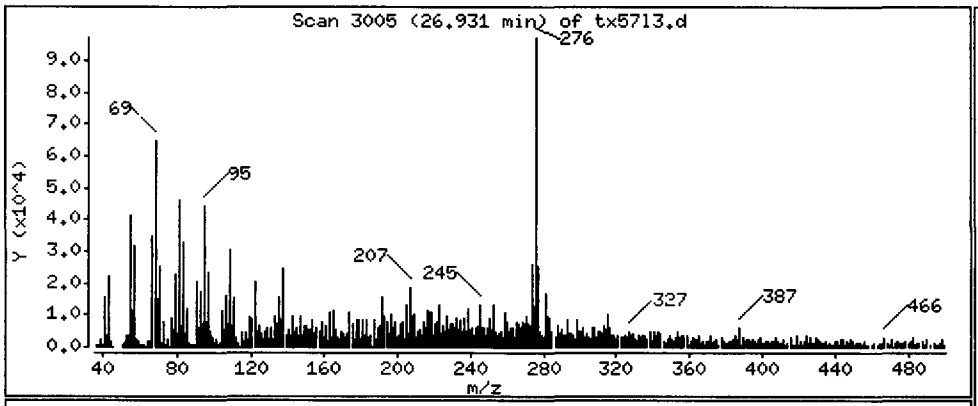
Operator: YZ

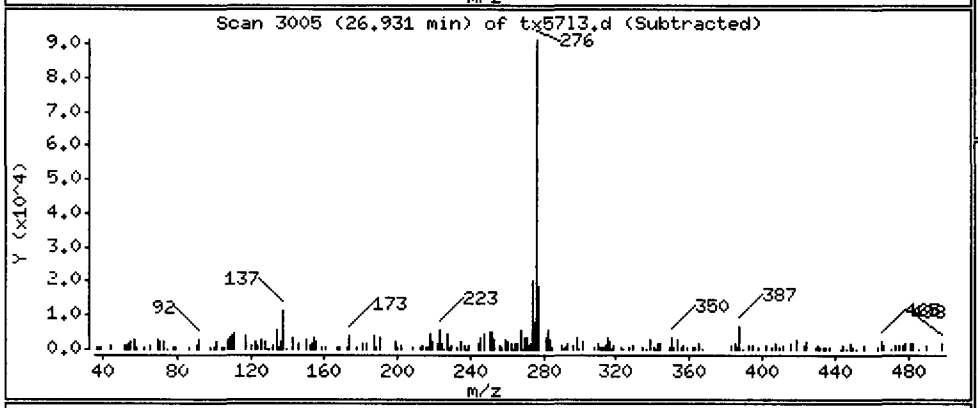
Column phase: ZB-5ms1

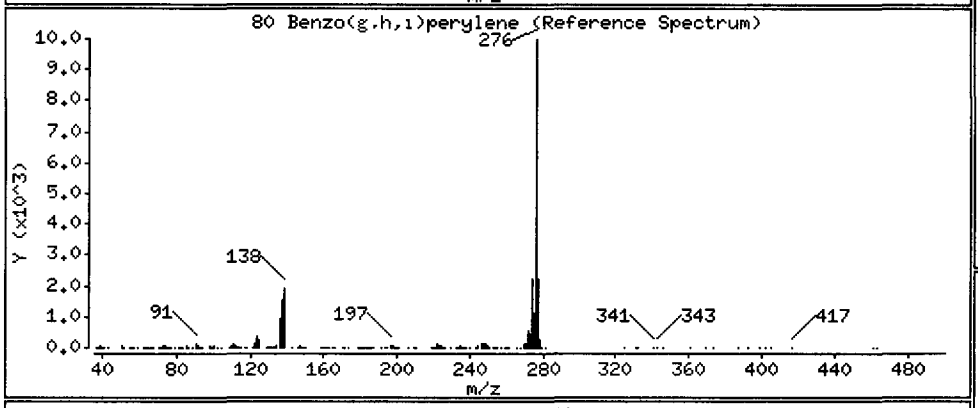
Column diameter: 0.25

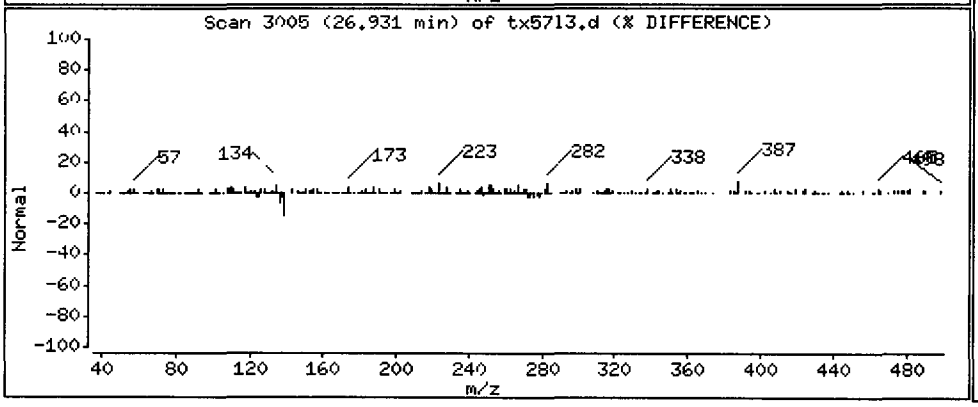
80 Benzo(g,h,i)perylene

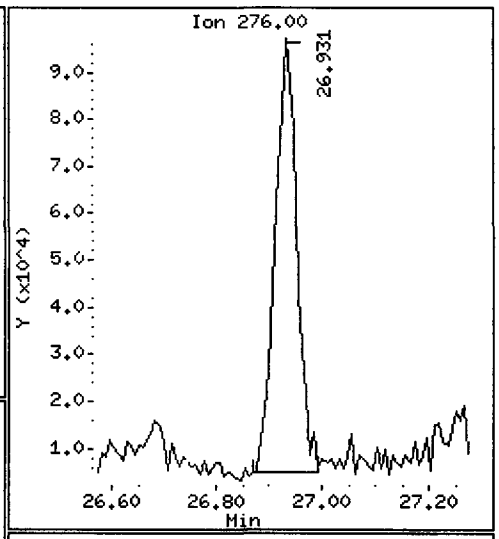
Concentration: 165.7 ug/kg

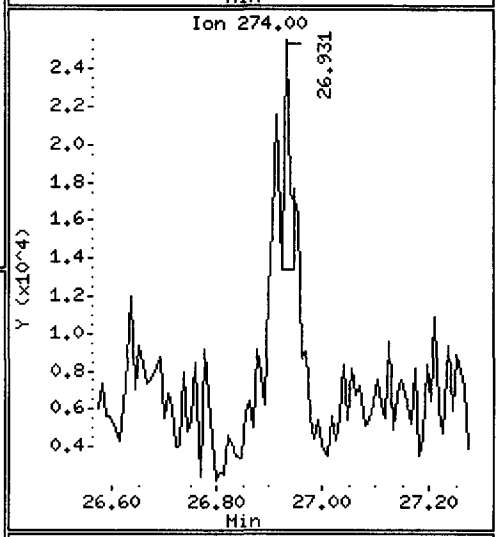


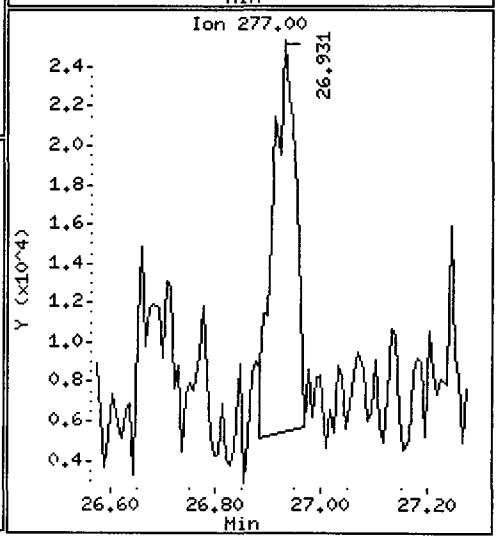












Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

Client ID: SD0023

Instrument: nt10.i

Sample Info: TX57L,3

Volume Injected (uL): 1.0

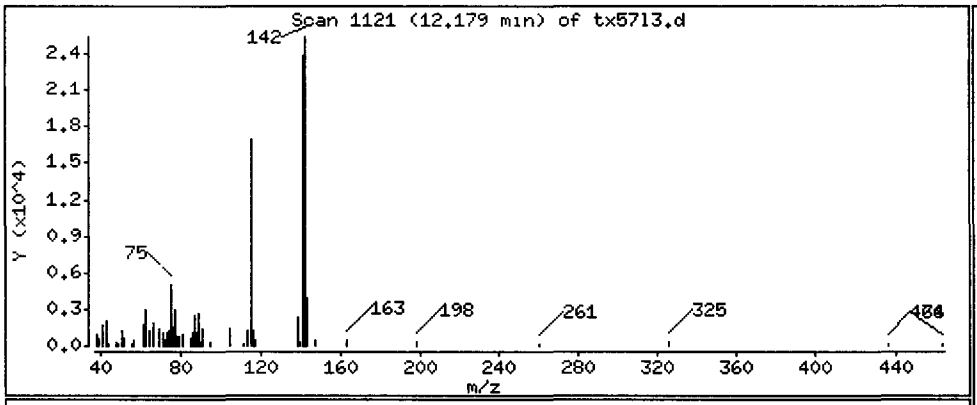
Operator: YZ

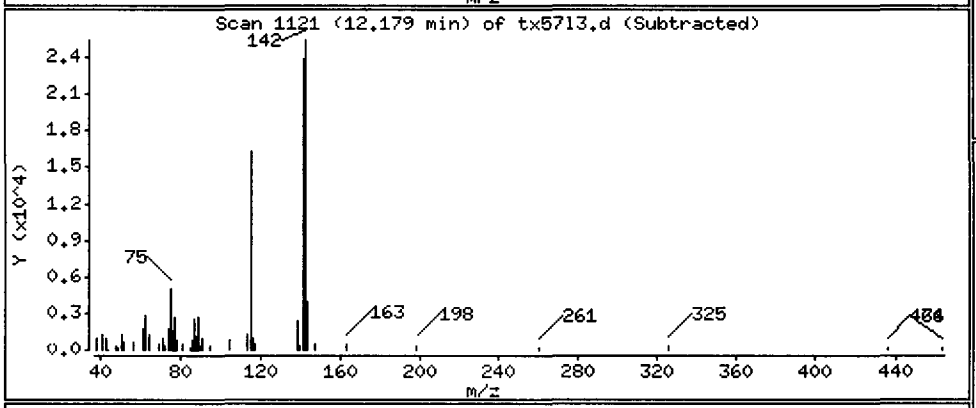
Column phase: ZB-5msi

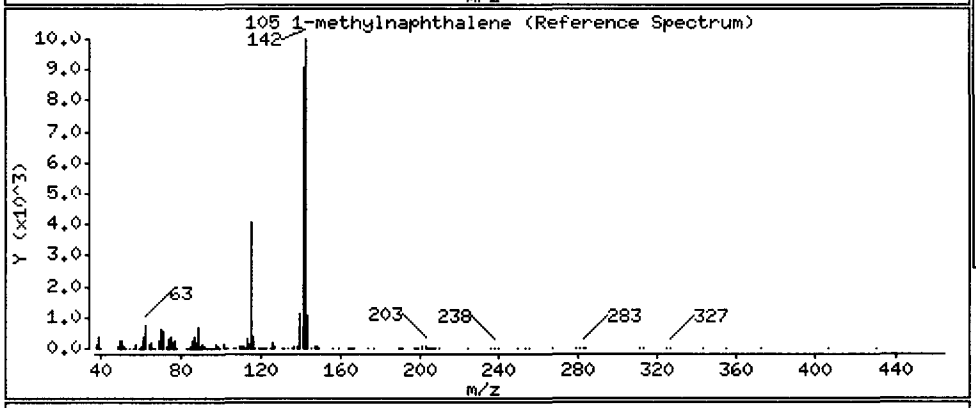
Column diameter: 0.25

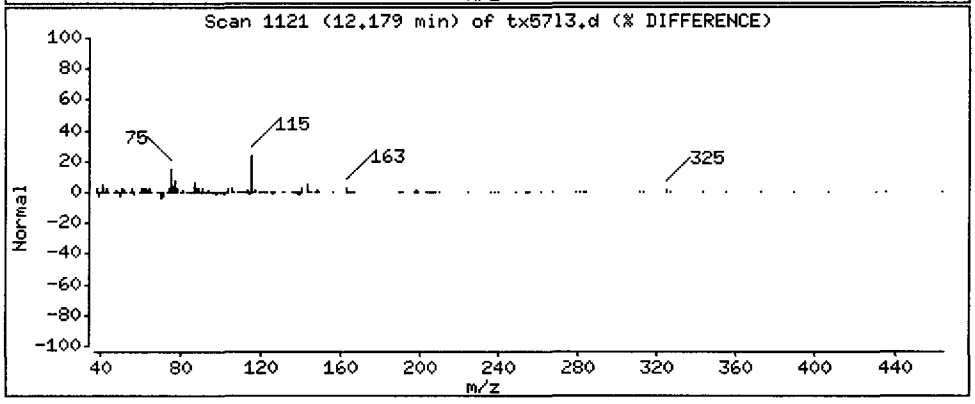
105 1-methylnaphthalene

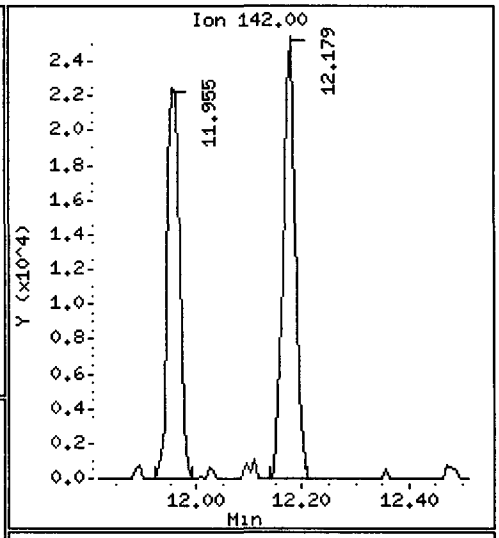
Concentration: 85.35 ug/kg

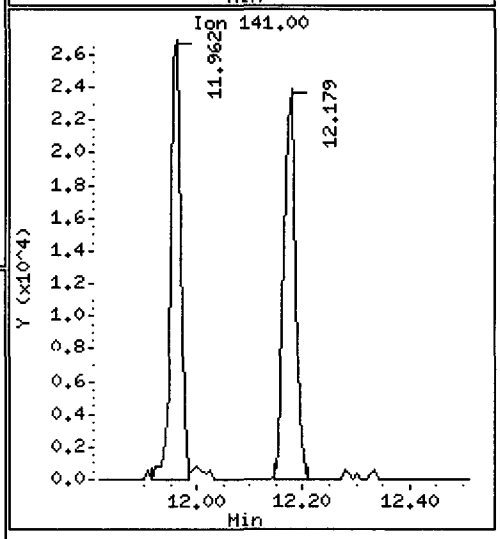












TX57 : 00975

Data File: /chem1/nt10.i/20111207.b/tx5713.d

Date : 07-DEC-2011 13:07

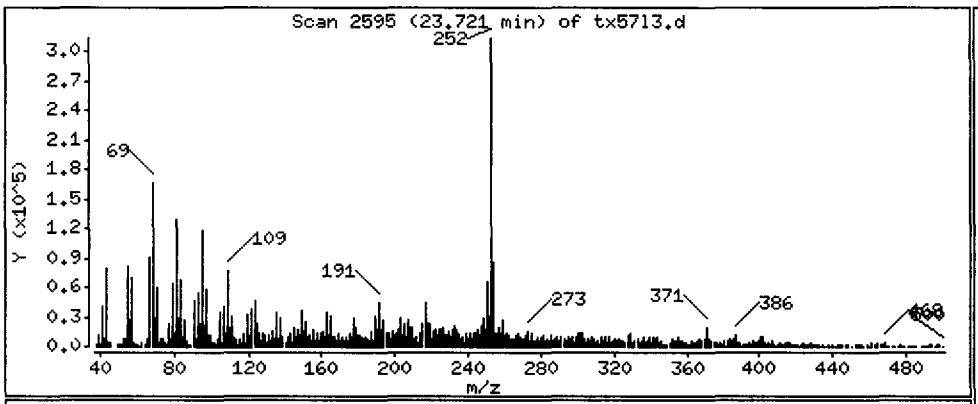
Client ID: SD0023 Instrument: nt10.i

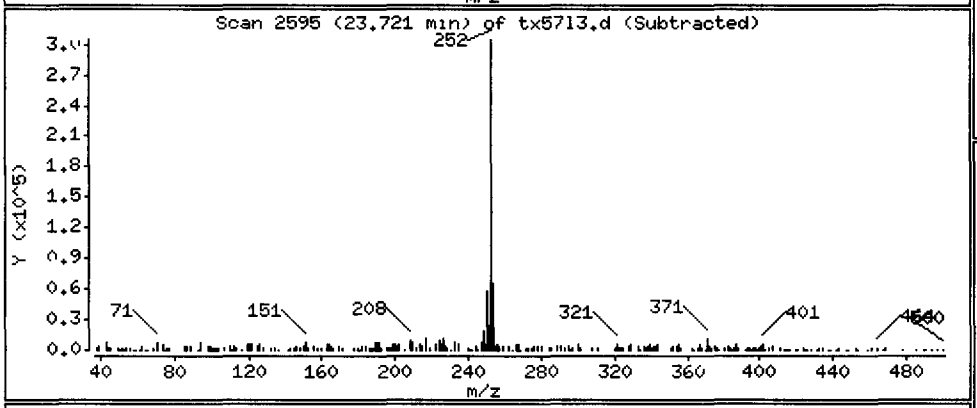
Sample Info: TX57L,3

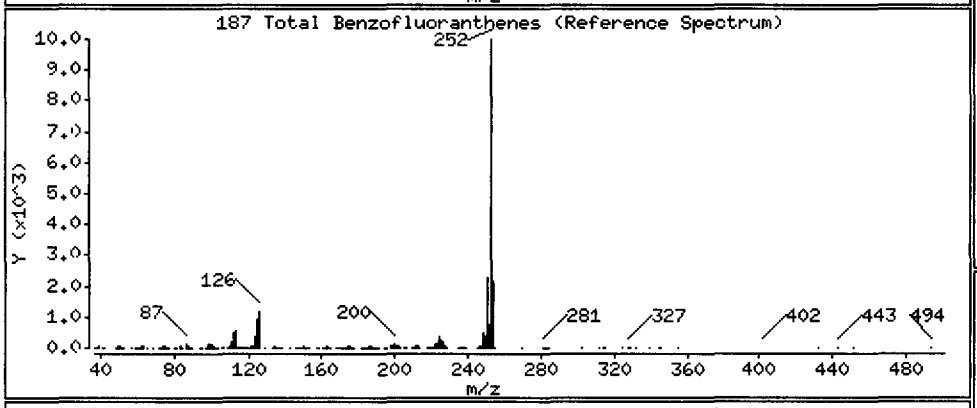
Volume Injected (uL): 1.0 Operator: YZ

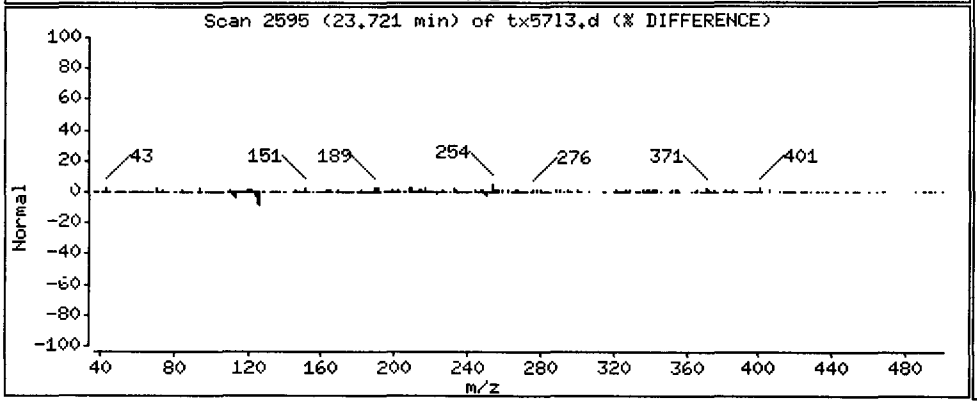
Column phase: ZB-5msi Column diameter: 0.25

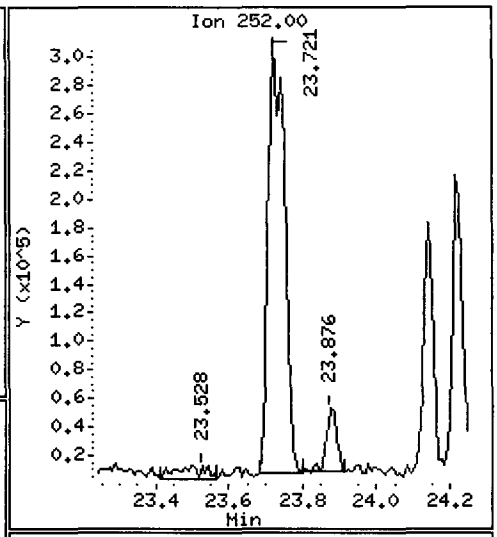
187 Total Benzofluoranthenes Concentration: 592.1 ug/kg

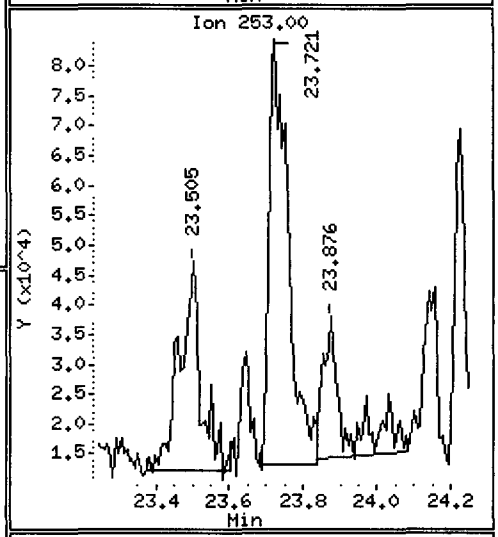


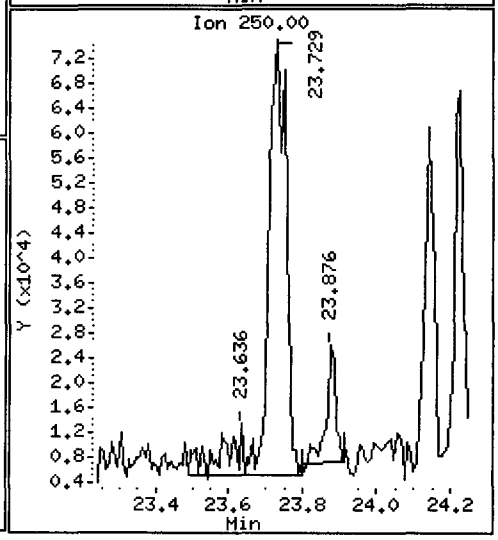








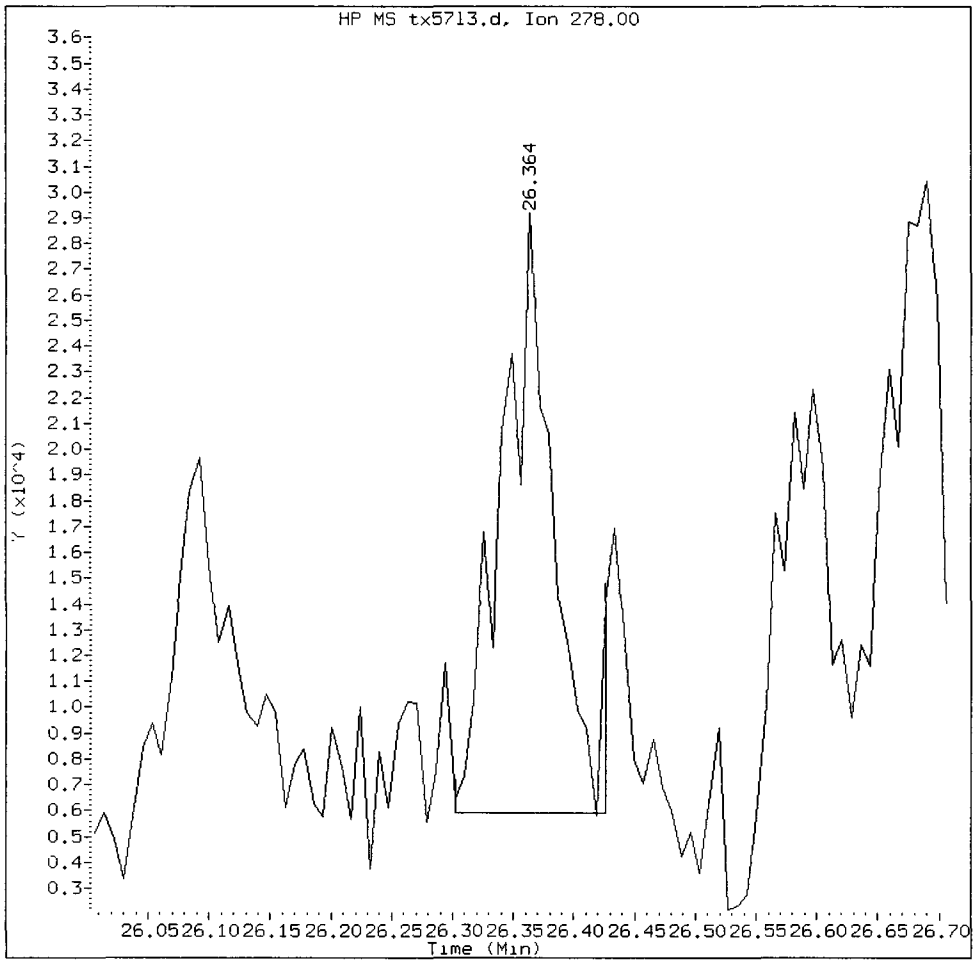




TX57 00576

TX57L, /chem1/nt10.i/20111207.b/tx5713.d

Dibenzo(a,h)anthracene Amount: 0.15 Area: 71175



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 12/9/11

CO-ELUTION SUMMARY FOR FILE - tx57l3.d

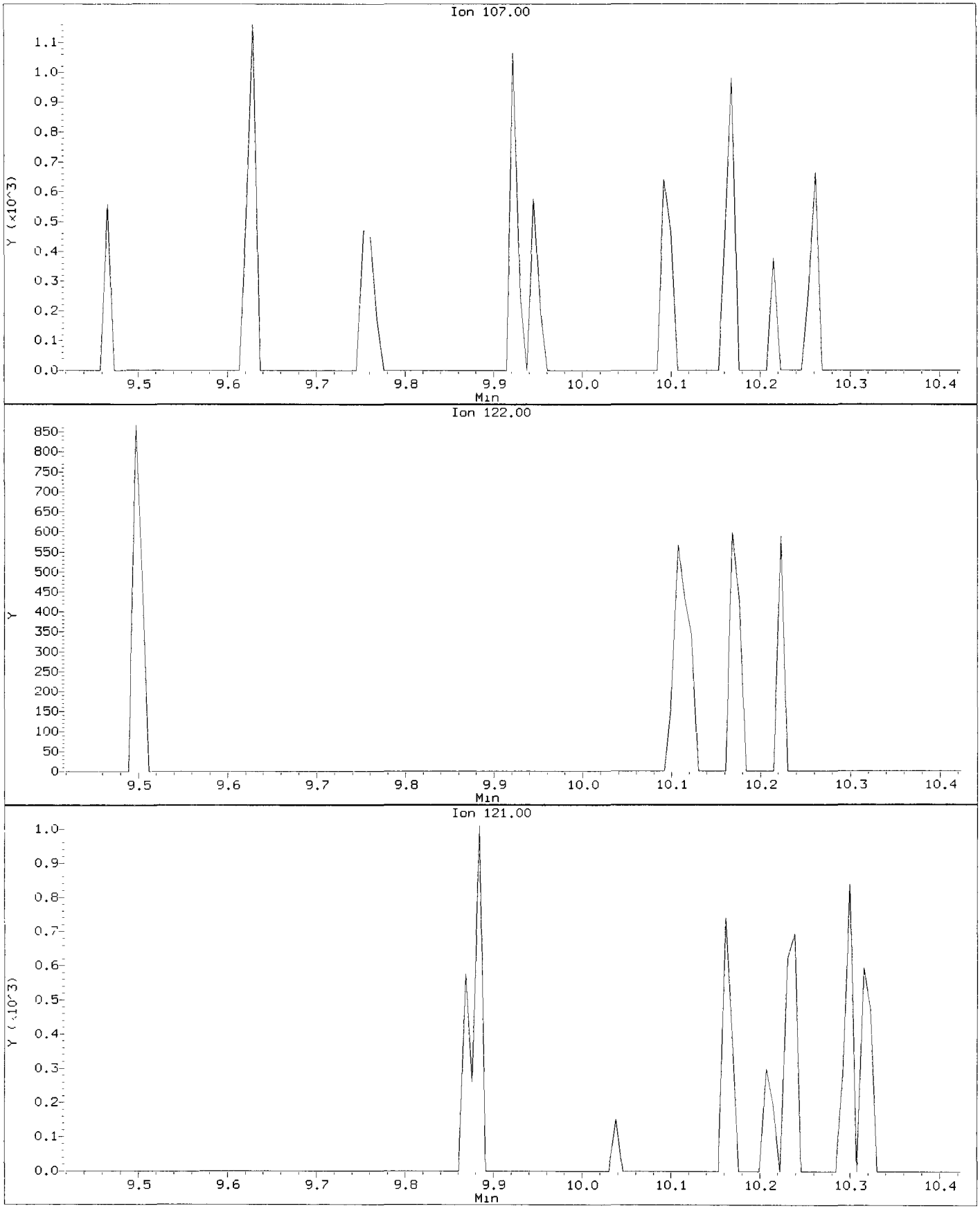
Lab ID: TX57L, Method: ABN.m, Instrument: nt10.i, Date: 07-DEC-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

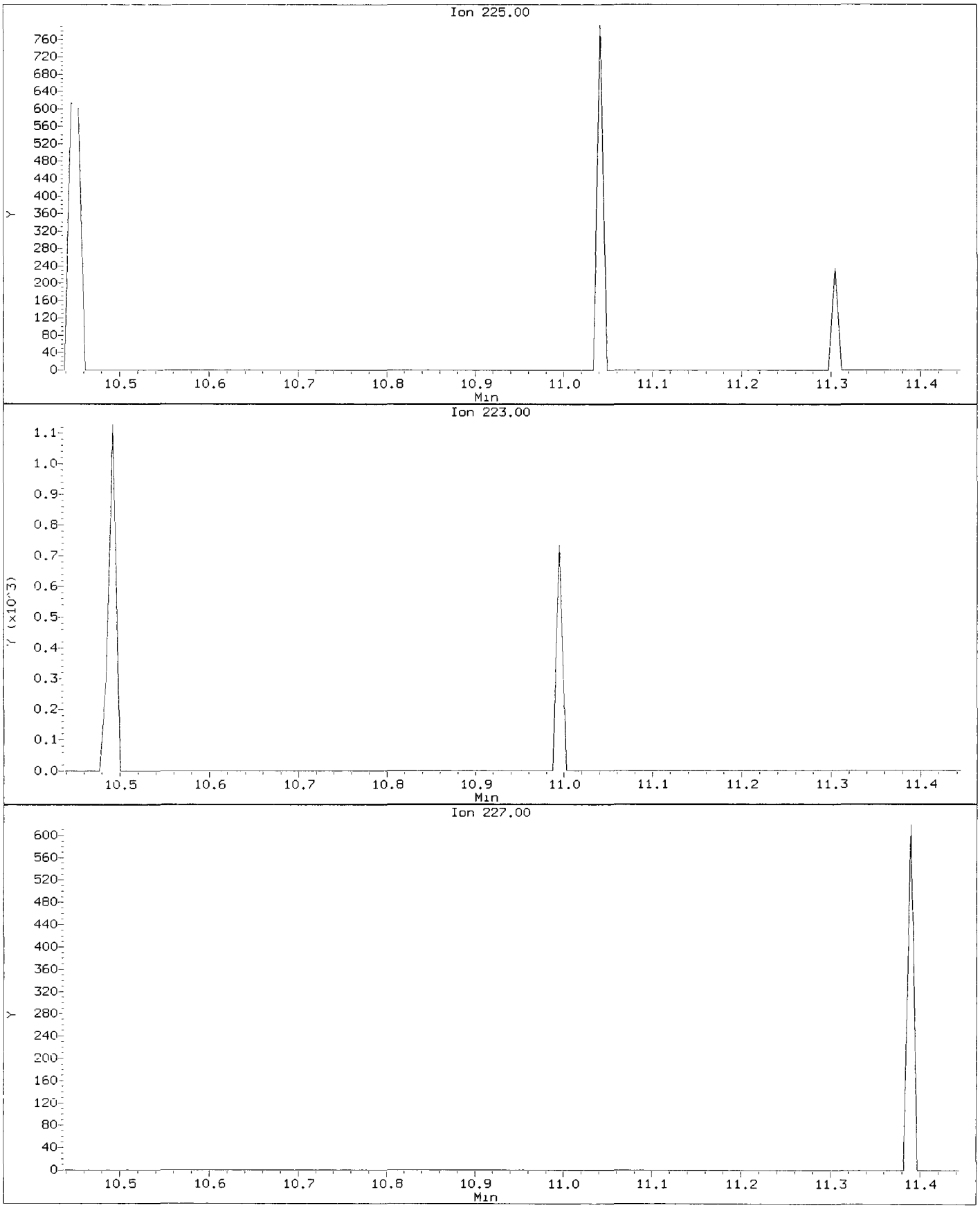
Data File: /chem1/nt10.1/20111207.b/tx5713.d
Injection Date: 07-DEC-2011 13:07
Instrument: nt10.1
Client Sample ID: SD0023

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



Data File: /chem1/nt10.1/20111207.b/tx5713.d
Injection Date: 07-DEC-2011 13:07
Instrument: nt10.1
Client Sample ID: SD0023

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20111207.b/tx57o3.d
Lab Smp Id: TX57O Client Smp ID: SD0010
Inj Date : 07-DEC-2011 13:41
Operator : YZ Inst ID: nt10.i
Smp Info : TX57O,3
Misc Info : 11-26633
Comment : 1ul Injection
Method : /chem1/nt10.i/20111207.b/ABN.m
Meth Date : 09-Dec-2011 09:11 yev Quant Type: ISTD
Cal Date : 21-OCT-2011 15:42 Cal File: ic1021g.d
Als bottle: 4
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

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

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	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)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	5.943	5.935	(0.734)	72288	1.41846	425.5
$ 2	Phenol-d5	99	7.535	7.520	(0.931)	103157	1.57613	472.8
3	Phenol	94	7.559	7.543	(0.934)	10745	0.13313 J	39.94
$ 5	2-Chlorophenol-d4	132	7.736	7.728	(0.956)	101171	1.70814	512.4
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.092	8.077	(1.000)	208416	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.434	8.426	(1.042)	51031	0.99296	297.9
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	8.387	8.371	(1.036)	8006	0.21413	64.24
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	8.923	8.899	(1.103)	8363	0.14781 J	44.34
$	18 Nitrobenzene-d5	82	9.171	9.155	(0.871)	80466	1.07261	321.8
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.531	10.516	(1.000)	705757	4.00000	
	28 Naphthalene	128	10.570	10.554	(1.004)	198164	1.15970	347.9
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	11.962	11.947	(1.136)	114242	0.89110	267.3
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.759	12.744	(0.904)	229247	1.13802	341.4
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	13.681	13.665	(0.969)	25158	0.11334 J	34.00
	40 Acenaphthylene	152	13.797	13.773	(0.978)	31577	0.13489 J	40.47
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.114	14.090	(1.000)	557188	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.176	14.152	(1.004)	228754	1.56529	469.6
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.500	14.485	(1.027)	286033	1.22072	366.2
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.142	15.126	(1.073)	37650	0.19641 J	58.92
	49 Fluorene	166	15.212	15.188	(1.078)	363838	1.97119	591.4
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.751	15.728	(1.116)	89720	1.82783	548.3
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.119	17.096	(1.000)	1311900	4.00000	
	60 Phenanthrene	178	17.166	17.142	(1.003)	2240764	6.63524	1991
	61 Anthracene	178	17.259	17.235	(1.008)	355826	1.04597	313.8

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	17.607	17.583	(1.028)	172232	0.67382	202.1
63	Di-n-butylphthalate	149	18.450	18.419	(1.078)	1614853	4.33580	1301
64	Fluoranthene	202	19.487	19.448	(1.138)	4751079	10.2094	3063
65	Pyrene	202	19.881	19.850	(0.903)	4378471	10.6265	3188
$ 66	Terphenyl-d14	244	20.199	20.175	(0.917)	401789	1.18320	355.0
67	Butylbenzylphthalate	149	21.136	21.112	(0.960)	60213	0.40159	120.5
68	Benzo(a)anthracene	228	21.995	21.972	(0.999)	1489772	3.21283	963.8
* 69	Chrysene-d12	240	22.026	21.995	(1.000)	1703772	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.065	22.041	(1.002)	1797596	4.29850	1290
72	bis(2-Ethylhexyl)phthalate	149	22.173	22.150	(0.958)	1154473	5.73988	1722
* 134	Di-n-octylphthalate-d4	153	23.149	23.125	(1.000)	1414257	4.00000	
73	Di-n-octylphthalate	149	23.156	23.133	(1.000)	97470	0.28576	85.73
74	Benzo(b)fluoranthene	252	23.745	23.706	(0.976)	2215141	4.10188	1231
75	Benzo(k)fluoranthene	252	23.760	23.744	(0.976)	1969996	3.51993	1056(M)
76	Benzo(a)pyrene	252	24.248	24.209	(0.996)	1555289	3.50753	1052
* 77	Perylene-d12	264	24.341	24.302	(1.000)	1772920	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.380	26.333	(1.084)	1250671	2.06977	620.9
79	Dibenzo(a,h)anthracene	278	26.387	26.356	(1.084)	347132	0.68666	206.0(M)
80	Benzo(g,h,i)perylene	276	26.978	26.923	(1.108)	1184924	2.33047	699.1
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	19.773	19.711	(0.898)	109766	1.31007	393.0
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	12.179	12.163	(1.156)	68150	0.51785	155.4
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	23.745	23.744	(0.976)	3742317	7.19312	2158
99	Perylene	252	24.380	24.349	(1.002)	449554	1.02714	308.1

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: tx57o3.d
Lab Smp Id: TX57O
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20111207.b/ABN.m
Misc Info: 11-26633

Calibration Date: 07-DEC-2011
Calibration Time: 11:59
Client Smp ID: SD0010
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	172860	86430	345720	208416	20.57
27 Naphthalene-d8	574010	287005	1148020	705757	22.95
42 Acenaphthene-d10	467963	233982	935926	557188	19.07
59 Phenanthrene-d10	976150	488075	1952300	1311900	34.40
69 Chrysene-d12	1397129	698564	2794258	1703772	21.95
134 Di-n-octylphthala	1264537	632268	2529074	1414257	11.84
77 Perylene-d12	1407308	703654	2814616	1772920	25.98

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.08	7.58	8.58	8.09	0.19
27 Naphthalene-d8	10.52	10.02	11.02	10.53	0.15
42 Acenaphthene-d10	14.09	13.59	14.59	14.11	0.17
59 Phenanthrene-d10	17.10	16.60	17.60	17.12	0.14
69 Chrysene-d12	21.99	21.49	22.49	22.03	0.14
134 Di-n-octylphthala	23.13	22.63	23.63	23.15	0.10
77 Perylene-d12	24.30	23.80	24.80	24.34	0.16

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: INTEGRAL
Sample Matrix: SOLID
Lab Smp Id: TX57O
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20111207.b/ABN.m
Misc Info: 11-26633

Client SDG: TX57
Fraction: SV
Client Smp ID: SD0010
Operator: YZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.0	425.5	56.74	30-160
$ 2 Phenol-d5	750.0	472.8	63.05	30-160
$ 5 2-Chlorophenol-d4	750.0	512.4	68.33	30-160
$ 10 1,2-Dichlorobenzen	500.0	297.9	59.58	30-160
$ 18 Nitrobenzene-d5	500.0	321.8	64.36	30-160
$ 36 2-Fluorobiphenyl	500.0	341.4	68.28	30-160
$ 55 2,4,6-Tribromophen	750.0	548.3	73.11	30-160
$ 66 Terphenyl-d14	500.0	355.0	70.99	30-160

Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

Client ID: SD0010

Sample Info: TX57O,3

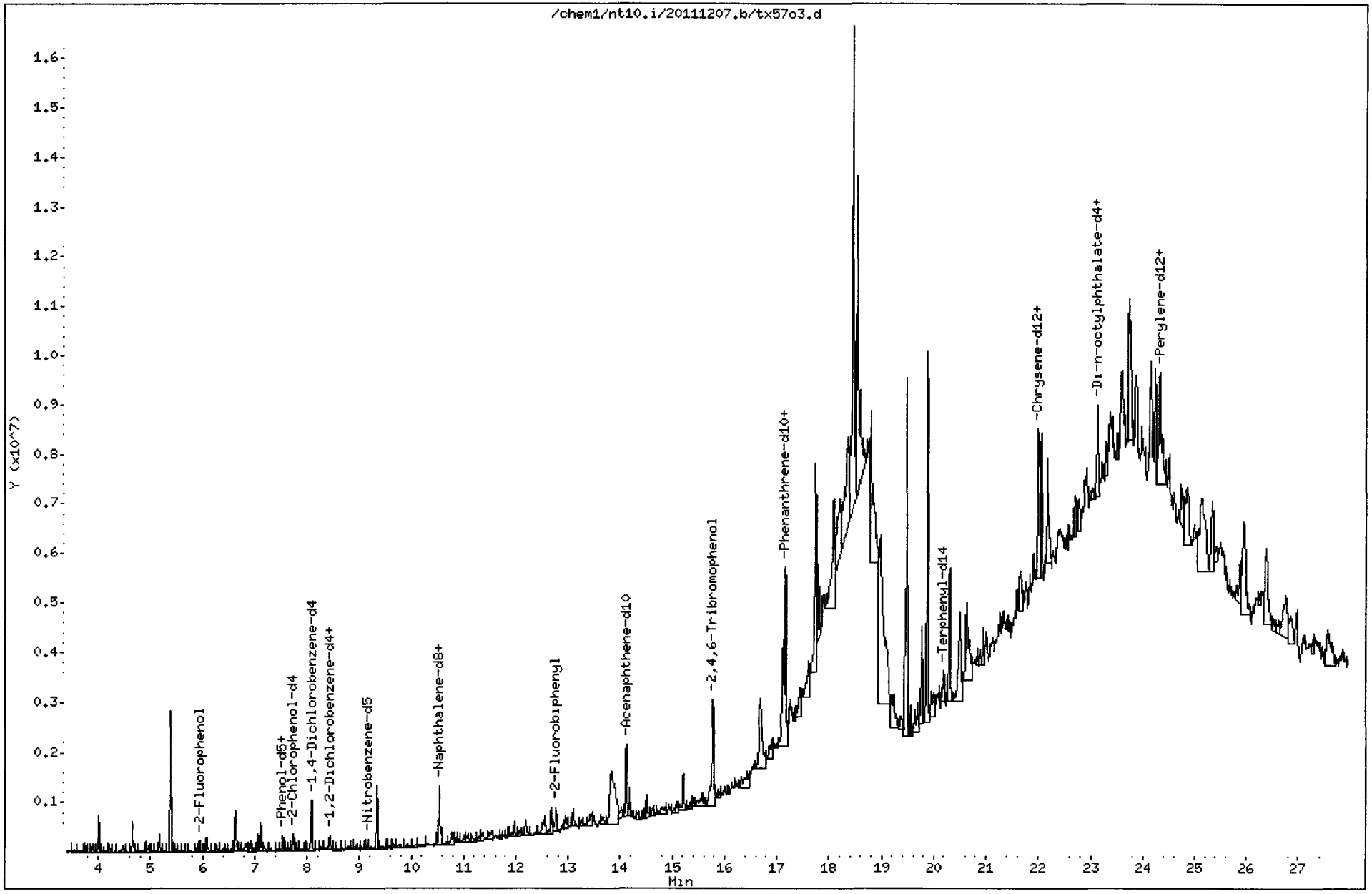
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: YZ

Column diameter: 0.25



TX57 00986

Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

Client ID: SD0010

Instrument: nt10.i

Sample Info: TX570,3

Volume Injected (uL): 1.0

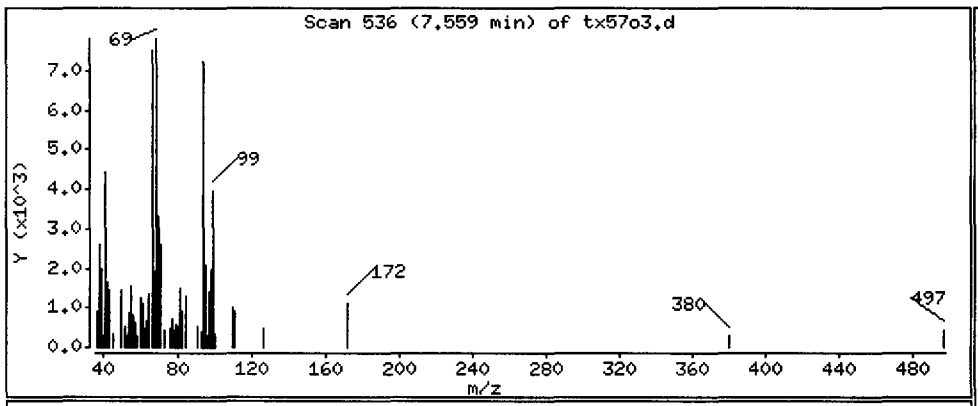
Operator: YZ

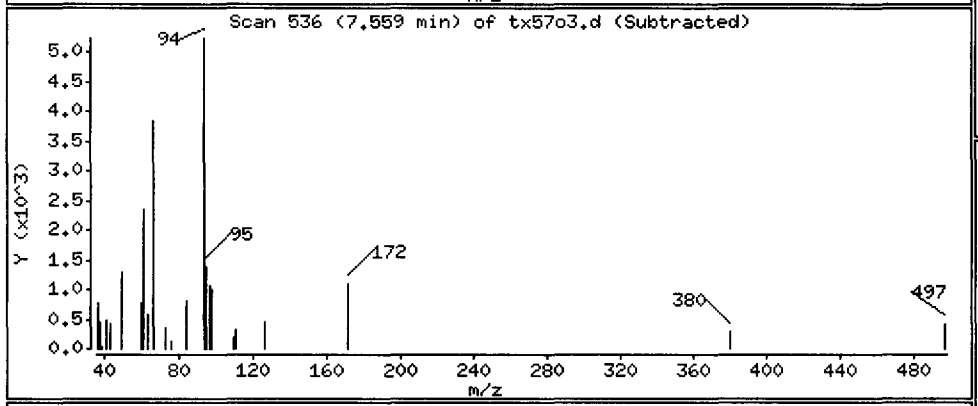
Column phase: ZB-5msi

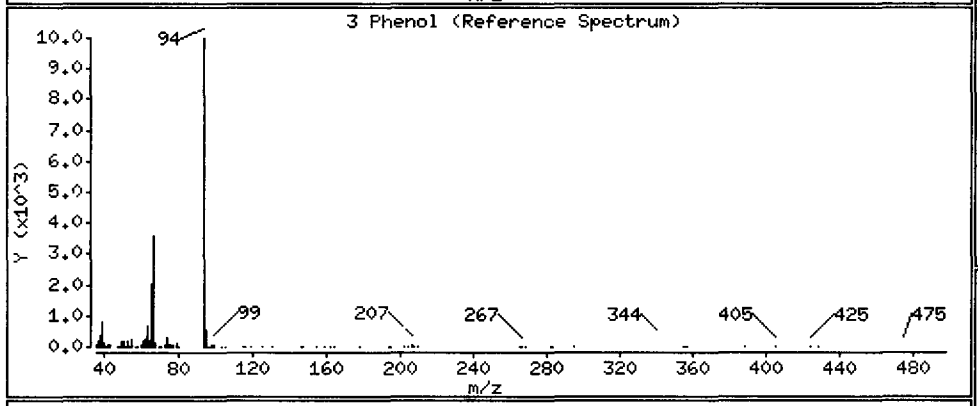
Column diameter: 0.25

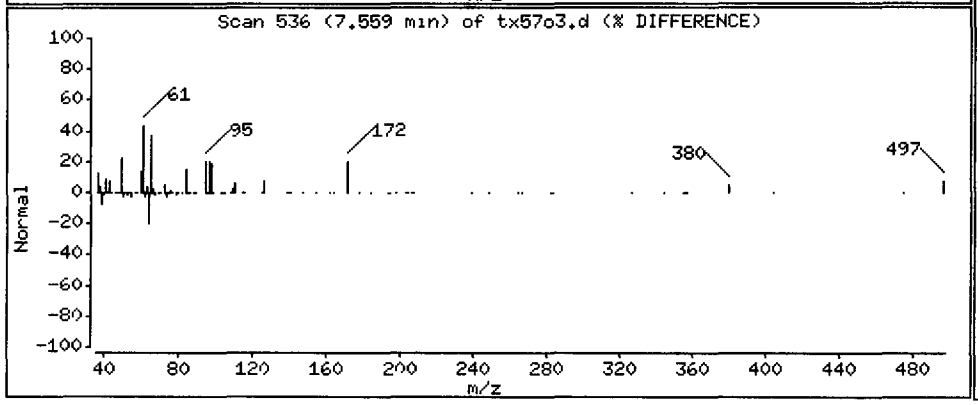
3 Phenol

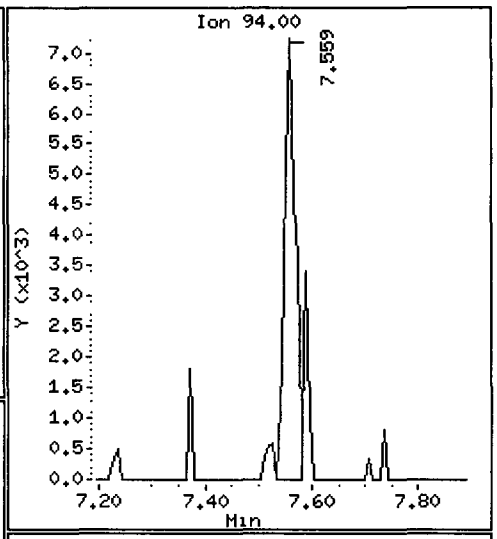
Concentration: 39.94 ug/kg

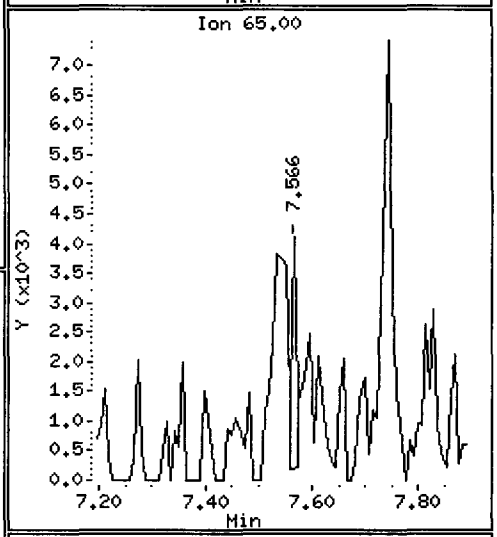


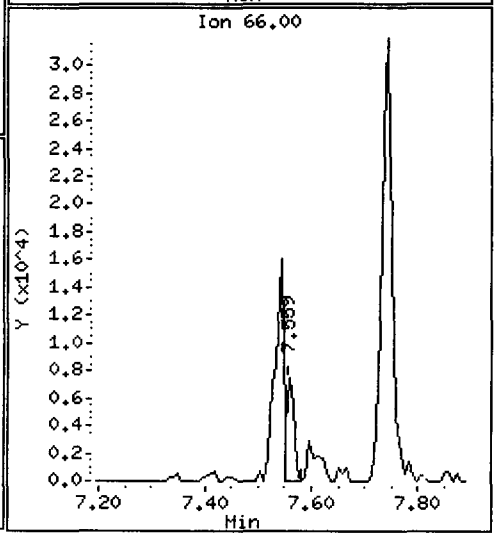












TX57 00987

Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

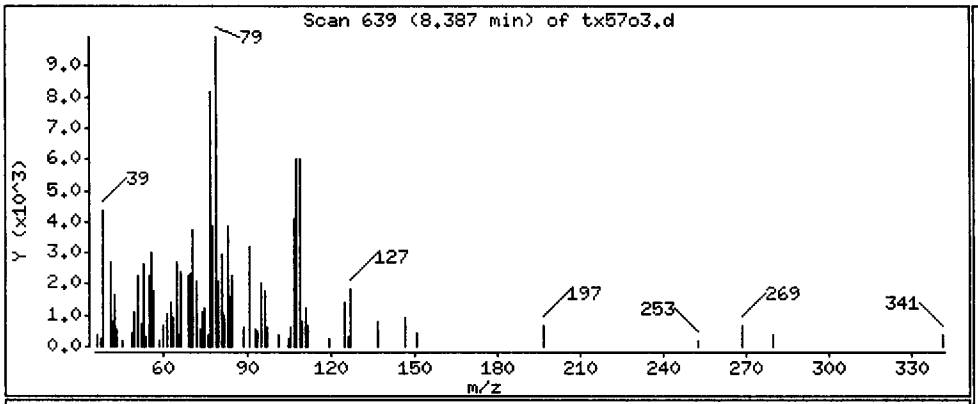
Client ID: SD0010 Instrument: nt10.i

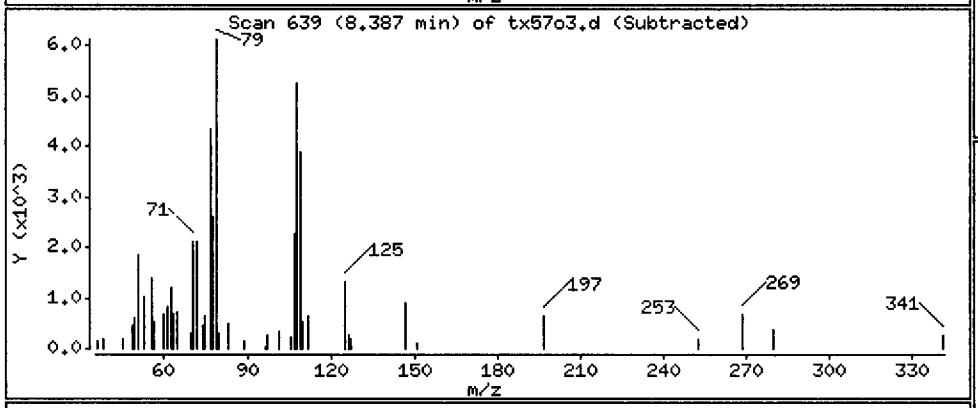
Sample Info: TX570,3

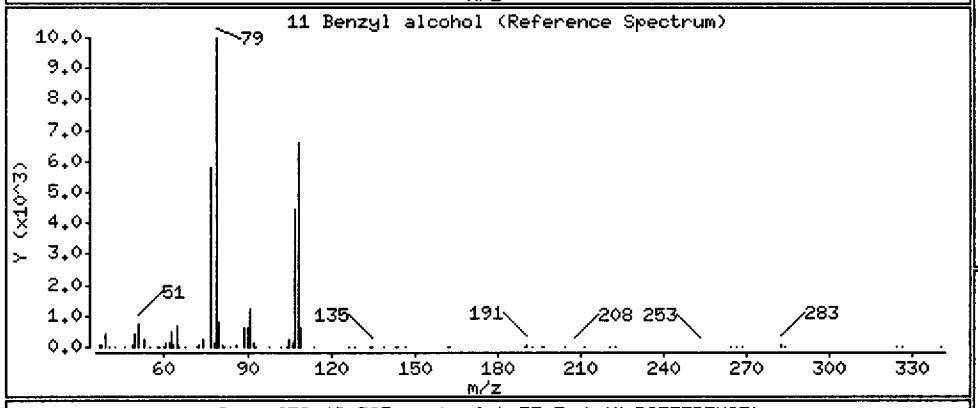
Volume Injected (uL): 1.0 Operator: YZ

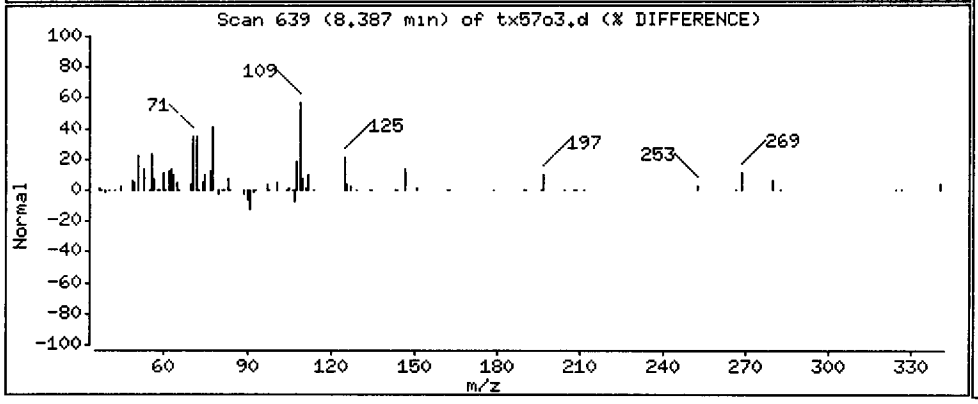
Column phase: ZB-5ms1 Column diameter: 0.25

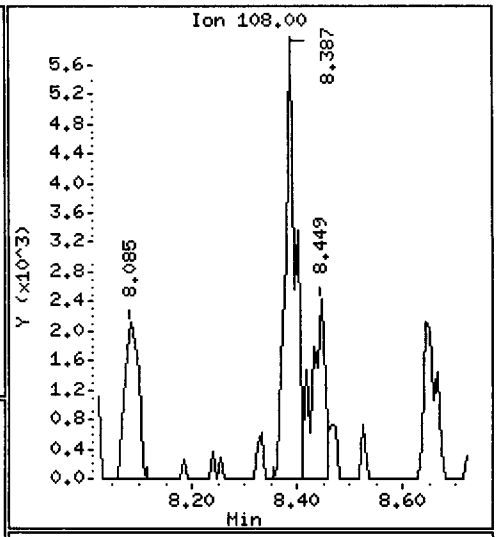
11 Benzyl alcohol Concentration: 64.24 ug/kg

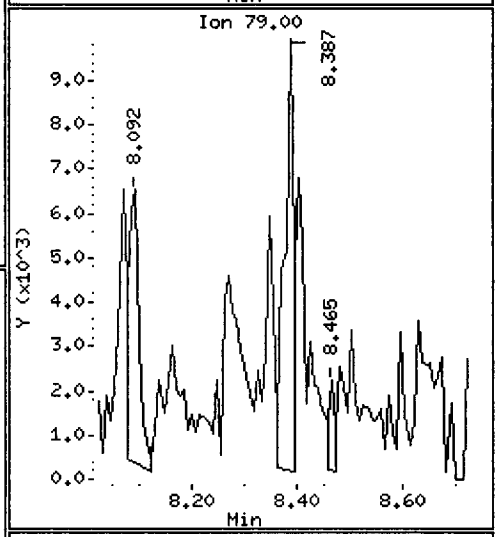


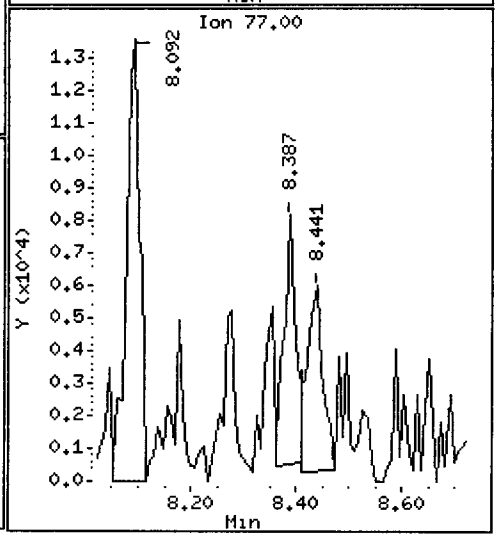












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

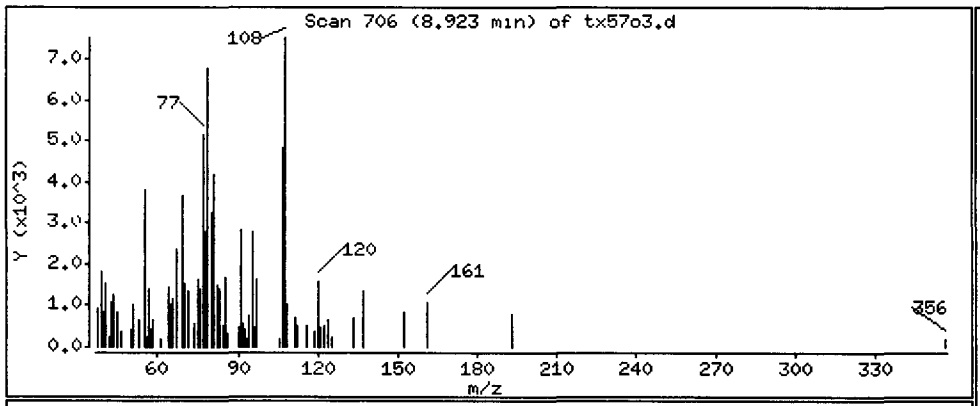
Client ID: SD0010 Instrument: nt10.i

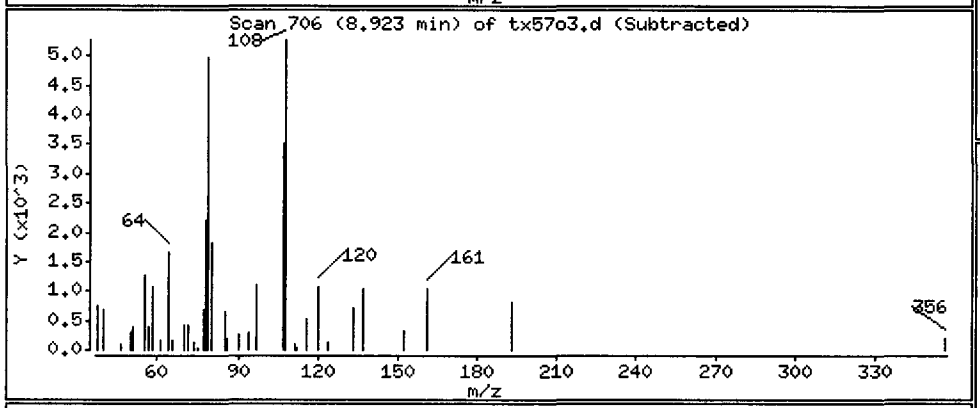
Sample Info: TX570,3

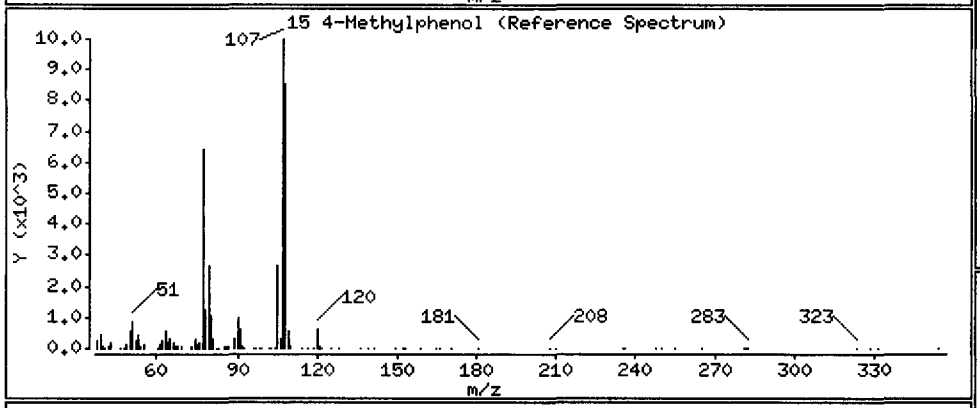
Volume Injected (uL): 1.0 Operator: YZ

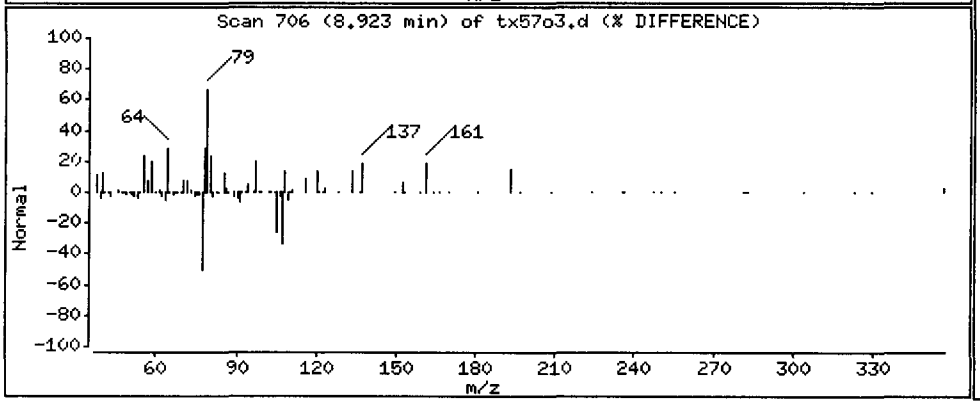
Column phase: ZB-5msi Column diameter: 0.25

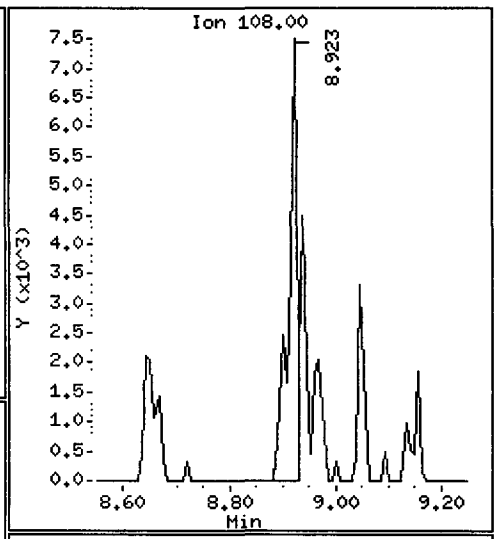
15 4-Methylphenol Concentration: 44.34 ug/kg

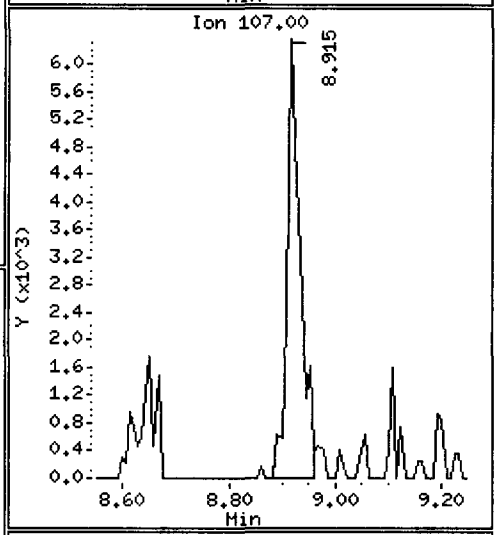


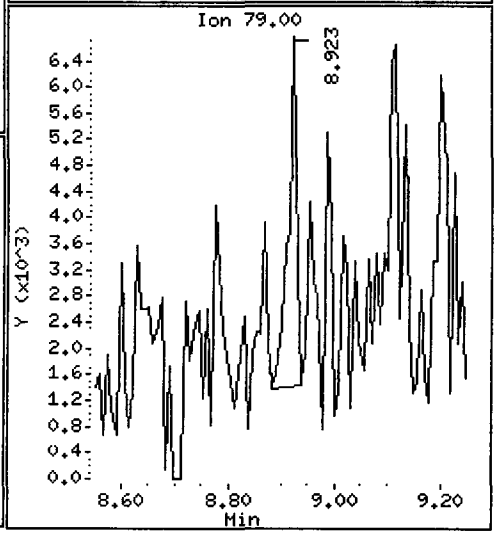












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

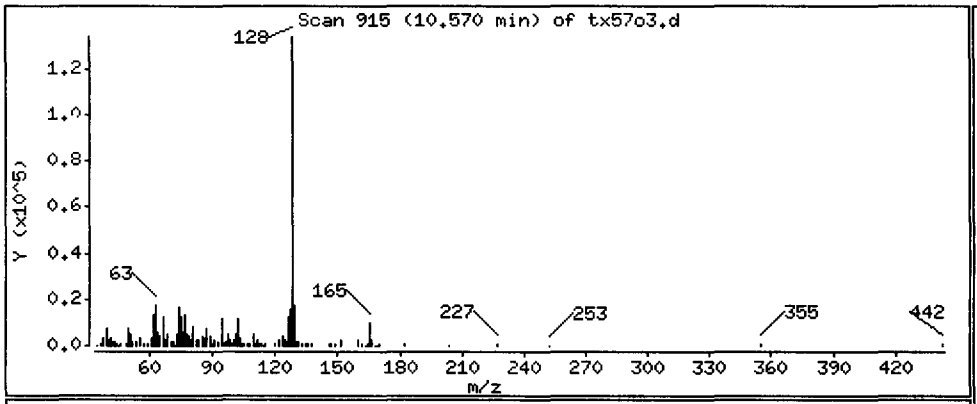
Client ID: SD0010 Instrument: nt10.i

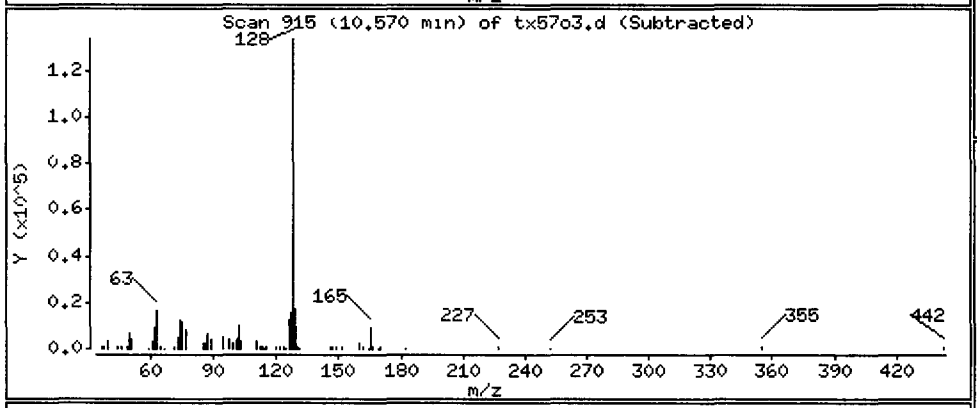
Sample Info: TX570,3

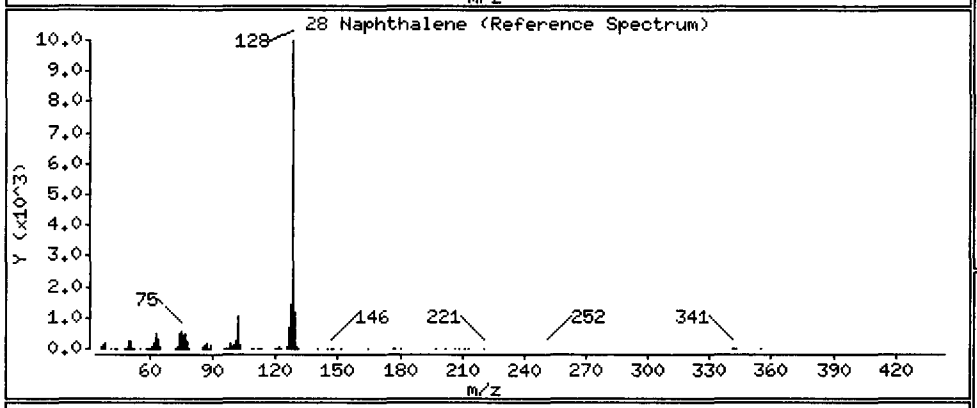
Volume Injected (uL): 1.0 Operator: YZ

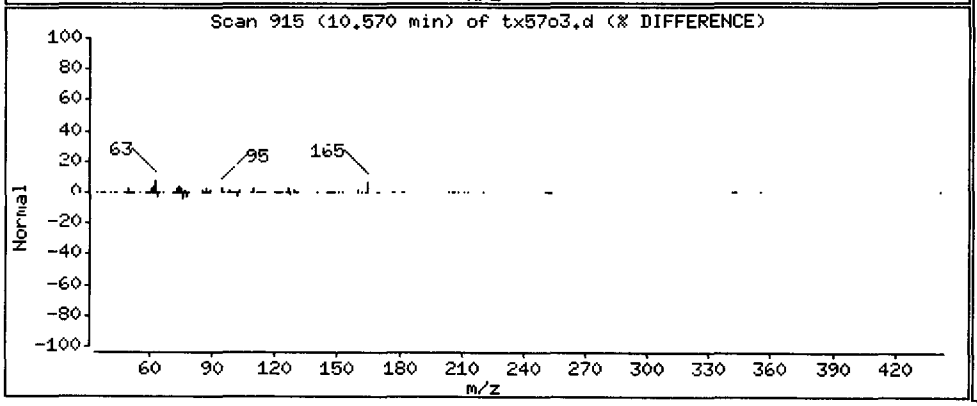
Column phase: ZB-5msi Column diameter: 0.25

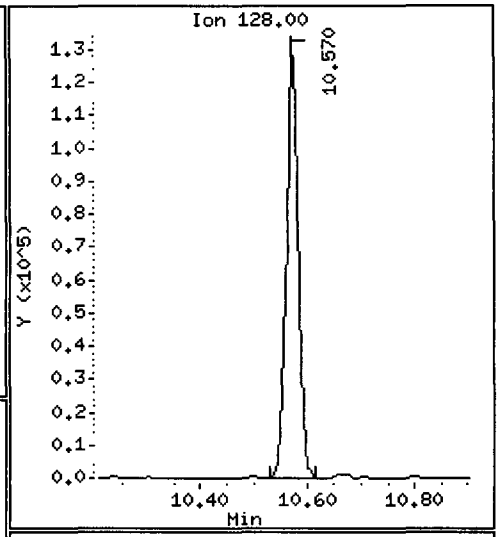
28 Naphthalene Concentration: 347.9 ug/kg

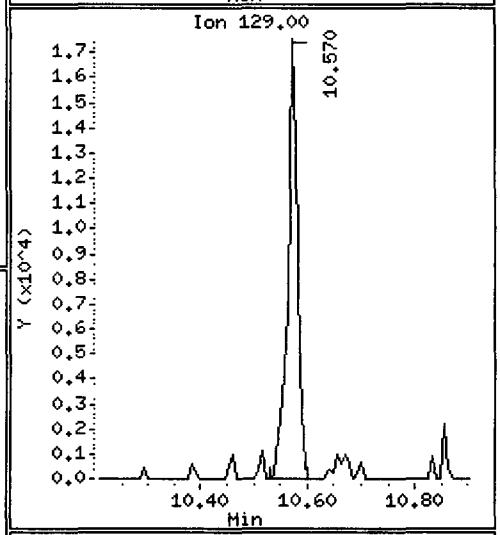


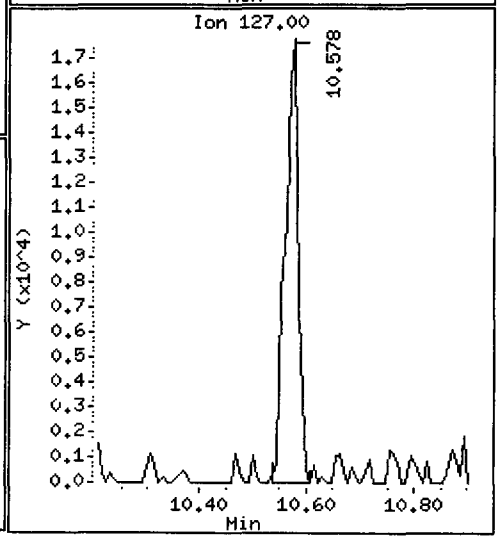












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

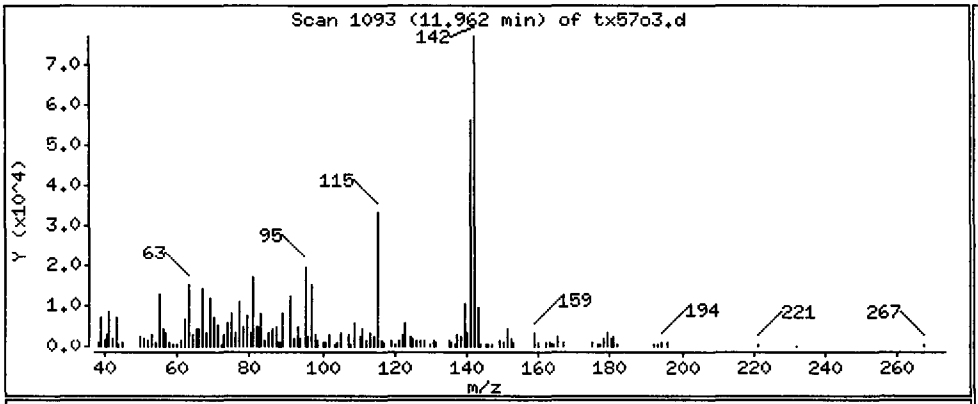
Client ID: SD0010 Instrument: nt10.i

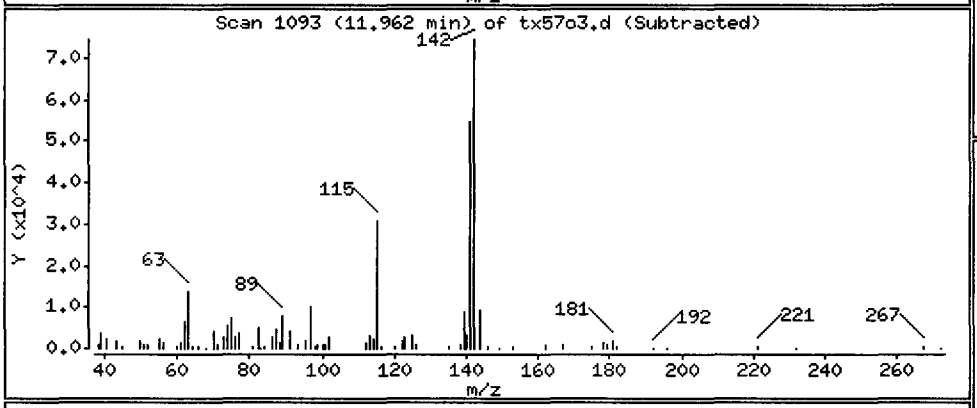
Sample Info: TX570,3

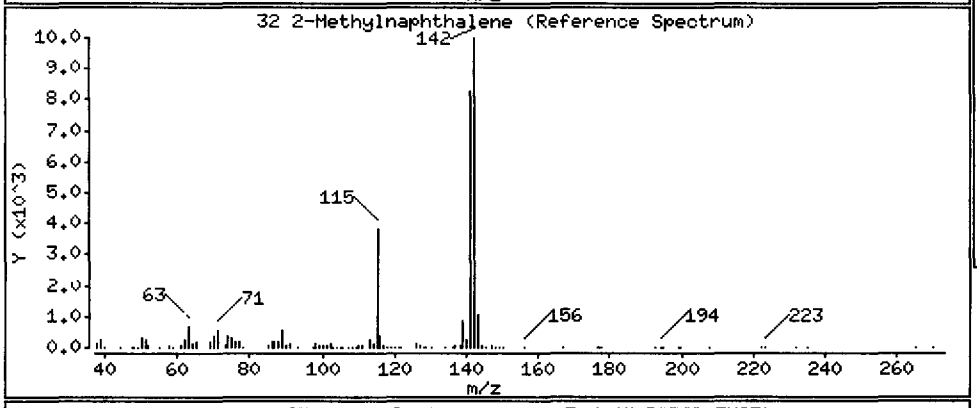
Volume Injected (uL): 1.0 Operator: YZ

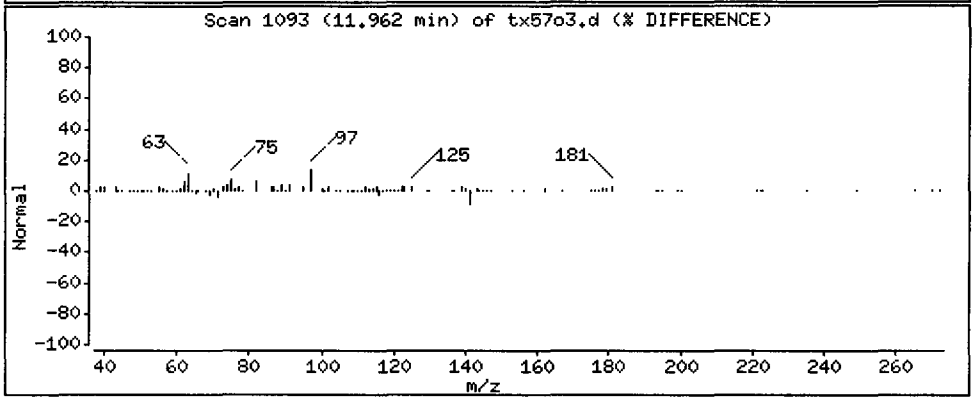
Column phase: ZB-5msi Column diameter: 0.25

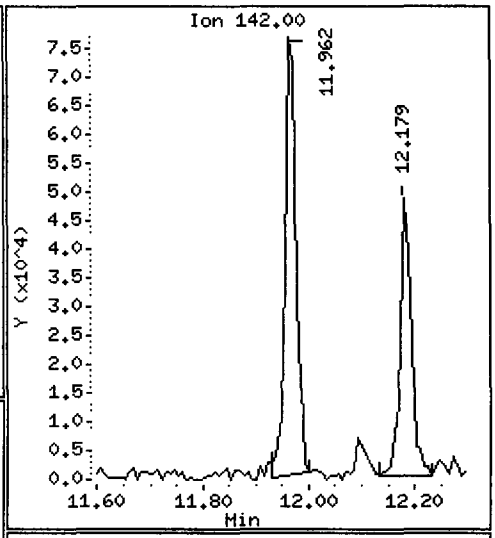
32 2-Methylnaphthalene Concentration: 267.3 ug/kg

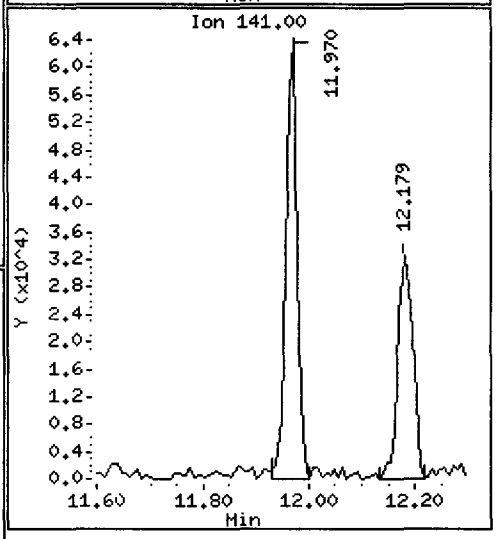












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

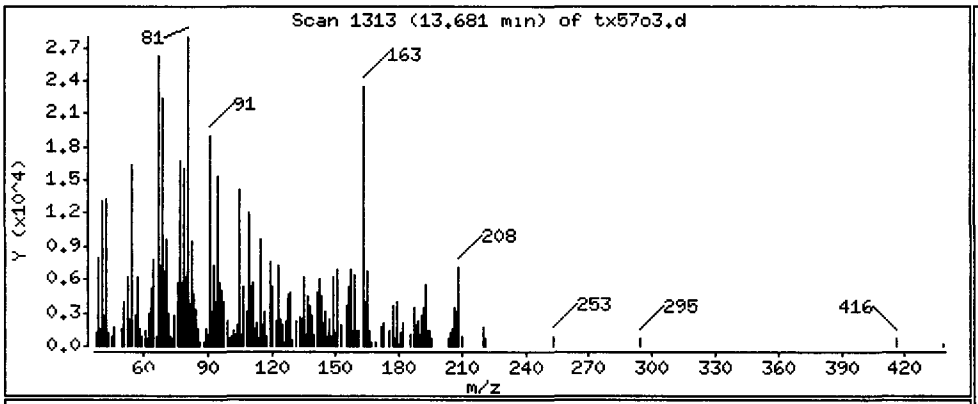
Client ID: SD0010 Instrument: nt10.i

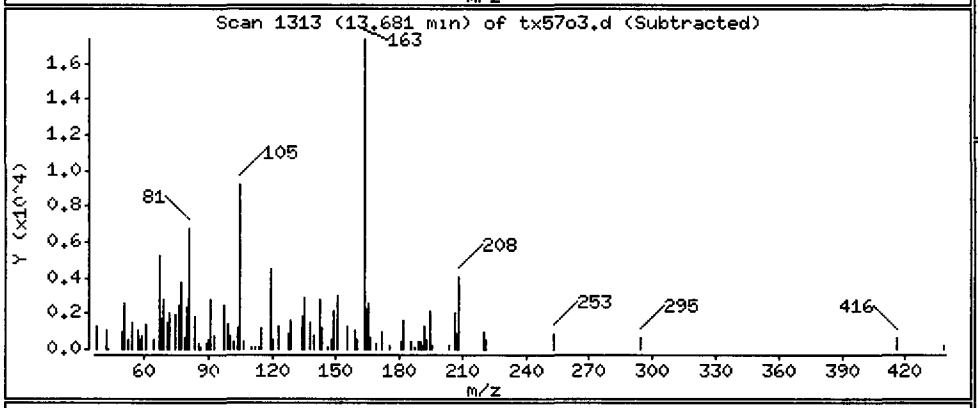
Sample Info: TX570,3

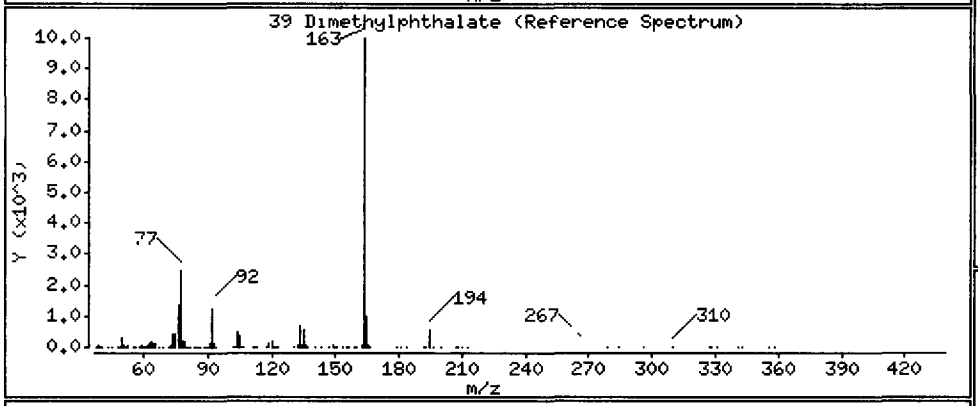
Volume Injected (uL): 1.0 Operator: YZ

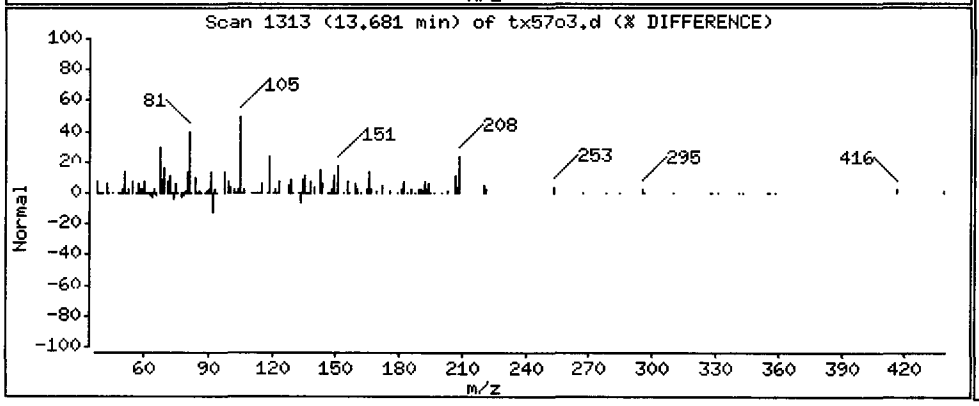
Column phase: ZB-5msi Column diameter: 0.25

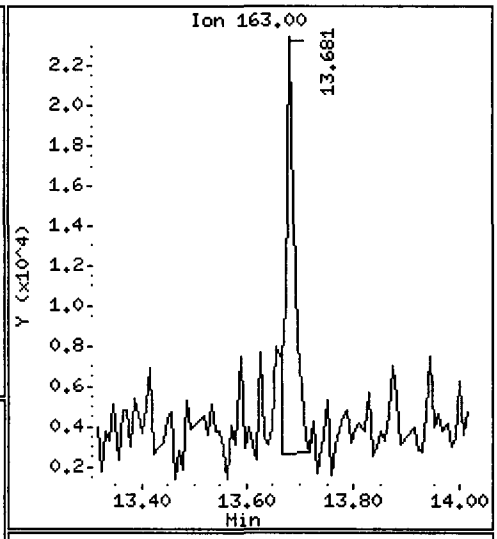
39 Dimethylphthalate Concentration: 34.00 ug/kg

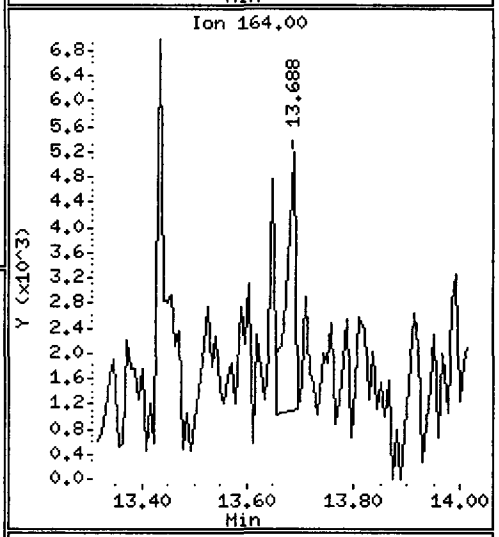


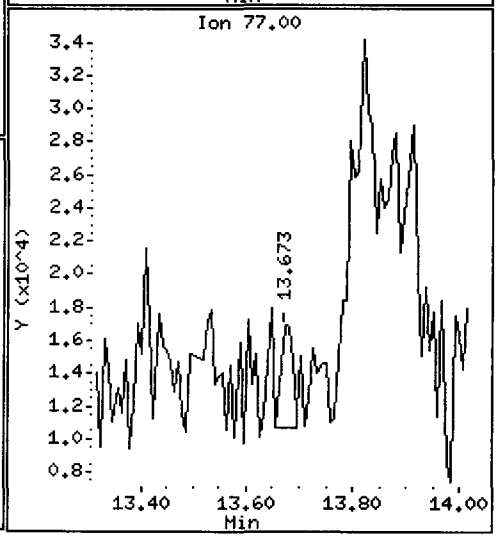












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

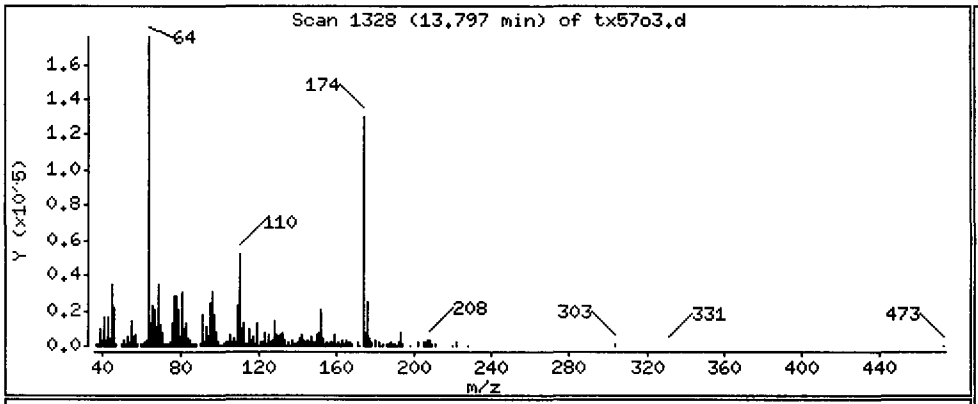
Client ID: SD0010 Instrument: nt10.i

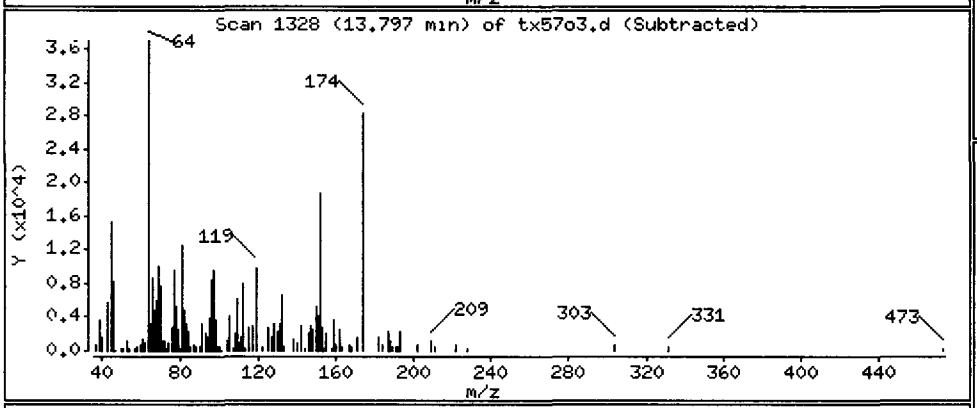
Sample Info: TX570,3

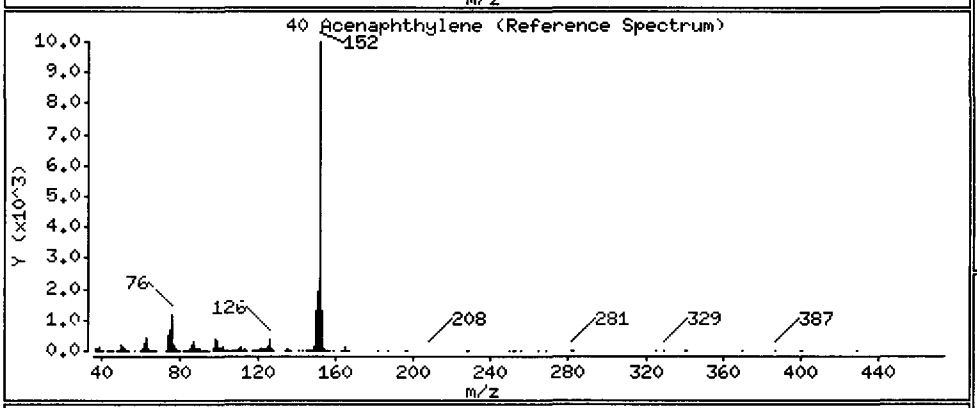
Volume Injected (uL): 1.0 Operator: YZ

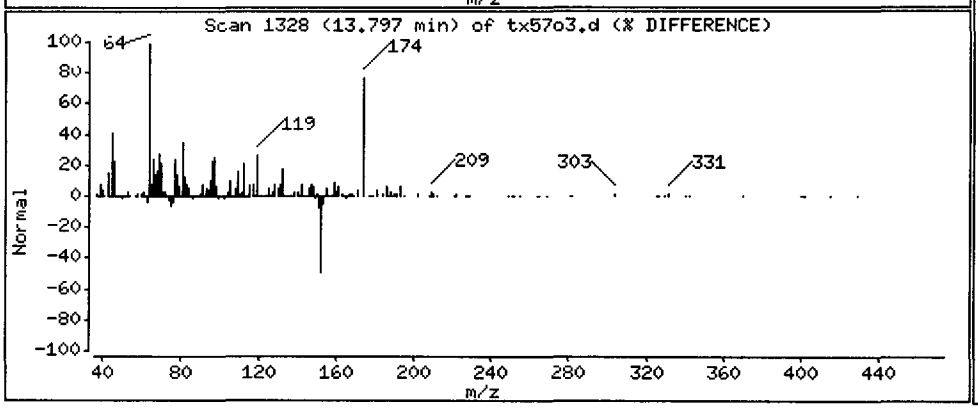
Column phase: ZB-5msi Column diameter: 0.25

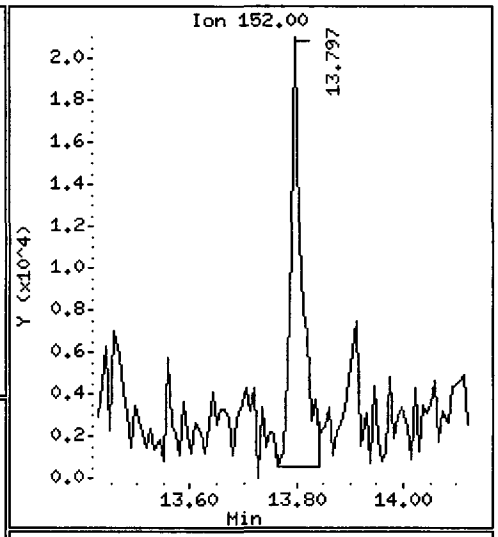
40 Acenaphthylene Concentration: 40.47 ug/kg

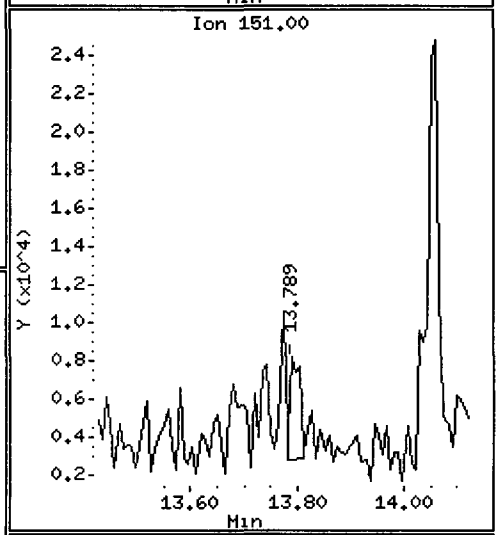


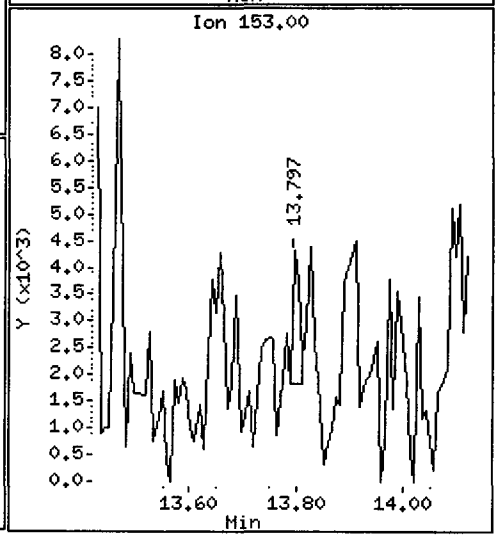












Data File: /chem1/nt10.1/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

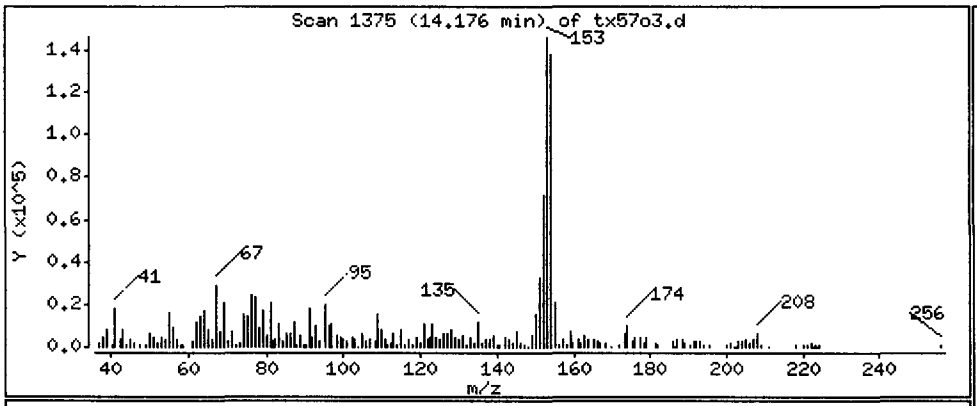
Client ID: SD0010 Instrument: nt10.1

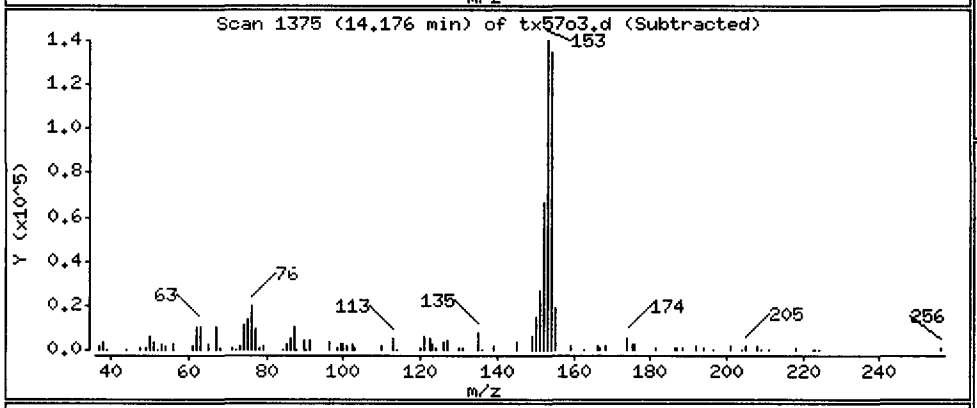
Sample Info: TX57O,3

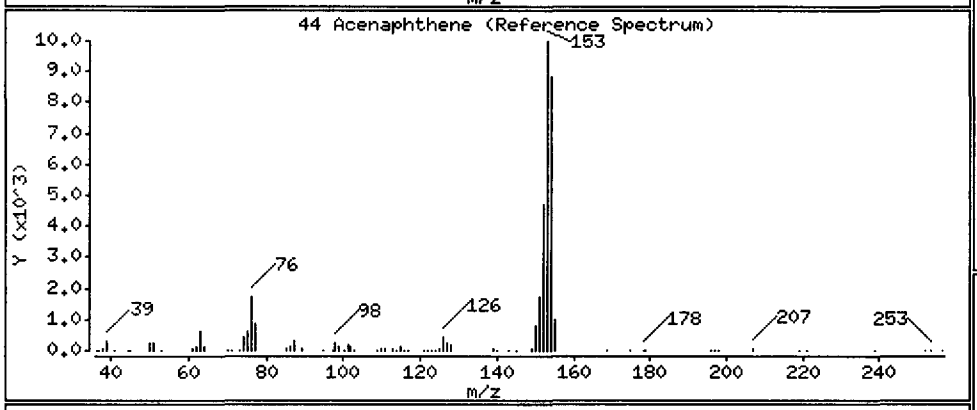
Volume Injected (uL): 1.0 Operator: YZ

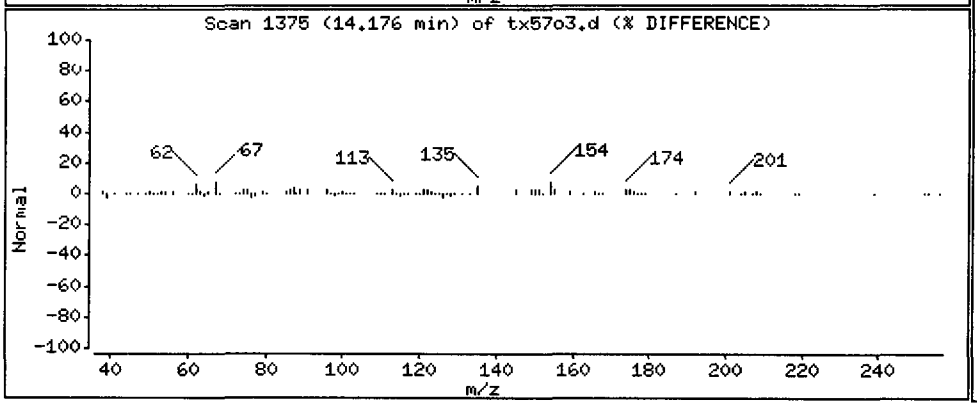
Column phase: ZB-5msi Column diameter: 0.25

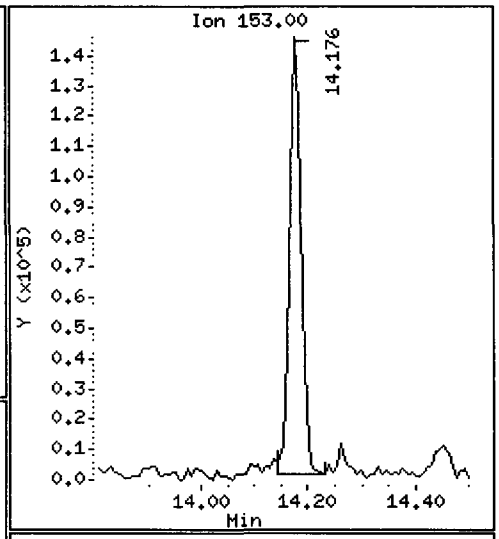
44 Acenaphthene Concentration: 469.6 ug/kg

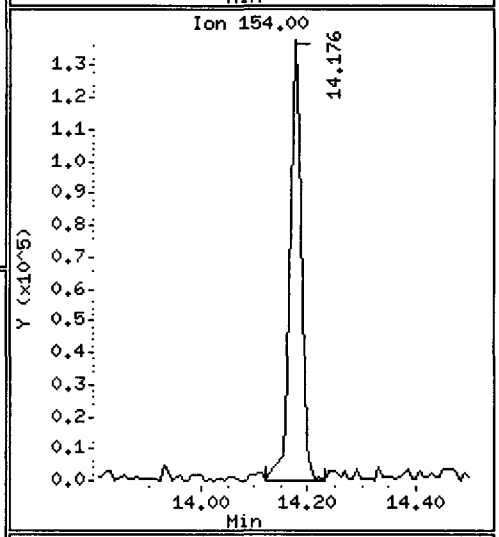


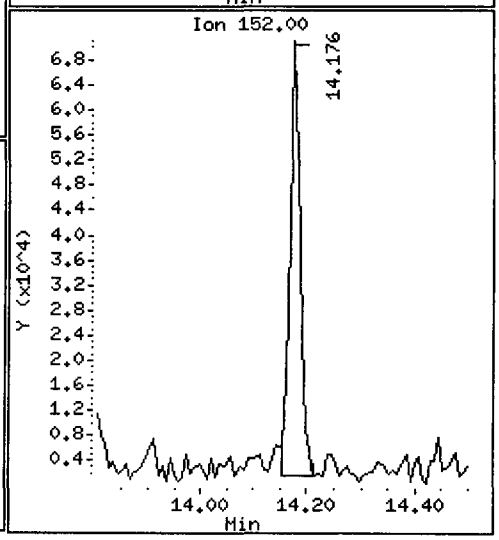












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

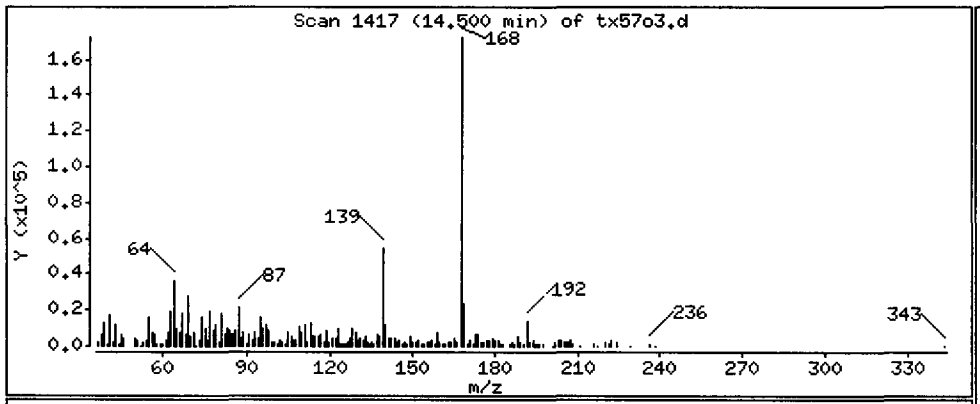
Client ID: SD0010 Instrument: nt10.i

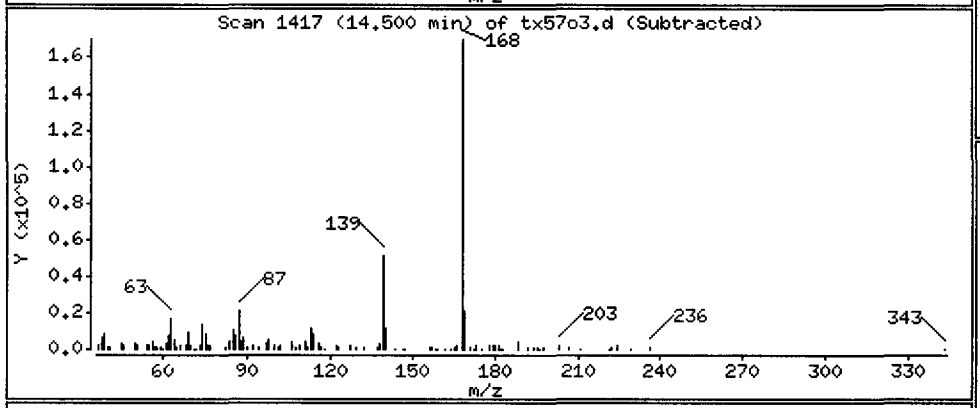
Sample Info: TX570,3

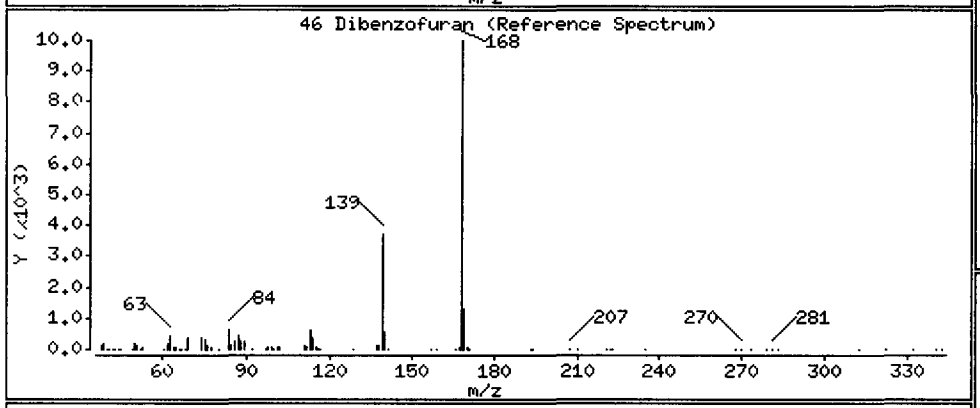
Volume Injected (uL): 1.0 Operator: YZ

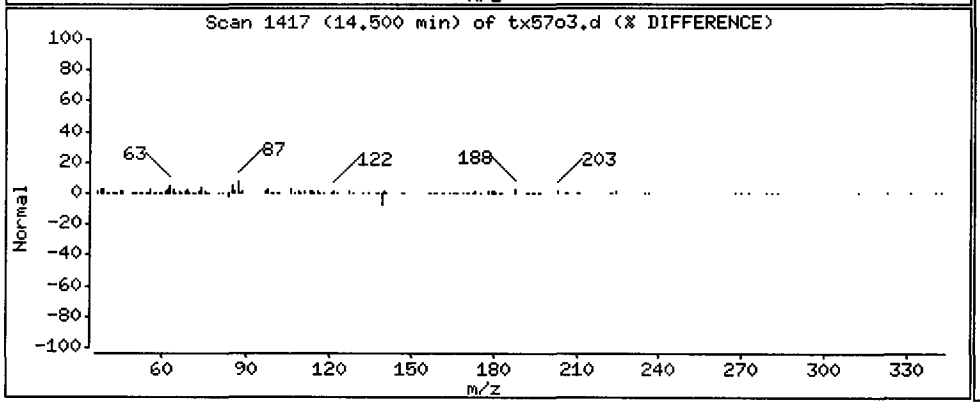
Column phase: ZB-5msi Column diameter: 0.25

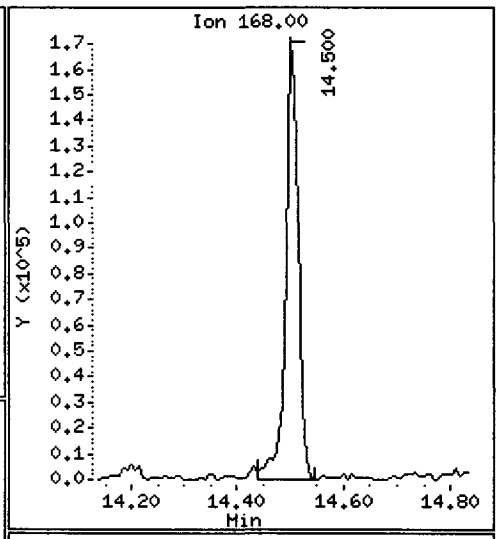
46 Dibenzofuran Concentration: 366.2 ug/kg

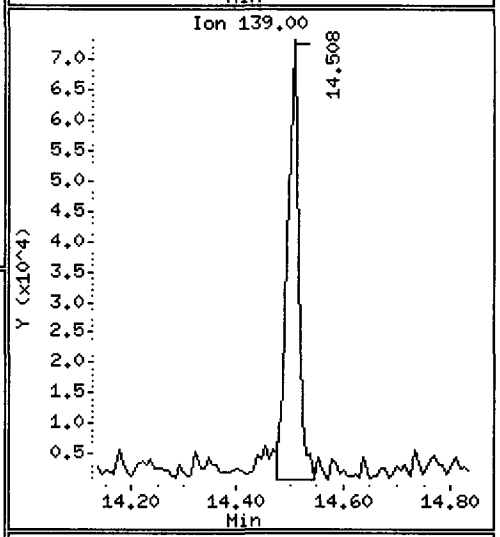


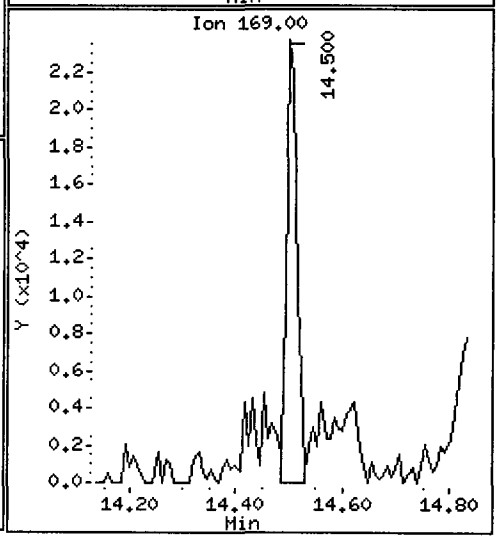












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

Client ID: SD0010

Instrument: nt10.i

Sample Info: TX570,3

Volume Injected (uL): 1.0

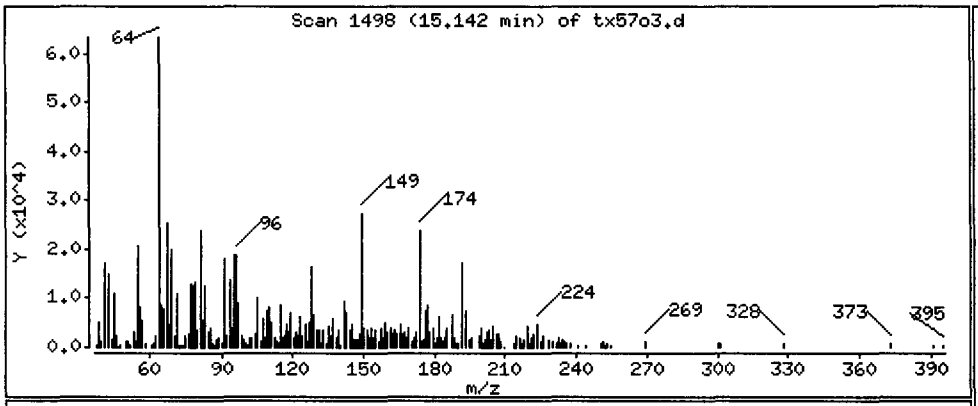
Operator: YZ

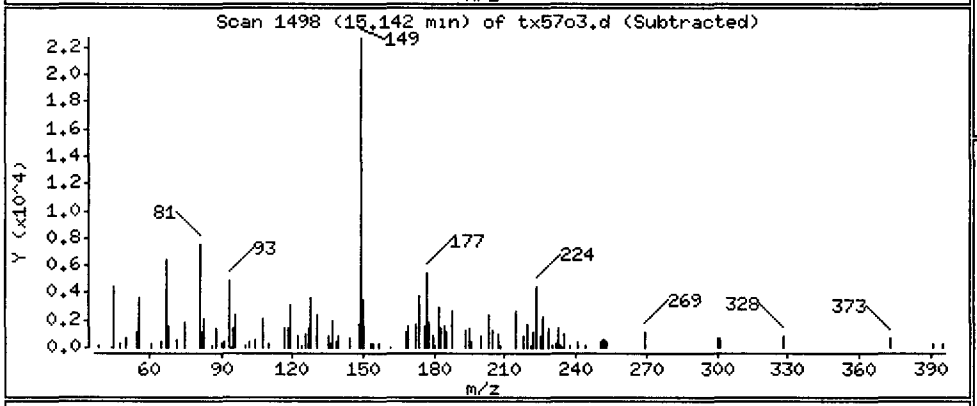
Column phase: ZB-5msi

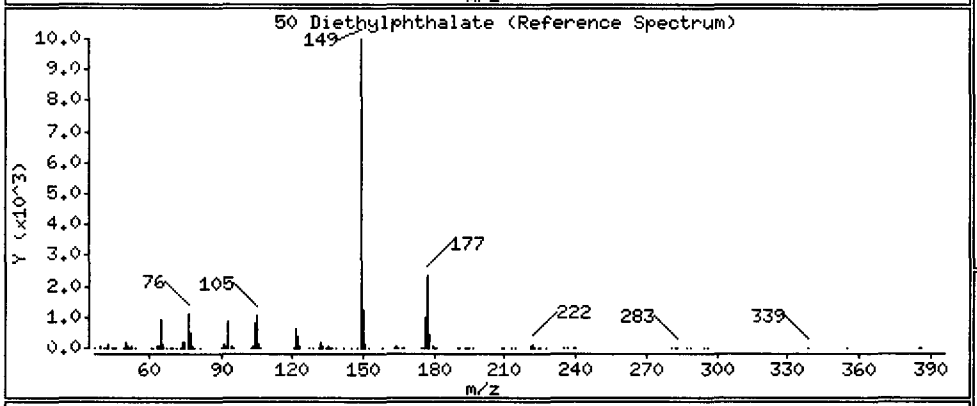
Column diameter: 0.25

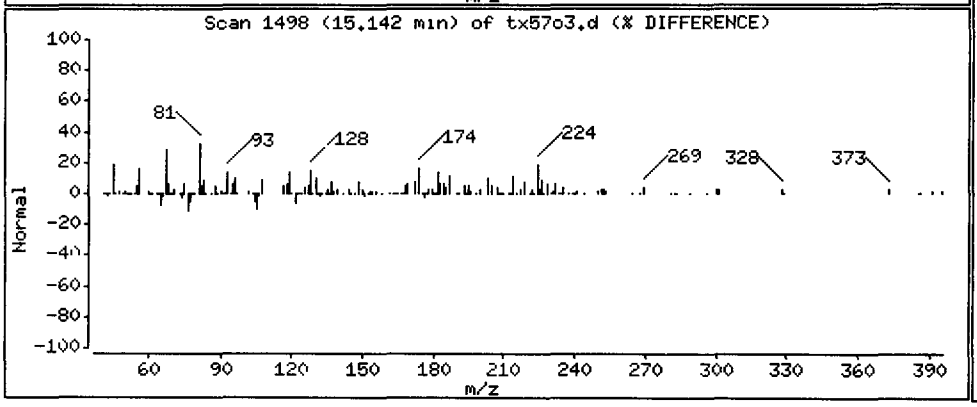
50 Diethylphthalate

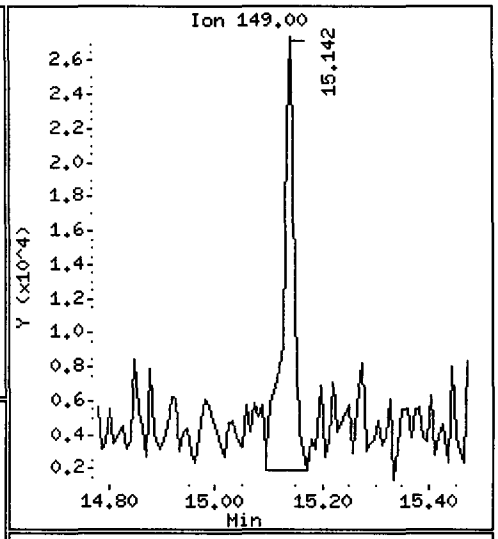
Concentration: 58.92 ug/kg

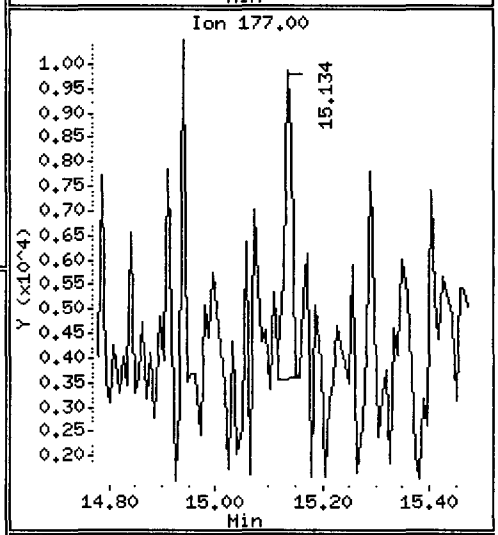


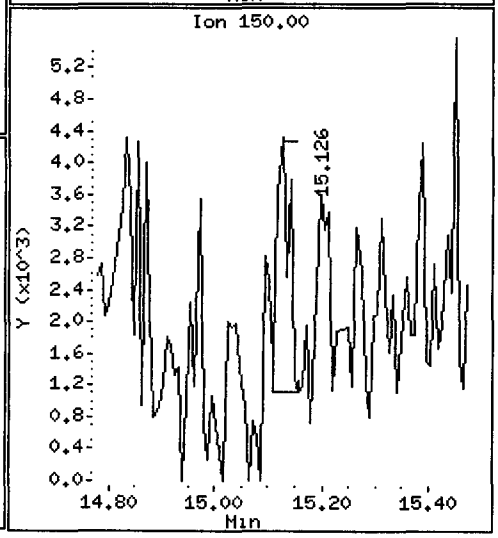












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

Client ID: SD0010

Instrument: nt10.i

Sample Info: TX570,3

Volume Injected (uL): 1.0

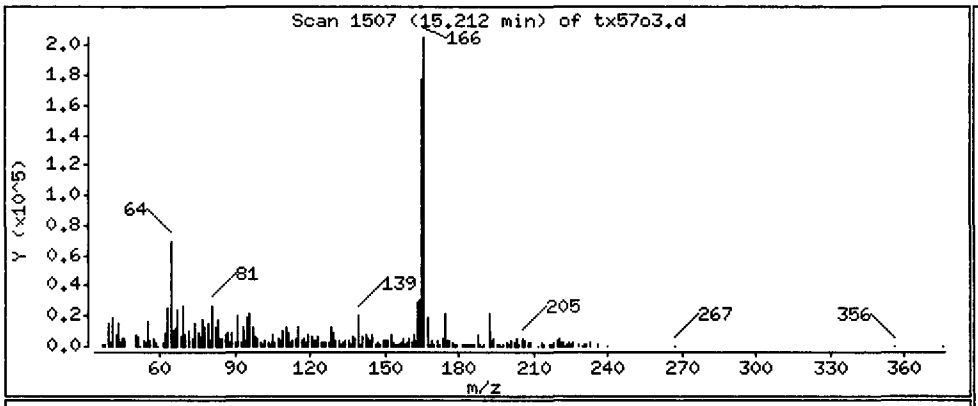
Operator: YZ

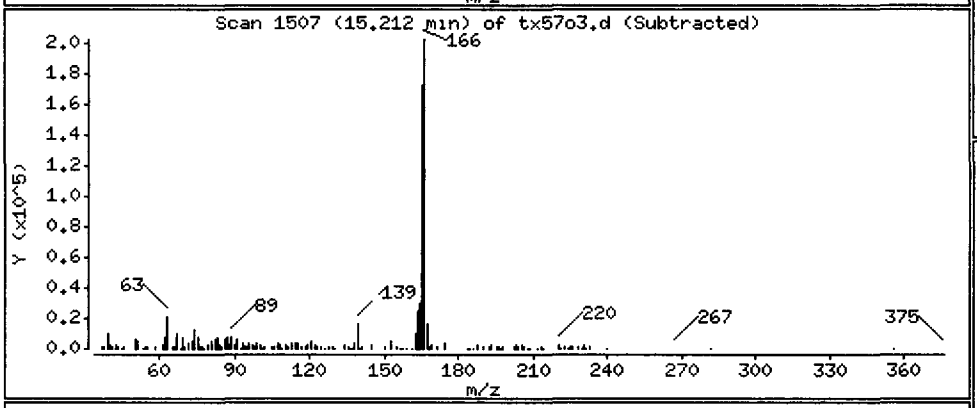
Column phase: ZB-5ms1

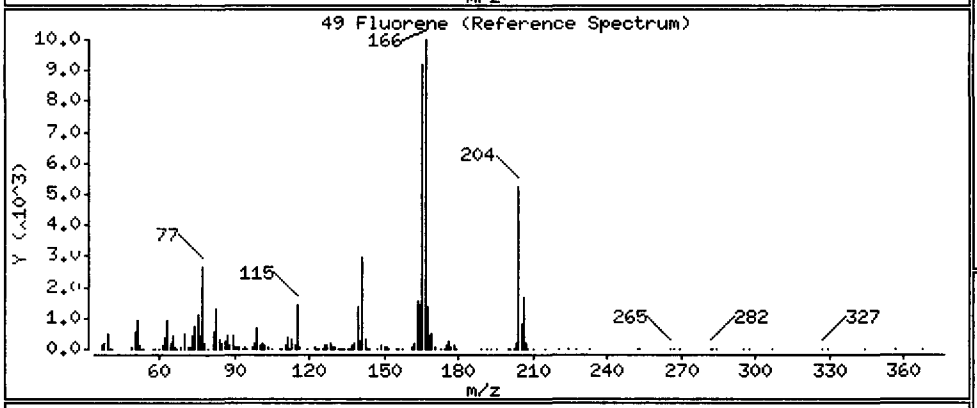
Column diameter: 0.25

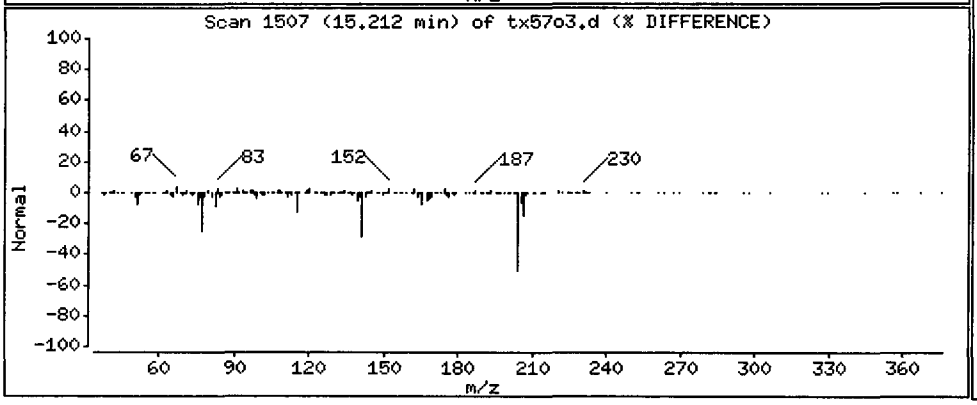
49 Fluorene

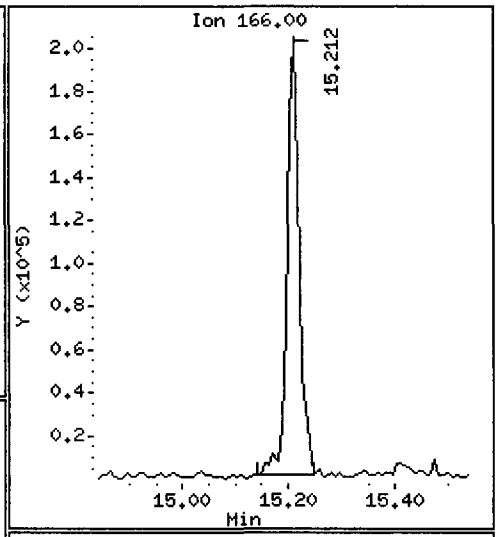
Concentration: 591.4 ug/kg

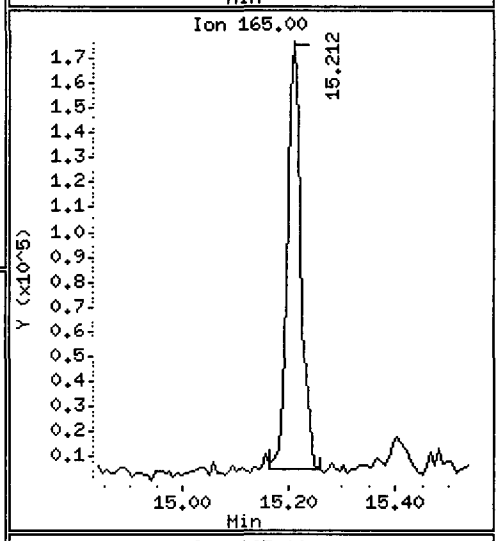


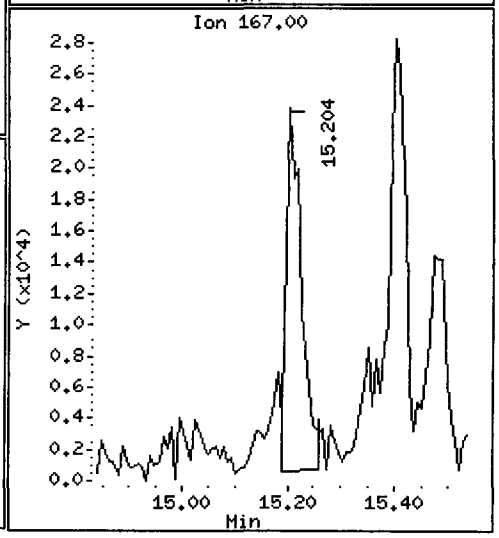












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

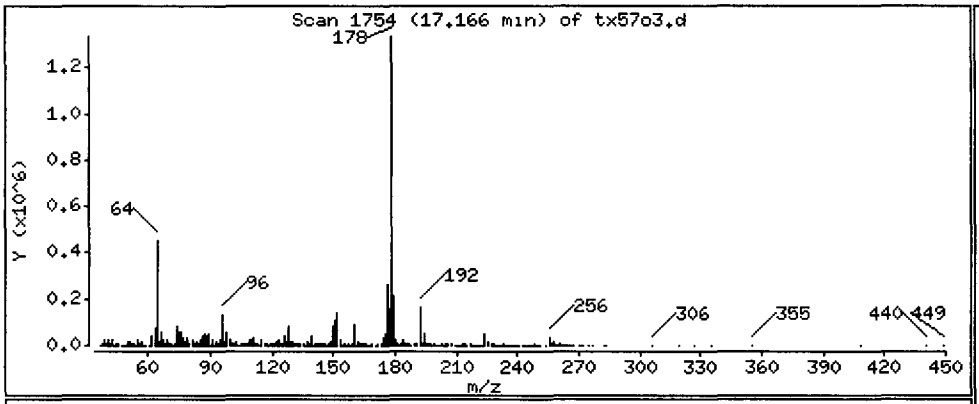
Client ID: SD0010 Instrument: nt10.i

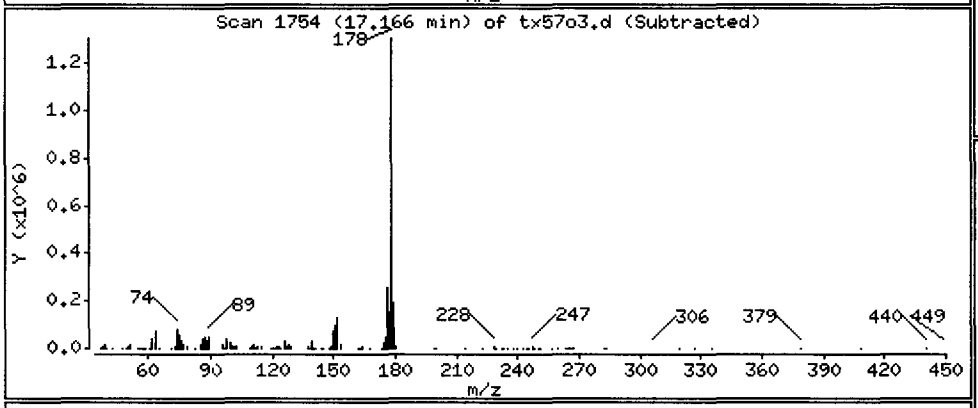
Sample Info: TX570,3

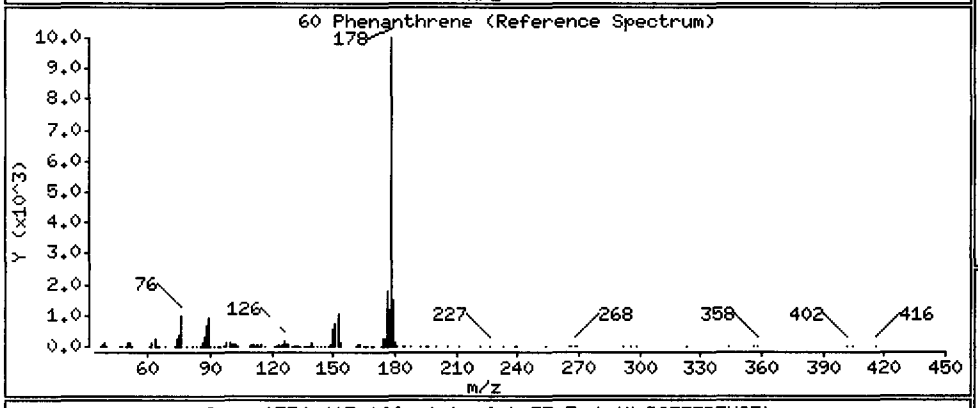
Volume Injected (uL): 1.0 Operator: YZ

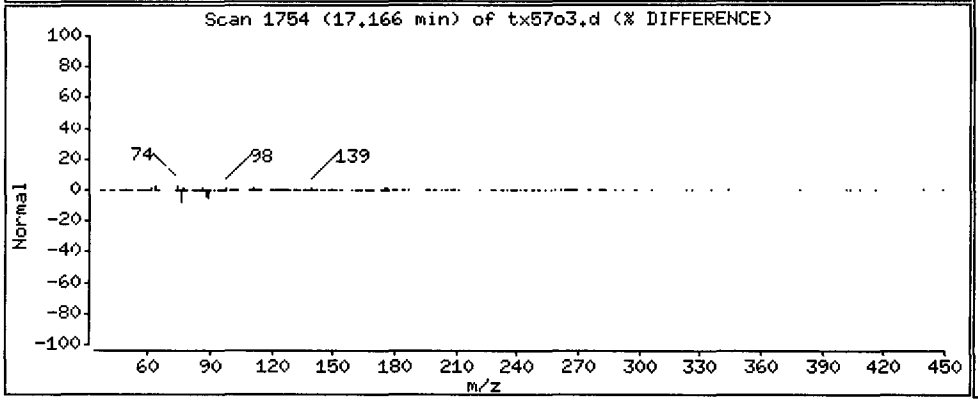
Column phase: ZB-5ms1 Column diameter: 0.25

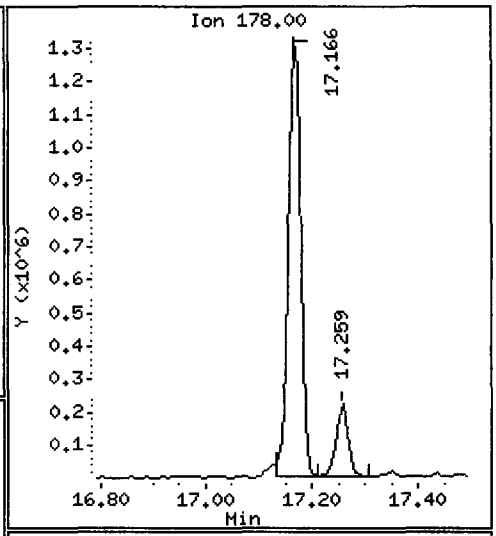
60 Phenanthrene Concentration: 1991 ug/kg

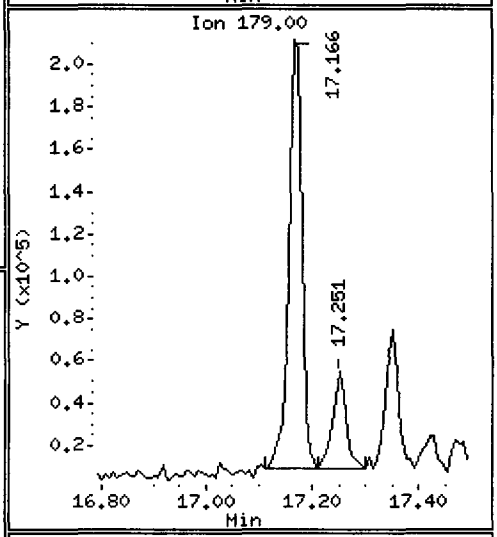


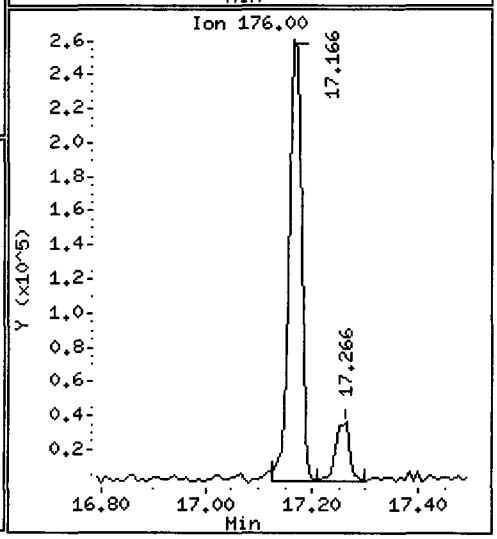












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

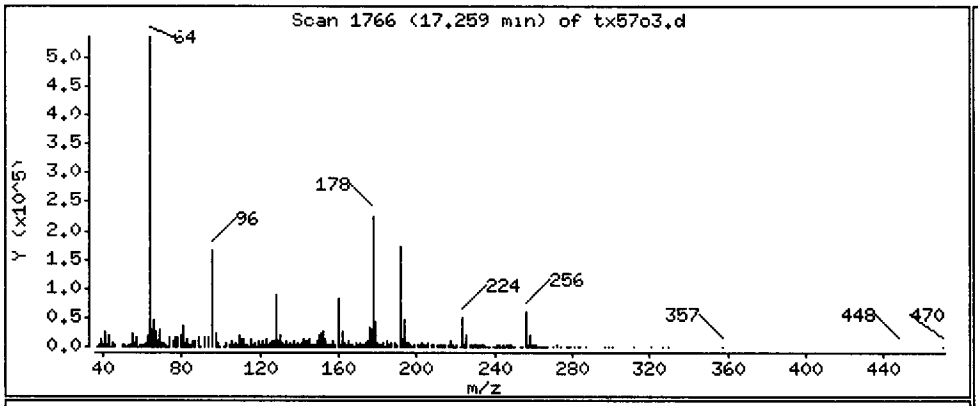
Client ID: SD0010 Instrument: nt10.1

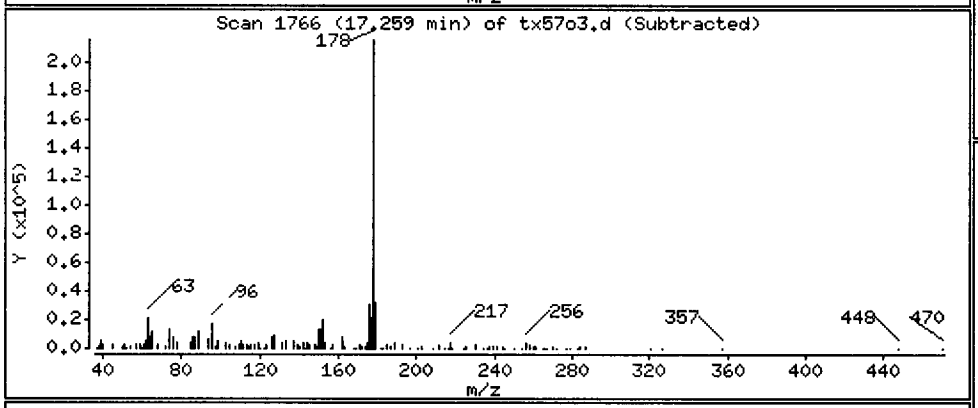
Sample Info: TX570,3

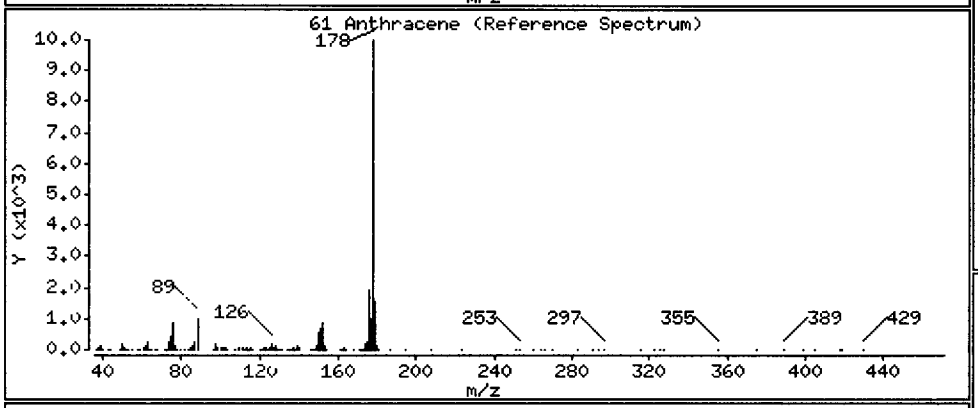
Volume Injected (uL): 1.0 Operator: YZ

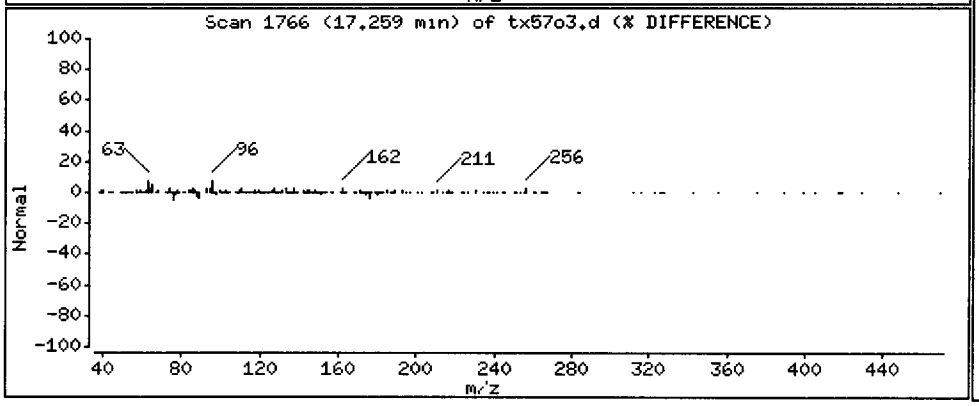
Column phase: ZB-5ms1 Column diameter: 0.25

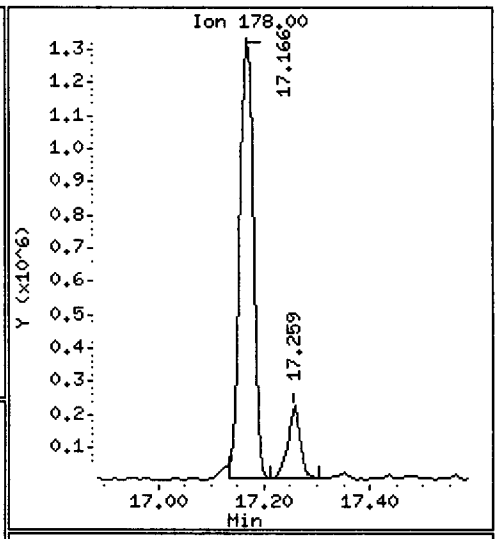
61 Anthracene Concentration: 313.8 ug/kg

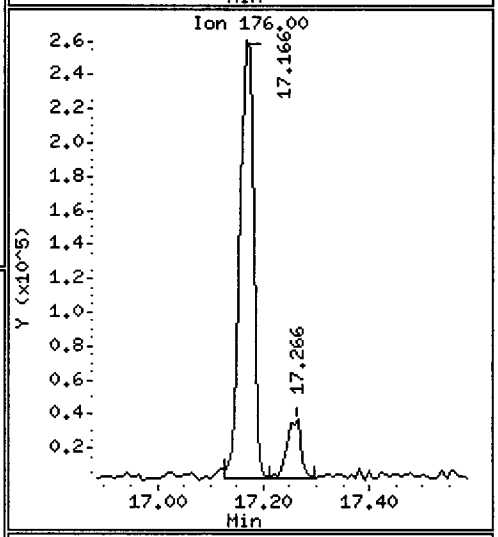


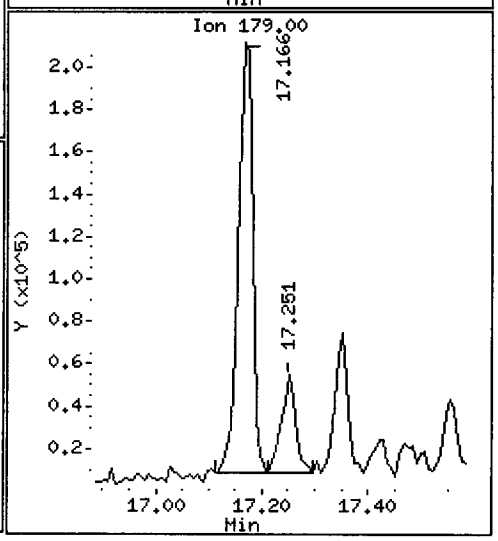












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

Client ID: SD0010

Instrument: nt10.i

Sample Info: TX57O,3

Volume Injected (uL): 1.0

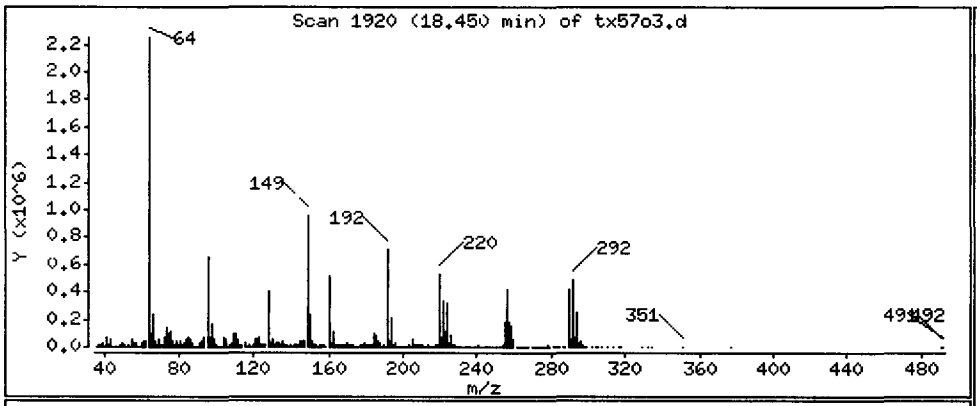
Operator: YZ

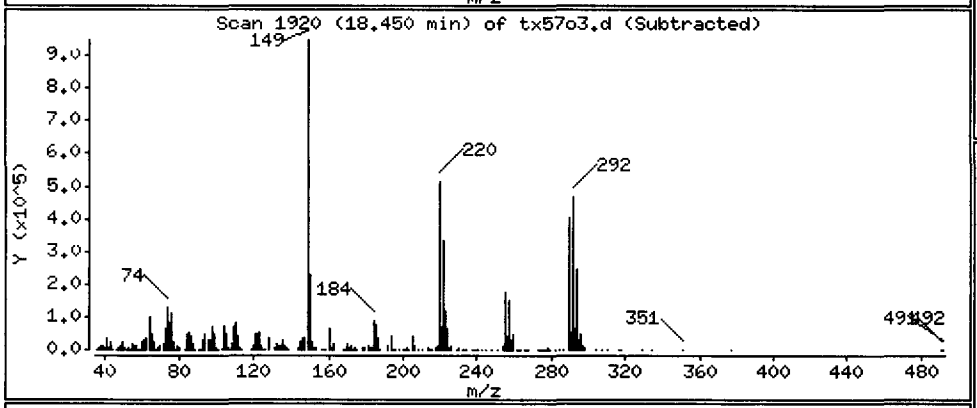
Column phase: ZB-5msi

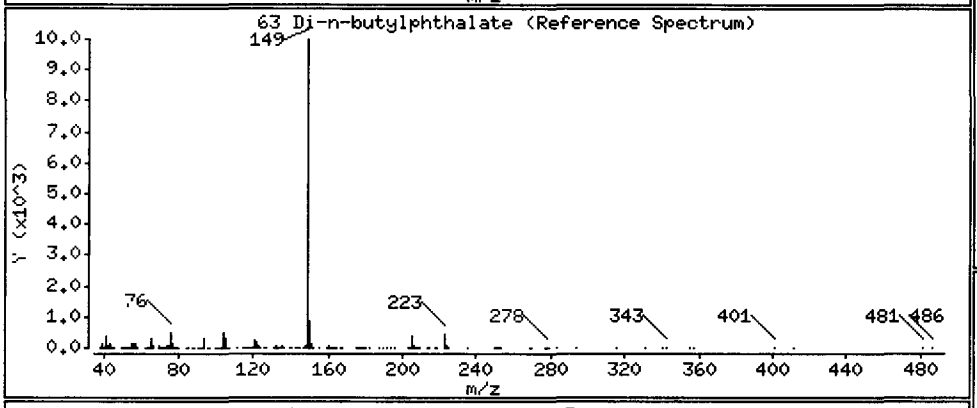
Column diameter: 0.25

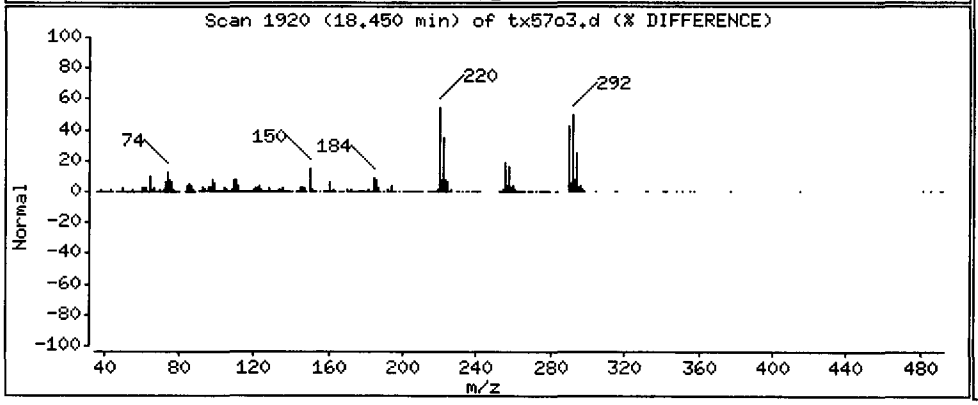
63 Di-n-butylphthalate

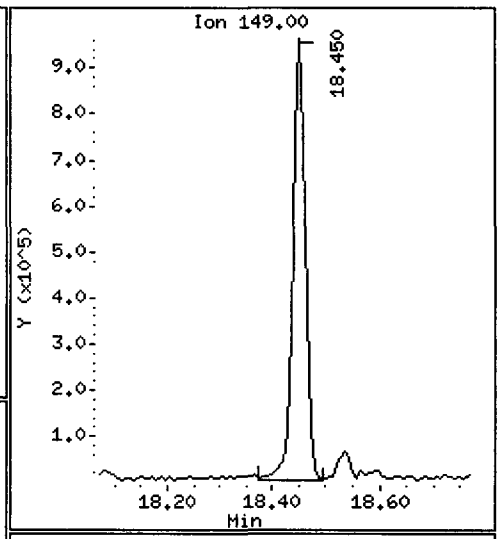
Concentration: 1301 ug/kg

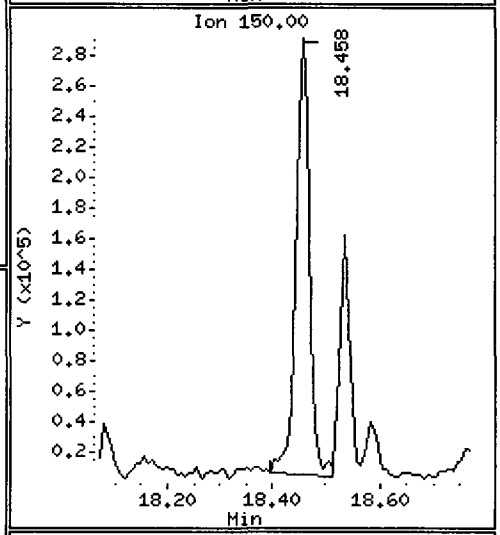


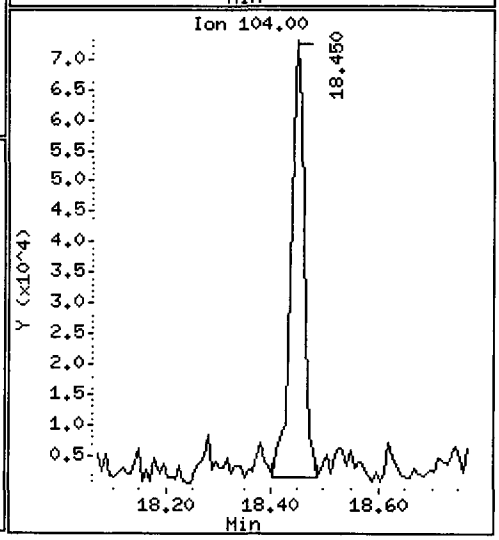












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

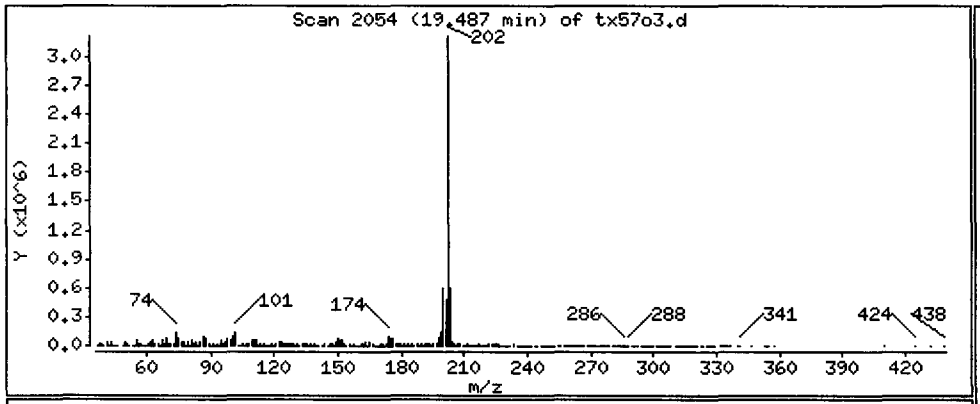
Client ID: SD0010 Instrument: nt10.i

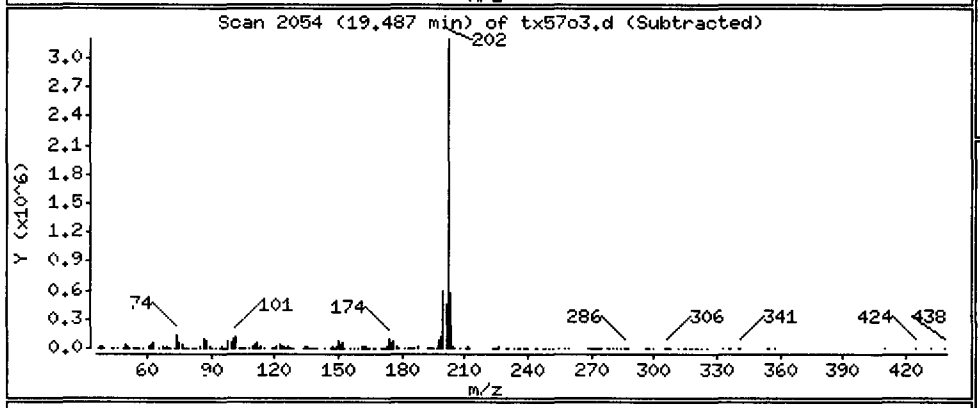
Sample Info: TX570,3

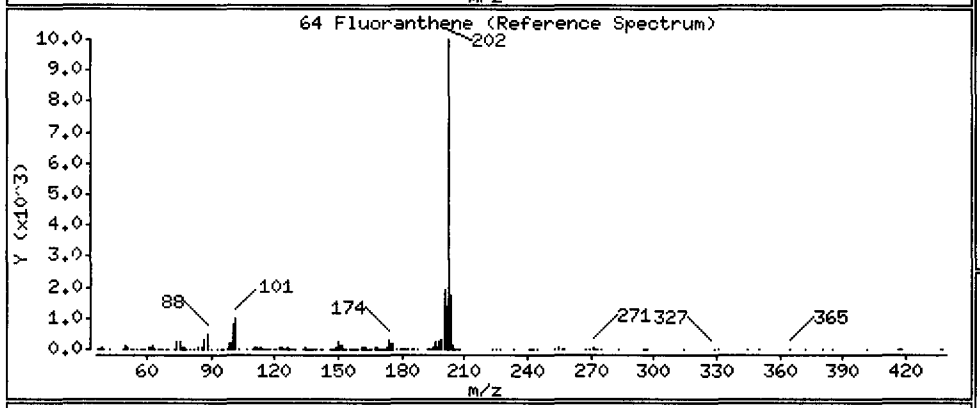
Volume Injected (uL): 1.0 Operator: YZ

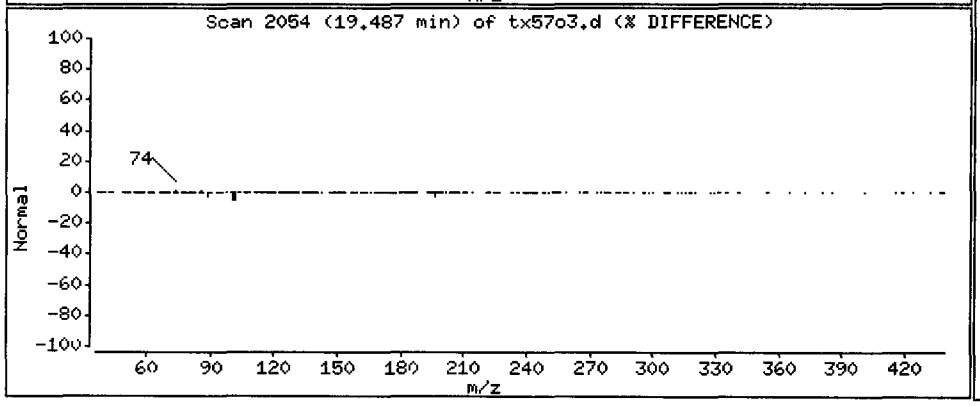
Column phase: ZB-5msi Column diameter: 0.25

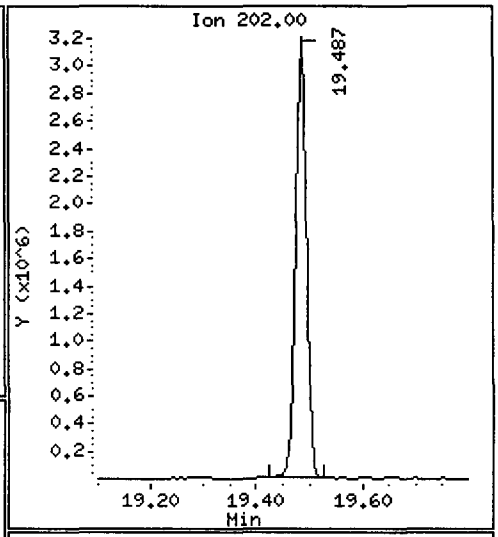
64 Fluoranthene Concentration: 3063 ug/kg

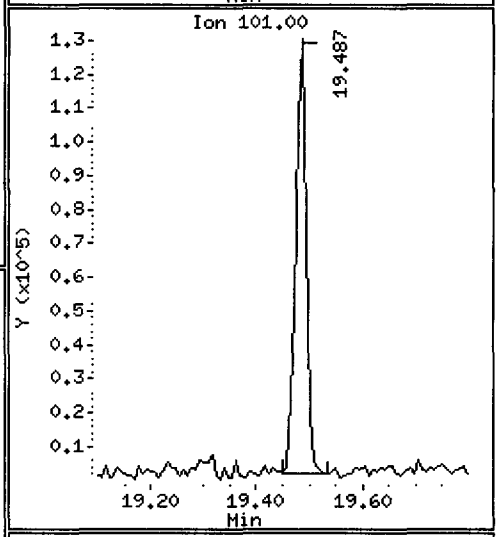


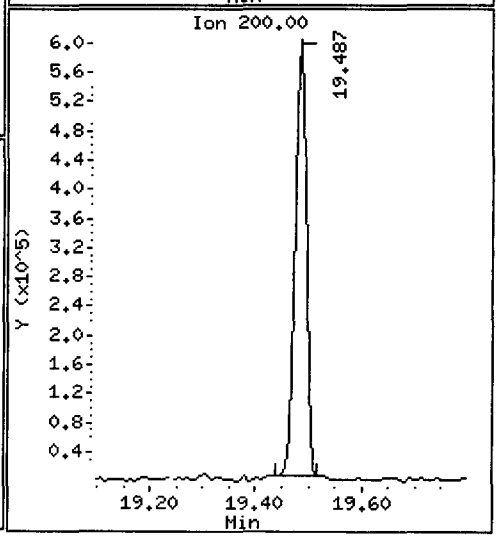












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

Client ID: SD0010

Instrument: nt10.i

Sample Info: TX570,3

Volume Injected (uL): 1.0

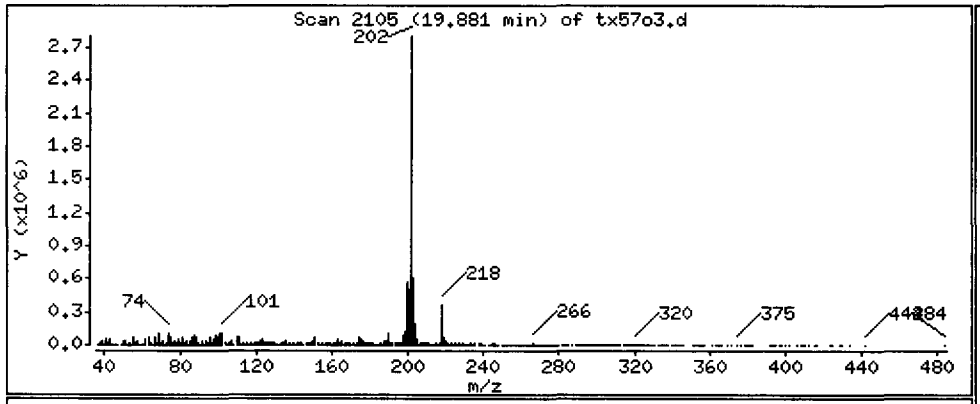
Operator: YZ

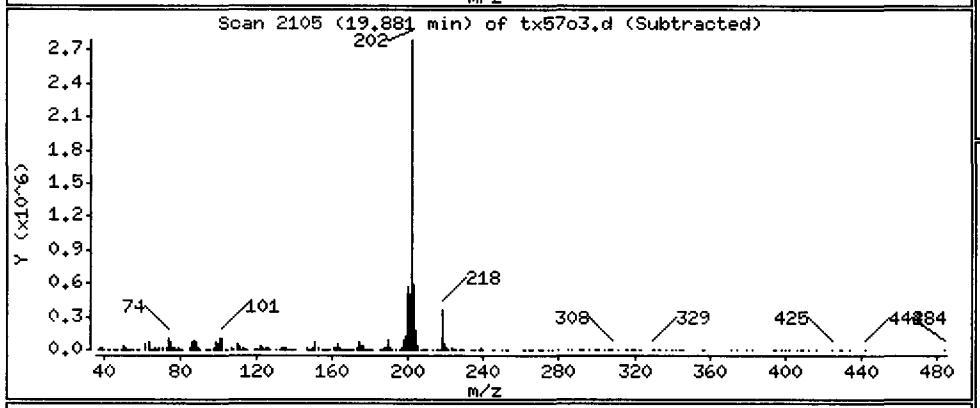
Column phase: ZB-5ms1

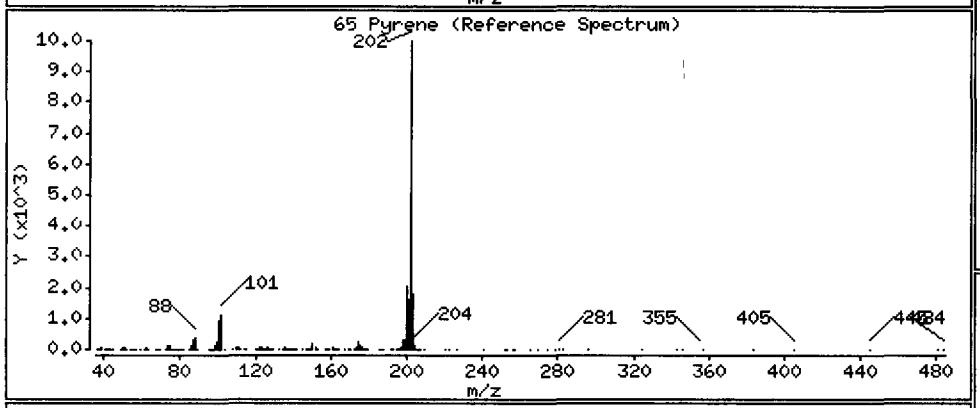
Column diameter: 0.25

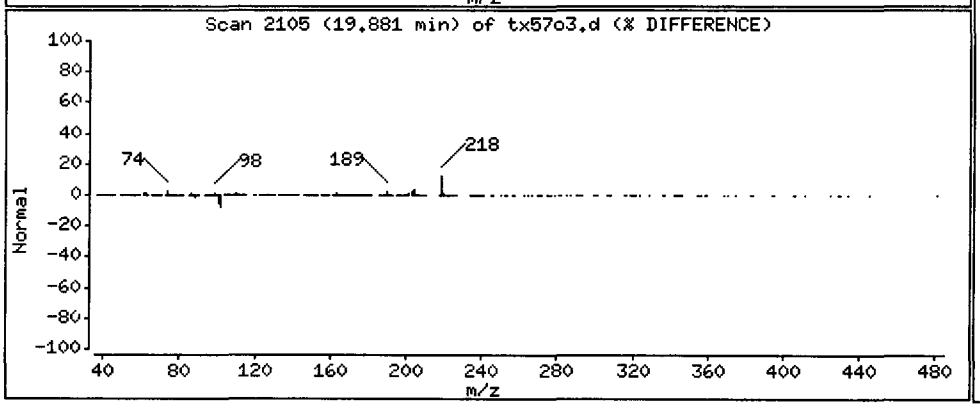
65 Pyrene

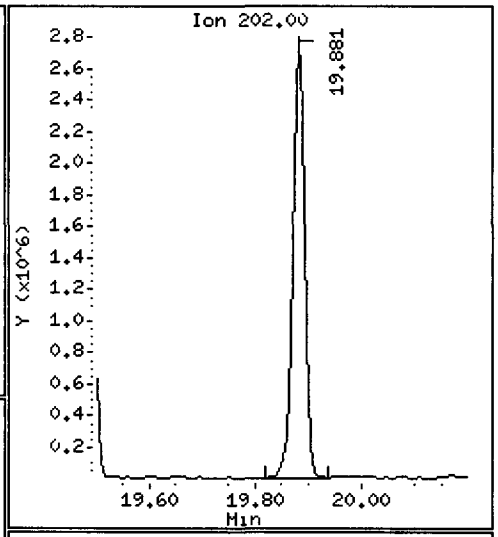
Concentration: 3188 ug/kg

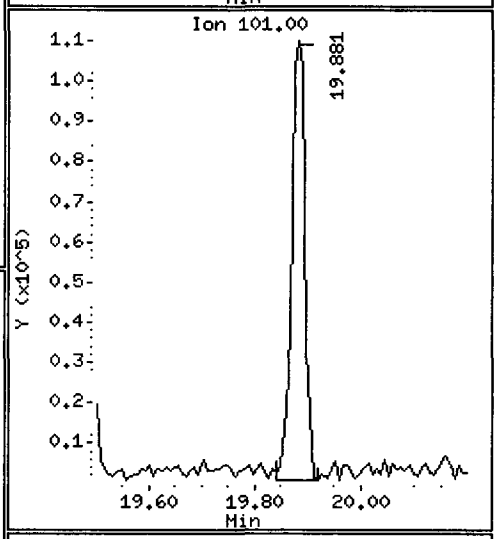


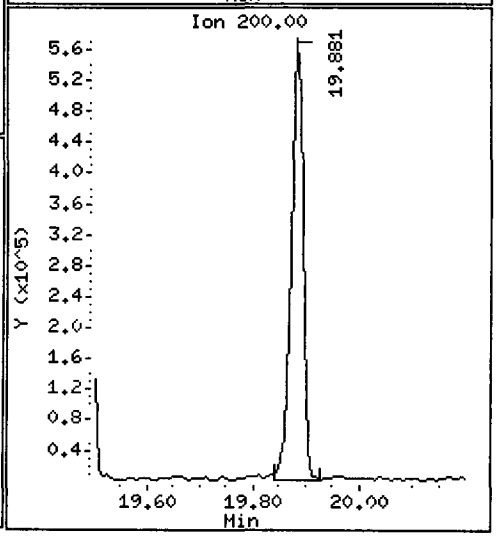












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

Client ID: SD0010

Instrument: nt10.i

Sample Info: TX570,3

Volume Injected (uL): 1.0

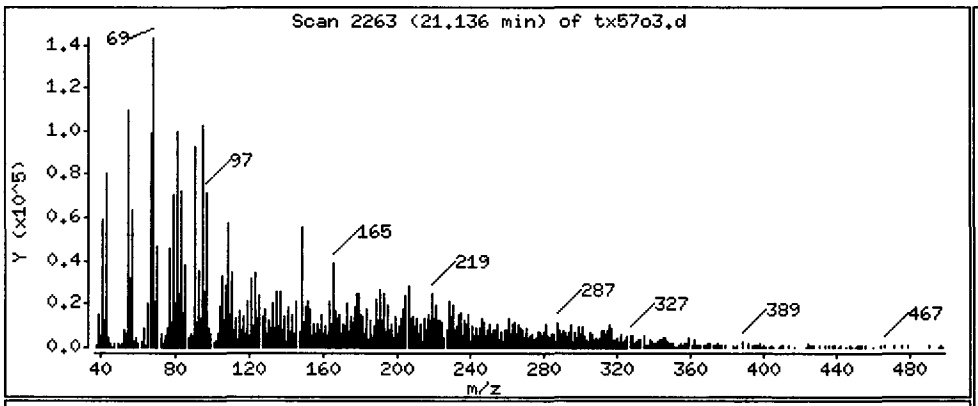
Operator: YZ

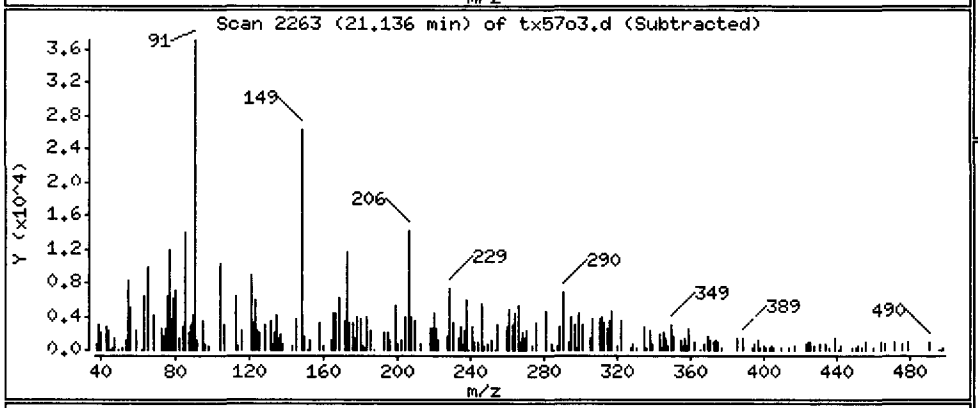
Column phase: ZB-5msi

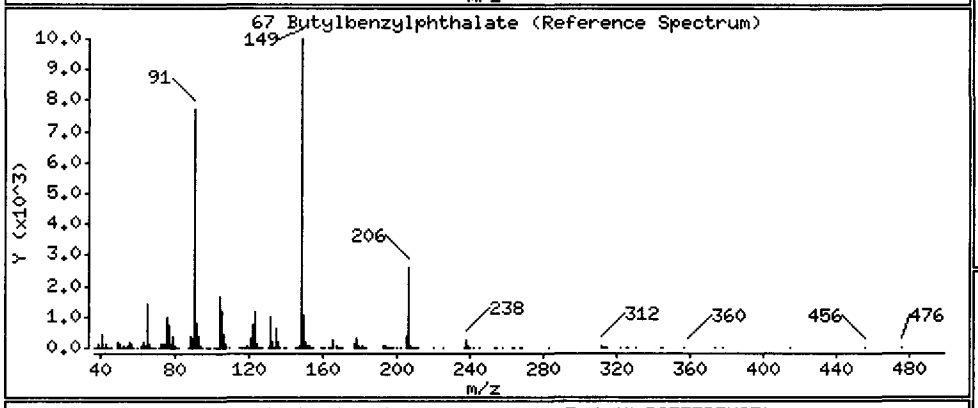
Column diameter: 0.25

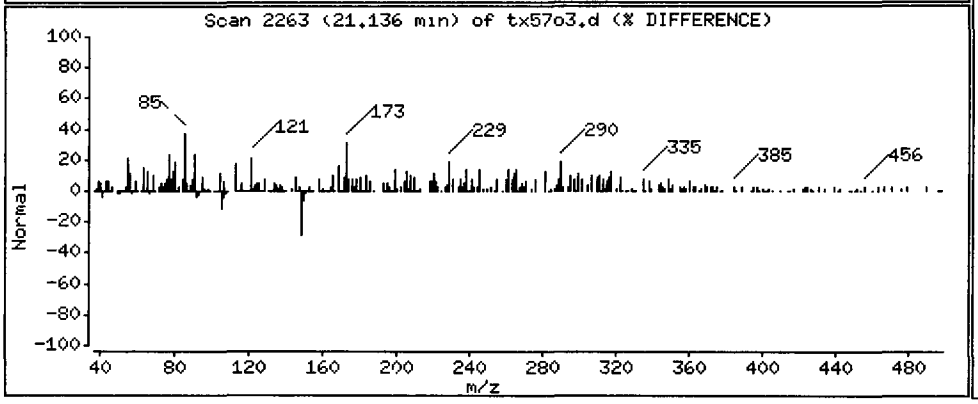
67 Butylbenzylphthalate

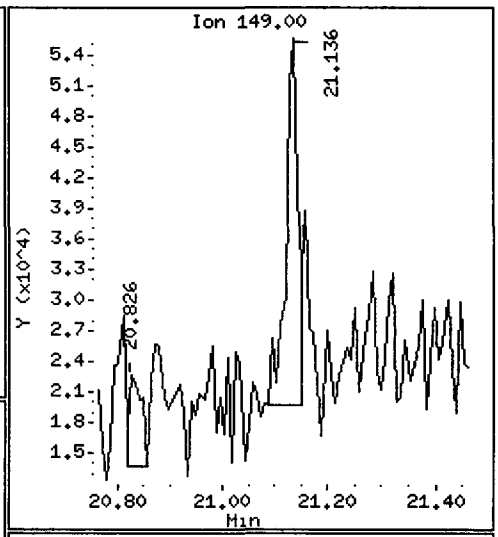
Concentration: 120.5 ug/kg

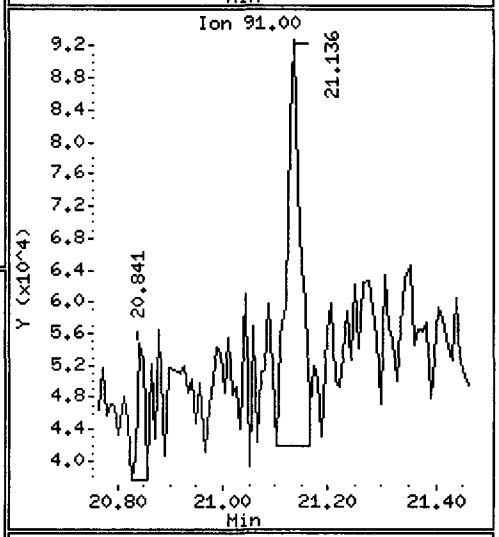


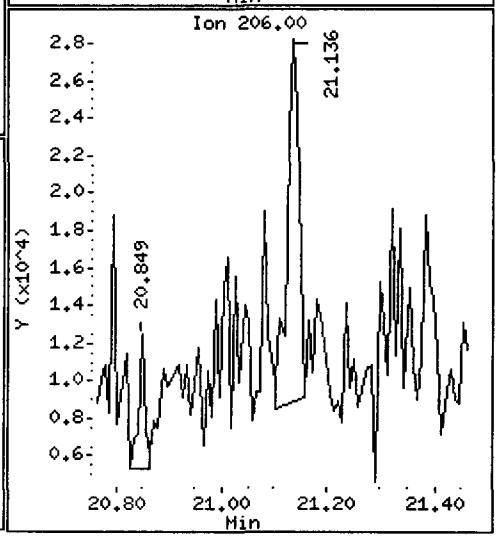












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

Client ID: SD0010

Instrument: nt10.i

Sample Info: TX570,3

Volume Injected (uL): 1.0

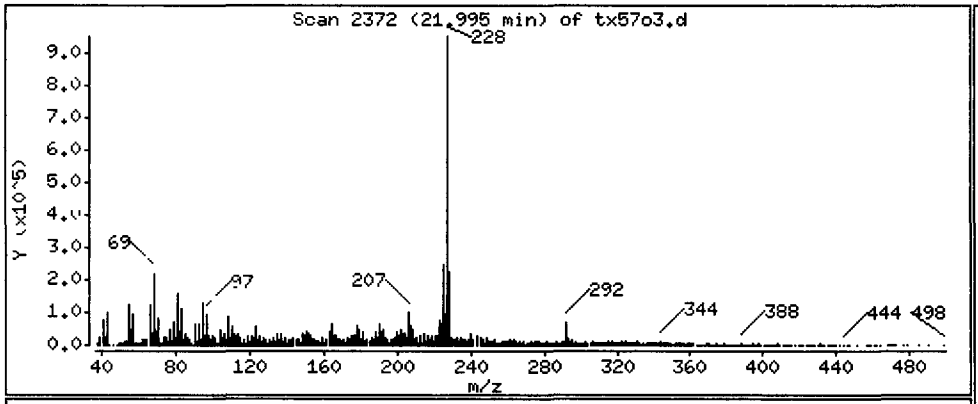
Operator: YZ

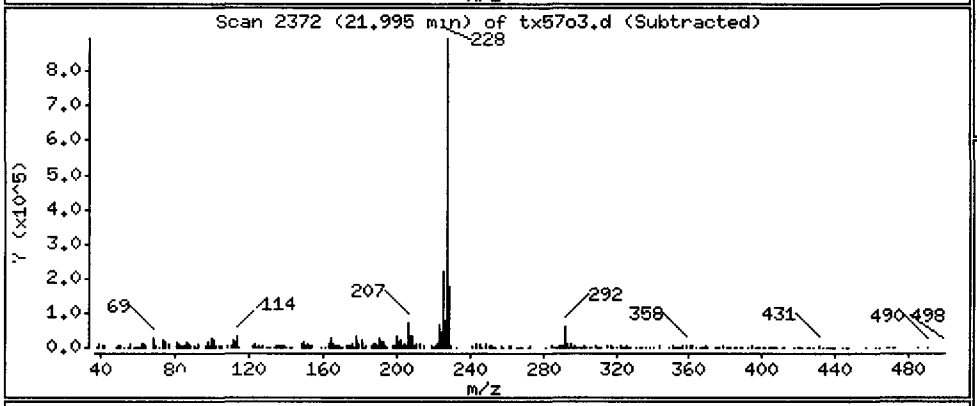
Column phase: ZB-5msi

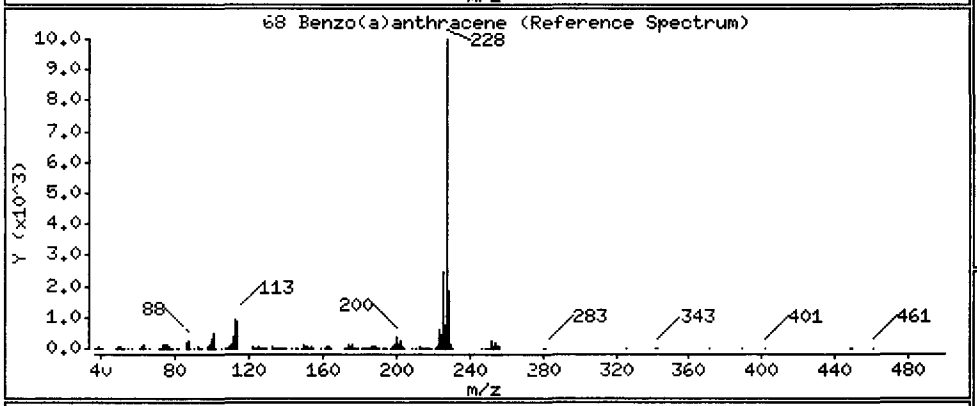
Column diameter: 0.25

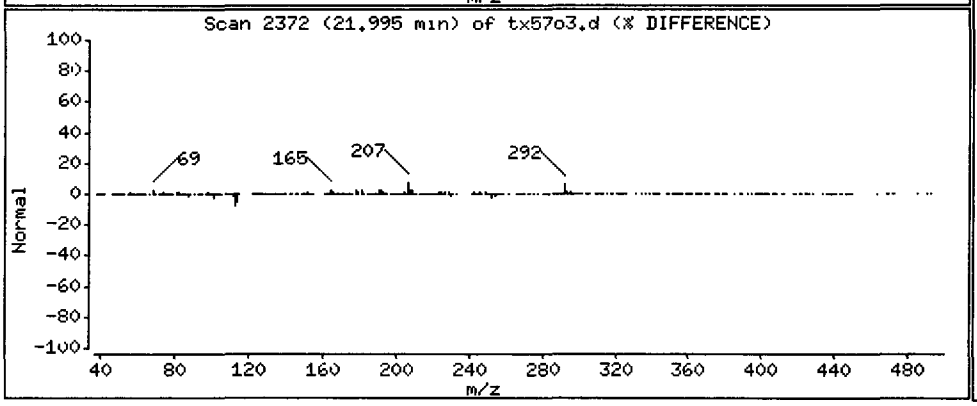
68 Benzo(a)anthracene

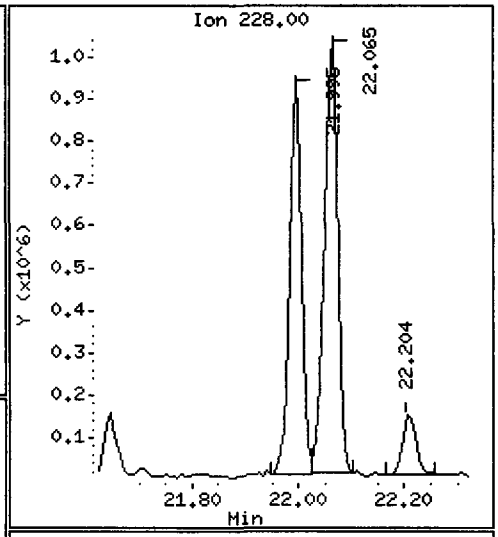
Concentration: 963.8 ug/kg

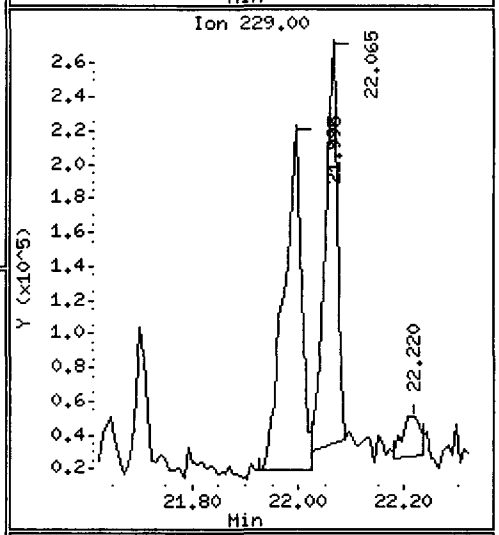


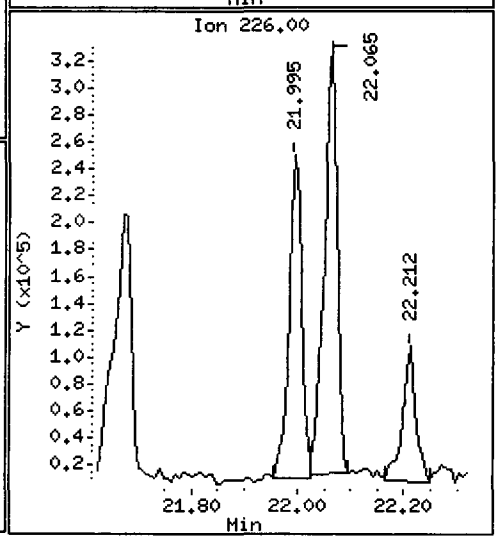












TX57 01004

Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

Client ID: SD0010

Instrument: nt10.i

Sample Info: TX570,3

Volume Injected (uL): 1.0

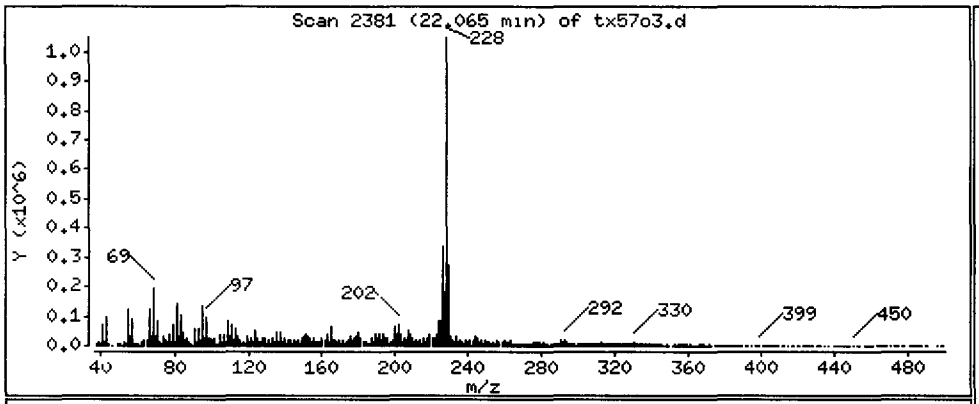
Operator: YZ

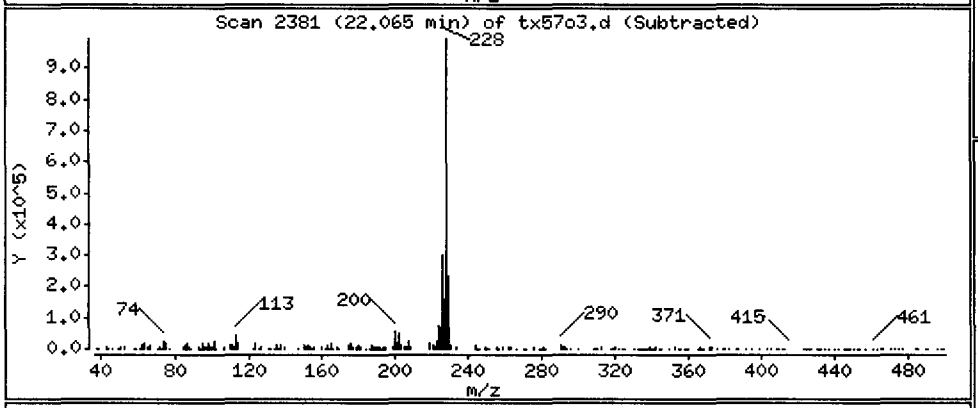
Column phase: ZB-5msi

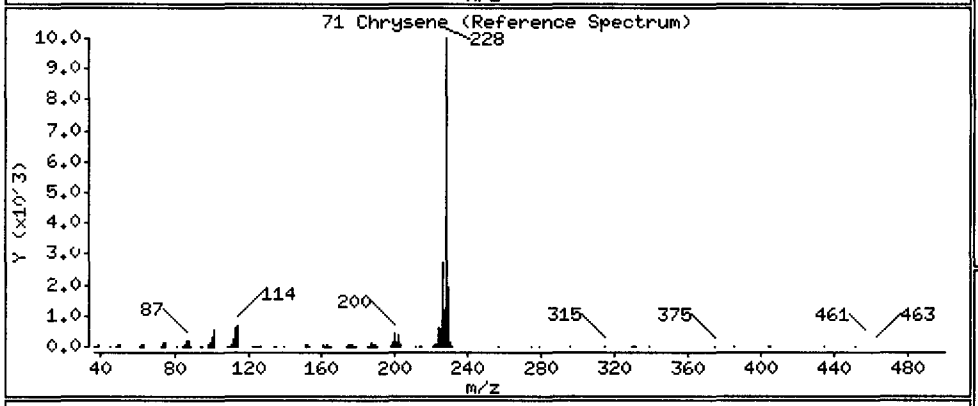
Column diameter: 0.25

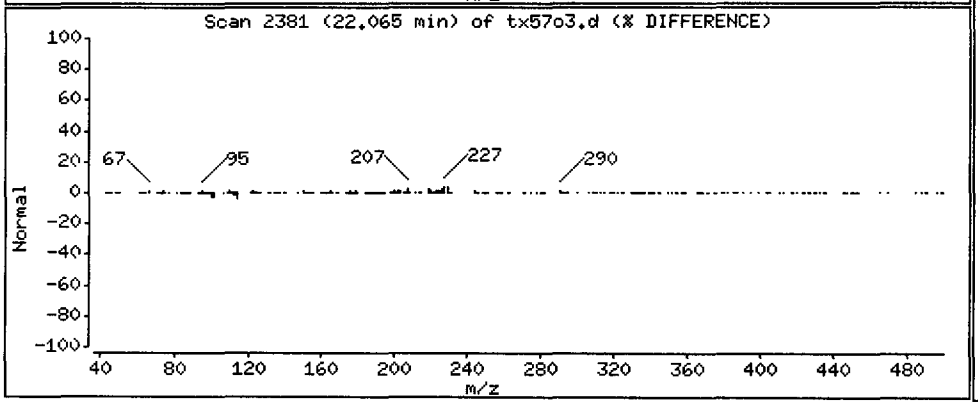
71 Chrysene

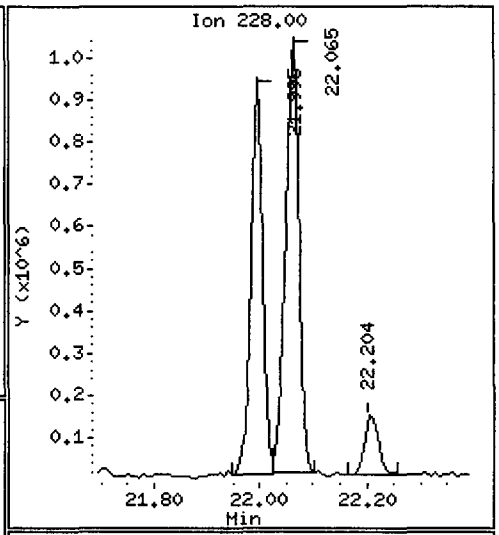
Concentration: 1290 ug/kg

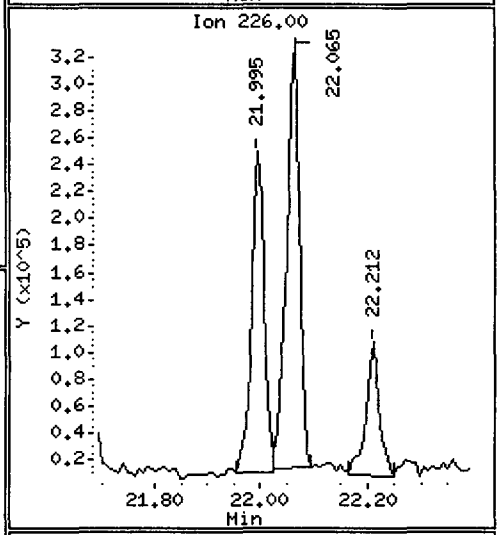


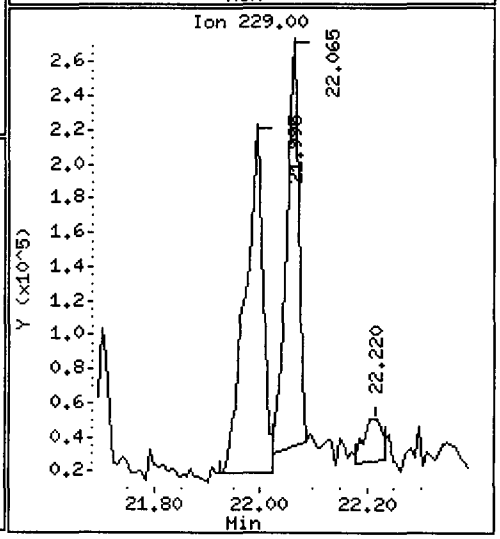












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

Client ID: SD0010

Instrument: nt10.i

Sample Info: TX57O,3

Volume Injected (uL): 1.0

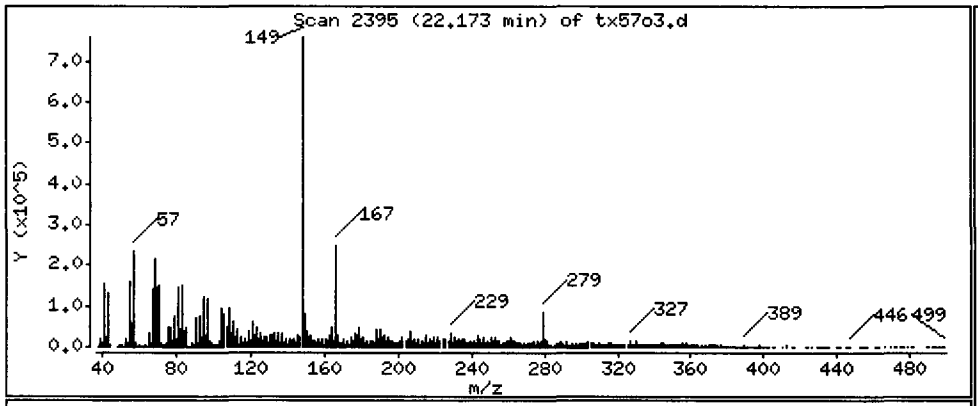
Operator: YZ

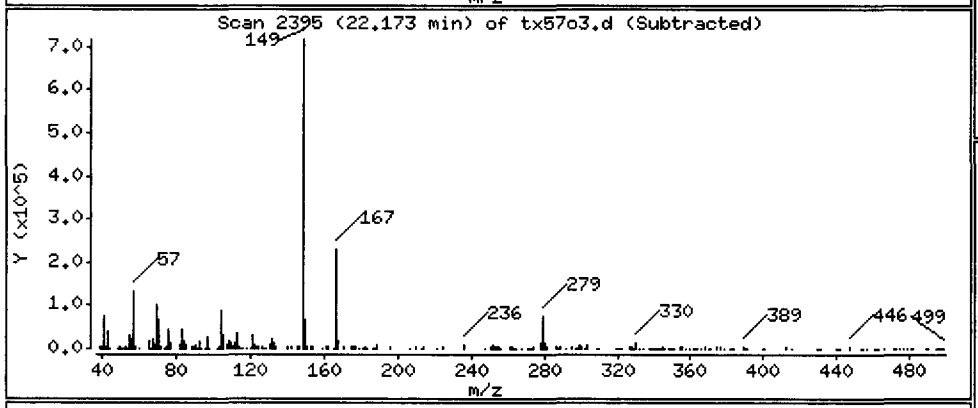
Column phase: ZB-5ms1

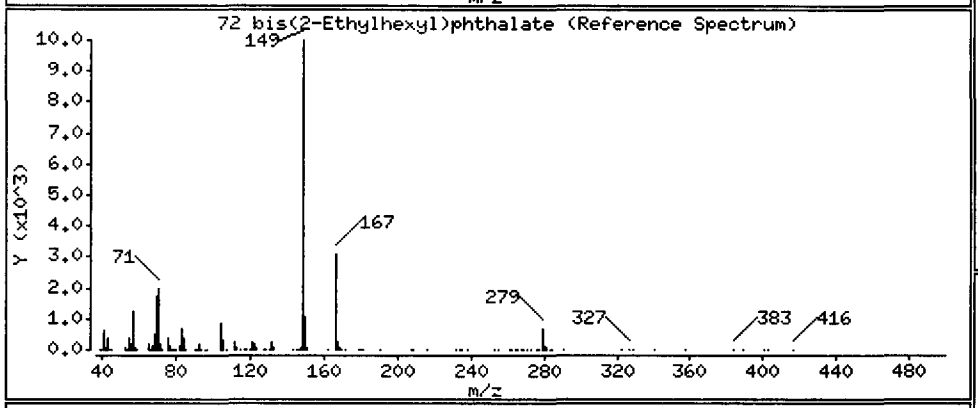
Column diameter: 0.25

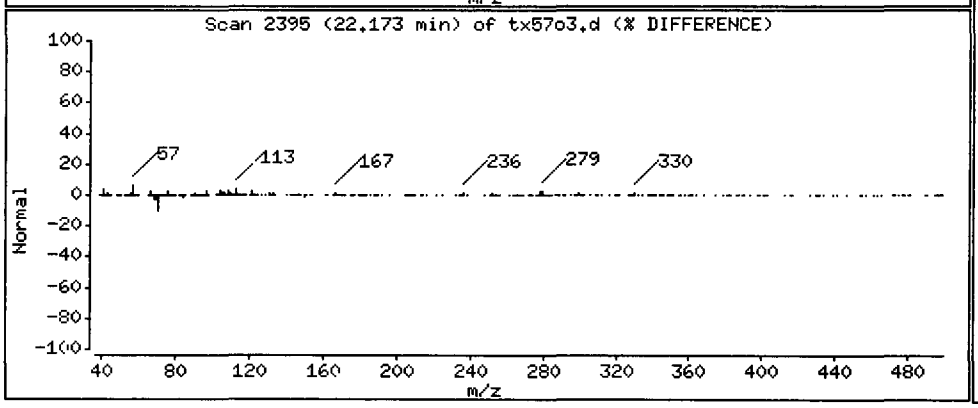
72 bis(2-Ethylhexyl)phthalate

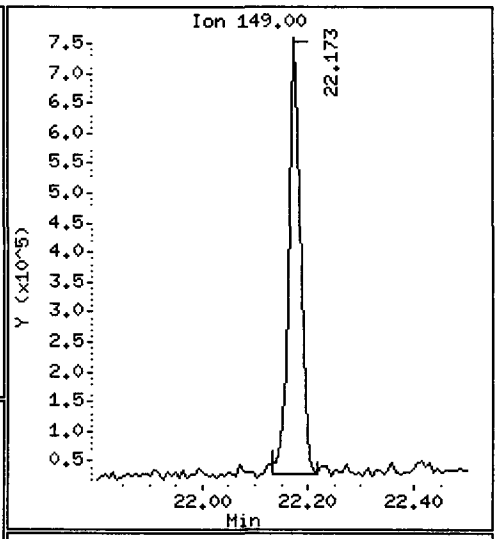
Concentration: 1722 ug/kg

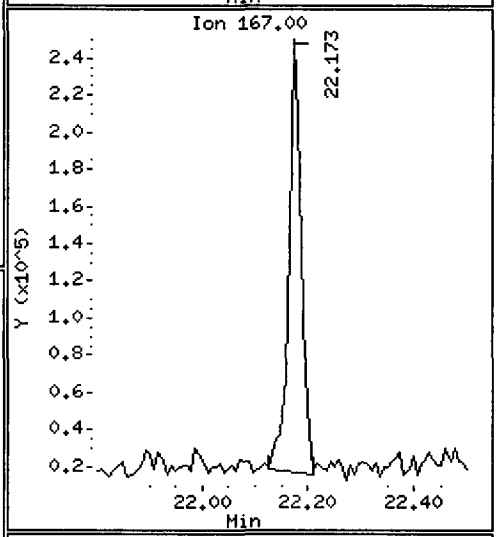


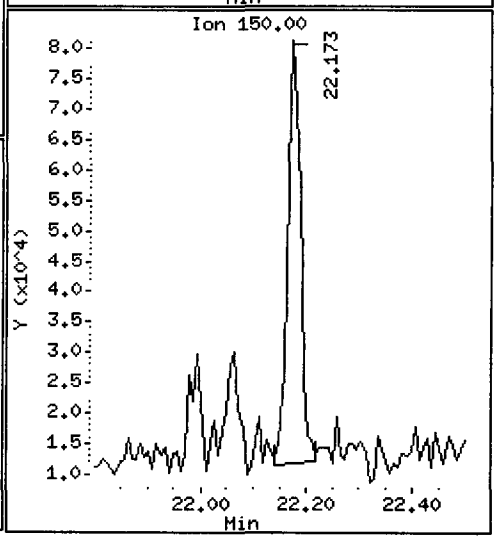












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

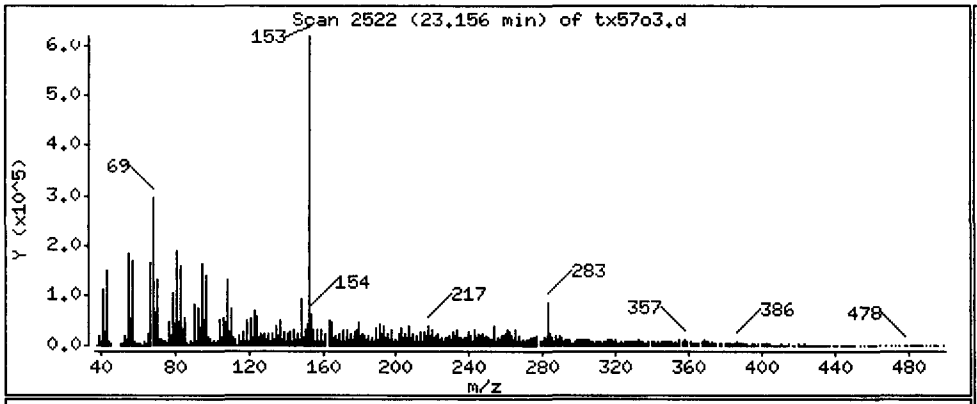
Client ID: SD0010 Instrument: nt10.i

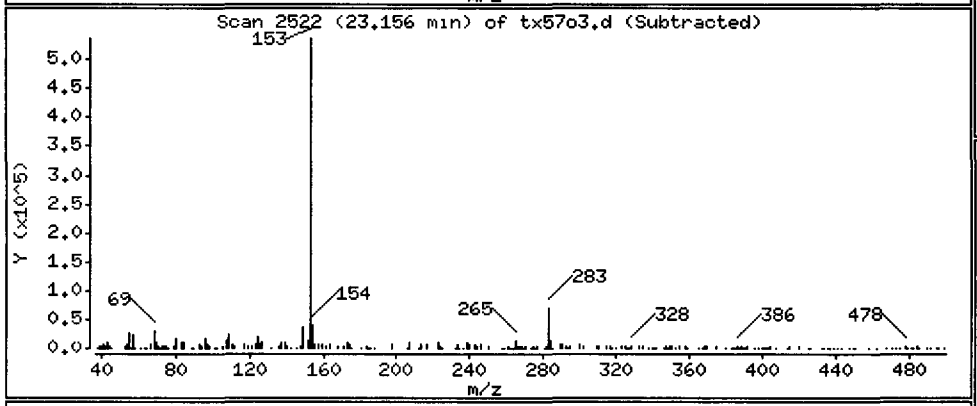
Sample Info: TX570,3

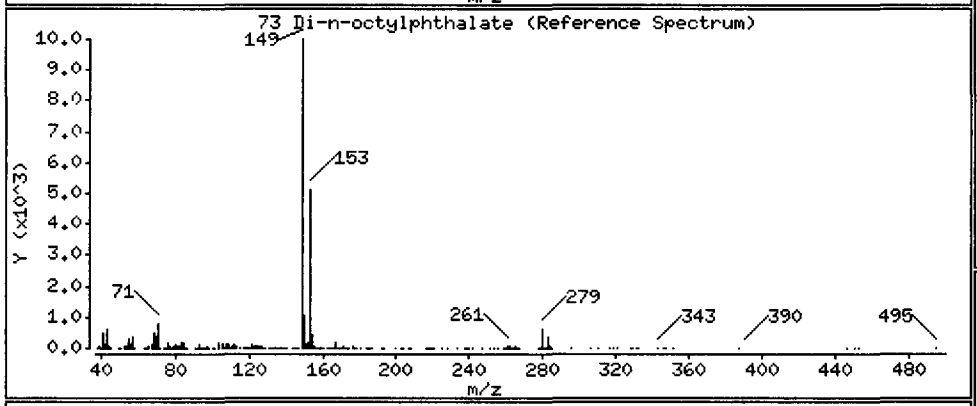
Volume Injected (uL): 1.0 Operator: YZ

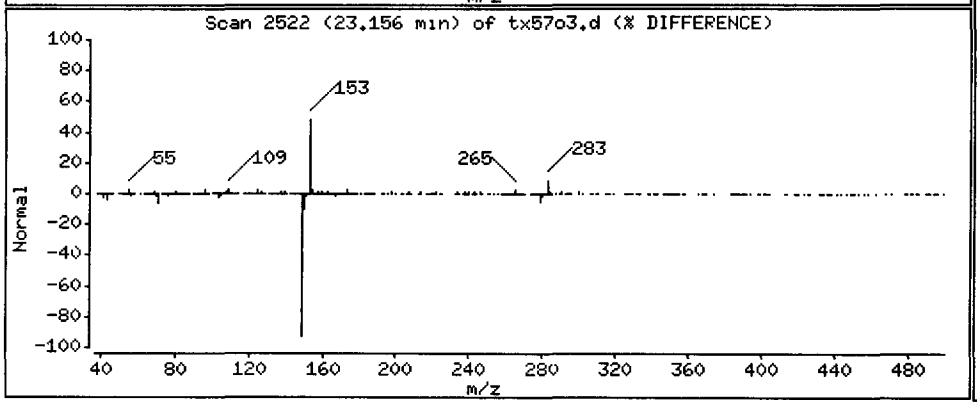
Column phase: ZB-5msi Column diameter: 0.25

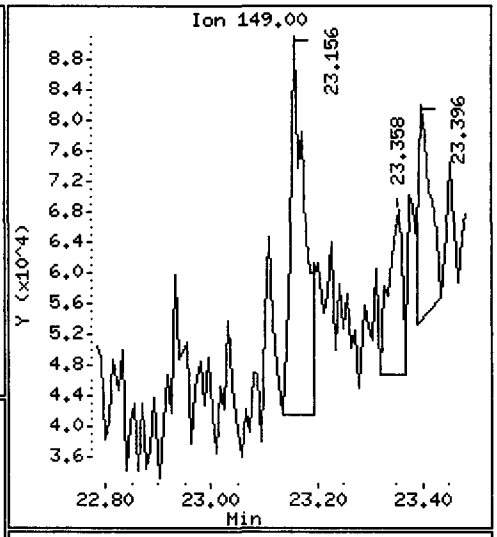
73 Di-n-octylphthalate Concentration: 85.73 ug/kg

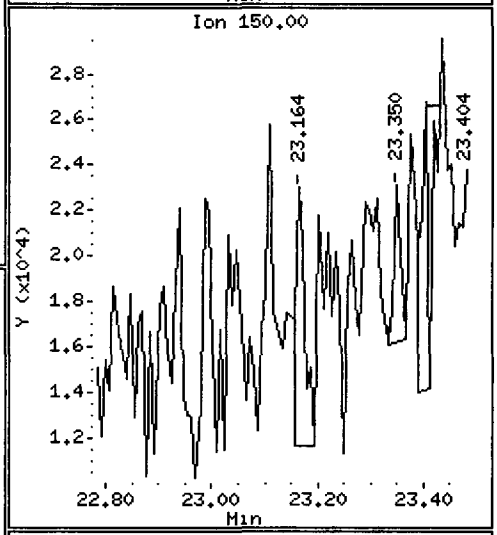


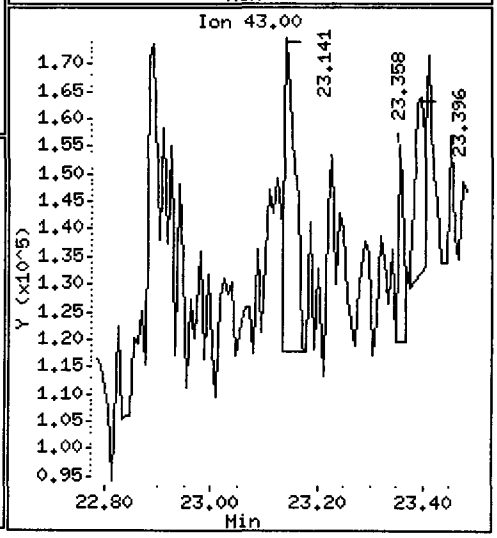












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

Client ID: SD0010

Instrument: nt10.i

Sample Info: TX570,3

Volume Injected (uL): 1.0

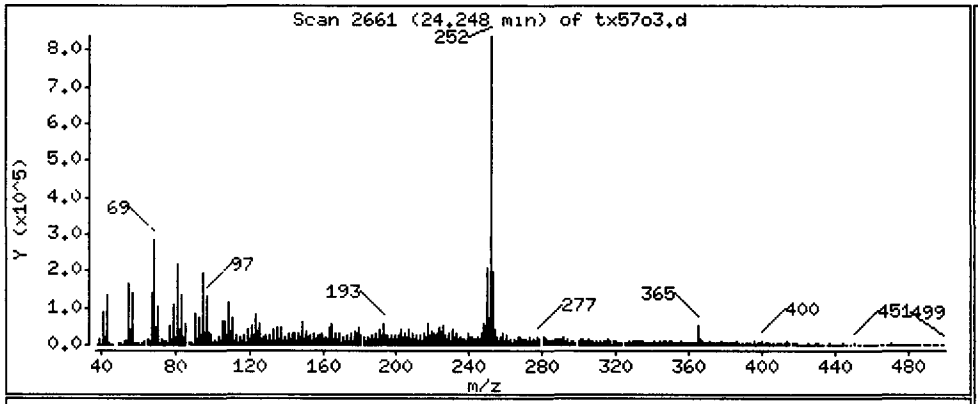
Operator: YZ

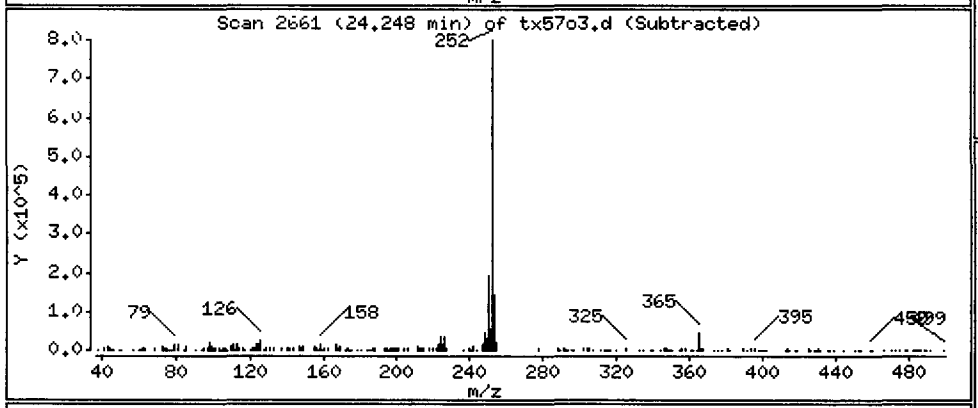
Column phase: ZB-5msi

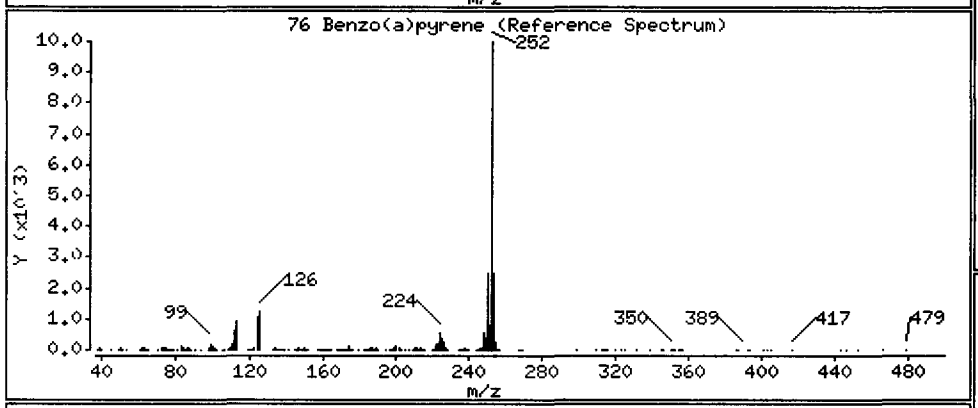
Column diameter: 0.25

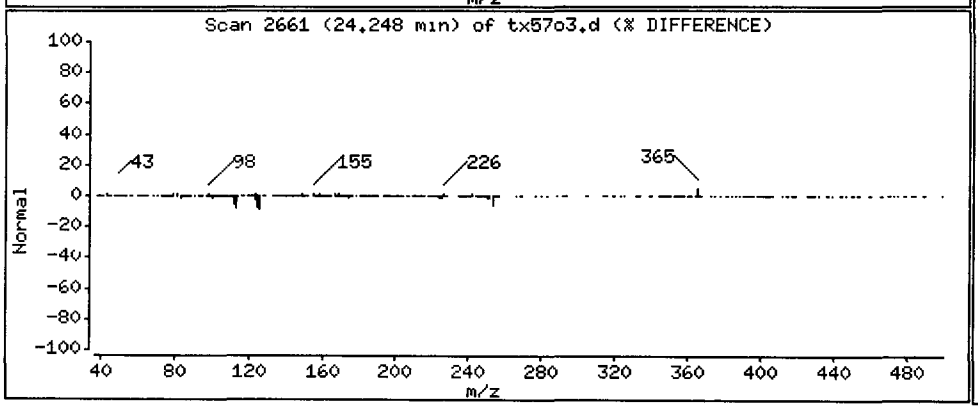
76 Benzo(a)pyrene

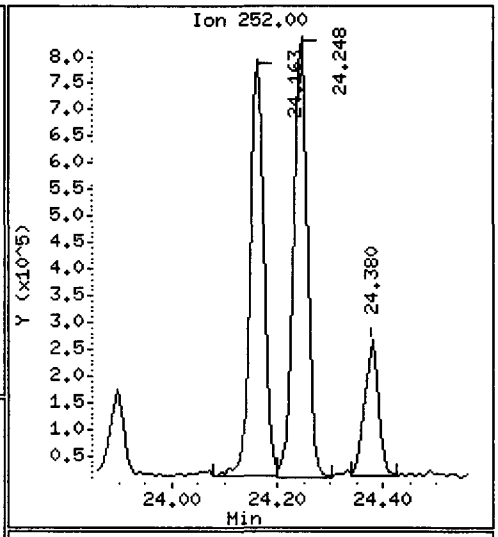
Concentration: 1052 ug/kg

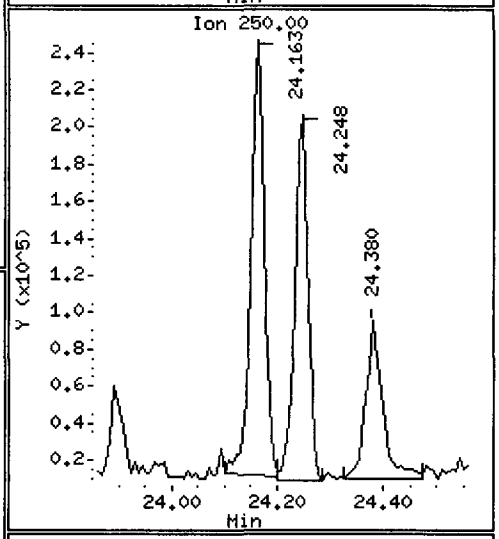


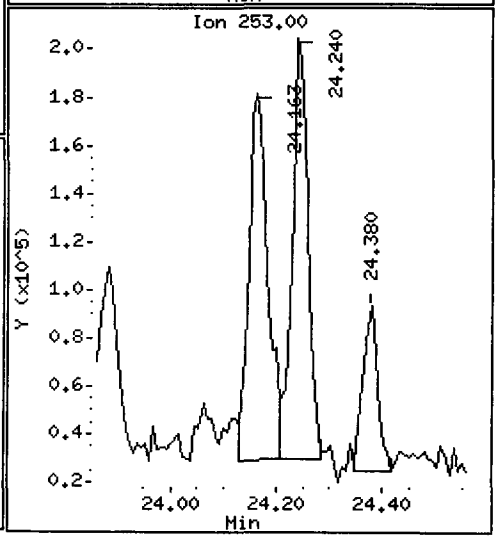












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

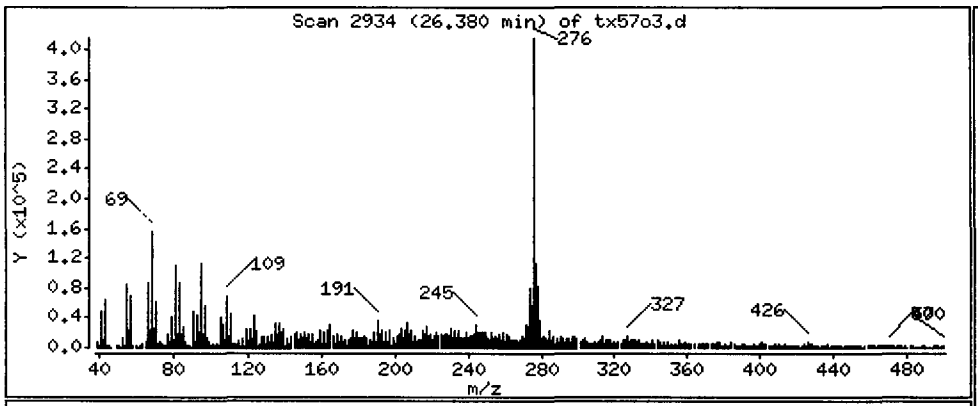
Client ID: SD0010 Instrument: nt10.i

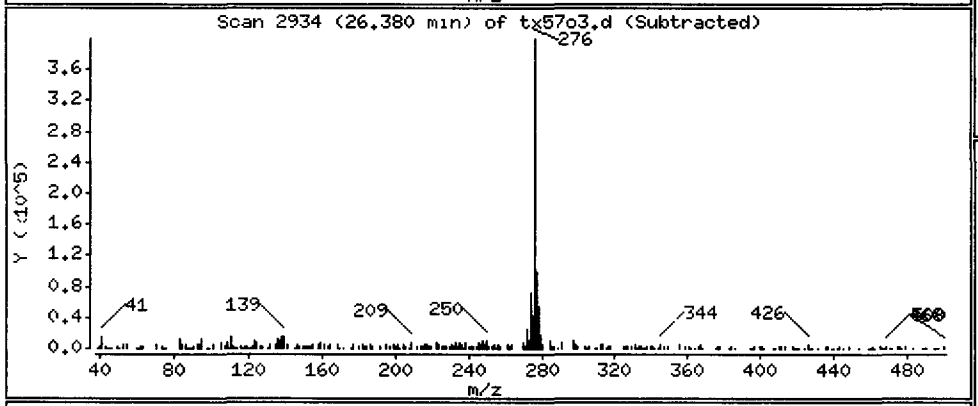
Sample Info: TX570.3

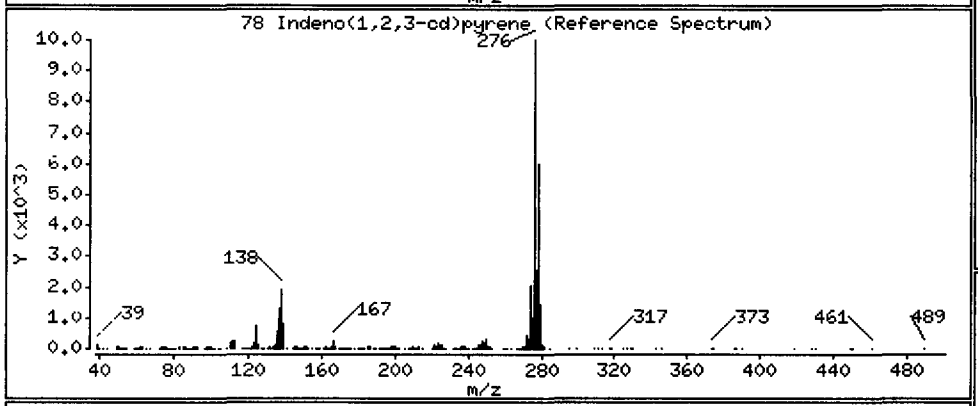
Volume Injected (uL): 1.0 Operator: YZ

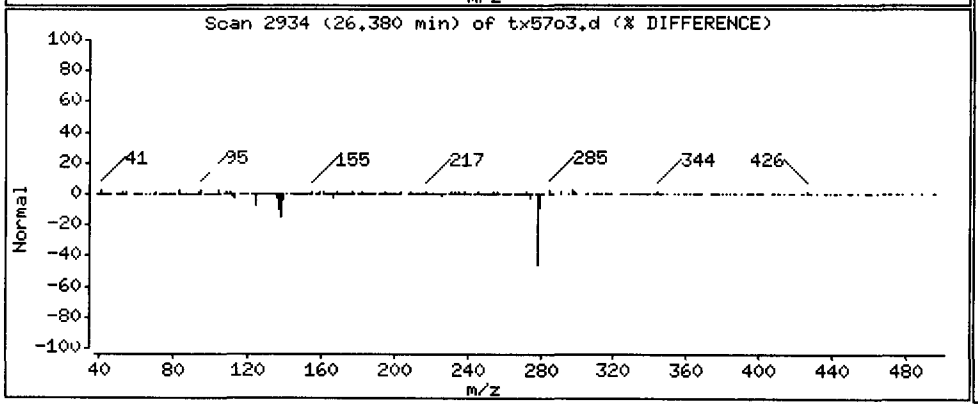
Column phase: ZB-5ms1 Column diameter: 0.25

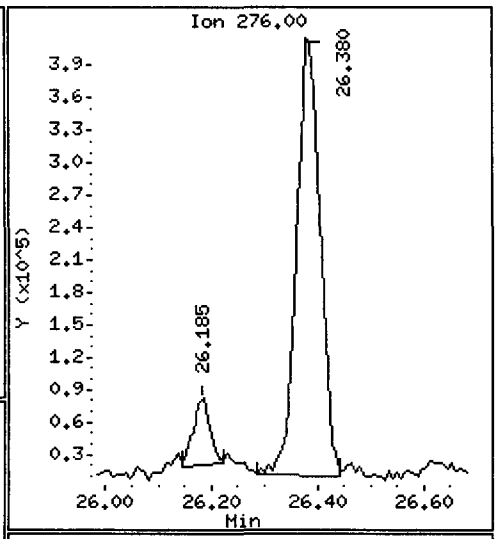
78 Indeno(1,2,3-cd)pyrene Concentration: 620.9 ug/kg

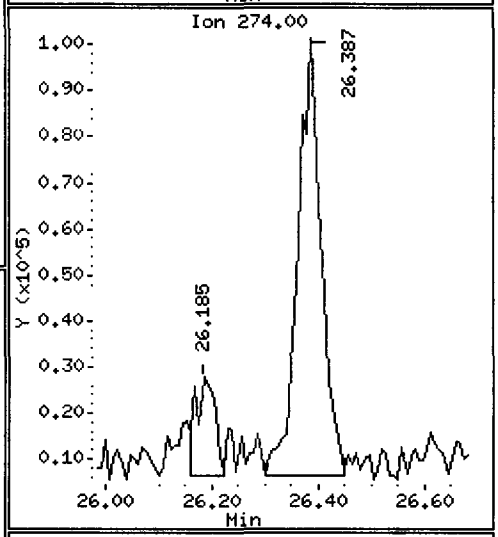


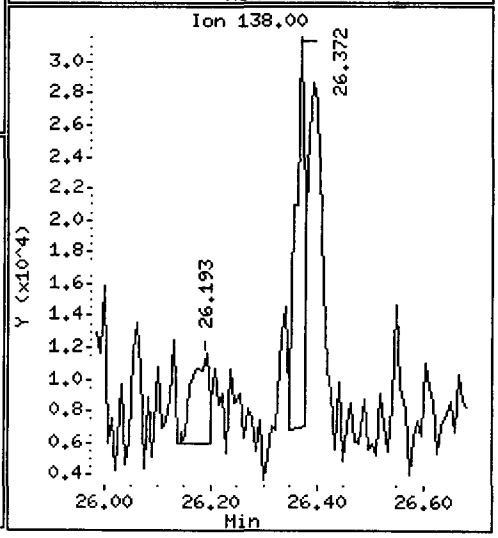












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

Client ID: SD0010

Instrument: nt10.i

Sample Info: TX570,3

Volume Injected (uL): 1.0

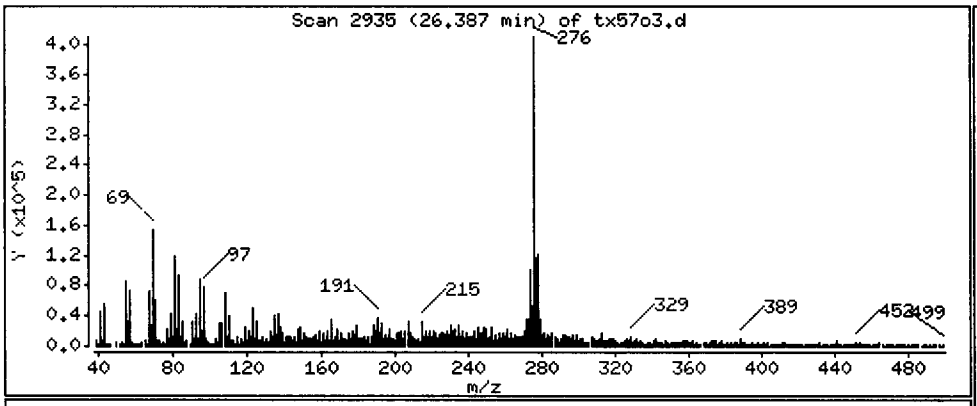
Operator: YZ

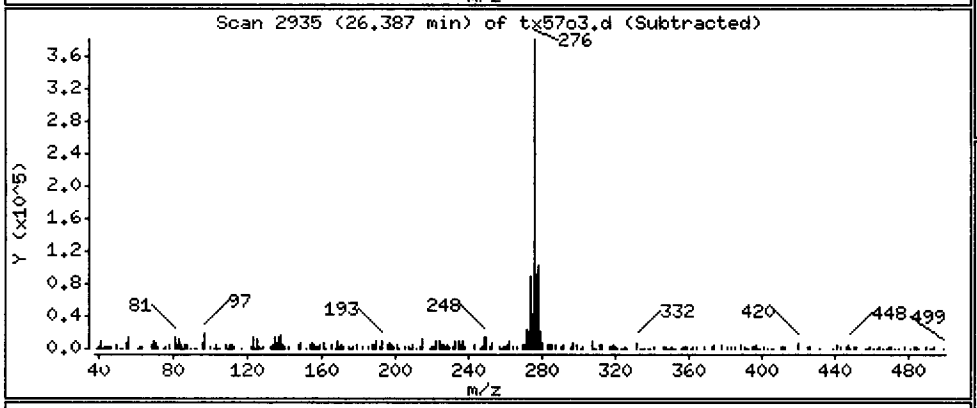
Column phase: ZB-5msi

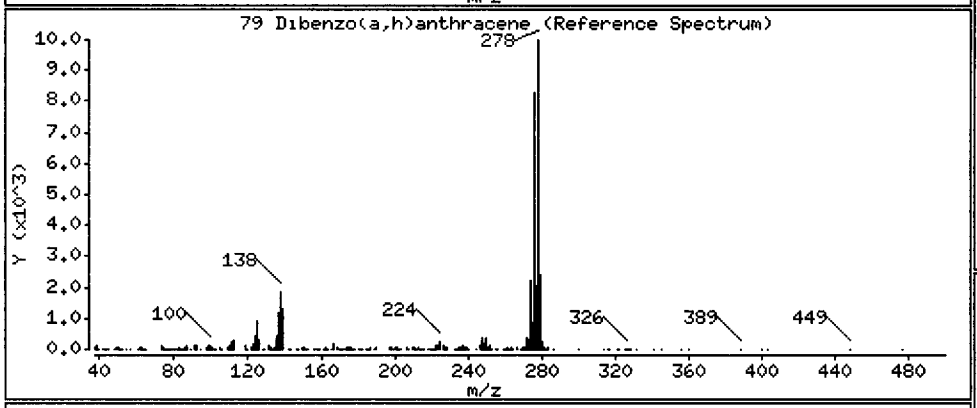
Column diameter: 0.25

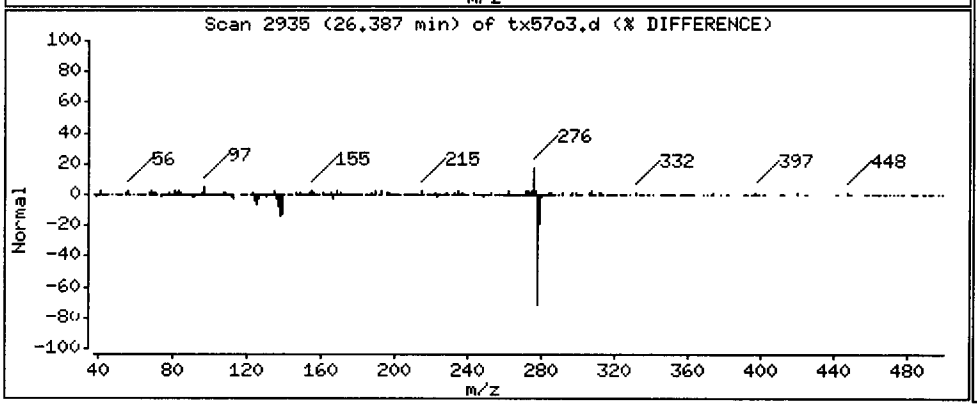
79 Dibenzo(a,h)anthracene

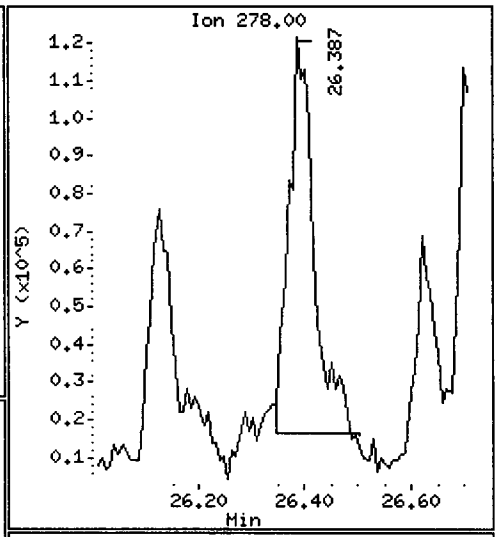
Concentration: 206.0 ug/kg

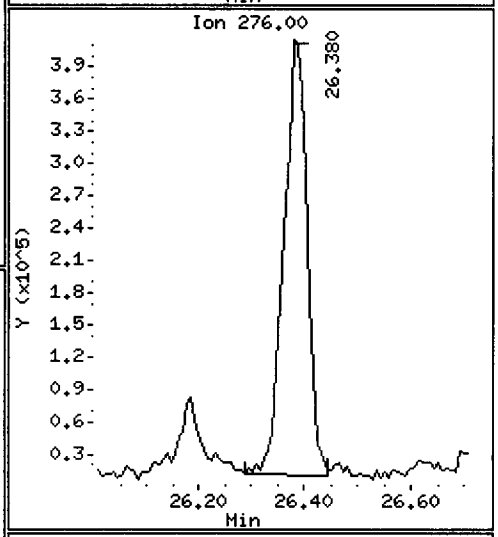


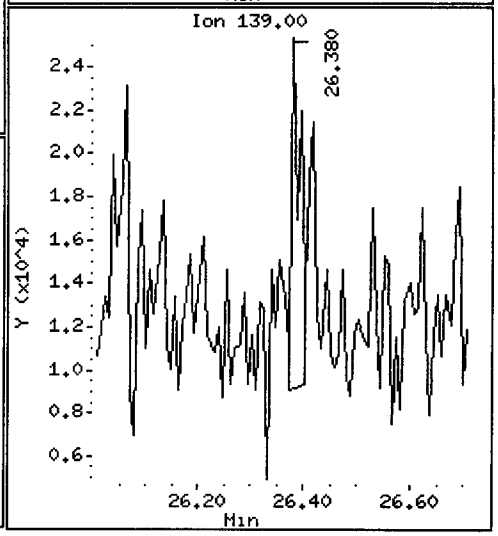












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

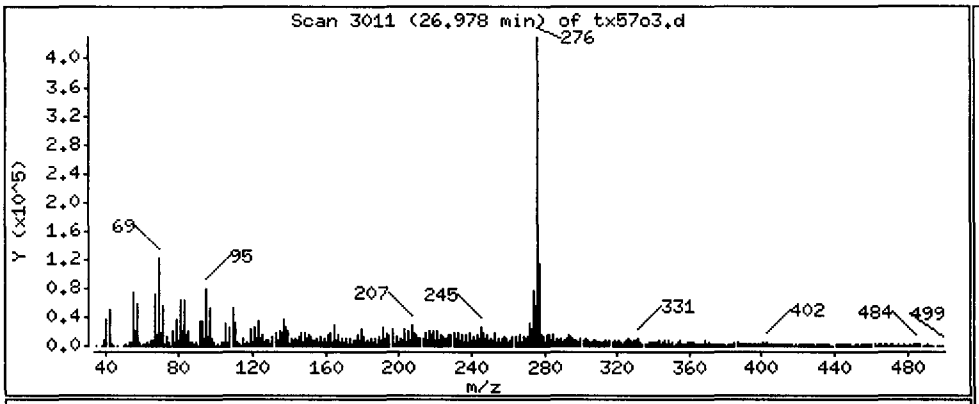
Client ID: SD0010 Instrument: nt10.i

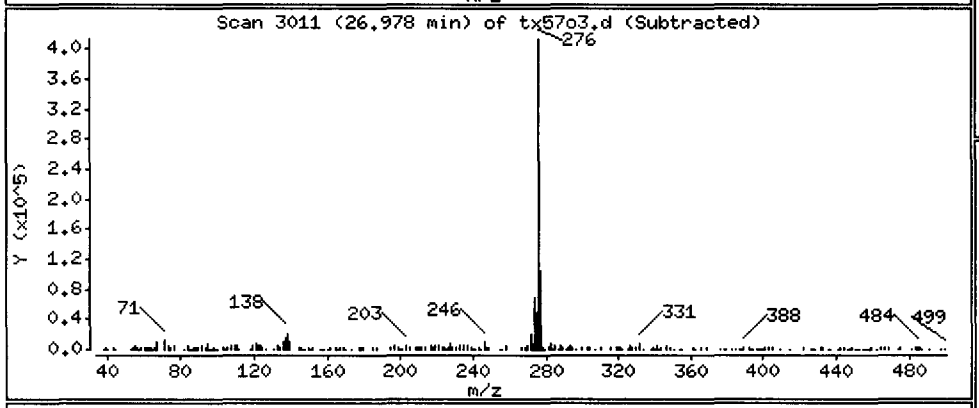
Sample Info: TX570,3

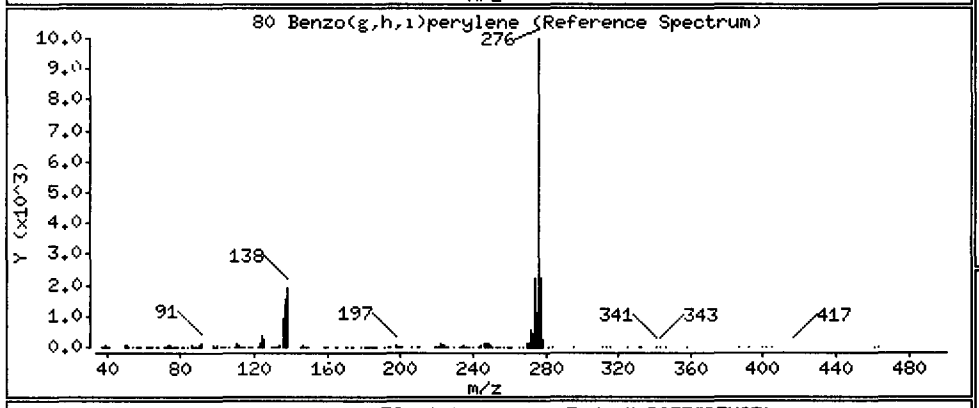
Volume Injected (uL): 1.0 Operator: YZ

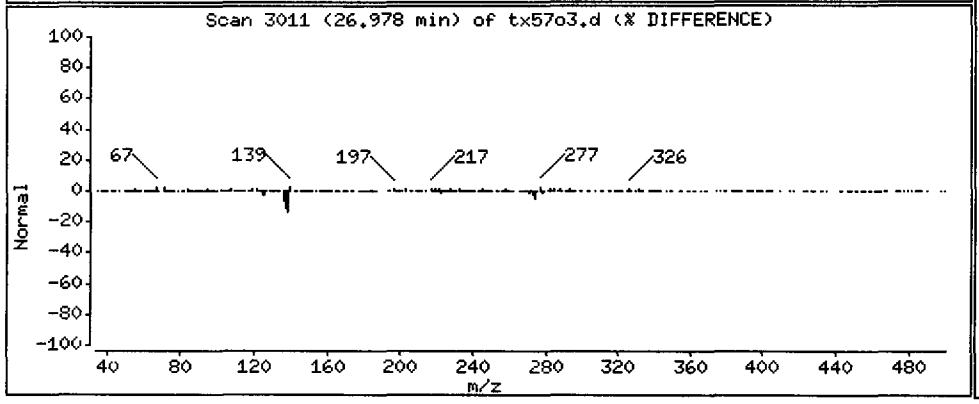
Column phase: ZB-5msi Column diameter: 0.25

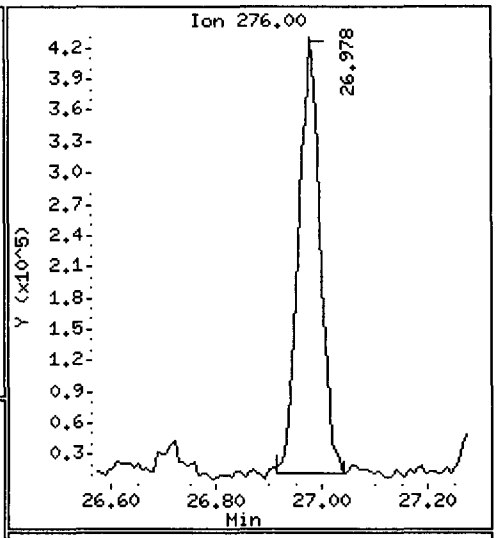
80 Benzo(g,h,i)perylene Concentration: 699.1 ug/kg

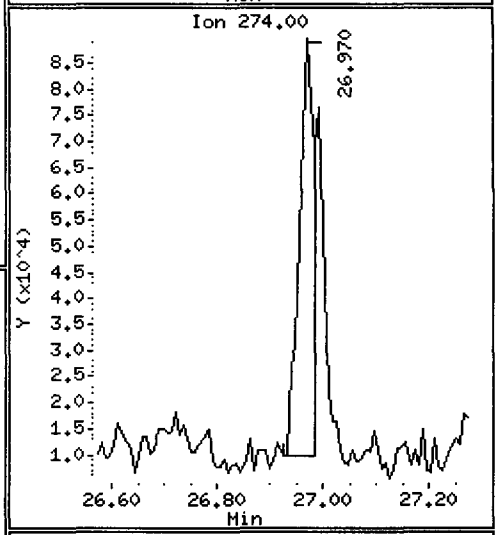


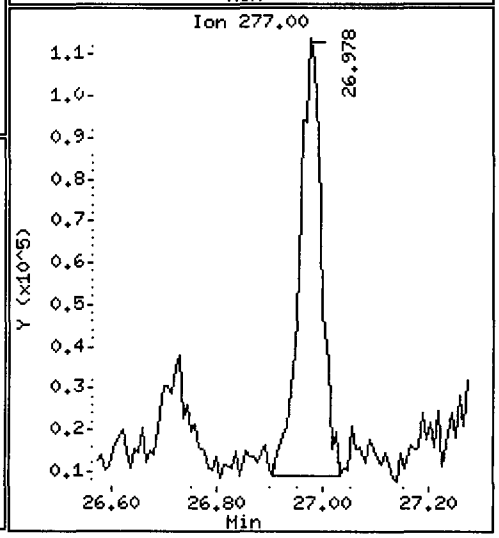












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

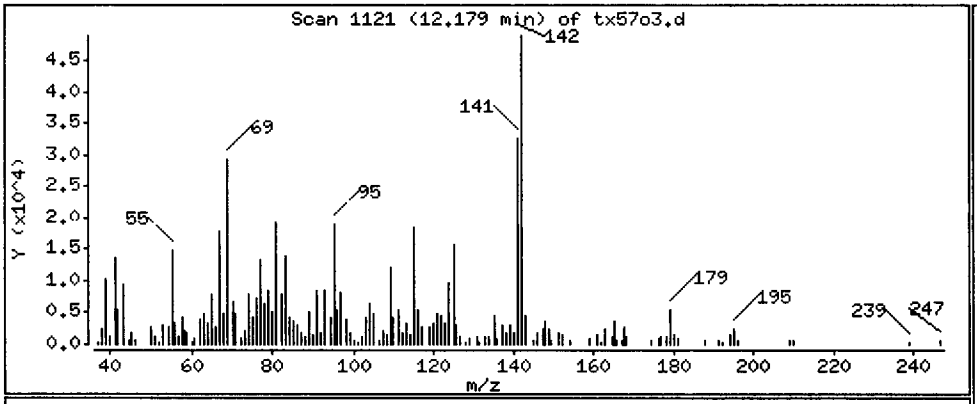
Client ID: SD0010 Instrument: nt10.i

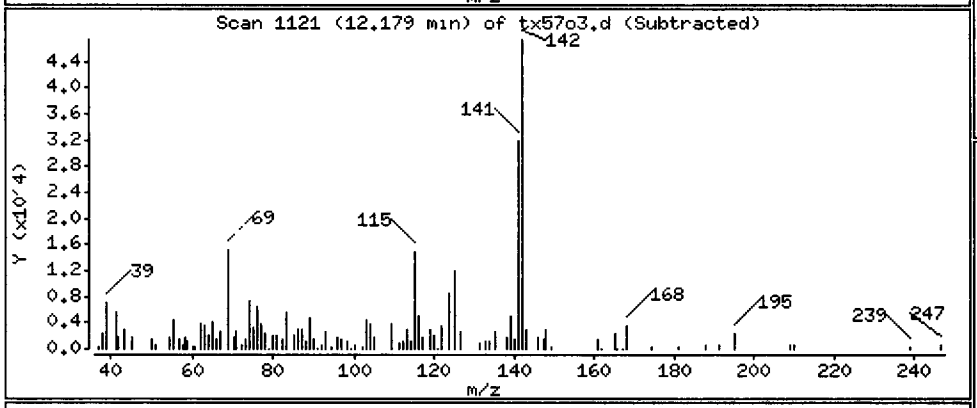
Sample Info: TX570,3

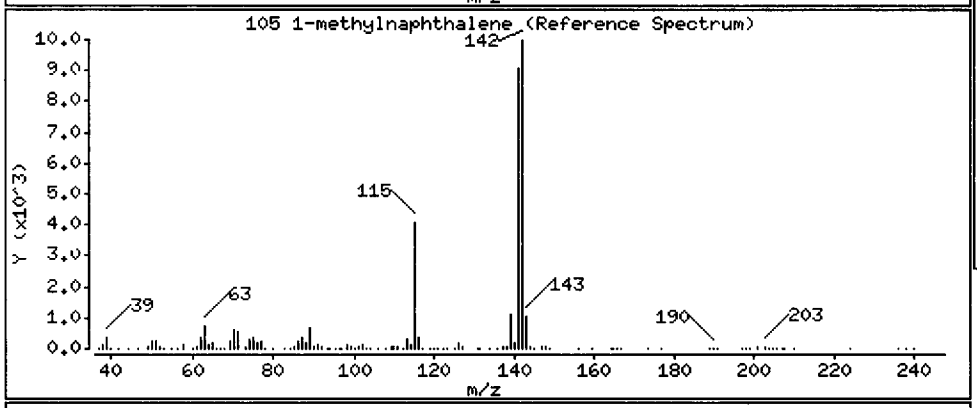
Volume Injected (uL): 1.0 Operator: YZ

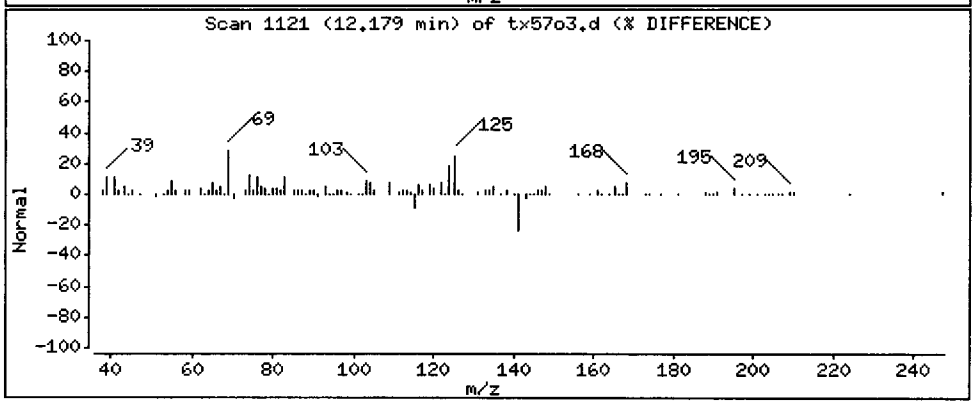
Column phase: ZB-5msi Column diameter: 0.25

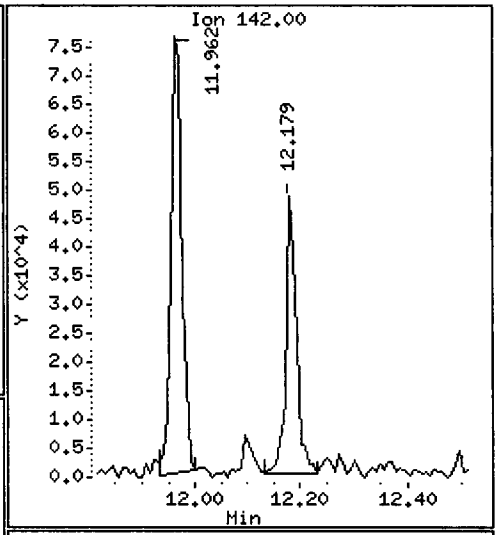
105 1-methylnaphthalene Concentration: 155.4 ug/kg

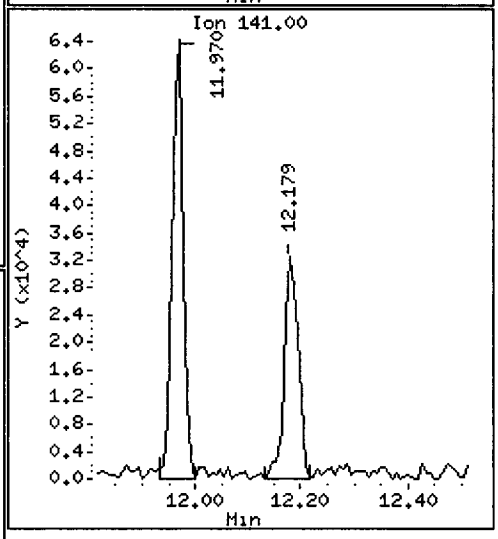












Data File: /chem1/nt10.i/20111207.b/tx57o3.d

Date : 07-DEC-2011 13:41

Client ID: SD0010

Instrument: nt10.i

Sample Info: TX57O,3

Volume Injected (uL): 1.0

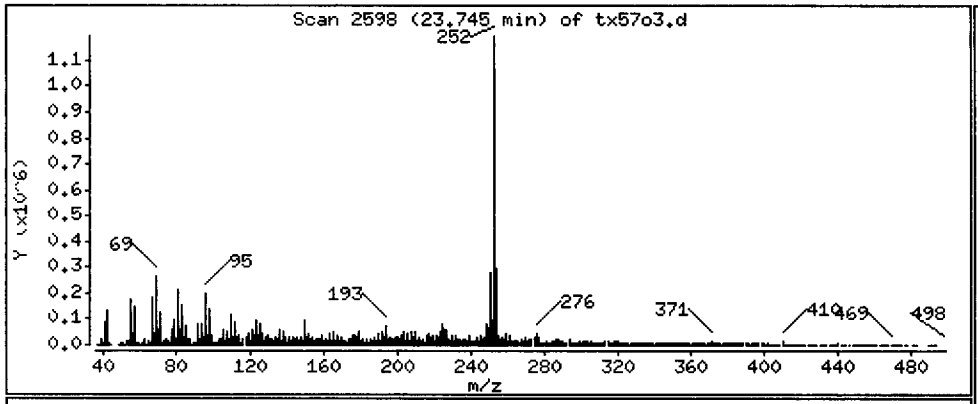
Operator: YZ

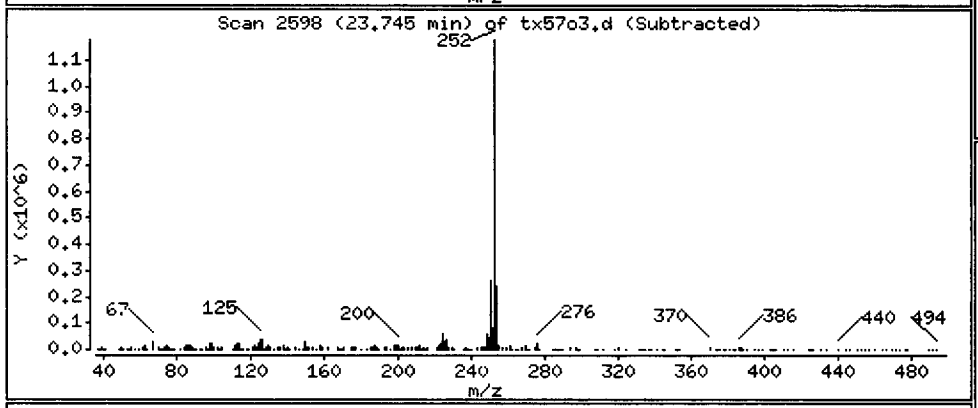
Column phase: ZB-5msi

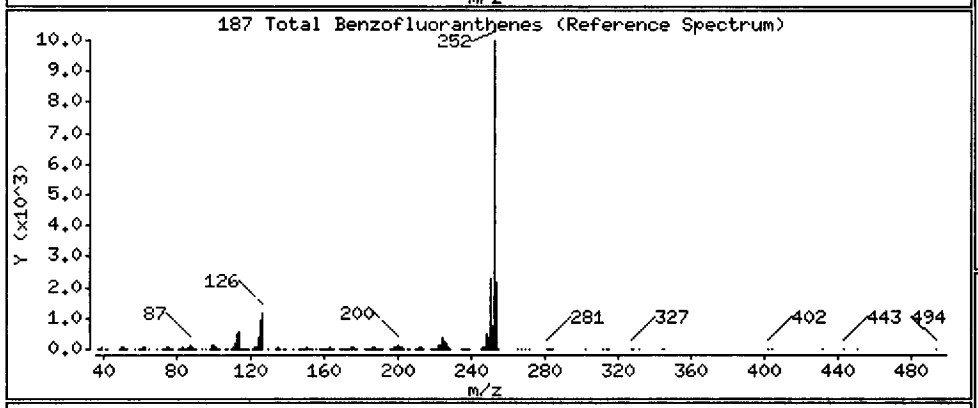
Column diameter: 0.25

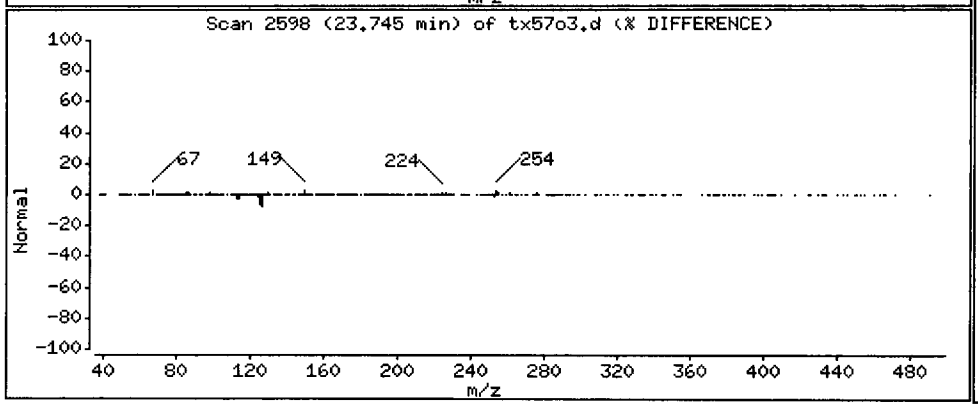
187 Total Benzofluoranthenes

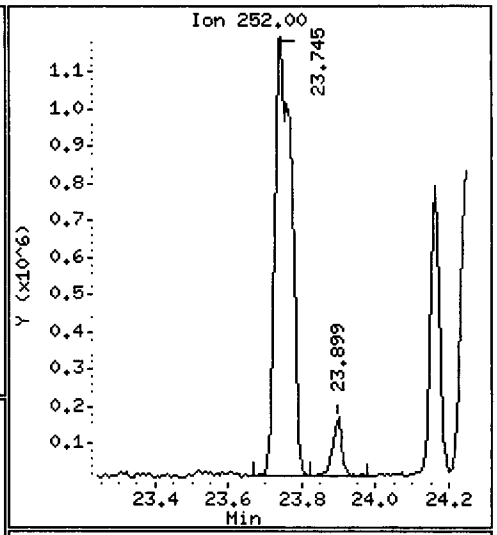
Concentration: 2158 ug/kg

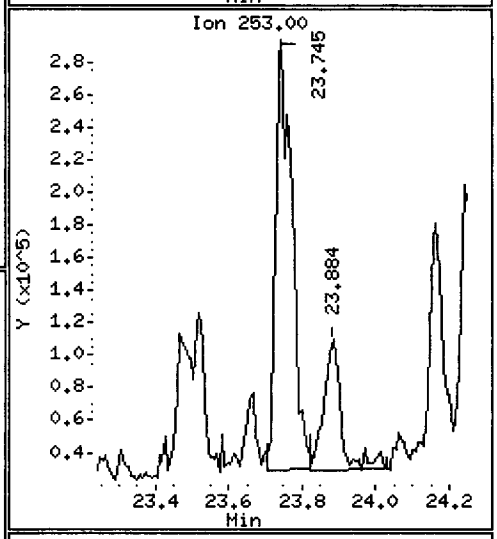


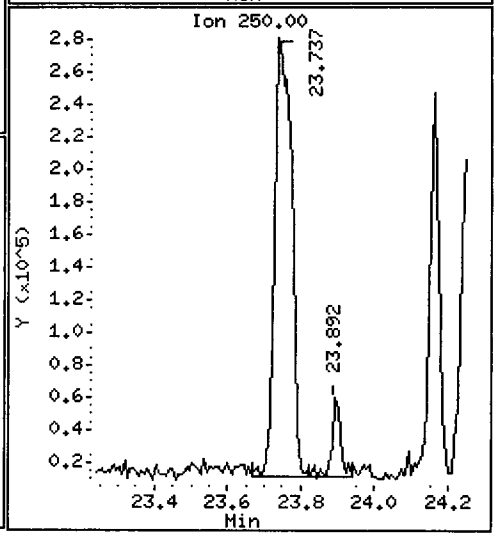






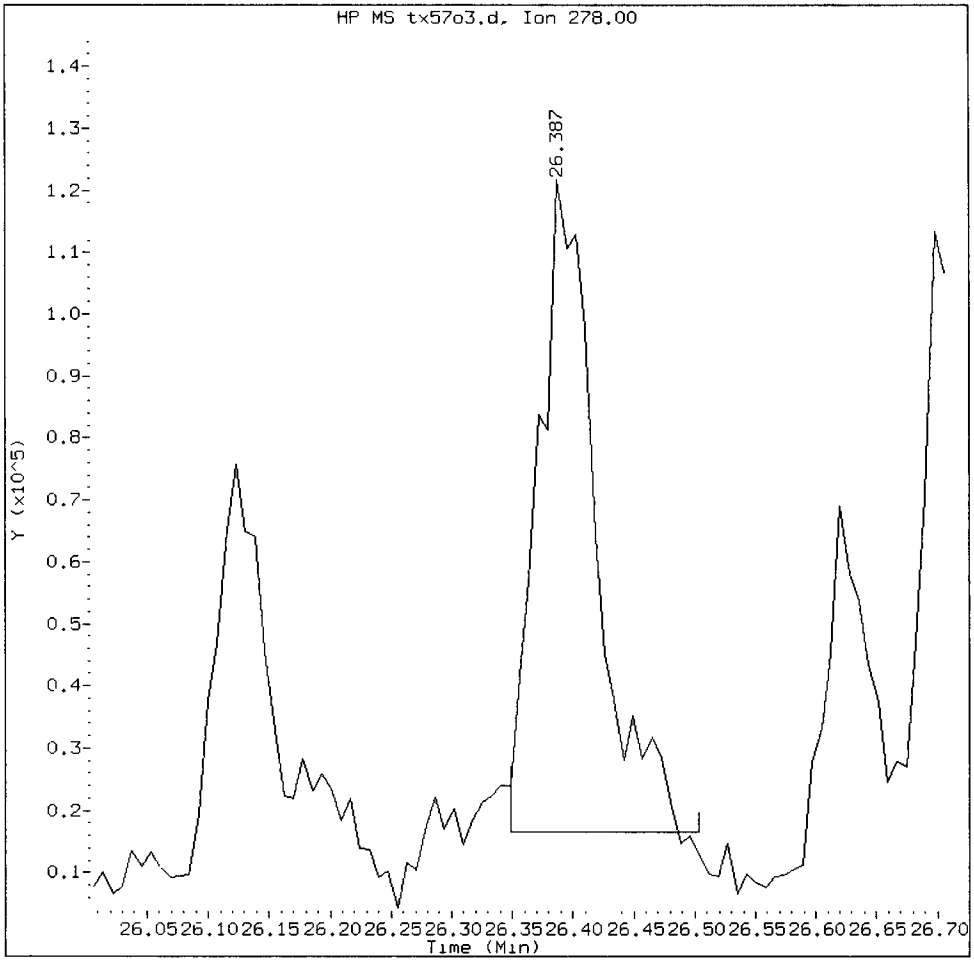






TX57O, /chem1/nt10.i/20111207.b/tx57o3.d

Dibenzo(a,h)anthracene Amount: 0.69 Area: 347132



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 12/9/11

CO-ELUTION SUMMARY FOR FILE - tx57o3.d

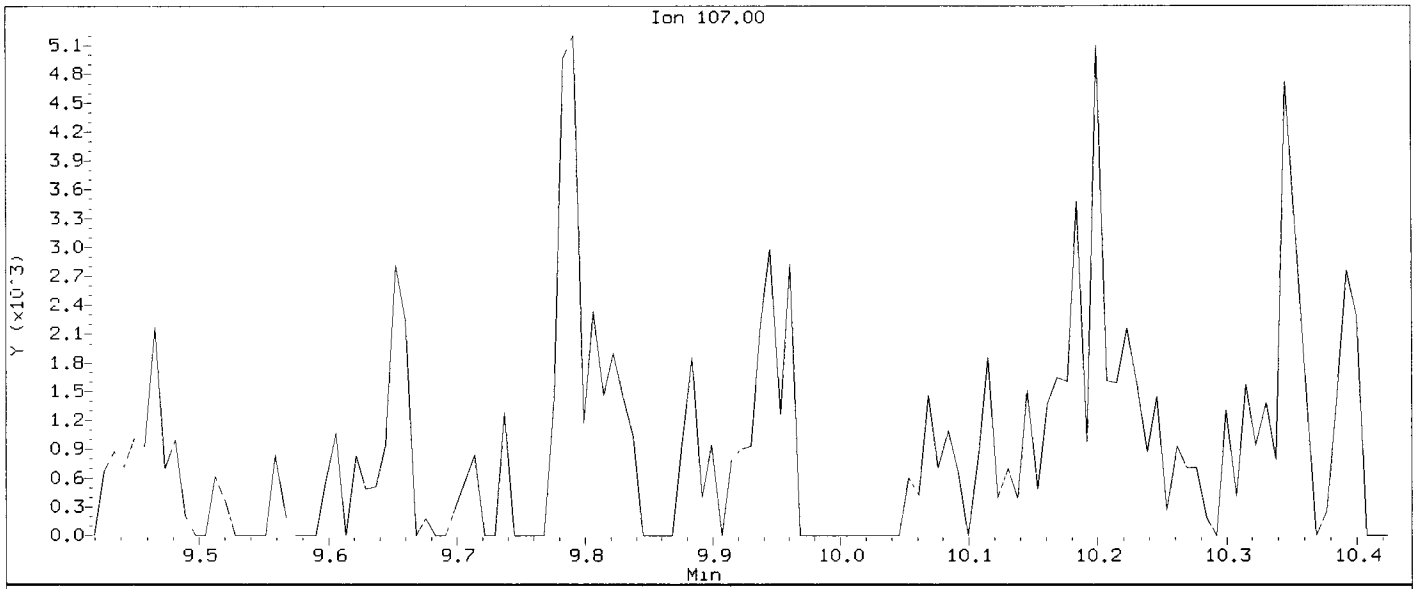
Lab ID: TX57O, Method: ABN.m, Instrument: nt10.i, Date: 07-DEC-2011

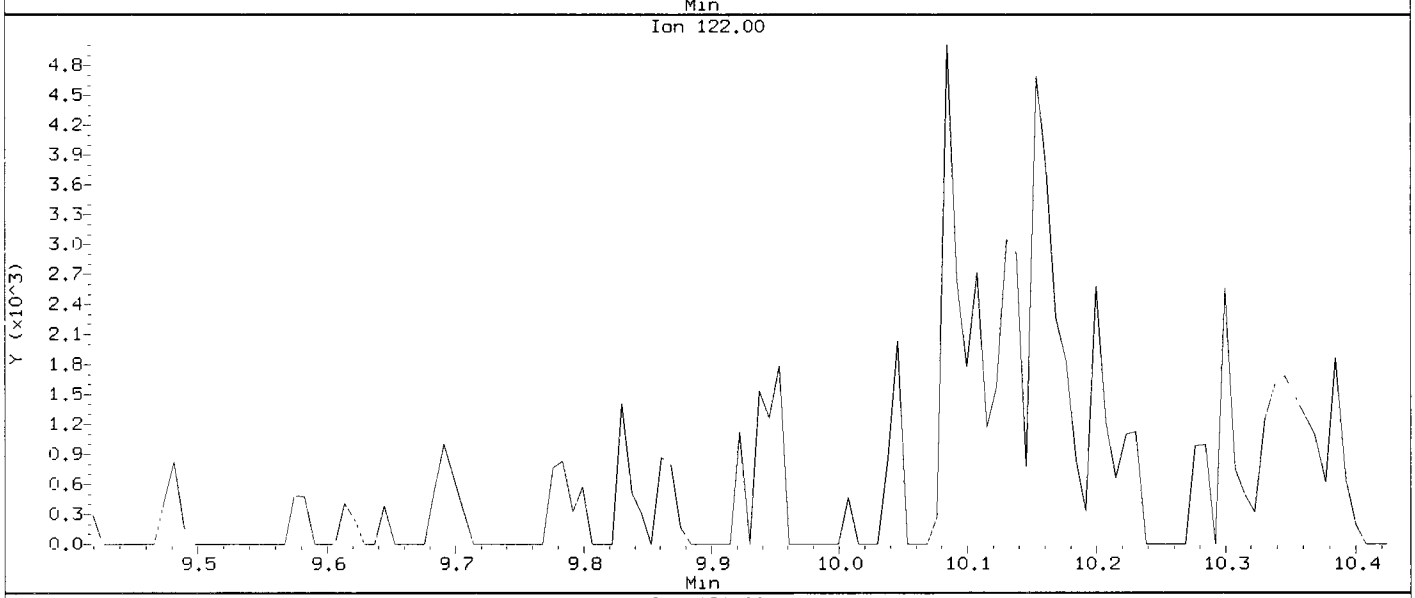
RT	CO-ELUTION COMPOUNDS

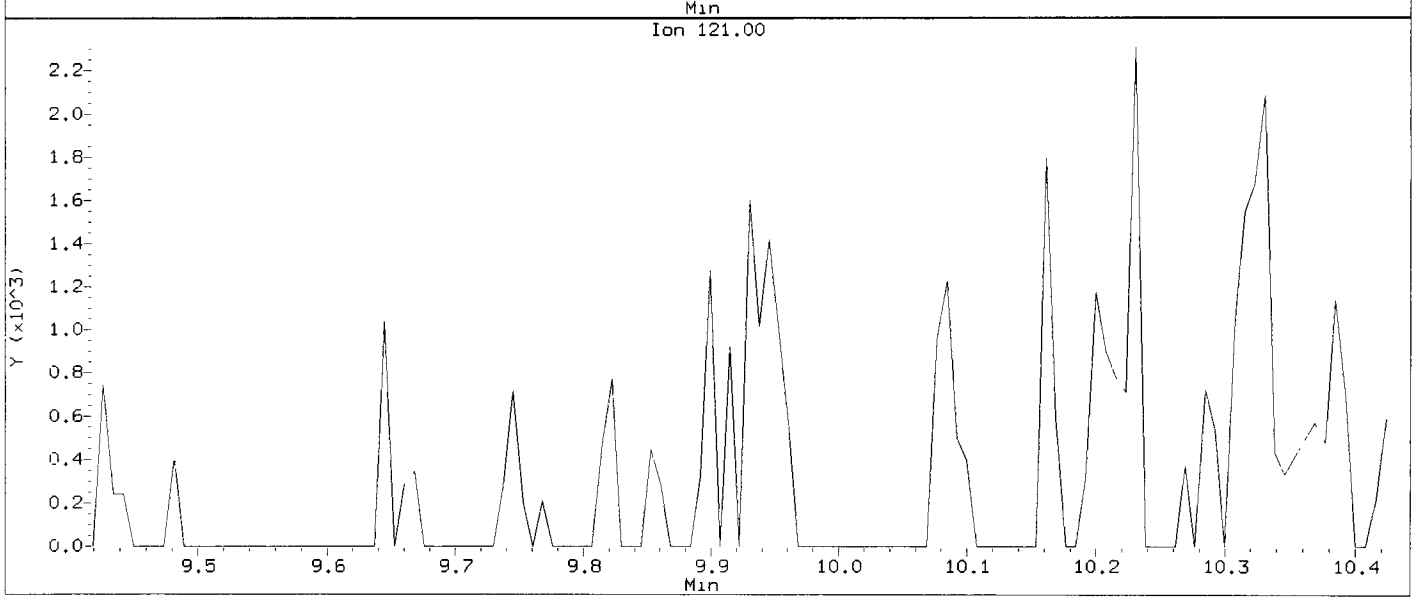
NO CO-ELUTIONS

Data File: /chem1/nt10.i/20111207.b/tx57o3.d
Injection Date: 07-DEC-2011 13:41
Instrument: nt10.i
Client Sample ID: SD0010

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9

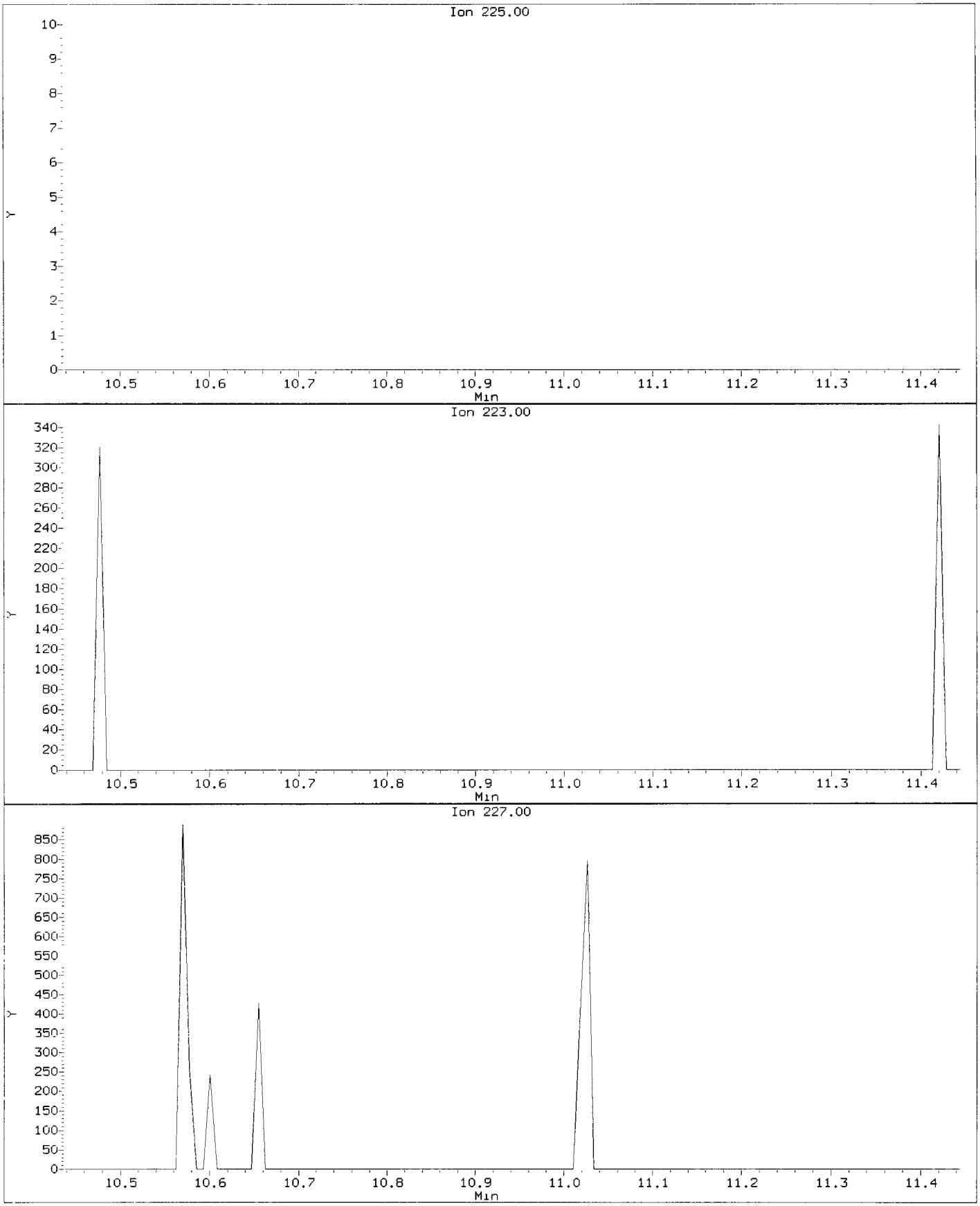






Data File: /chem1/nt10.1/20111207.b/tx57o3.d
Injection Date: 07-DEC-2011 13:41
Instrument: nt10.1
Client Sample ID: SD0010

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



PCB Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: TX57

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

PCB – Water
Separatory Funnel (3510C) (SOP # 3311S)

Preparation Test PCB Low Level # 3 (PCBWSL) Low Level (0.01ppb)

ARI Job No(s) TX57, TV32 (RX) Batch set up by: SH

Bottle #	ARI Sample I.D.	Verify Client ID	Volume Extracted	PH 5-9 (Y) N	KD	Turbo Vap 1 2 3	(REQ) Acid Clean (1:1)	(REQ) Sulfur Clean (1) 2 3 (1:1)	(REQ) Silica Gel Clean (1:1)	Turbo Vap 1 2 (3)	Final Effective Volume	Volume to Lab	Comments
	TX57												
	MBW	Date 11-19-11	1000mL				4mL	4mL	1mL		0.5mL	0.5mL	
	SBW		↓				↓	↓	↓				
	SBW Dup.		↓				↓	↓	↓				
	~~QLS~~		↓				↓	↓	↓				
4	TX57 P	verified											
4,3	↓ Q												
7,13	TV32(RX) B2												
2 8	C2												
9,14	D2												
Analyst/Date:		Ae 11-19-11			IS 11-21-11	SP 11/21/11	SP 11/21/11	SP 11/21/11	SP 11/21/11	IS 11-22-11			

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	D4	100µL	12/16/11	M	AC
Spike	13	25µL	1/31/12	M	AC
~~QLS Spike~~	~~23~~	~~50µL~~			

Extraction Time: 11:45

SPECIAL INSTRUCTIONS: 1. Rinse all glassware with Low Level Hexane. 2. Verify pH.

3. Adjust pH (if necessary=Analyst Notes). 4. Add Surr/Spike. 5. Extract 3X with 60mL Low Level Hexane.

6. KD (NO Drying Column) at 100°. RINSE SNYDER COLUMNS WITH LOW LEVEL HEXANE 7. TurboVap.

8. Clean-ups=Transfer Rinse. 9. TurboVap. 10. Vial with Low Level Hexane.

A. Archive (Y) N

TX57

TX57 : 01019

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: TX57 Client ID: Integral Consulting, Inc.

Parameter: PCB low level Client Project: Slip 4 Early Action Area

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☒ No Anomalies	AC 11-19-11
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

PCB – Soil / ~~Sediment~~
Microwave (3546) (~~SOP # 3304S~~)

Preparation Test PCB PSDDA # 5 (PCBSDMP4)-(PCBSDMP10)-(PCBSDMP20)

PSDDA (4-~~10 20ppb~~)

ARI Job No(s) TX57

Batch set up by: SP

Bottle #	ARI Sample I D.	Verify Client ID	Volume Extracted (dry wt)	KD 100°C ---------- Hex X (X 2)	(REQ) Acid Clean	(REQ) Sulfur Clean 1 2 3	(REQ/~~Opt~~) Silica Gel Clean (1:2.5) Y/N	Extraction Final Volume	Volume to Lab	GC Dilution	GC Final Effective Volume	Comments
		11/26/11 Date										
	MBS TX57		12.5g	1	2.5mL	2.5mL	1mL	2.5mL	1mL	1X	2.5 mL	10g Actua Weight
	SBS	✓	↓	+	↓	↓	↓	↓	↓			↓
	SBSDup		↓		↓	↓	↓	↓	↓			↓
	QLS		↓		↓	↓	↓	↓	↓			↓
3	TX57A	checked	16.22				CSZ 12/5/11			1X	2.5 mL	
	B		3.06									See notes
	C		17.02									
	D		16.02									
	DMS		16.42									
	DMSD		16.94									
	E		15.39									
	F		15.59									
	G		15.93									
	H		15.35							1X	2.5 mL	
	I		14.17							10X	25 mL	
	J		14.09									
	K		15.43							1X	2.5 mL	
	L		16.79							10X	25 mL	
	M		15.30							1X	2.5 mL	
	N		3.01							10X	25 mL	See notes
	O		3.01									

Analyst/Date					
	DG 11/26/11	4C 11/30/11	AC	CSZ 12/5/11	
	NL 11/28/11 (MICROWAVE)		12-2-11		

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	N 3	50µL	12/16/11	DG	TH
Spike	1	63µL	11/1/12	DG	TH
QLS Spike	5	125/62.5/25µL			
Extraction Time: 16:55			Balance ID: 2175452		

SPECIAL INSTRUCTIONS: 1. Weigh soil/sed into beakers-lightly dry with sodium sulfate. 2. Transfer to microwave vessel(s). Note: (do not fill vessels more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 Hexane/Acetone until the solvent layer is 3" inches above the soil layer after homogenization. 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave: cool vessels in cold water 15 minutes. 7. Decant 1:1 Hex/Ace into E. flask with sodium sulfate in bottom+ funnel with neutral glasswool plug. 8. Rinse with Hexane. 9. Add 8:2 Hexane/Acetone to the vessel 3"inches above the soil layer after homogenization. Microwave a 2nd time. 10. Let cool and decant solvent then empty the soil into the funnel and rinse with Hexane. 11. KD (Small ~~or Large~~ Drying Column) on 100° bath. (Blanks=only 5g Sodium Sulfate). 12. Exchange (2 X with 20mL) Hexane. 13. TurboVap. 14. Clean-ups. 15. TurboVap (if Silica Clean). 16. Vial with Hexane.

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.: TX57 Client ID: Integral Consulting, Inc.

Parameter: PSDDA PCB(4ppb) Client Project: Slip 4 Early Action Area

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☒ No Anomalies (standard soil/wet sediment/sand/gravel)= (sediment) A-F, H-J, L, N	DV 11/21/11
☒ Standing Water Decanted (Not shared)= A-C, F, N	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☒ Rocks (%+size)? (less than 5% medium rocks) A, B, K, M, N (30% large rocks removed) B, D, F, I, J, L (80%) E, H	
☒ Organics (Leaves/sticks/grass)= (few sticks) O	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☒ Other Notes/Comments= (Note problems, concerns, corrective actions). Samples B, N, and C - volume reduced based on pre-screens	SP 11/26/11

3056F

Revision 008
11/02/11

TX57 : 01022

PCB Raw Data
Initial Calibration

ARI Job ID: TX57

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: _____ Client ID: _____

ARI SOP: **408S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): PCB's TCMX DCB

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

Dates: Curve: 09/30/11 Analysis Start: 09/30/11

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

Manual Integrations for ICal? YES / NO
Manual Integrations for Samples? 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: _____ **Date:** 10/06/11

Reviewer: _____ **Date:** 10/6/11

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

lethod File: /chem2/ecd5.i/20110930.B/PCB1.m
3atch File: /chem2/ecd5.i/20110930.B/ical-1.b
:nst ID: ecd5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
'ILENAME:	0930B014	0930B015	0930B016	0930B017	0930B018	0930B019
NJ.DATE:	30-SEP-2011	30-SEP-2011	30-SEP-2011	30-SEP-2011	30-SEP-2011	30-SEP-2011
NJ.TIME:	16:43	17:02	17:21	17:40	17:59	18:18

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	2.436	2.438	2.438	2.438	2.437	2.439	2.439	2.339-2.539	2.438	0.001
$ 1 Tetrachloro-m-xylene	4.649	4.648	4.650	4.651	4.648	4.650	4.650	4.550-4.750	4.649	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	5.020	4.920-5.120	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	6.280	6.180-6.380	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	6.280	6.180-6.380	+++++	+++++
7 Aroclor-1016	6.279	6.280	6.280	6.281	6.280	6.280	6.280	6.180-6.380	6.280	0.000
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	7.177	7.077-7.277	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	8.394	8.294-8.494	+++++	+++++
9 Aroclor-1260	11.449	10.485	10.484	10.487	10.484	10.486	10.486	10.386-10.586	10.646	0.394
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.168	10.068-10.268	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	11.377	11.277-11.477	+++++	+++++
$ 13 Decachlorobiphenyl	13.032	13.031	13.031	13.034	13.032	13.033	13.033	12.933-13.133	13.032	0.001
* 12 IS-HBBP	13.395	13.396	13.396	13.396	13 396	13.396	13.396	13.296-13.496	13.396	0.000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.361	8.311-8.411	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	8.910	8.860-8.960	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.414	9.364-9 464	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.792	8.692-8.892	+++++	+++++

Reviewer 1 _____ Date: 10/06/11
Reviewer 2 _____ Date: 10/6/11

TX 57 : 01025

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20110930.B/PCB1.m
Batch File: /chem2/ecd5.i/20110930.B/ical-1.b
Inst ID: ecd5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.364	9.264-9.464	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.878	9.778-9.978	+++++	+++++

TX57 01026

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20110930.B/PCB2.m
Batch File: /chem2/ecd5.i/20110930.B/ical-2.b
Inst ID: ecd5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0930B014	0930B015	0930B016	0930B017	0930B018	0930B019
INJ.DATE:	30-SEP-2011	30-SEP-2011	30-SEP-2011	30-SEP-2011	30-SEP-2011	30-SEP-2011
INJ.TIME:	16:43	17:02	17:21	17:40	17:59	18:18

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB	2.934	2.935	2.936	2.934	2.934	2.936	2.935	2.835-3.035	2.935	0.001
$ 2 Tetrachloro-m-xylene	4.656	4.657	4.657	4.658	4.656	4.658	4.658	4.558-4.758	4.657	0.001
1 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	5.342	5.242-5.442	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	6.395	6.295-6.495	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	6.393	6.293-6.493	+++++	+++++
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	7.506	7.406-7.606	+++++	+++++
7 Aroclor-1016	6.393	6.393	6.393	6.394	6.393	6.393	6.393	6.293-6.493	6.393	0.000
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	8.511	8.411-8.611	+++++	+++++
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.468	10.368-10.568	+++++	+++++
9 Aroclor-1260	10.372	10.370	10.372	10.373	10.370	10.372	10.372	10.272-10.472	10.372	0.001
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	11.715	11.615-11.815	+++++	+++++
$ 13 Decachlorobiphenyl	13.415	13.416	13.415	13.417	13.416	13.416	13.417	13.317-13.517	13.416	0.001
* 12 IS-HBBP	14.287	14.286	14.287	14.287	14.287	14.287	14.287	14.188-14.387	14.287	0.000
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.774	8.724-8.824	+++++	+++++
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.458	9.408-9.508	+++++	+++++
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.159	9.059-9.259	+++++	+++++
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.919	9.819-10.019	+++++	+++++

Reviewer 1 _____ Date: 10/06/11
Reviewer 2 _____ Date: 10/6/11

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20110930.B/PCB2.m
Batch File: /chem2/ecd5.i/20110930.B/ical-2.b
Inst ID: ecd5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.358	10.258-10.458	+++++	+++++

TX57 : 01025

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20110930.B/ical-2.b

ARI Job No.: IB Method: PCB2.m Instrument: ecd5.i Date: 30-SEP-2011

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1624	0930B013.d	IB		1	NO MANUAL INTEGRATION
1643	0930B014.d	0.25 PPM	AR1660	1	NO MANUAL INTEGRATION
1702	0930B015.d	0.02 PPM	AR1660	1	NO MANUAL INTEGRATION
1721	0930B016.d	0 05 PPM	AR1660	1	NO MANUAL INTEGRATION
1740	0930B017.d	1 PPM	AR1660	1	NO MANUAL INTEGRATION
1759	0930B018.d	0.1 PPM	AR1660	1	NO MANUAL INTEGRATION
1818	0930B019.d	0.5 PPM	AR1660	1	NO MANUAL INTEGRATION
1837	0930B020.d	AR1242		1	NO MANUAL INTEGRATION
1856	0930B021.d	AR1248		1	NO MANUAL INTEGRATION
1915	0930B022.d	AR1254		1	NO MANUAL INTEGRATION
1934	0930B023.d	AR2162		1	NO MANUAL INTEGRATION
1952	0930B024.d	AR3268		1	NO MANUAL INTEGRATION
2011	0930B025.d	AR1660	ICV	1	NO MANUAL INTEGRATION
2030	0930B026.d	AR1242	ICV	1	NO MANUAL INTEGRATION
2049	0930B027.d	AR1248	ICV	1	NO MANUAL INTEGRATION
2108	0930B028.d	AR1254	ICV	1	NO MANUAL INTEGRATION
2127	0930B029.d	AR2162	ICV	1	NO MANUAL INTEGRATION
2146	0930B030.d	AR3268	ICV	1	NO MANUAL INTEGRATION
1624	0930B013.d	IB		1	NO MANUAL INTEGRATION
1643	0930B014 d	0.25 PPM	AR1660	1	NO MANUAL INTEGRATION
1702	0930B015 d	0.02 PPM	AR1660	1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20110930.B/ical-2.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1721	0930B016.d	0.05 PPM	AR1660	1	NO MANUAL INTEGRATION
1740	0930B017.d	1 PPM	AR1660	1	NO MANUAL INTEGRATION
1759	0930B018.d	0.1 PPM	AR1660	1	NO MANUAL INTEGRATION
1818	0930B019.d	0.5 PPM	AR1660	1	NO MANUAL INTEGRATION
1837	0930B020.d	AR1242		1	NO MANUAL INTEGRATION
1856	0930B021.d	AR1248		1	NO MANUAL INTEGRATION
1915	0930B022.d	AR1254		1	NO MANUAL INTEGRATION
1934	0930B023.d	AR2162		1	NO MANUAL INTEGRATION
1952	0930B024.d	AR3268		1	NO MANUAL INTEGRATION
2011	0930B025.d	AR1660	ICV	1	NO MANUAL INTEGRATION
2030	0930B026.d	AR1242	ICV	1	NO MANUAL INTEGRATION
2049	0930B027.d	AR1248	ICV	1	NO MANUAL INTEGRATION
2108	0930B028.d	AR1254	ICV	1	NO MANUAL INTEGRATION
2127	0930B029.d	AR2162	ICV	1	NO MANUAL INTEGRATION
2146	0930B030.d	AR3268	ICV	1	NO MANUAL INTEGRATION

TX57.01030

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-SEP-2011 16:43
End Cal Date : 30-SEP-2011 22:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20110930.B/PCB2.m
Cal Date : 03-Oct-2011 14:24 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20110930.B/ical-2.b/0930B015.d
Level 2: /chem2/ecd5.i/20110930.B/ical-2.b/0930B016.d
Level 3: /chem2/ecd5.i/20110930.B/ical-2.b/0930B018.d
Level 4: /chem2/ecd5.i/20110930.B/ical-2.b/0930B014.d
Level 5: /chem2/ecd5.i/20110930.B/ical-2.b/0930B019.d
Level 6: /chem2/ecd5.i/20110930.B/ical-2.b/0930B017.d
Level 7: /chem2/ecd5.i/20110930.B/ical-2.b/0930B024.d
Level 8: /chem2/ecd5.i/20110930.B/ddt-2.b/0930B031.d

Compound	20.000 Level 1	50.000 Level 2	100 000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
1 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01372	+++++					0.01372	0 000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00787	+++++					0.00787	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02569	+++++					0.02569	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00429	+++++					0.00429	0 000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02194	+++++					0.02194	0 000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04544	+++++					0.04544	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-SEP-2011 16:43
End Cal Date : 30-SEP-2011 22:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20110930.B/PCB2.m
Cal Date : 03-Oct-2011 14:24 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.01580	+++++	0.01580	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.01759	+++++	0.01759	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03732	+++++	0.03732	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.08407	+++++	0.08407	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.03312	+++++	0.03312	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03002	+++++	0.03002	0.000
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03819	+++++	0.03819	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04427	+++++	0.04427	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.04928	+++++	0.04928	0.000

TX57 01032

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-SEP-2011 16:43
End Cal Date : 30-SEP-2011 22:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20110930.B/PCB2.m
Cal Date : 03-Oct-2011 14:24 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05344	+++++	0.05344	0.000
7 Aroclor-1016 (1)	0.05680	0.05292	0.05085	0.04748	0.04144	0.03657	+++++	+++++	0.04768	15 780
(2)	0.12045	0.11453	0.11187	0.10819	0.09678	0.08780	+++++	+++++	0.10660	11 372
(3)	0.04868	0.03945	0.04311	0.04297	0.03938	0.03185	+++++	+++++	0.04091	13.654
(4)	0.02514	0.02399	0 02300	0.02249	0.02084	0.01988	+++++	+++++	0.02256	8 658
8 Aroclor-1254 (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.04305	+++++	0.04305	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.05611	+++++	0.05611	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.04513	+++++	0.04513	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0 09675	+++++	0.09675	0.000

TXST 01038

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-SEP-2011 16:43
End Cal Date : 30-SEP-2011 22:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20110930.B/PCB2.m
Cal Date : 03-Oct-2011 14:24 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100 000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.06002	+++++	0 06002	0.000
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.07217	+++++	0.07217	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.06890	+++++	0.06890	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.13446	+++++	0.13446	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0 06389	+++++	0.06389	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.05257	+++++	0.05257	0.000
9 Aroclor-1260(1)	0.08984	0.07610	0.07511	0.06845	0.06228	0.05872	+++++	+++++	0.07175	15 617
(2)	0.12389	0.11723	0.11393	0.11153	0.10196	0.09763	+++++	+++++	0.11103	8 772
(3)	0.04260	0.03515	0.03358	0.03395	0.02994	0.02856	+++++	+++++	0.03396	14.522

TX57 : 01054

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-SEP-2011 16:43
End Cal Date : 30-SEP-2011 22:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20110930.B/PCB2.m
Cal Date : 03-Oct-2011 14:24 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(4)	0.04183	0.03462	0.03202	0.03045	0.02789	0.02659	+++++	+++++	0.03223	17.093
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.15777	+++++	0.15777	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.13620	+++++	0.13620	0 000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0 11563	+++++	0 11563	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.34883	+++++	0.34883	0.000
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	754	754	0.000
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	689	689	0 000
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1283	1283	0.000
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	940	940	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-SEP-2011 16:43
End Cal Date : 30-SEP-2011 22:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20110930.B/PCB2.m
Cal Date : 03-Oct-2011 14:24 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
46 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1119	1119	0 000
$ 2 Tetrachloro-m-xylene	1.23358	1.20751	1.23621	1.25308	1.18243	1.13332	+++++	+++++	1.20769	3.650
$ 13 Decachlorobiphenyl	1.26092	1.19513	1.15630	1.09421	1.00314	0.95312	+++++	+++++	1.11047	10.536

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-SEP-2011 16:43
End Cal Date : 30-SEP-2011 22:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20110930.B/PCB1.m
Cal Date : 01-Oct-2011 13:33 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20110930.B/ical-1.b/0930B015.d/0930B015.cdf
Level 2: /chem2/ecd5.i/20110930.B/ical-1.b/0930B016.d/0930B016.cdf
Level 3: /chem2/ecd5.i/20110930.B/ical-1.b/0930B018.d/0930B018.cdf
Level 4: /chem2/ecd5.i/20110930.B/ical-1.b/0930B014.d
Level 5: /chem2/ecd5.i/20110930.B/ical-1.b/0930B019.d/0930B019.cdf
Level 6: /chem2/ecd5.i/20110930.B/ical-1.b/0930B017.d/0930B017.cdf
Level 7: /chem2/ecd5.i/20110930.B/ical-1.b/0930B024.d/0930B024.cdf
Level 8: /chem2/ecd5.i/20110930.B/ddt-1.b/0930B031.d

Compound	20.000 Level 1	50.000 Level 2	100 000 Level 3	250.000 Level 4	500.000 Level 5	1000 000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01346	+++++					0 01346	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00951	+++++					0.00951	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03216	+++++					0 03216	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02850	+++++					0.02850	0 000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.09363	+++++					0.09363	0 000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03796	+++++					0.03796	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-SEP-2011 16:43
End Cal Date : 30-SEP-2011 22:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20110930.B/PCB1.m
Cal Date : 01-Oct-2011 13:33 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03763	+++++	0.03763	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.01558	+++++	0.01558	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.05181	+++++	0.05181	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02098	+++++	0.02098	0 000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.02212	+++++	0.02212	0 000
7 Aroclor-1016(1)	0.04715	0.04193	0.03865	0.03588	0.03096	0.02750	+++++	+++++	0.03701	19.406
(2)	0.15705	0.13949	0.12824	0.11747	0.10019	+++++	+++++	+++++	0.12849	16 779
(3)	0.06136	0.05569	0.05225	0.04803	0.04126	+++++	+++++	+++++	0.05172	14 730
(4)	0.04679	0.04128	0.03830	0.03594	0.03086	0 02744	+++++	+++++	0.03677	19.066

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-SEP-2011 16:43
End Cal Date : 30-SEP-2011 22:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20110930.B/PCB1.m
Cal Date : 01-Oct-2011 13:33 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.04247	+++++	0.04247	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0 04810	+++++	0.04810	0 000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.06040	+++++	0.06040	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.06031	+++++	0 06031	0.000
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.09679	+++++	0.09679	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.06661	+++++	0.06661	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0 11970	+++++	0.11970	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.13646	+++++	0.13646	0 000
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.09008	+++++	0.09008	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-SEP-2011 16:43
End Cal Date : 30-SEP-2011 22:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20110930.B/PCB1.m
Cal Date : 01-Oct-2011 13:33 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
9 Aroclor-1260(1)	0.05469	0.04887	0.04545	0.04149	0.03635	0.03270	+++++	+++++	0.04326	18.757
(2)	0.14054	0.12417	0.11459	0.10431	0.09146	0.08495	+++++	+++++	0.11000	18.885
(3)	0.07790	0.07072	0.06667	0.06107	0.05386	0.04903	+++++	+++++	0.06321	17.000
(4)	0.03289	0.03030	0 02848	0.02622	0.02336	0 02113	+++++	+++++	0.02706	16.196
(5)	0.03769	0.03513	0.03356	0.03121	0.02783	0.02532	+++++	+++++	0.03179	14.552
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.06439	+++++	0.06439	0 000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.05216	+++++	0 05216	0 000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.12653	+++++	0.12653	0 000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05802	+++++	0.05802	0 000

TMS-01042

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-SEP-2011 16:43
End Cal Date : 30-SEP-2011 22:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20110930.B/PCB1.m
Cal Date : 01-Oct-2011 13:33 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.06118	+++++	0.06118	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.14042	+++++	0.14042	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.13582	+++++	0.13582	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0 12082	+++++	0.12082	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.35276	+++++	0.35276	0 000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	925	925	0.000
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	860	860	0.000
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1071	1071	0.000
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1535	1535	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-SEP-2011 16:43
End Cal Date : 30-SEP-2011 22:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20110930.B/PCB1.m
Cal Date : 01-Oct-2011 13:33 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1279					1279	0.000
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1456					1456	0 000
$ 1 Tetrachloro-m-xylene	1.50511	1.43839	1.41677	1.40538	1.27982	1.21229		
	+++++	+++++					1.37629	7 902
$ 13 Decachlorobiphenyl	1.58806	1.41157	1.33469	1.20855	1.07854	1.00571		
	+++++	+++++					1 27119	17.079

TXST : 01042

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client:

ARI Job No.: 20110930 Project:

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 09/30/11

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	4.55- 4.75	1.5051	1.4384	1.4168	1.4054	1.2798	1.2123	1.3763	7.9
DCB	12.93-13.13	1.5881	1.4116	1.3347	1.2085	1.0785	1.0057	1.2712	17.1

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	6.18- 6.38	0.0471	0.0419	0.0386	0.0359	0.0310	0.0275	0.0370	19.4
2	6.58- 6.78	0.1570	0.1395	0.1282	0.1175	0.1002	0.0896	0.1220	16.8
3	6.73- 6.93	0.0614	0.0557	0.0522	0.0480	0.0413	0.0371	0.0493	14.7
4	6.84- 7.04	0.0468	0.0413	0.0383	0.0359	0.0309	0.0274	0.0368	19.1

AROCLOR AVERAGE %RSD = 17.5

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	10.39-10.59	0.0547	0.0489	0.0454	0.0415	0.0364	0.0327	0.0433	18.8
2	10.76-10.96	0.1405	0.1242	0.1146	0.1043	0.0915	0.0850	0.1100	18.9
3	11.16-11.36	0.0779	0.0707	0.0667	0.0611	0.0539	0.0490	0.0632	17.0
4	11.28-11.48	0.0329	0.0303	0.0285	0.0262	0.0234	0.0211	0.0271	16.2
5	11.35-11.55	0.0377	0.0351	0.0336	0.0312	0.0278	0.0253	0.0318	14.6

AROCLOR AVERAGE %RSD = 17.1

TX57:01043

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client:

ARI Job No.: 20110930 Project:

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 09/30/11

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	4.56- 4.76	1.2336	1.2075	1.2362	1.2531	1.1824	1.1333	1.2077	3.6
DCB	13.32-13.52	1.2609	1.1951	1.1563	1.0942	1.0031	0.9531	1.1105	10.5

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	6.29- 6.49	0.0568	0.0529	0.0508	0.0475	0.0414	0.0366	0.0477	15.8
2	6.92- 7.12	0.1205	0.1145	0.1119	0.1082	0.0968	0.0878	0.1066	11.4
3	7.13- 7.33	0.0487	0.0395	0.0431	0.0430	0.0394	0.0318	0.0409	13.7
4	8.41- 8.61	0.0251	0.0240	0.0230	0.0225	0.0208	0.0199	0.0226	8.7

AROCLOR AVERAGE %RSD = 12.4

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	10.27-10.47	0.0898	0.0761	0.0751	0.0685	0.0623	0.0587	0.0717	15.6
2	11.09-11.29	0.1239	0.1172	0.1139	0.1115	0.1020	0.0976	0.1110	8.8
3	11.61-11.81	0.0426	0.0351	0.0336	0.0340	0.0299	0.0286	0.0340	14.5
4	12.41-12.61	0.0418	0.0346	0.0320	0.0305	0.0279	0.0266	0.0322	17.1

AROCLOR AVERAGE %RSD = 14.0

TX57:01044

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client:

ARI Job No.: 20110930 Project:

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 09/30/11

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	5.020	4.92- 5.12	0.01346
2	5.199	5.10- 5.30	0.00951
3	5.303	5.20- 5.40	0.03216

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.280	6.18- 6.38	0.01558
2	6.679	6.58- 6.78	0.05181
3	6.828	6.73- 6.93	0.02098
4	8.020	7.92- 8.12	0.02212

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.280	6.18- 6.38	0.02850
2	6.680	6.58- 6.78	0.09363
3	6.827	6.73- 6.93	0.03796
4	8.019	7.92- 8.12	0.03763

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	7.177	7.08- 7.28	0.04247
2	7.475	7.38- 7.58	0.04810
3	8.020	7.92- 8.12	0.06040
4	8.310	8.21- 8.41	0.06031

TXST 010115

6G
8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client:

ARI Job No.: 20110930 Project:

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 09/30/11

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.394	8.29- 8.49	0.09679
2	8.765	8.67- 8.87	0.06661
3	8.902	8.80- 9.00	0.11970
4	9.250	9.15- 9.35	0.13646
5	9.612	9.51- 9.71	0.09008

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	10.168	10.07-10.27	0.06439
2	10.485	10.39-10.59	0.05216
3	10.860	10.76-10.96	0.12653
4	11.377	11.28-11.48	0.05802
5	11.450	11.35-11.55	0.06118

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.377	11.28-11.48	0.14042
2	11.449	11.35-11.55	0.13582
3	11.836	11.74-11.94	0.12082
4	12.627	12.53-12.73	0.35276

TX57.6106

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client:

ARI Job No.: 20110930 Project:

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 09/30/11

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	5.342	5.24- 5.44	0.01372
2	5.588	5.49- 5.69	0.00787
3	5.701	5.60- 5.80	0.02569
4	5.769	5.67- 5.87	0.00429

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.395	6.30- 6.50	0.02194
2	7.019	6.92- 7.12	0.04544
3	7.227	7.13- 7.33	0.01580
4	8.371	8.27- 8.47	0.01759

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.393	6.29- 6.49	0.03732
2	7.018	6.92- 7.12	0.08407
3	7.227	7.13- 7.33	0.03312
4	8.370	8.27- 8.47	0.03002

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	7.506	7.41- 7.61	0.03819
2	7.920	7.82- 8.02	0.04427
3	8.370	8.27- 8.47	0.04928
4	8.793	8.69- 8.89	0.05344

TXSP 01047

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client:

ARI Job No.: 20110930 Project:

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 09/30/11

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.511	8.41- 8.61	0.04305
2	8.683	8.58- 8.78	0.05611
3	9.206	9.11- 9.31	0.04513
4	9.357	9.26- 9.46	0.09675
5	10.138	10.04-10.24	0.06002

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	10.468	10.37-10.57	0.07217
2	10.921	10.82-11.02	0.06890
3	11.192	11.09-11.29	0.13446
4	11.714	11.61-11.81	0.06389
5	12.513	12.41-12.61	0.05257

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.715	11.61-11.81	0.15777
2	11.781	11.68-11.88	0.13620
3	12.180	12.08-12.28	0.11563
4	13.001	12.90-13.10	0.34883

TX57 . 01046

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B013.d
Data file 2: 20110930.B/ical-2.b/0930B013.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 30-SEP-2011 16:24
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.650	0.000	91045892	4.657	-0.001	65062711	43.3	46.2	6.6	Tetrachloro-m-xylene
13.032	0.000	149744285	13.416	-0.001	58833898	37.1	39.8	7.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	108.2	115.6
Decachlorobiphenyl	92.8	99.6

10/26/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	122304889	2.5
Hexabromobiphenyl	247758184	253776804	2.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	93216414	2.1
Hexabromobiphenyl	103671329	106420039	2.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.284	0.004	78568	1.4	1	6.379	-0.014	27483	0.5
Aroclor-1016	2	6.647	-0.033	41266	0.2	2	7.047	0.028	44486	0.4
Aroclor-1016	3	6.820	-0.007	56813	0.7	3	---			0.0
Aroclor-1016	4	6.939	0.001	120565	2.1	4	8.601	0.090	22062	0.8
	Total Col1Ave (4 peaks):				1.1	Total Col2Ave (3 peaks):			0.6	RPD = 66*
	Corrected Ave (3 peaks):				0.8	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	4.926	-0.094	4061512	197.3	1	5.361	0.019	804207	50.3
Aroclor-1221	2	5.186	-0.013	1022928	70.4	2	5.547	-0.041	21166	2.3
Aroclor-1221	3	---			0.0	3	5.706	0.005	170437	5.7
Aroclor-1221	NS	---			----	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave:		19.4		
Aroclor-1232	1	6.284	0.003	78568	3.3	1	6.379	-0.016	27483	1.1
Aroclor-1232	2	6.647	-0.032	41266	0.5	2	7.047	0.028	44486	0.8
Aroclor-1232	3	6.820	-0.008	56813	1.8	3	---			0.0
Aroclor-1232	4	8.081	0.061	116826	3.5	4	8.348	-0.023	65790	3.2
	Total Col1Ave (4 peaks):				2.3	Total Col2Ave (3 peaks):			1.7	RPD = 28
	Corrected Ave (3 peaks):				1.9	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	6.284	0.004	78568	1.8	1	6.379	-0.014	27483	0.6
Aroclor-1242	2	6.647	-0.033	41266	0.3	2	7.047	0.029	44486	0.5
Aroclor-1242	3	6.820	-0.007	56813	1.0	3	---			0.0
Aroclor-1242	4	8.081	0.062	116826	2.0	4	8.348	-0.022	65790	1.9
	Total Col1Ave (4 peaks):				1.3	Total Col2Ave (3 peaks):			1.0	RPD = 25
	Corrected Ave (3 peaks):				1.0	Corrected Ave: < 3 Peaks				
Aroclor-1248	1	7.180	0.003	26144	0.4	1	7.522	0.016	46809	1.1
Aroclor-1248	2	7.492	0.017	36388	0.5	2	7.940	0.020	178126	3.5
Aroclor-1248	3	8.081	0.061	116826	1.3	3	8.348	-0.022	65790	1.1
Aroclor-1248	4	8.292	-0.018	893894	9.7	4	8.741	-0.052	235992	3.8
	Total Col1Ave (4 peaks):				3.0	Total Col2Ave (4 peaks):			2.4	RPD = 23
	Corrected Ave (3 peaks):				0.7	Corrected Ave (3 peaks):			1.9	RPD = 89*
Aroclor-1254	1	8.483	0.089	190460	1.3	1	8.601	0.090	22062	0.4
Aroclor-1254	2	8.782	0.017	246607	2.4	2	8.741	0.058	235992	3.6
Aroclor-1254	3	8.907	0.005	157683	0.9	3	9.157	-0.049	140177	2.7
Aroclor-1254	4	9.236	-0.014	114213	0.5	4	9.352	-0.004	44472	0.4
Aroclor-1254	5	9.598	-0.015	80482	0.6	5	10.143	0.005	19828	0.3
	Total Col1Ave (5 peaks):				1.1	Total Col2Ave (5 peaks):			1.5	RPD = 26
	Corrected Ave (4 peaks):				0.8	Corrected Ave (4 peaks):			0.9	RPD = 14
Aroclor-1260	1	10.143	-0.343	628189	4.6	1	10.357	-0.015	230047	2.4
Aroclor-1260	2	10.466	-0.394	19623	0.1	2	11.244	0.053	11639	0.1
Aroclor-1260	3	10.898	-0.362	687590	3.4	3	11.666	-0.048	280639	6.2
Aroclor-1260	4	11.364	-0.013	39858	0.5	4	12.557	0.045	192735	4.5
Aroclor-1260	5	---			0.0	NS	---			----
	Total Col1Ave (4 peaks):				2.1	Total Col2Ave (4 peaks):			3.3	RPD = 43*
	Corrected Ave (3 peaks):				1.3	Corrected Ave (3 peaks):			2.3	RPD = 56*
Aroclor-1262	1	10.143	-0.025	628189	3.1	1	10.507	0.039	80280	0.8
Aroclor-1262	2	10.466	-0.019	19623	0.1	2	10.958	0.037	51136	0.6
Aroclor-1262	3	10.898	0.038	687590	1.7	3	11.244	0.052	11639	0.1
Aroclor-1262	4	11.364	-0.013	39858	0.2	4	11.666	-0.048	280639	3.3
Aroclor-1262	5	---			0.0	5	12.557	0.044	192735	2.8
	Total Col1Ave (4 peaks):				1.3	Total Col2Ave (5 peaks):			1.5	RPD = 16
	Corrected Ave (3 peaks):				0.7	Corrected Ave (4 peaks):			1.1	RPD = 43*
Aroclor-1268	1	11.364	-0.014	39858	0.1	1	11.666	-0.049	280639	1.3
Aroclor-1268	2	---			0.0	2	11.800	0.019	67942	0.4
Aroclor-1268	3	11.830	-0.007	76001	0.2	3	12.178	-0.002	11895	0.1

TX57.01050

Aroclor-1268	4	12.612	-0.015	609447	0.5	4	12.993	-0.008	35861	0.1

Total Col1Ave (3 peaks): 0.3 Total Col2Ave (4 peaks): 0.5 RPD = 51*

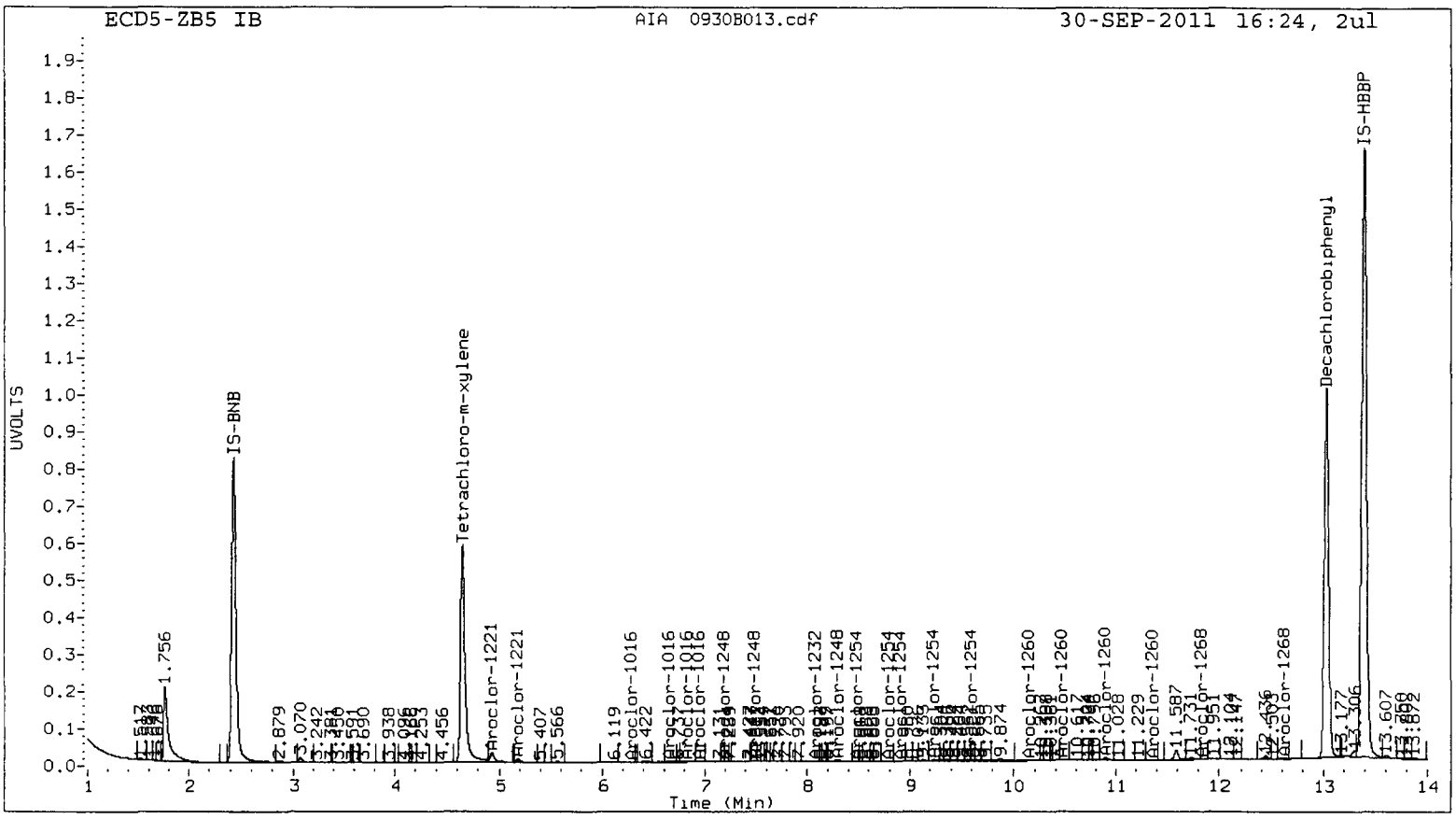
Corrected Ave: < 3 Peaks Corrected Ave (3 peaks): 0.2

Total PCB Area Col1 (4.750 - 12.933) = 19579458 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.758 - 13.317) = 7469533 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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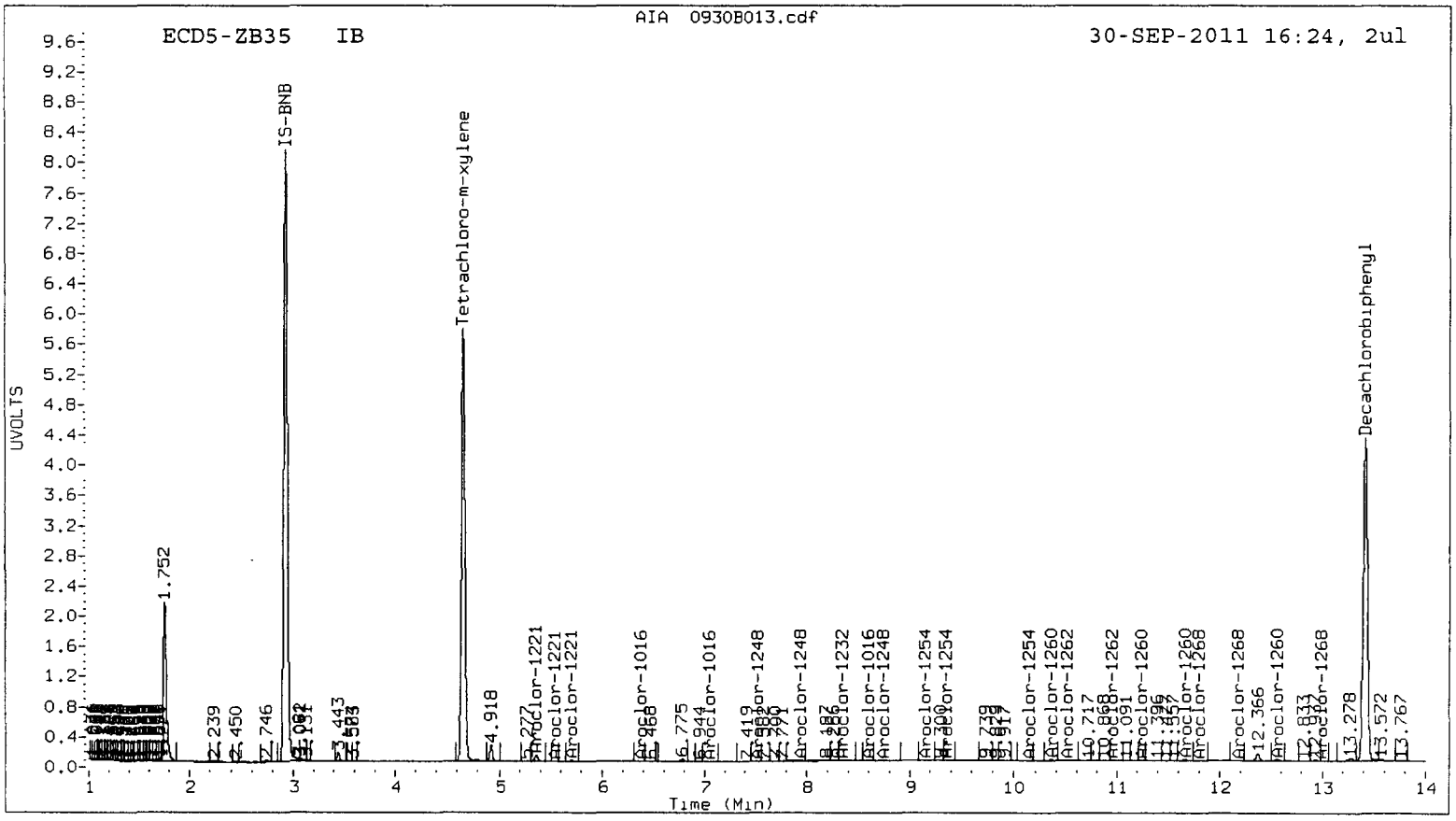
AIA 0930B013.cdf
30-SEP-2011 16:24, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
1.756
4.456
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1268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UVOLTS
Time (Min)
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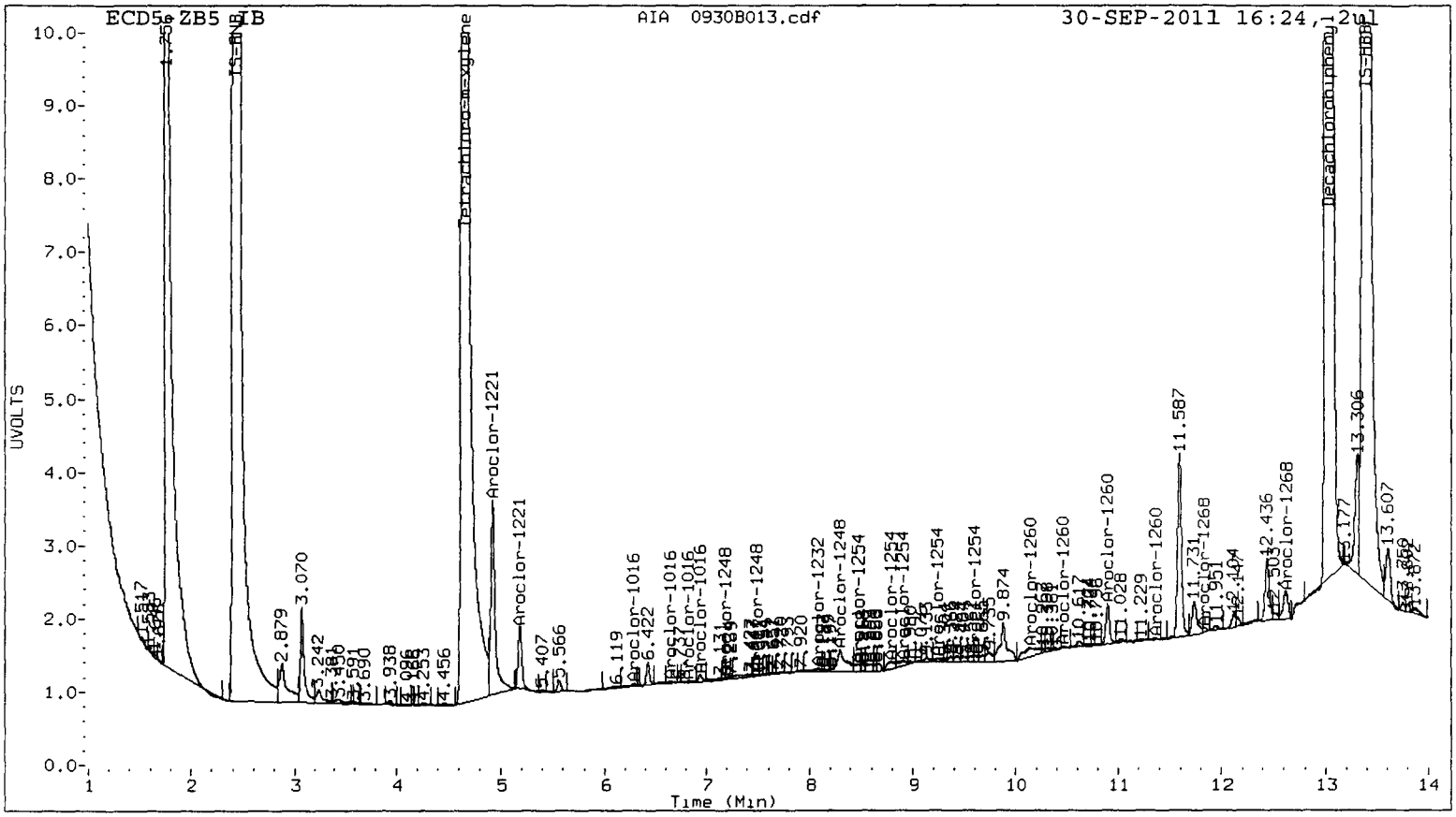
Tetrachloro-m-xylene
Decachlorobiphenyl
1.752
4.918
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

TX57 . 01052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AIA 0930B013.cdf
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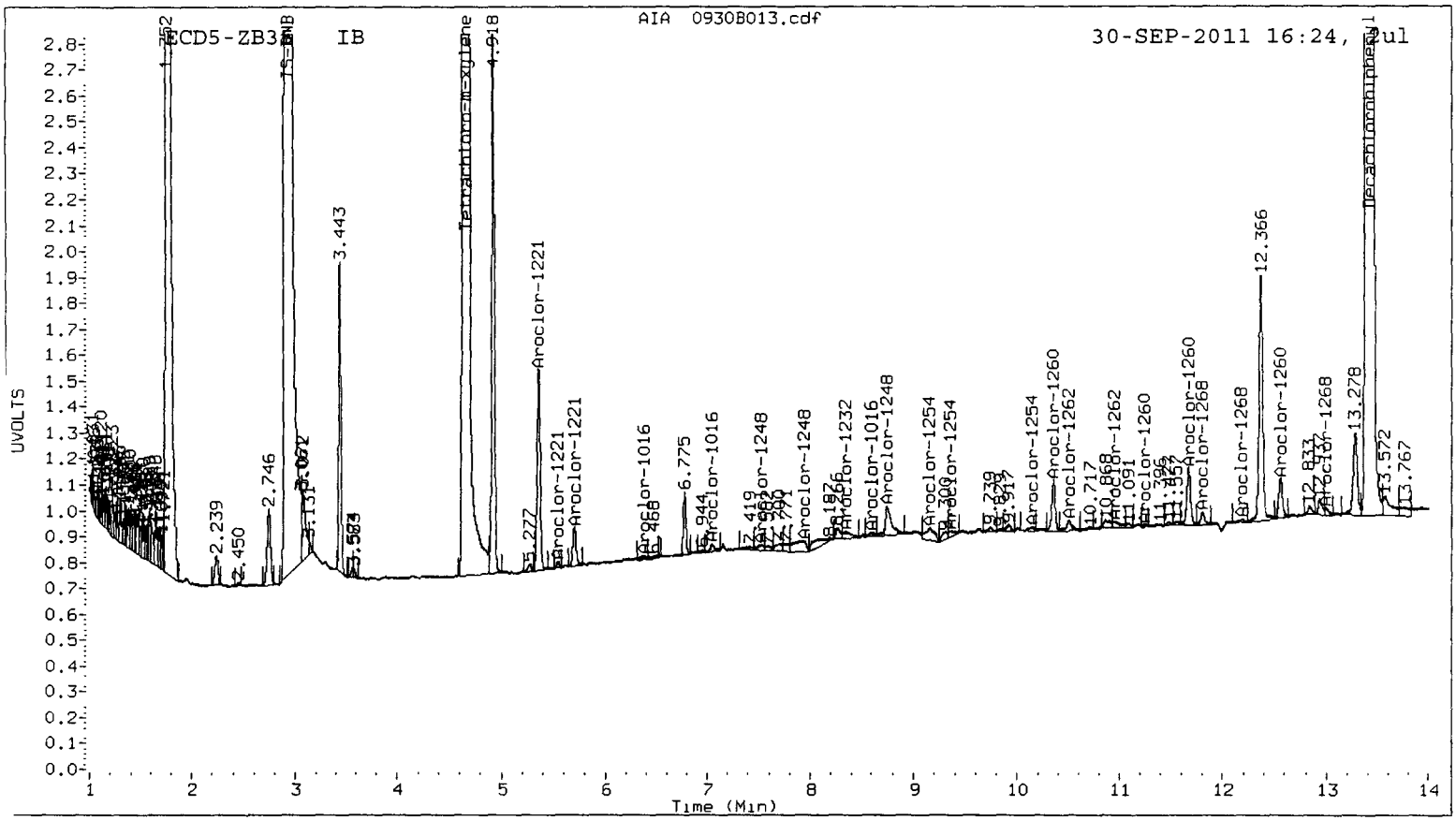
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB
UVOLTS
Time (Min)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AIA 0930B013.cdf
30-SEP-2011 16:24, Aul
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
UVOLTS
Time (Min)

TXST 01853

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B014.d
Data file 2: 20110930.B/ical-2.b/0930B014.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25 PPM AR1660
Client ID:
Injection Date: 30-SEP-2011 16:43
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.649	-0.001	41924066	4.656	-0.002	28591038	20.4	20.8	1.6	Tetrachloro-m-xylene
13.032	-0.001	74856750	13.415	-0.002	28359461	19.0	19.7	3.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

10/06/11

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	51.1	51.9
Decachlorobiphenyl	47.5	49.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	119324916	0.0
Hexabromobiphenyl	247758184	247758184	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	91266419	0.0
Hexabromobiphenyl	103671329	103671329	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.279	-0.001	13378363	242.4	1	6.393	0.000	13543080	249.0
Aroclor-1016	2	6.679	-0.001	43802051	228.6	2	7.018	0.000	30857105	253.7
Aroclor-1016	3	6.827	-0.001	17909794	232.2	3	7.226	0.000	12254218	262.6
Aroclor-1016	4	6.937	-0.001	13401905	244.4	4	8.512	0.001	6414576	249.3
Total Col1Ave (4 peaks):					236.9	Total Col2Ave (4 peaks):				253.6 RPD = 7
Corrected Ave (3 peaks):					234.4	Corrected Ave (3 peaks):				250.7 RPD = 7
Aroclor-1260	1	10.485	-0.001	32124936	239.8	1	10.372	0.000	22176229	238.5
Aroclor-1260	2	10.860	-0.001	80763970	237.1	2	11.191	0.000	36131854	251.1
Aroclor-1260	3	11.260	0.000	47282184	241.5	3	11.714	0.000	11000161	249.9
Aroclor-1260	4	11.375	-0.002	20303888	242.3	4	12.511	-0.001	9865152	236.2
Aroclor-1260	5	11.449	-0.001	24164273	245.4	NS	---			----
Total Col1Ave (5 peaks):					241.2	Total Col2Ave (4 peaks):				243.9 RPD = 1
Corrected Ave (4 peaks):					240.2	Corrected Ave (3 peaks):				241.5 RPD = 1

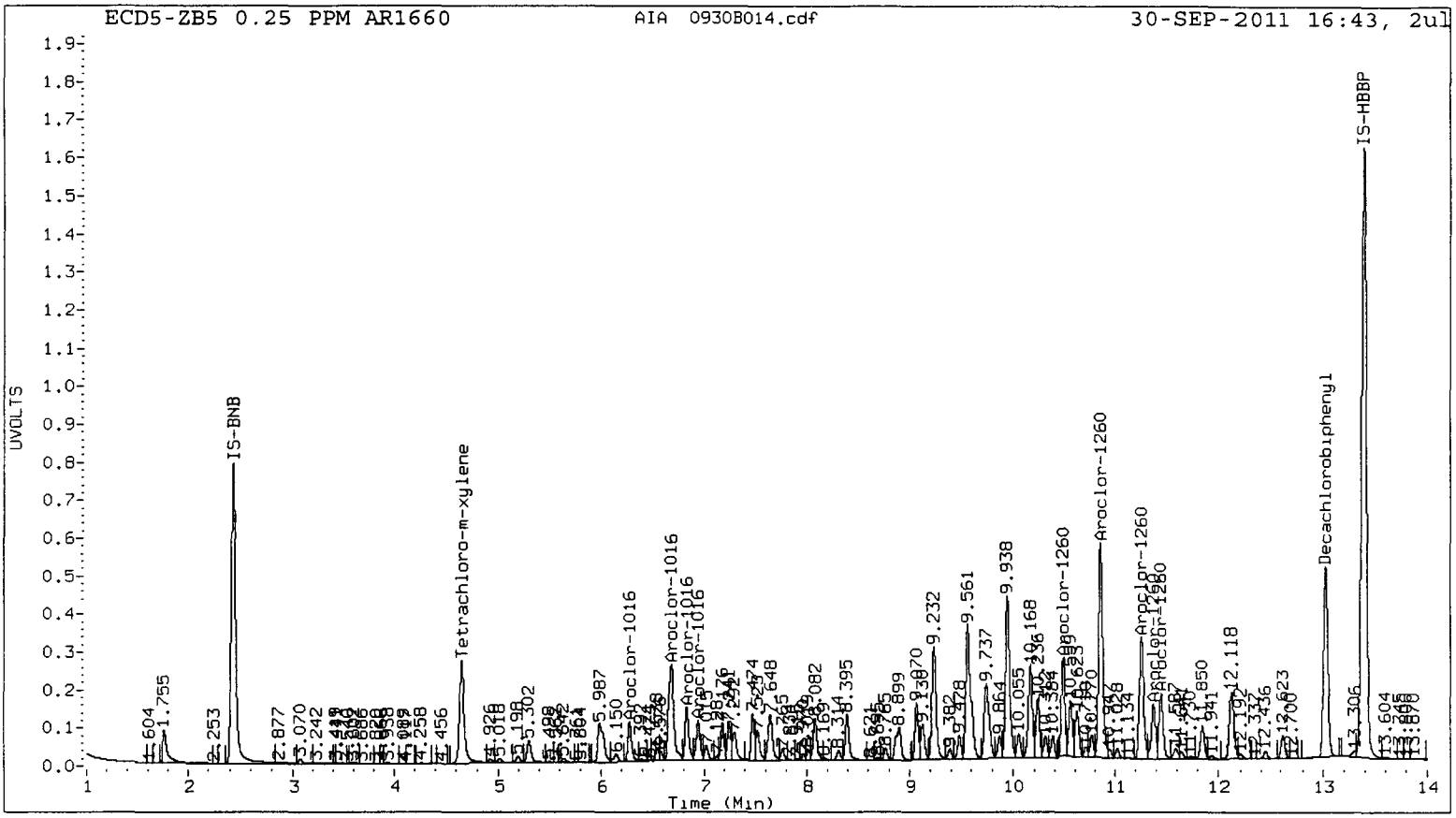
Total PCB Area Col1 (4.750 - 12.933) = 908910428 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.758 - 13.317) = 452698545 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TX57:01055

TXET-01850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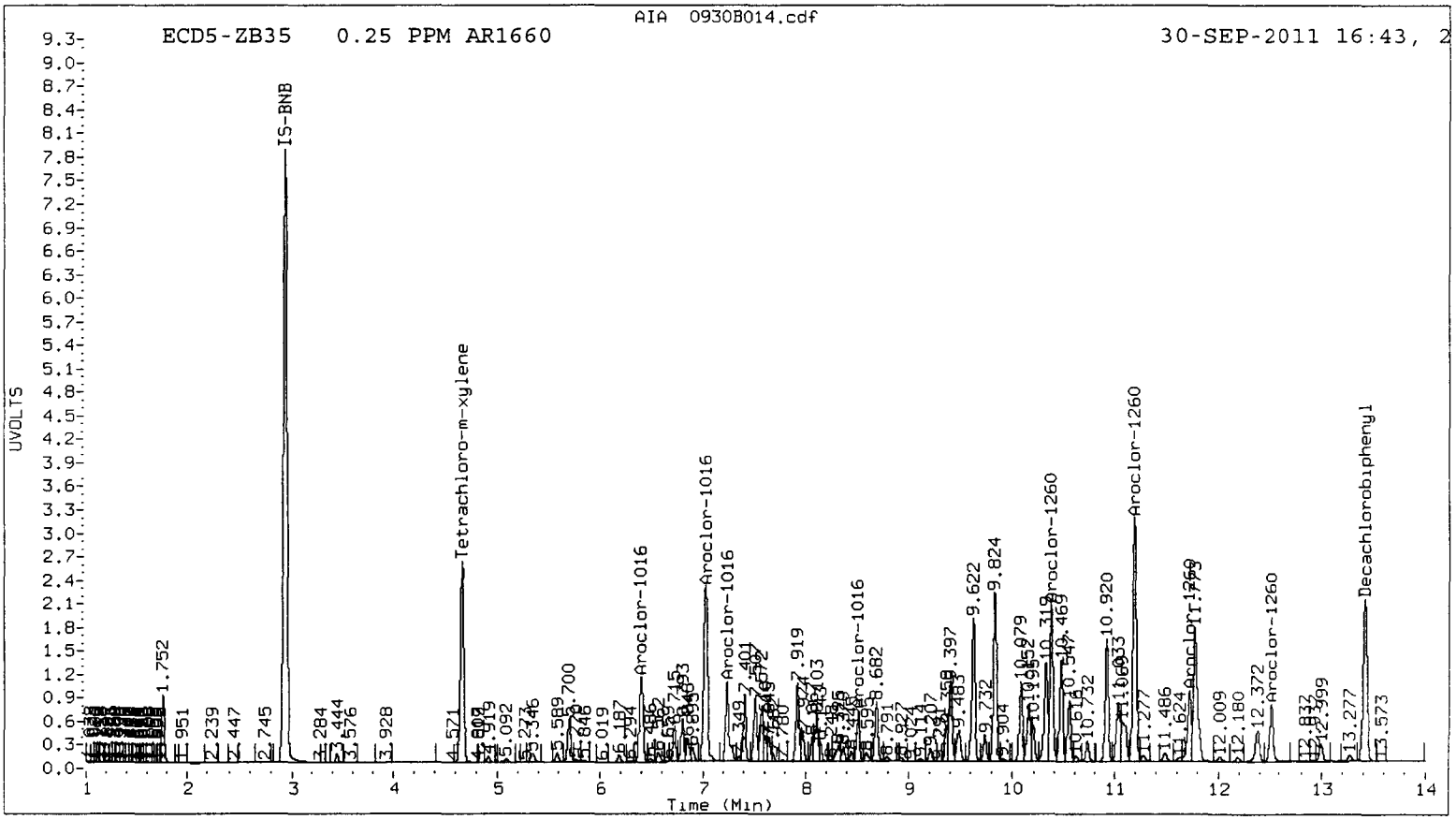
AIA 0930B014.cdf
30-SEP-2011 16:43, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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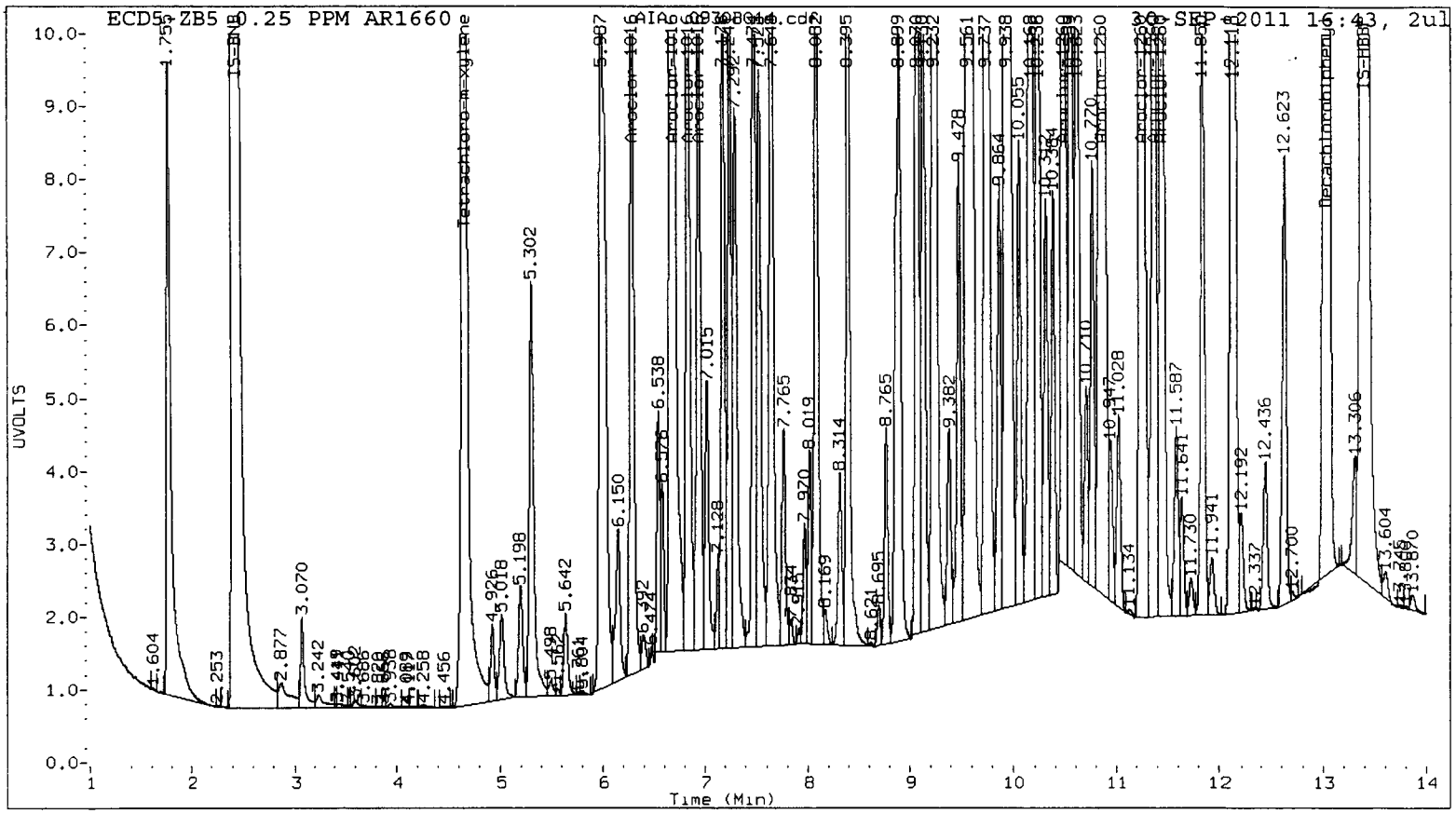
ECD5-ZB35 0.25 PPM AR1660
30-SEP-2011 16:43, 2
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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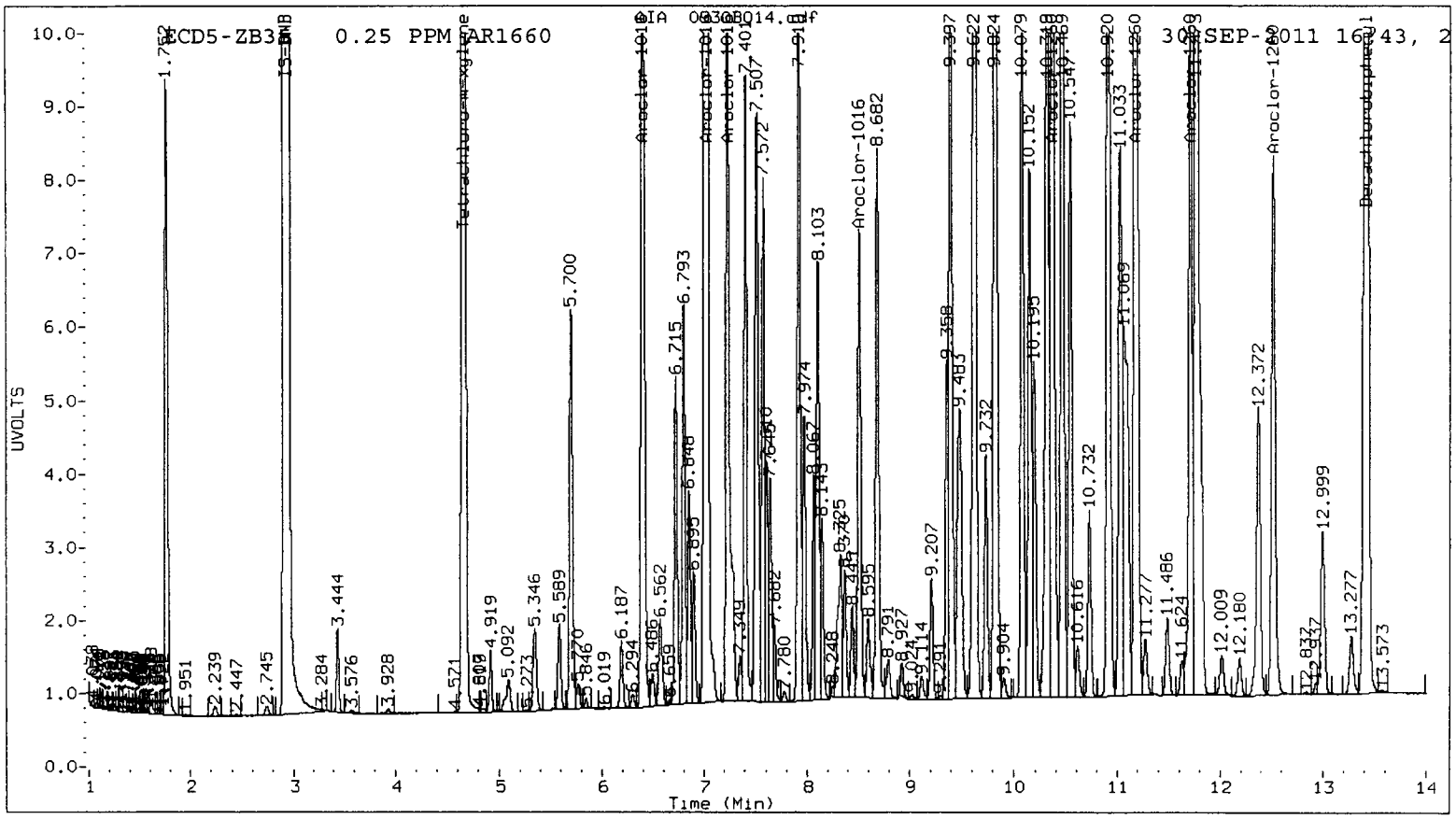
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB


ECD5-ZB3 0.25 PPM AR1660
SEP-2011 16:43, 2
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

TX87 01552

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B015.d
Data file 2: 20110930.B/ical-2.b/0930B015.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02 PPM AR1660
Client ID:
Injection Date: 30-SEP-2011 17:02
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.648	-0.002	3711847	4.657	-0.001	2313900	1.7	1.6	6.8	Tetrachloro-m-xylene
13.031	-0.002	8146294	13.416	-0.001	2698013	2.0	1.8	9.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

10/06/11

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	4.4	4.1
Decachlorobiphenyl	5.0	4.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	123307765	3.3
Hexabromobiphenyl	247758184	256486260	3.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	93787793	2.8
Hexabromobiphenyl	103671329	106985869	3.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.280	0.000	1453374	25.5	1	6.393	-0.001	1331818	23.8
Aroclor-1016	2	6.679	-0.001	4841252	24.4	2	7.017	-0.001	2824291	22.6
Aroclor-1016	3	6.828	0.000	1891689	23.7	3	7.227	0.000	1141339	23.8
Aroclor-1016	4	6.938	0.000	1442477	25.5	4	8.512	0.001	589532	22.3
	Total Col1Ave (4 peaks):				24.8	Total Col2Ave (4 peaks):			23.1	RPD = 7
	Corrected Ave (3 peaks):				24.5	Corrected Ave (3 peaks):			22.9	RPD = 7
Aroclor-1260	1	10.485	-0.001	3506607	25.3	1	10.370	-0.002	2402927	25.0
Aroclor-1260	2	10.859	-0.002	9011639	25.6	2	11.190	-0.001	3313542	22.3
Aroclor-1260	3	11.259	0.000	4995109	24.6	3	11.714	0.000	1139465	25.1
Aroclor-1260	4	11.375	-0.002	2108765	24.3	4	12.512	0.000	1118867	26.0
Aroclor-1260	5	11.449	-0.001	2416815	23.7	NS	---			----
	Total Col1Ave (5 peaks):				24.7	Total Col2Ave (4 peaks):			24.6	RPD = 0
	Corrected Ave (4 peaks):				24.5	Corrected Ave (3 peaks):			24.1	RPD = 1

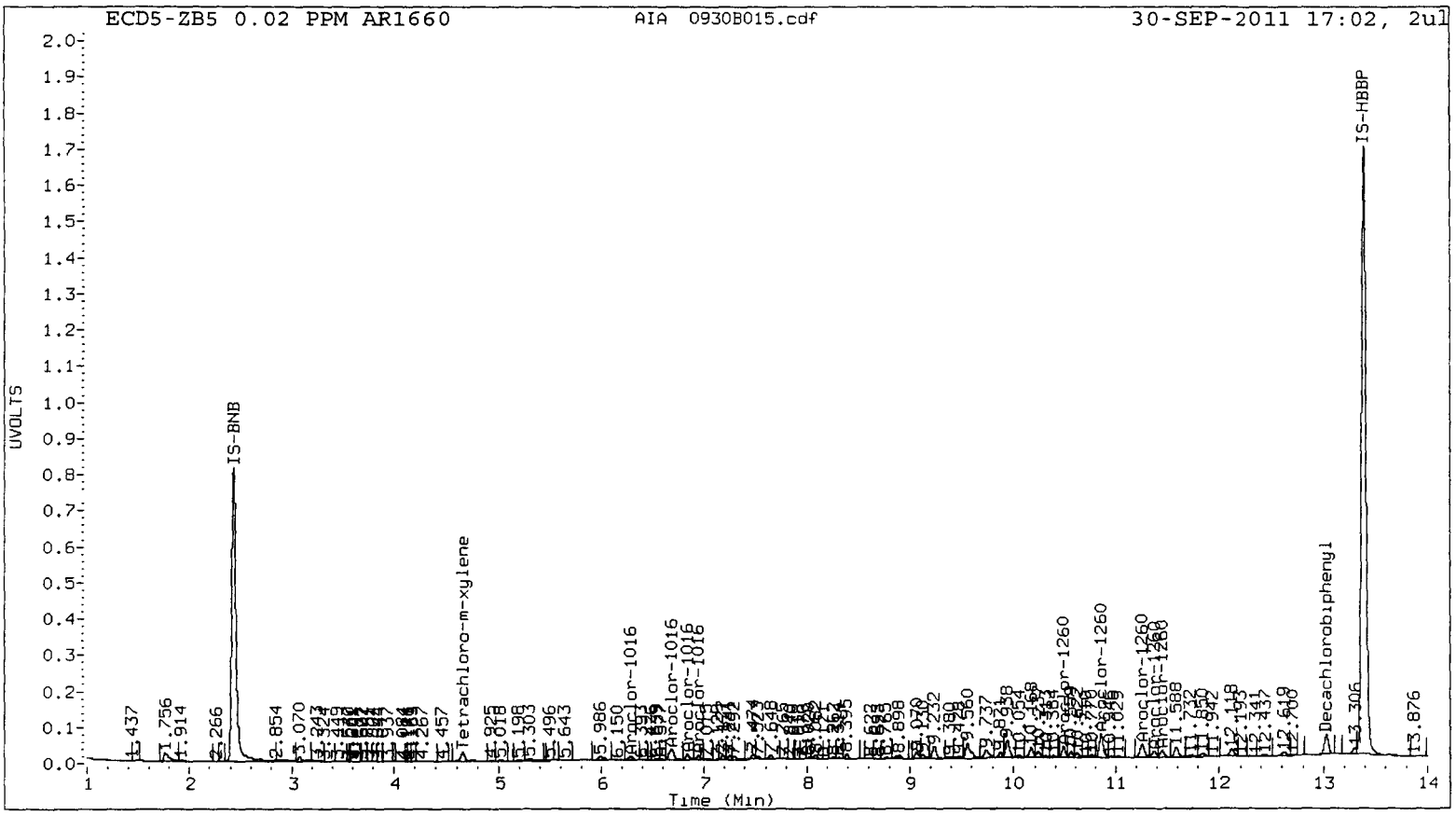
Total PCB Area Col1 (4.750 - 12.933) = 104193572 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.758 - 13.317) = 44584732 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

TX57:01061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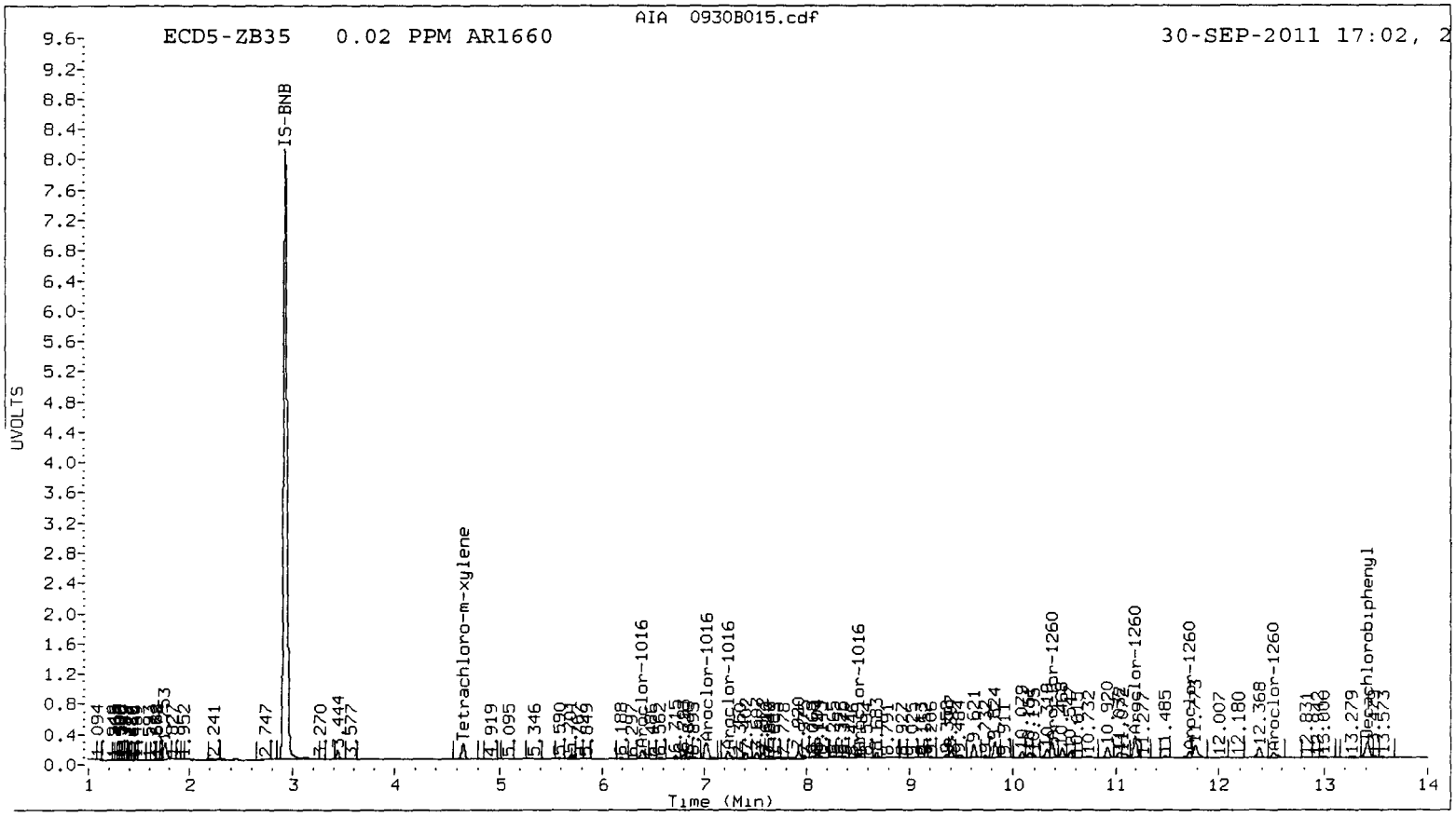
AIA 0930B015.cdf
30-SEP-2011 17:02, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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ECD5-ZB35 0.02 PPM AR1660
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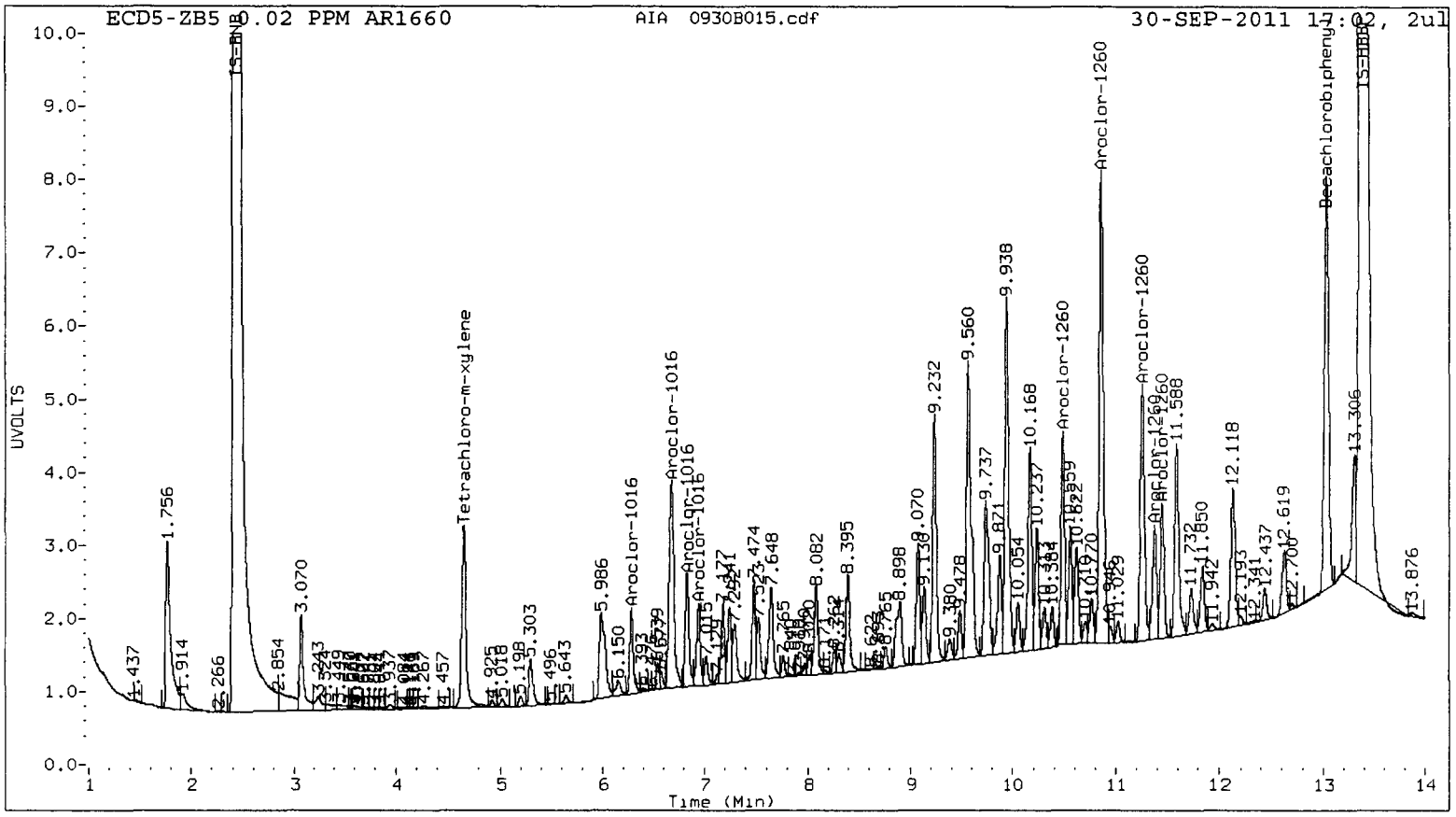
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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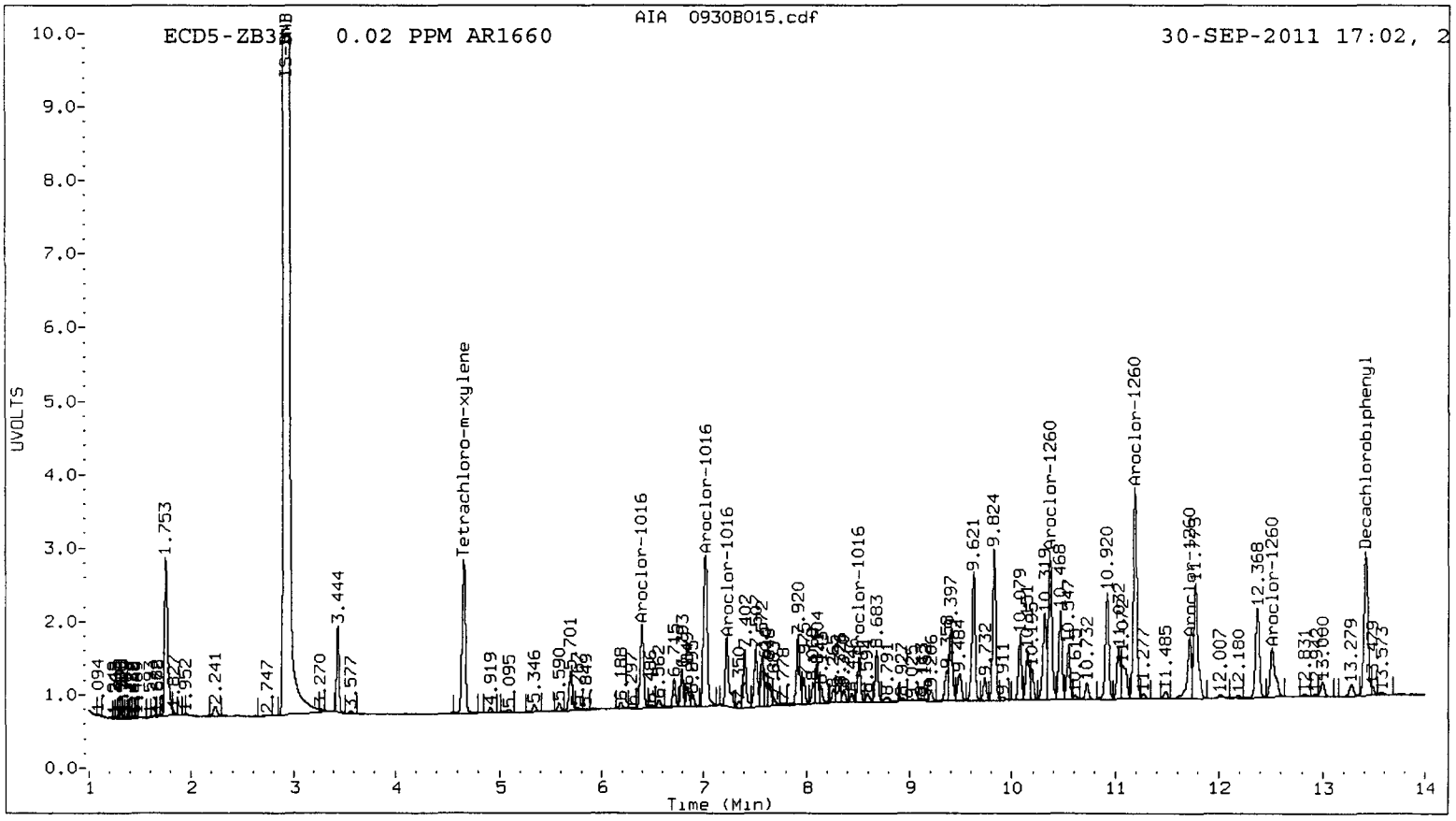
30-SEP-2011 17:02, 2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBB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30-SEP-2011 17:02, 2
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B016.d
Data file 2: 20110930.B/ical-2.b/0930B016.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05 PPM AR1660
Client ID:
Injection Date: 30-SEP-2011 17:21
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.650	0.000	8814658	4.657	-0.001	5565861	4.2	4.0	4.4	Tetrachloro-m-xylene
13.031	-0.001	17816668	13.415	-0.001	6298468	4.4	4.3	3.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	10.5	10.0
Decachlorobiphenyl	11.1	10.8

JK 10/06/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	122563162	2.7
Hexabromobiphenyl	247758184	252437005	1.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	92187630	1.0
Hexabromobiphenyl	103671329	105401967	1.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.280	0.000	3211598	56.6	1	6.393	0.000	3048971	55.5
Aroclor-1016	2	6.679	-0.001	10685254	54.3	2	7.018	0.000	6599046	53.7
Aroclor-1016	3	6.828	0.001	4266274	53.8	3	7.226	0.000	2273119	48.2
Aroclor-1016	4	6.937	0.000	3162478	56.1	4	8.512	0.001	1381964	53.2
	Total Col1Ave (4 peaks):				55.2	Total Col2Ave (4 peaks):			52.7	RPD = 5
	Corrected Ave (3 peaks):				54.8	Corrected Ave (3 peaks):			51.7	RPD = 6
Aroclor-1260	1	10.484	-0.002	7710076	56.5	1	10.372	0.000	5013145	53.0
Aroclor-1260	2	10.859	-0.001	19590760	56.4	2	11.190	-0.001	7722391	52.8
Aroclor-1260	3	11.259	0.000	11157816	55.9	3	11.714	0.000	2315248	51.7
Aroclor-1260	4	11.375	-0.001	4780439	56.0	4	12.513	0.001	2280413	53.7
Aroclor-1260	5	11.450	-0.001	5543093	55.3	NS	---			----
	Total Col1Ave (5 peaks):				56.0	Total Col2Ave (4 peaks):			52.8	RPD = 6
	Corrected Ave (4 peaks):				55.9	Corrected Ave (3 peaks):			52.5	RPD = 6

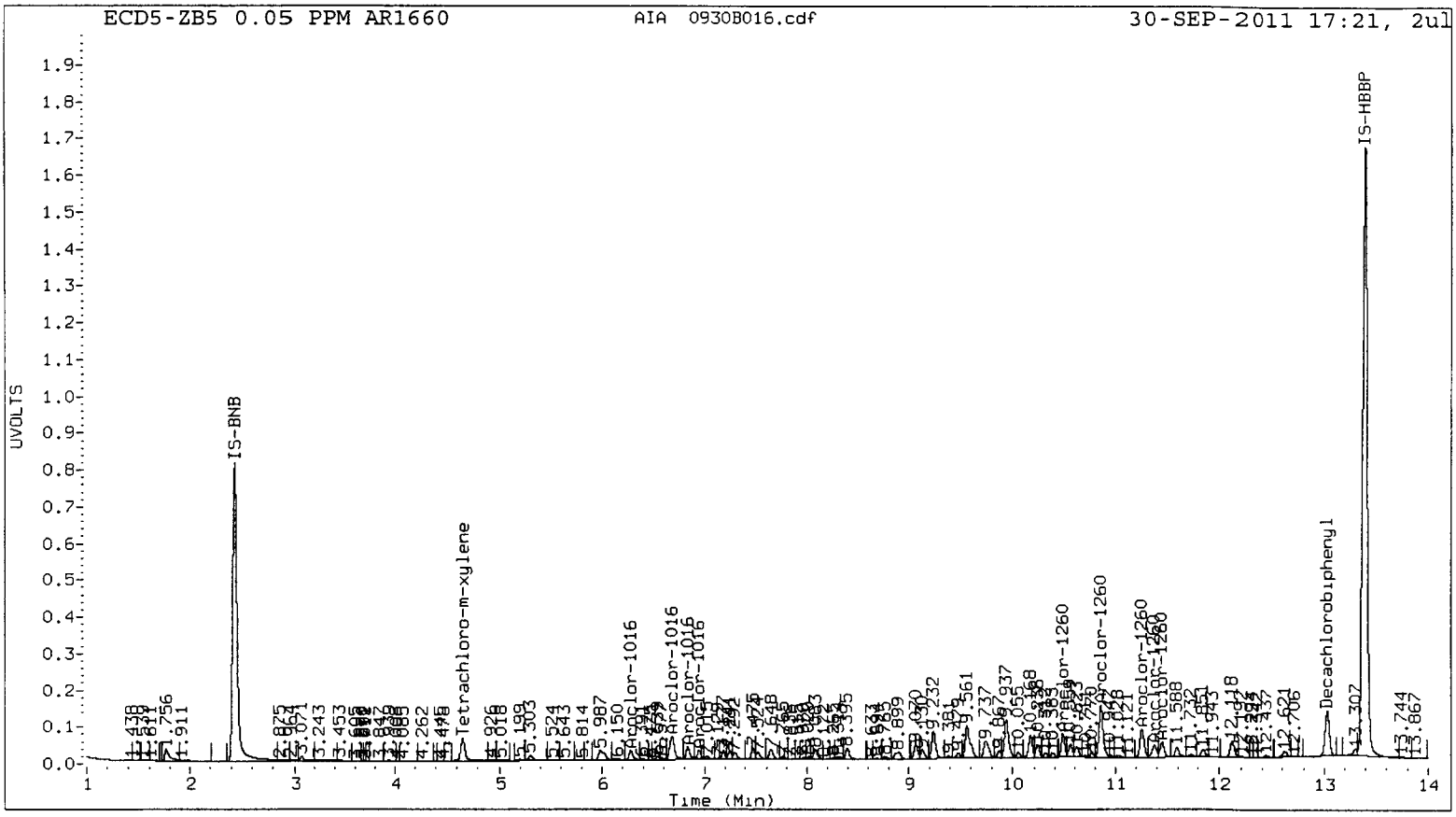
Total PCB Area Col1 (4.750 - 12.933) = 221378662 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.758 - 13.317) = 98441821 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TX57:01065

PCB-Form 10 Mod.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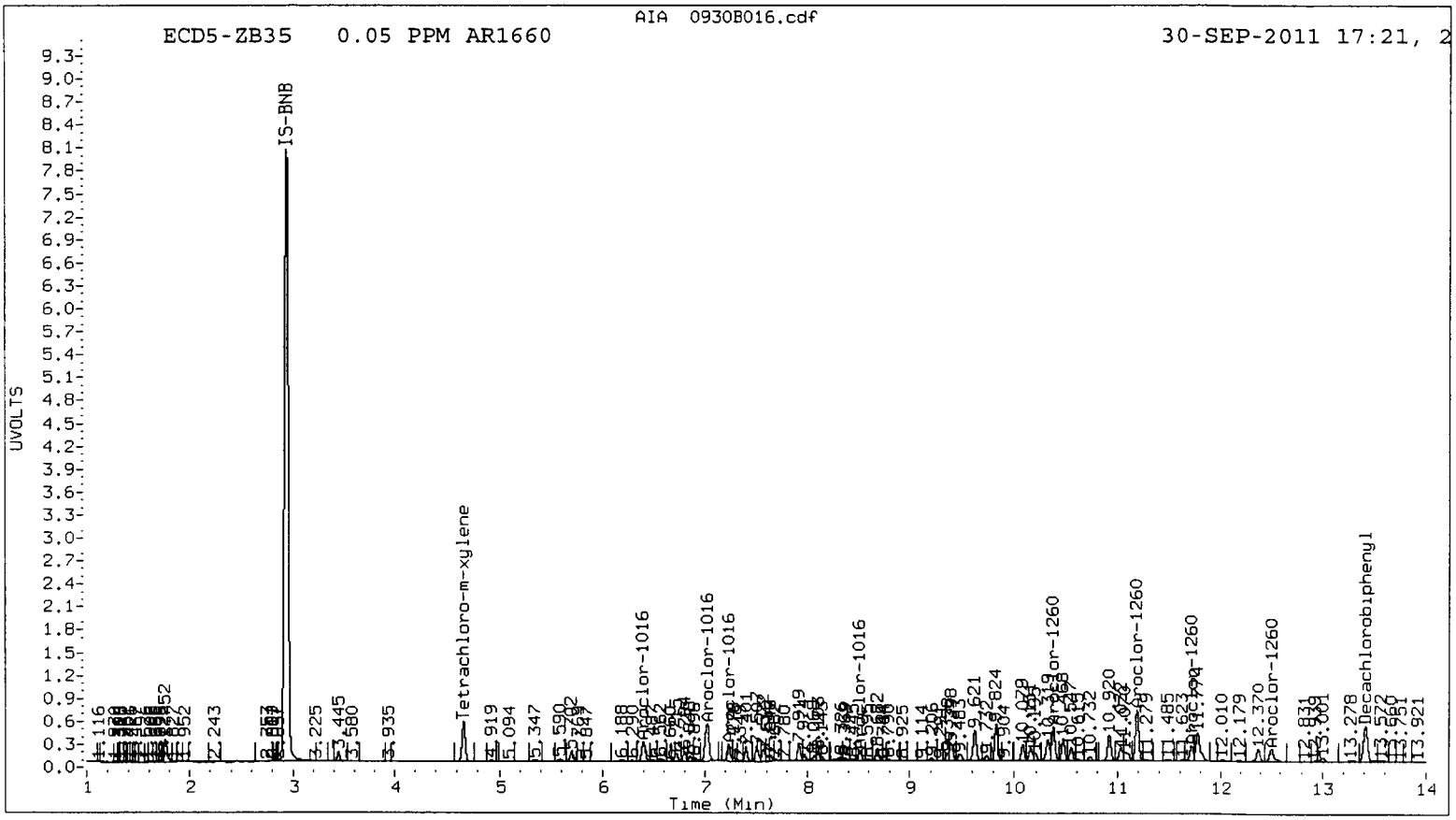
30-SEP-2011 17:21, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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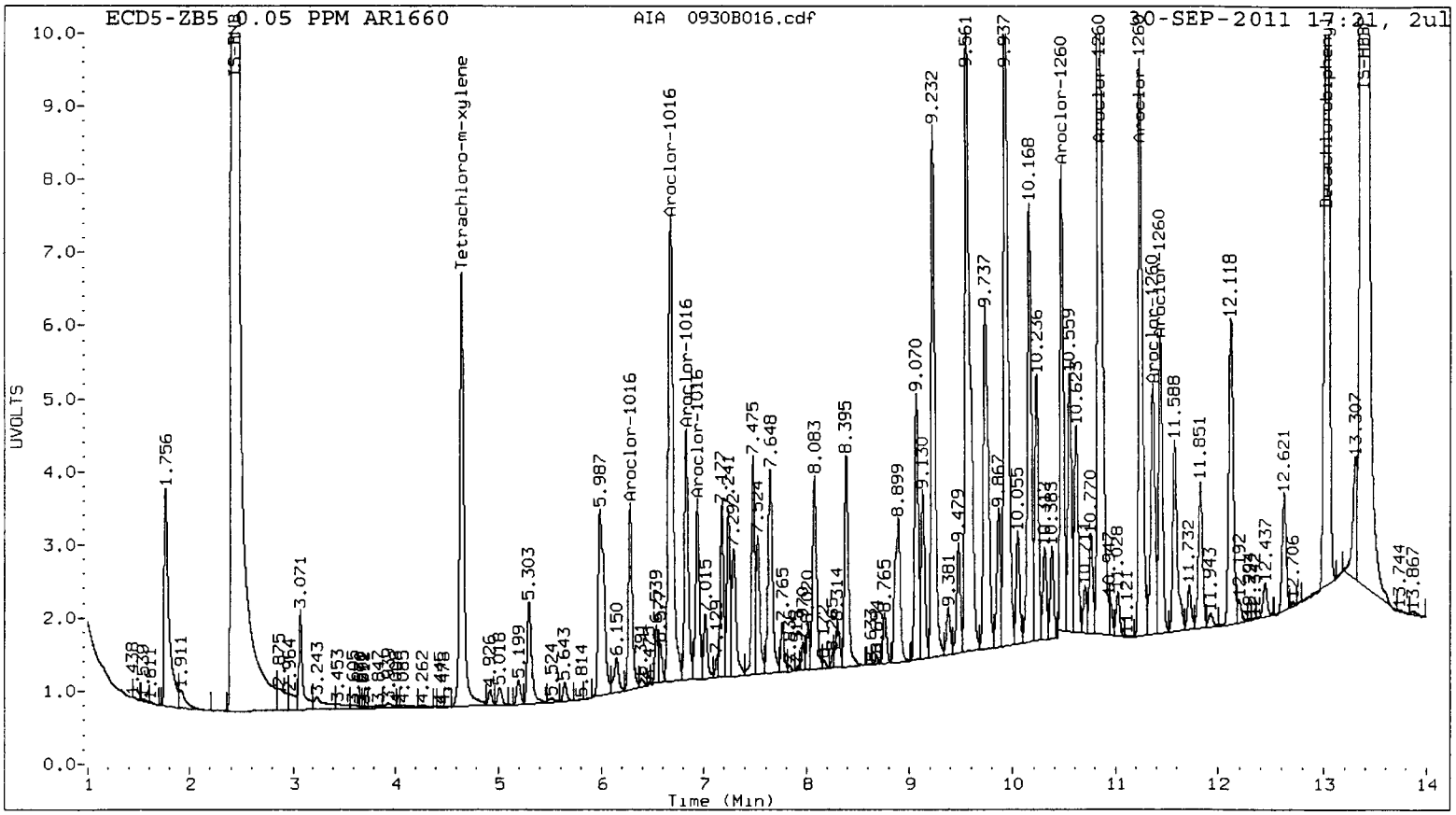
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

TEST - 0407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AIA 0930B016.cdf
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UVOLTS
Time (Min)
IS-BNB
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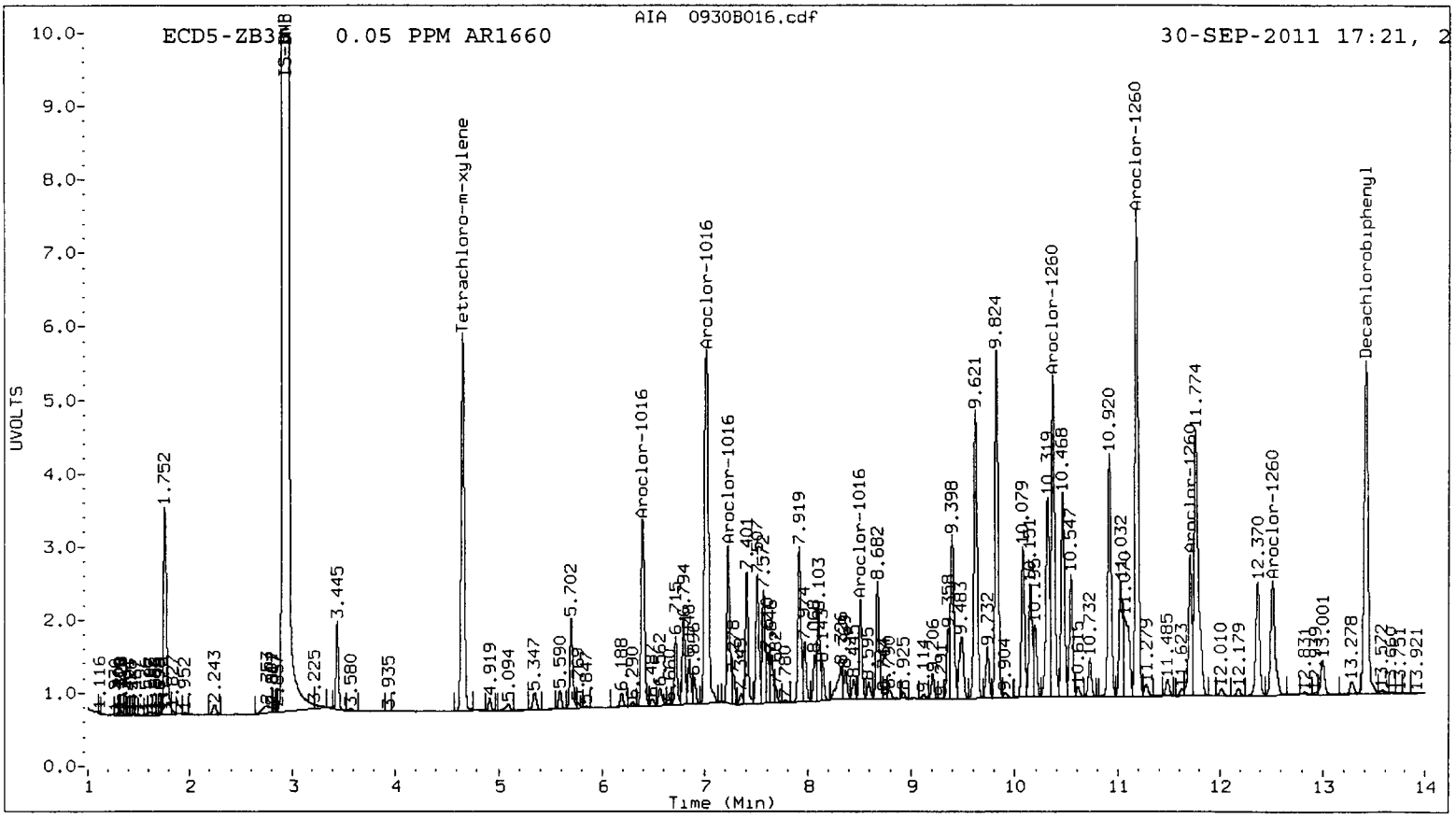
Decachlorobiphenyl
IS-HBB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AIA 0930B016.cdf
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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

TX57.01065

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B017.d
Data file 2: 20110930.B/ical-2.b/0930B017.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 1 PPM AR1660
Client ID:
Injection Date: 30-SEP-2011 17:40
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.651	0.001	142957604	4.658	0.000	102357604	70.5	75.1	6.3	Tetrachloro-m-xylene
13.034	0.002	253135445	13.417	0.000	100085093	63.3	68.7	8.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	176.2	187.7
Decachlorobiphenyl	158.2	171.7

10/06/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	117923883	-1.2
Hexabromobiphenyl	247758184	251697732	1.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	90316651	-1.0
Hexabromobiphenyl	103671329	105007750	1.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

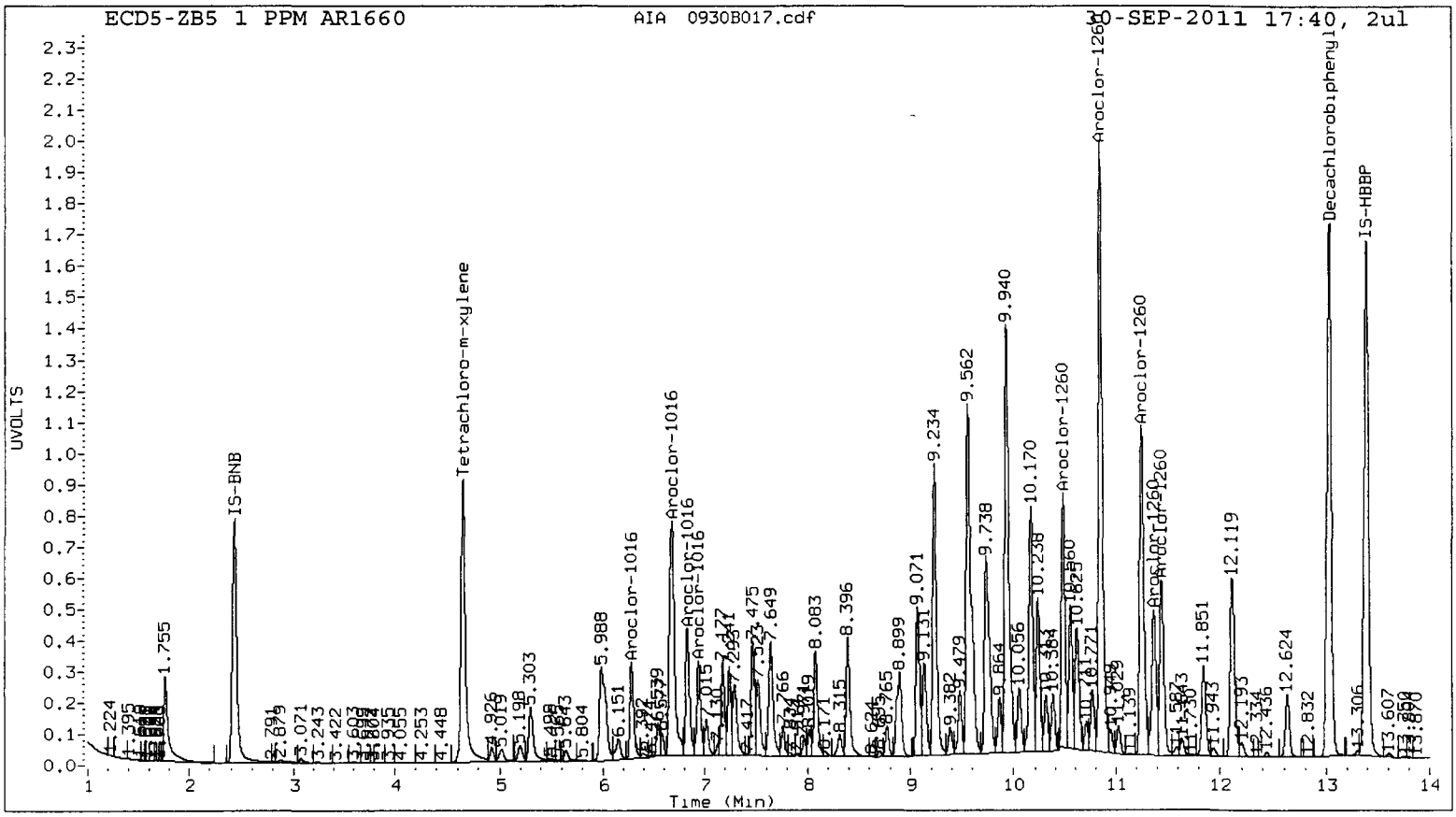
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.281	0.001	40537721	743.1	1	6.394	0.001	41289219	767.1
Aroclor-1016	2	6.680	0.000	132031269	697.1	2	7.019	0.000	99126985	823.6
Aroclor-1016	3	6.827	0.000	54677264	717.2	3	7.226	0.000	35953587	778.5
Aroclor-1016	4	6.938	0.000	40454818	746.4	4	8.512	0.001	22440596	881.2
Total Col1Ave (4 peaks):					725.9	Total Col2Ave (4 peaks):				812.6 RPD = 11
Corrected Ave (3 peaks):					719.1	Corrected Ave (3 peaks):				789.8 RPD = 9
Aroclor-1260	1	10.487	0.001	102884090	755.9	1	10.373	0.001	77080986	818.5
Aroclor-1260	2	10.862	0.002	267286691	772.3	2	11.192	0.001	128143416	879.3
Aroclor-1260	3	11.261	0.001	154257242	775.7	3	11.714	0.001	37481793	840.8
Aroclor-1260	4	11.377	0.000	66478064	780.8	4	12.513	0.000	34901668	824.9
Aroclor-1260	5	11.451	0.001	79657494	796.4	NS	---			----
Total Col1Ave (5 peaks):					776.2	Total Col2Ave (4 peaks):				840.9 RPD = 8
Corrected Ave (4 peaks):					771.2	Corrected Ave (3 peaks):				828.1 RPD = 7

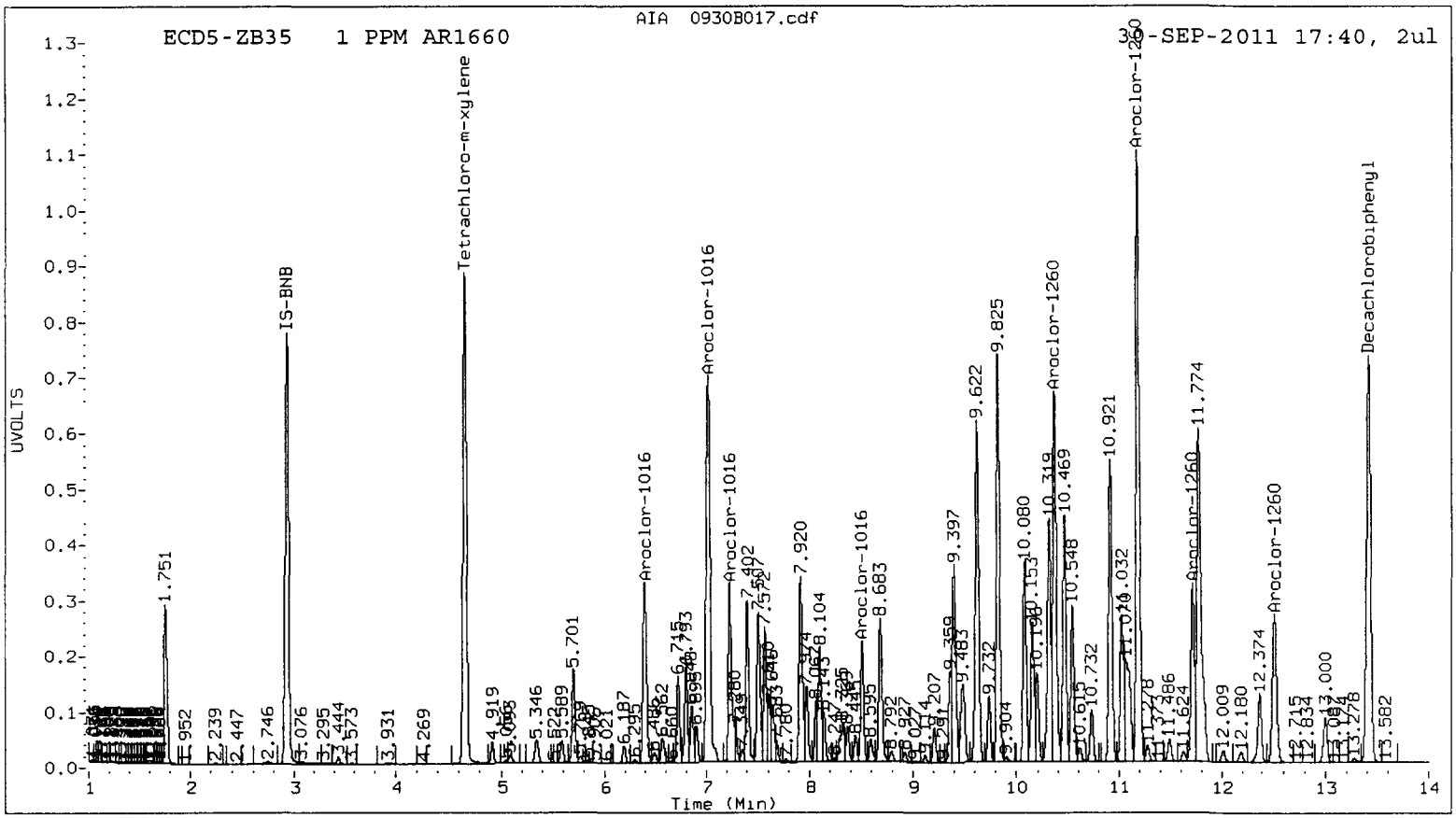
Total PCB Area Col1 (4.750 - 12.933) = 2884786994 Col1 Total PCB = 1.6 ppm*

Total PCB Area Col2 (4.758 - 13.317) = 1566365013 Col2 Total PCB = 1.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD5-ZB5 1 PPM AR1660
AIA 0930B017.cdf
30-SEP-2011 17:40, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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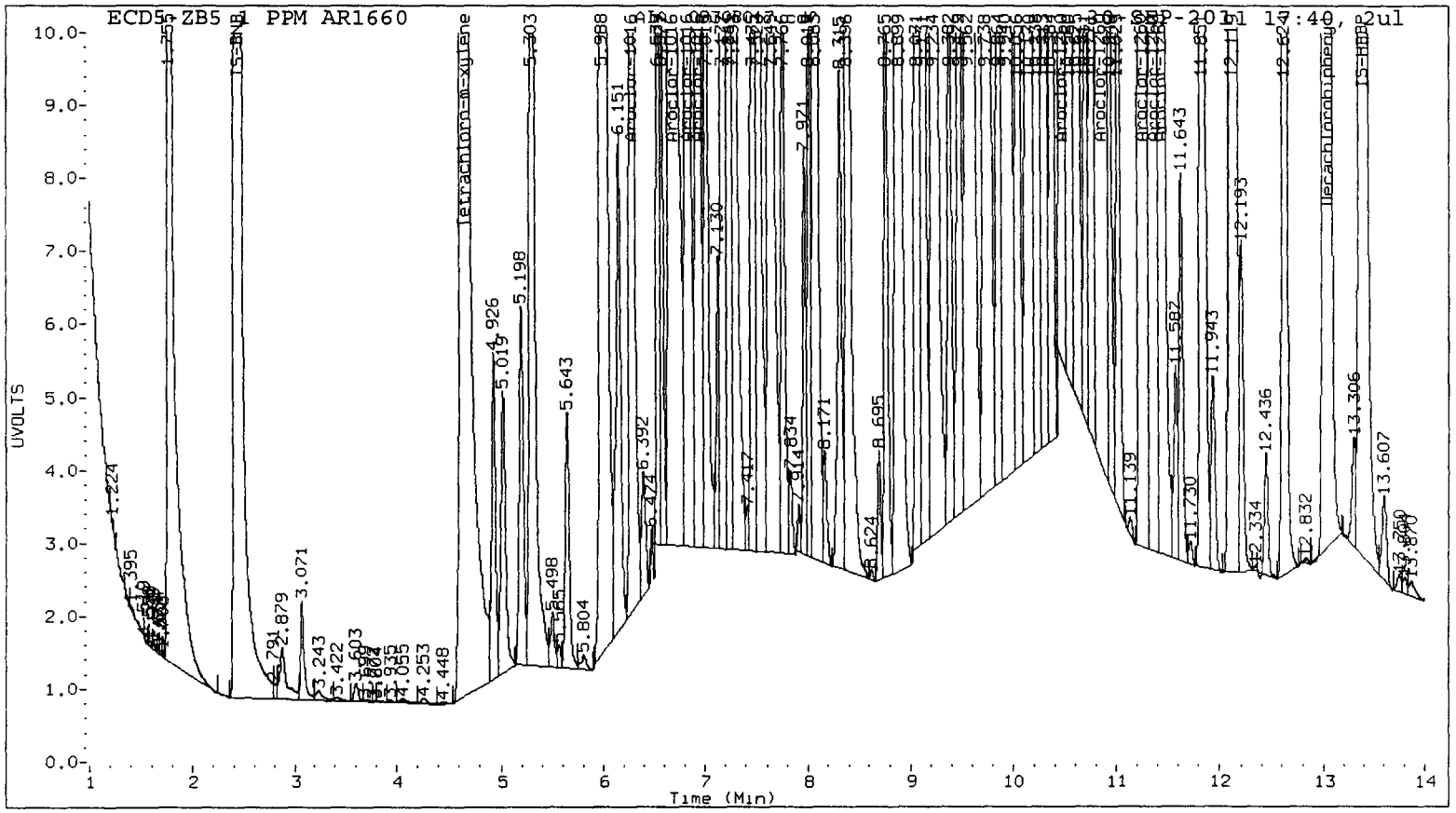
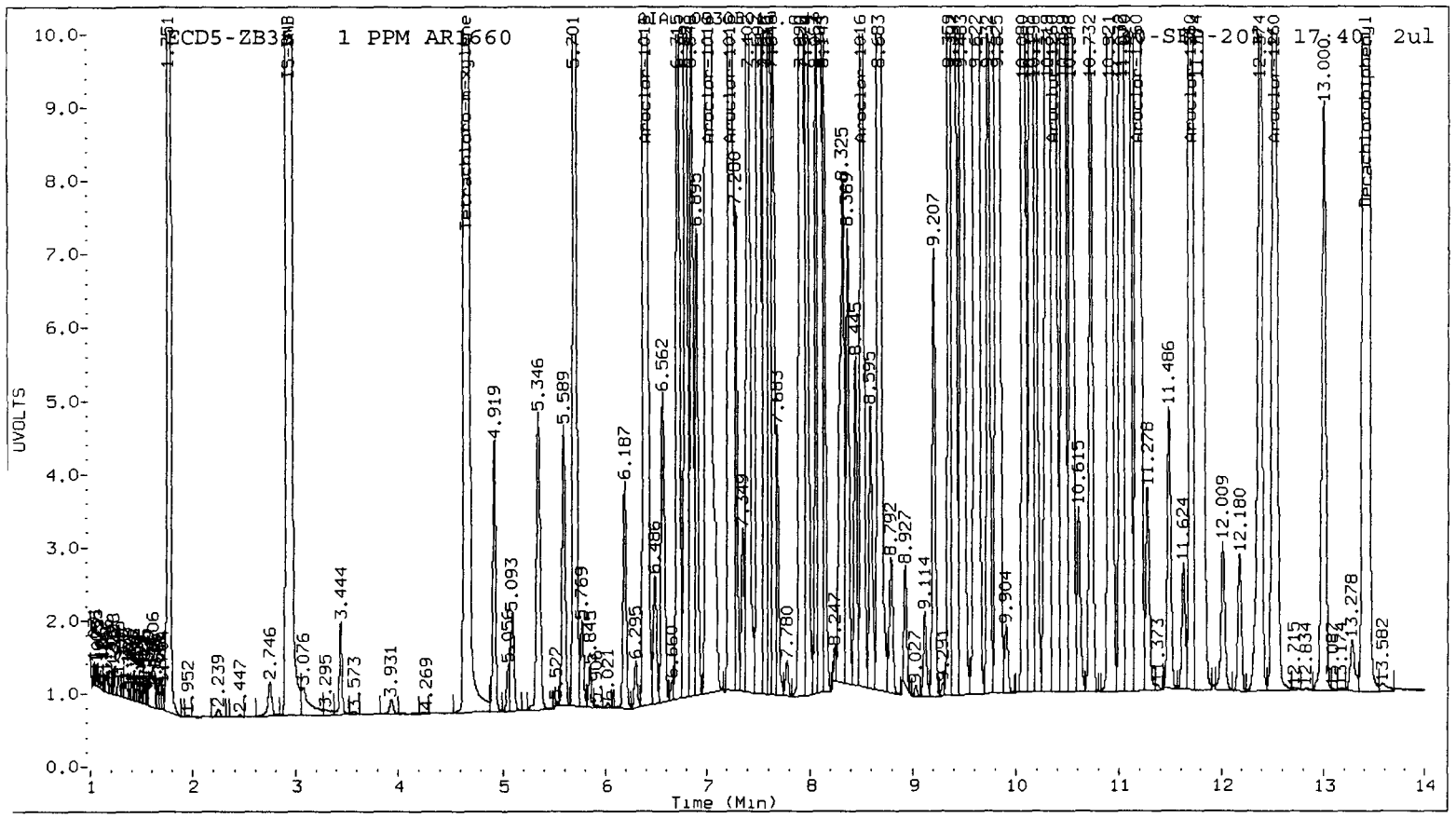
ECD5-ZB35 1 PPM AR1660
30-SEP-2011 17:40, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

TX07 0172


ECD5-ZB5 1 PPM AR1660
UVOLTS
Time (Min)


ECD5-ZB3 1 PPM AR1660
UVOLTS
Time (Min)

TX57 01073

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B018.d
Data file 2: 20110930.B/ical-2.b/0930B018.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1 PPM AR1660
Client ID:
Injection Date: 30-SEP-2011 17:59
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.648	-0.002	18246903	4.656	-0.002	11820768	8.2	8.2	0.6	Tetrachloro-m-xylene
13.032	-0.001	34894646	13.416	-0.001	12581669	8.4	8.3	0.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	20.6	20.5
Decachlorobiphenyl	21.0	20.8

10/06/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	128792057	7.9
Hexabromobiphenyl	247758184	261443126	5.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	95621183	4.8
Hexabromobiphenyl	103671329	108809586	5.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.280	0.000	6221769	104.4	1	6.393	-0.001	6077757	106.7
Aroclor-1016	2	6.679	-0.001	20644644	99.8	2	7.018	-0.001	13370894	104.9
Aroclor-1016	3	6.827	0.000	8411428	101.0	3	7.226	0.000	5152250	105.4
Aroclor-1016	4	6.937	-0.001	6165612	104.2	4	8.511	0.000	2749648	102.0
	Total Col1Ave (4 peaks):				102.4	Total Col2Ave (4 peaks):				104.7 RPD = 2
	Corrected Ave (3 peaks):				101.7	Corrected Ave (3 peaks):				104.1 RPD = 2
Aroclor-1260	1	10.484	-0.002	14853029	105.1	1	10.370	-0.002	10215370	104.7
Aroclor-1260	2	10.858	-0.002	37446830	104.2	2	11.191	0.000	15496170	102.6
Aroclor-1260	3	11.259	0.000	21787259	105.5	3	11.713	0.000	4567296	98.9
Aroclor-1260	4	11.375	-0.002	9307664	105.2	4	12.512	-0.001	4354578	99.3
Aroclor-1260	5	11.449	-0.001	10968554	105.6	NS	---			----
	Total Col1Ave (5 peaks):				105.1	Total Col2Ave (4 peaks):				101.4 RPD = 4
	Corrected Ave (4 peaks):				105.0	Corrected Ave (3 peaks):				100.3 RPD = 5

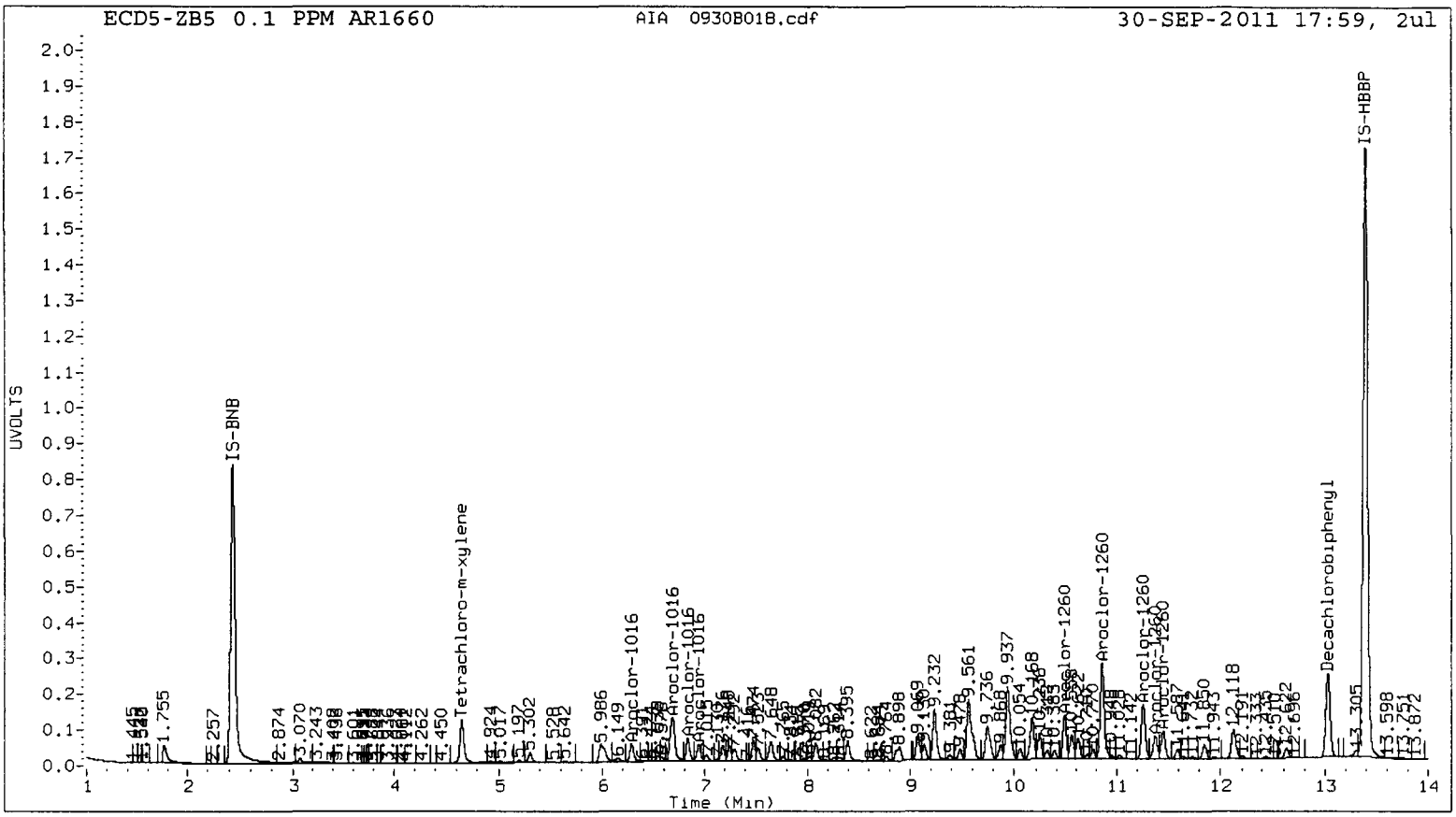
Total PCB Area Col1 (4.750 - 12.933) = 424554432 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.758 - 13.317) = 196345814 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TX57 01075

PCB-Form 10 Mod.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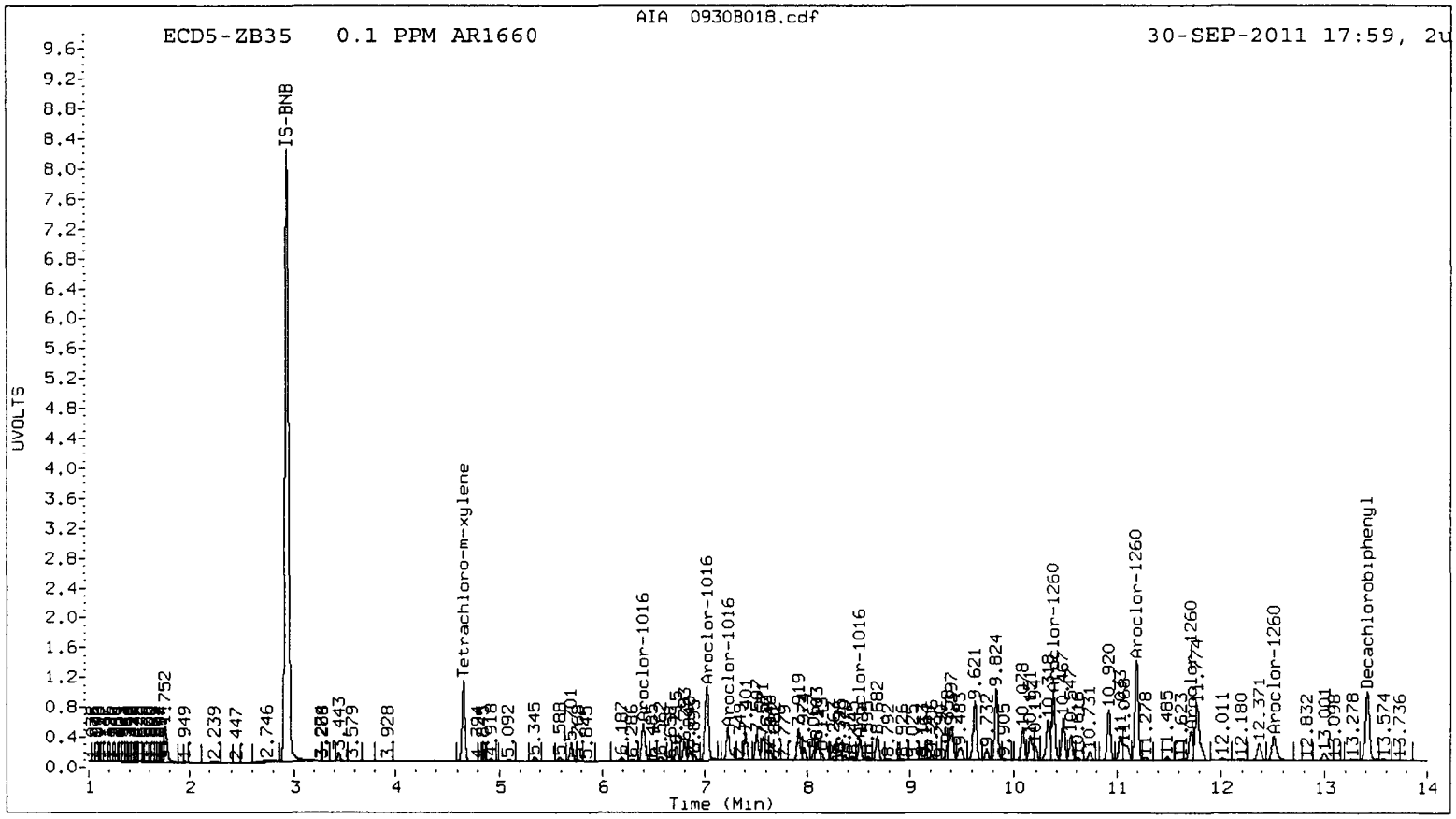
AIA 0930B018.cdf
30-SEP-2011 17:59, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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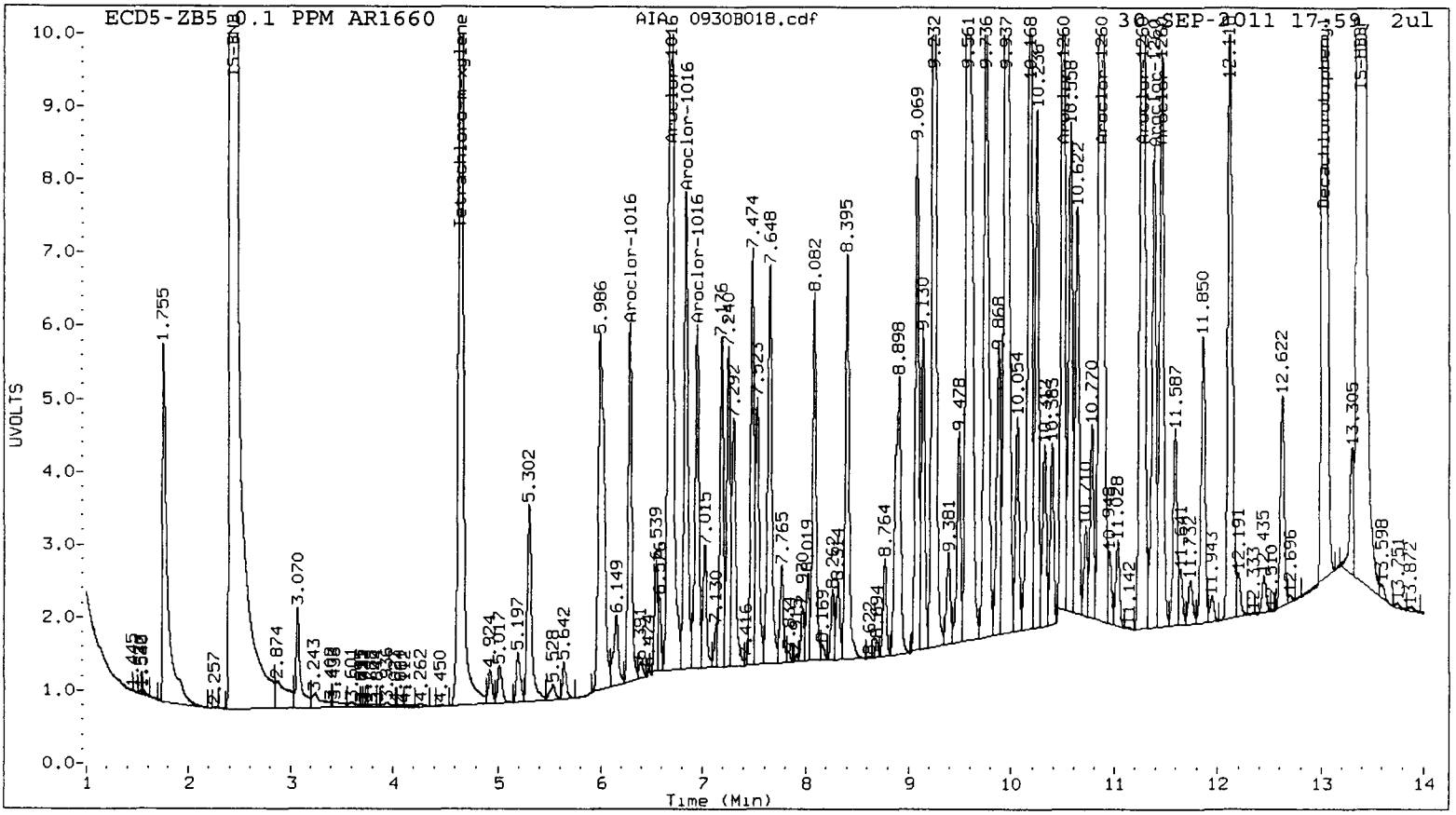
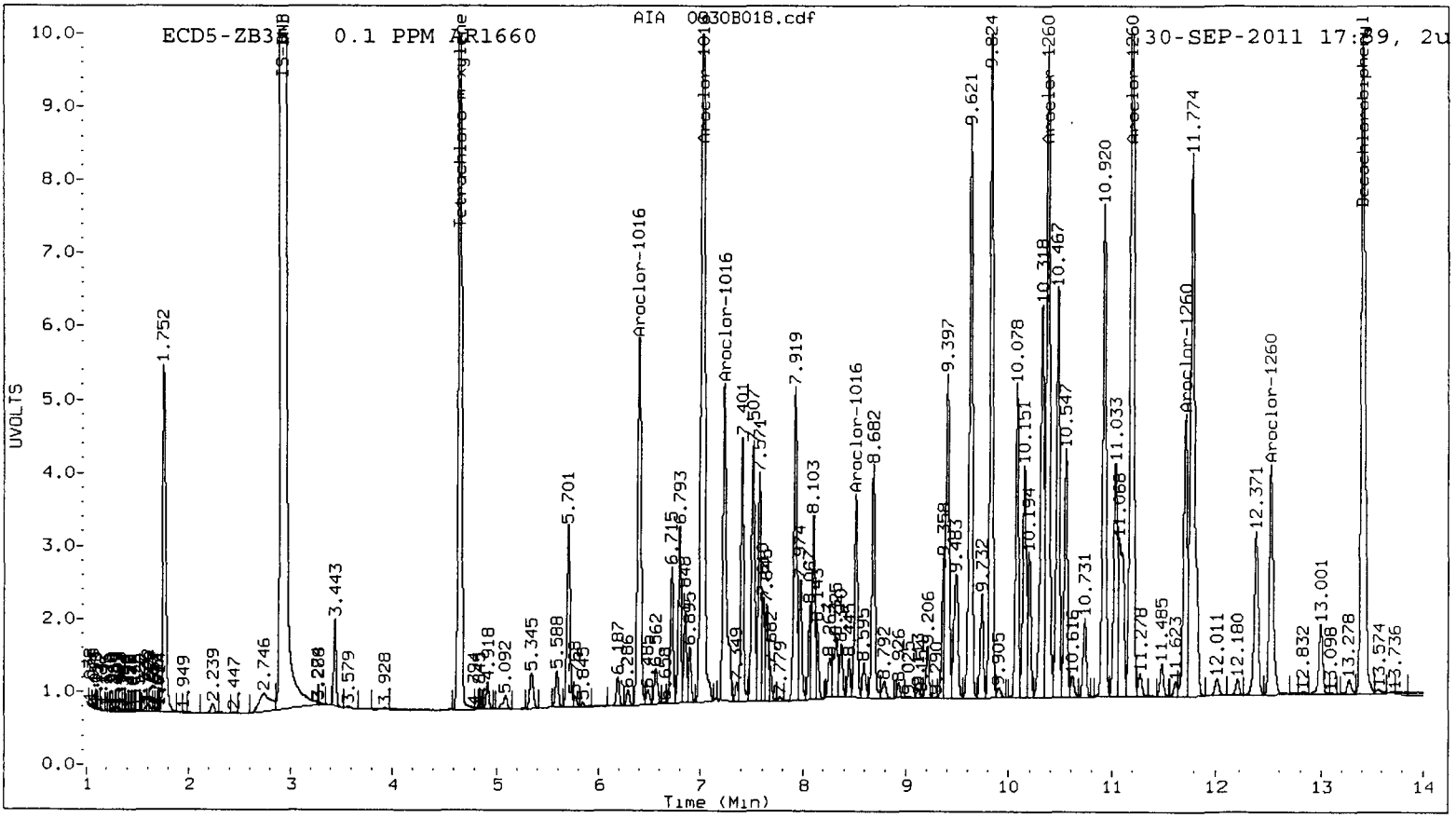
ECD5-ZB35 0.1 PPM AR1660
30-SEP-2011 17:59, 2u
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl


ECD5-ZB5 0.1 PPM AR1660
AIA 0930B018.cdf
30-SEP-2011 17:59 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBB


ECD5-ZB3 0.1 PPM AR1660
AIA 0930B018.cdf
30-SEP-2011 17:39, 2u
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B019.d
Data file 2: 20110930.B/ical-2.b/0930B019.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5 PPM AR1660
Client ID:
Injection Date: 30-SEP-2011 18:18
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.650	0.000	77930559	4.658	0.000	54600100	37.2	39.2	5.2	Tetrachloro-m-xylene
13.033	0.000	137245405	13.416	-0.001	53282808	33.9	36.1	6.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	93.0	97.9
Decachlorobiphenyl	84.8	90.3

10/26/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	121783479	2.1
Hexabromobiphenyl	247758184	254502664	2.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	92352253	1.2
Hexabromobiphenyl	103671329	106232077	2.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.280	0.000	23564593	418.3	1	6.393	0.000	23919060	434.6
Aroclor-1016	2	6.680	0.000	76256998	389.9	2	7.018	0.000	55860140	453.9
Aroclor-1016	3	6.827	0.000	31403841	398.9	3	7.226	0.000	22732637	481.4
Aroclor-1016	4	6.938	0.000	23489999	419.6	4	8.511	0.000	12027280	461.9
	Total Col1Ave (4 peaks):				406.7	Total Col2Ave (4 peaks):			457.9	RPD = 12
	Corrected Ave (3 peaks):				402.3	Corrected Ave (3 peaks):			450.1	RPD = 11
Aroclor-1260	1	10.486	0.000	57822076	420.2	1	10.372	0.000	41348356	434.0
Aroclor-1260	2	10.860	0.000	145480894	415.7	2	11.191	0.000	67697726	459.2
Aroclor-1260	3	11.260	0.000	85671658	426.1	3	11.713	0.000	19877866	440.8
Aroclor-1260	4	11.377	0.000	37151674	431.5	4	12.512	0.000	18516516	432.6
Aroclor-1260	5	11.450	0.000	44272790	437.7	NS	---			----
	Total Col1Ave (5 peaks):				426.2	Total Col2Ave (4 peaks):			441.6	RPD = 4
	Corrected Ave (4 peaks):				423.4	Corrected Ave (3 peaks):			435.8	RPD = 3

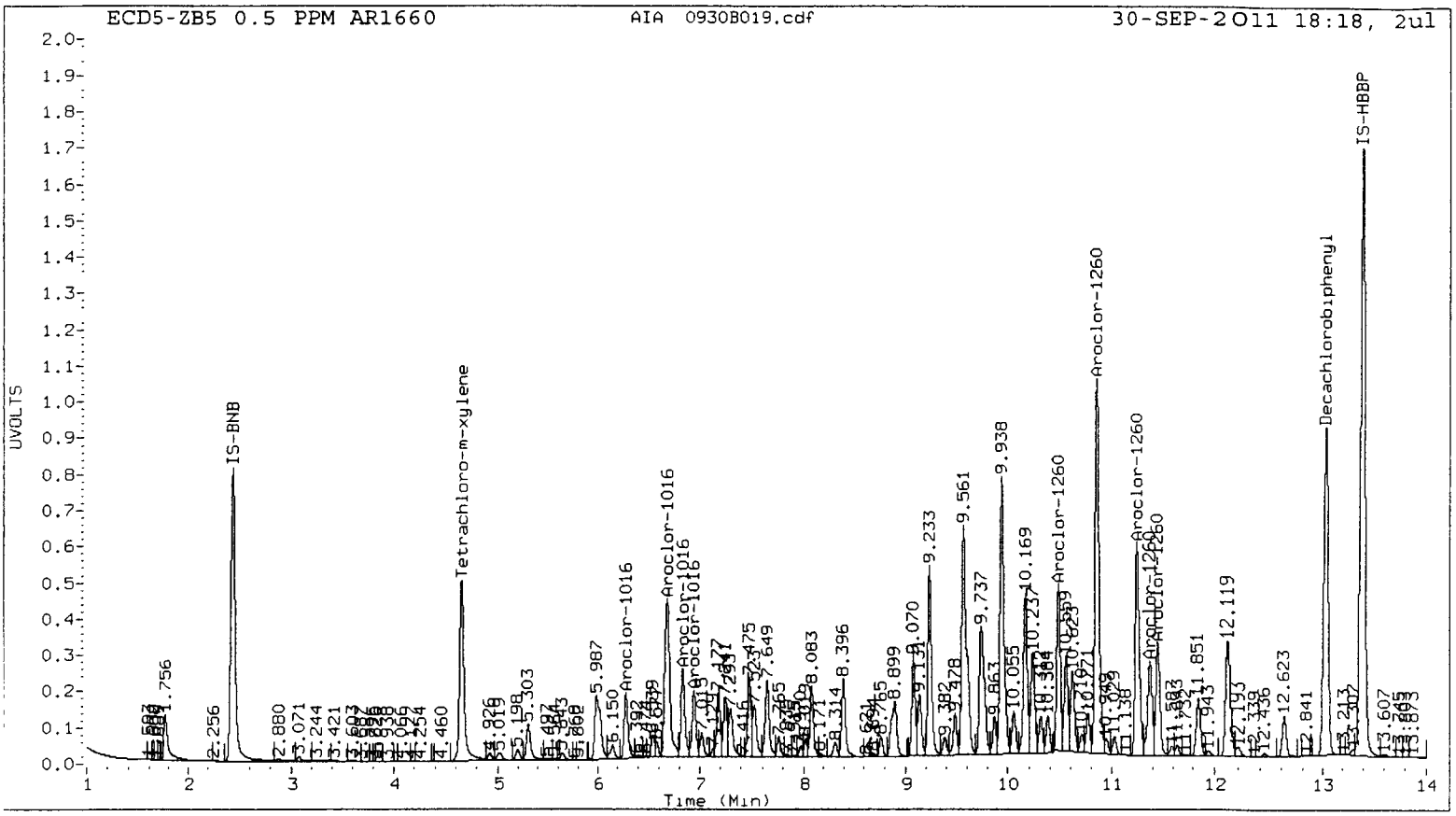
Total PCB Area Col1 (4.750 - 12.933) = 1624489512 Col1 Total PCB = 0.9 ppm*

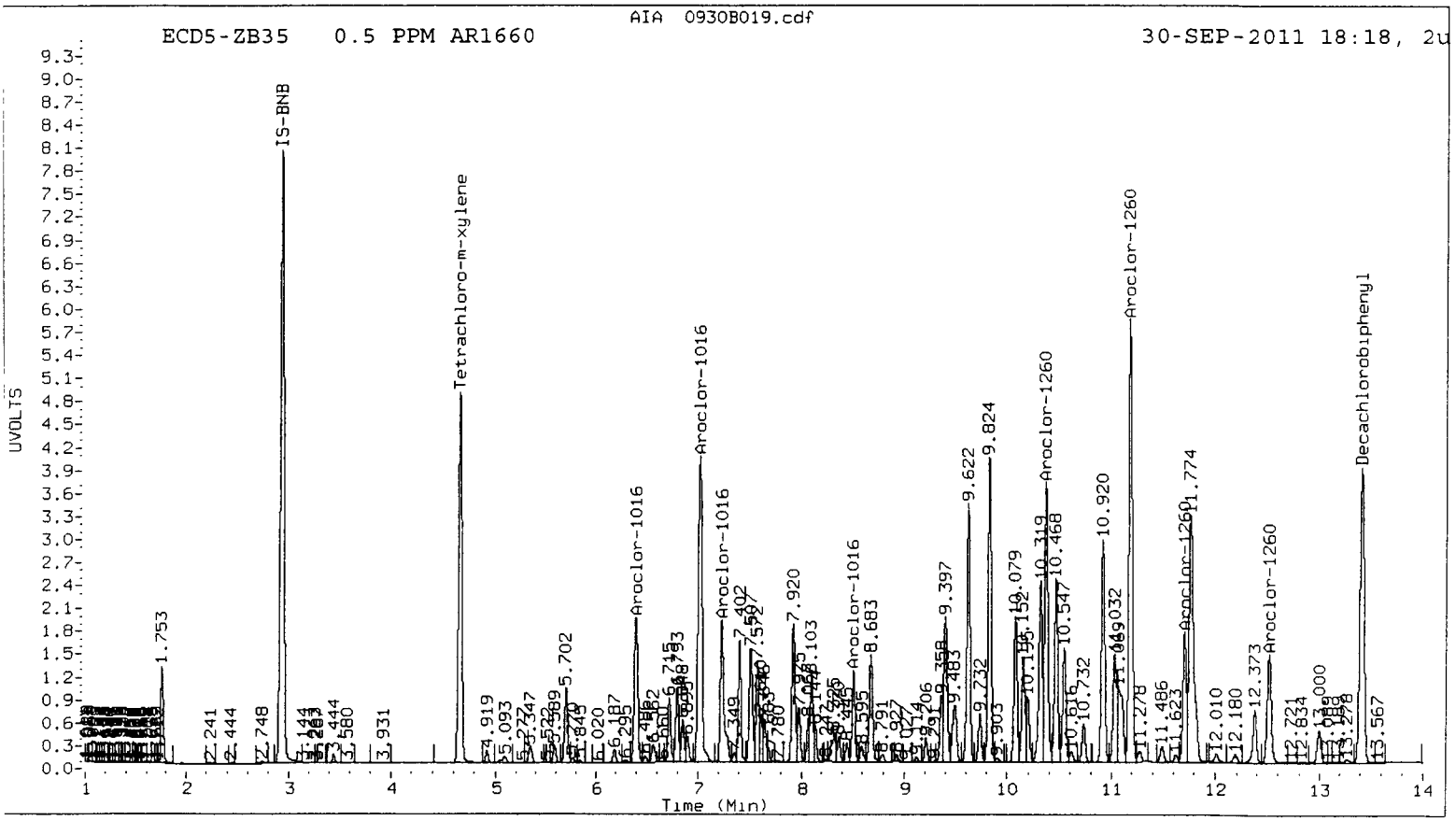
Total PCB Area Col2 (4.758 - 13.317) = 842270722 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

TX57:0108:


ECD5-ZB5 0.5 PPM AR1660
AIA 0930B019.cdf
30-SEP-2011 18:18, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP


AIA 0930B019.cdf
ECD5-ZB35 0.5 PPM AR1660
30-SEP-2011 18:18, 2u
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

UVOLTS
Time (Min)
ECD5-ZB5 0.5 PPM AR1660
30-SEP-2011 18:18, 2ul
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB
Aroclor-1016
Aroclor-1260

Time (Min)
ECD5-ZB5 0.5 PPM AR1660
30-SEP-2011 18:18, 2ul
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB
Aroclor-1016
Aroclor-1260

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B020.d
Data file 2: 20110930.B/ical-2.b/0930B020.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 30-SEP-2011 18:37
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.649	-0.001	42266409	4.657	-0.001	28953484	20.1	20.7	2.9	Tetrachloro-m-xylene
13.032	-0.001	72399248	13.416	-0.001	27334415	17.8	18.4	3.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.3	51.7
Decachlorobiphenyl	44.6	46.0

10/06/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	122192308	2.4
Hexabromobiphenyl	247758184	255299258	3.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	92665769	1.5
Hexabromobiphenyl	103671329	106924100	3.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	6.280	0.000	10883578	250.0	1	6.393	0.000	10806537	250.0
Aroclor-1242	2	6.680	0.000	35750934	250.0	2	7.018	0.000	24343646	250.0
Aroclor-1242	3	6.827	0.000	14494629	250.0	3	7.227	0.000	9590730	250.0
Aroclor-1242	4	8.019	0.000	14367478	250.0	4	8.370	0.000	8694403	250.0

Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

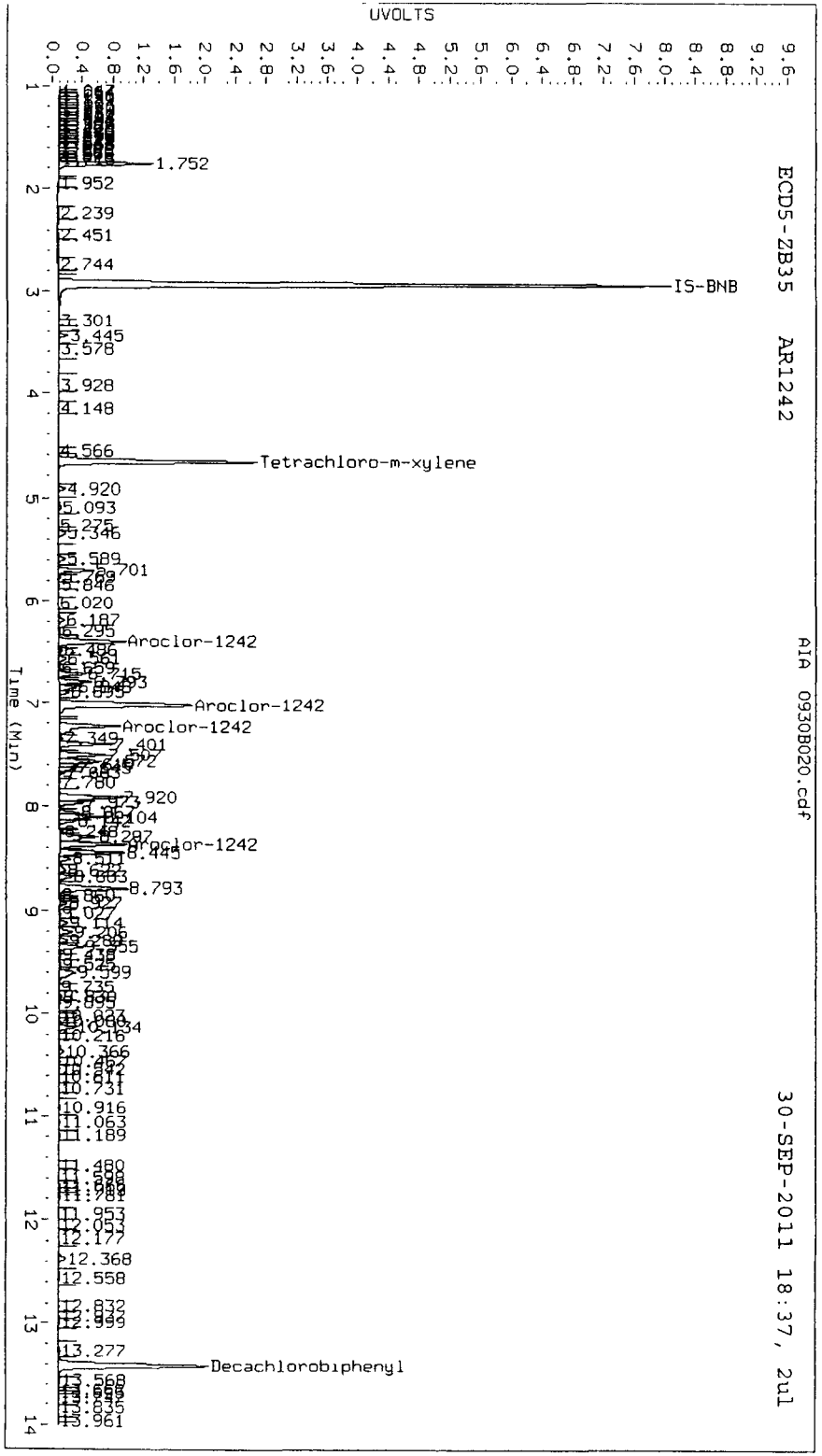
Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

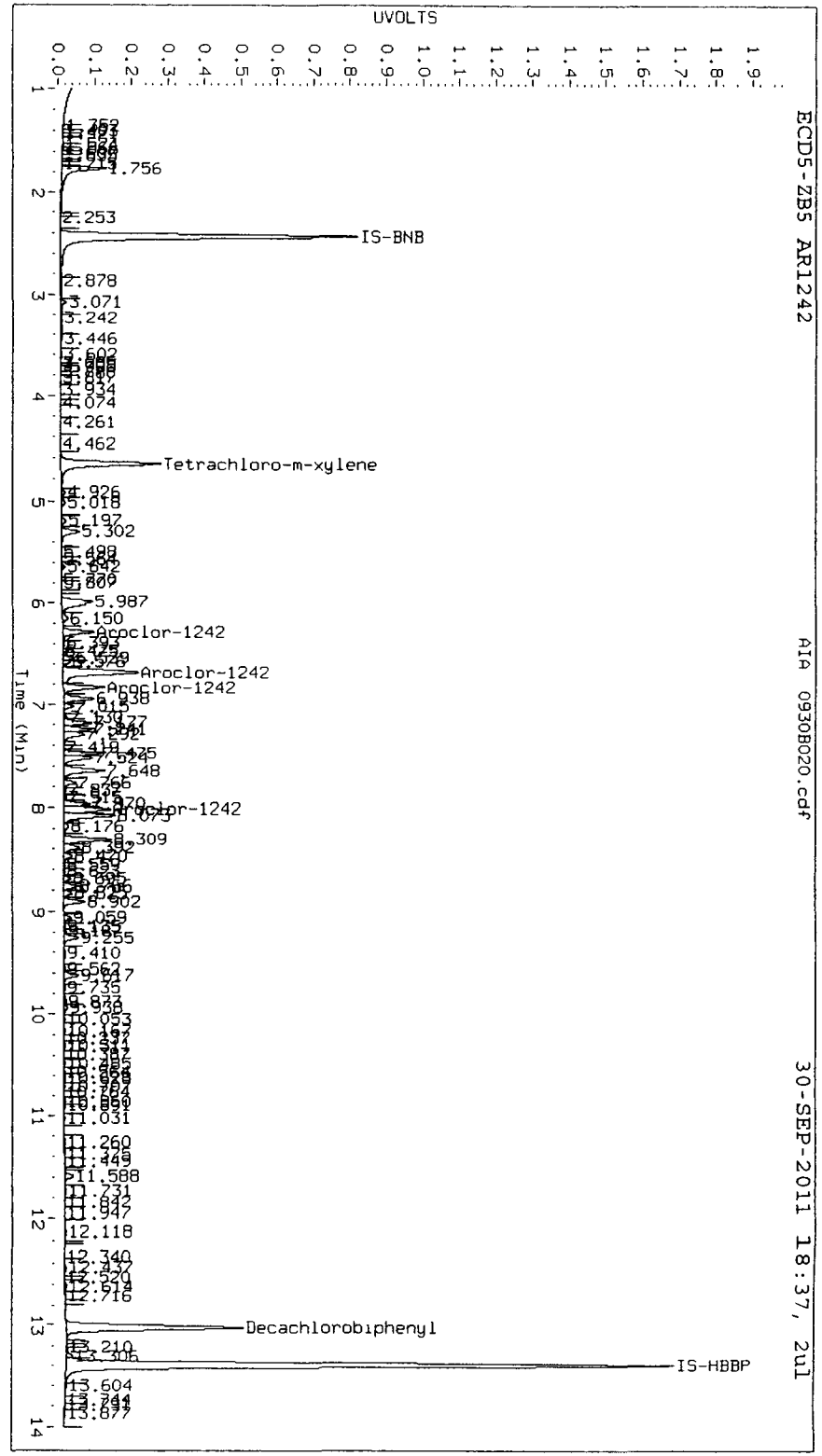
Total PCB Area Col1 (4.750 - 12.933) = 298270256 Col1 Total PCB = 0.2 ppm*

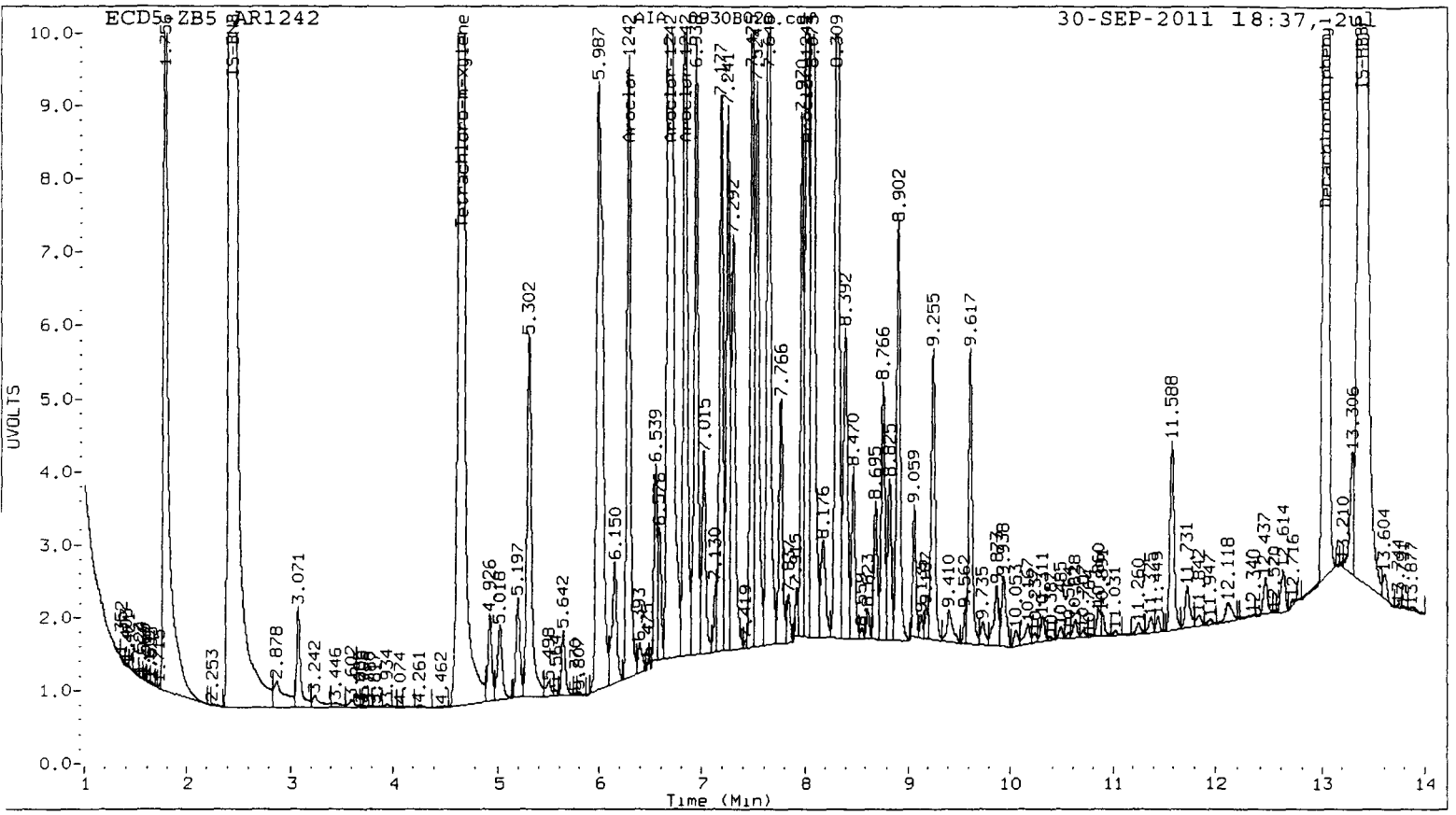
Total PCB Area Col2 (4.758 - 13.317) = 173660190 Col2 Total PCB = 0.2 ppm*

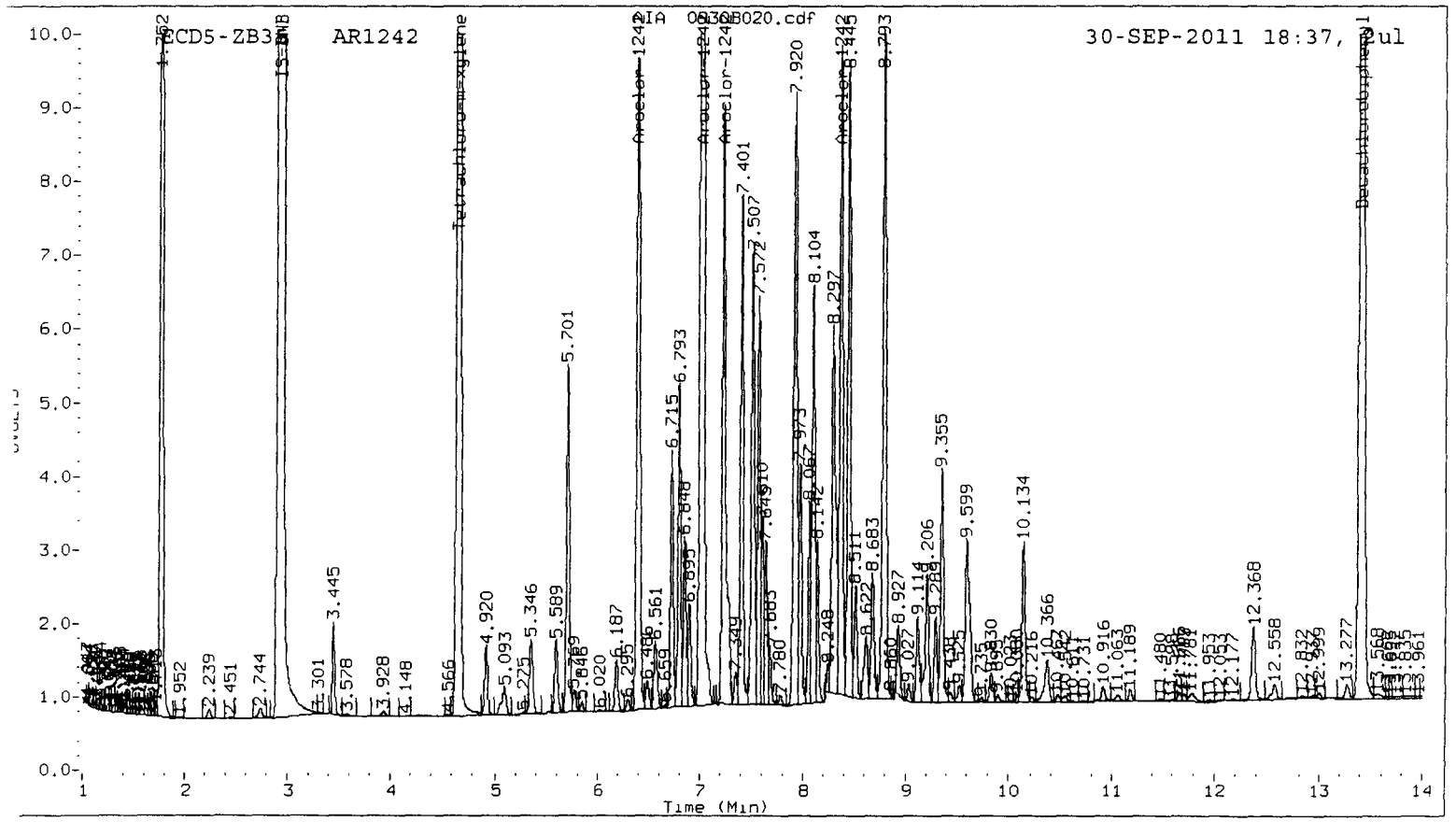
* Quantitated against AR1660 0.25ppm in Ical

TX57 01035


UVOLTS
ECD5-ZB35 AR1242
AIA 0930B020.cdf
30-SEP-2011 18:37, 2ul
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl


UVOLTS
ECD5-ZB5 AR1242
AIA 0930B020.cdf
30-SEP-2011 18:37, 2ul
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
IS-HBBP


ECD5e ZB5 AR1242
30-SEP-2011 18:37,1 2ul
UVOLTS
Time (Min)


ECD5-ZB3 AR1242
30-SEP-2011 18:37, 2ul
Time (Min)

TX57 : 01567

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B021.d
Data file 2: 20110930.B/ical-2.b/0930B021.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 30-SEP-2011 18:56
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.649	-0.001	43394679	4.656	-0.002	29835716	20.4	21.1	3.2	Tetrachloro-m-xylene
13.032	-0.001	74672500	13.415	-0.002	28204442	18.2	18.7	3.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	51.0	52.7
Decachlorobiphenyl	45.4	46.8

JL 10/06/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	123657838	3.6
Hexabromobiphenyl	247758184	258597123	4.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	93803662	2.8
Hexabromobiphenyl	103671329	108452389	4.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	7.177	0.000	16410673	250.0	1	7.506	0.000	11195763	250.0
Aroclor-1248	2	7.475	0.000	18587971	250.0	2	7.920	0.000	12978523	250.0
Aroclor-1248	3	8.020	0.000	23340871	250.0	3	8.370	0.000	14446698	250.0
Aroclor-1248	4	8.310	0.000	23306520	250.0	4	8.793	0.000	15664435	250.0

Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

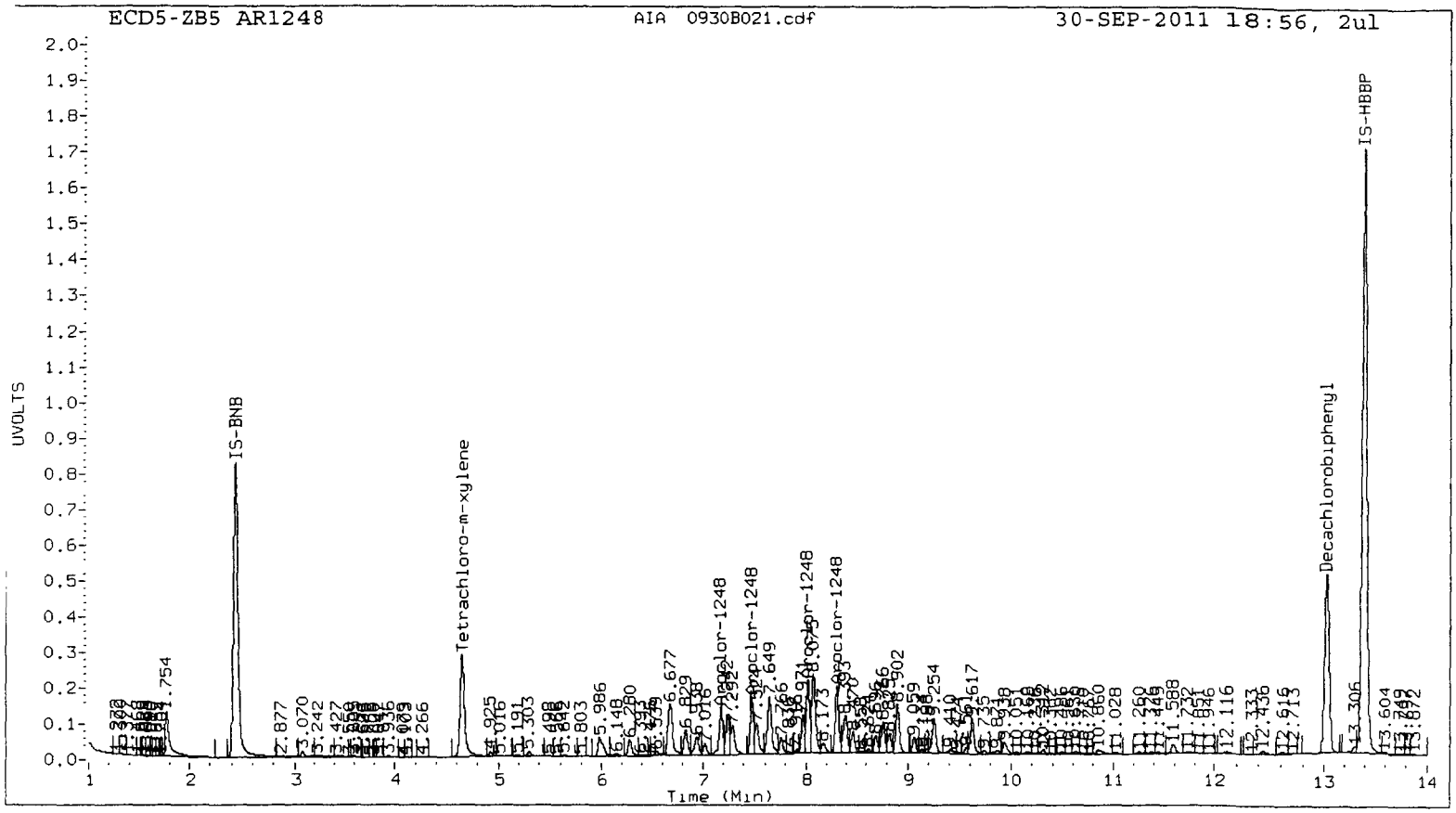
Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

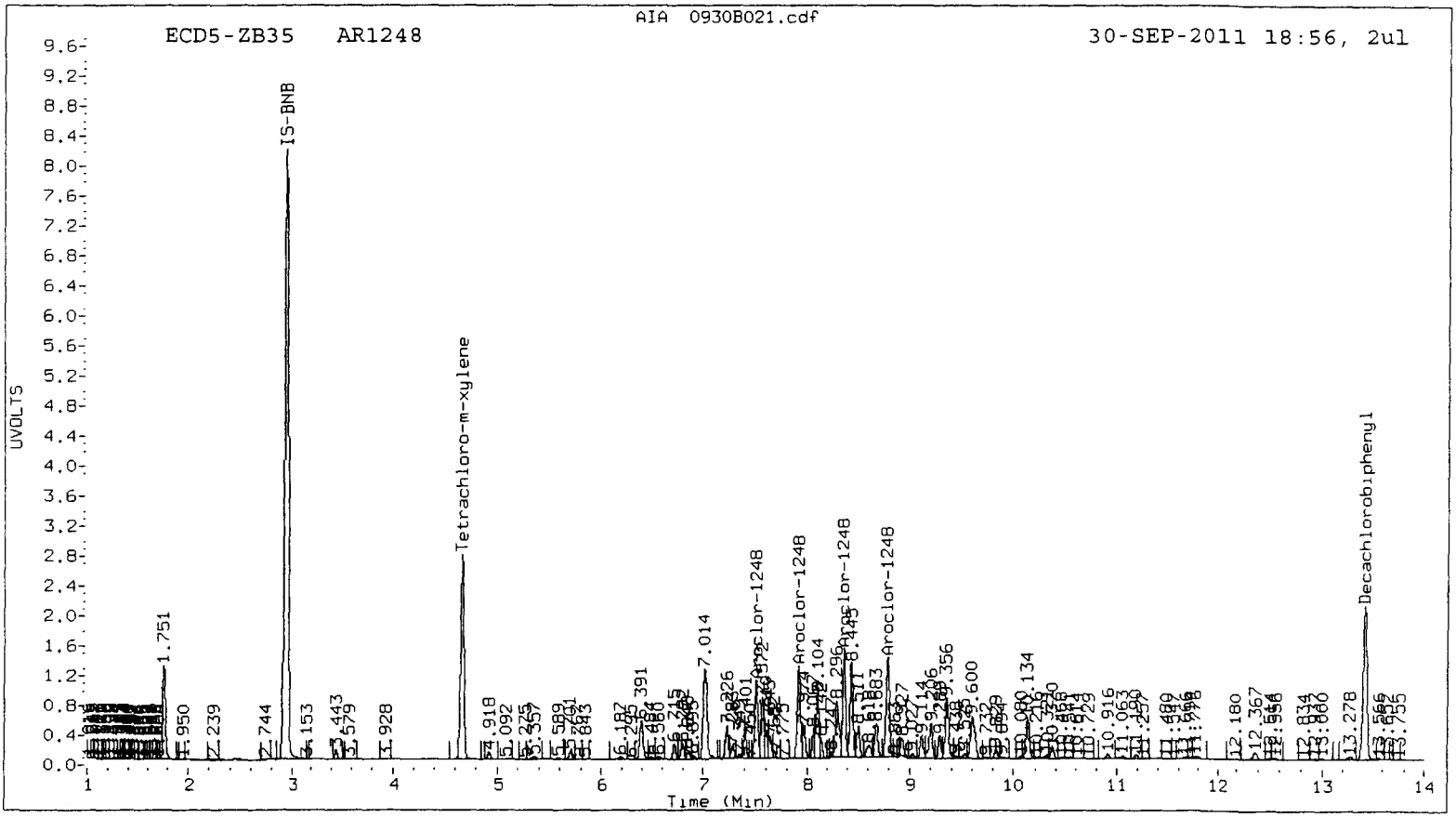
Total PCB Area Col1 (4.750 - 12.933) = 389902822 Col1 Total PCB = 0.2 ppm*

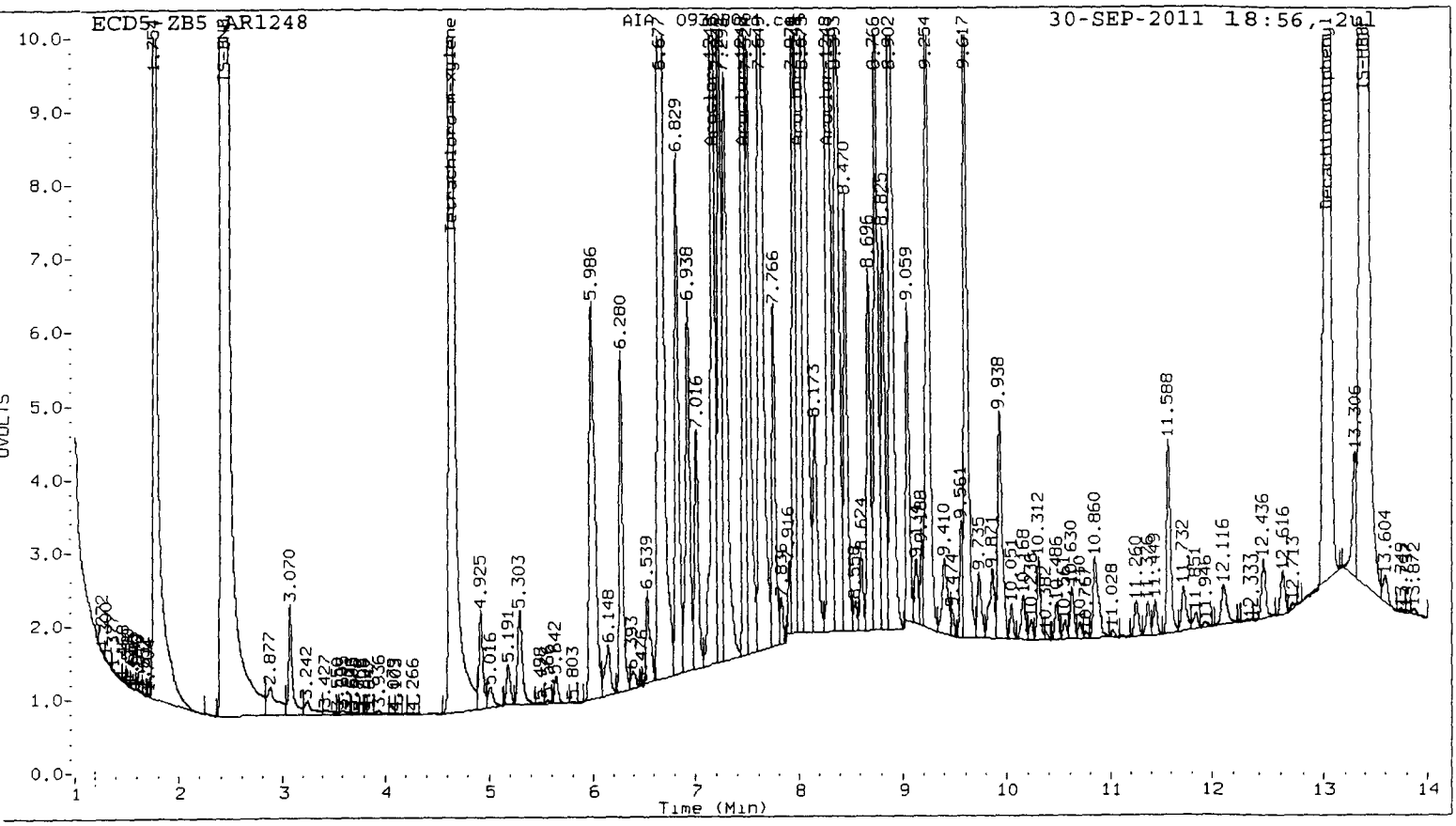
Total PCB Area Col2 (4.758 - 13.317) = 214258931 Col2 Total PCB = 0.2 ppm*

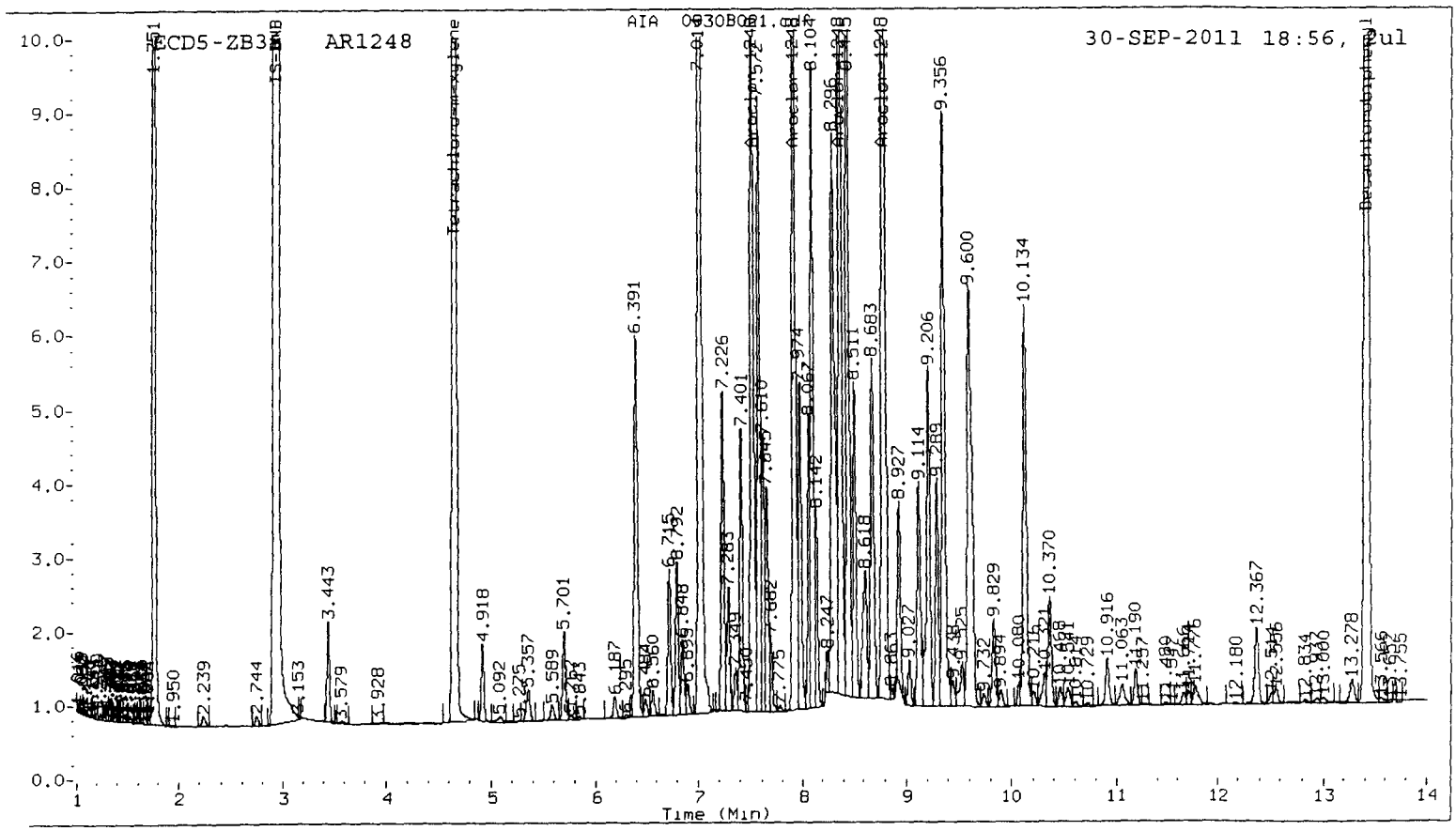
* Quantitated against AR1660 0.25ppm in Ical

TX57.01089


ECD5-ZB5 AR1248
AIA 0930B021.cdf
30-SEP-2011 18:56, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
Time (Min)


AIA 0930B021.cdf
ECD5-ZB35 AR1248
30-SEP-2011 18:56, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
Time (Min)


ECD5-ZB5 AR1248
30-SEP-2011 18:56, 2ul
UVOLTS
Time (Min)


ECD5-ZB3 AR1248
30-SEP-2011 18:56, 1ul
Time (Min)

TX57 8105

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B022.d
Data file 2: 20110930.B/ical-2.b/0930B022.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 30-SEP-2011 19:15
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.649	-0.001	42505489	4.656	-0.002	29432791	19.7	20.5	3.8	Tetrachloro-m-xylene
13.032	0.000	73669754	13.416	0.000	27944900	17.7	18.3	3.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.3	51.2
Decachlorobiphenyl	44.3	45.8

9/30/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	125249878	5.0
Hexabromobiphenyl	247758184	261836582	5.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	95179929	4.3
Hexabromobiphenyl	103671329	109986239	6.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	8.394	0.000	37885108	250.0	1	8.511	0.000	12805787	250.0
Aroclor-1254	2	8.765	0.000	26073020	250.0	2	8.683	0.000	16689992	250.0
Aroclor-1254	3	8.902	0.000	46850459	250.0	3	9.206	0.000	13423897	250.0
Aroclor-1254	4	9.250	0.000	53413170	250.0	4	9.357	0.000	28777866	250.0
Aroclor-1254	5	9.612	0.000	35257764	250.0	5	10.138	0.000	17851327	250.0

Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

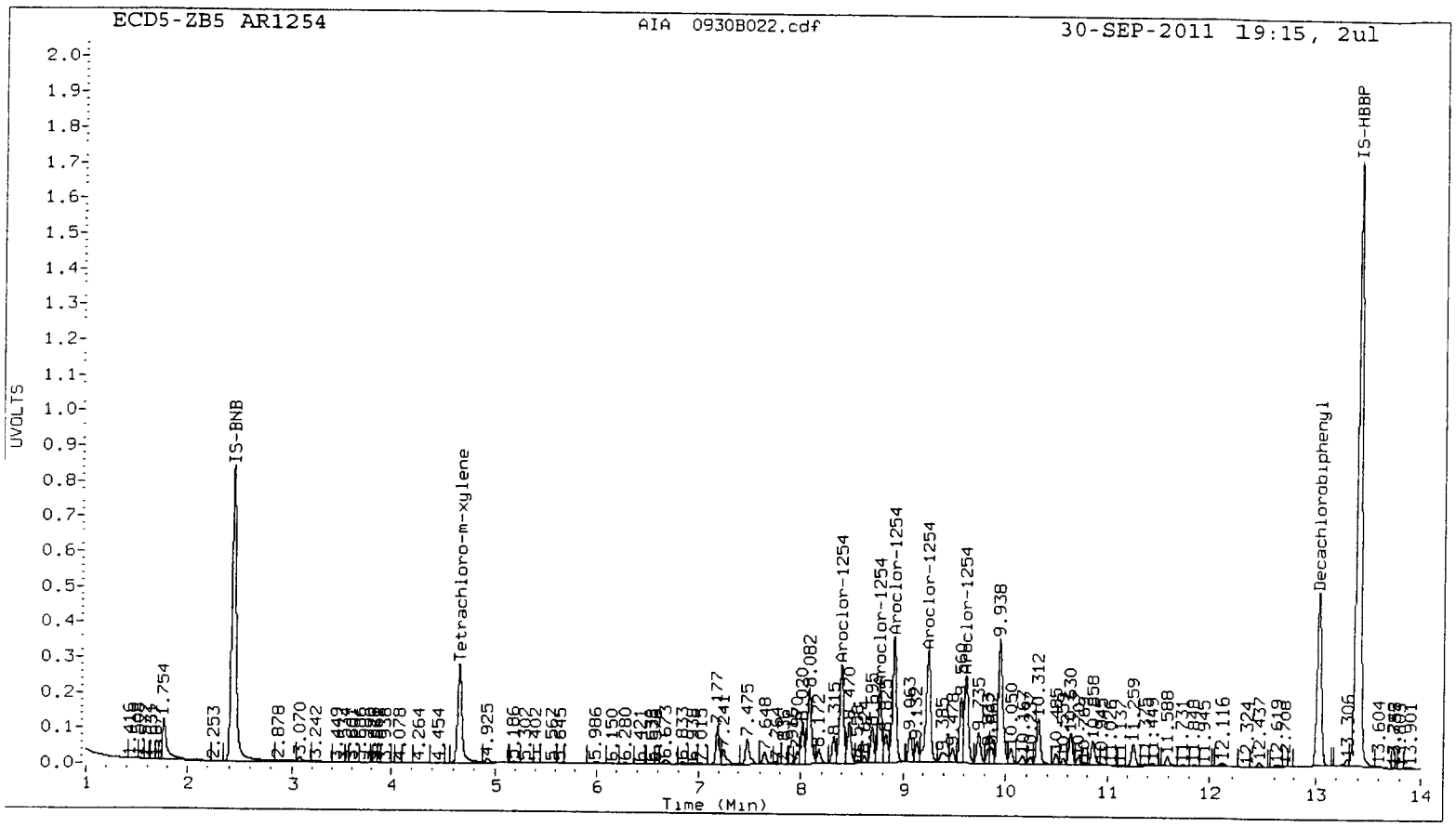
Corrected Ave (4 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

Total PCB Area Col1 (4.750 - 12.933) = 545966871 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.758 - 13.317) = 274965714 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TX57:01093


ECD5-ZB5 AR1254
AIA 0930B022.cdf
30-SEP-2011 19:15, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
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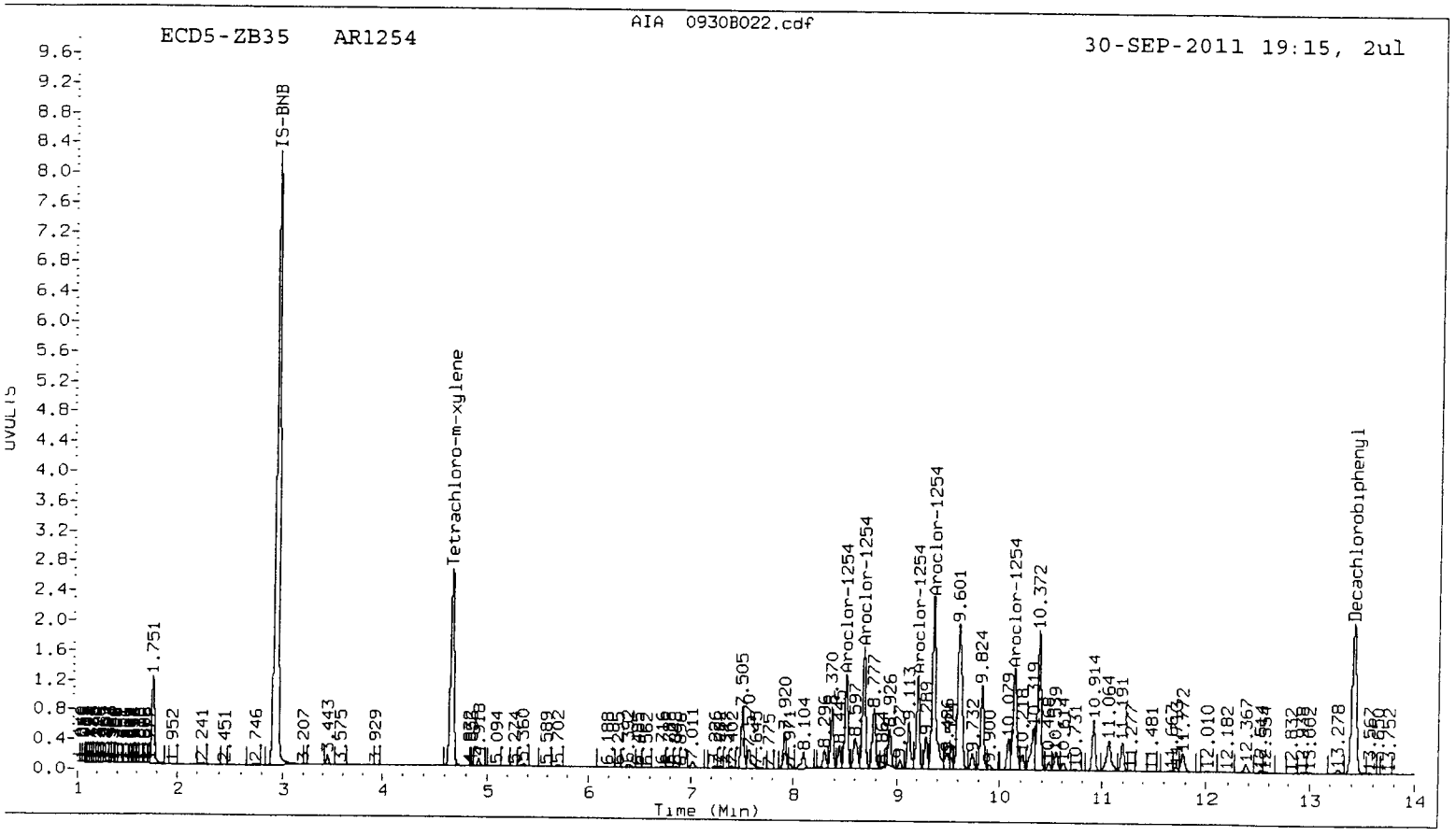
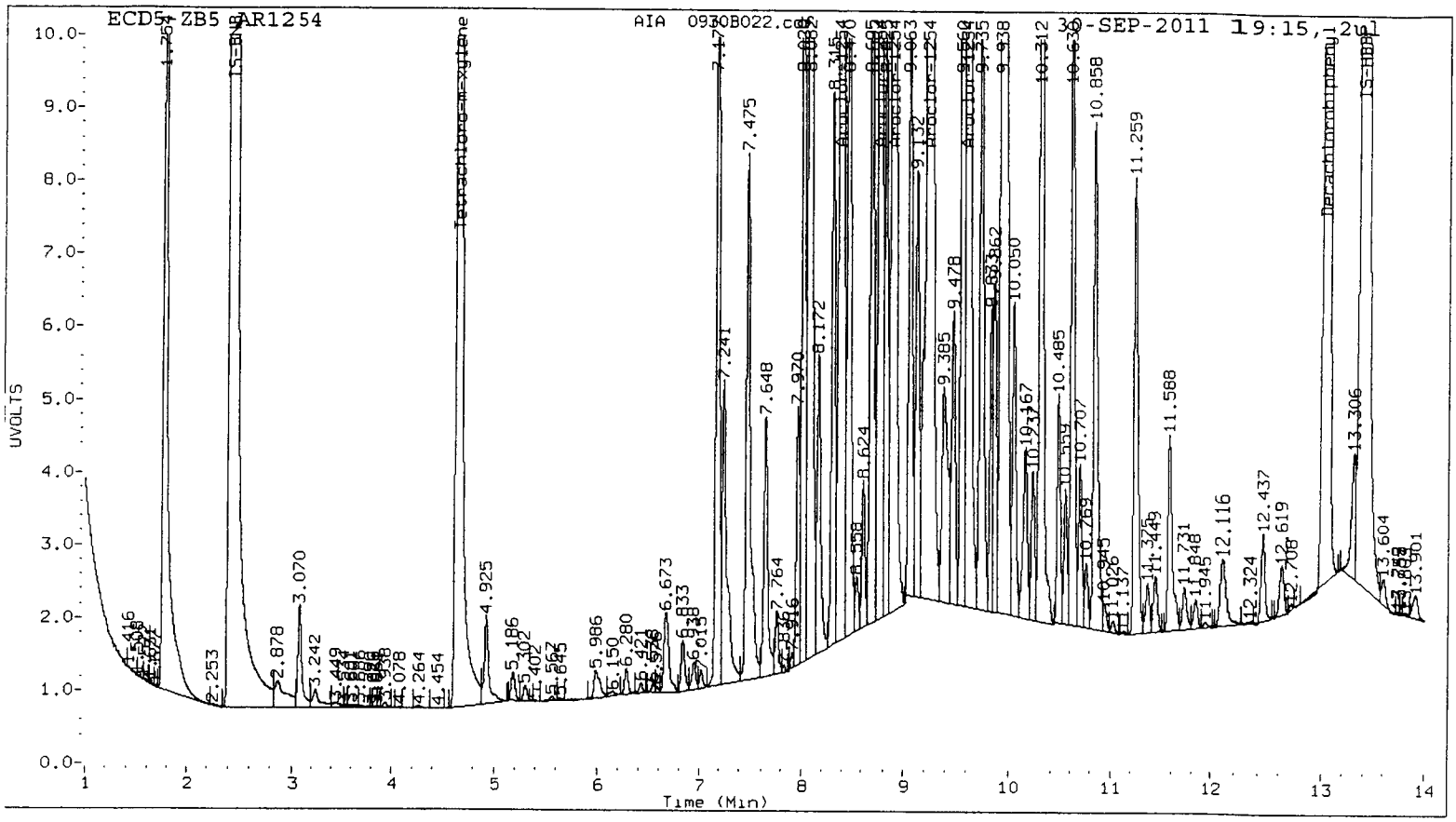
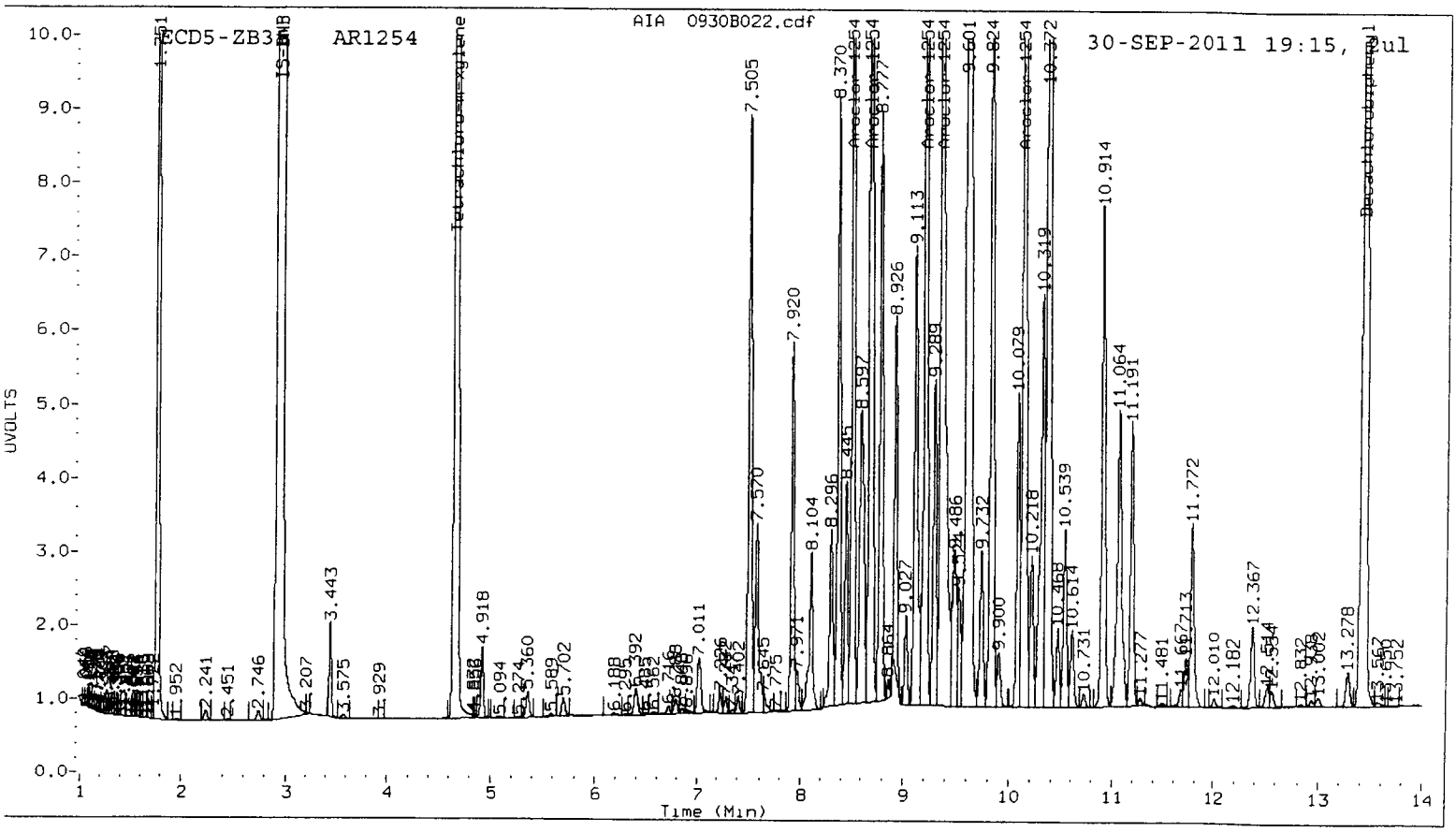
Decachlorobiphenyl
IS-HBBP
Time (Min)


ECD5-ZB35 AR1254
AIA 0930B022.cdf
30-SEP-2011 19:15, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Decachlorobiphenyl
Time (Min)


ECD5-ZB5 AR1254
AIA 0930B022.cdf
30-SEP-2011 19:15, 2ul
UVOLTS
Time (Min)
IS=BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS=HBB


ECD5-ZB35 AR1254
AIA 0930B022.cdf
30-SEP-2011 19:15, 2ul
UVOLTS
Time (Min)
IS=BNB
Tetrachloro-m-xylene
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B023.d
Data file 2: 20110930.B/ical-2.b/0930B023.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR2162
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162
Client ID:
Injection Date: 30-SEP-2011 19:34
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.649	-0.001	42476111	4.656	-0.002	29274770	20.0	21.2	5.6	Tetrachloro-m-xylene
13.032	0.000	73277055	13.416	-0.001	27905654	17.8	18.5	3.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.0	52.9
Decachlorobiphenyl	44.6	46.3

10/26/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	123432717	3.4
Hexabromobiphenyl	247758184	258404617	4.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	91663397	0.4
Hexabromobiphenyl	103671329	108620873	4.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1221	1	5.020	0.000	5193799	250.0	1	5.342	0.000	3931200	250.0
Aroclor-1221	2	5.199	0.000	3666970	250.0	2	5.588	0.000	2254313	250.0
Aroclor-1221	3	5.303	0.000	12404877	250.0	3	5.701	0.000	7358172	250.0
Aroclor-1221	NS	---			----	4	5.769	0.000	1229445	250.0
Total Col1Ave (3 peaks):					250.0	Total Col2Ave (4 peaks):			250.0	RPD = 0
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			250.0	
Aroclor-1262	1	10.168	0.000	51997322	250.0	1	10.468	0.000	24498760	250.0
Aroclor-1262	2	10.485	0.000	42121788	250.0	2	10.921	0.000	23387534	250.0
Aroclor-1262	3	10.860	0.000	102176505	250.0	3	11.192	0.000	45639552	250.0
Aroclor-1262	4	11.377	0.000	46848469	250.0	4	11.714	0.000	21685178	250.0
Aroclor-1262	5	11.450	0.000	49406380	250.0	5	12.513	0.000	17844827	250.0
Total Col1Ave (5 peaks):					250.0	Total Col2Ave (5 peaks):			250.0	RPD = 0
Corrected Ave (4 peaks):					250.0	Corrected Ave (4 peaks):			250.0	RPD = 0

Total PCB Area Col1 (4.750 - 12.933) = 787510059 Col1 Total PCB = 0.4 ppm*

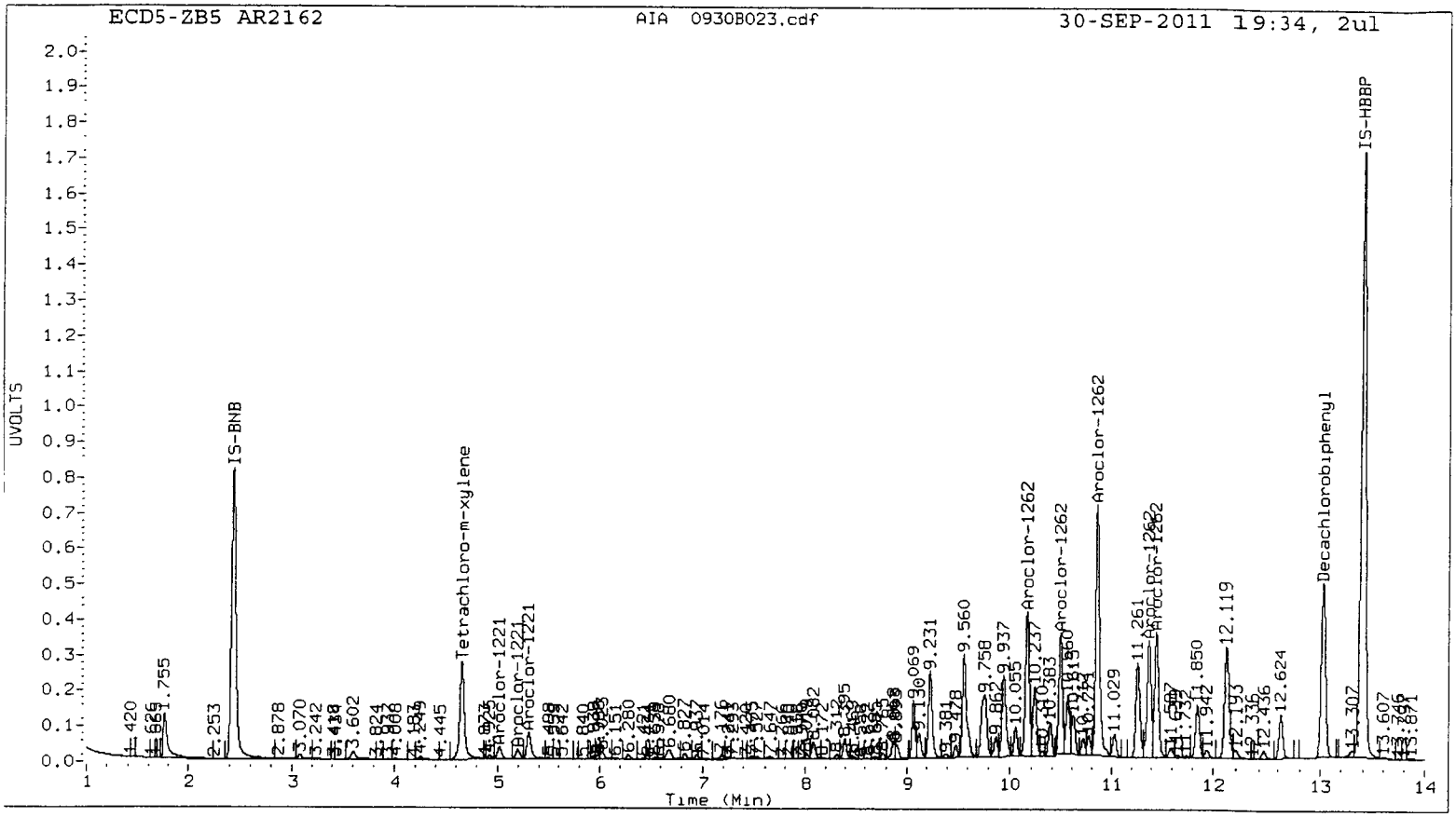
Total PCB Area Col2 (4.758 - 13.317) = 360144788 Col2 Total PCB = 0.4 ppm*

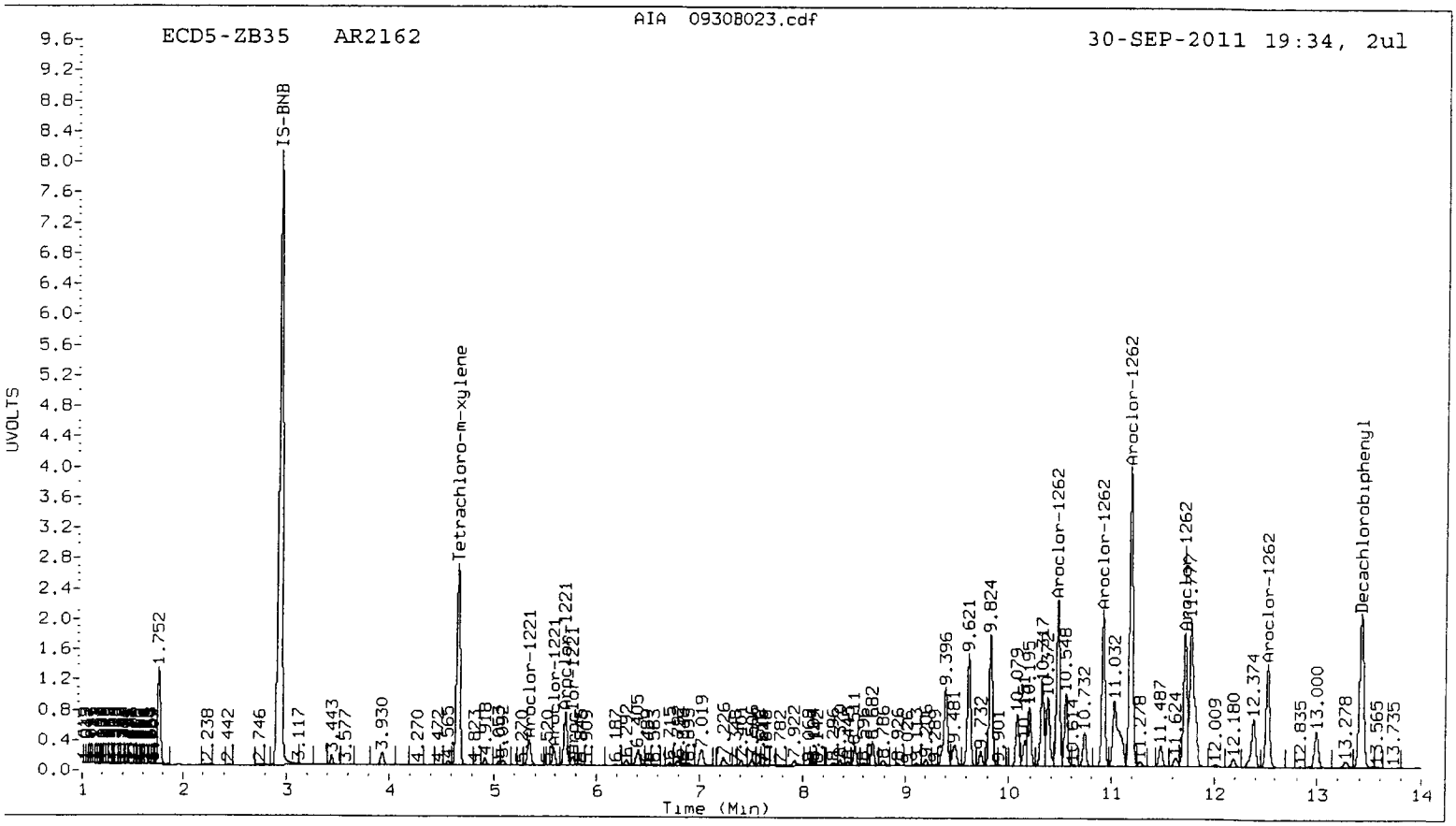
* Quantitated against AR1660 0.25ppm in Ical

TX5P : 01697

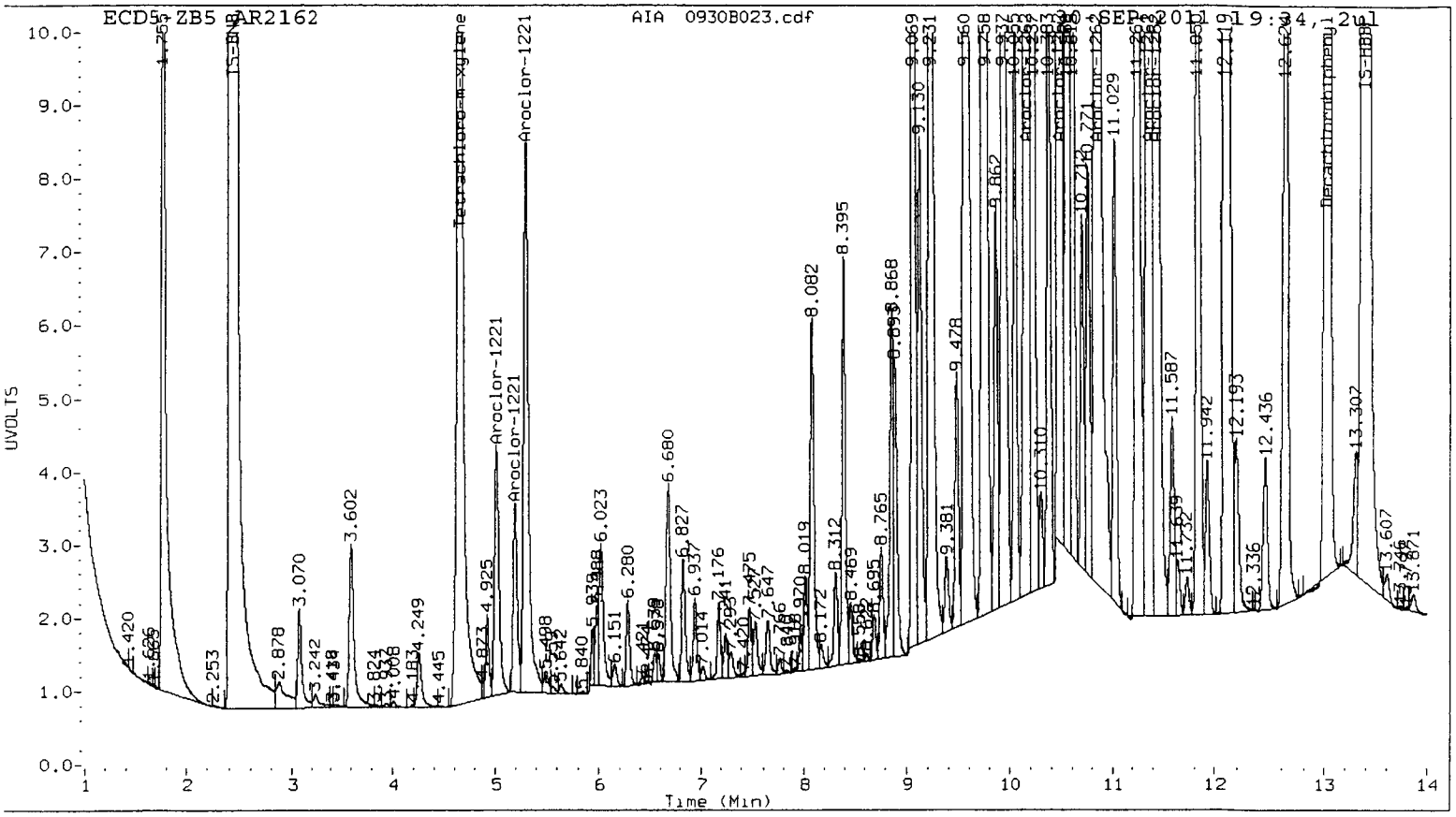
PCB-Form 10 Mod.

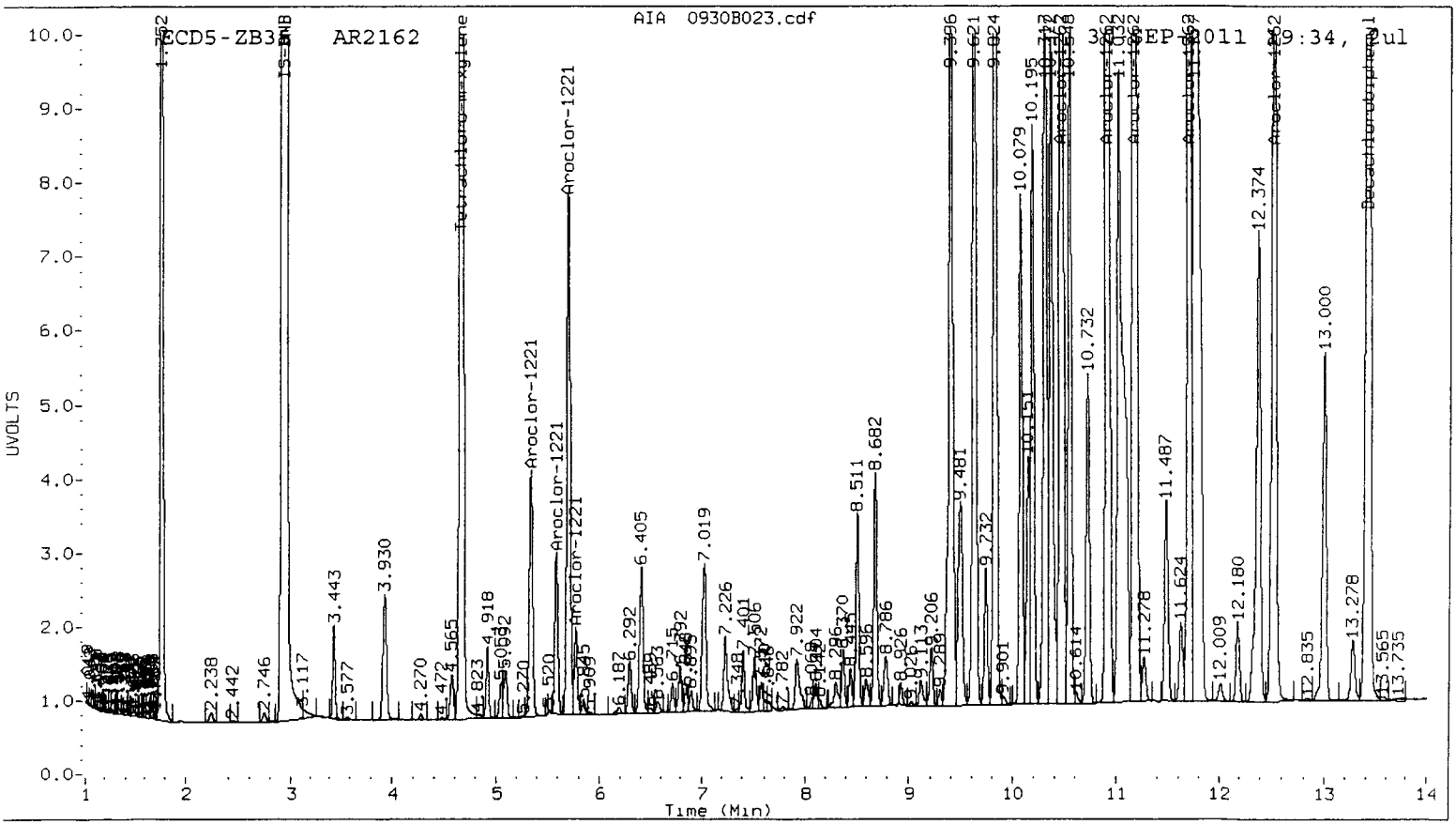
TX57 01096


ECD5-ZB5 AR2162
AIA 0930B023.cdf
30-SEP-2011 19:34, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 AR2162
AIA 0930B023.cdf
30-SEP-2011 19:34, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl

TX57 : 0108


ECD5-ZB5 AR2162
AIA 0930B023.cdf
30-SEP-2011 19:34, 2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1221
Decachlorobiphenyl
IS-DBB


ECD5-ZB3 AR2162
AIA 0930B023.cdf
30-SEP-2011 19:34, 2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl

TX57.2100

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B024.d
Data file 2: 20110930.B/ical-2.b/0930B024.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR3268
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268
Client ID:
Injection Date: 30-SEP-2011 19:52
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.650	0.000	40881525	4.658	0.000	28083650	19.4	20.2	4.2	Tetrachloro-m-xylene
13.033	0.000	125862265	13.417	0.000	49129598	30.8	32.7	6.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	48.5	50.6
Decachlorobiphenyl	77.1	81.9

10/26/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	122451147	2.6
Hexabromobiphenyl	247758184	256878806	3.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	91890518	0.7
Hexabromobiphenyl	103671329	108076988	4.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

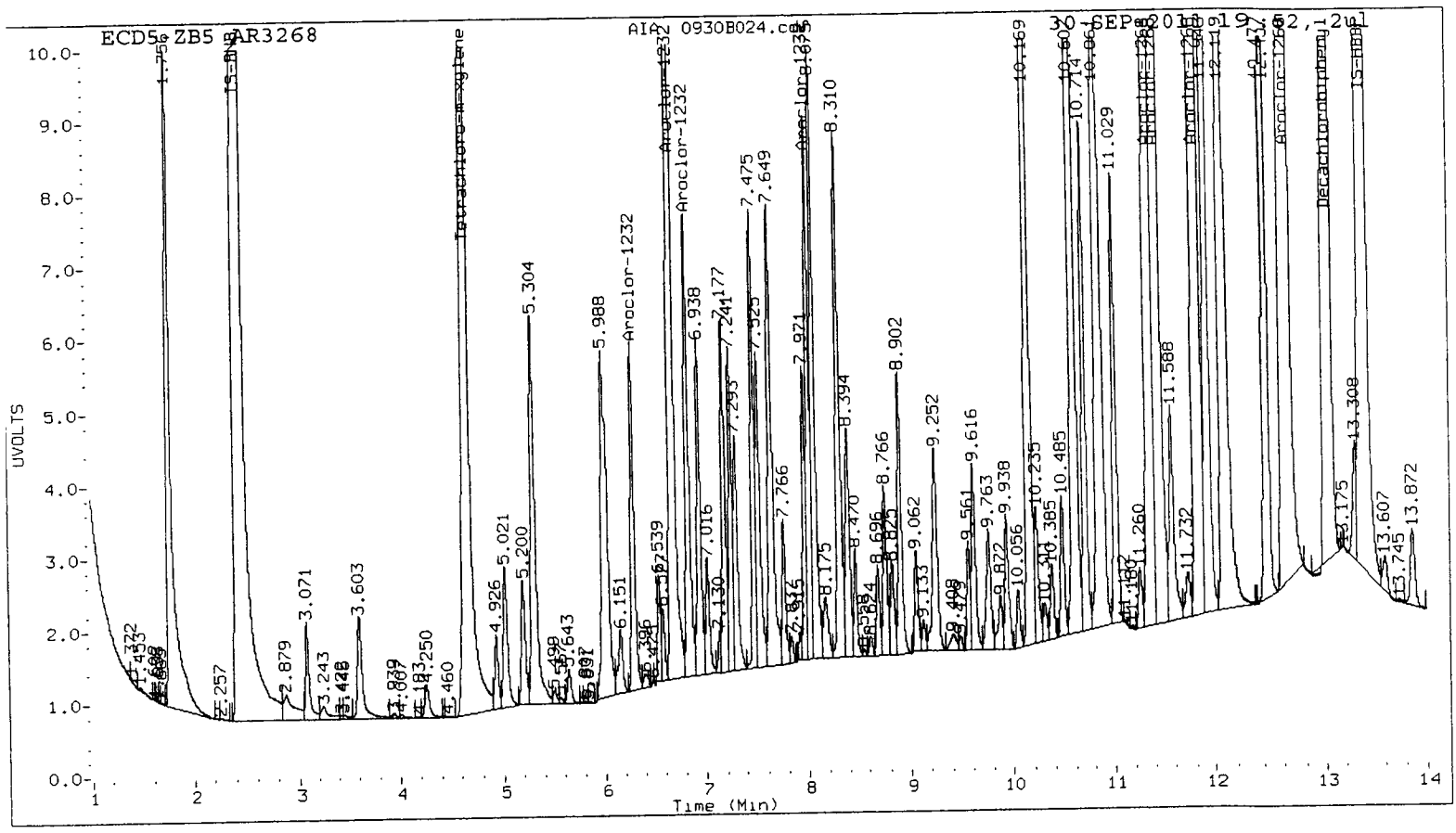
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1232	1	6.280	0.000	5962033	250.0	1	6.395	0.000	6301554	250.0
Aroclor-1232	2	6.679	0.000	19825769	250.0	2	7.019	0.000	13047836	250.0
Aroclor-1232	3	6.828	0.000	8029236	250.0	3	7.227	0.000	4537554	250.0
Aroclor-1232	4	8.020	0.000	8464060	250.0	4	8.371	0.000	5050199	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	11.377	0.000	112720489	250.0	1	11.715	0.000	53285343	250.0
Aroclor-1268	2	11.449	0.000	109030071	250.0	2	11.781	0.000	45999682	250.0
Aroclor-1268	3	11.836	0.000	96991477	250.0	3	12.180	0.000	39053603	250.0
Aroclor-1268	4	12.627	0.000	283179934	250.0	4	13.001	0.000	117815355	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

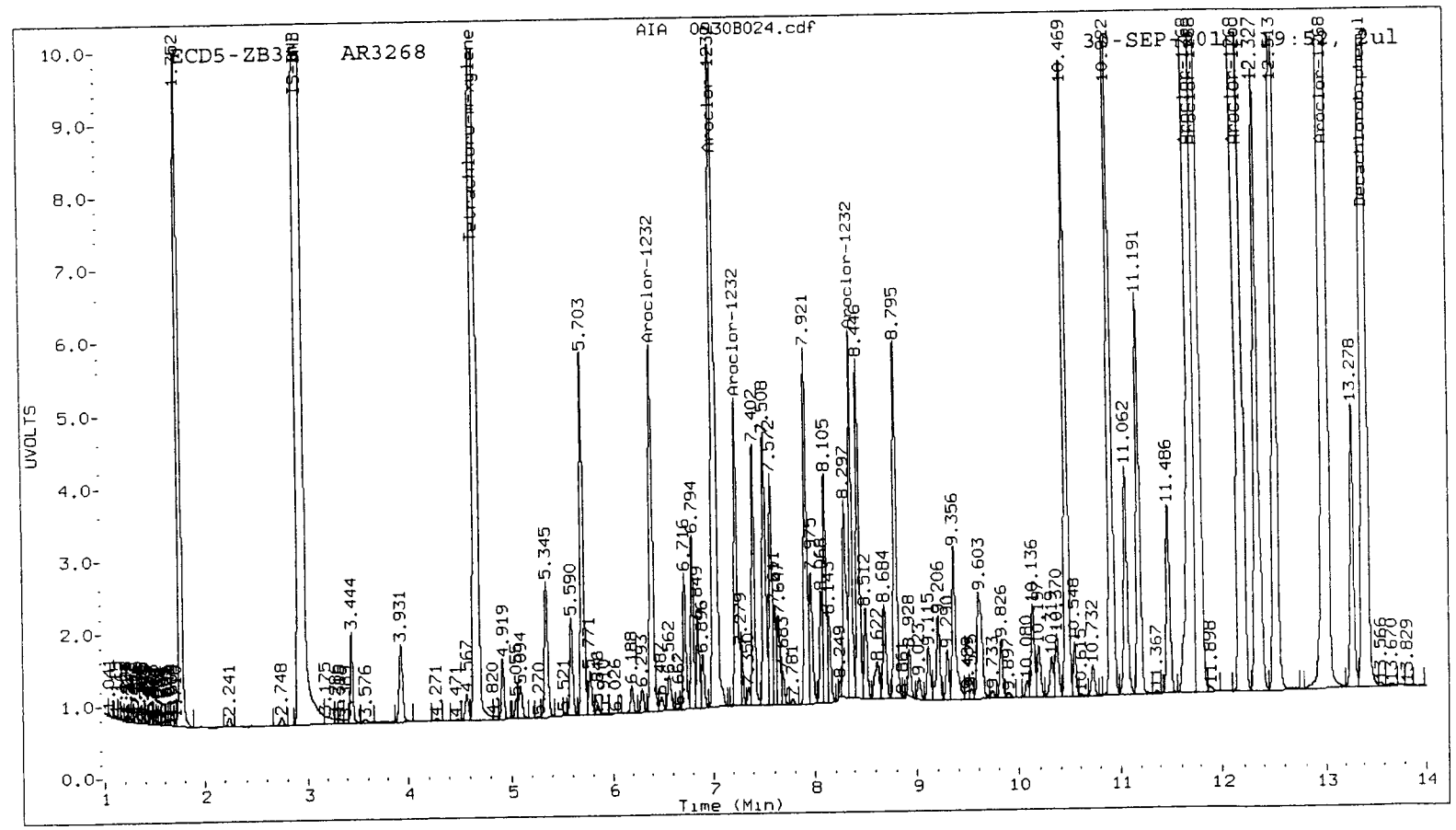
Total PCB Area Col1 (4.750 - 12.933) = 984856474 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.758 - 13.317) = 436468913 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TX57.01102


ECD5-ZB5 AR3268
AIA 0930B024.cdf
30-SEP-2011 19:52, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1232
Decachlorobiphenyl
IS-BNB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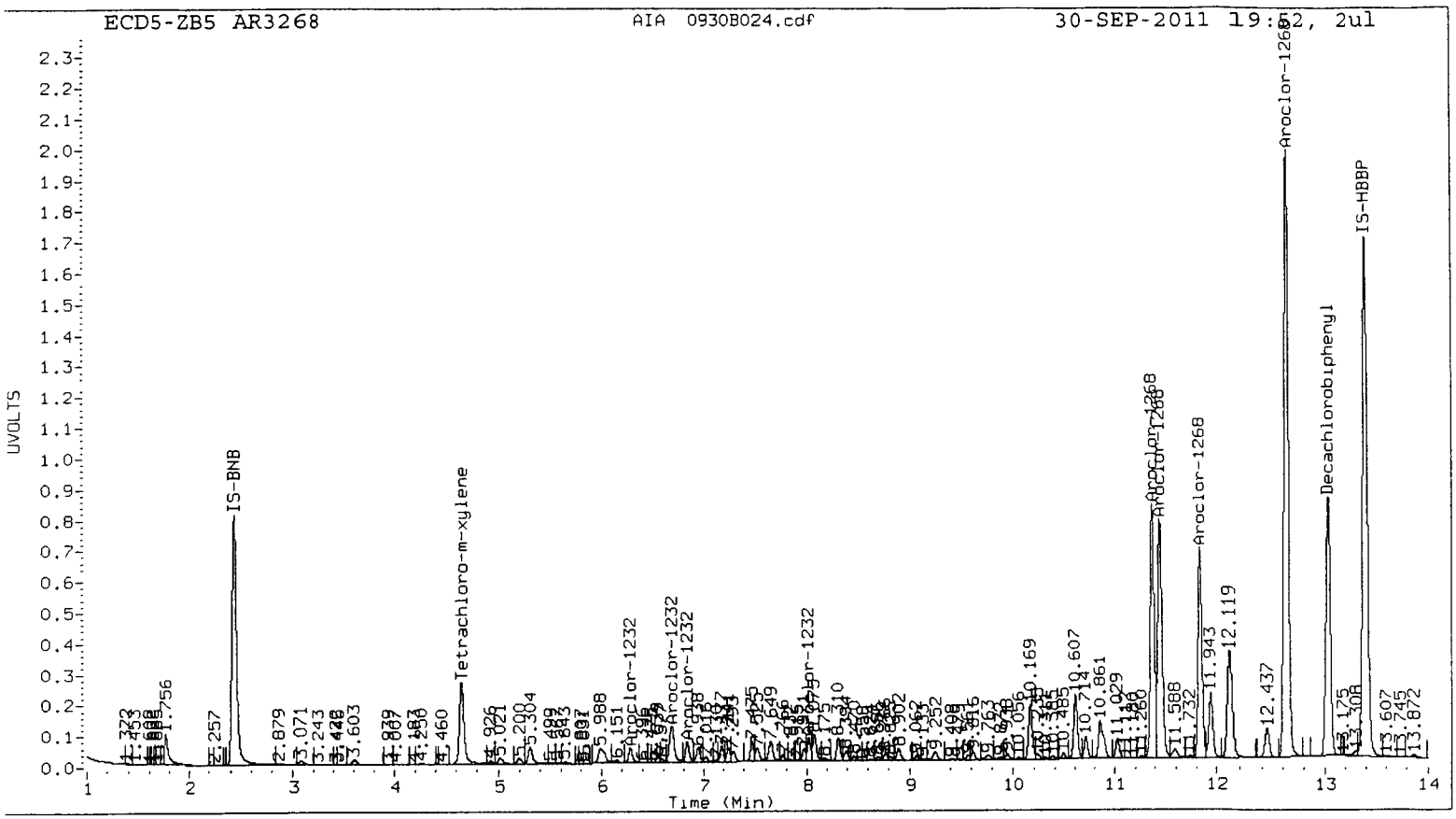
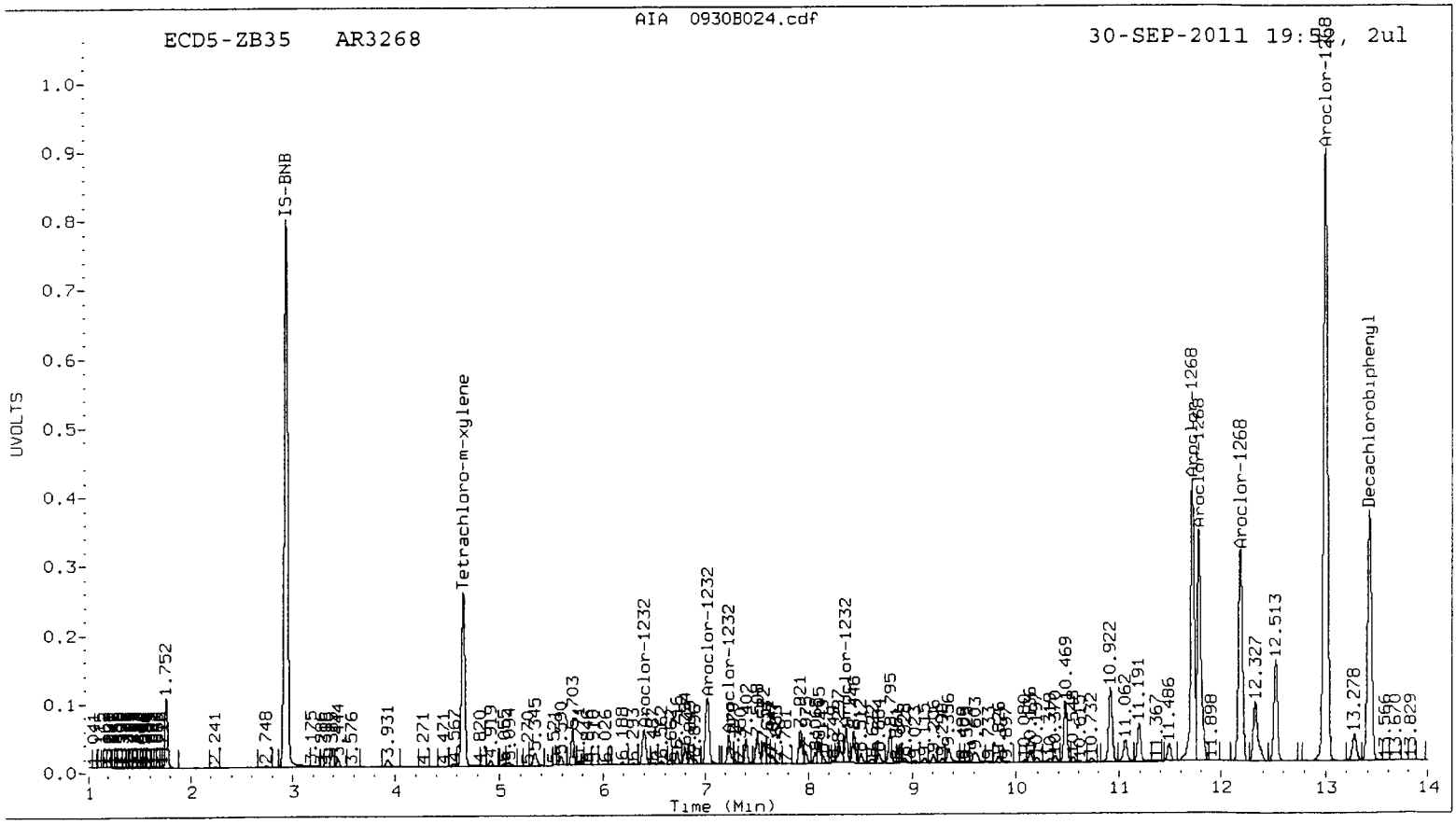
AIA 0930B024.cdf
30-SEP-2011 19:52, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1232
Decachlorobiphenyl
IS-BNB

TX57:01103


ECD5-ZB5 AR3268
AIA 0930B024.cdf
30-SEP-2011 19:52, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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AIA 0930B024.cdf
30-SEP-2011 19:58, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl

TX57:0116

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B025.d
Data file 2: 20110930.B/ical-2.b/0930B025.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 ICV
Client ID:
Injection Date: 30-SEP-2011 20:11
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.650	0.000	42270930	4.657	-0.001	29072279	19.7	20.3	2.7	Tetrachloro-m-xylene
13.032	-0.001	72813410	13.416	0.000	27430727	17.4	17.9	2.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.3	50.7
Decachlorobiphenyl	43.6	44.8

JL 10/06/11

INTERNAL STANDARD SUMMARY

Column 1

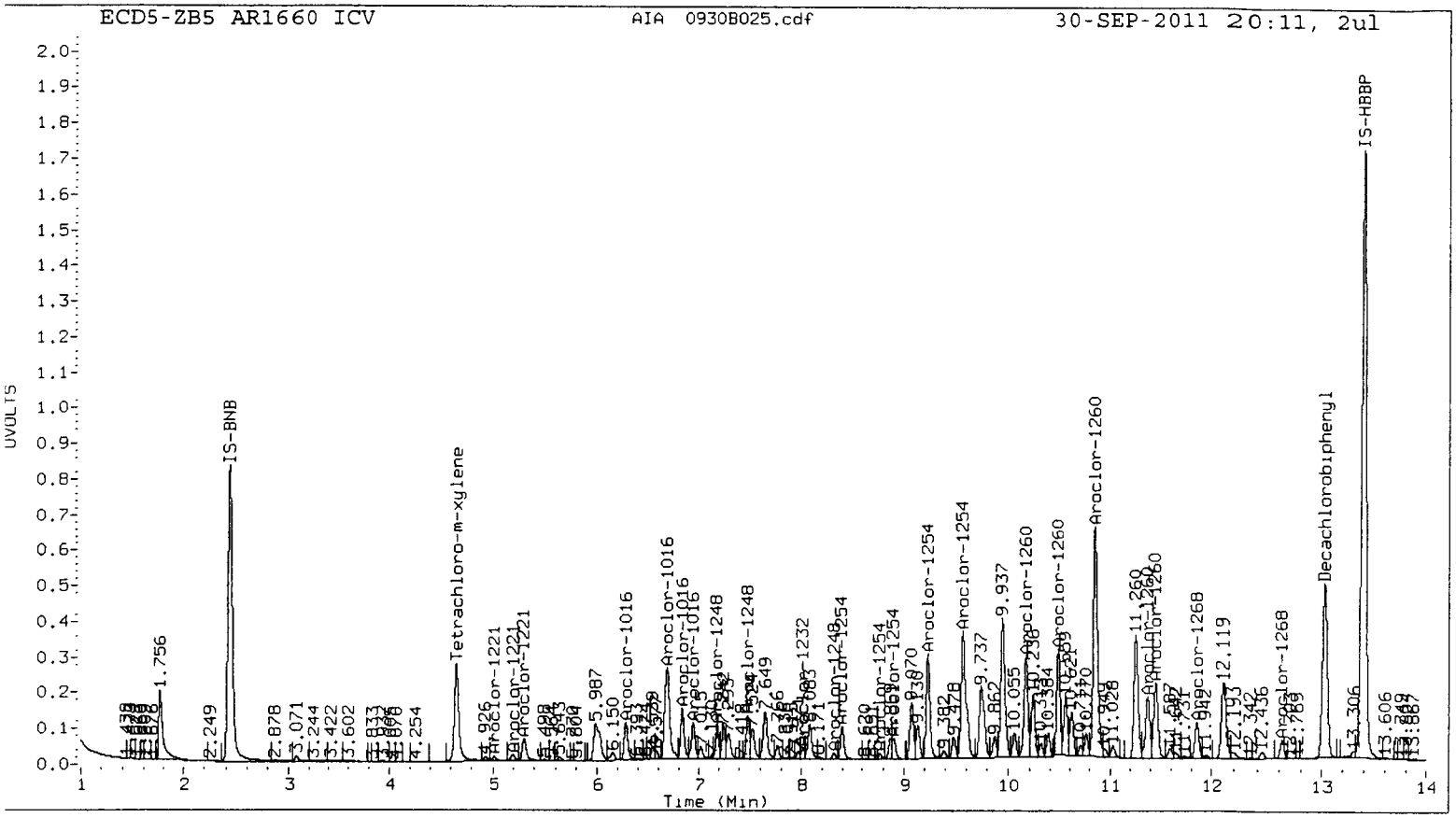
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	124509298	4.3
Hexabromobiphenyl	247758184	262602066	6.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	94948276	4.0
Hexabromobiphenyl	103671329	110187949	6.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	6.280	0.000	13372702	232.2	1	6.394	0.000	13367309	236.2
Aroclor-1016	2	6.680	0.000	44230561	221.2	2	7.019	0.000	29963910	236.8
Aroclor-1016	3	6.828	0.001	17855529	221.8	3	7.227	0.001	11917838	245.5
Aroclor-1016	4	6.938	0.000	13477836	235.5	4	8.511	0.000	5310489	198.4
Total Col1Ave (4 peaks):				227.7		Total Col2Ave (4 peaks):			229.2	RPD = 1
Corrected Ave (3 peaks):				225.1		Corrected Ave (3 peaks):			223.8	RPD = 1
Aroclor-1221	1	5.019	-0.001	1997462	95.3	1	5.346	0.003	1549462	95.1
Aroclor-1221	2	5.199	0.000	2308780	156.0	2	5.589	0.001	1276224	136.6
Aroclor-1221	3	5.303	0.000	9693994	193.7	3	5.701	0.000	5993975	196.6
Aroclor-1221	NS	---			----	4	5.770	0.001	407005	79.9
Total Col1Ave (3 peaks):				148.3		Total Col2Ave (4 peaks):			127.1	RPD = 15
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			103.9	
Aroclor-1232	1	6.280	0.000	13372702	551.5	1	6.394	-0.002	13367309	513.2
Aroclor-1232	2	6.680	0.000	44230561	548.5	2	7.019	0.000	29963910	555.6
Aroclor-1232	3	6.828	0.000	17855529	546.8	3	7.227	0.000	11917838	635.5
Aroclor-1232	4	8.019	0.000	3290408	95.6	4	8.370	-0.001	1854131	88.8
Total Col1Ave (4 peaks):				435.6		Total Col2Ave (4 peaks):			448.3	RPD = 3
Corrected Ave (3 peaks):				397.0		Corrected Ave (3 peaks):			385.9	RPD = 3
Aroclor-1242	1	6.280	0.000	13372702	301.5	1	6.394	0.001	13367309	301.8
Aroclor-1242	2	6.680	0.000	44230561	303.5	2	7.019	0.000	29963910	300.3
Aroclor-1242	3	6.828	0.001	17855529	302.2	3	7.227	0.001	11917838	303.2
Aroclor-1242	4	8.019	0.000	3290408	56.2	4	8.370	0.000	1854131	52.0
Total Col1Ave (4 peaks):				240.9		Total Col2Ave (4 peaks):			239.3	RPD = 1
Corrected Ave (3 peaks):				220.0		Corrected Ave (3 peaks):			218.1	RPD = 1
Aroclor-1248	1	7.177	0.000	10881577	164.6	1	7.507	0.002	8540756	188.4
Aroclor-1248	2	7.475	0.000	14073987	188.0	2	7.920	0.000	10922406	207.9
Aroclor-1248	3	8.019	-0.001	3290408	35.0	3	8.370	0.000	1854131	31.7
Aroclor-1248	4	8.314	0.004	1945383	20.7	4	8.793	0.000	463073	7.3
Total Col1Ave (4 peaks):				102.1		Total Col2Ave (4 peaks):			108.8	RPD = 6
Corrected Ave (3 peaks):				73.5		Corrected Ave (3 peaks):			75.8	RPD = 3
Aroclor-1254	1	8.396	0.002	12123085	80.5	1	8.511	0.000	5310489	103.9
Aroclor-1254	2	8.764	-0.001	1959286	18.9	2	8.683	0.000	5837937	87.7
Aroclor-1254	3	8.897	-0.005	6730960	36.1	3	9.206	0.000	933510	17.4
Aroclor-1254	4	9.232	-0.019	38672527	182.1	4	9.397	0.040	15306647	133.3
Aroclor-1254	5	9.561	-0.052	58037762	414.0	5	10.152	0.013	6627063	93.0
Total Col1Ave (5 peaks):				146.3		Total Col2Ave (5 peaks):			87.1	RPD = 51*
Corrected Ave (4 peaks):				79.4		Corrected Ave (4 peaks):			75.5	RPD = 5
Aroclor-1260	1	10.169	-0.318	37899606	266.9	1	10.372	0.000	19452816	196.8
Aroclor-1260	2	10.485	-0.375	36534996	101.2	2	11.191	0.000	41256091	269.8
Aroclor-1260	3	10.859	-0.401	91799293	442.4	3	11.714	0.001	12741891	272.4
Aroclor-1260	4	11.376	-0.001	24261427	273.1	4	12.513	0.001	11354289	255.8
Aroclor-1260	5	11.450	0.000	29610392	283.7	NS	---			----
Total Col1Ave (5 peaks):				273.5		Total Col2Ave (4 peaks):			248.7	RPD = 9
Corrected Ave (4 peaks):				251.2		Corrected Ave (3 peaks):			240.8	RPD = 4
Aroclor-1262	1	10.169	0.000	37899606	179.3	1	10.468	0.000	16973873	170.7
Aroclor-1262	2	10.485	0.000	36534996	213.4	2	10.921	0.000	19537840	205.9
Aroclor-1262	3	10.859	-0.001	91799293	221.0	3	11.191	-0.001	41256091	222.8
Aroclor-1262	4	11.376	-0.001	24261427	127.4	4	11.714	0.000	12741891	144.8
Aroclor-1262	5	11.450	0.001	29610392	147.4	5	12.513	0.000	11354289	156.8
Total Col1Ave (5 peaks):				177.7		Total Col2Ave (5 peaks):			180.2	RPD = 1
Corrected Ave (4 peaks):				166.9		Corrected Ave (4 peaks):			169.6	RPD = 2
Aroclor-1268	1	11.376	-0.001	24261427	52.6	1	11.714	-0.001	12741891	58.6
Aroclor-1268	2	11.450	0.001	29610392	66.4	2	11.774	-0.007	27876712	148.6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Time (Min)
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Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
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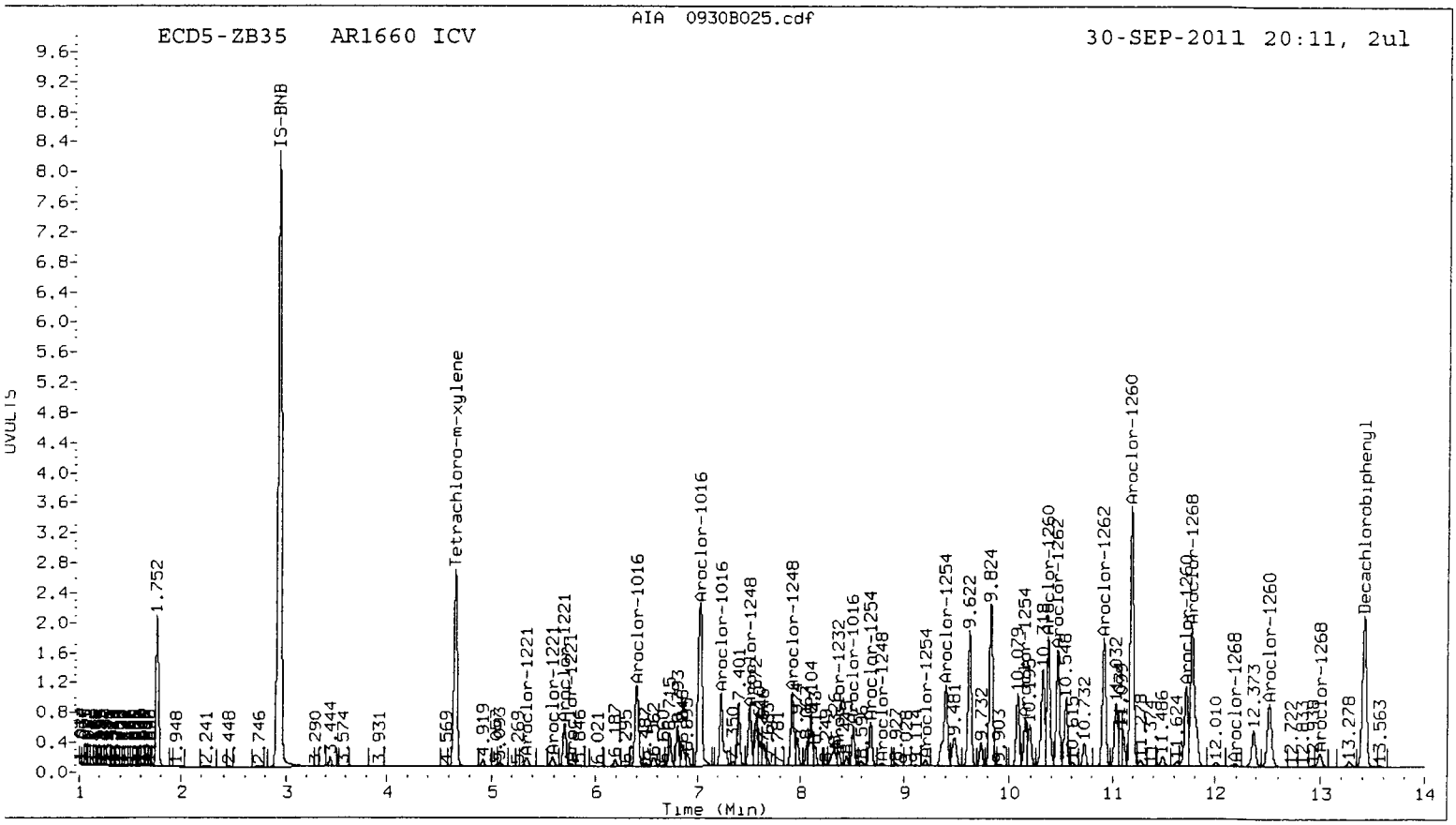
Aroclor-1221
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

TX57 01107

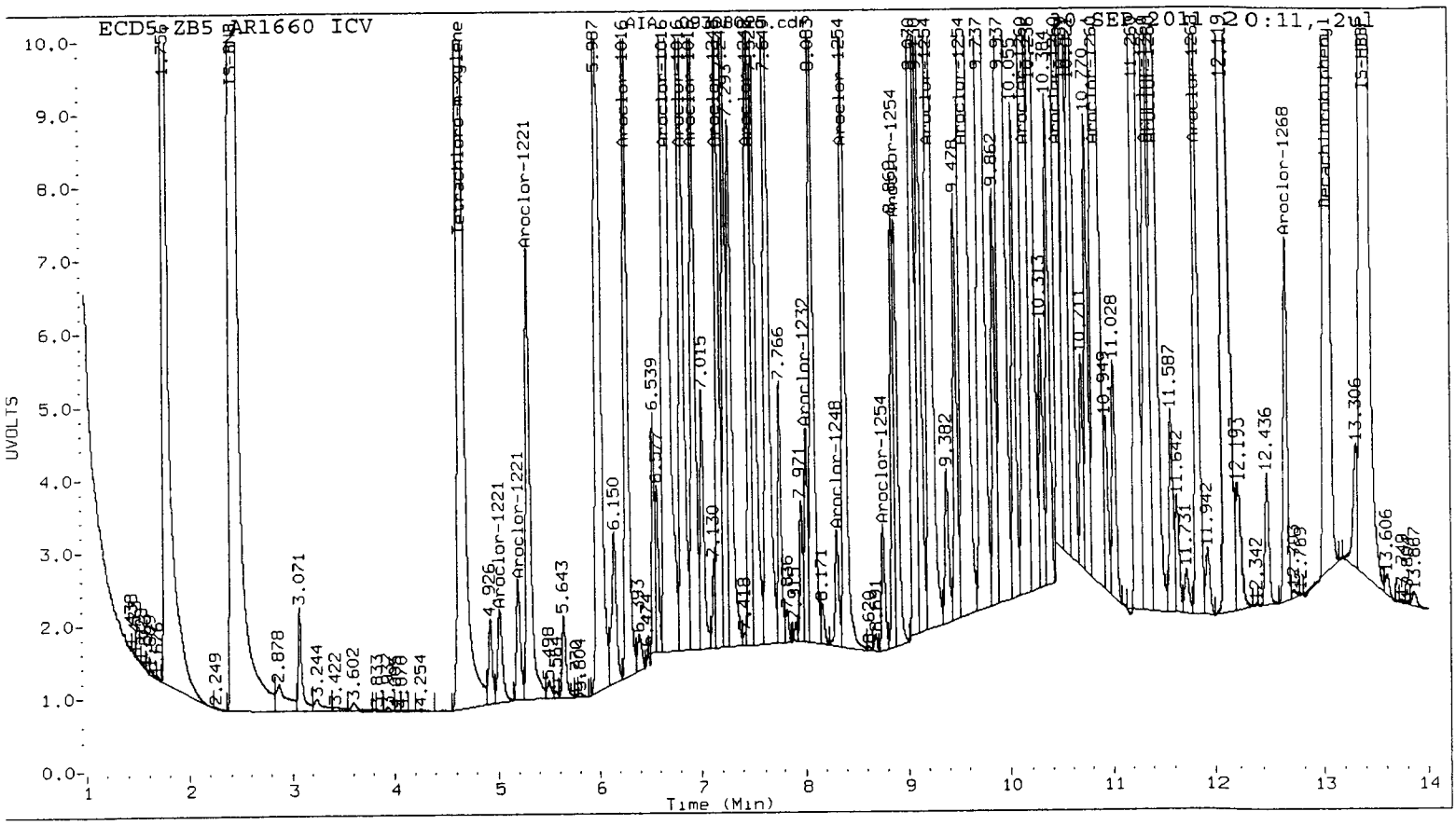
roclor-1268 3	11.851	0.015	14276645	36.0	3	12.180	0.000	362371	2.3
roclor-1268 4	12.623	-0.004	7012323	6.1	4	13.000	-0.001	2274367	4.7
Total Col1Ave (4 peaks):				40.3	Total Col2Ave (4 peaks):			53.6	RPD = 28
Corrected Ave (3 peaks):				31.6	Corrected Ave (3 peaks):			21.9	RPD = 36

Total PCB Area Col1 (4.750 - 12.933) = 938613605 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.758 - 13.317) = 461829359 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
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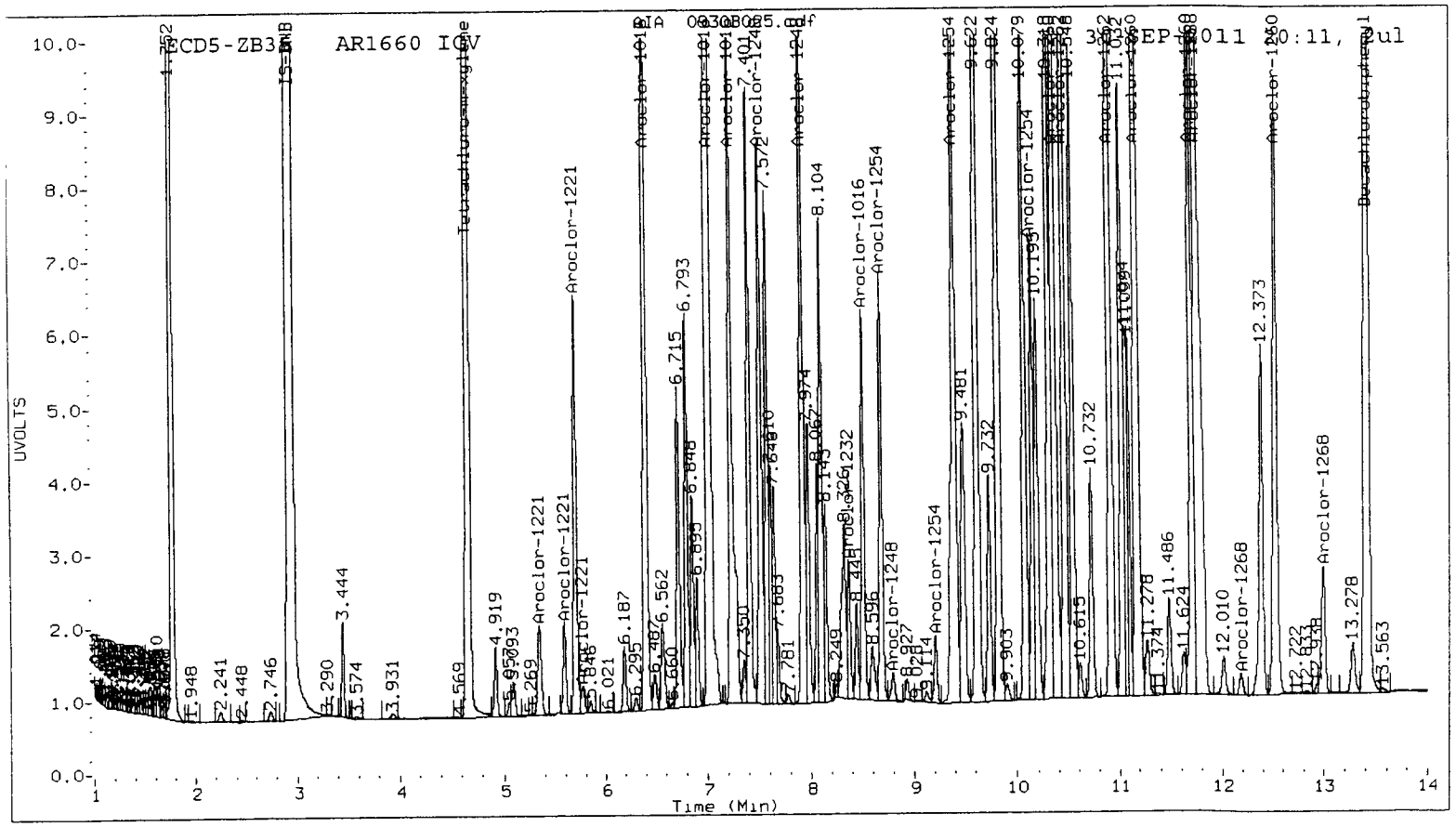
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1268
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB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UVOLTS
Time (Min)
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Aroclor-1016
Aroclor-1254
Aroclor-1248
Aroclor-1268
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB

Analytical Resources Inc.
Dual Column PCBs by SW8082

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Data file 2: 20110930.B/ical-2.b/0930B026.d
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Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242 ICV
Client ID:
Injection Date: 30-SEP-2011 20:30
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.650	0.000	44167792	4.658	0.000	30433121	20.4	21.1	3.4	Tetrachloro-m-xylene
13.033	0.000	75741016	13.417	0.001	28667317	18.2	18.7	3.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.9	52.7
Decachlorobiphenyl	45.4	46.8

JK 10/26/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	126141261	5.7
Hexabromobiphenyl	247758184	262615256	6.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	95698461	4.9
Hexabromobiphenyl	103671329	110364355	6.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor-1268 3	11.841	0.005	186640	0.5	3	12.181	0.001	22522	0.1
Aroclor-1268 4	12.613	-0.014	721498	0.6	4	12.999	-0.003	48739	0.1
Total Col1Ave (4 peaks):			0.4	Total Col2Ave (4 peaks):				0.9	RPD = 81*
Corrected Ave (3 peaks):			0.3	Corrected Ave (3 peaks):				0.5	RPD = 51*

Total PCB Area Col1 (4.750 - 12.933) = 324446292 Col1 Total PCB = 0.2 ppm*

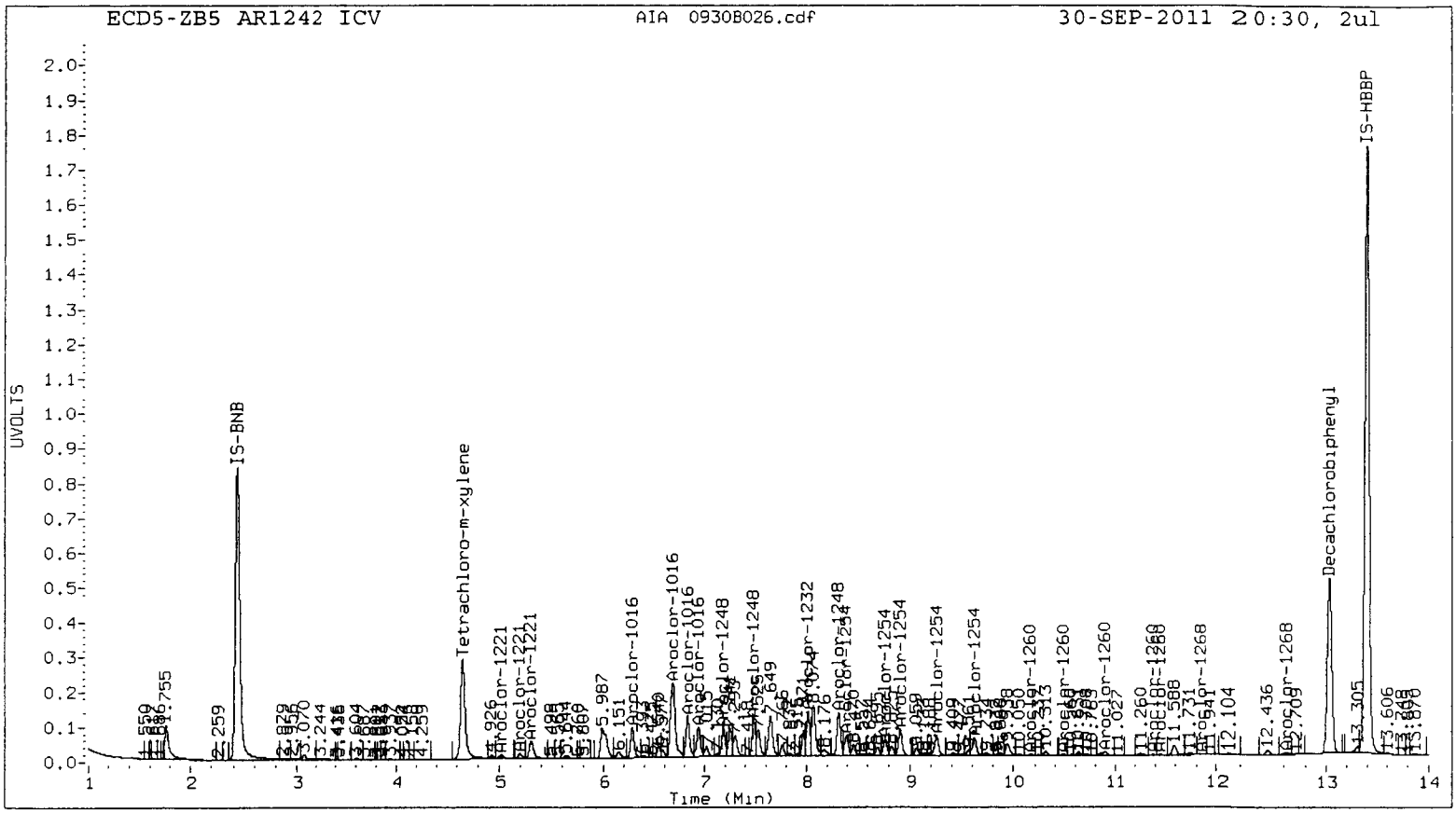
Total PCB Area Col2 (4.758 - 13.317) = 185439555 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.280	0.000	11053423	189.4	1	6.394	0.000	11019753	193.2
Aroclor-1016	2	6.680	0.000	36479217	180.1	2	7.019	0.000	24516788	192.3
Aroclor-1016	3	6.828	0.001	14739210	180.7	3	7.227	0.001	9731416	198.9
Aroclor-1016	4	6.938	0.001	11031244	190.3	4	8.512	0.001	2257930	83.7
Total Col1Ave (4 peaks):		185.1				Total Col2Ave (4 peaks):		167.0	RPD = 10	
Corrected Ave (3 peaks):		183.4				Corrected Ave (3 peaks):		156.4	RPD = 16	
Aroclor-1221	1	5.019	-0.001	1628632	76.7	1	5.348	0.006	1307468	79.6
Aroclor-1221	2	5.198	0.000	1958826	130.7	2	5.590	0.002	1021946	108.6
Aroclor-1221	3	5.304	0.000	7877178	155.3	3	5.702	0.001	4875019	158.6
Aroclor-1221	NS	---			----	4	5.770	0.001	308525	60.1
Total Col1Ave (3 peaks):		120.9				Total Col2Ave (4 peaks):		101.7	RPD = 17	
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):		82.8		
Aroclor-1232	1	6.280	0.000	11053423	449.9	1	6.394	-0.002	11019753	419.8
Aroclor-1232	2	6.680	0.000	36479217	446.5	2	7.019	0.000	24516788	451.1
Aroclor-1232	3	6.828	0.000	14739210	445.5	3	7.227	0.000	9731416	514.8
Aroclor-1232	4	8.020	0.000	14202881	407.2	4	8.371	0.000	8466534	402.4
Total Col1Ave (4 peaks):		437.3				Total Col2Ave (4 peaks):		447.0	RPD = 2	
Corrected Ave (3 peaks):		433.1				Corrected Ave (3 peaks):		424.4	RPD = 2	
Aroclor-1242	1	6.280	0.000	11053423	246.0	1	6.394	0.001	11019753	246.9
Aroclor-1242	2	6.680	0.000	36479217	247.1	2	7.019	0.000	24516788	243.8
Aroclor-1242	3	6.828	0.001	14739210	246.3	3	7.227	0.001	9731416	245.6
Aroclor-1242	4	8.020	0.001	14202881	239.4	4	8.371	0.001	8466534	235.7
Total Col1Ave (4 peaks):		244.7				Total Col2Ave (4 peaks):		243.0	RPD = 1	
Corrected Ave (3 peaks):		243.9				Corrected Ave (3 peaks):		241.7	RPD = 1	
Aroclor-1248	1	7.177	0.000	9424797	140.8	1	7.507	0.002	7295713	159.7
Aroclor-1248	2	7.475	0.000	11942213	157.5	2	7.921	0.001	9809208	185.2
Aroclor-1248	3	8.020	0.000	14202881	149.1	3	8.371	0.001	8466534	143.6
Aroclor-1248	4	8.310	0.000	15590872	163.9	4	8.794	0.001	9777082	152.9
Total Col1Ave (4 peaks):		152.8				Total Col2Ave (4 peaks):		160.4	RPD = 5	
Corrected Ave (3 peaks):		149.1				Corrected Ave (3 peaks):		152.1	RPD = 2	
Aroclor-1254	1	8.393	-0.001	8293714	54.3	1	8.512	0.001	2257930	43.8
Aroclor-1254	2	8.766	0.000	5625636	53.6	2	8.683	0.000	2632429	39.2
Aroclor-1254	3	8.901	-0.001	9300317	49.3	3	9.206	0.000	2678470	49.6
Aroclor-1254	4	9.253	0.002	8085597	37.6	4	9.356	-0.001	4761886	41.1
Aroclor-1254	5	9.616	0.004	6798648	47.9	5	10.134	-0.004	3055961	42.6
Total Col1Ave (5 peaks):		48.5				Total Col2Ave (5 peaks):		43.3	RPD = 11	
Corrected Ave (4 peaks):		47.1				Corrected Ave (4 peaks):		41.7	RPD = 12	
Aroclor-1260	1	10.162	-0.324	289016	2.0	1	10.371	-0.001	1758003	17.8
Aroclor-1260	2	10.485	-0.375	246069	0.7	2	11.191	0.000	288321	1.9
Aroclor-1260	3	10.896	-0.363	1595949	7.7	3	11.666	-0.047	452971	9.7
Aroclor-1260	4	11.375	-0.002	102054	1.1	4	12.558	0.046	296753	6.7
Aroclor-1260	5	11.449	-0.001	97092	0.9	NS	---			----
Total Col1Ave (5 peaks):		2.5				Total Col2Ave (4 peaks):		9.0	RPD = 113*	
Corrected Ave (4 peaks):		1.2				Corrected Ave (3 peaks):		6.1	RPD = 134*	
Aroclor-1262	1	10.162	-0.006	289016	1.4	1	10.466	-0.002	92105	0.9
Aroclor-1262	2	10.485	0.000	246069	1.4	2	10.915	-0.006	668830	7.0
Aroclor-1262	3	10.896	0.037	1595949	3.8	3	11.191	-0.001	288321	1.6
Aroclor-1262	4	11.375	-0.002	102054	0.5	4	11.666	-0.048	452971	5.1
Aroclor-1262	5	11.449	-0.001	97092	0.5	5	12.558	0.046	296753	4.1
Total Col1Ave (5 peaks):		1.5				Total Col2Ave (5 peaks):		3.7	RPD = 84*	
Corrected Ave (4 peaks):		1.0				Corrected Ave (4 peaks):		2.9	RPD = 102*	
Aroclor-1268	1	11.375	-0.002	102054	0.2	1	11.666	-0.049	452971	2.1
Aroclor-1268	2	11.449	0.000	97092	0.2	2	11.773	-0.008	242846	1.3

TXST 8142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Decachlorobiphenyl
IS-HBBP
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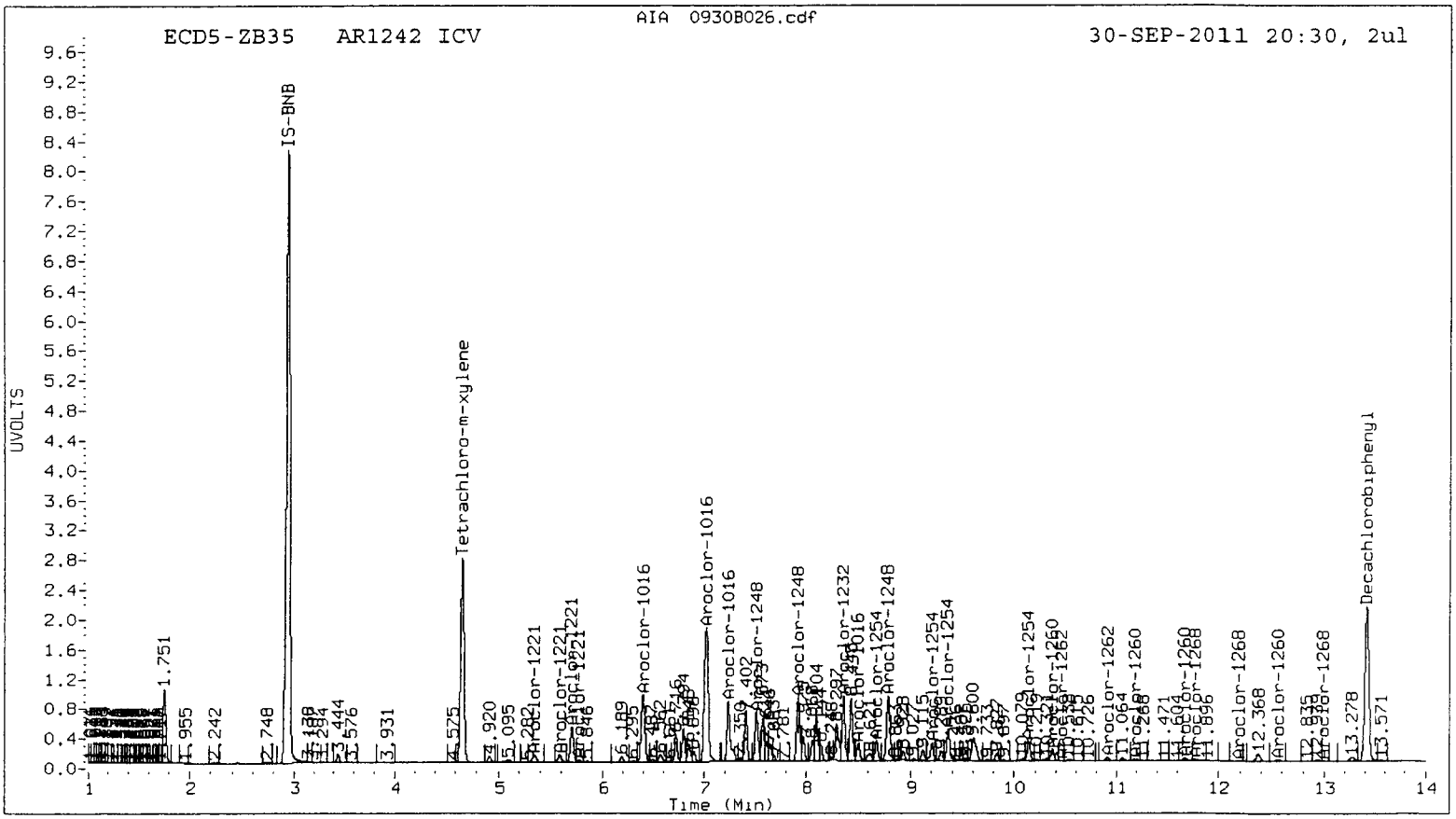
Aroclor-1254
Aroclor-1260
Aroclor-1268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Time (Min)
IS-BNB
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Decachlorobiphenyl
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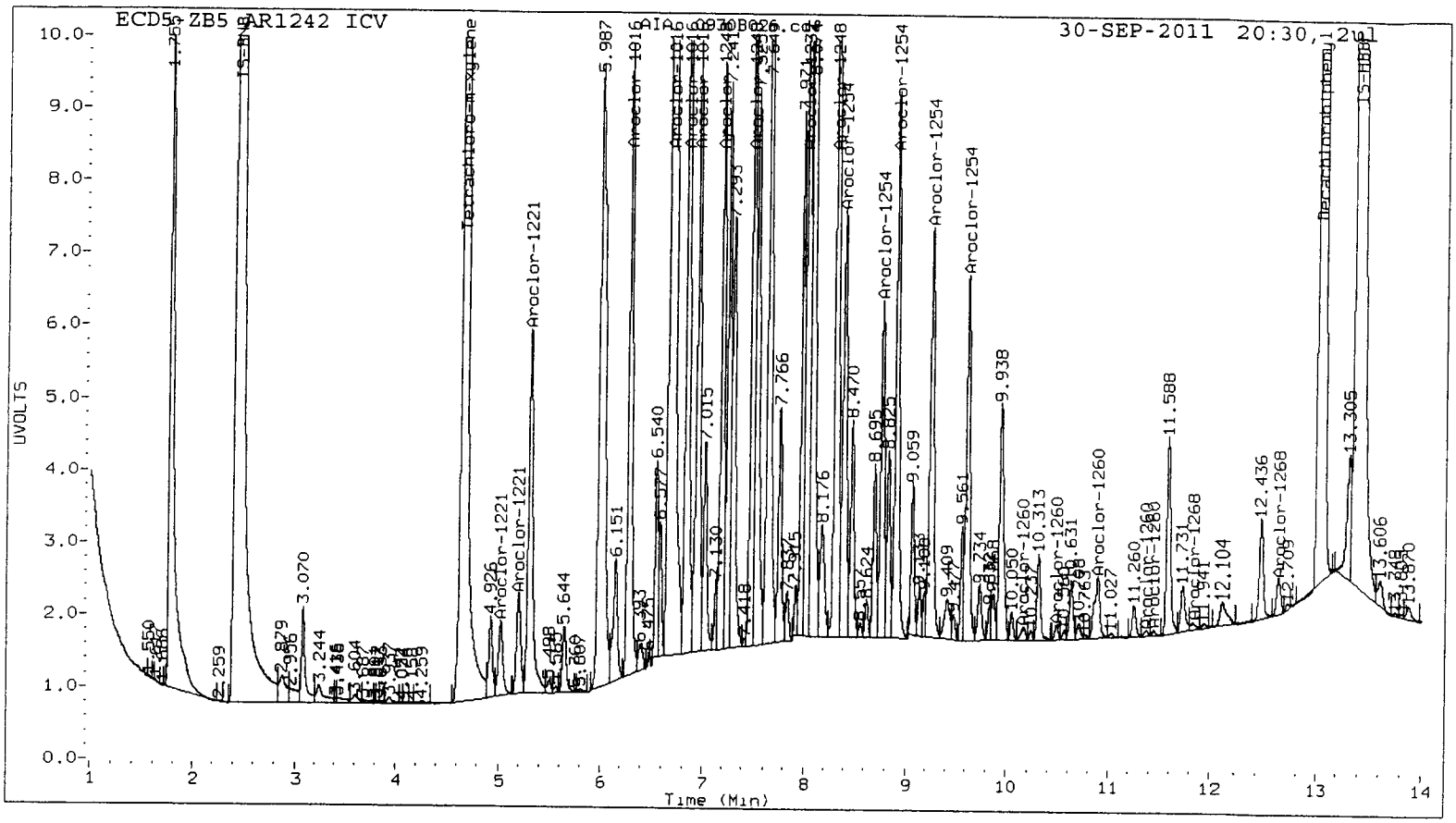
Aroclor-1260
Aroclor-1262
Aroclor-1268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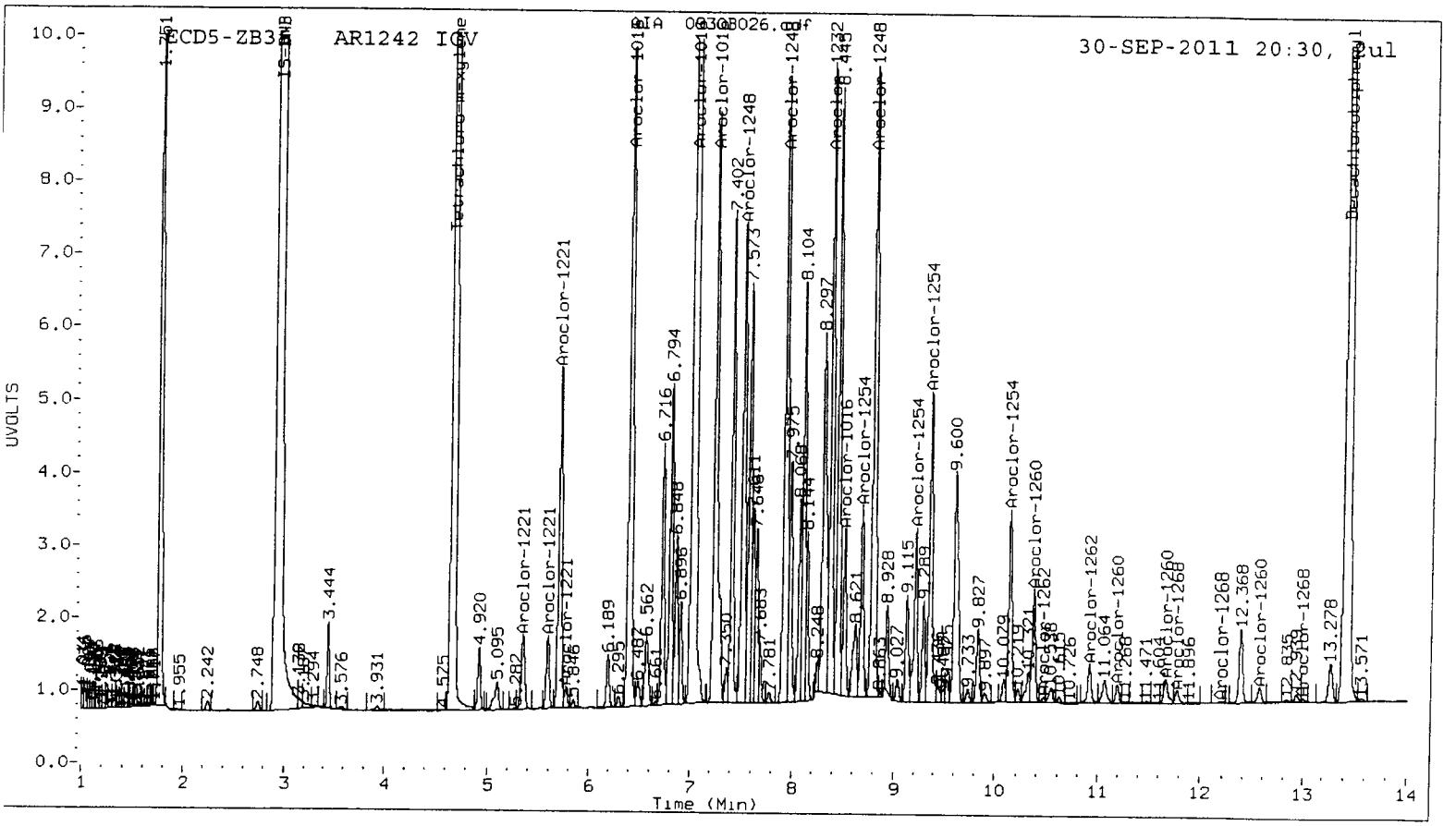
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

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Data file 2: 20110930.B/ical-2.b/0930B027.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248 ICV
Client ID:
Injection Date: 30-SEP-2011 20:49
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.649	-0.001	41493689	4.657	0.000	28595143	19.6	20.3	3.2	Tetrachloro-m-xylene
13.032	-0.001	71969214	13.417	0.000	27326636	17.4	17.9	3.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.0	50.6
Decachlorobiphenyl	43.4	44.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	122973217	3.1
Hexabromobiphenyl	247758184	260908524	5.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	93530870	2.5
Hexabromobiphenyl	103671329	109843824	6.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount
Aroclor-1016	1	6.280	0.000	5087586	89.4	1	6.391	-0.002	5285384	94.8
Aroclor-1016	2	6.676	-0.004	23836611	120.7	2	7.015	-0.004	15653150	125.6
Aroclor-1016	3	6.830	0.002	8402934	105.7	3	7.226	0.000	3671451	76.8
Aroclor-1016	4	6.937	-0.001	6349566	112.3	4	8.512	0.001	4413950	167.4
Total Col1Ave (4 peaks):					107.0	Total Col2Ave (4 peaks):				116.1 RPD = 8
Corrected Ave (3 peaks):					102.5	Corrected Ave (3 peaks):				99.1 RPD = 3
Aroclor-1221	1	5.013	-0.007	259974	12.6	1	5.361	0.019	408476	25.5
Aroclor-1221	2	5.188	-0.011	533150	36.5	2	5.589	0.001	96790	10.5
Aroclor-1221	3	5.303	-0.001	888814	18.0	3	5.703	0.002	626719	20.9
Aroclor-1221	NS	---			----	4	5.768	-0.002	27032	5.4
Total Col1Ave (3 peaks):					22.3	Total Col2Ave (4 peaks):				15.6 RPD = 36
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				12.3
Aroclor-1232	1	6.280	-0.001	5087586	212.4	1	6.391	-0.004	5285384	206.0
Aroclor-1232	2	6.676	-0.003	23836611	299.3	2	7.015	-0.004	15653150	294.7
Aroclor-1232	3	6.830	0.002	8402934	260.5	3	7.226	-0.001	3671451	198.7
Aroclor-1232	4	8.019	0.000	23993220	705.7	4	8.371	0.000	15200040	739.3
Total Col1Ave (4 peaks):					369.5	Total Col2Ave (4 peaks):				359.7 RPD = 3
Corrected Ave (3 peaks):					257.4	Corrected Ave (3 peaks):				233.1 RPD = 10
Aroclor-1242	1	6.280	0.000	5087586	116.1	1	6.391	-0.002	5285384	121.1
Aroclor-1242	2	6.676	-0.003	23836611	165.6	2	7.015	-0.003	15653150	159.3
Aroclor-1242	3	6.830	0.002	8402934	144.0	3	7.226	0.000	3671451	94.8
Aroclor-1242	4	8.019	0.000	23993220	414.8	4	8.371	0.001	15200040	433.0
Total Col1Ave (4 peaks):					210.2	Total Col2Ave (4 peaks):				202.1 RPD = 4
Corrected Ave (3 peaks):					141.9	Corrected Ave (3 peaks):				125.1 RPD = 13
Aroclor-1248	1	7.177	-0.001	16708814	256.0	1	7.507	0.001	11586166	259.5
Aroclor-1248	2	7.475	0.000	18951695	256.3	2	7.920	0.000	13260735	256.2
Aroclor-1248	3	8.019	-0.001	23993220	258.4	3	8.371	0.001	15200040	263.8
Aroclor-1248	4	8.309	-0.001	24192877	261.0	4	8.793	0.000	16659656	266.7
Total Col1Ave (4 peaks):					257.9	Total Col2Ave (4 peaks):				261.5 RPD = 1
Corrected Ave (3 peaks):					256.9	Corrected Ave (3 peaks):				259.8 RPD = 1
Aroclor-1254	1	8.392	-0.002	15614470	104.9	1	8.512	0.001	4413950	87.7
Aroclor-1254	2	8.765	0.000	11085351	108.3	2	8.683	0.000	4927247	75.1
Aroclor-1254	3	8.901	-0.001	17582425	95.6	3	9.206	0.000	5491753	104.1
Aroclor-1254	4	9.254	0.003	13972921	66.6	4	9.356	0.000	9149339	80.9
Aroclor-1254	5	9.617	0.005	13976360	100.9	5	10.134	-0.004	6518093	92.9
Total Col1Ave (5 peaks):					95.3	Total Col2Ave (5 peaks):				88.1 RPD = 8
Corrected Ave (4 peaks):					92.0	Corrected Ave (4 peaks):				84.1 RPD = 9
Aroclor-1260	1	10.165	-0.321	343892	2.4	1	10.371	-0.001	1640270	16.6
Aroclor-1260	2	10.485	-0.375	284871	0.8	2	11.191	0.000	336328	2.2
Aroclor-1260	3	10.859	-0.400	1129923	5.5	3	11.713	-0.001	88591	1.9
Aroclor-1260	4	11.376	-0.001	211268	2.4	4	12.557	0.045	337796	7.6
Aroclor-1260	5	11.449	-0.002	213217	2.1	NS	---			----
Total Col1Ave (5 peaks):					2.6	Total Col2Ave (4 peaks):				7.1 RPD = 92*
Corrected Ave (4 peaks):					1.9	Corrected Ave (3 peaks):				3.9 RPD = 68*
Aroclor-1262	1	10.165	-0.003	343892	1.6	1	10.466	-0.002	138206	1.4
Aroclor-1262	2	10.485	0.000	284871	1.7	2	10.916	-0.005	666689	7.0
Aroclor-1262	3	10.859	0.000	1129923	2.7	3	11.191	-0.001	336328	1.8
Aroclor-1262	4	11.376	-0.001	211268	1.1	4	11.713	-0.001	88591	1.0
Aroclor-1262	5	11.449	-0.001	213217	1.1	5	12.557	0.044	337796	4.7
Total Col1Ave (5 peaks):					1.6	Total Col2Ave (5 peaks):				3.2 RPD = 64*
Corrected Ave (4 peaks):					1.4	Corrected Ave (4 peaks):				2.2 RPD = 47*
Aroclor-1268	1	11.376	-0.002	211268	0.5	1	11.713	-0.002	88591	0.4
Aroclor-1268	2	11.449	-0.001	213217	0.5	2	11.774	-0.007	255022	1.4

Aroclor-1268	3	11.841	0.005	205017	0.5	3	12.186	0.006	16609	0.1
Aroclor-1268	4	12.613	-0.015	591846	0.5	4	13.003	0.002	68042	0.1

Total Col1Ave (4 peaks): 0.5 Total Col2Ave (4 peaks): 0.5 RPD = 2

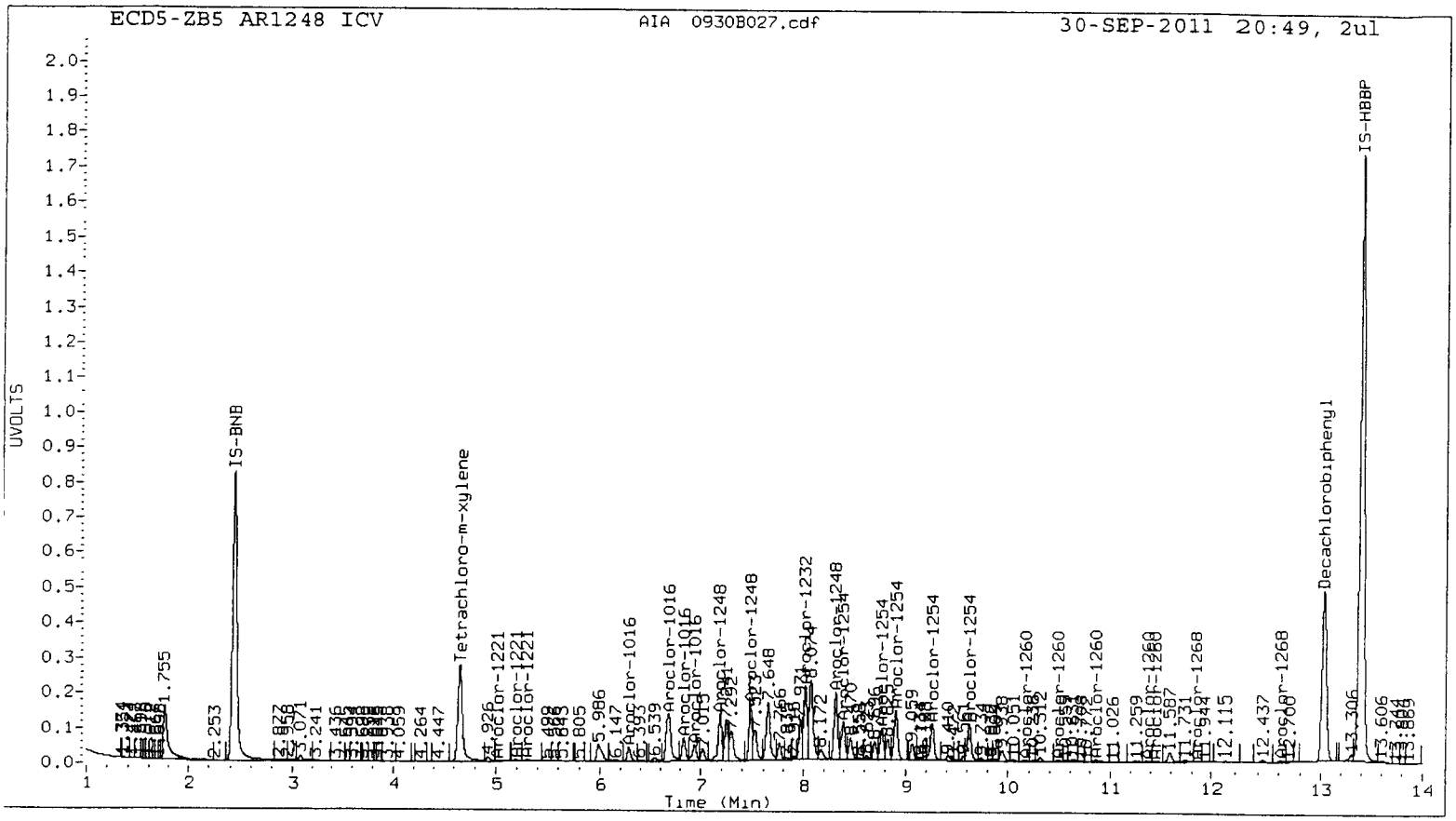
Corrected Ave (3 peaks): 0.5 Corrected Ave (3 peaks): 0.2 RPD = 76*

Total PCB Area Col1 (4.750 - 12.933) = 387737487 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.758 - 13.317) = 216673515 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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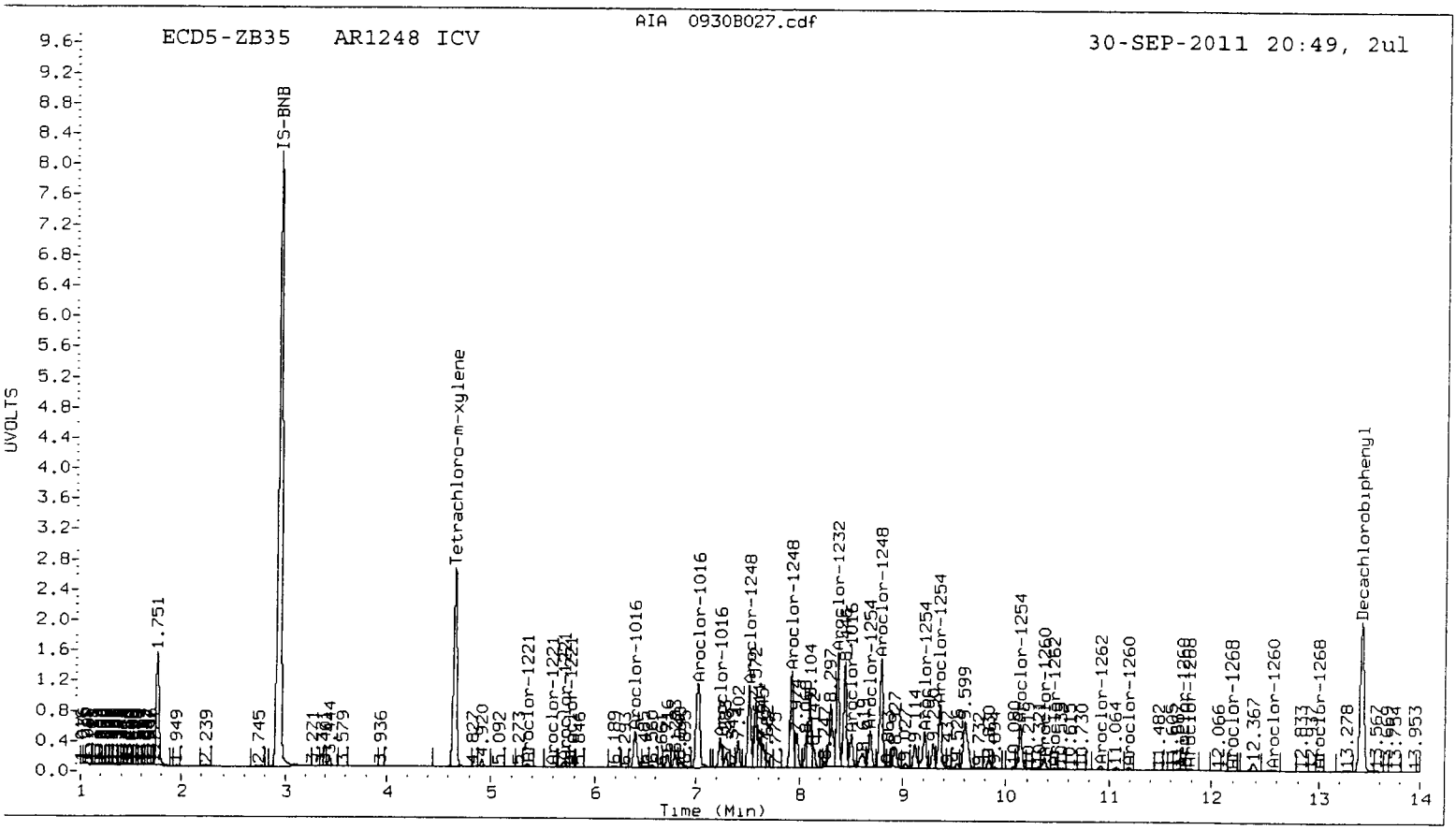
30-SEP-2011 20:49, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Time (Min)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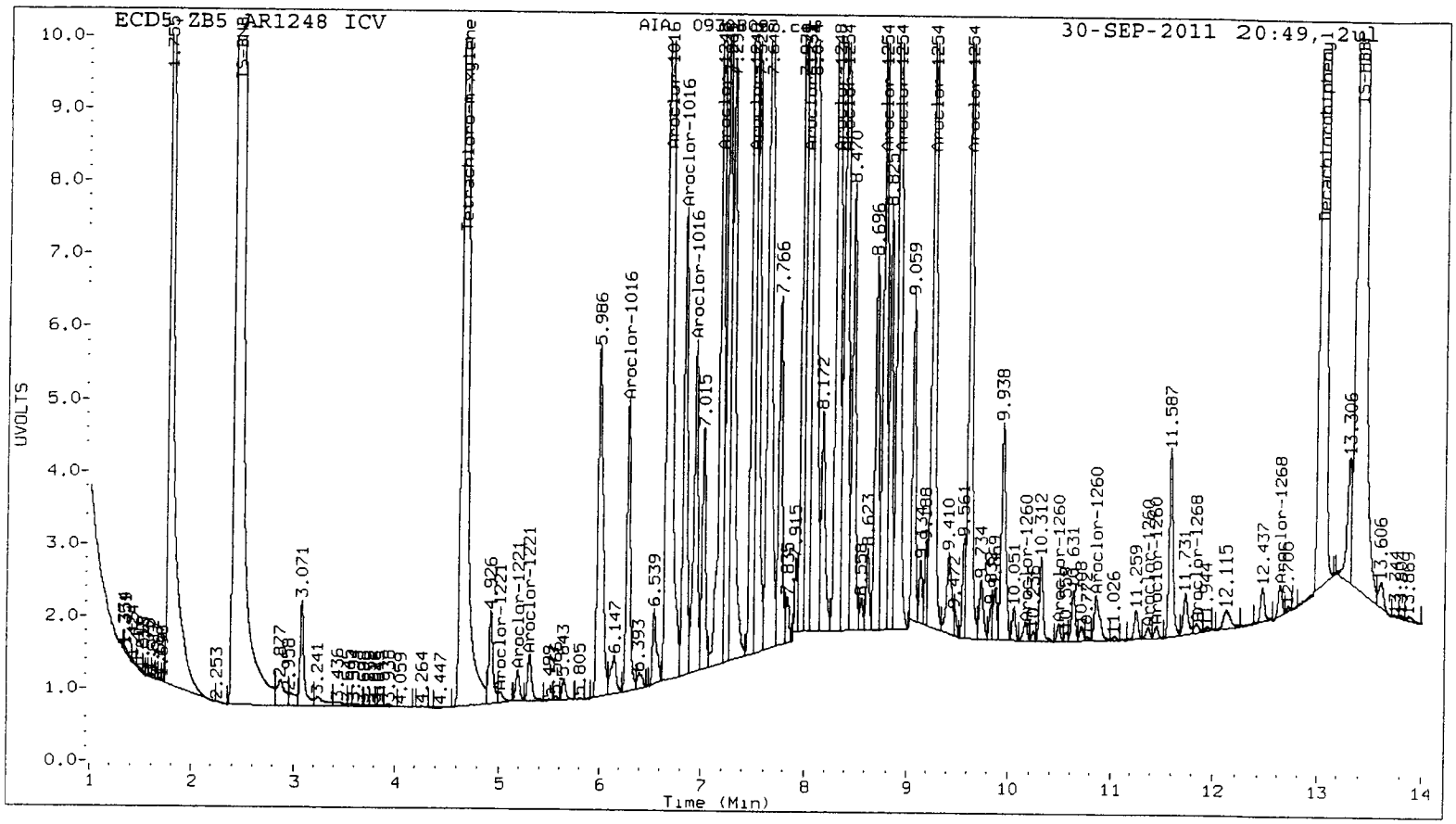
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Time (Min)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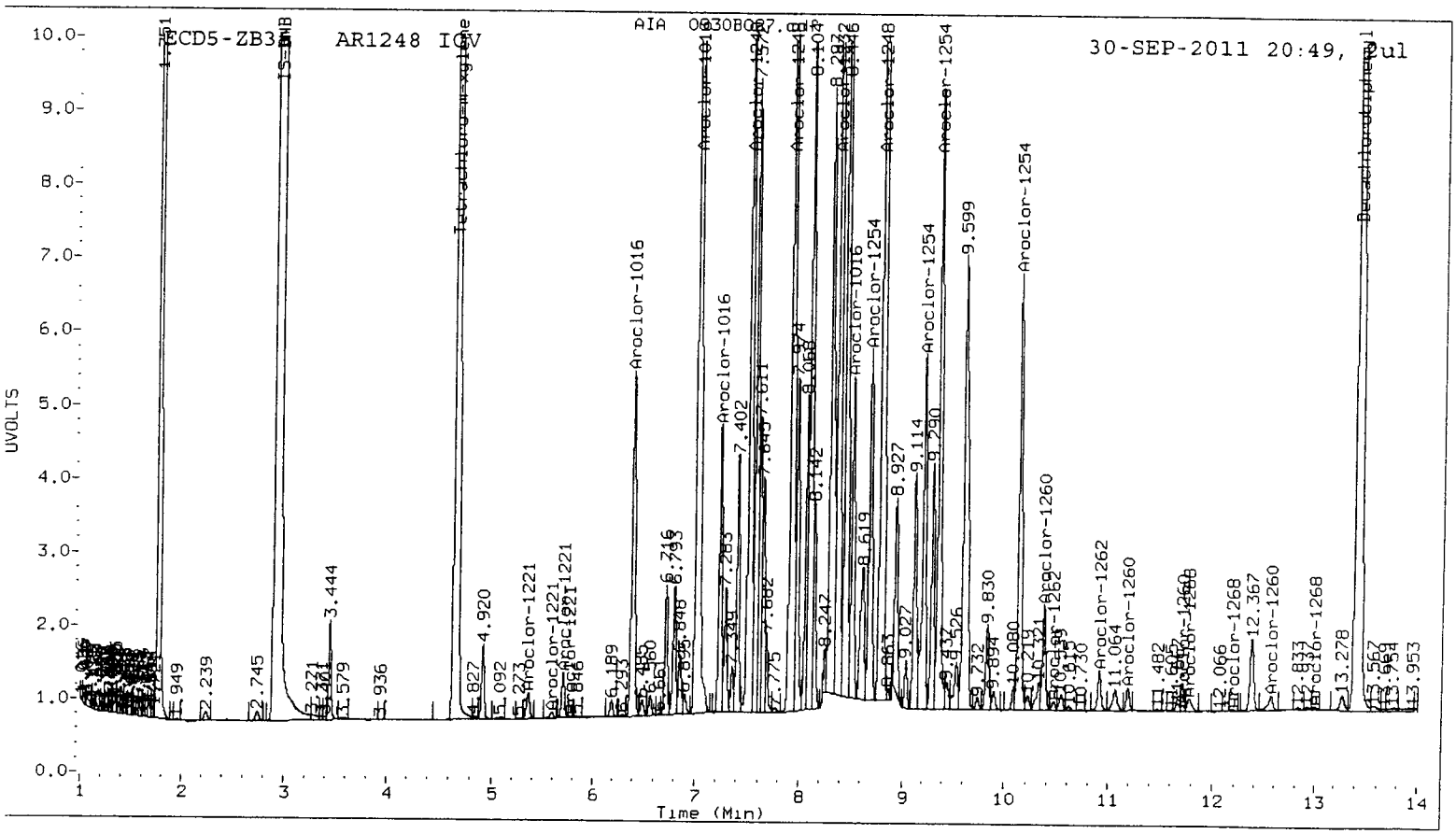
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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AR1248 ICV
30-SEP-2011 20:49, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B028.d
Data file 2: 20110930.B/ical-2.b/0930B028.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254 ICV
Client ID:
Injection Date: 30-SEP-2011 21:08
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.650	0.000	44125442	4.658	0.000	30555310	20.7	21.5	4.0	Tetrachloro-m-xylene
13.032	-0.001	76829483	13.417	0.000	29062640	18.4	19.0	3.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	51.7	53.8
Decachlorobiphenyl	46.0	47.5

gr 10/06/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	123999069	3.9
Hexabromobiphenyl	247758184	262522642	6.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	94010944	3.0
Hexabromobiphenyl	103671329	110223953	6.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.280	0.000	237311	4.1	1	6.393	-0.001	216772	3.9
Aroclor-1016	2	6.670	-0.010	1291139	6.5	2	7.010	-0.009	623454	5.0
Aroclor-1016	3	6.833	0.006	691225	8.6	3	7.226	0.000	142757	3.0
Aroclor-1016	4	6.936	-0.002	392583	6.9	4	8.511	0.000	13194877	497.8
	Total Col1Ave (4 peaks):				6.5	Total Col2Ave (4 peaks):				127.4 RPD = 180*
	Corrected Ave (3 peaks):				5.8	Corrected Ave (3 peaks):				3.9 RPD = 39
Aroclor-1221	1	4.926	-0.094	2070705	99.2	1	5.361	0.019	380283	23.6
Aroclor-1221	2	5.186	-0.012	471962	32.0	2	5.594	0.006	11381	1.2
Aroclor-1221	3	5.303	-0.001	92877	1.9	3	5.704	0.003	135208	4.5
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):				44.4	Total Col2Ave (3 peaks):				9.8 RPD = 128*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.280	-0.001	237311	9.8	1	6.393	-0.003	216772	8.4
Aroclor-1232	2	6.670	-0.010	1291139	16.1	2	7.010	-0.009	623454	11.7
Aroclor-1232	3	6.833	0.005	691225	21.3	3	7.226	-0.001	142757	7.7
Aroclor-1232	4	8.019	0.000	12638743	368.6	4	8.370	0.000	7455211	360.7
	Total Col1Ave (4 peaks):				104.0	Total Col2Ave (4 peaks):				97.1 RPD = 7
	Corrected Ave (3 peaks):				15.7	Corrected Ave (3 peaks):				9.3 RPD = 52*
Aroclor-1242	1	6.280	0.000	237311	5.4	1	6.393	0.000	216772	4.9
Aroclor-1242	2	6.670	-0.010	1291139	8.9	2	7.010	-0.008	623454	6.3
Aroclor-1242	3	6.833	0.006	691225	11.7	3	7.226	0.000	142757	3.7
Aroclor-1242	4	8.019	0.000	12638743	216.7	4	8.370	0.000	7455211	211.3
	Total Col1Ave (4 peaks):				60.7	Total Col2Ave (4 peaks):				56.6 RPD = 7
	Corrected Ave (3 peaks):				8.7	Corrected Ave (3 peaks):				5.0 RPD = 54*
Aroclor-1248	1	7.176	-0.001	12703583	193.0	1	7.505	-0.001	7675676	171.0
Aroclor-1248	2	7.474	-0.001	9435477	126.6	2	7.920	0.000	4540106	87.3
Aroclor-1248	3	8.019	0.000	12638743	135.0	3	8.370	0.000	7455211	128.7
Aroclor-1248	4	8.315	0.004	8952179	95.8	4	8.777	-0.016	8701603	138.6
	Total Col1Ave (4 peaks):				137.6	Total Col2Ave (4 peaks):				131.4 RPD = 5
	Corrected Ave (3 peaks):				119.1	Corrected Ave (3 peaks):				118.2 RPD = 1
Aroclor-1254	1	8.394	0.000	38937940	259.5	1	8.511	0.000	13194877	260.8
Aroclor-1254	2	8.765	-0.001	26974851	261.3	2	8.683	-0.001	17251378	261.6
Aroclor-1254	3	8.901	-0.001	47948538	258.4	3	9.206	0.000	13910716	262.3
Aroclor-1254	4	9.251	0.000	51967052	245.7	4	9.357	0.000	29279294	257.5
Aroclor-1254	5	9.612	0.000	38740657	256.0	5	10.139	0.001	18186656	257.9
	Total Col1Ave (5 peaks):				256.2	Total Col2Ave (5 peaks):				260.0 RPD = 1
	Corrected Ave (4 peaks):				254.9	Corrected Ave (4 peaks):				259.5 RPD = 2
Aroclor-1260	1	10.166	-0.320	3064596	21.6	1	10.372	0.000	21680748	219.3
Aroclor-1260	2	10.486	-0.374	3592117	10.0	2	11.191	0.000	4263658	27.9
Aroclor-1260	3	10.858	-0.401	8972019	43.3	3	11.714	0.000	583044	12.5
Aroclor-1260	4	11.376	-0.001	390230	4.4	4	12.515	0.003	140653	3.2
Aroclor-1260	5	11.449	-0.001	434401	4.2	NS	---			----
	Total Col1Ave (5 peaks):				16.7	Total Col2Ave (4 peaks):				65.7 RPD = 119*
	Corrected Ave (4 peaks):				10.0	Corrected Ave (3 peaks):				14.5 RPD = 36
Aroclor-1262	1	10.166	-0.002	3064596	14.5	1	10.468	-0.001	1068468	10.7
Aroclor-1262	2	10.486	0.001	3592117	21.0	2	10.915	-0.006	7882462	83.0
Aroclor-1262	3	10.858	-0.001	8972019	21.6	3	11.191	-0.001	4263658	23.0
Aroclor-1262	4	11.376	-0.001	390230	2.0	4	11.714	0.000	583044	6.6
Aroclor-1262	5	11.449	-0.001	434401	2.2	5	12.515	0.002	140653	1.9
	Total Col1Ave (5 peaks):				12.3	Total Col2Ave (5 peaks):				25.1 RPD = 69*
	Corrected Ave (4 peaks):				9.9	Corrected Ave (4 peaks):				10.6 RPD = 6
Aroclor-1268	1	11.376	-0.002	390230	0.8	1	11.714	-0.001	583044	2.7
Aroclor-1268	2	11.449	0.000	434401	1.0	2	11.771	-0.010	2942400	15.7

TXST.0112

Aroclor-1268 3	11.847	0.011	353665	0.9	3	12.184	0.004	16463	0.1
Aroclor-1268 4	12.612	-0.015	632488	0.5	4	13.001	0.000	56319	0.1

Total Col1Ave (4 peaks): 0.8 Total Col2Ave (4 peaks): 4.6 RPD = 140*

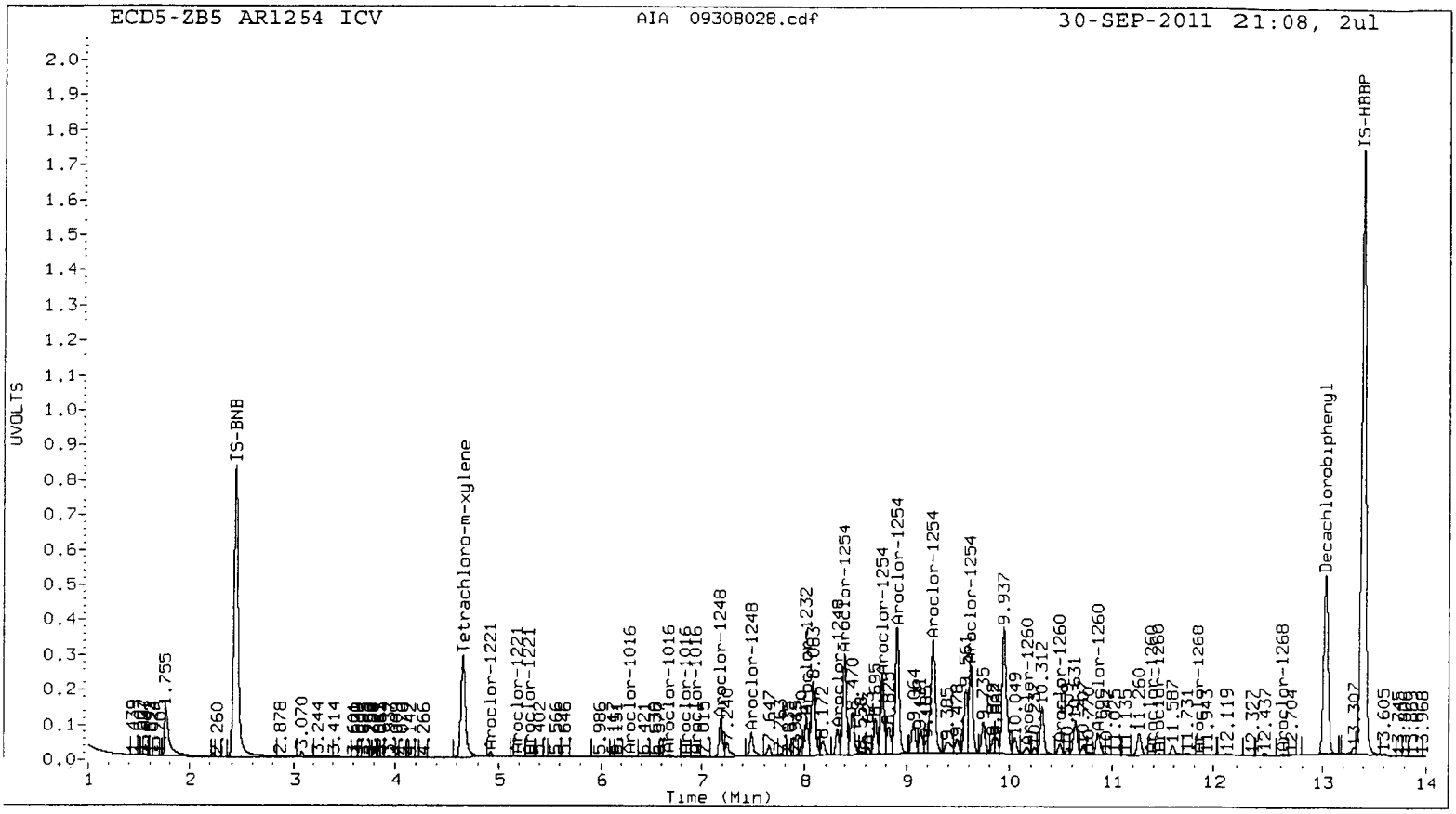
Corrected Ave (3 peaks): 0.8 Corrected Ave (3 peaks): 1.0 RPD = 24

Total PCB Area Col1 (4.750 - 12.933) = 547102801 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.758 - 13.317) = 275757321 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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30-SEP-2011 21:08, 2ul
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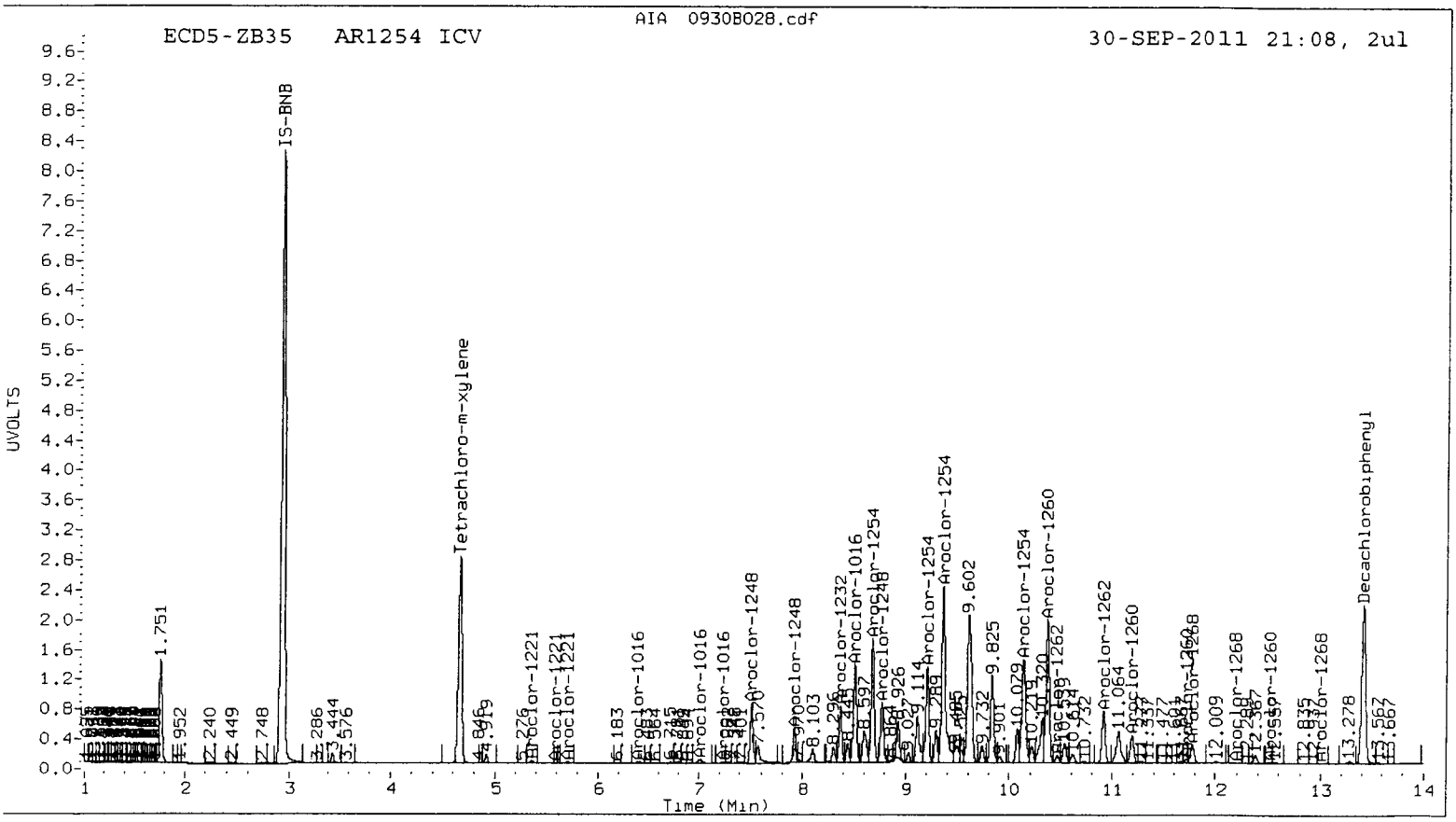
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
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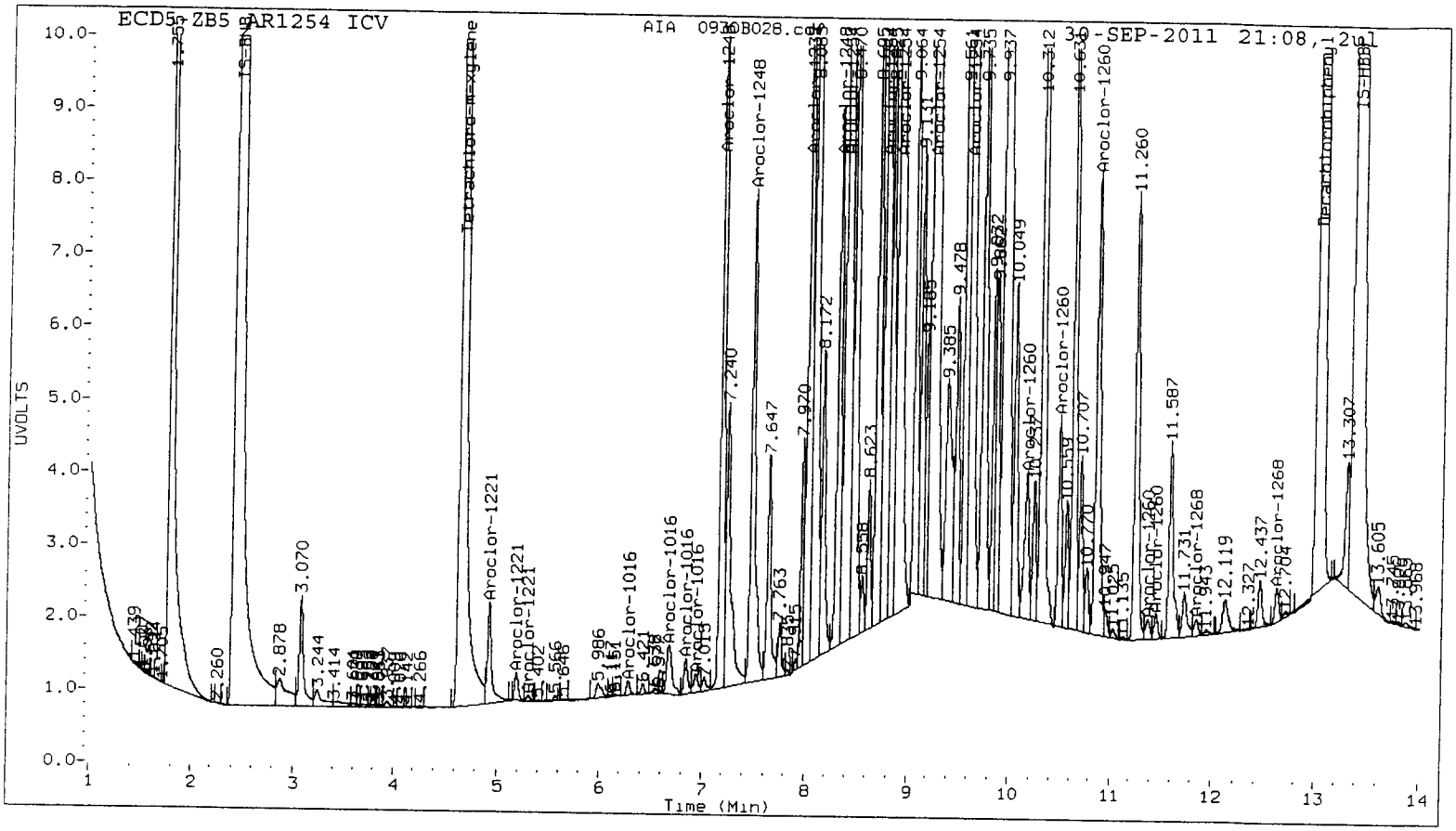
Decachlorobiphenyl

TX57.01129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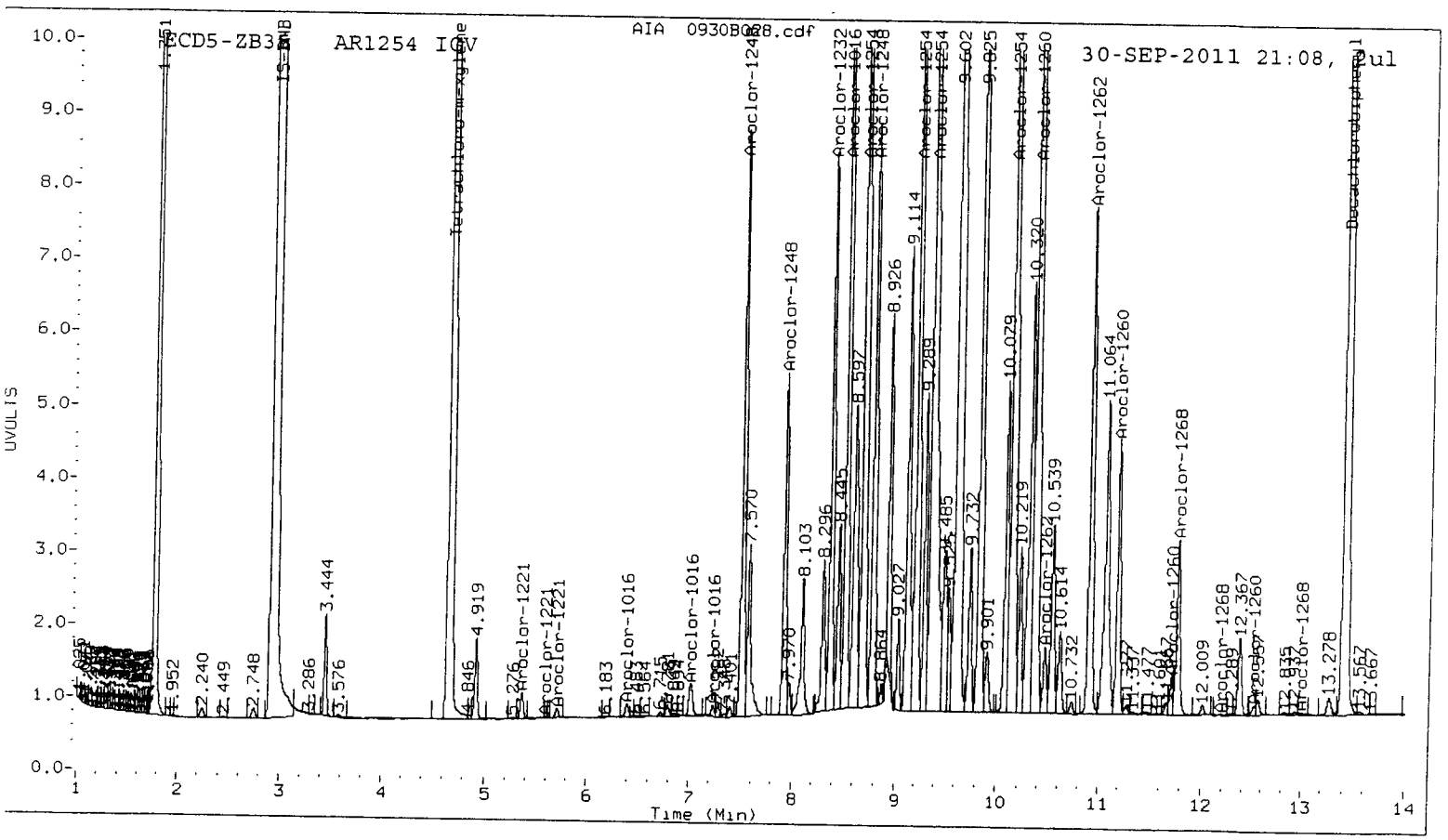
AIA 0930B028.cd
30-SEP-2011 21:08, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1248
Aroclor-1260
Aroclor-1016
Aroclor-1268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AIA 0930B028.cdf
30-SEP-2011 21:08, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1248
Aroclor-1260
Aroclor-1016
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/ical-1.b/0930B029.d
Data file 2: 20110930.B/ical-2.b/0930B029.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162 ICV
Client ID:
Injection Date: 30-SEP-2011 21:27
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.650	0.000	42912651	4.657	-0.001	29370949	20.3	21.1	3.8	Tetrachloro-m-xylene
13.031	-0.001	74782431	13.417	0.000	28221063	17.8	18.3	2.8	Decachlorobiphenyl

Indicates RPD > 40%
[Indicates Column 1 peak was manually integrated
[Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

10/06/11

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.7	52.7
Decachlorobiphenyl	44.5	45.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	122906238	3.0
Hexabromobiphenyl	247758184	264368956	6.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	92316058	1.2
Hexabromobiphenyl	103671329	111102769	7.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	6.280	0.000	1261813	22.2	1	6.406	0.013	2385067	43.4	
Aroclor-1016	2	6.680	0.000	3842317	19.5	2	7.019	0.000	2267258	18.4	
Aroclor-1016	3	6.827	0.000	1687471	21.2	3	7.227	0.001	1019769	21.6	
Aroclor-1016	4	6.938	0.001	1213082	21.5	4	8.511	0.000	2464454	94.7	
Total Col1Ave (4 peaks):					21.1	Total Col2Ave (4 peaks):				44.5	RPD = 71*
Corrected Ave (3 peaks):					20.7	Corrected Ave (3 peaks):				27.8	RPD = 29
Aroclor-1221	1	5.021	0.001	5511187	266.4	1	5.342	0.000	4097795	258.8	
Aroclor-1221	2	5.200	0.001	3879159	265.6	2	5.589	0.001	2334735	257.1	
Aroclor-1221	3	5.304	0.001	13321305	269.6	3	5.701	0.000	7648485	258.0	
Aroclor-1221	NS	---			----	4	5.770	0.001	1294608	261.4	
Total Col1Ave (3 peaks):					267.2	Total Col2Ave (4 peaks):				258.8	RPD = 3
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				258.0	
Aroclor-1232	1	6.280	0.000	1261813	52.7	1	6.406	0.011	2385067	94.2	
Aroclor-1232	2	6.680	0.001	3842317	48.3	2	7.019	0.000	2267258	43.2	
Aroclor-1232	3	6.827	-0.001	1687471	52.3	3	7.227	0.000	1019769	55.9	
Aroclor-1232	4	8.019	0.000	986227	29.0	4	8.370	0.000	543503	26.8	
Total Col1Ave (4 peaks):					45.6	Total Col2Ave (4 peaks):				55.0	RPD = 19
Corrected Ave (3 peaks):					43.2	Corrected Ave (3 peaks):				42.0	RPD = 3
Aroclor-1242	1	6.280	0.000	1261813	28.8	1	6.406	0.013	2385067	55.4	
Aroclor-1242	2	6.680	0.000	3842317	26.7	2	7.019	0.001	2267258	23.4	
Aroclor-1242	3	6.827	0.000	1687471	28.9	3	7.227	0.001	1019769	26.7	
Aroclor-1242	4	8.019	0.000	986227	17.1	4	8.370	0.000	543503	15.7	
Total Col1Ave (4 peaks):					25.4	Total Col2Ave (4 peaks):				30.3	RPD = 18
Corrected Ave (3 peaks):					24.2	Corrected Ave (3 peaks):				21.9	RPD = 10
Aroclor-1248	1	7.177	0.000	974937	14.9	1	7.506	0.000	611653	13.9	
Aroclor-1248	2	7.474	-0.001	813579	11.0	2	7.922	0.002	852029	16.7	
Aroclor-1248	3	8.019	-0.001	986227	10.6	3	8.370	0.000	543503	9.6	
Aroclor-1248	4	8.313	0.002	1293304	14.0	4	8.788	-0.005	600565	9.7	
Total Col1Ave (4 peaks):					12.6	Total Col2Ave (4 peaks):				12.5	RPD = 1
Corrected Ave (3 peaks):					11.9	Corrected Ave (3 peaks):				11.1	RPD = 7
Aroclor-1254	1	8.395	0.001	6437739	43.3	1	8.511	0.000	2464454	49.6	
Aroclor-1254	2	8.765	-0.001	1293704	12.6	2	8.682	-0.001	2919509	45.1	
Aroclor-1254	3	8.867	-0.035	8998325	48.9	3	9.206	0.000	579987	11.1	
Aroclor-1254	4	9.232	-0.019	31807462	151.7	4	9.396	0.039	13225493	118.5	
Aroclor-1254	5	9.560	-0.052	42206202	305.0	5	10.152	0.014	3266920	47.2	
Total Col1Ave (5 peaks):					112.3	Total Col2Ave (5 peaks):				54.3	RPD = 70*
Corrected Ave (4 peaks):					64.1	Corrected Ave (4 peaks):				38.3	RPD = 51*
Aroclor-1260	1	10.168	-0.318	52376087	366.4	1	10.372	0.000	9985379	100.2	
Aroclor-1260	2	10.485	-0.375	44369836	122.1	2	11.191	0.000	44856553	290.9	
Aroclor-1260	3	10.859	-0.400	99892486	478.2	3	11.714	0.001	22388161	474.7	
Aroclor-1260	4	11.376	-0.001	49795442	556.8	4	12.513	0.001	18217908	407.0	
Aroclor-1260	5	11.450	-0.001	51623321	491.4	NS	---			----	
Total Col1Ave (5 peaks):					403.0	Total Col2Ave (4 peaks):				318.2	RPD = 24
Corrected Ave (4 peaks):					364.5	Corrected Ave (3 peaks):				266.0	RPD = 31
Aroclor-1262	1	10.168	0.000	52376087	246.1	1	10.468	0.000	24528116	244.7	
Aroclor-1262	2	10.485	0.000	44369836	257.4	2	10.921	0.000	24511509	256.2	
Aroclor-1262	3	10.859	-0.001	99892486	238.9	3	11.191	-0.001	44856553	240.2	
Aroclor-1262	4	11.376	-0.001	49795442	259.7	4	11.714	0.000	22388161	252.3	
Aroclor-1262	5	11.450	0.000	51623321	255.3	5	12.513	0.000	18217908	249.5	
Total Col1Ave (5 peaks):					151.5	Total Col2Ave (5 peaks):				248.6	RPD = 1
Corrected Ave (4 peaks):					249.4	Corrected Ave (4 peaks):				246.7	RPD = 1
Aroclor-1268	1	11.376	-0.001	49795442	107.3	1	11.714	-0.001	22388161	102.2	
Aroclor-1268	2	11.450	0.000	51623321	115.0	2	11.777	-0.005	32291557	170.7	

Aroclor-1268 3	11.850	0.014	22833854	57.2	3	12.179	-0.001	1470476	9.2
Aroclor-1268 4	12.624	-0.003	19691663	16.9	4	13.001	0.000	6708235	13.8

Total Col1Ave (4 peaks): 74.1 Total Col2Ave (4 peaks): 74.0 RPD = 0

Corrected Ave (3 peaks): 60.5 Corrected Ave (3 peaks): 41.7 RPD = 37

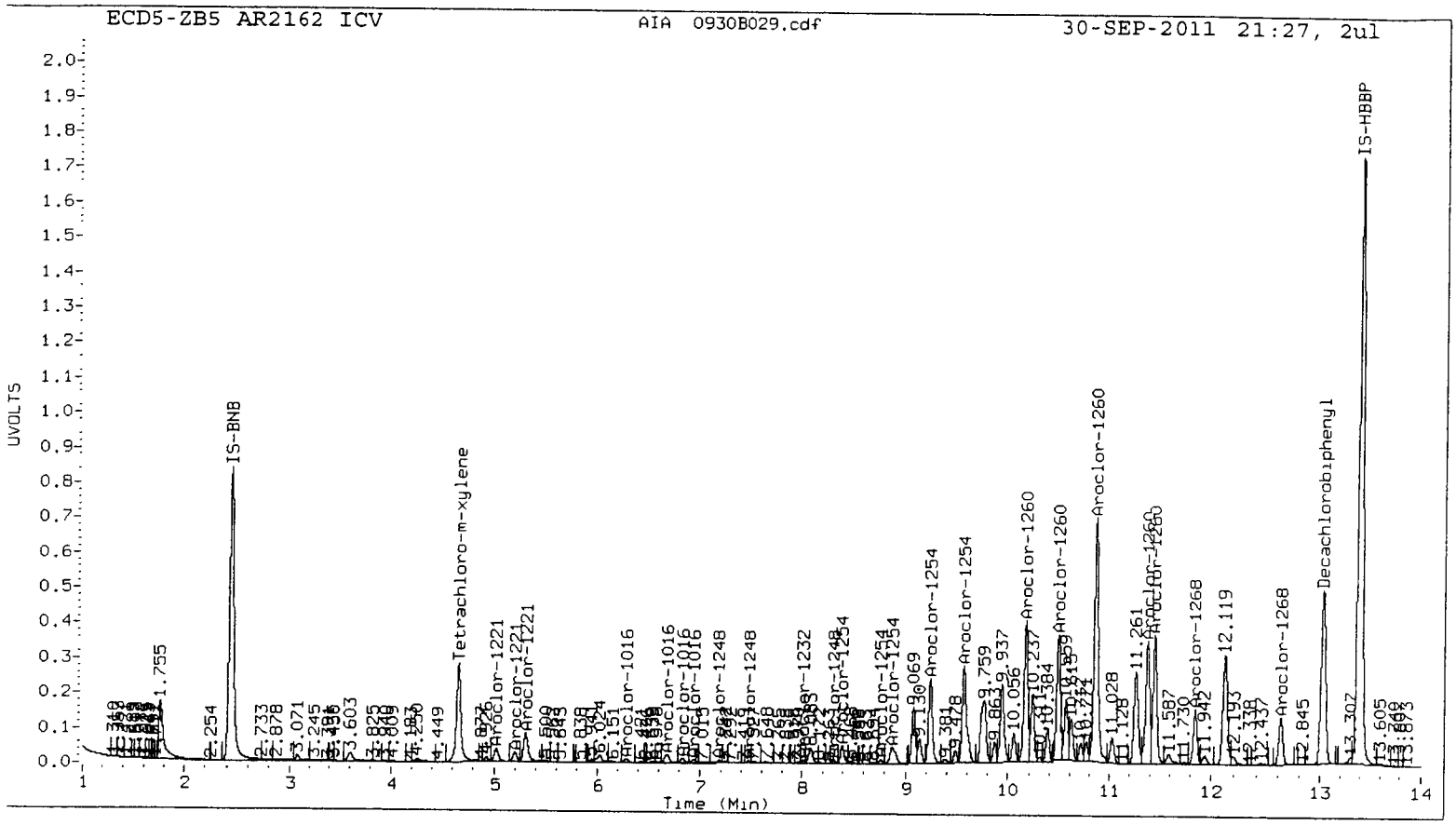
Total PCB Area Col1 (4.750 - 12.933) = 792010074 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.758 - 13.317) = 358599304 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

TEST 0127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Aroclor-1268
Decachlorobiphenyl
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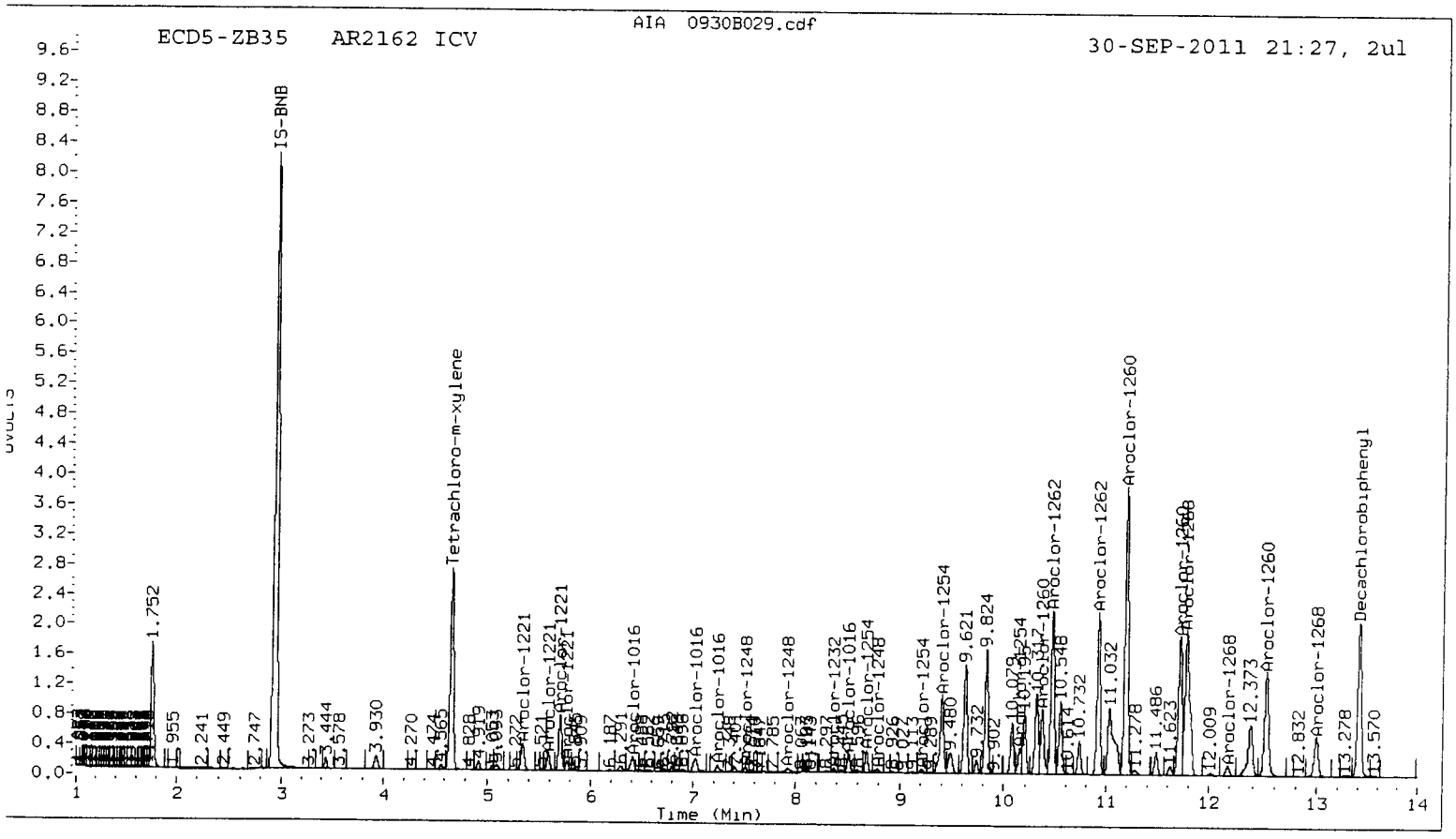
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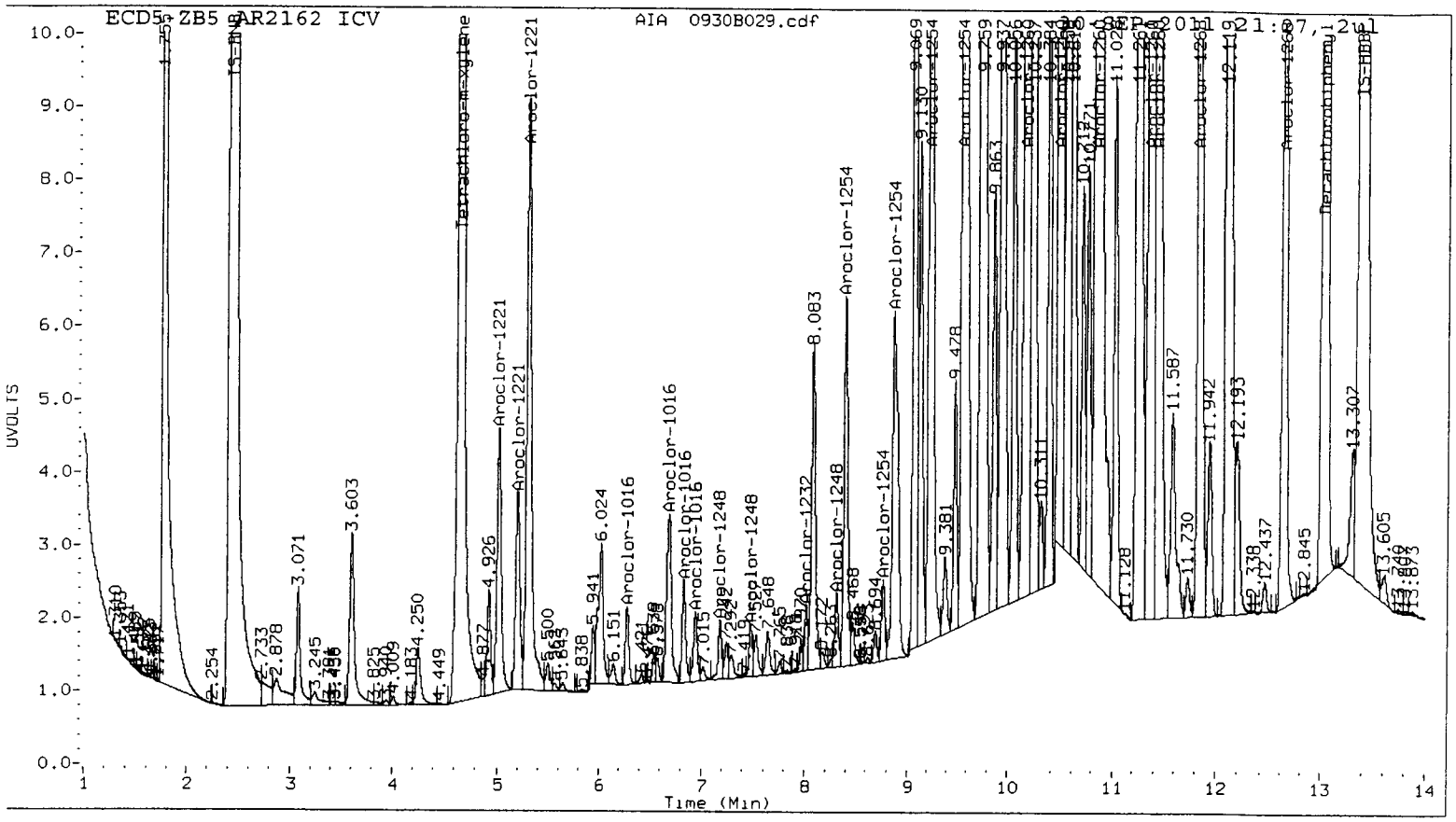
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB
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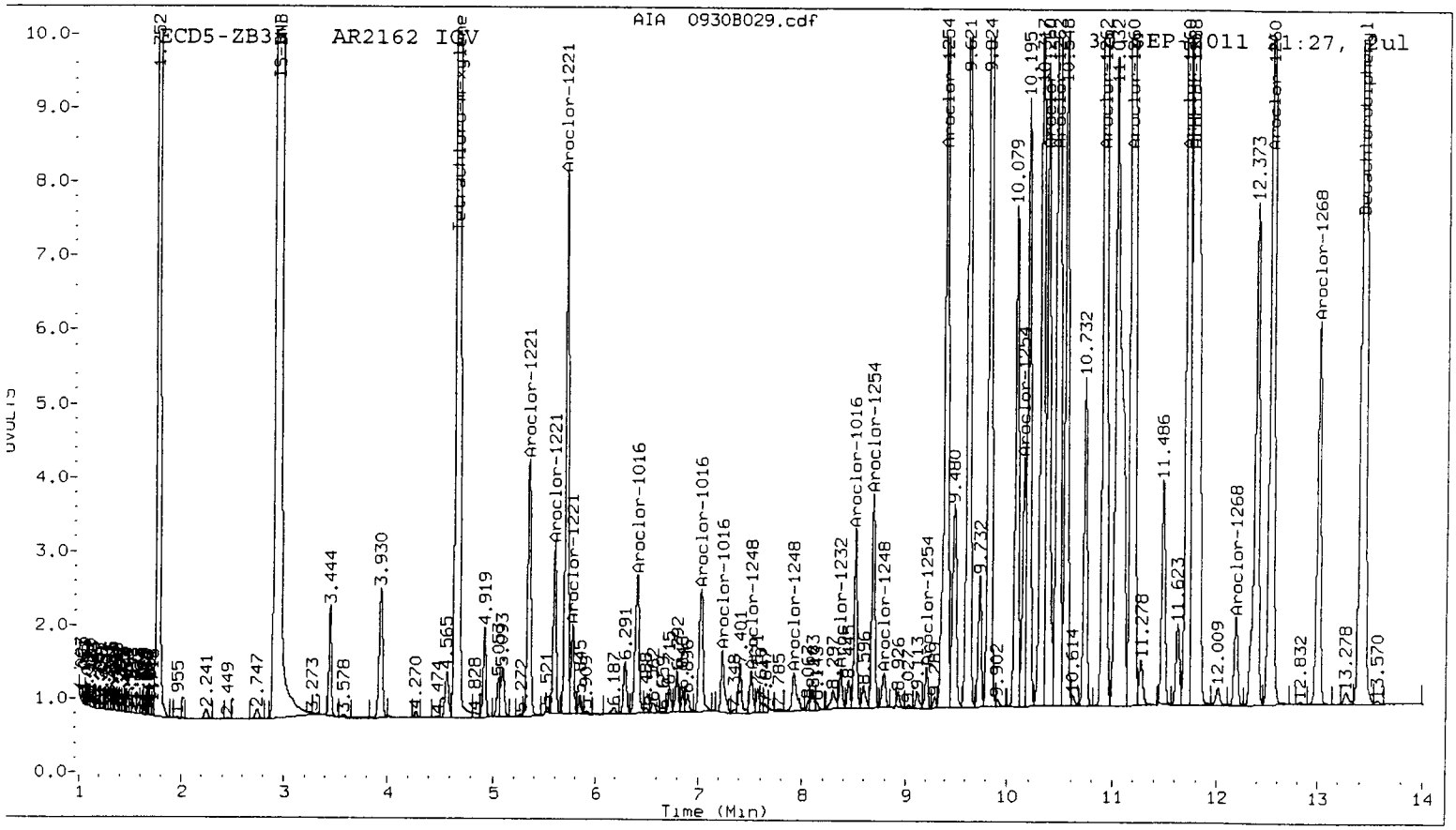
Aroclor-1260
Aroclor-1268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Decachlorobiphenyl
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Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268

TX07:0120

Analytical Resources Inc.
Dual Column PCBs by SW8082

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Data file 2: 20110930.B/ical-2.b/0930B030.d
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Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268 ICV
Client ID:
Injection Date: 30-SEP-2011 21:46
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.649	-0.001	42842748	4.656	-0.001	29352001	20.0	20.8	3.9	Tetrachloro-m-xylene
13.032	-0.001	117482978	13.416	-0.001	45778611	28.0	29.6	5.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

pa 10/06/11

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.1	52.1
Decachlorobiphenyl	70.0	74.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	124264777	4.1
Hexabromobiphenyl	247758184	264101558	6.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	93278062	2.2
Hexabromobiphenyl	103671329	111348929	7.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	ZB5 Col Peak#	RT	Shift	Area	Amount	ZB35 Col Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.279	-0.001	6596514	114.7	1	6.394	0.001	6943127	124.9
Aroclor-1016	2	6.679	-0.002	21983836	110.2	2	7.017	-0.001	14161116	113.9
Aroclor-1016	3	6.827	-0.001	8797852	109.5	3	7.226	0.000	5515594	115.6
Aroclor-1016	4	6.937	-0.001	6677978	116.9	4	8.511	0.000	798920	30.4
Total Col1Ave (4 peaks):				112.8		Total Col2Ave (4 peaks):			96.2	RPD = 16
Corrected Ave (3 peaks):				111.5		Corrected Ave (3 peaks):			86.6	RPD = 25
Aroclor-1221	1	5.019	-0.001	3434456	164.2	1	5.343	0.001	2574474	160.9
Aroclor-1221	2	5.198	-0.001	2764946	187.2	2	5.589	0.001	1583052	172.5
Aroclor-1221	3	5.303	-0.001	10447877	209.1	3	5.701	0.000	6232832	208.1
Aroclor-1221	NS	---			----	4	5.769	0.000	726499	145.2
Total Col1Ave (3 peaks):				186.9		Total Col2Ave (4 peaks):			171.7	RPD = 8
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			159.5	
Aroclor-1232	1	6.279	-0.001	6596514	272.6	1	6.394	-0.001	6943127	271.4
Aroclor-1232	2	6.679	-0.001	21983836	273.2	2	7.017	-0.001	14161116	267.3
Aroclor-1232	3	6.827	-0.001	8797852	269.9	3	7.226	-0.001	5515594	299.4
Aroclor-1232	4	8.018	-0.001	7724554	224.8	4	8.370	-0.001	4447950	216.9
Total Col1Ave (4 peaks):				260.1		Total Col2Ave (4 peaks):			263.7	RPD = 1
Corrected Ave (3 peaks):				255.8		Corrected Ave (3 peaks):			251.9	RPD = 2
Aroclor-1242	1	6.279	-0.001	6596514	149.0	1	6.394	0.001	6943127	159.6
Aroclor-1242	2	6.679	-0.001	21983836	151.2	2	7.017	-0.001	14161116	144.5
Aroclor-1242	3	6.827	-0.001	8797852	149.2	3	7.226	0.000	5515594	142.8
Aroclor-1242	4	8.018	-0.001	7724554	132.2	4	8.370	0.000	4447950	127.1
Total Col1Ave (4 peaks):				145.4		Total Col2Ave (4 peaks):			143.5	RPD = 1
Corrected Ave (3 peaks):				143.5		Corrected Ave (3 peaks):			138.1	RPD = 4
Aroclor-1248	1	7.176	-0.001	4899506	74.3	1	7.506	0.000	3601660	80.9
Aroclor-1248	2	7.474	-0.001	6633182	88.8	2	7.920	0.000	5337620	103.4
Aroclor-1248	3	8.018	-0.001	7724554	82.3	3	8.370	0.000	4447950	77.4
Aroclor-1248	4	8.309	-0.002	8680305	92.7	4	8.793	0.001	5004606	80.3
Total Col1Ave (4 peaks):				84.5		Total Col2Ave (4 peaks):			85.5	RPD = 1
Corrected Ave (3 peaks):				81.8		Corrected Ave (3 peaks):			79.5	RPD = 3
Aroclor-1254	1	8.391	-0.003	3238717	21.5	1	8.511	-0.001	798920	15.9
Aroclor-1254	2	8.764	-0.001	1947746	18.8	2	8.683	-0.001	892504	13.6
Aroclor-1254	3	8.900	-0.001	3432706	18.5	3	9.206	0.000	907700	17.2
Aroclor-1254	4	9.250	-0.001	3055249	14.4	4	9.355	-0.002	1940793	17.2
Aroclor-1254	5	9.615	0.003	2202537	15.7	5	10.135	-0.003	914241	13.1
Total Col1Ave (5 peaks):				17.8		Total Col2Ave (5 peaks):			15.4	RPD = 14
Corrected Ave (4 peaks):				16.9		Corrected Ave (4 peaks):			15.0	RPD = 12
Aroclor-1260	1	10.168	-0.318	29720931	208.1	1	10.368	-0.004	671121	6.7
Aroclor-1260	2	10.485	-0.375	3170294	8.7	2	11.190	-0.001	8690821	56.2
Aroclor-1260	3	10.858	-0.402	22108790	106.0	3	11.714	0.001	52924137	1119.6
Aroclor-1260	4	11.377	0.000	119686315	1339.6	4	12.512	0.000	20240064	451.2
Aroclor-1260	5	11.449	-0.002	125766803	1198.3	NS	---			----
Total Col1Ave (5 peaks):				572.2		Total Col2Ave (4 peaks):			408.4	RPD = 33
Corrected Ave (4 peaks):				380.3		Corrected Ave (3 peaks):			171.4	RPD = 76*
Aroclor-1262	1	10.168	0.000	29720931	139.8	1	10.469	0.000	13029777	129.7
Aroclor-1262	2	10.485	0.000	3170294	18.4	2	10.922	0.001	14592198	152.2
Aroclor-1262	3	10.858	-0.002	22108790	52.9	3	11.190	-0.002	8690821	46.4
Aroclor-1262	4	11.377	0.000	119686315	624.9	4	11.714	0.000	52924137	595.2
Aroclor-1262	5	11.449	-0.001	125766803	622.7	5	12.512	-0.001	20240064	276.6
Total Col1Ave (5 peaks):				291.7		Total Col2Ave (5 peaks):			240.0	RPD = 19
Corrected Ave (4 peaks):				208.5		Corrected Ave (4 peaks):			151.2	RPD = 32
Aroclor-1268	1	11.377	-0.001	119686315	258.2	1	11.714	-0.001	52924137	241.0
Aroclor-1268	2	11.449	-0.001	125766803	280.5	2	11.781	0.000	53929616	284.5

Aroclor-1268 3	11.835	-0.001	93548113	234.5	3	12.180	0.000	37266605	231.6
Aroclor-1268 4	12.627	-0.001	256825004	220.5	4	13.001	0.000	106622686	219.6

Total Col1Ave (4 peaks): 248.4 Total Col2Ave (4 peaks): 244.2 RPD = 2

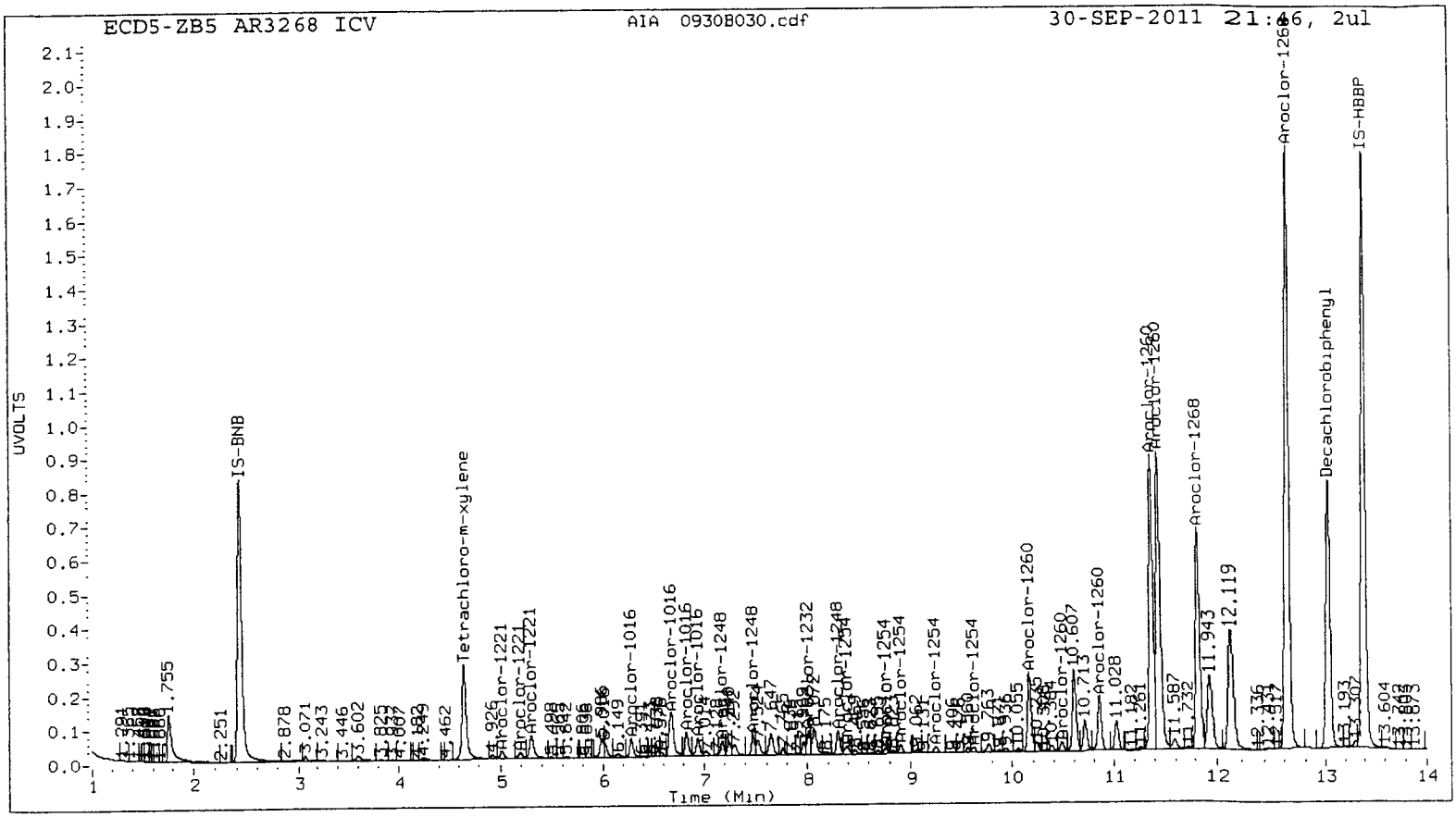
Corrected Ave (3 peaks): 237.8 Corrected Ave (3 peaks): 230.7 RPD = 3

Total PCB Area Col1 (4.750 - 12.933) = 984531512 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.758 - 13.317) = 437918569 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
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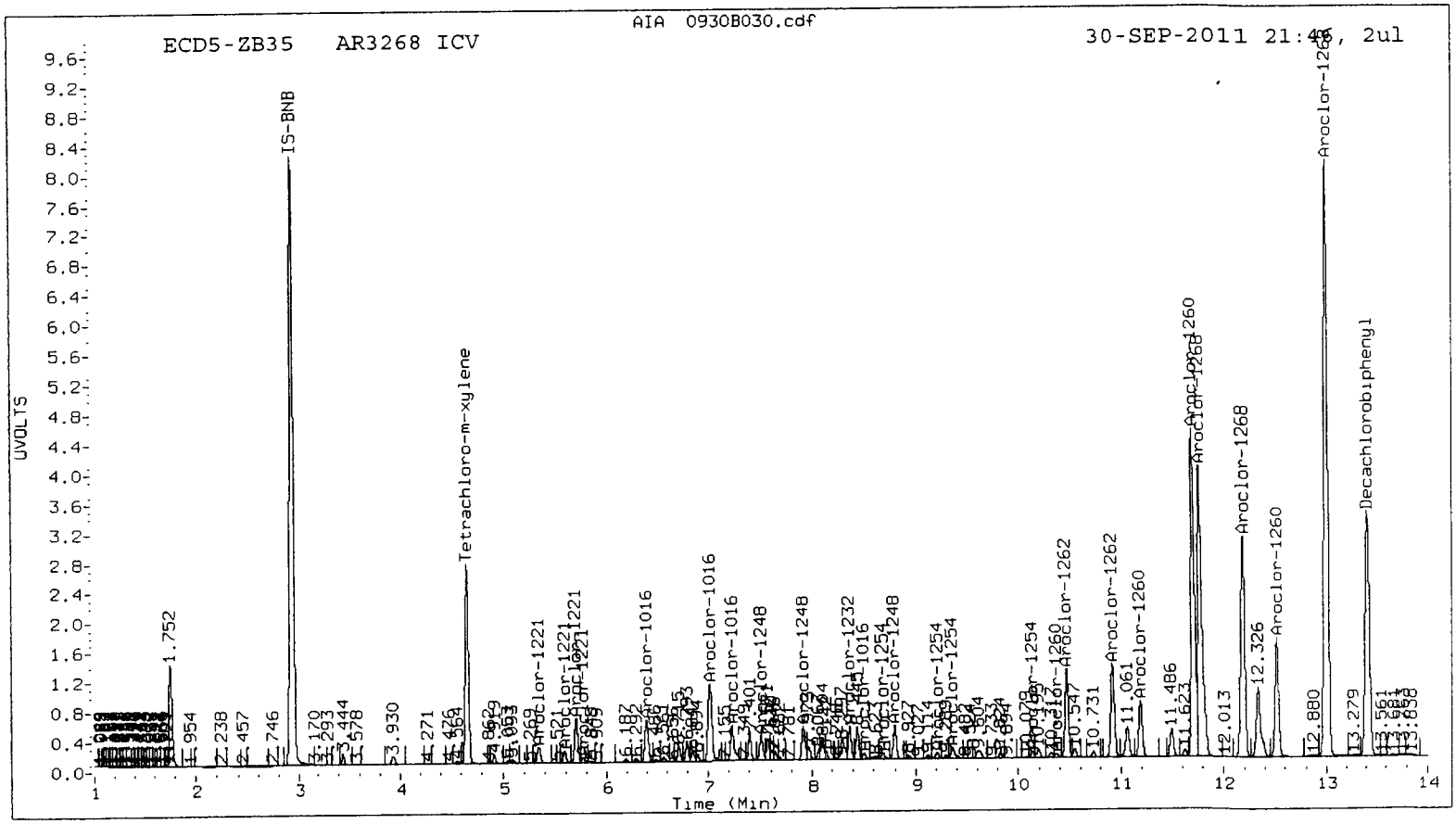
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Decachlorobiphenyl
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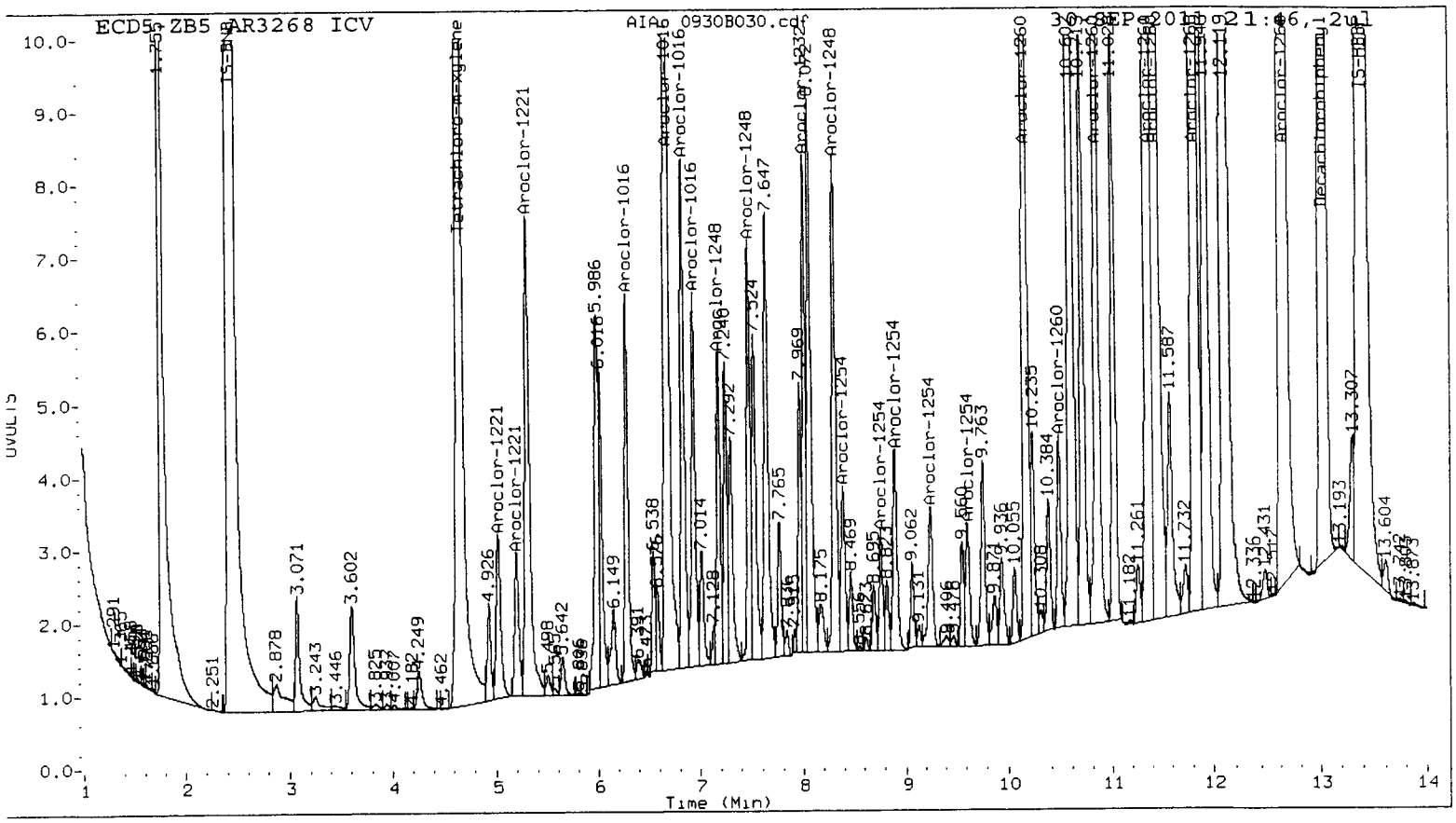
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Tetrachloro-m-xylene
Decachlorobiphenyl
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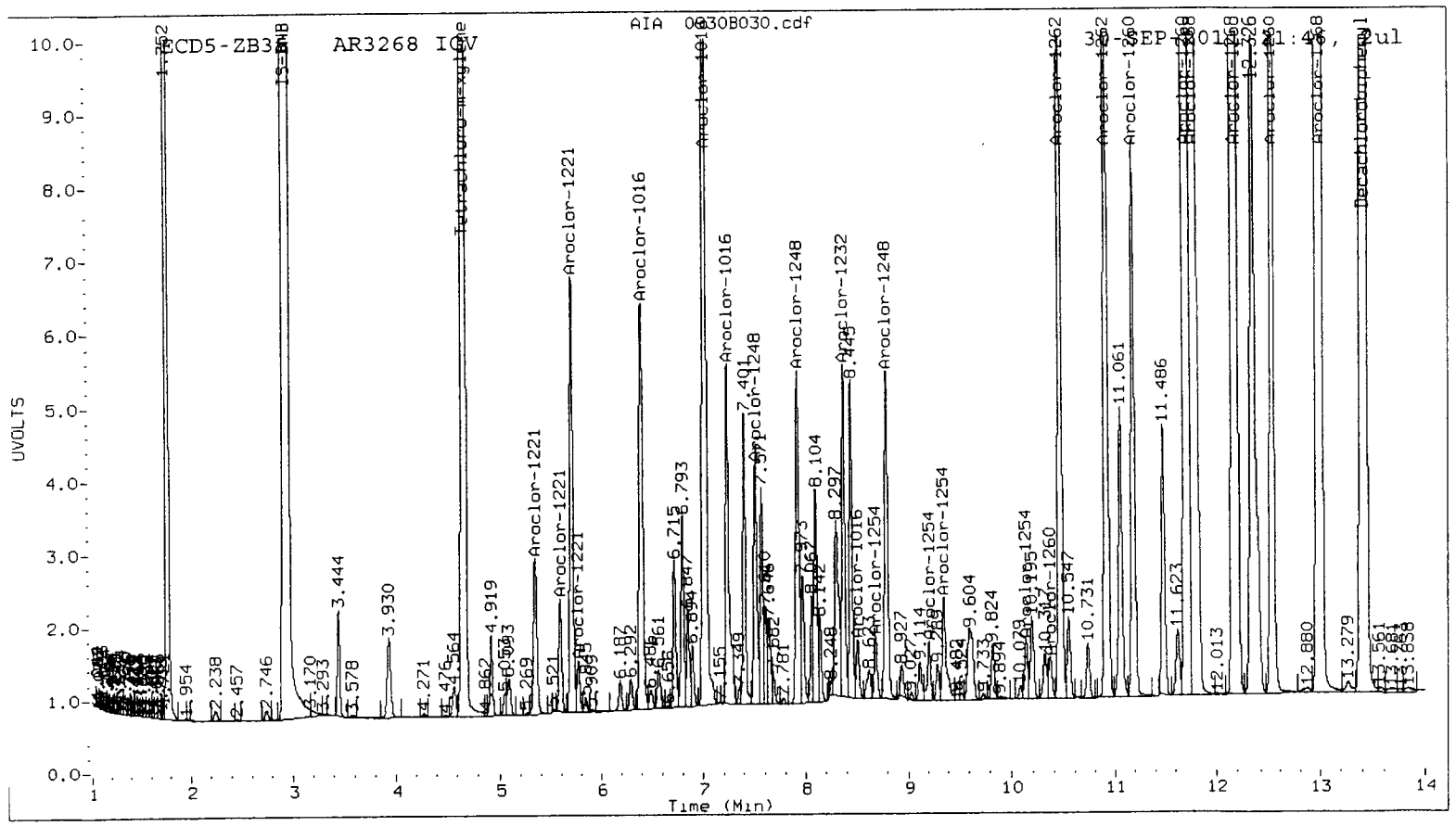
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Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20110930.B/ddt-1.b/0930B031.d ARI ID: 0.1 PPM DDTS

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
8.361	0.000	145042098	8.774	0.000	90198030	0.100	0.100	0.0	2,4-DDE
8.910	0.000	134770711	9.458	0.000	82381619	0.100	0.100	0.0	2,4-DDD
9.414	0.000	167841354	9.919	0.000	224919410	0.100	0.200#	66.7*	2,4-DDT
8.792	0.000	240659024	9.159	0.000	153479158	0.100	0.100	0.0	4,4-DDE
9.364	0.000	200414609	9.919	0.000	224919410	0.100	0.200#	66.7*	4,4-DDD
9.878	0.000	228238040	10.358	0.000	133790653	0.100	0.100	0.0	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

7E

8082 DDT BREAKDOWN VERIFICATION SUMMARY

Lab ID: DDT BD

Analysis Date: 30-SEP-2011 22:24 Init. Calib. Date: 30-SEP-2011

GC Column: ZB5 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4-DDE	8.791	1780045
4,4-DDD	9.371	9745998
4,4-DDT	9.879	246378070

Col 1: 4,4-DDT Percent Breakdown = 4.5 %

GC Column: ZB35 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4-DDE	9.160	588576
4,4-DDD/2,4-DDT	9.927	4272238
4,4-DDT	10.360	140373286

Col 2: 4,4-DDT Percent Breakdown = 3.3 %

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

TX57:01136

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: _____ Client ID: _____

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): PCBs TCMX DCB

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

Dates: Curve: 12/02/11 Analysis Start: 12/02/11

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

Method Blank In Control? YES / NO / NA

ICal Meets RF & %RSD Criteria? YES / NO

LCS/LCSD Recovery In Control? YES / NO

CCal Meets RF & %RSD Criteria? YES / NO

Surrogate Recovery In Control? YES / NO

Manual Integrations for ICal? YES / NO

Manual Integrations for Samples? 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: _____ **Date:** 12/03/11

Reviewer: VD **Date:** 12.3.11

TX57:01137

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client:

ARI Job No.: 20111202 Project:

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 12/02/11

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	4.54- 4.74	1.2047	1.1519	1.1602	1.1423	1.1385	1.0396	1.1395	4.8
DCB	12.93-13.13	1.0271	1.0390	1.0284	0.9960	0.9831	0.9511	1.0041	3.3

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	6.18- 6.38	0.0320	0.0292	0.0283	0.0267	0.0260	0.0232	0.0276	11.0
2	6.58- 6.78	0.1054	0.0970	0.0937	0.0879	0.0861	0.0773	0.0912	10.7
3	6.72- 6.92	0.0430	0.0397	0.0381	0.0355	0.0347	0.0309	0.0370	11.4
4	6.83- 7.03	0.0306	0.0277	0.0265	0.0247	0.0245	0.0219	0.0260	11.6

AROCLOR AVERAGE %RSD = 11.2

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	10.38-10.58	0.0453	0.0425	0.0402	0.0388	0.0362	0.0340	0.0395	10.4
2	10.76-10.96	0.1133	0.1057	0.1015	0.0985	0.0939	0.0904	0.1005	8.2
3	11.16-11.36	0.0588	0.0575	0.0555	0.0536	0.0510	0.0481	0.0541	7.5
4	11.27-11.47	0.0237	0.0234	0.0228	0.0217	0.0206	0.0193	0.0219	7.9
5	11.35-11.55	0.0279	0.0278	0.0272	0.0263	0.0251	0.0235	0.0263	6.6

AROCLOR AVERAGE %RSD = 8.1

TX57 . 01130

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client:

ARI Job No.: 20111202 Project:

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 12/03/11

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	5.017	4.92- 5.12	0.01091
2	5.196	5.10- 5.30	0.00769
3	5.300	5.20- 5.40	0.02700

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.278	6.18- 6.38	0.01111
2	6.677	6.58- 6.78	0.03678
3	6.826	6.73- 6.93	0.01499
4	8.019	7.92- 8.12	0.01323

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.277	6.18- 6.38	0.02084
2	6.676	6.58- 6.78	0.06873
3	6.825	6.73- 6.93	0.02767
4	8.018	7.92- 8.12	0.02333

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	6.673	6.57- 6.77	0.04664
2	7.472	7.37- 7.57	0.03240
3	8.017	7.92- 8.12	0.03886
4	8.308	8.21- 8.41	0.03742

TX57.01140

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client:

ARI Job No.: 20111202 Project:

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 12/02/11

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	4.54- 4.74	1.0571	1.0302	1.0451	1.0403	1.0247	0.9656	1.0272	3.1
DCB	13.31-13.51	1.1015	1.0703	1.0055	0.9618	0.9174	0.8792	0.9893	8.8

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	6.28- 6.48	0.0450	0.0417	0.0399	0.0368	0.0348	0.0317	0.0383	12.6
2	6.91- 7.11	0.0863	0.0799	0.0776	0.0738	0.0716	0.0671	0.0760	8.9
3	7.12- 7.32	0.0295	0.0283	0.0309	0.0290	0.0279	0.0260	0.0286	5.8
4	8.40- 8.60	0.0152	0.0148	0.0144	0.0132	0.0126	0.0117	0.0137	9.9

AROCLOR AVERAGE %RSD = 9.3

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	10.36-10.56	0.0516	0.0484	0.0463	0.0444	0.0414	0.0390	0.0452	10.2
2	10.81-11.01	0.0637	0.0594	0.0565	0.0544	0.0516	0.0489	0.0557	9.6
3	11.08-11.28	0.1238	0.1158	0.1113	0.1095	0.1050	0.1012	0.1111	7.2
4	11.61-11.81	0.0365	0.0333	0.0321	0.0310	0.0292	0.0276	0.0316	9.9

AROCLOR AVERAGE %RSD = 9.2

TX57 : 01141

6G
8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client:

ARI Job No.: 20111202 Project:

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 12/03/11

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	5.332	5.23- 5.43	0.01152
2	5.579	5.48- 5.68	0.00660
3	5.691	5.59- 5.79	0.02085
4	5.759	5.66- 5.86	0.00330

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.385	6.29- 6.49	0.01666
2	7.010	6.91- 7.11	0.03042
3	7.219	7.12- 7.32	0.01062
4	8.364	8.26- 8.46	0.01024

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.383	6.28- 6.48	0.02867
2	7.009	6.91- 7.11	0.05697
3	7.218	7.12- 7.32	0.02258
4	8.363	8.26- 8.46	0.01786

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	7.005	6.91- 7.11	0.03778
2	7.911	7.81- 8.01	0.02821
3	8.362	8.26- 8.46	0.02937
4	8.784	8.68- 8.88	0.03206

TX57 61142

6G
8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client:

ARI Job No.: 20111202 Project:

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 12/03/11

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.503	8.40- 8.60	0.02518
2	8.675	8.57- 8.77	0.03288
3	9.199	9.10- 9.30	0.02589
4	9.349	9.25- 9.45	0.05551
5	10.131	10.03-10.23	0.03431

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	10.461	10.36-10.56	0.07193
2	10.914	10.81-11.01	0.06836
3	11.184	11.08-11.28	0.13299
4	11.707	11.61-11.81	0.05907
5	12.505	12.41-12.61	0.04741

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.707	11.61-11.81	0.13881
2	11.774	11.67-11.87	0.12660
3	12.172	12.07-12.27	0.10479
4	12.993	12.89-13.09	0.31117

TXST 8146

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-DEC-2011 18:45
End Cal Date : 03-DEC-2011 00:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20111202.B/PCB1.m
Cal Date : 03-Dec-2011 09:17 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20111202.B/ical-1.b/1202B014.d
Level 2: /chem2/ecd5.i/20111202.B/ical-1.b/1202B015.d
Level 3: /chem2/ecd5.i/20111202.B/ical-1.b/1202B017.d
Level 4: /chem2/ecd5.i/20111202.B/ical-1.b/1202B013.d
Level 5: /chem2/ecd5.i/20111202.B/ical-1.b/1202B018.d
Level 6: /chem2/ecd5.i/20111202.B/ical-1.b/1202B016.d
Level 7: /chem2/ecd5.i/20111202.B/ical-1.b/1202B023.d
Level 8: /chem2/ecd5.i/20111202.B/ddt-1.b/1202B030.d

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.01091	+++++	0.01091	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.00769	+++++	0.00769	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02700	+++++	0.02700	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.02084	+++++	0.02084	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.06873	+++++	0.06873	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02767	+++++	0.02767	0.000

TEST 01140

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-DEC-2011 18:45
End Cal Date : 03-DEC-2011 00:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20111202.B/PCB1.m
Cal Date : 03-Dec-2011 09:17 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.02333	+++++	0.02333	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.01111	+++++	0.01111	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.03678	+++++	0.03678	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.01499	+++++	0.01499	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.01323	+++++	0.01323	0.000
7 Aroclor-1016(1)	0.03203	0.02923	0.02834	0.02667	0.02596	0.02317	+++++	+++++	0.02756	11 003
(2)	0.10544	0.09697	0.09374	0.08794	0.08613	0.07726	+++++	+++++	0.09125	10.662
(3)	0.04299	0.03970	0.03808	0.03549	0.03468	0.03088	+++++	+++++	0.03697	11.435
(4)	0.03060	0.02768	0.02654	0.02472	0.02445	0.02191	+++++	+++++	0.02598	11.558

TX57 01115

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-DEC-2011 18:45
End Cal Date : 03-DEC-2011 00:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20111202.B/PCB1.m
Cal Date : 03-Dec-2011 09:17 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.04664	+++++	0.04664	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.03240	+++++	0.03240	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.03886	+++++	0.03886	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03742	+++++	0.03742	0.000
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.05823	+++++	0.05823	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.03740	+++++	0.03740	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.06971	+++++	0 06971	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.07226	+++++	0.07226	0 000
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.04893	+++++	0.04893	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-DEC-2011 18:45
End Cal Date : 03-DEC-2011 00:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20111202.B/PCB1.m
Cal Date : 03-Dec-2011 09:17 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	___ RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
9 Aroclor-1260 (1)	0.04529	0.04247	0.04020	0.03882	0.03617	0.03400		
	+++++	+++++					0 03949	10.424
(2)	0.11326	0.10570	0.10146	0.09852	0.09389	0.09038		
	+++++	+++++					0.10054	8.211
(3)	0.05881	0.05754	0.05546	0.05355	0.05101	0.04814		
	+++++	+++++					0.05408	7.451
(4)	0.02372	0.02343	0.02278	0.02173	0.02059	0.01926		
	+++++	+++++					0.02192	7.937
(5)	0.02793	0.02778	0.02723	0.02628	0.02507	0.02353		
	+++++	+++++					0.02630	6.557
10 Aroclor-1262 (1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06372	+++++					0.06372	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04966	+++++					0.04966	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.12187	+++++					0.12187	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05071	+++++					0.05071	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-DEC-2011 18:45
End Cal Date : 03-DEC-2011 00:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20111202.B/PCB1.m
Cal Date : 03-Dec-2011 09:17 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.05445	+++++	0.05445	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.13067	+++++	0.13067	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.12779	+++++	0.12779	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.10788	+++++	0.10788	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.33333	+++++	0.33333	0.000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	766	766	0.000
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	652	652	0.000
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	931	931	0.000
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1187	1187	0 000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-DEC-2011 18:45
End Cal Date : 03-DEC-2011 00:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20111202.B/PCB1.m
Cal Date : 03-Dec-2011 09:17 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	815					815	0 000
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1001					1001	0.000
$ 1 Tetrachloro-m-xylene	1.20469	1.15193	1.16022	1.14227	1.13847	1.03963		
	+++++	+++++					1.13954	4.777
$ 13 Decachlorobiphenyl	1.02713	1.03899	1.02844	0.99602	0.98315	0.95109		
	+++++	+++++					1.00414	3.349

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-DEC-2011 18:45
End Cal Date : 03-DEC-2011 00:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20111202.B/PCB2.m
Cal Date : 03-Dec-2011 09:16 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20111202.B/ical-2.b/1202B014.d/1202B014.cdf
Level 2: /chem2/ecd5.i/20111202.B/ical-2.b/1202B015.d/1202B015.cdf
Level 3: /chem2/ecd5.i/20111202.B/ical-2.b/1202B017.d/1202B017.cdf
Level 4: /chem2/ecd5.i/20111202.B/ical-2.b/1202B013.d/1202B013.cdf
Level 5: /chem2/ecd5.i/20111202.B/ical-2.b/1202B018.d/1202B018.cdf
Level 6: /chem2/ecd5.i/20111202.B/ical-2.b/1202B016.d/1202B016.cdf
Level 7: /chem2/ecd5.i/20111202.B/ical-2.b/1202B023.d
Level 8: /chem2/ecd5.i/20111202.B/ddt-2.b/1202B030.d

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
1 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.01152	+++++	0.01152	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.00660	+++++	0.00660	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02085	+++++	0.02085	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.00330	+++++	0.00330	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.01666	+++++	0.01666	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.03042	+++++	0.03042	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-DEC-2011 18:45
End Cal Date : 03-DEC-2011 00:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20111202.B/PCB2.m
Cal Date : 03-Dec-2011 09:16 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01062	+++++					0.01062	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01024	+++++					0.01024	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02867	+++++					0.02867	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05697	+++++					0.05697	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02258	+++++					0.02258	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01786	+++++					0.01786	0.000
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03778	+++++					0.03778	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02821	+++++					0.02821	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02937	+++++					0.02937	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-DEC-2011 18:45
End Cal Date : 03-DEC-2011 00:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20111202.B/PCB2.m
Cal Date : 03-Dec-2011 09:16 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03206	+++++					0.03206	0.000
7 Aroclor-1016(1)	0.04497	0.04170	0.03985	0.03679	0.03480	0.03166		
	+++++	+++++					0.03830	12 632
(2)	0.08627	0.07985	0.07763	0.07381	0.07156	0.06711		
	+++++	+++++					0 07604	8.852
(3)	0.02955	0.02835	0.03089	0.02903	0.02789	0.02598		
	+++++	+++++					0.02861	5.797
(4)	0.01522	0.01478	0.01435	0.01325	0.01265	0.01170		
	+++++	+++++					0 01366	9.938
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02518	+++++					0.02518	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03288	+++++					0.03288	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02589	+++++					0.02589	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05551	+++++					0.05551	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-DEC-2011 18:45
End Cal Date : 03-DEC-2011 00:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20111202.B/PCB2.m
Cal Date : 03-Dec-2011 09:16 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(5)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03431	+++++							0.03431	0.000
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.07193	+++++							0.07193	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.06836	+++++							0.06836	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.13299	+++++							0.13299	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.05907	+++++							0.05907	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.04741	+++++							0.04741	0.000
9 Aroclor-1260(1)	0.05156	0.04843	0.04625	0.04436	0.04137	0.03900				
	+++++	+++++							0.04516	10.186
(2)	0.06366	0.05940	0.05646	0.05442	0.05155	0.04894				
	+++++	+++++							0 05574	9.566
(3)	0.12382	0.11576	0.11126	0.10952	0.10497	0.10123				
	+++++	+++++							0.11110	7.212

TXST:01153

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-DEC-2011 18:45
End Cal Date : 03-DEC-2011 00:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20111202.B/PCB2.m
Cal Date : 03-Dec-2011 09:16 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(4)	0.03647	0.03327	0.03215	0.03099	0.02920	0.02761	+++++	+++++	0.03161	9.889
11 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.13881	+++++	0.13881	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.12660	+++++	0.12660	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.10479	+++++	0.10479	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.31117	+++++	0.31117	0.000
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	532	532	0.000
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	449	449	0.000
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	838	838	0.000
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	630	630	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-DEC-2011 18:45
End Cal Date : 03-DEC-2011 00:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20111202.B/PCB2.m
Cal Date : 03-Dec-2011 09:16 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
46 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	713	713	0.000
$ 2 Tetrachloro-m-xylene	1.05709	1.03020	1.04506	1.04029	1.02472	0.96562	+++++	+++++	1.02716	3.137
$ 13 Decachlorobiphenyl	1.10152	1.07034	1.00550	0.96182	0.91735	0.87919	+++++	+++++	0.98929	8.752

TX57.01185

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20111202.B/PCB1.m
Batch File: /chem2/ecd5.i/20111202.B/ical-1.b
Inst ID: ecd5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	1202B013	1202B014	1202B015	1202B016	1202B017	1202B018
INJ.DATE:	02-DEC-2011	02-DEC-2011	02-DEC-2011	02-DEC-2011	02-DEC-2011	02-DEC-2011
INJ.TIME:	18:45	19:04	19:23	19:42	20:01	20:19

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	41 IS-BNB	2.435	2.436	2.435	2.435	2.436	2.434	2.432	2.332-2.532	2.435	0.001
$	1 Tetrachloro-m-xylene	4.647	4.646	4.645	4.647	4.645	4.646	4.642	4.542-4.742	4.646	0.001
	2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	5.017	4.917-5.117	+++++	+++++
	3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	6.277	6.177-6.377	+++++	+++++
	4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	6.278	6.178-6.378	+++++	+++++
	7 Aroclor-1016	6.280	6.279	6.279	6.280	6.279	6.279	6.276	6.176-6.376	6.279	0.001
	6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	6.673	6.573-6.773	+++++	+++++
	8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	8.392	8.292-8.492	+++++	+++++
	9 Aroclor-1260	10.487	10.486	10.486	10.486	10.485	10.485	10.483	10.383-10.583	10.486	0.001
	10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.168	10.068-10.268	+++++	+++++
	11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	11.377	11.277-11.477	+++++	+++++
$	13 Decachlorobiphenyl	13.033	13.032	13.032	13.033	13.032	13.031	13.030	12.930-13 130	13.032	0.001
*	12 IS-HBBP	13.395	13.395	13.395	13.395	13.394	13.394	13.392	13.292-13.492	13.395	0.001
	42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.361	8.311-8.411	+++++	+++++
	43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	8.911	8.861-8.961	+++++	+++++
	44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.365	9.315-9.415	+++++	+++++
	46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.791	8.691-8.891	+++++	+++++

Reviewer 1 VD Date: 12/03/11
Reviewer 2 Date: 12/3/11

ARI-QA-FORM.2

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20111202.B/PCB1.m
Batch File: /chem2/ecd5.i/20111202.B/ical-1.b
Inst ID: ecd5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.415	9.315-9.515	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.878	9.778-9.978	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20111202.B/PCB2.m
Batch File: /chem2/ecd5.i/20111202.B/ical-2.b
Inst ID: ecd5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	1202B013	1202B014	1202B015	1202B016	1202B017	1202B018
INJ.DATE:	02-DEC-2011	02-DEC-2011	02-DEC-2011	02-DEC-2011	02-DEC-2011	02-DEC-2011
INJ.TIME:	18:45	19:04	19:23	19:42	20:01	20:19

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB	2.926	2.927	2.926	2.927	2.926	2.925	2.923	2.823-3.023	2.926	0.001
$ 2 Tetrachloro-m-xylene	4.647	4.648	4.647	4.649	4.646	4.647	4.644	4.544-4.744	4.647	0.001
1 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	5.332	5.232-5.432	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	6.385	6.285-6.485	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	6.383	6.283-6.483	+++++	+++++
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	7.005	6.905-7.105	+++++	+++++
7 Aroclor-1016	6.385	6.385	6.385	6.386	6.385	6.385	6.383	6.283-6.483	6.385	0.000
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	8.503	8.403-8.603	+++++	+++++
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.461	10.361-10.561	+++++	+++++
9 Aroclor-1260	10.463	10.462	10.462	10.462	10.461	10.461	10.459	10.359-10.559	10.462	0.001
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	11.707	11.607-11.807	+++++	+++++
$ 13 Decachlorobiphenyl	13.409	13.407	13.408	13.408	13.407	13.407	13.406	13.306-13.506	13.408	0.001
* 12 IS-HBBP	14.279	14.278	14.278	14.278	14.278	14.276	14.275	14.175-14.375	14.278	0.001
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.767	8.717-8.817	+++++	+++++
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.451	9.401-9.501	+++++	+++++
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.152	9.052-9.252	+++++	+++++
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.911	9.811-10.011	+++++	+++++

Reviewer 1 _____ Date: 12/02/11
Reviewer 2 _____ Date: 12/3/11

EXHIBIT 15

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20111202.B/PCB2.m
Batch File: /chem2/ecd5.i/20111202.B/ical-2.b
Inst ID: ecd5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.352	10.252-10.452	+++++	+++++

TX57:01150

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20111202.B/ical-2.b

ARI Job No.: IB Method: PCB2.m Instrument: ecd5.i Date: 02-DEC-2011

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1826	1202B012.d	IB		1	NO MANUAL INTEGRATION
1845	1202B013.d	0.25 PPM	AR1660	1	NO MANUAL INTEGRATION
1904	1202B014.d	0.02 PPM	AR1660	1	NO MANUAL INTEGRATION
1923	1202B015.d	0.05 PPM	AR1660	1	NO MANUAL INTEGRATION
1942	1202B016.d	1 PPM	AR1660	1	NO MANUAL INTEGRATION
2001	1202B017.d	0.1 PPM	AR1660	1	NO MANUAL INTEGRATION
2019	1202B018.d	0.5 PPM	AR1660	1	NO MANUAL INTEGRATION
2038	1202B019.d	AR1242		1	NO MANUAL INTEGRATION
2057	1202B020.d	AR1248		1	NO MANUAL INTEGRATION
2116	1202B021.d	AR1254		1	NO MANUAL INTEGRATION
2135	1202B022.d	AR2162		1	NO MANUAL INTEGRATION
2154	1202B023.d	AR3268		1	NO MANUAL INTEGRATION
2213	1202B024.d	AR1660	ICV	1	NO MANUAL INTEGRATION
2232	1202B025.d	AR1242	ICV	1	NO MANUAL INTEGRATION
2251	1202B026.d	AR1248	ICV	1	NO MANUAL INTEGRATION
2310	1202B027.d	AR1254	ICV	1	NO MANUAL INTEGRATION
2329	1202B028.d	AR2162	ICV	1	NO MANUAL INTEGRATION
2347	1202B029.d	AR3268	ICV	1	NO MANUAL INTEGRATION
1826	1202B012 d	IB		1	NO MANUAL INTEGRATION
1845	1202B013.d	0.25 PPM	AR1660	1	NO MANUAL INTEGRATION
1904	1202B014.d	0.02 PPM	AR1660	1	NO MANUAL INTEGRATION

TX57:0161

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20111202.B/ical-2.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1923	1202B015.d	0.05 PPM	AR1660	1	NO MANUAL INTEGRATION
1942	1202B016.d	1 PPM	AR1660	1	NO MANUAL INTEGRATION
2001	1202B017.d	0.1 PPM	AR1660	1	NO MANUAL INTEGRATION
2019	1202B018.d	0.5 PPM	AR1660	1	NO MANUAL INTEGRATION
2038	1202B019.d	AR1242		1	NO MANUAL INTEGRATION
2057	1202B020.d	AR1248		1	NO MANUAL INTEGRATION
2116	1202B021.d	AR1254		1	NO MANUAL INTEGRATION
2135	1202B022.d	AR2162		1	NO MANUAL INTEGRATION
2154	1202B023.d	AR3268		1	NO MANUAL INTEGRATION
2213	1202B024.d	AR1660	ICV	1	NO MANUAL INTEGRATION
2232	1202B025.d	AR1242	ICV	1	NO MANUAL INTEGRATION
2251	1202B026.d	AR1248	ICV	1	NO MANUAL INTEGRATION
2310	1202B027.d	AR1254	ICV	1	NO MANUAL INTEGRATION
2329	1202B028.d	AR2162	ICV	1	NO MANUAL INTEGRATION
2347	1202B029.d	AR3268	ICV	1	NO MANUAL INTEGRATION

TX57.01162

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B012.d
Data file 2: 20111202.B/ical-2.b/1202B012.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 02-DEC-2011 18:26
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.647	0.005	76187231	4.648	0.004	52301001	43.1	45.8	6.1	Tetrachloro-m-xylene
13.033	0.003	71913474	13.409	0.003	28959199	42.3	40.6	3.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	107.8	114.6
Decachlorobiphenyl	105.7	101.6

12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	123999794	-0.6
Hexabromobiphenyl	134444165	135536206	0.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	88885262	-0.7
Hexabromobiphenyl	57341096	57627135	0.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.285	0.009	45360	1.1	1	6.367	-0.016	87702	2.1
Aroclor-1016	2	6.652	-0.023	20383	0.1	2	7.038	0.030	55976	0.7
Aroclor-1016	3	6.827	0.003	43561	0.8	3	---			0.0
Aroclor-1016	4	6.942	0.008	71692	1.8	4	8.593	0.090	65981	4.3
	Total Col1Ave (4 peaks):				0.9	Total Col2Ave (3 peaks):			2.4	RPD = 86*
	Corrected Ave (3 peaks):				0.7	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	4.926	-0.091	1857224	109.8	1	5.354	0.021	658461	51.4
Aroclor-1221	2	5.185	-0.011	795115	66.7	2	5.534	-0.045	13665	1.9
Aroclor-1221	3	5.398	0.098	19516	0.5	3	5.699	0.008	129446	5.6
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):				59.0	Total Col2Ave (3 peaks):			19.6	RPD = 100*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.285	0.006	45360	2.6	1	6.367	-0.019	87702	4.7
Aroclor-1232	2	6.652	-0.025	20383	0.4	2	7.038	0.029	55976	1.7
Aroclor-1232	3	6.827	0.001	43561	1.9	3	---			0.0
Aroclor-1232	4	8.021	0.002	23206	1.1	4	8.327	-0.037	160444	14.1
	Total Col1Ave (4 peaks):				1.5	Total Col2Ave (3 peaks):			6.8	RPD = 128*
	Corrected Ave (3 peaks):				1.1	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	6.285	0.008	45360	1.4	1	6.367	-0.017	87702	2.8
Aroclor-1242	2	6.652	-0.024	20383	0.2	2	7.038	0.029	55976	0.9
Aroclor-1242	3	6.827	0.002	43561	1.0	3	---			0.0
Aroclor-1242	4	8.021	0.003	23206	0.6	4	8.327	-0.036	160444	8.1
	Total Col1Ave (4 peaks):				0.8	Total Col2Ave (3 peaks):			3.9	RPD = 131*
	Corrected Ave (3 peaks):				0.6	Corrected Ave: < 3 Peaks				
Aroclor-1248	1	7.197	0.524	15643	0.2	1	7.512	0.507	84090	2.0
Aroclor-1248	2	7.487	0.015	14353	0.3	2	7.916	0.004	420849	13.4
Aroclor-1248	3	8.021	0.004	23206	0.4	3	8.327	-0.035	160444	4.9
Aroclor-1248	4	8.292	-0.016	785848	13.5	4	8.729	-0.055	322719	9.1
	Total Col1Ave (4 peaks):				3.6	Total Col2Ave (4 peaks):			7.4	RPD = 68*
	Corrected Ave (3 peaks):				0.3	Corrected Ave (3 peaks):			5.3	RPD = 179*
Aroclor-1254	1	8.401	0.008	162482	1.8	1	8.593	0.090	65981	2.4
Aroclor-1254	2	8.782	0.018	320920	5.5	2	8.729	0.054	322719	8.8
Aroclor-1254	3	8.908	0.008	167895	1.6	3	9.159	-0.040	237529	8.3
Aroclor-1254	4	9.235	-0.015	56646	0.5	4	9.354	0.005	228121	3.7
Aroclor-1254	5	9.612	-0.001	184477	2.4	5	10.136	0.005	23143	0.6
	Total Col1Ave (5 peaks):				2.4	Total Col2Ave (5 peaks):			4.8	RPD = 67*
	Corrected Ave (4 peaks):				1.6	Corrected Ave (4 peaks):			3.7	RPD = 81*
Aroclor-1260	1	---			0.0	1	10.358	-0.102	41330	1.3
Aroclor-1260	2	10.898	0.041	281512	1.7	2	---			0.0
Aroclor-1260	3	11.223	-0.035	10406	0.1	3	11.660	0.477	173216	2.2
Aroclor-1260	4	11.366	-0.009	22290	0.6	4	12.551	0.846	159923	7.0
Aroclor-1260	5	---			0.0	NS	---			----
	Total Col1Ave (3 peaks):				0.8	Total Col2Ave (3 peaks):			3.5	RPD = 126*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.143	-0.025	402539	3.7	1	10.506	0.045	37907	0.7
Aroclor-1262	2	---			0.0	2	10.855	-0.058	12415	0.3
Aroclor-1262	3	10.898	0.039	281512	1.4	3	---			0.0
Aroclor-1262	4	11.366	-0.010	22290	0.3	4	11.660	-0.047	173216	4.1
Aroclor-1262	5	---			0.0	5	12.551	0.046	159923	4.7
	Total Col1Ave (3 peaks):				1.8	Total Col2Ave (4 peaks):			2.4	RPD = 31
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):			1.7	
Aroclor-1268	1	11.366	-0.011	22290	0.1	1	11.660	-0.047	173216	1.7
Aroclor-1268	2	---			0.0	2	---			0.0

TXST_01264

Aroclor-1268	3	11.836	0.001	30803	0.2	3	---	0.0
Aroclor-1268	4	12.614	-0.012	132596	0.2	4	13.002	0.008	30880	0.1
Total Col1Ave (3 peaks):				0.2		Col2Ave: <3 Quant Peaks				

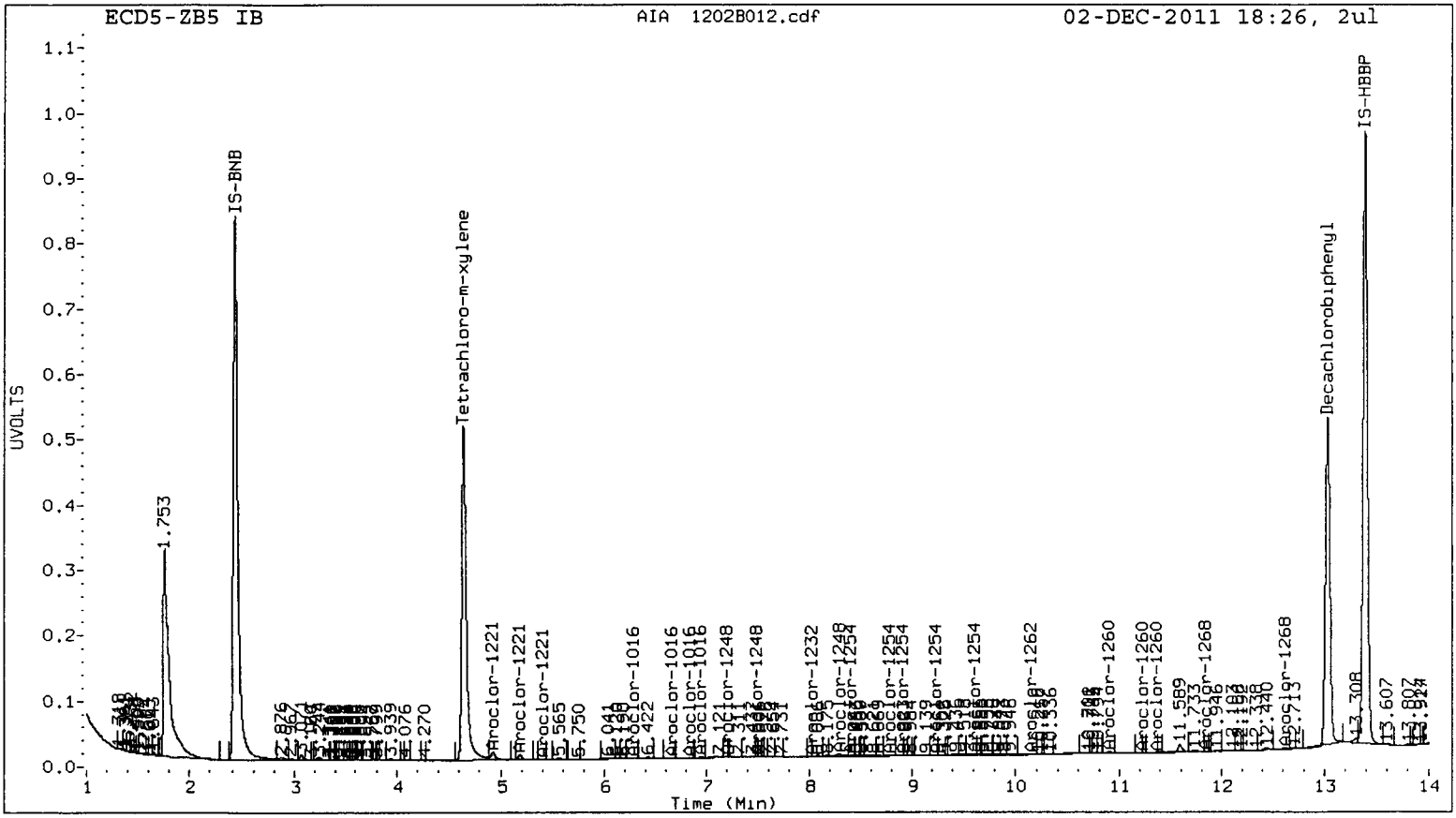
Total PCB Area Col1 (4.742 - 12.930) = 11376938 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.744 - 13.306) = 6965257 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

TX57:01165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Time (Min)
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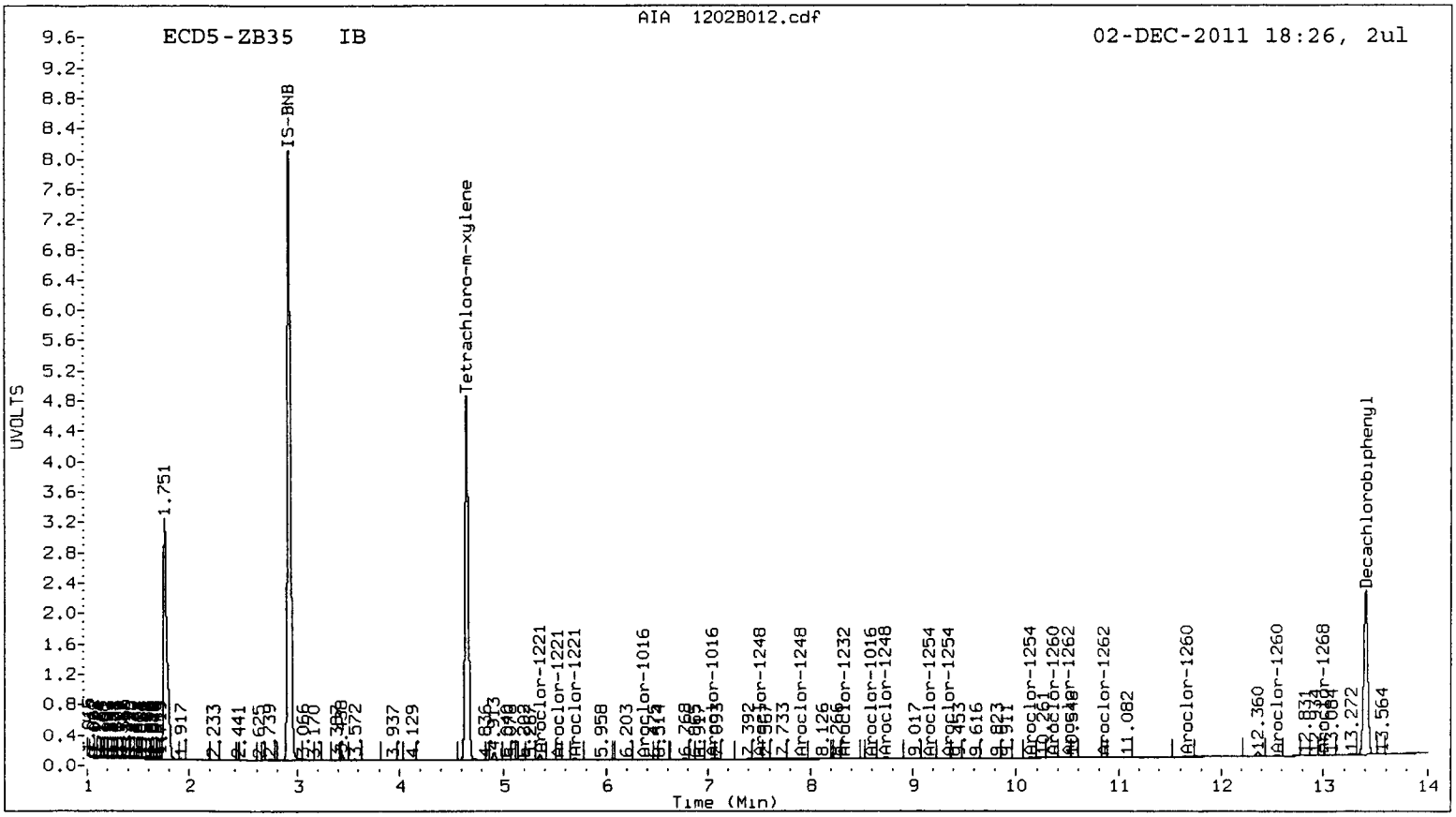
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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Time (Min)
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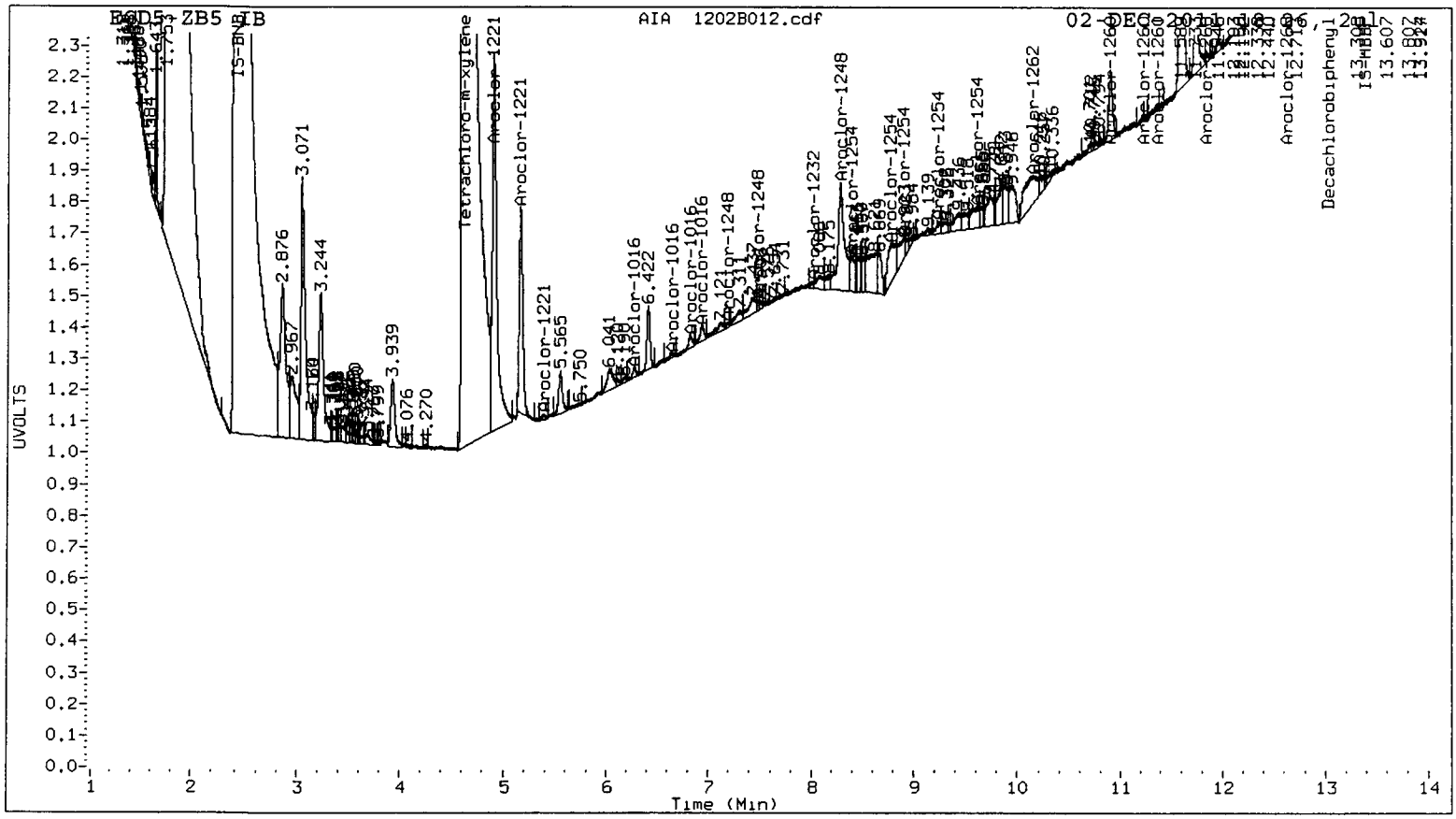
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl

TX57 01166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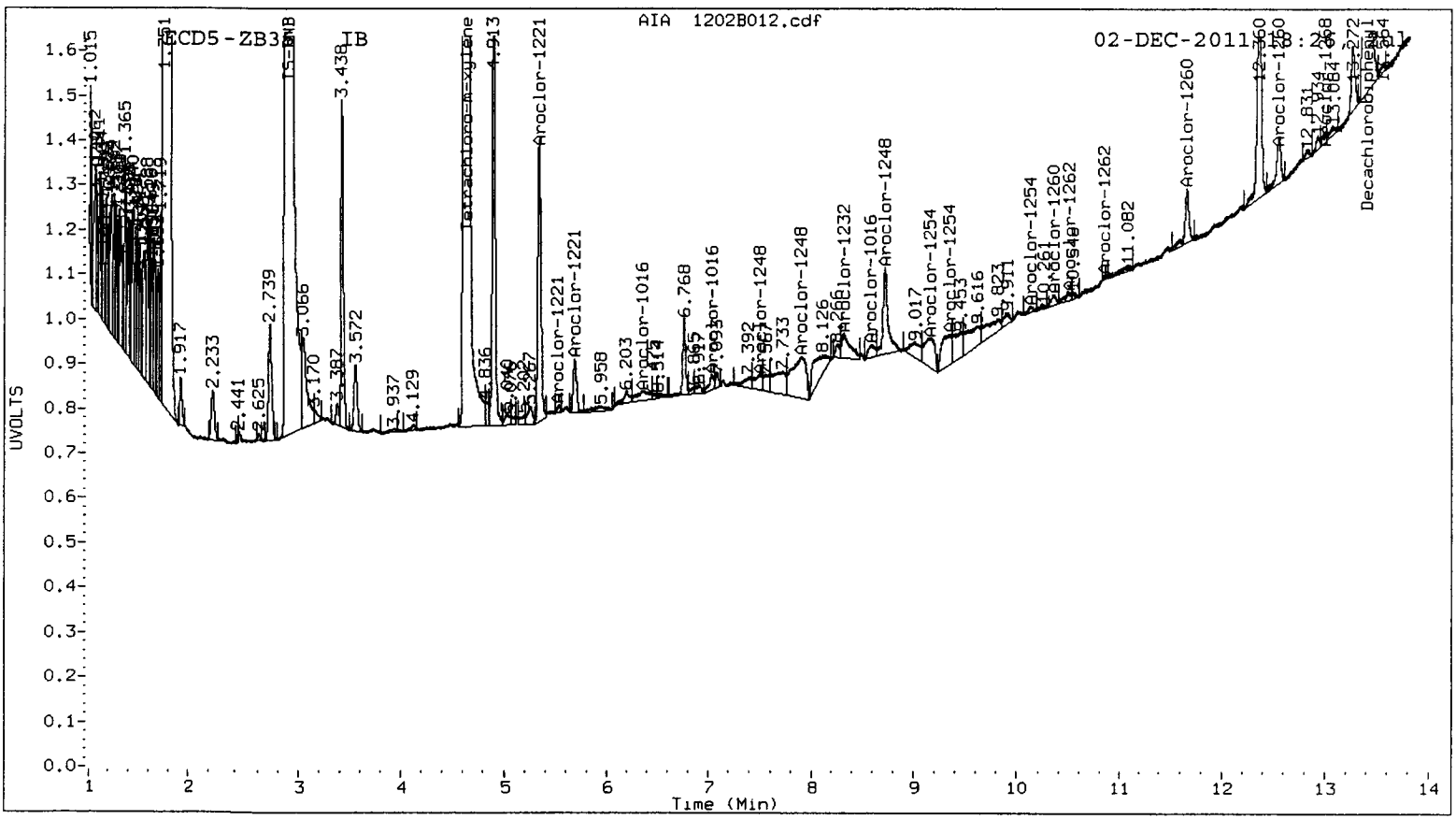
02-DEC-2011
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Decachlorobiphenyl
UVOLTS
Time (Min)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02-DEC-2011
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Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Decachlorobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B013.d
Data file 2: 20111202.B/ical-2.b/1202B013.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25 PPM AR1660
Client ID:
Injection Date: 02-DEC-2011 18:45
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.647	0.005	35637223	4.647	0.003	23268473	20.0	20.3	1.0	Tetrachloro-m-xylene
13.033	0.004	33477330	13.409	0.003	13787950	19.8	19.4	2.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.1	50.6
Decachlorobiphenyl	49.6	48.6

12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	124794321	0.0
Hexabromobiphenyl	134444165	134444165	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	89469381	0.0
Hexabromobiphenyl	57341096	57341096	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

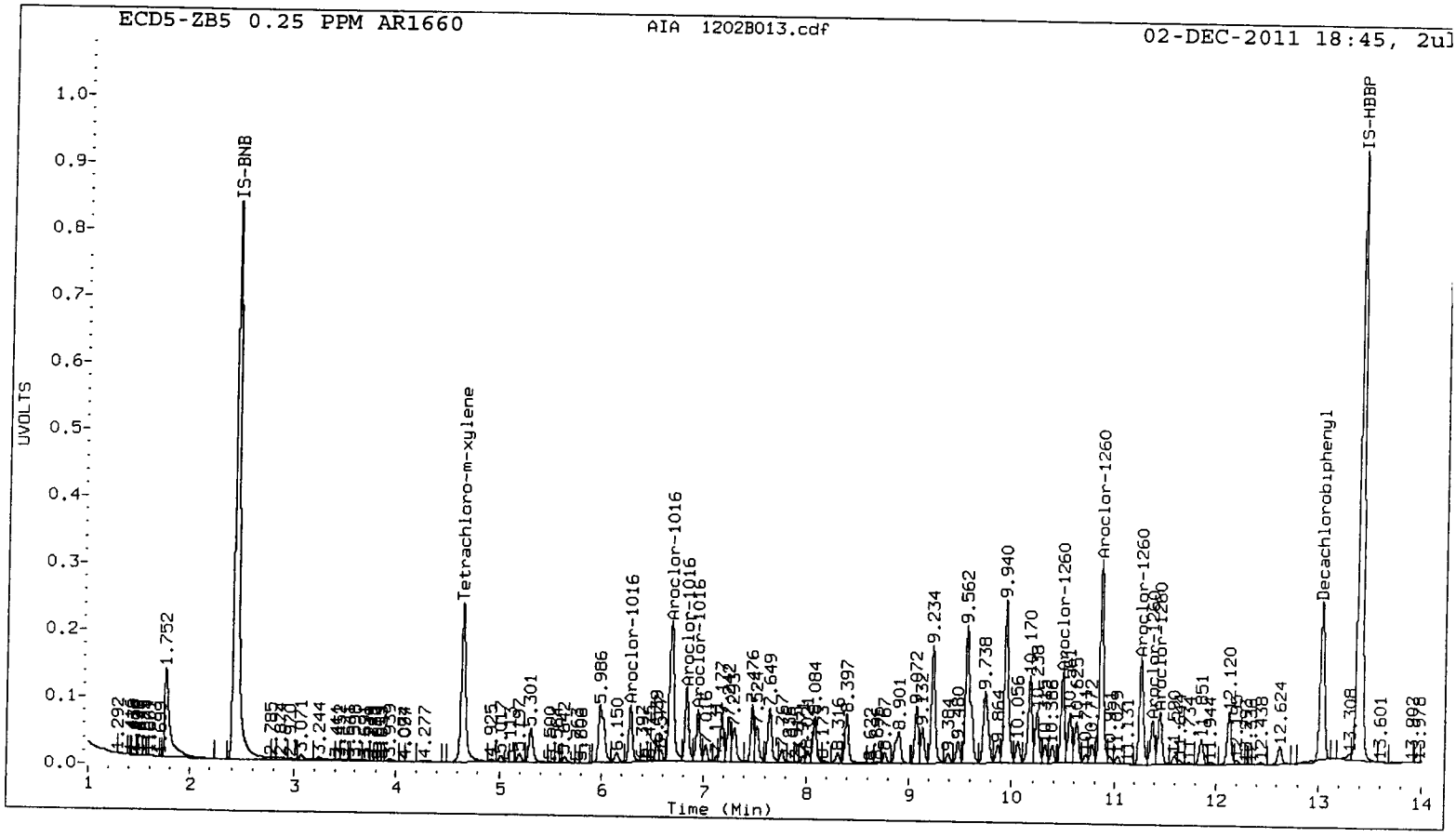
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.280	0.004	10399335	241.9	1	6.385	0.003	10287164	240.2
Aroclor-1016	2	6.679	0.004	34293914	240.9	2	7.011	0.002	20635733	242.7
Aroclor-1016	3	6.828	0.004	13840131	240.0	3	7.220	0.003	8116605	253.6
Aroclor-1016	4	6.938	0.004	9640399	237.8	4	8.506	0.003	3704290	242.5
	Total Col1Ave (4 peaks):				240.2	Total Col2Ave (4 peaks):				244.8 RPD = 2
	Corrected Ave (3 peaks):				239.6	Corrected Ave (3 peaks):				241.8 RPD = 1
Aroclor-1260	1	10.487	0.004	16307904	245.7	1	10.463	0.003	7948490	245.5
Aroclor-1260	2	10.861	0.003	41393179	245.0	2	10.914	0.003	9752245	244.1
Aroclor-1260	3	11.261	0.003	22498772	247.5	3	11.185	0.002	19625045	246.5
Aroclor-1260	4	11.377	0.003	9130283	247.9	4	11.708	0.003	5553970	245.1
Aroclor-1260	5	11.451	0.003	11042946	249.8	NS	---			----
	Total Col1Ave (5 peaks):				247.2	Total Col2Ave (4 peaks):				245.3 RPD = 1
	Corrected Ave (4 peaks):				246.5	Corrected Ave (3 peaks):				244.9 RPD = 1

Total PCB Area Col1 (4.742 - 12.930) = 516252061 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.744 - 13.306) = 265794581 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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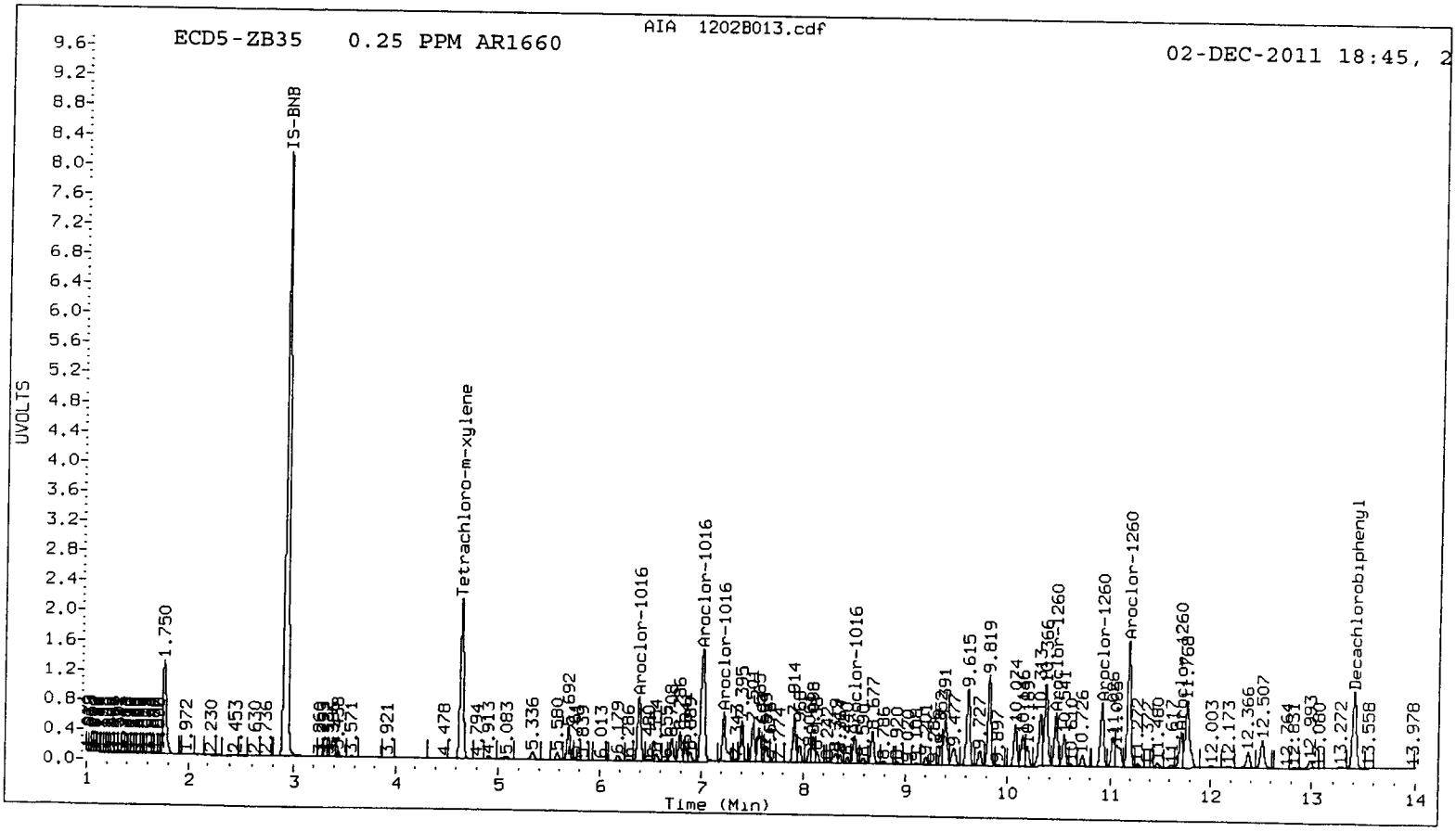
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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Time (Min)
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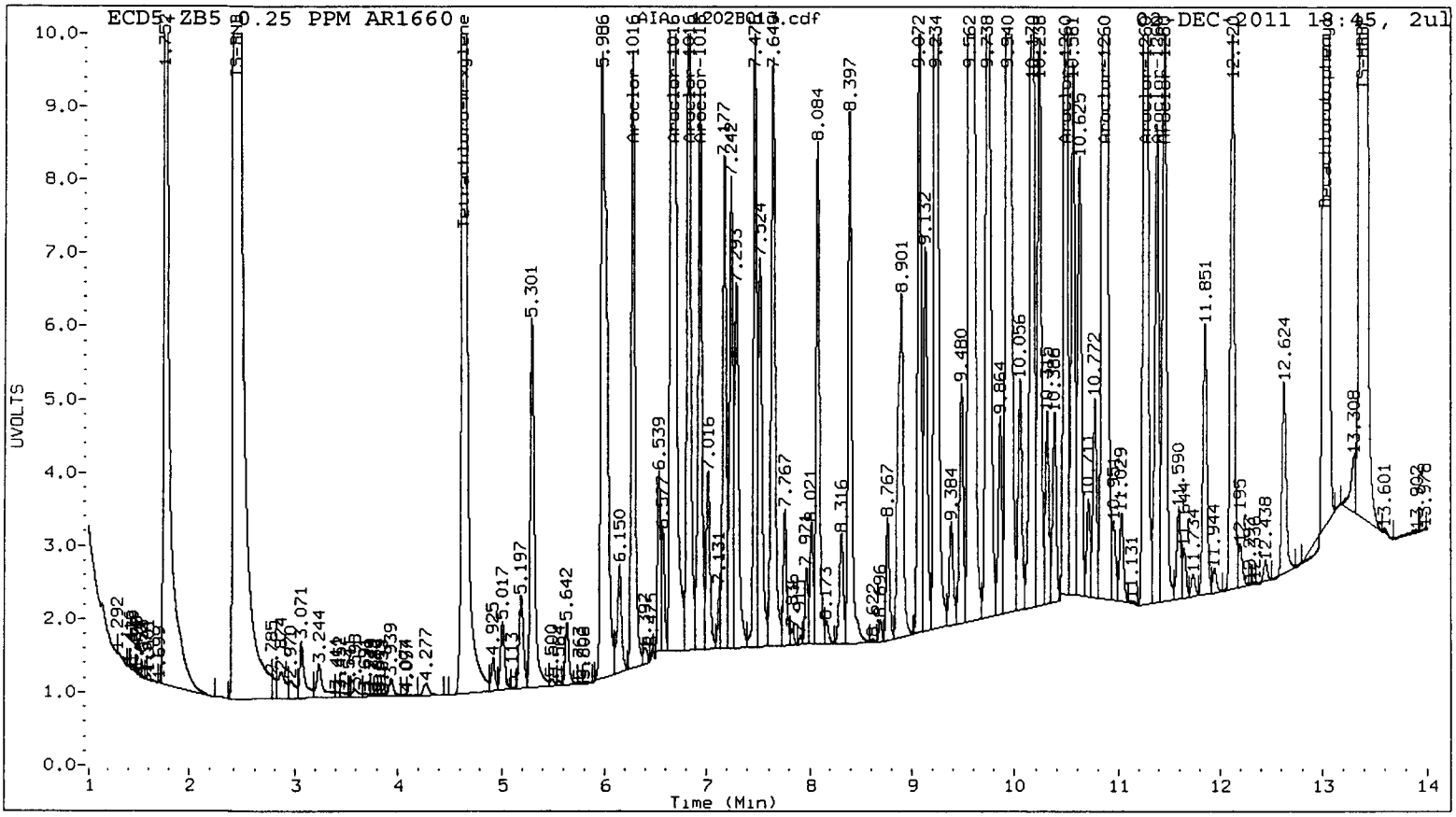
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl


ECD5-ZB5 0.25 PPM AR1660
DIA 1202B013.cdf
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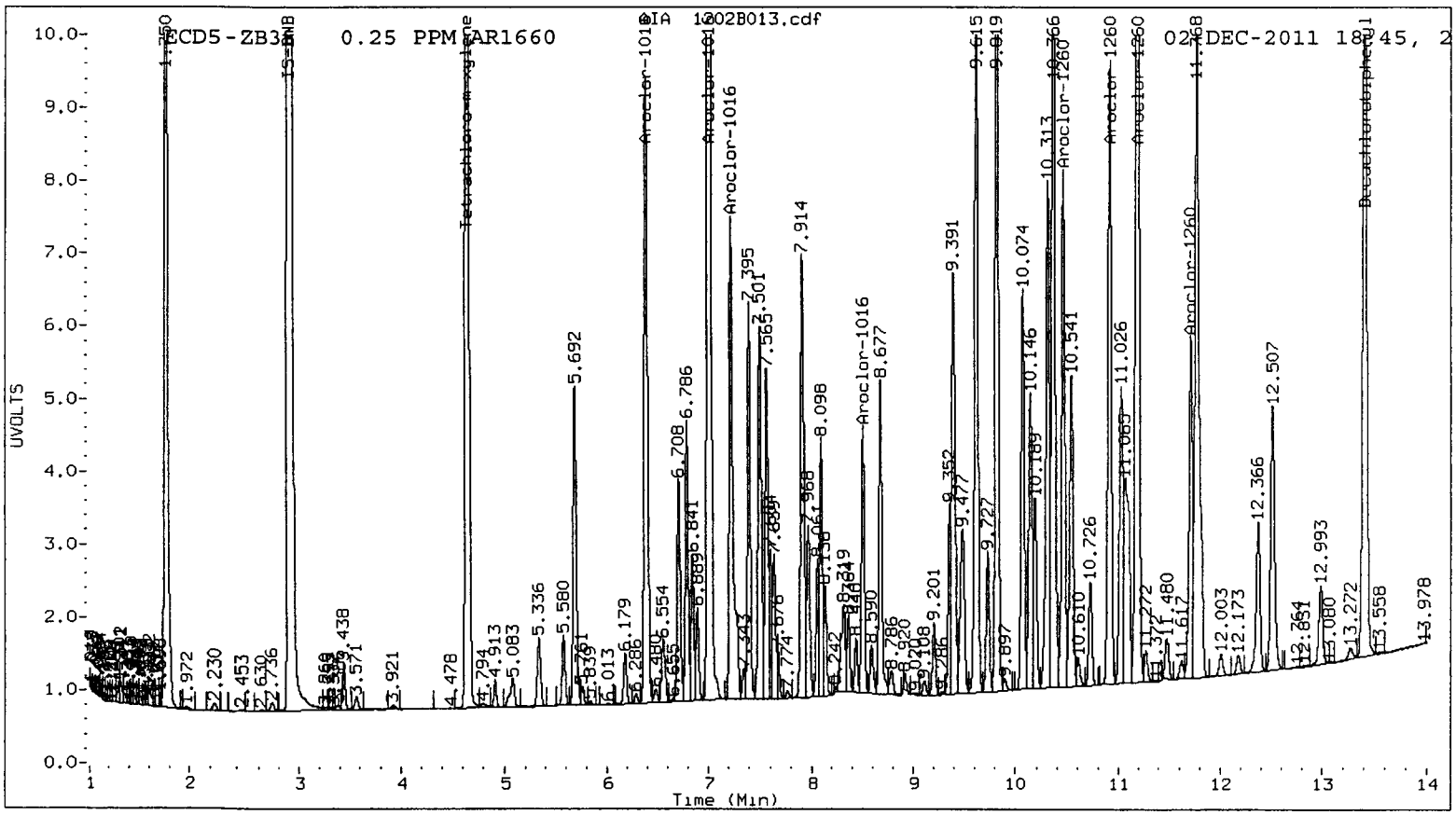
UVOLTS
Time (Min)
Tetrachloro-m-xylene
TS-DNB
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl


ECD5-ZB5 0.25 PPM AR1660
DIA 1202B013.cdf
02-DEC-2011 18:45, 2
UVOLTS
Time (Min)
Tetrachloro-m-xylene
TS-DNB
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B014.d
Data file 2: 20111202.B/ical-2.b/1202B014.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02 PPM AR1660
Client ID:
Injection Date: 02-DEC-2011 19:04
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.646	0.003	3077137	4.648	0.004	1906772	1.7	1.6	2.7	Tetrachloro-m-xylene
13.032	0.002	2851912	13.407	0.001	1302562	1.6	1.8	8.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	4.2	4.1
Decachlorobiphenyl	4.1	4.5

12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	127714397	2.3
Hexabromobiphenyl	134444165	138828818	3.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	90189924	0.8
Hexabromobiphenyl	57341096	59125575	3.1

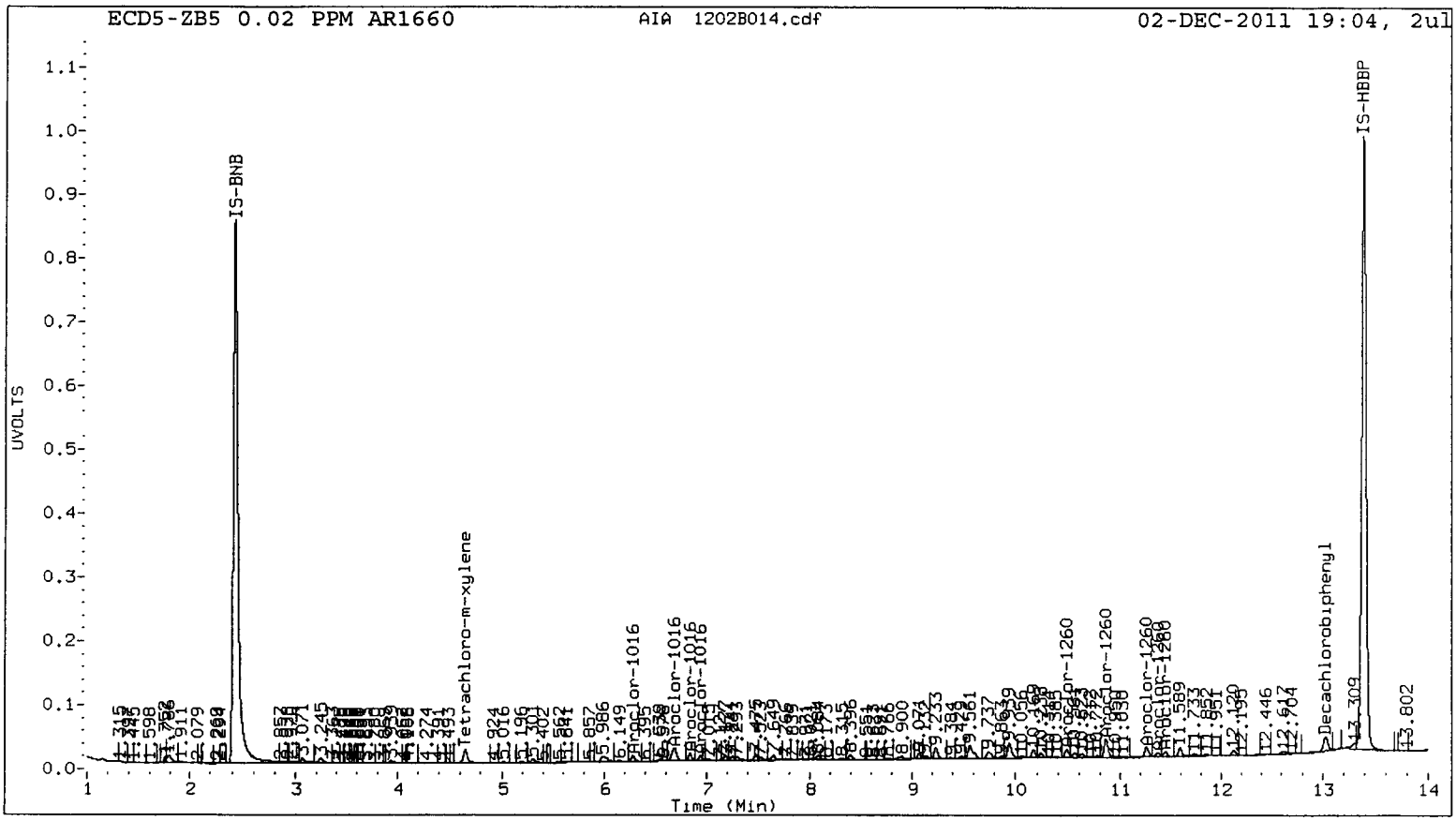
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.279	0.003	1022666	23.2	1	6.385	0.002	1013944	23.5
Aroclor-1016	2	6.678	0.003	3366467	23.1	2	7.012	0.003	1945202	22.7
Aroclor-1016	3	6.827	0.003	1372470	23.3	3	7.219	0.002	666183	20.7
Aroclor-1016	4	6.938	0.003	977107	23.6	4	8.505	0.002	343250	22.3
	Total Col1Ave (4 peaks):				23.3	Total Col2Ave (4 peaks):			22.3	RPD = 4
	Corrected Ave (3 peaks):				23.2	Corrected Ave (3 peaks):			21.9	RPD = 6
Aroclor-1260	1	10.486	0.003	1572016	22.9	1	10.462	0.003	762094	22.8
Aroclor-1260	2	10.860	0.003	3930963	22.5	2	10.914	0.002	940934	22.8
Aroclor-1260	3	11.260	0.003	2041023	21.7	3	11.185	0.002	1830210	22.3
Aroclor-1260	4	11.377	0.003	823237	21.6	4	11.707	0.002	539051	23.1
Aroclor-1260	5	11.450	0.002	969250	21.2	NS	---			----
	Total Col1Ave (5 peaks):				22.0	Total Col2Ave (4 peaks):			22.8	RPD = 3
	Corrected Ave (4 peaks):				21.8	Corrected Ave (3 peaks):			22.7	RPD = 4

Total PCB Area Col1 (4.742 - 12.930) = 53010845 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.744 - 13.306) = 26260368 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical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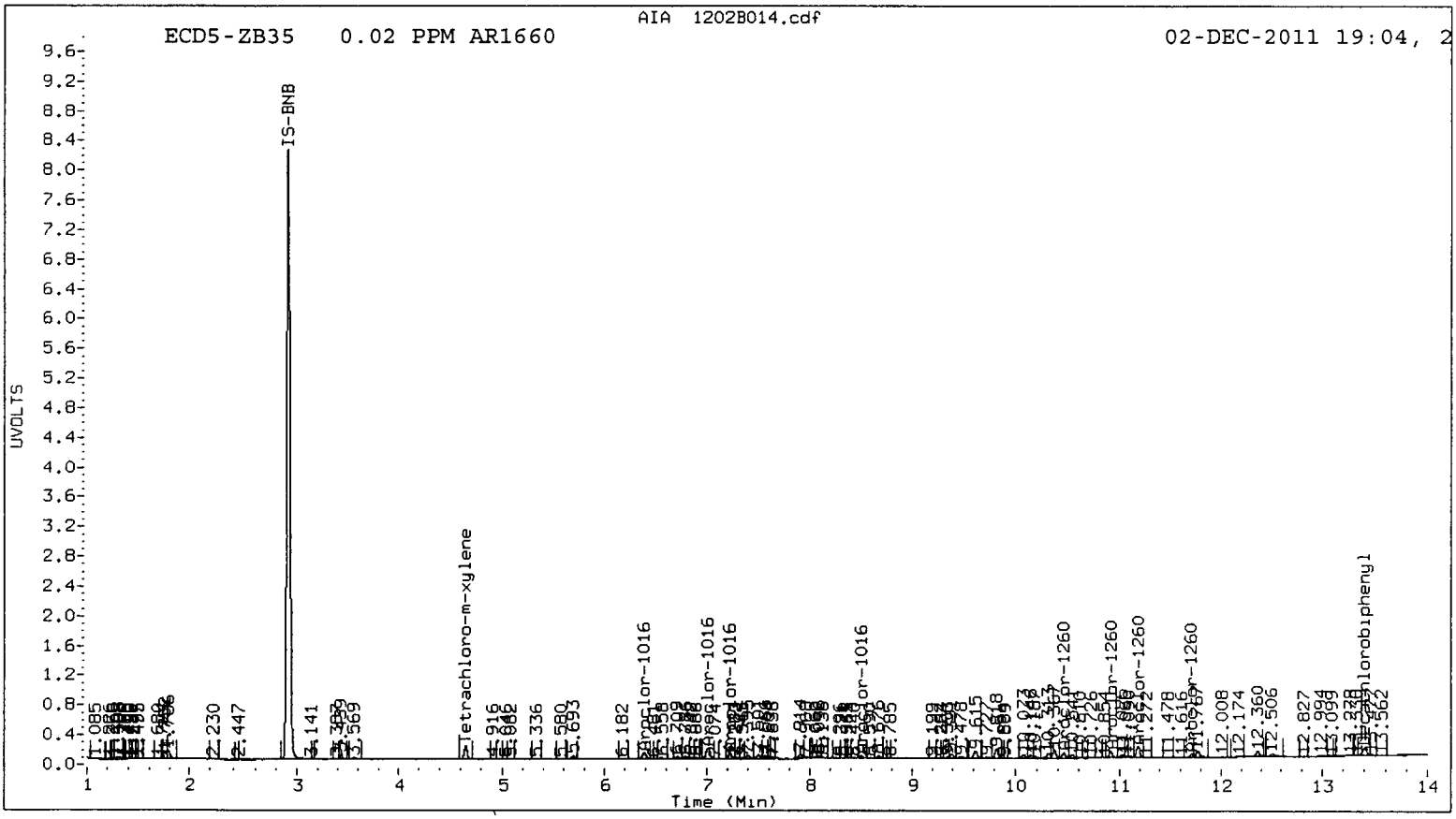
AIA 1202B014.cdf
02-DEC-2011 19:04, 2ul
IS-BNB
IS-HBBP
Tetrachloro-m-xylene
Decachlorobiphenyl
UVOLTS
Time (Min)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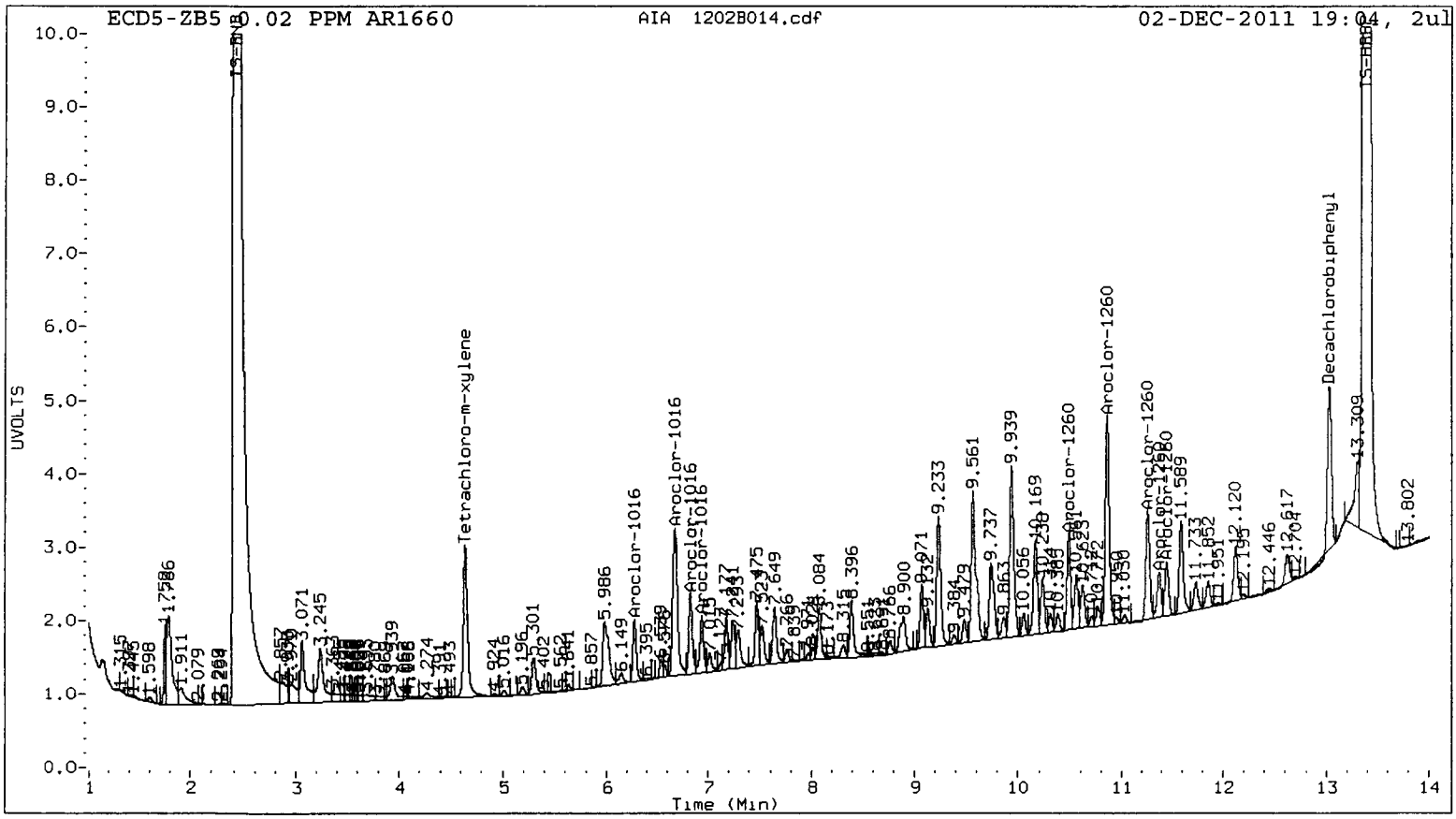
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
UVOLTS
Time (Min)

TX57 02178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Aroclor-1016
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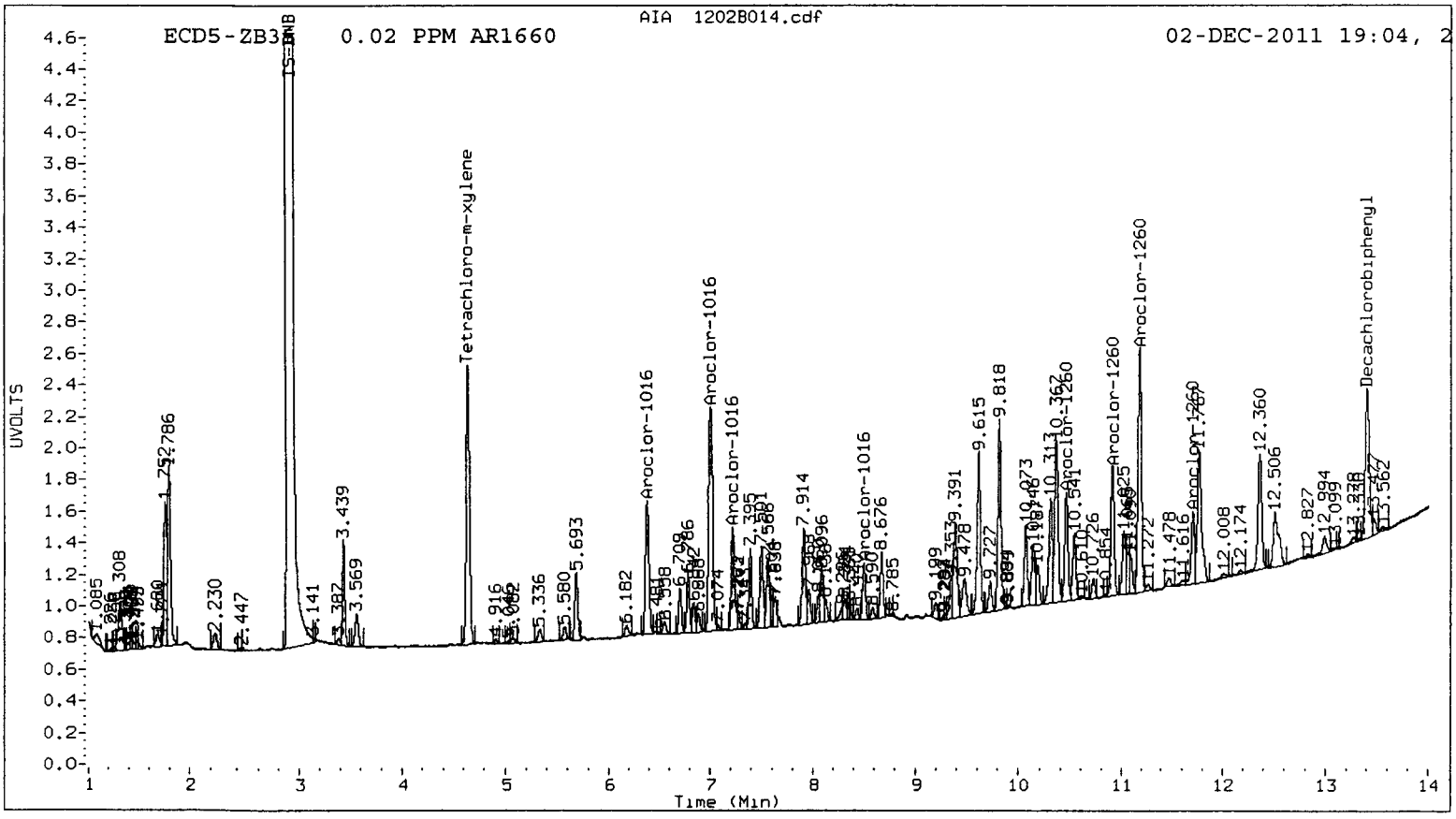
Decachlorobiphenyl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Time (Min)
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Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

TX57 04177

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B015.d
Data file 2: 20111202.B/ical-2.b/1202B015.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05 PPM AR1660
Client ID:
Injection Date: 02-DEC-2011 19:23
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.645	0.003	7267448	4.647	0.003	4588113	4.0	4.0	0.8	Tetrachloro-m-xylene
13.032	0.002	7065945	13.408	0.002	3104537	4.1	4.3	4.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	10.1	10.0
Decachlorobiphenyl	10.3	10.8

12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	126178756	1.1
Hexabromobiphenyl	134444165	136015002	1.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	89072654	-0.4
Hexabromobiphenyl	57341096	58010235	1.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.279	0.003	2304861	53.0	1	6.385	0.003	2321182	54.4
Aroclor-1016	2	6.679	0.004	7647204	53.1	2	7.010	0.002	4445403	52.5
Aroclor-1016	3	6.827	0.003	3130806	53.7	3	7.220	0.002	1578086	49.5
Aroclor-1016	4	6.937	0.003	2183032	53.3	4	8.505	0.002	822676	54.1
	Total Col1Ave (4 peaks):				53.3	Total Col2Ave (4 peaks):			52.6	RPD = 1
	Corrected Ave (3 peaks):				53.1	Corrected Ave (3 peaks):			52.0	RPD = 2
Aroclor-1260	1	10.486	0.003	3610540	53.8	1	10.462	0.002	1755959	53.6
Aroclor-1260	2	10.860	0.002	8985143	52.6	2	10.913	0.002	2153806	53.3
Aroclor-1260	3	11.261	0.004	4891317	53.2	3	11.184	0.001	4197146	52.1
Aroclor-1260	4	11.376	0.002	1991927	53.5	4	11.707	0.002	1206257	52.6
Aroclor-1260	5	11.451	0.003	2361513	52.8	NS	---			----
	Total Col1Ave (5 peaks):				53.2	Total Col2Ave (4 peaks):			52.9	RPD = 0
	Corrected Ave (4 peaks):				53.0	Corrected Ave (3 peaks):			52.7	RPD = 1

Total PCB Area Col1 (4.742 - 12.930) = 117119529 Col1 Total PCB = 0.1 ppm*

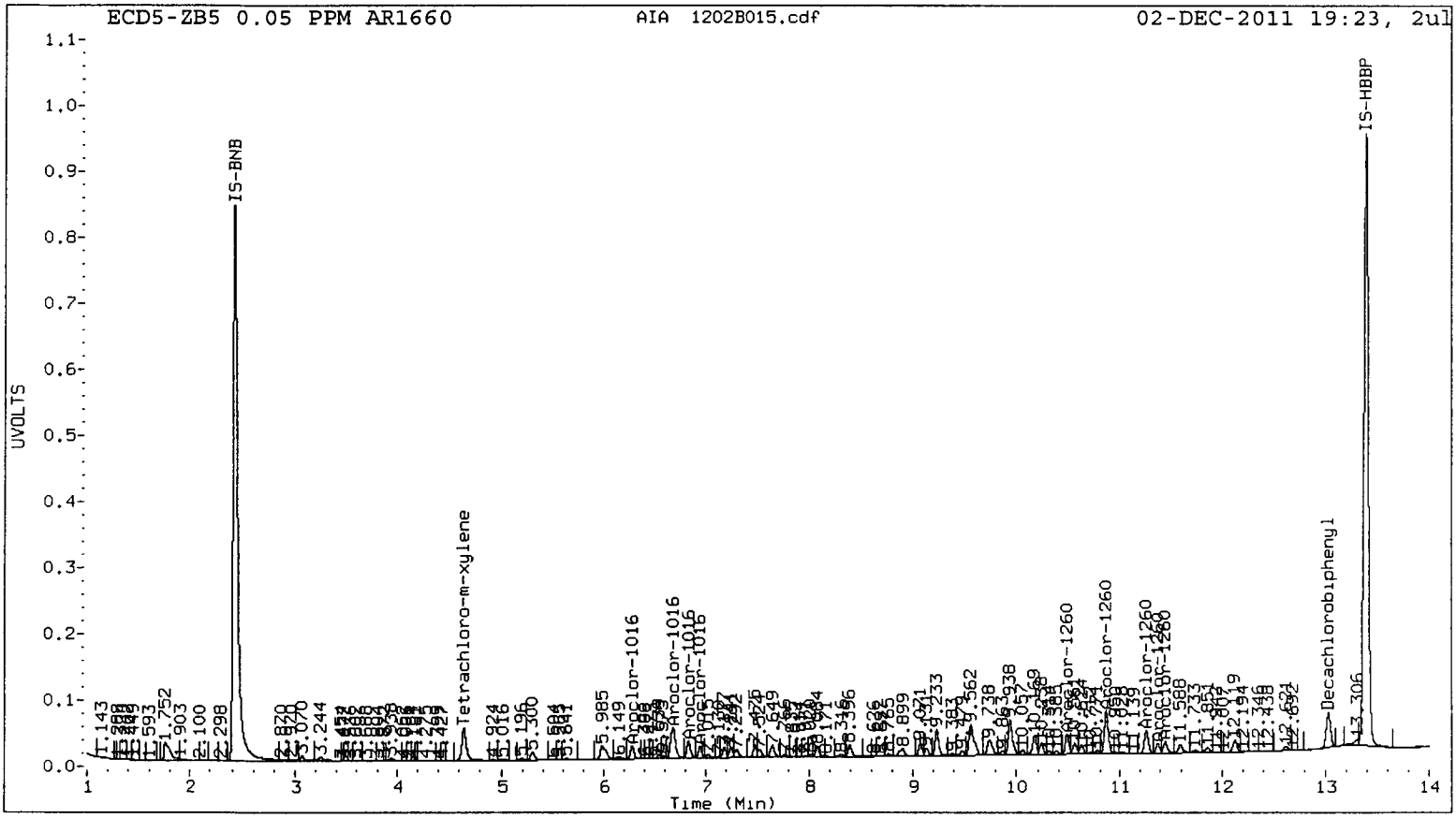
Total PCB Area Col2 (4.744 - 13.306) = 59042628 Col2 Total PCB = 0.1 ppm*

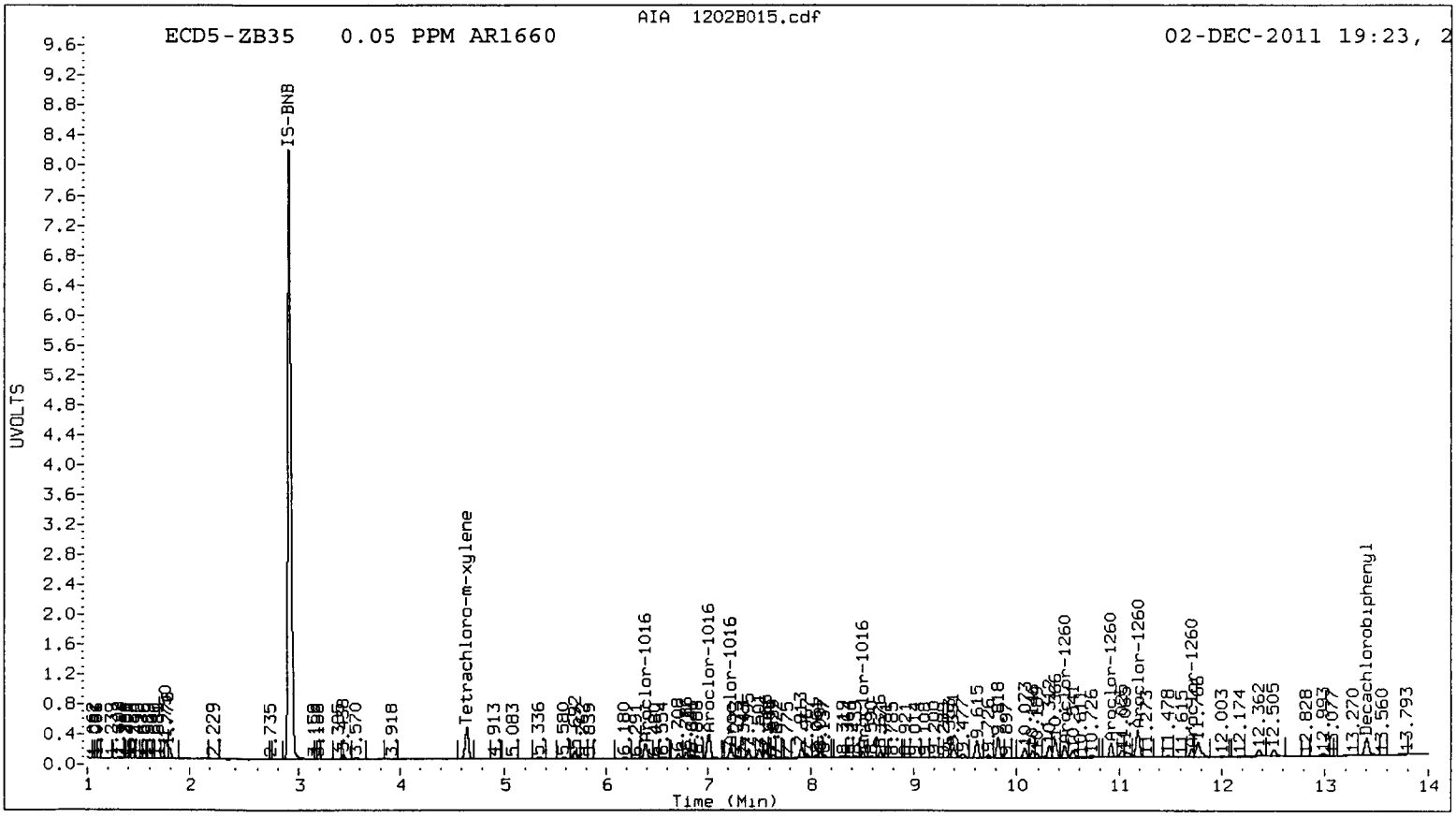
* Quantitated against AR1660 0.25ppm in Ical

TEST-02179

PCB-Form 10 Mod.

TXSP 64:185


ECD5-ZB5 0.05 PPM AR1660
AIA 1202B015.cdf
02-DEC-2011 19:23, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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ECD5-ZB35 0.05 PPM AR1660
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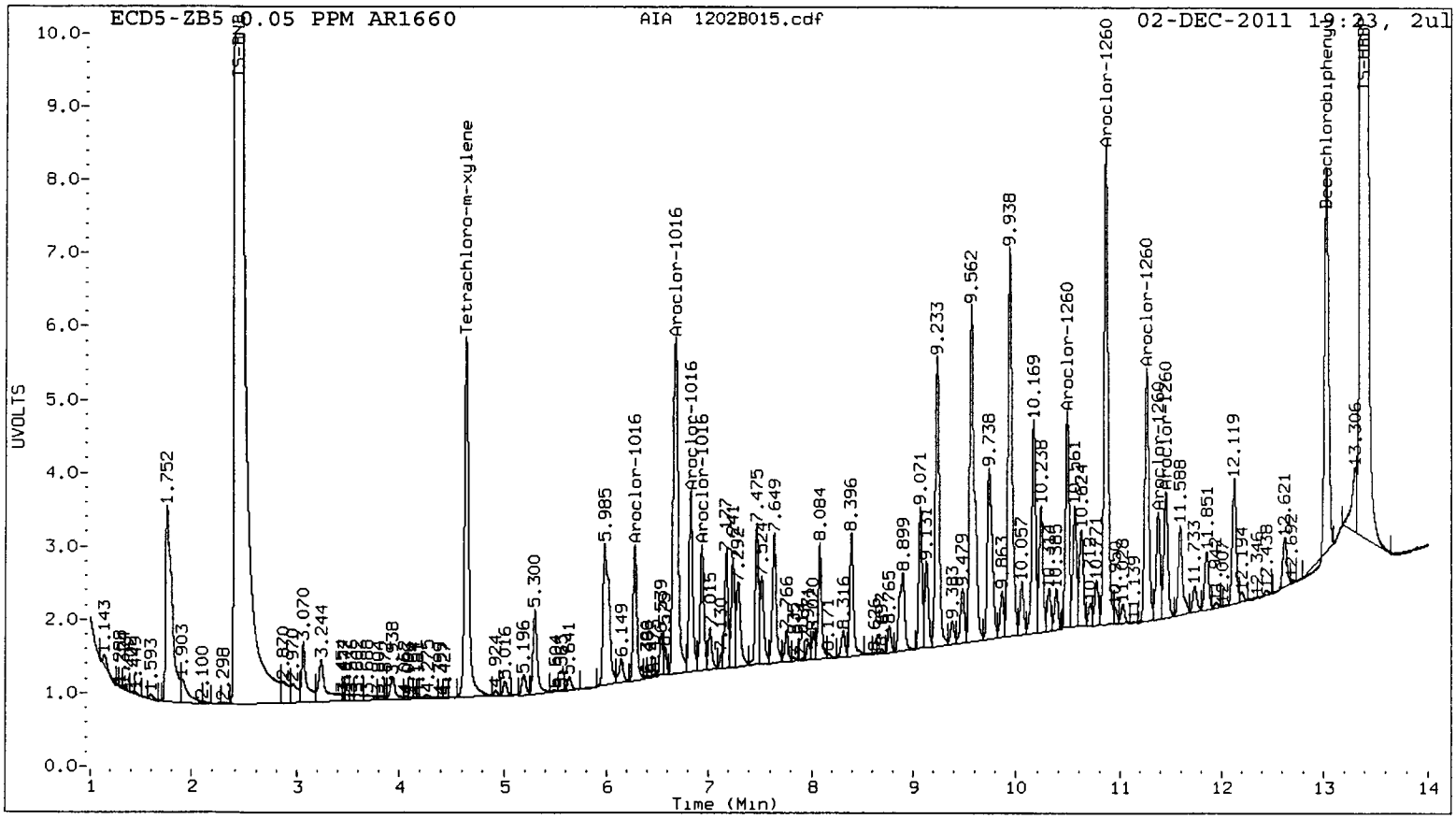
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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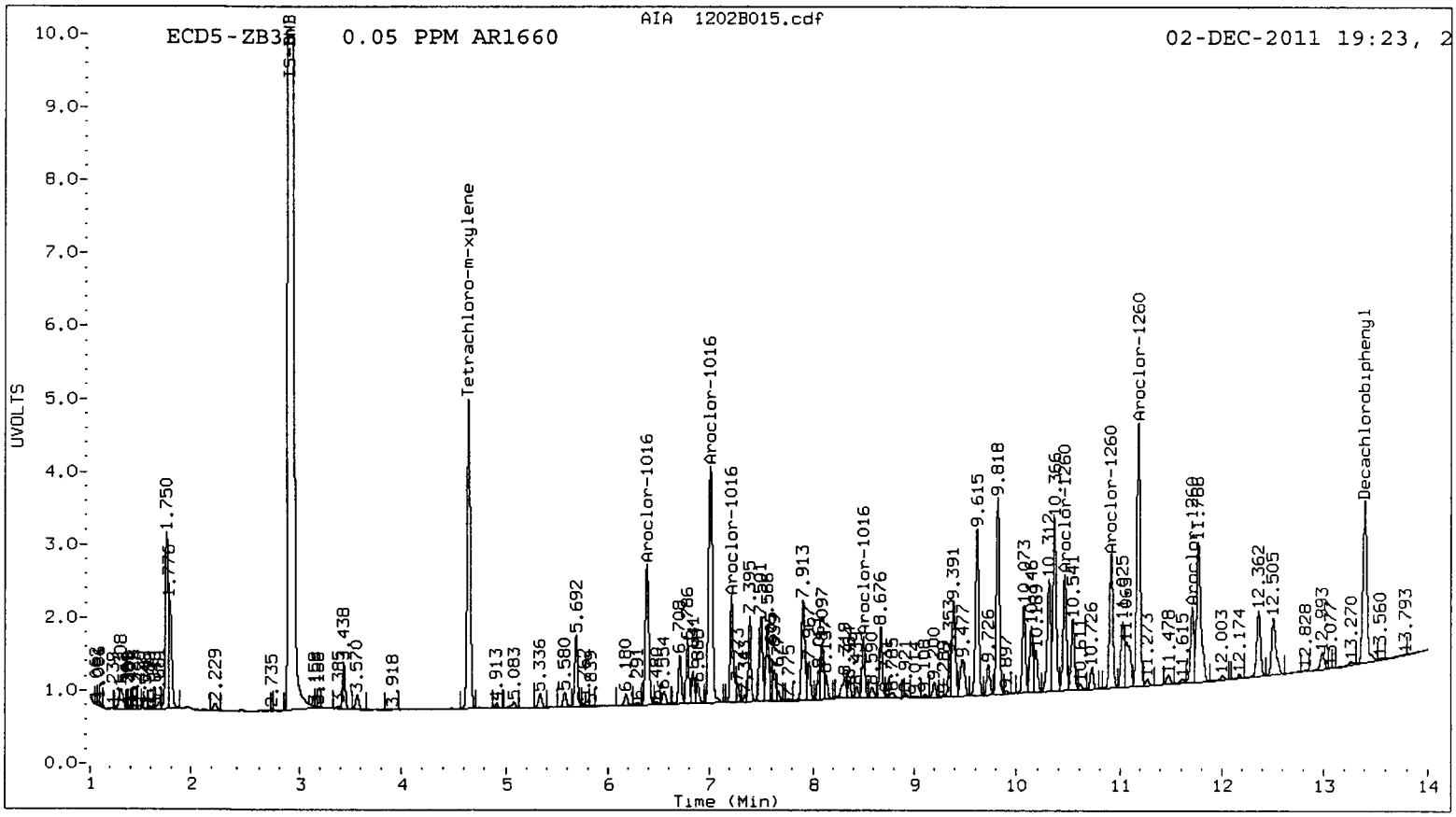
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBB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AIA 1202B015.cdf
02-DEC-2011 19:23, 2
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

TXG 04162

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B016.d
Data file 2: 20111202.B/ical-2.b/1202B016.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 1 PPM AR1660
Client ID:
Injection Date: 02-DEC-2011 19:42
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.647	0.005	128811183	4.649	0.005	85711206	73.0	75.2	3.0	Tetrachloro-m-xylene
13.033	0.003	131661096	13.408	0.002	52150443	75.8	71.1	6.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	182.5	188.0
Decachlorobiphenyl	189.4	177.7

12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	123900693	-0.7
Hexabromobiphenyl	134444165	138432375	3.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	88763225	-0.8
Hexabromobiphenyl	57341096	59316615	3.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

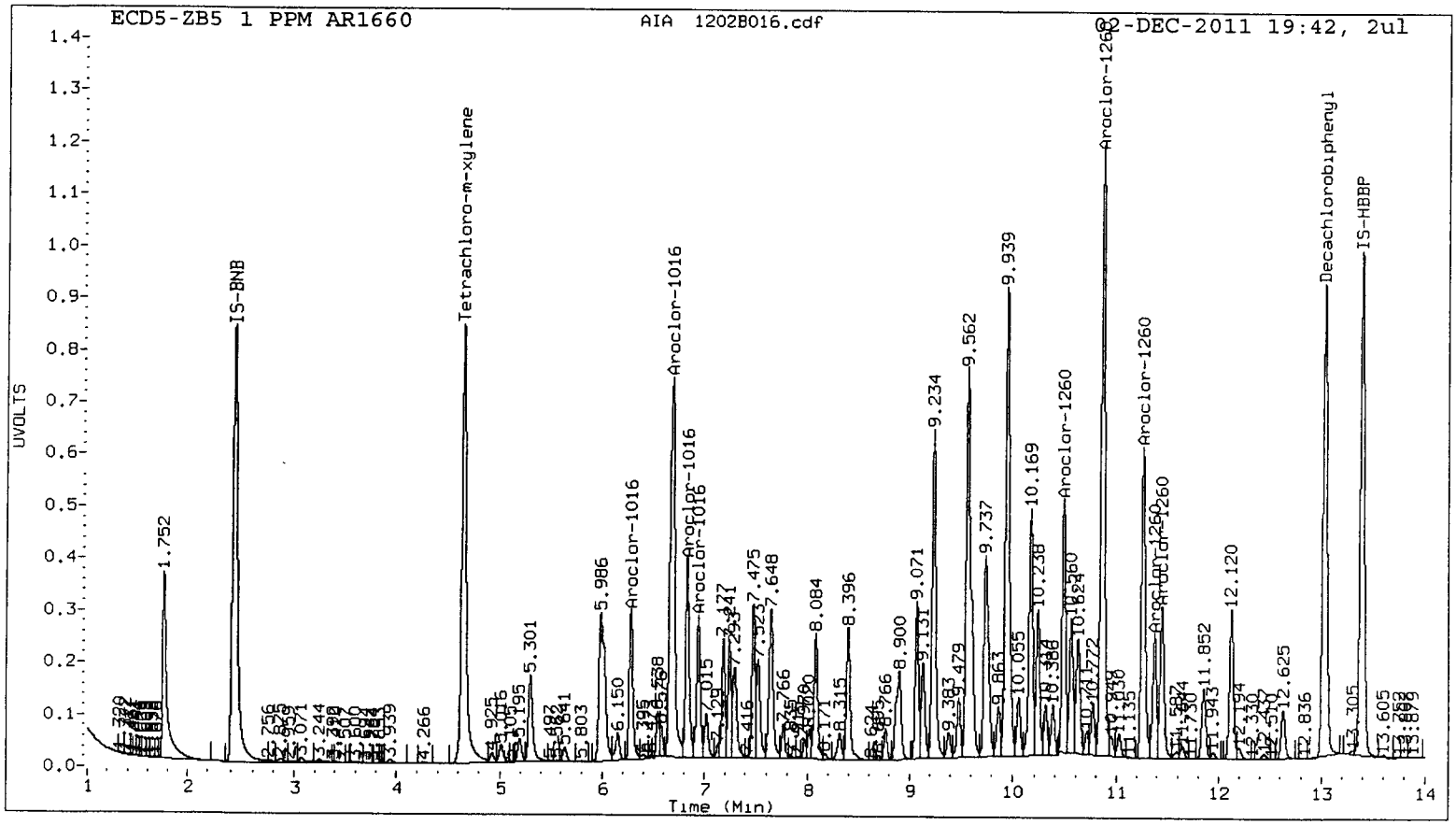
Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	6.280	0.004	35885667	840.6	1	6.386	0.003	35130801	826.8
Aroclor-1016	2	6.679	0.004	119651730	846.7	2	7.011	0.003	74463178	882.6
Aroclor-1016	3	6.827	0.003	47829142	835.4	3	7.220	0.002	28826667	908.0
Aroclor-1016	4	6.938	0.003	33927440	843.1	4	8.505	0.002	12981925	856.6
	Total Col1Ave (4 peaks):				841.4	Total Col2Ave (4 peaks):				868.5 RPD = 3
	Corrected Ave (3 peaks):				839.7	Corrected Ave (3 peaks):				855.3 RPD = 2
Aroclor-1260	1	10.486	0.003	58826415	860.8	1	10.462	0.002	28913494	863.5
Aroclor-1260	2	10.861	0.004	156398389	899.0	2	10.914	0.002	36285846	878.0
Aroclor-1260	3	11.261	0.004	83299763	890.1	3	11.185	0.002	75060669	911.2
Aroclor-1260	4	11.377	0.003	33336178	878.9	4	11.708	0.002	20469753	873.3
Aroclor-1260	5	11.451	0.003	40718823	894.6	NS	---			----
	Total Col1Ave (5 peaks):				884.7	Total Col2Ave (4 peaks):				881.5 RPD = 0
	Corrected Ave (4 peaks):				881.1	Corrected Ave (3 peaks):				871.6 RPD = 1

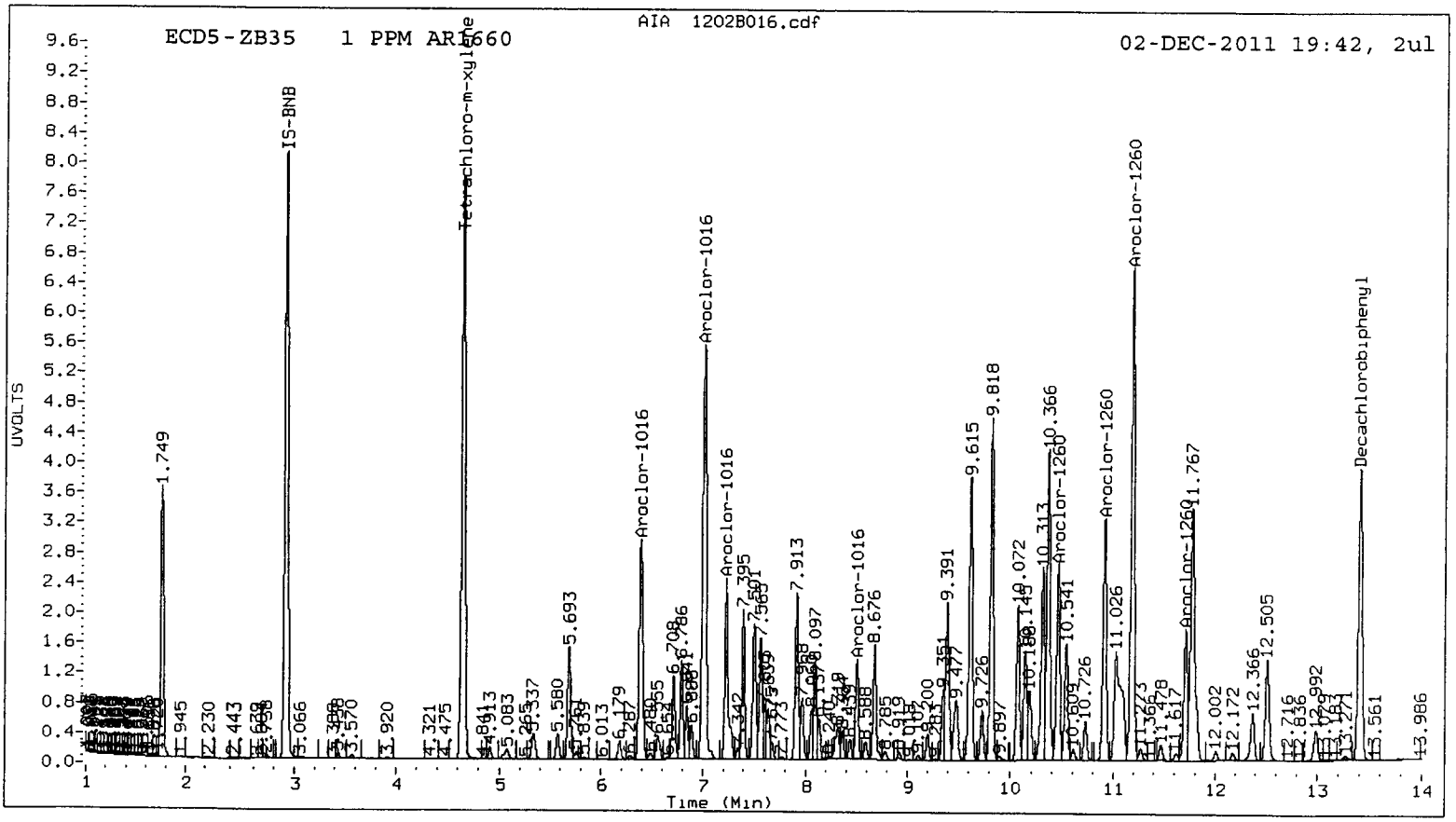
Total PCB Area Col1 (4.742 - 12.930) = 1836734039 Col1 Total PCB = 1.8 ppm*

Total PCB Area Col2 (4.744 - 13.306) = 960575534 Col2 Total PCB = 1.8 ppm*

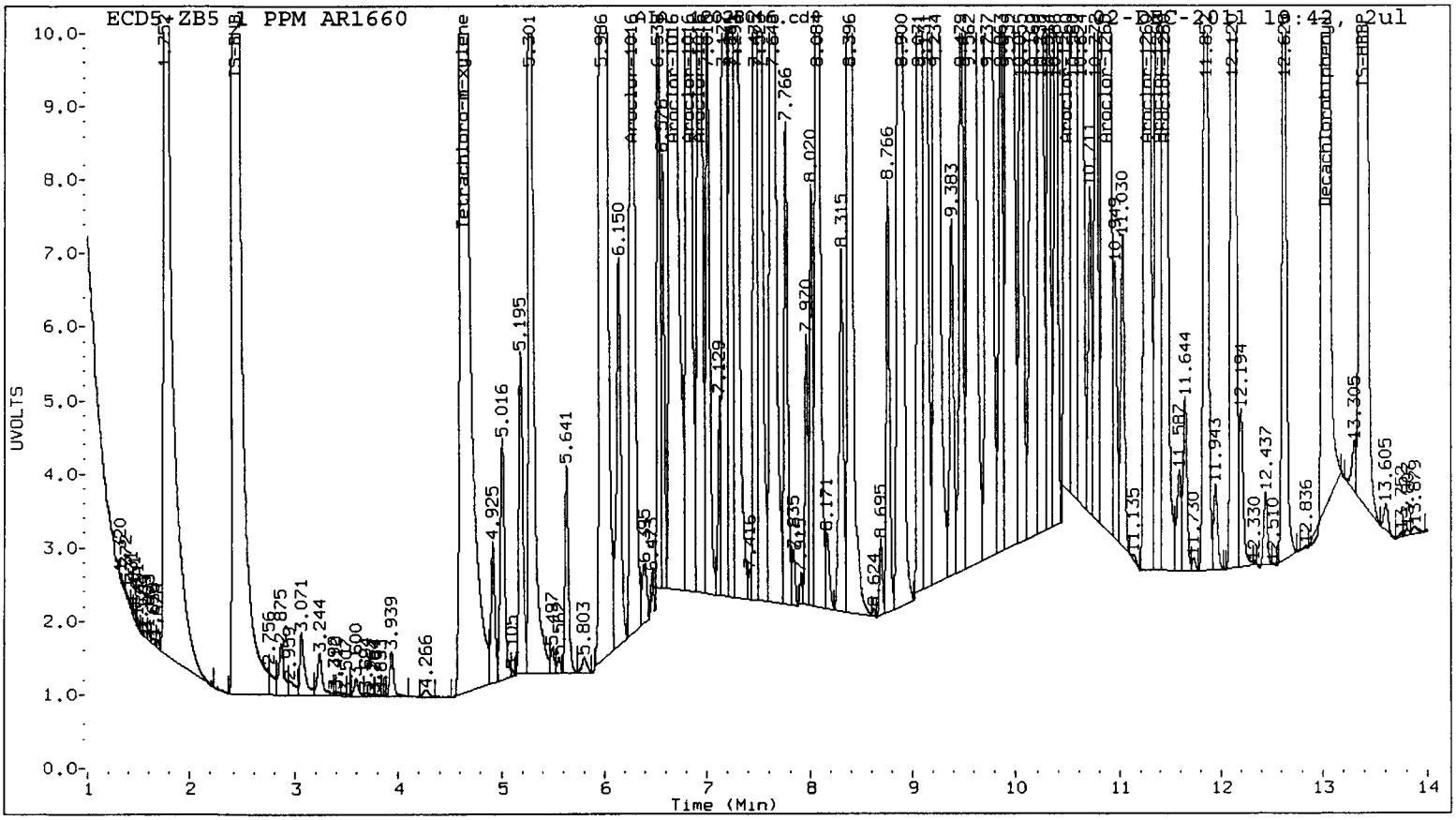
* Quantitated against AR1660 0.25ppm in Ical

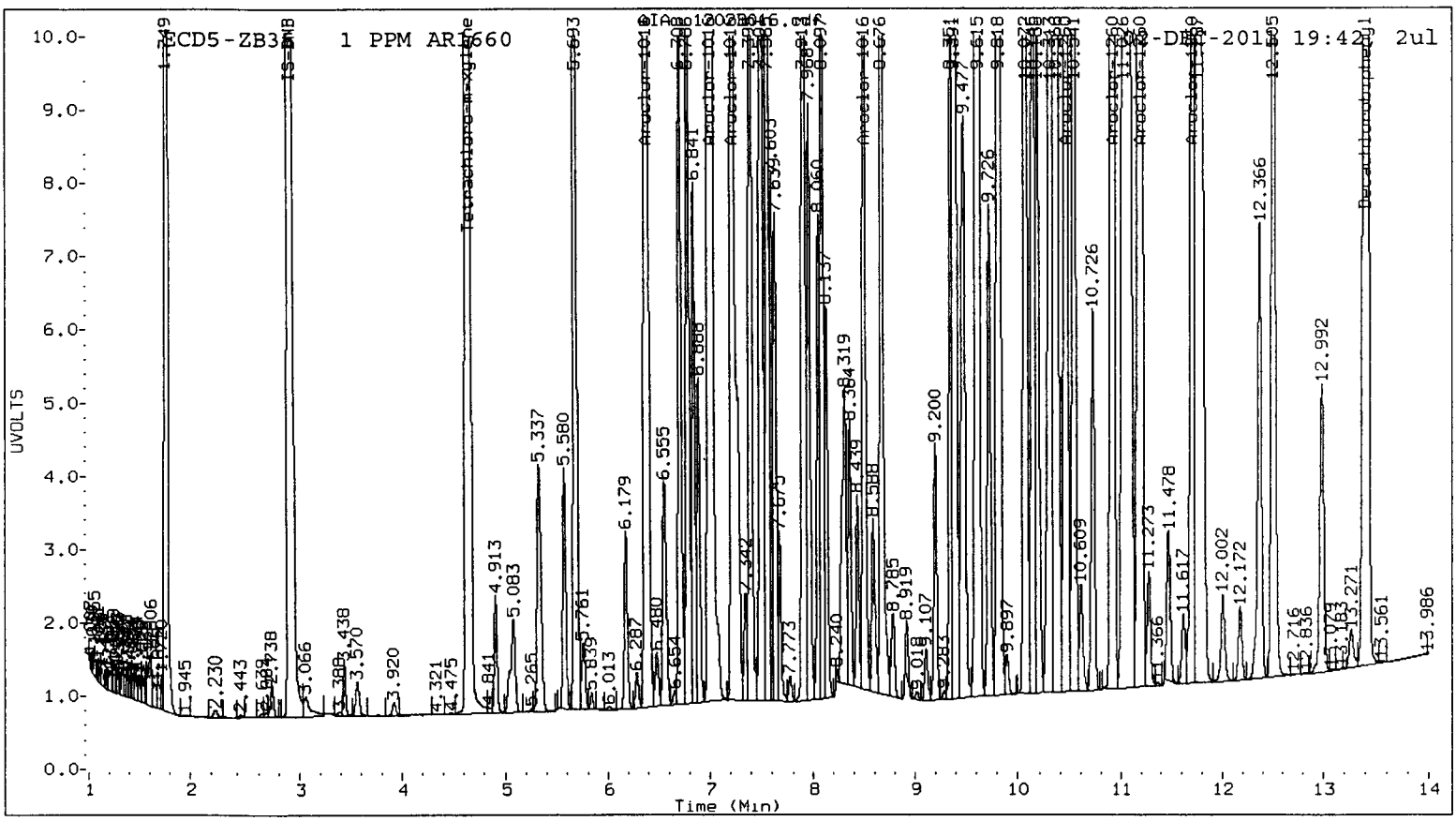
TX57:01184


ECD5-ZB5 1 PPM AR1660
AIA 1202B016.cdf
02-DEC-2011 19:42, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 1 PPM AR1660
AIA 1202B016.cdf
02-DEC-2011 19:42, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

TX057 01135


ECD5-ZB5 1 PPM AR1660
UVOLTS
Time (Min)


ECD5-ZB3 1 PPM AR1660
UVOLTS
Time (Min)

TX57 01186

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B017.d
Data file 2: 20111202.B/ical-2.b/1202B017.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1 PPM AR1660
Client ID:
Injection Date: 02-DEC-2011 20:01
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.645	0.003	14977091	4.646	0.003	9479683	8.1	8.1	0.1	Tetrachloro-m-xylene
13.032	0.002	14539581	13.407	0.001	6075639	8.2	8.1	0.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	20.4	20.3
Decachlorobiphenyl	20.5	20.3

12/05/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	129088017	3.4
Hexabromobiphenyl	134444165	141375771	5.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	90709282	1.4
Hexabromobiphenyl	57341096	60424259	5.4

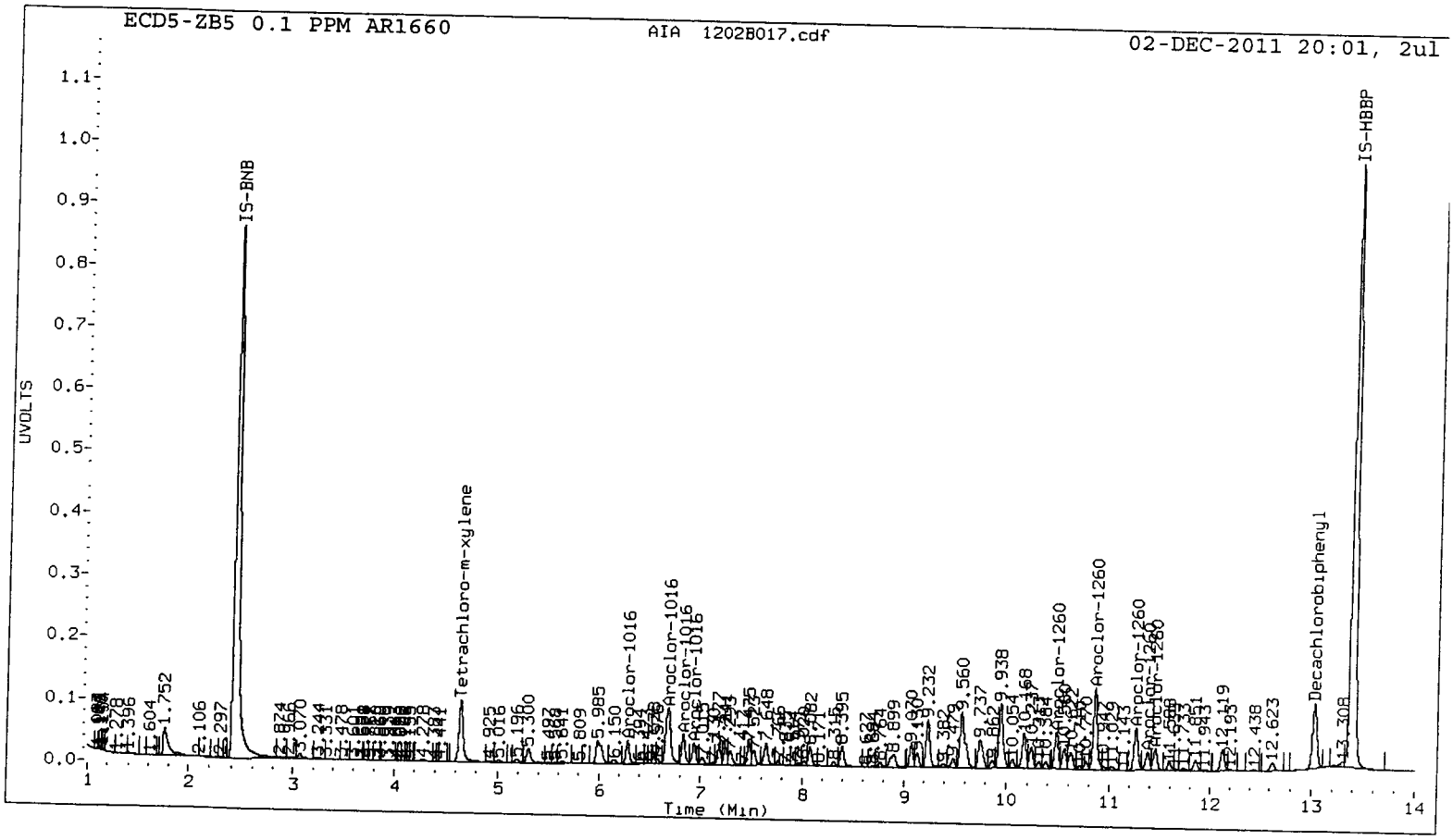
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

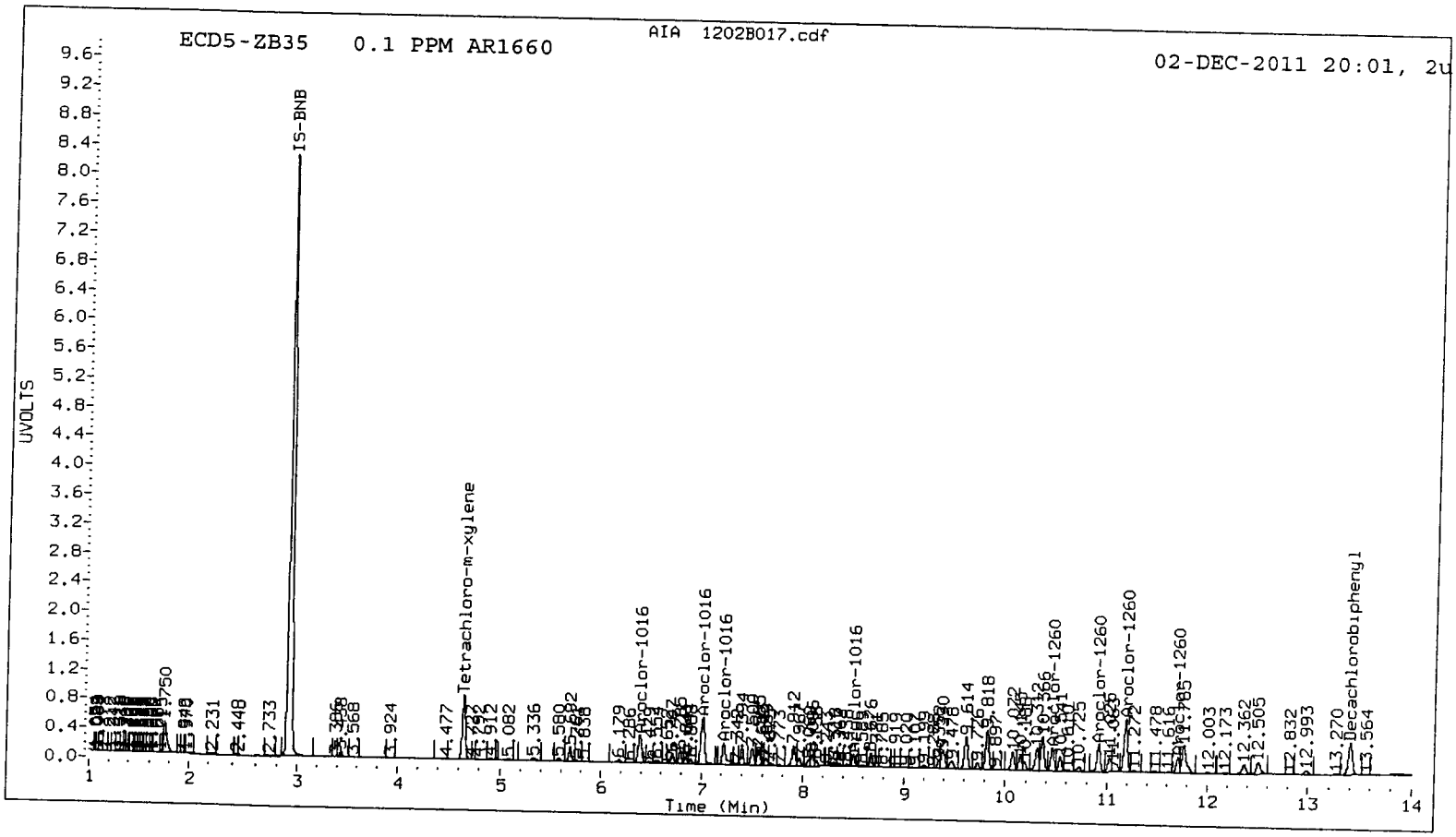
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.279	0.003	4572603	102.8	1	6.385	0.002	4518812	104.1
Aroclor-1016	2	6.678	0.003	15126333	102.7	2	7.011	0.002	8801760	102.1
Aroclor-1016	3	6.827	0.003	6143798	103.0	3	7.219	0.002	3502657	108.0
Aroclor-1016	4	6.937	0.003	4282835	102.1	4	8.504	0.002	1627581	105.1
Total Col1Ave (4 peaks):					102.7	Total Col2Ave (4 peaks):				104.8 RPD = 2
Corrected Ave (3 peaks):					102.6	Corrected Ave (3 peaks):				103.8 RPD = 1
Aroclor-1260	1	10.485	0.002	7104433	101.8	1	10.461	0.002	3493582	102.4
Aroclor-1260	2	10.859	0.002	17930136	100.9	2	10.914	0.002	4264655	101.3
Aroclor-1260	3	11.260	0.002	9800082	102.5	3	11.184	0.001	8403858	100.2
Aroclor-1260	4	11.377	0.002	4025761	103.9	4	11.706	0.001	2428196	101.7
Aroclor-1260	5	11.450	0.002	4811360	103.5	NS	---			----
Total Col1Ave (5 peaks):					102.5	Total Col2Ave (4 peaks):				101.4 RPD = 1
Corrected Ave (4 peaks):					102.2	Corrected Ave (3 peaks):				101.0 RPD = 1

Total PCB Area Col1 (4.742 - 12.930) = 229406098 Col1 Total PCB = 0.2 ppm*

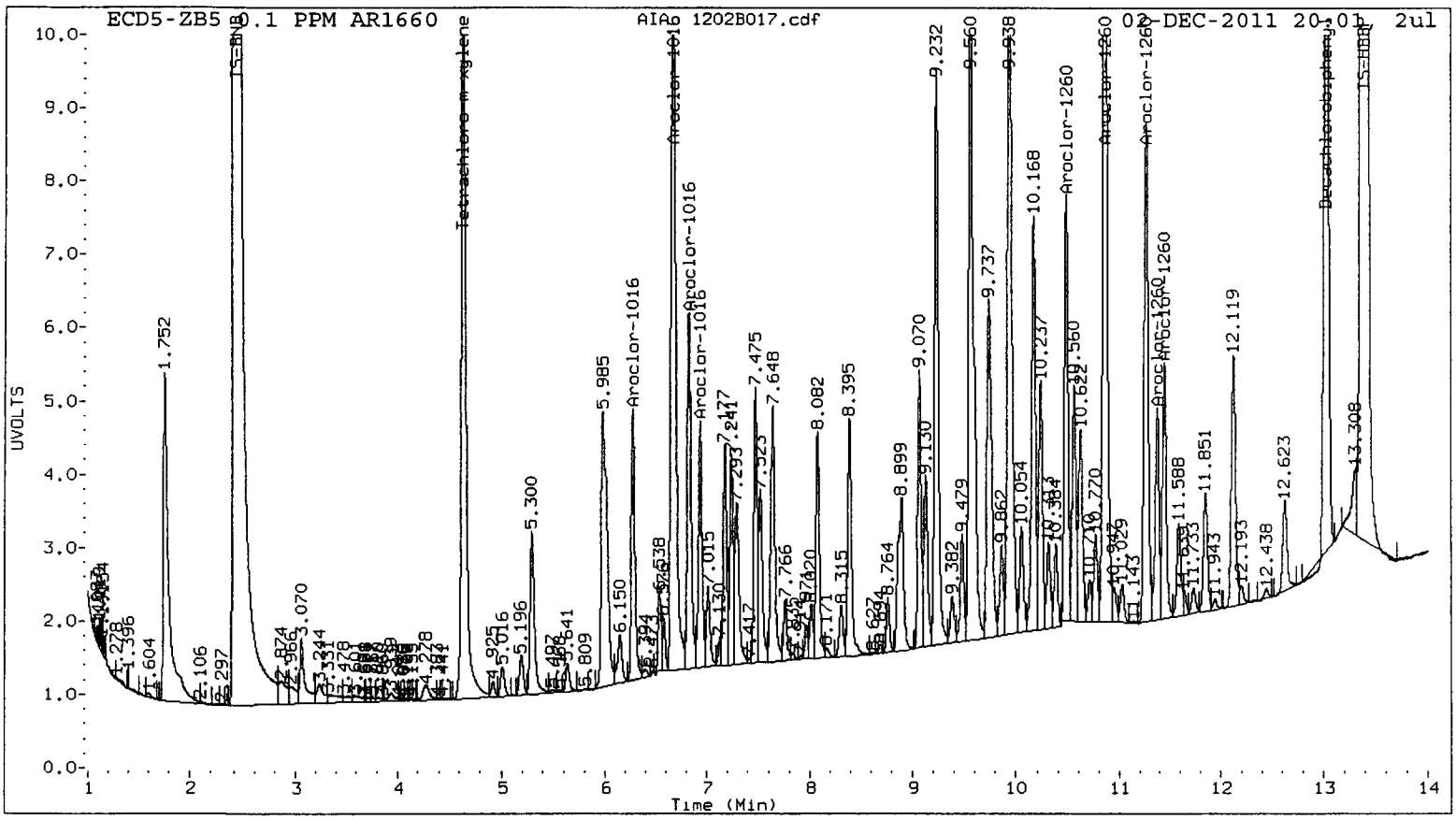
Total PCB Area Col2 (4.744 - 13.306) = 116206466 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 0.1 PPM AR1660
AIA 1202B017.cdf
02-DEC-2011 20:01, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 0.1 PPM AR1660
AIA 1202B017.cdf
02-DEC-2011 20:01, 2u
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

TX57.01188


ECD5-ZB5 0.1 PPM AR1660
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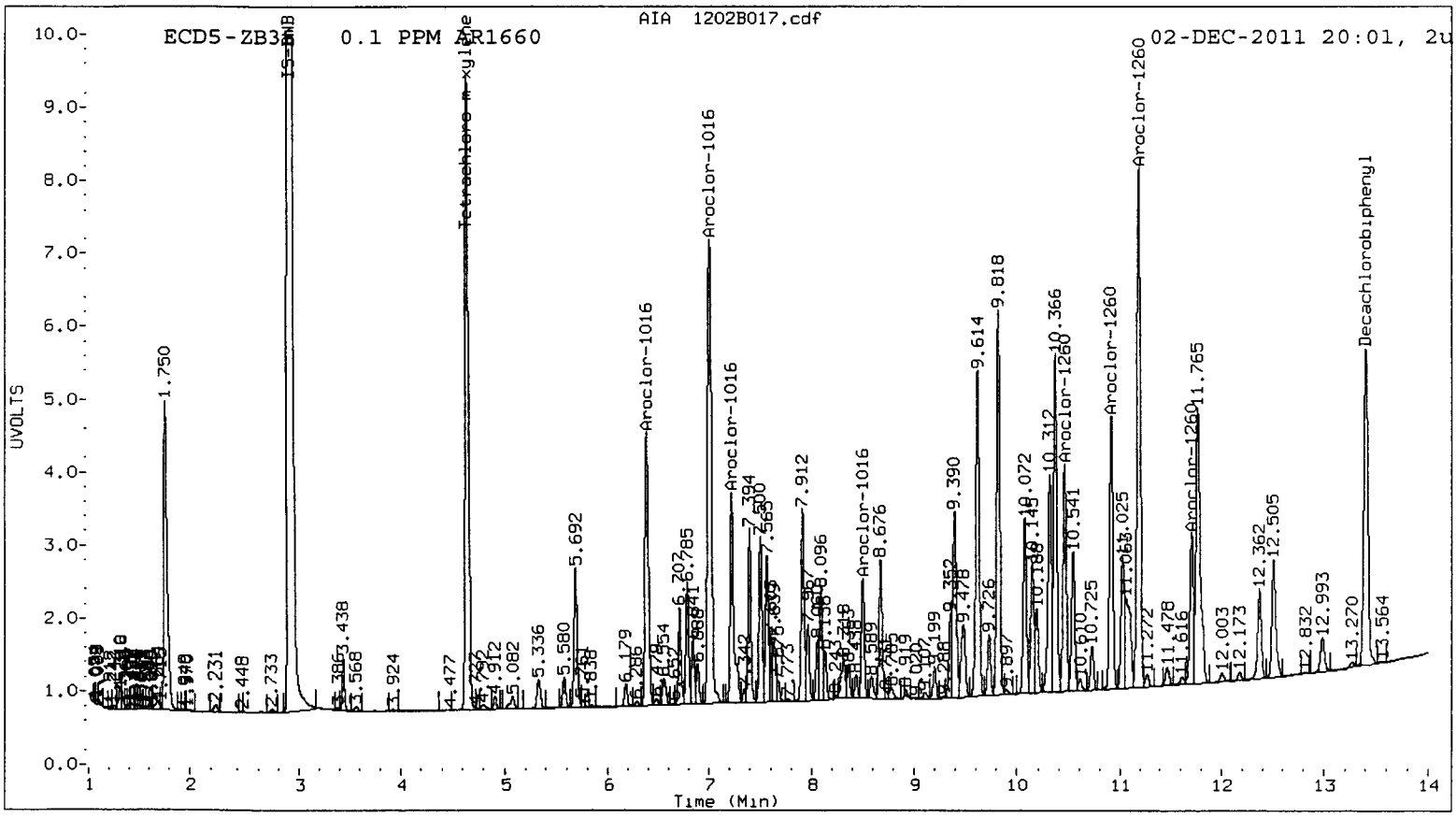
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBB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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

TXET 0.150

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B018.d
Data file 2: 20111202.B/ical-2.b/1202B018.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5 PPM AR1660
Client ID:
Injection Date: 02-DEC-2011 20:19
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.646	0.004	68521584	4.647	0.003	44940382	40.0	39.9	0.1	Tetrachloro-m-xylene
13.031	0.001	67474882	13.407	0.001	26987401	39.2	37.1	5.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	99.9	99.8
Decachlorobiphenyl	97.9	92.7

12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	120375033	-3.5
Hexabromobiphenyl	134444165	137263113	2.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	87712920	-2.0
Hexabromobiphenyl	57341096	58837471	2.6

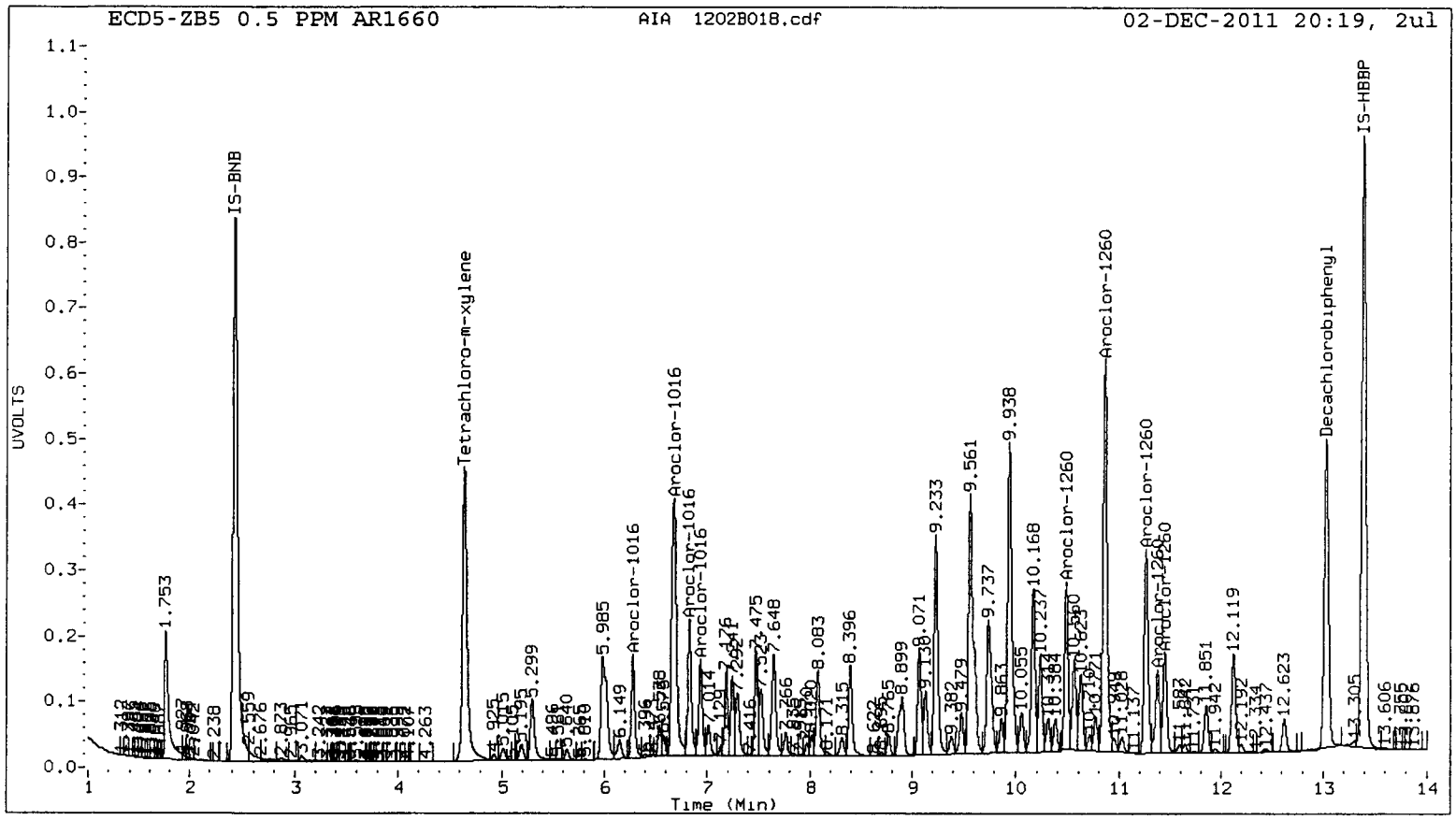
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

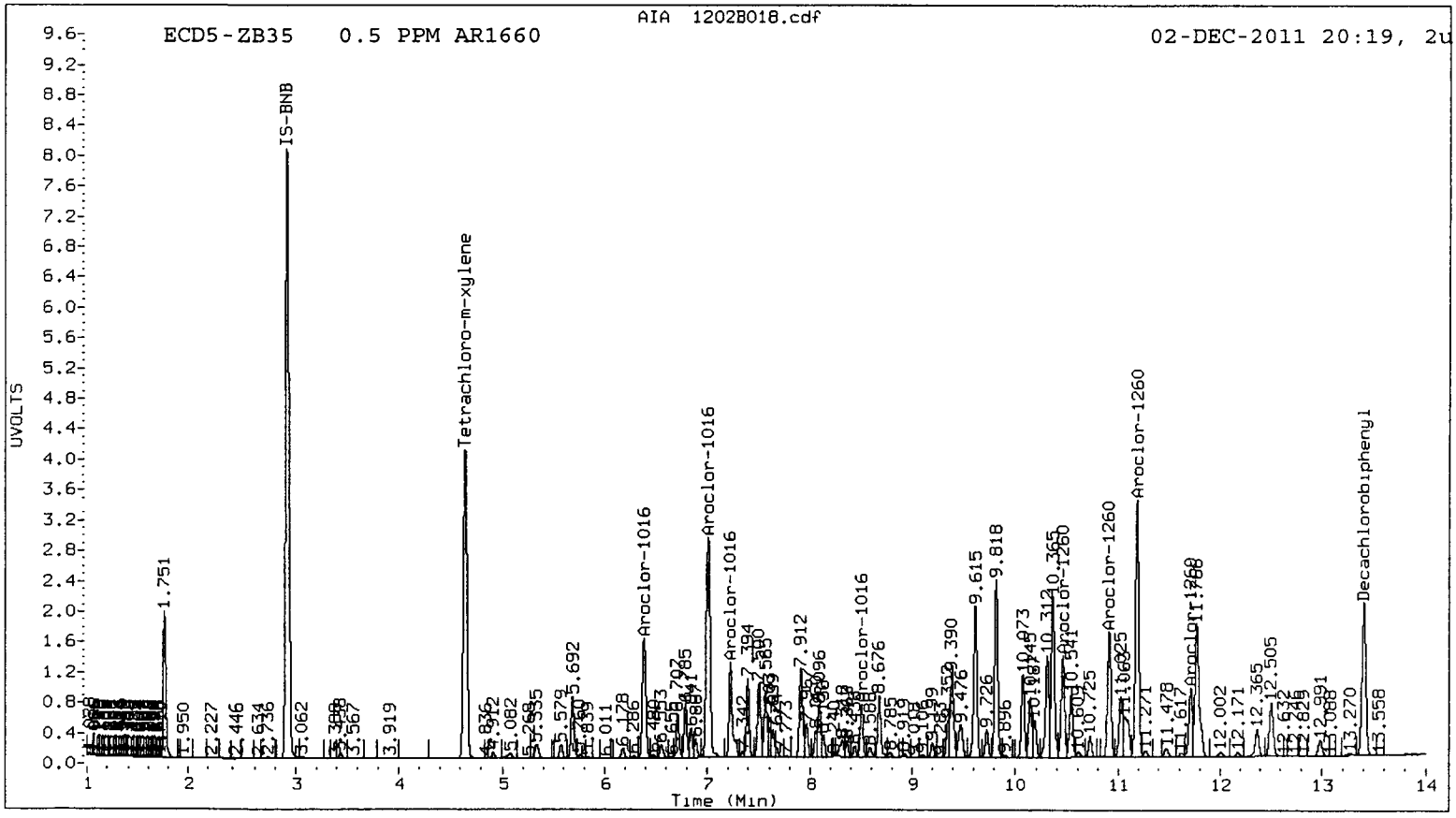
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.279	0.003	19529008	470.8	1	6.385	0.002	19077175	454.4
Aroclor-1016	2	6.678	0.003	64799408	472.0	2	7.011	0.002	39227933	470.5
Aroclor-1016	3	6.826	0.002	26091106	469.0	3	7.219	0.002	15288847	487.3
Aroclor-1016	4	6.937	0.002	18396479	470.5	4	8.505	0.002	6932754	462.9
	Total Col1Ave (4 peaks):				470.6	Total Col2Ave (4 peaks):			468.8	RPD = 0
	Corrected Ave (3 peaks):				470.1	Corrected Ave (3 peaks):			462.6	RPD = 2
Aroclor-1260	1	10.485	0.002	31032073	458.0	1	10.461	0.002	15214730	458.1
Aroclor-1260	2	10.860	0.003	80547426	466.9	2	10.913	0.001	18957105	462.4
Aroclor-1260	3	11.260	0.002	43762889	471.6	3	11.184	0.001	38601122	472.4
Aroclor-1260	4	11.376	0.002	17659798	469.6	4	11.707	0.002	10736935	461.8
Aroclor-1260	5	11.450	0.002	21506726	476.6	NS	---			----
	Total Col1Ave (5 peaks):				468.5	Total Col2Ave (4 peaks):			463.7	RPD = 1
	Corrected Ave (4 peaks):				466.5	Corrected Ave (3 peaks):			460.8	RPD = 1

Total PCB Area Col1 (4.742 - 12.930) = 983207523 Col1 Total PCB = 1.0 ppm*

Total PCB Area Col2 (4.744 - 13.306) = 506739172 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 0.5 PPM AR1660
AIA 1202B018.cdf
02-DEC-2011 20:19, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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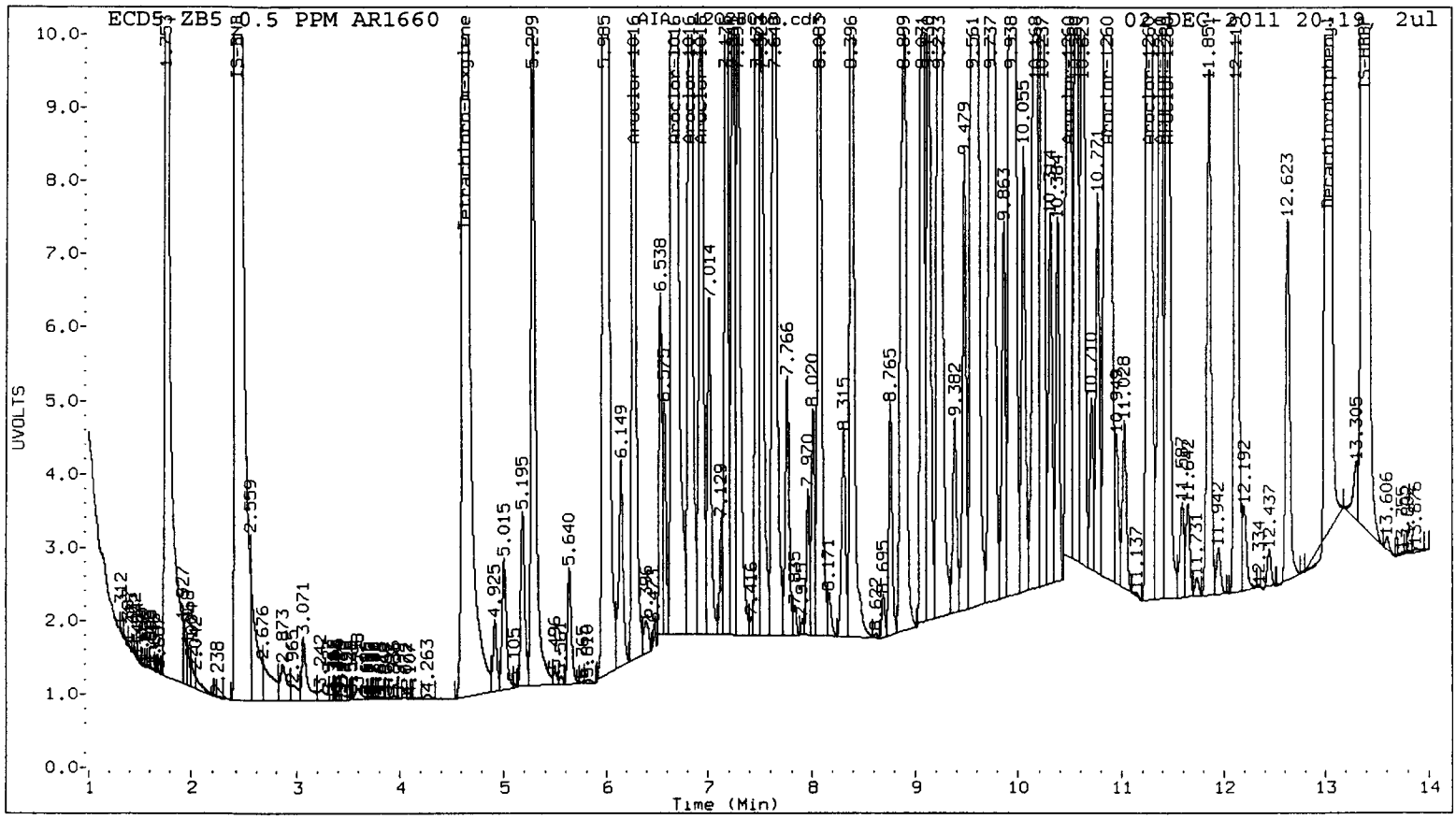
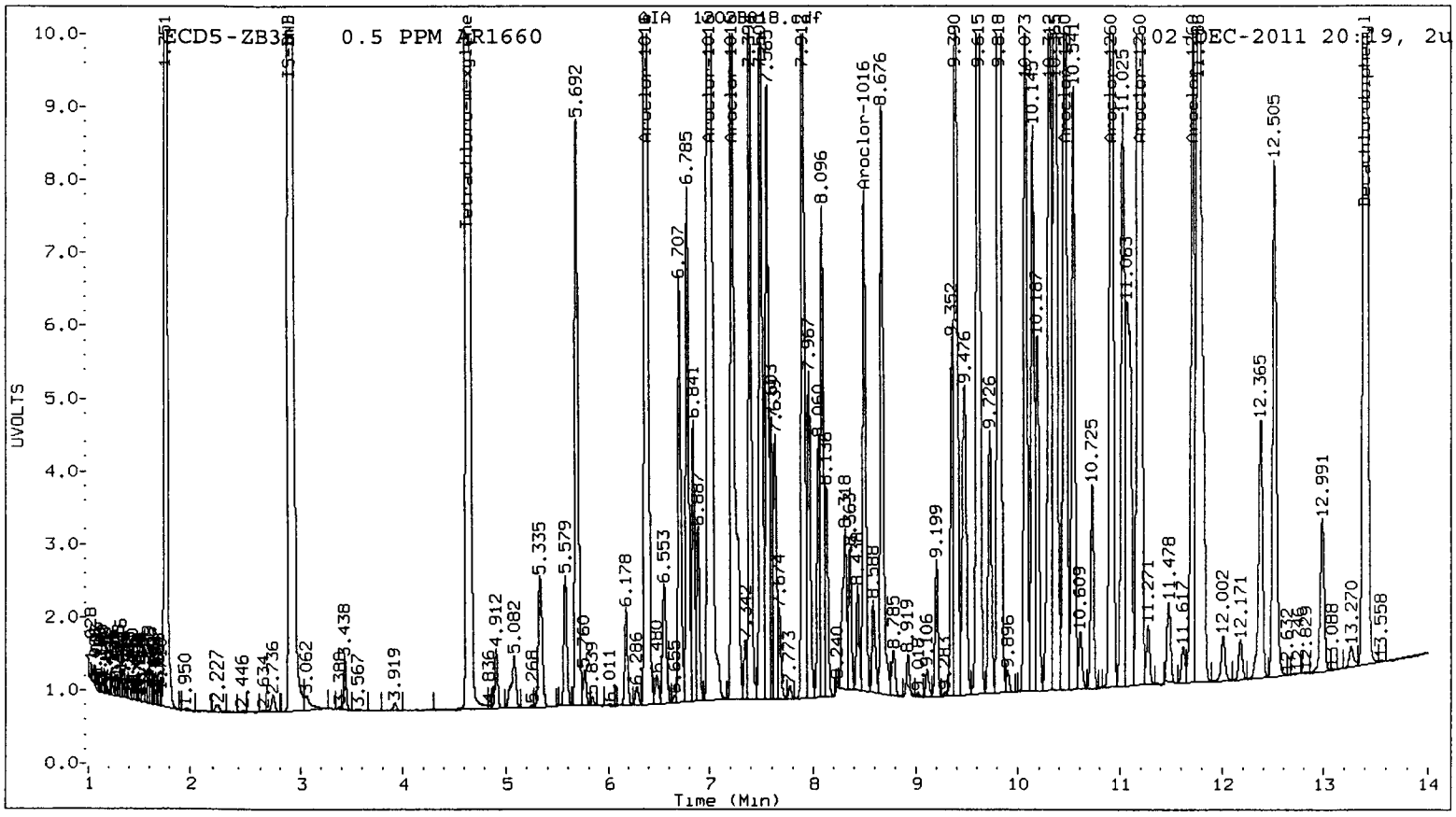
ECD5-ZB35 0.5 PPM AR1660
02-DEC-2011 20:19, 2u
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl


ECD5-ZB5 0.5 PPM AR1660
UVOLTS
Time (Min)


ECD5-ZB35 0.5 PPM AR1660
UVOLTS
Time (Min)

TXST 01454

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B019.d
Data file 2: 20111202.B/ical-2.b/1202B019.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 02-DEC-2011 20:38
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.645	0.003	35976099	4.647	0.003	23313448	19.7	20.1	2.0	Tetrachloro-m-xylene
13.032	0.002	33094420	13.408	0.002	13508700	18.6	18.0	3.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.1	50.1
Decachlorobiphenyl	46.5	45.0

JL 12/05/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	128494839	3.0
Hexabromobiphenyl	134444165	141819901	5.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	90555660	1.2
Hexabromobiphenyl	57341096	60662135	5.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1242	1	6.279	0.002	8369968	250.0	1	6.385	0.002	8111934	250.0
Aroclor-1242	2	6.678	0.001	27600262	250.0	2	7.010	0.001	16121827	250.0
Aroclor-1242	3	6.826	0.001	11112280	250.0	3	7.220	0.002	6390525	250.0
Aroclor-1242	4	8.019	0.001	9369705	250.0	4	8.364	0.001	5055337	250.0

Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

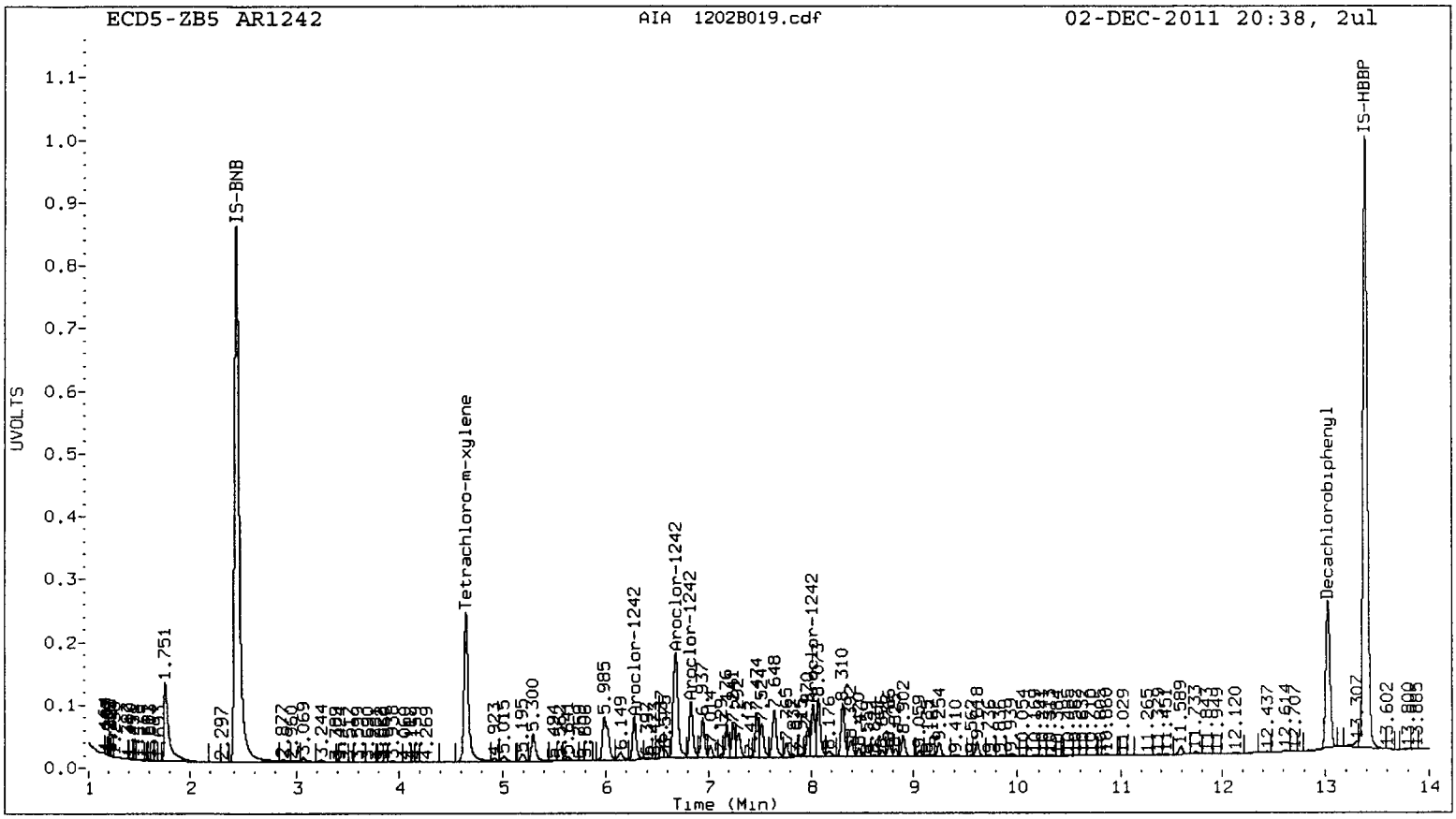
Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

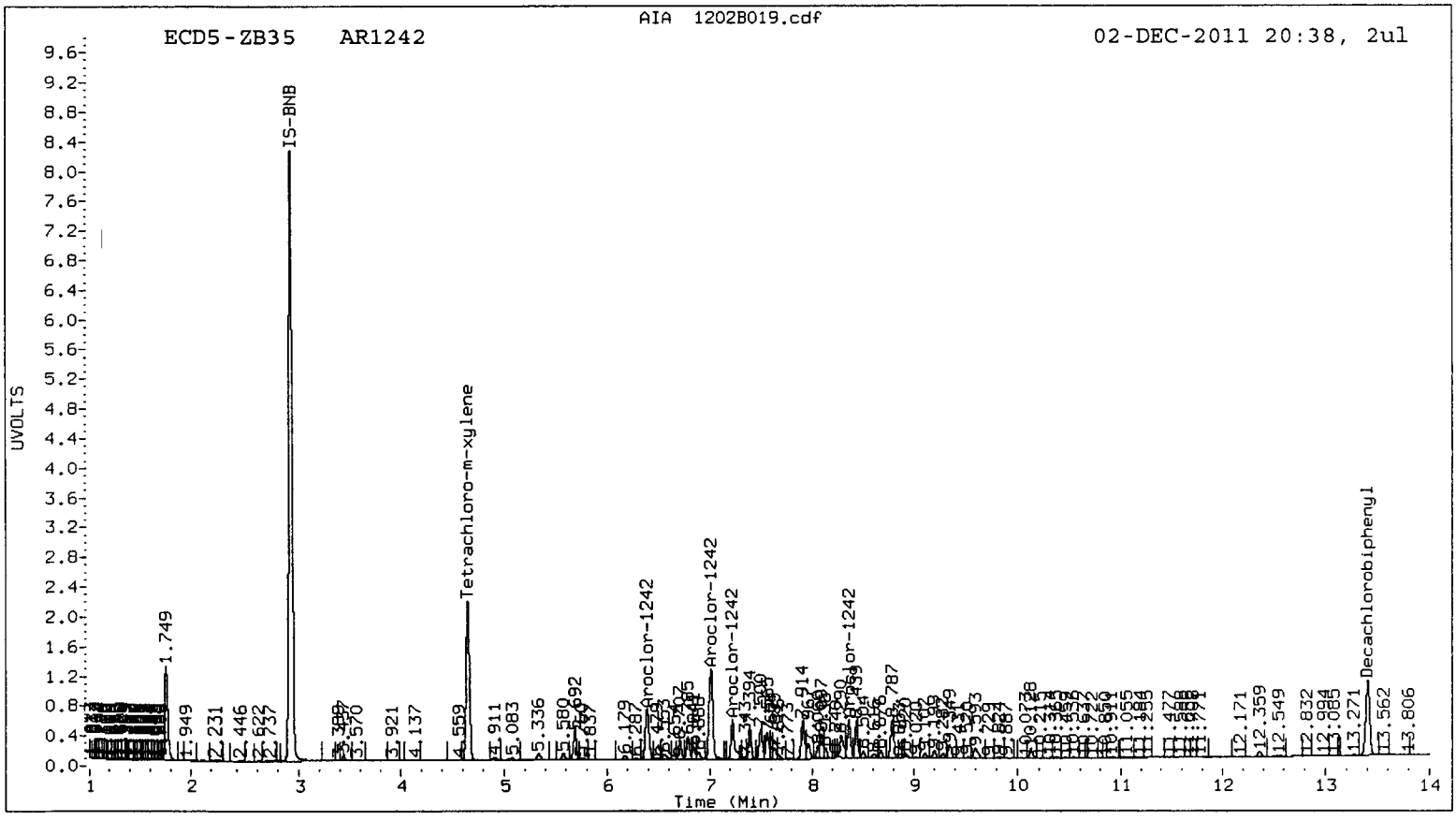
Total PCB Area Col1 (4.742 - 12.930) = 200135733 Col1 Total PCB = 0.2 ppm*

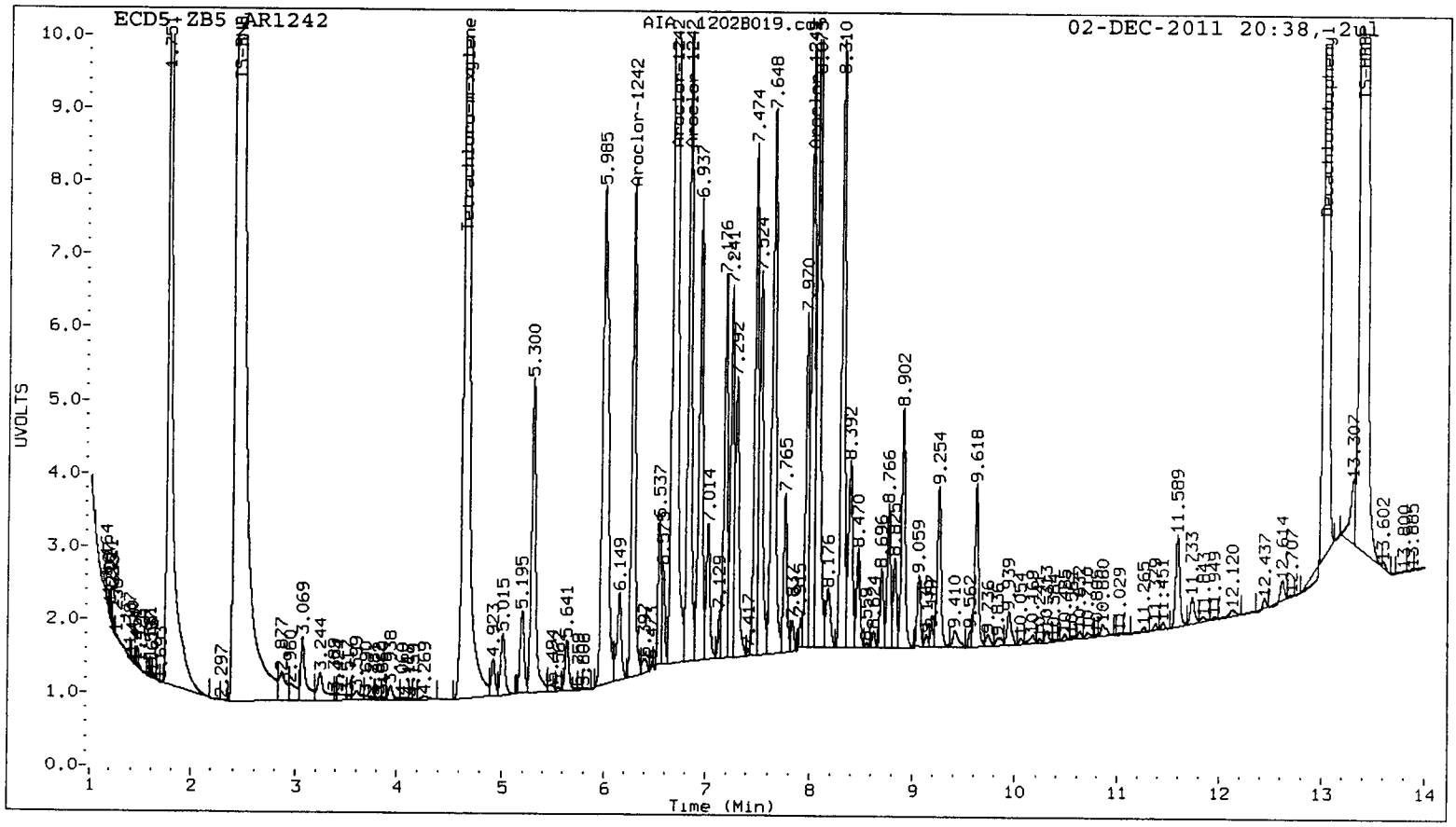
Total PCB Area Col2 (4.744 - 13.306) = 111006637 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TXET 01196


ECD5-ZB5 AR1242
AIA 1202B019.cdf
02-DEC-2011 20:38, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
IS-HBBP


AIA 1202B019.cdf
ECD5-ZB35 AR1242
02-DEC-2011 20:38, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl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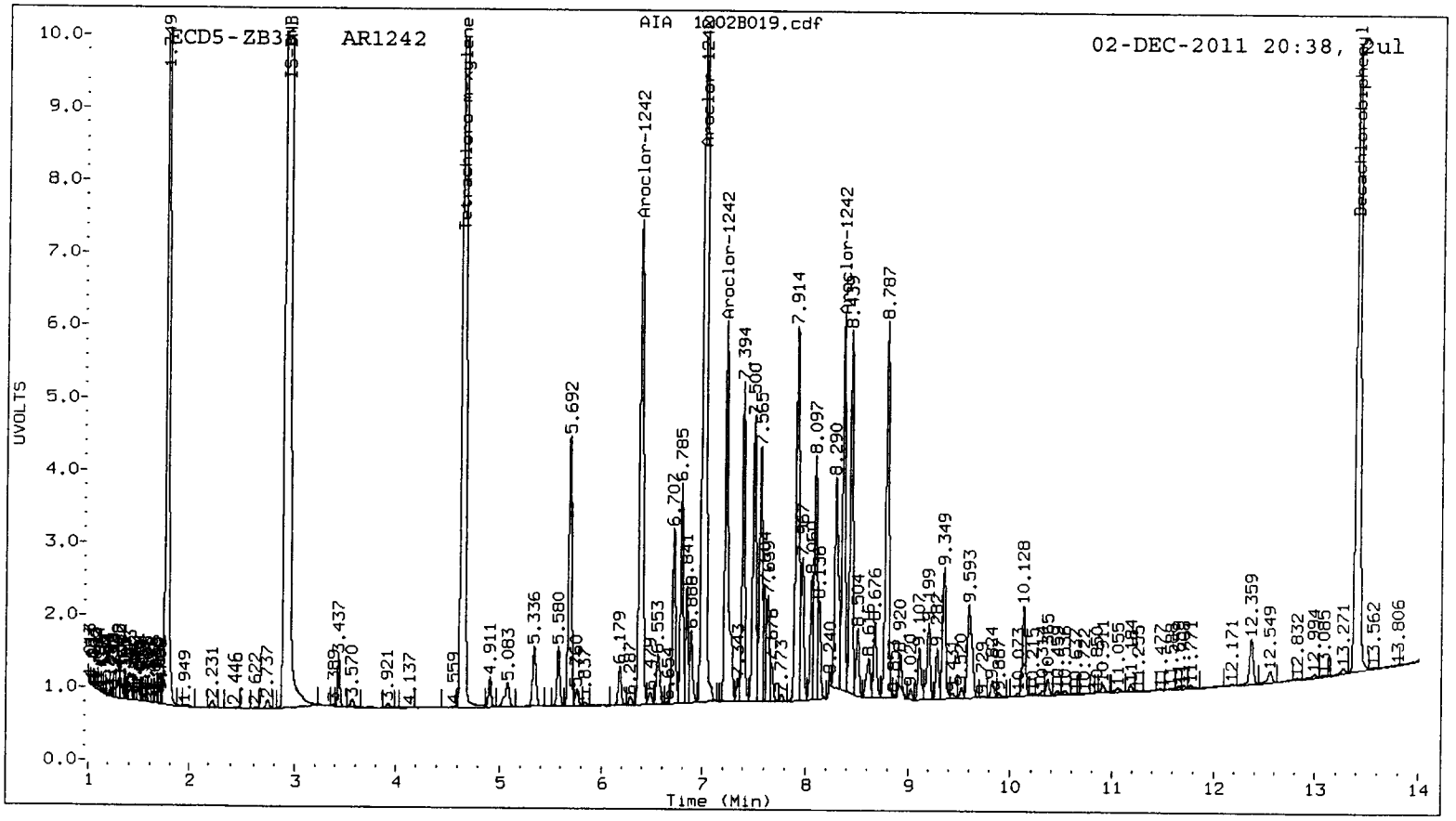
AIA 1202B019.cdf
02-DEC-2011 20:38, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1248
Aroclor-1254
Decachlorobiphenyl
IS-DNB
IS-BBB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AR1242
AIA 1202B019.cdf
02-DEC-2011 20:38, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1248
Decachlorobiphenyl
IS-DNB

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B020.d
Data file 2: 20111202.B/ical-2.b/1202B020.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 02-DEC-2011 20:57
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.645	0.003	37419732	4.647	0.003	24617767	20.1	20.8	3.1	Tetrachloro-m-xylene
13.033	0.003	34607138	13.408	0.002	14067751	19.2	18.5	3.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.4	51.9
Decachlorobiphenyl	48.1	46.4

12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	130434881	4.5
Hexabromobiphenyl	134444165	143284415	6.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	92334593	3.2
Hexabromobiphenyl	57341096	61345325	7.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

TX57.0105

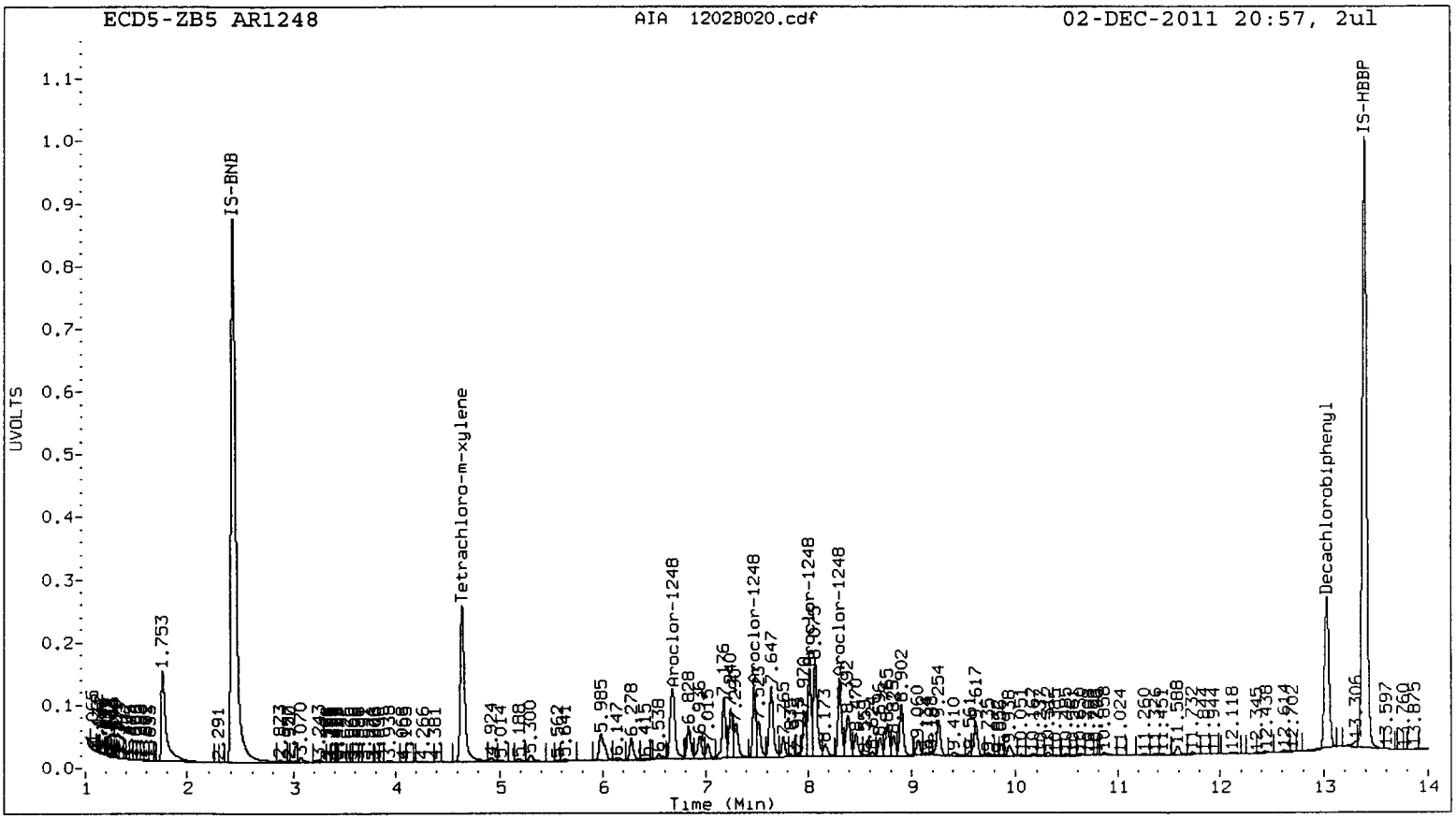
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	6.675	0.002	19011166	250.0	1	7.007	0.002	10900874	250.0
Aroclor-1248	2	7.474	0.002	13205134	250.0	2	7.913	0.002	8140547	250.0
Aroclor-1248	3	8.019	0.002	15841448	250.0	3	8.364	0.002	8475701	250.0
Aroclor-1248	4	8.310	0.002	15253553	250.0	4	8.786	0.002	9251245	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

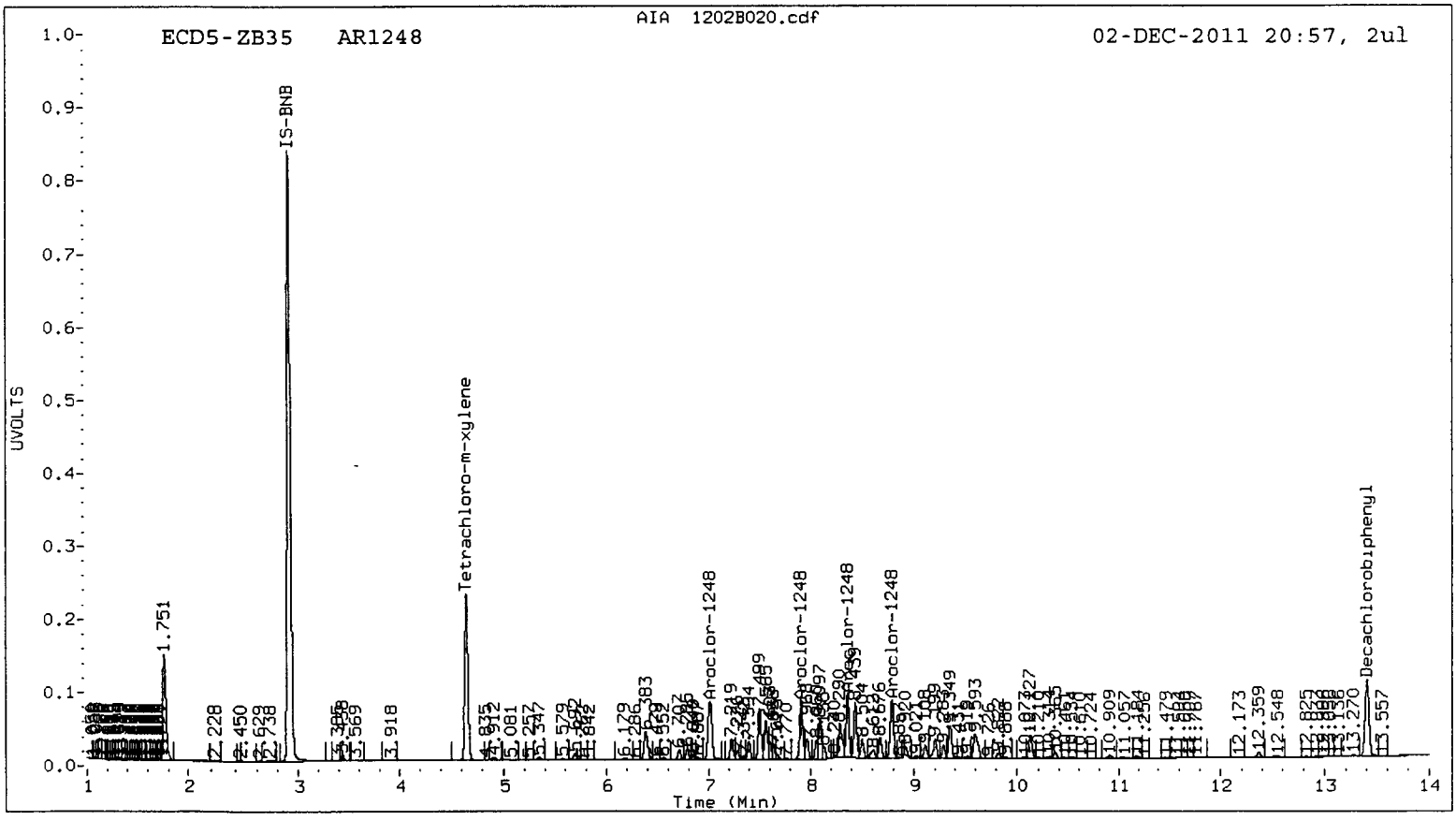
Total PCB Area Col1 (4.742 - 12.930) = 251993632 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.744 - 13.306) = 132401115 Col2 Total PCB = 0.2 ppm*

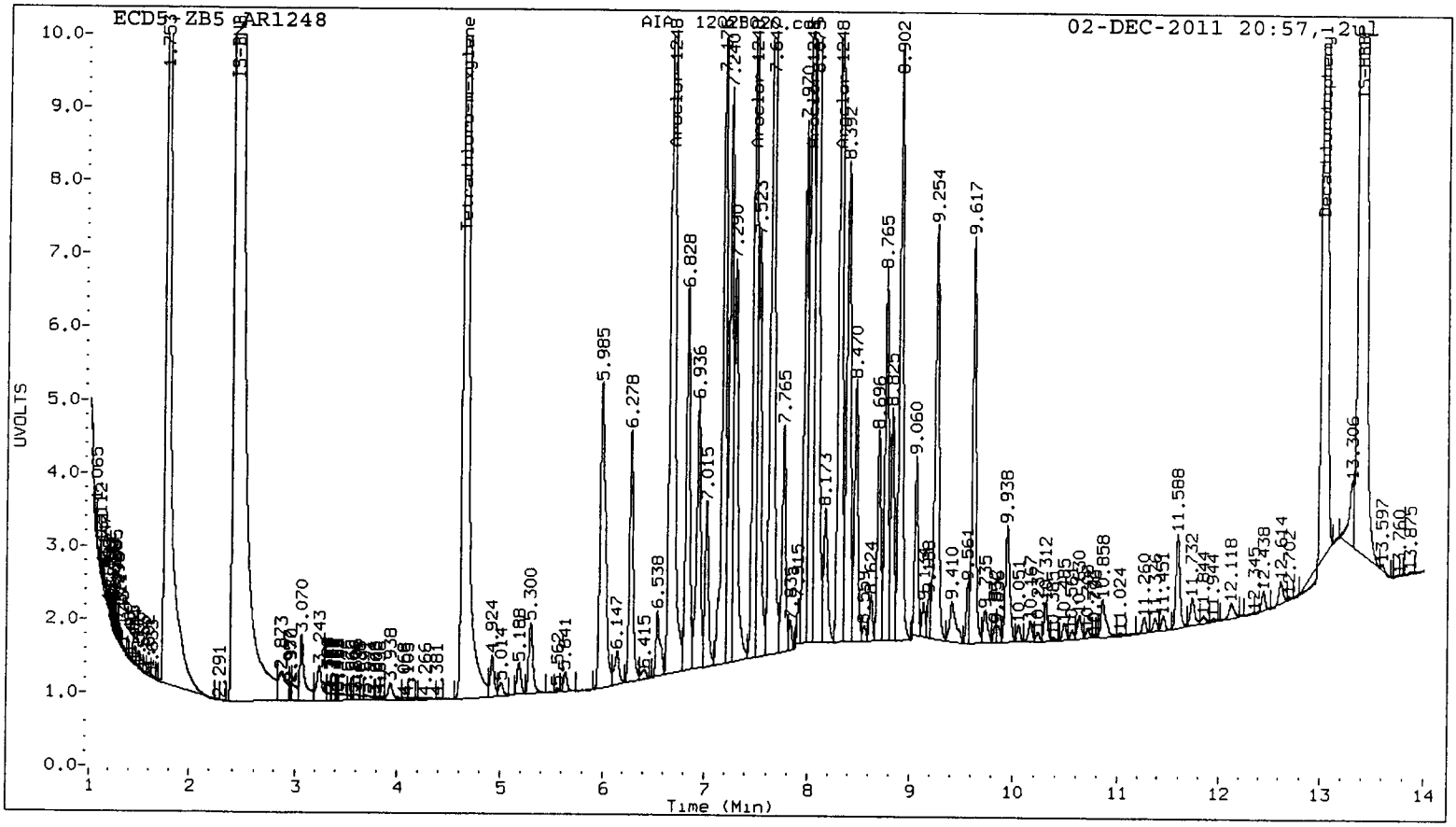
* Quantitated against AR1660 0.25ppm in Ical

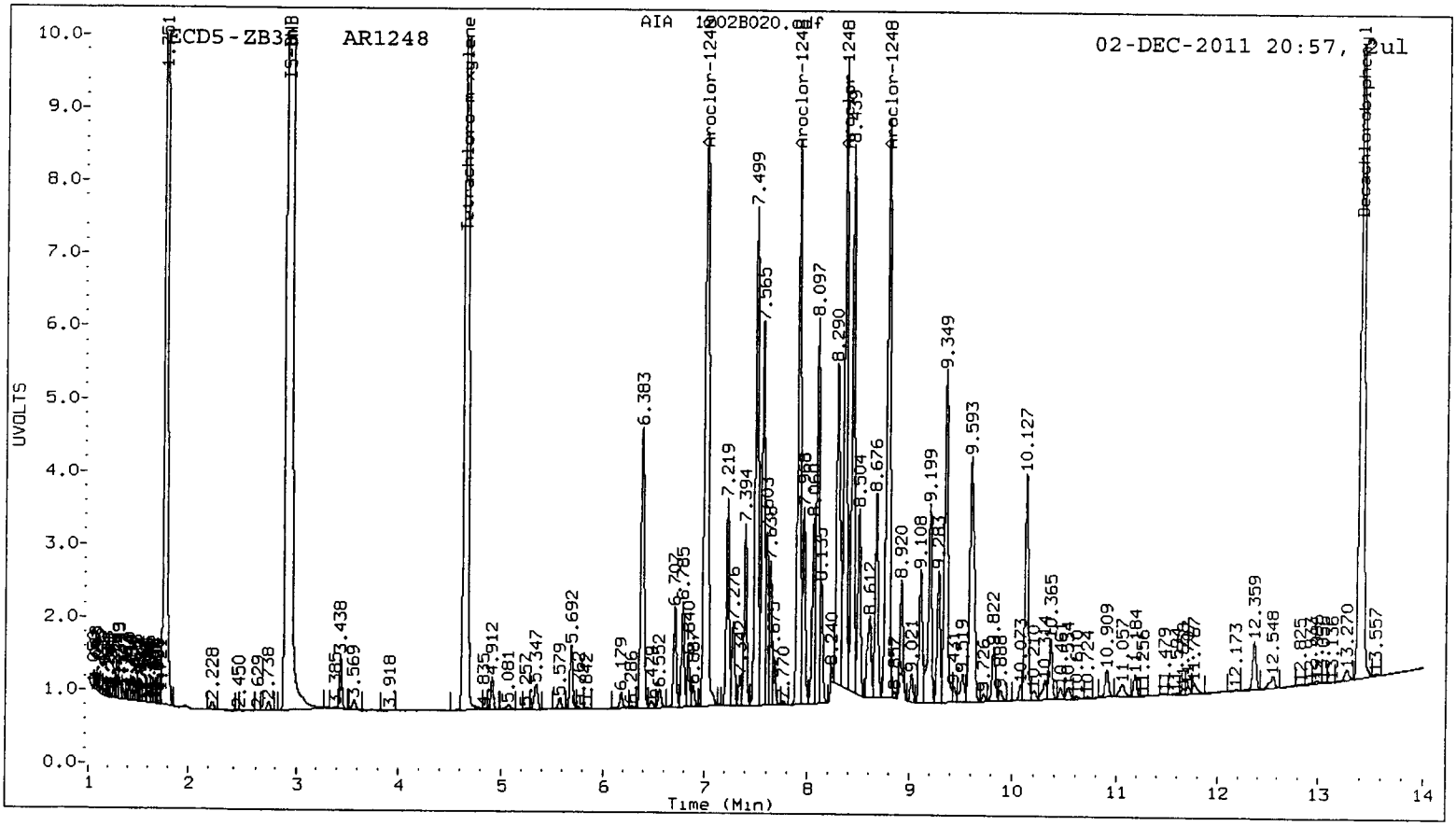
TX57 01202


ECD5-ZB5 AR1248
AIA 1202B020.cdf
02-DEC-2011 20:57, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
1.753


AIA 1202B020.cdf
ECD5-ZB35 AR1248
02-DEC-2011 20:57, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
1.751

TX57 0128


ECD5-ZB5 AR1248
AIA 1202B020.cdf
02-DEC-2011 20:57,1 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HHB


ECD5-ZB3
AR1248
AIA 1202B020.cdf
02-DEC-2011 20:57, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HHB

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B021.d
Data file 2: 20111202.B/ical-2.b/1202B021.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 02-DEC-2011 21:16
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.645	0.003	35851553	4.646	0.002	23813753	19.1	19.9	4.0	Tetrachloro-m-xylene
13.031	0.002	34041947	13.407	0.001	13839412	18.5	17.8	3.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	47.7	49.7
Decachlorobiphenyl	46.2	44.5

JK 12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	131876664	5.7
Hexabromobiphenyl	134444165	146688625	9.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	93358587	4.3
Hexabromobiphenyl	57341096	62942647	9.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

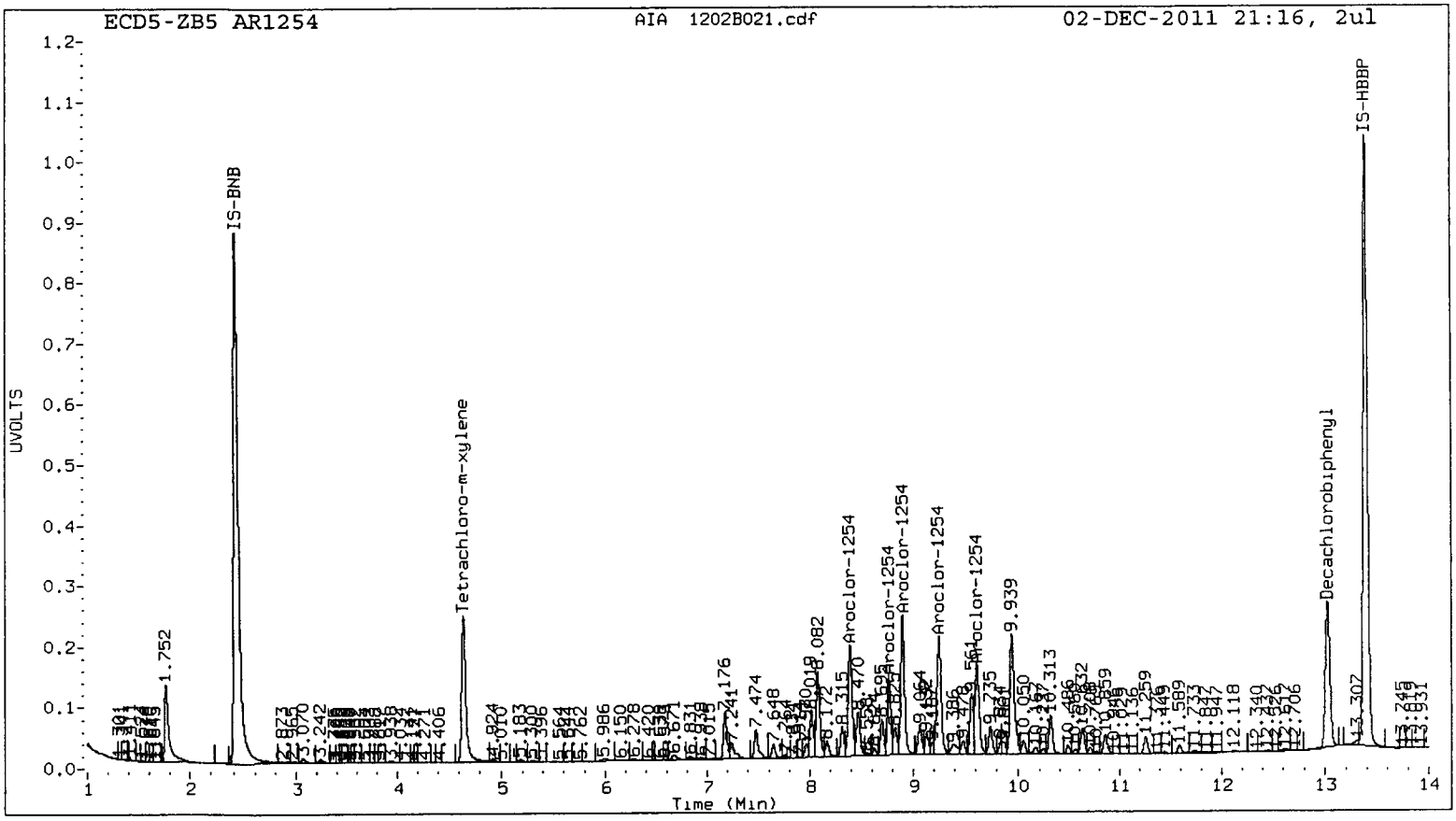
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1254	1	8.394	0.002	23996341	250.0	1	8.504	0.001	7347195	250.0
Aroclor-1254	2	8.765	0.001	15412202	250.0	2	8.676	0.001	9591883	250.0
Aroclor-1254	3	8.902	0.002	28727932	250.0	3	9.199	0.001	7553485	250.0
Aroclor-1254	4	9.251	0.001	29781227	250.0	4	9.350	0.001	16194393	250.0
Aroclor-1254	5	9.613	0.001	20163056	250.0	5	10.132	0.001	10010297	250.0
Total Col1Ave (5 peaks):					250.0	Total Col2Ave (5 peaks):				250.0 RPD = 0
Corrected Ave (4 peaks):					250.0	Corrected Ave (4 peaks):				250.0 RPD = 0

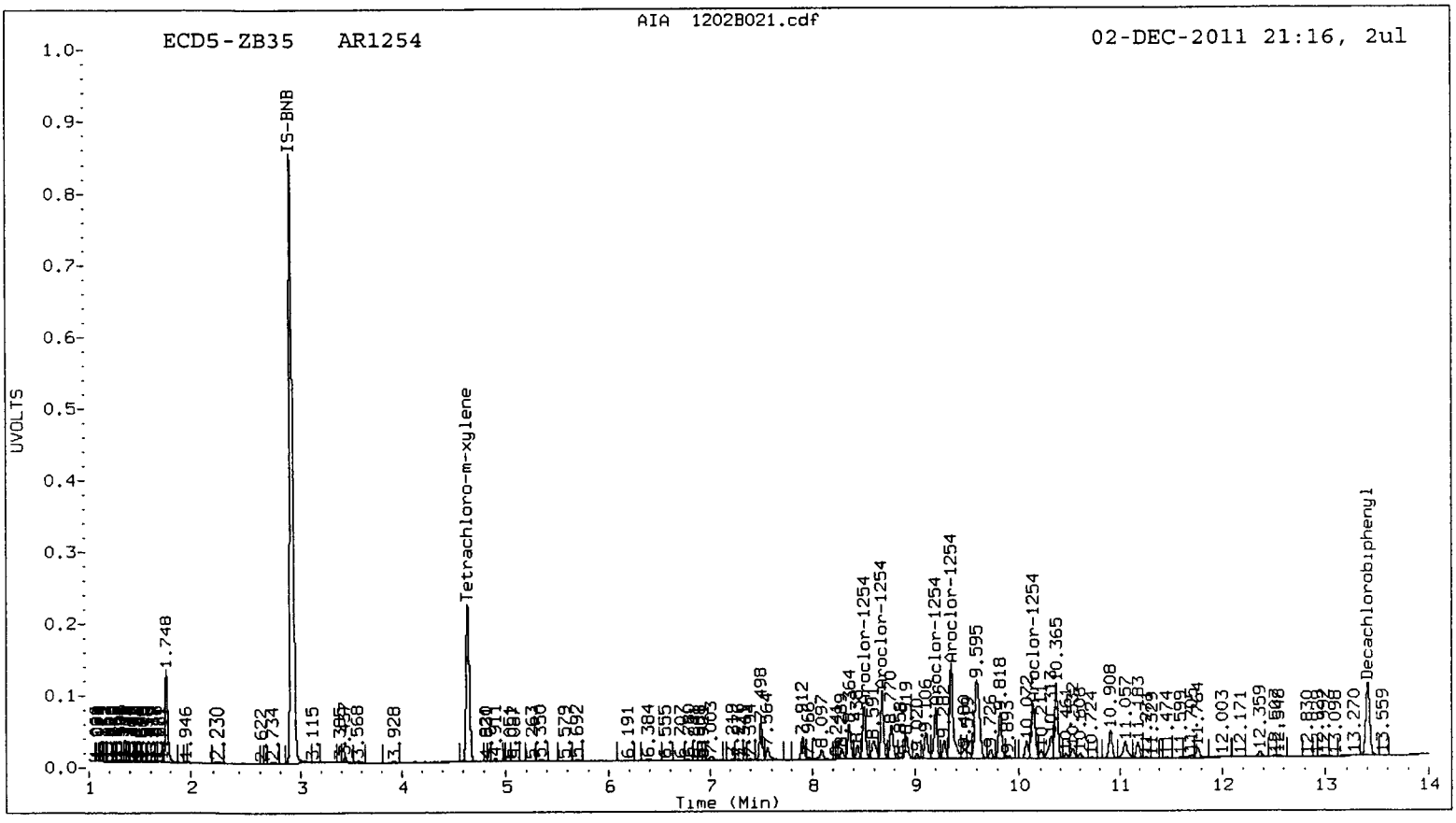
Total PCB Area Col1 (4.742 - 12.930) = 312334801 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.744 - 13.306) = 157073676 Col2 Total PCB = 0.3 ppm*

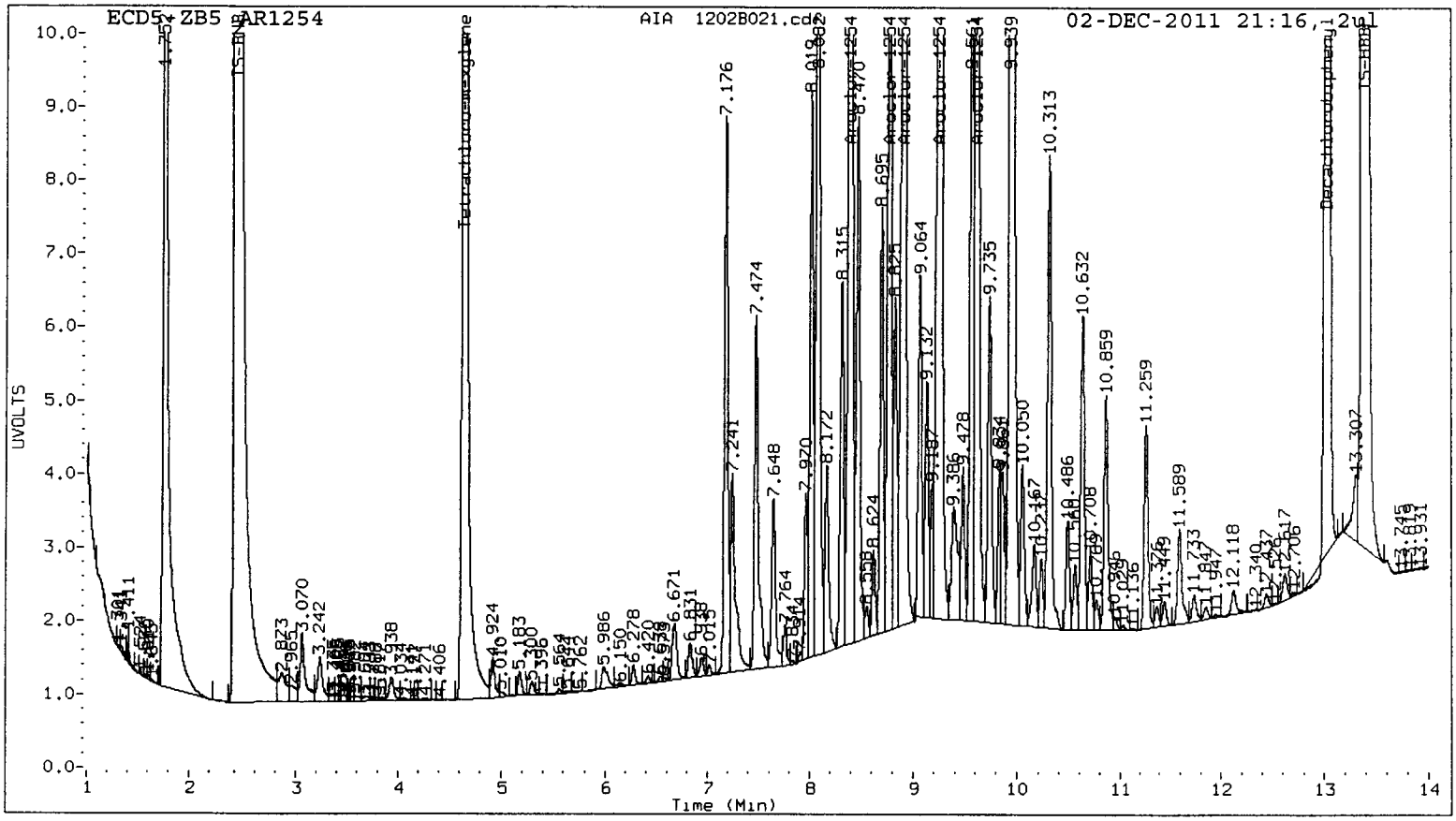
* Quantitated against AR1660 0.25ppm in Ical

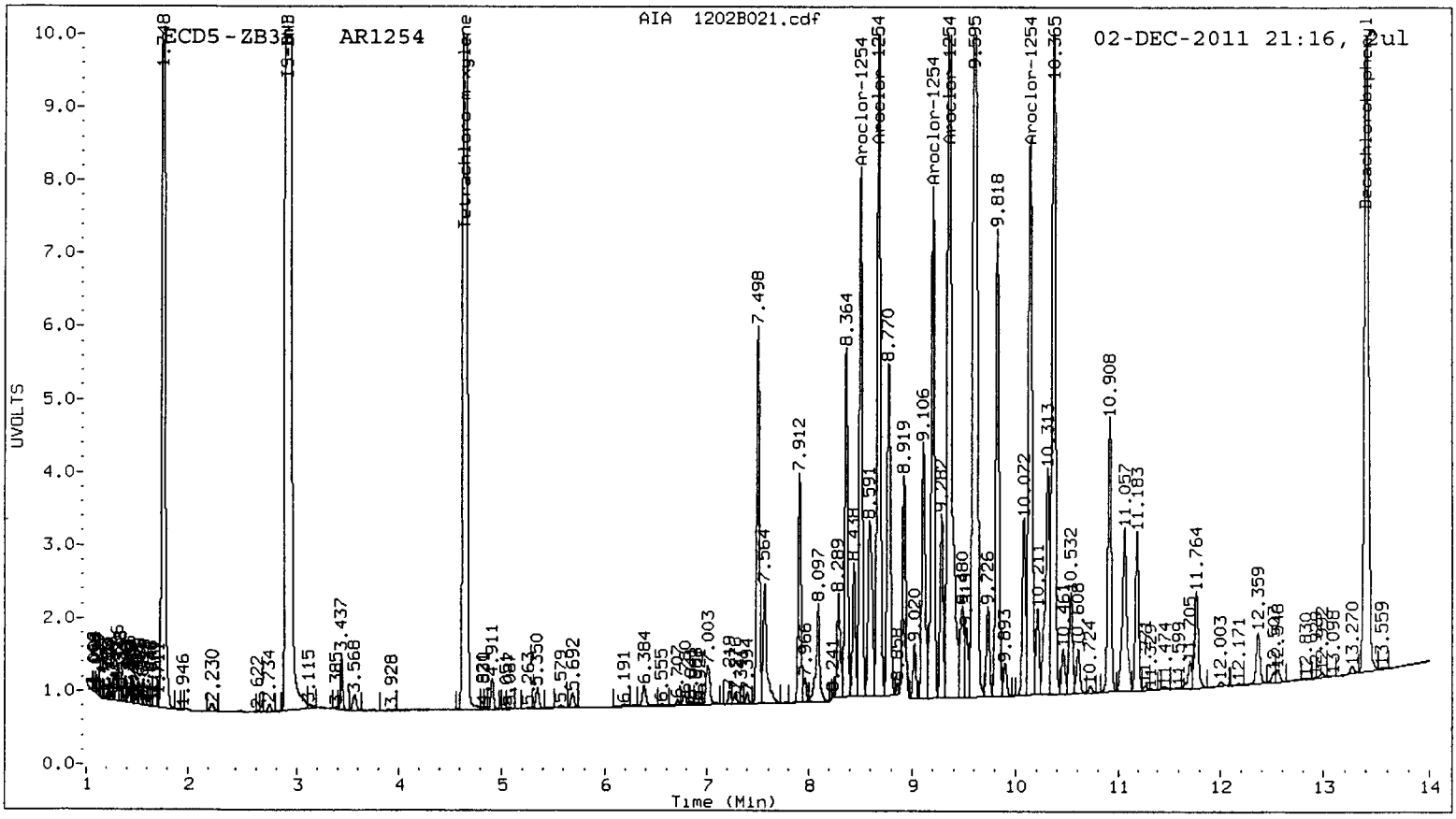
TX57.01204


ECD5-ZB5 AR1254
AIA 1202B021.cdf
02-DEC-2011 21:16, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP


AIA 1202B021.cdf
ECD5-ZB35 AR1254
02-DEC-2011 21:16, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl

TX57 01205


ECD5-ZB5 AR1254
AIA 1202B021.cdf
02-DEC-2011 21:16, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
TS-DNB
Decachlorobiphenyl


ECD5-ZB35
AR1254
AIA 1202B021.cdf
02-DEC-2011 21:16, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
TS-DNB
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B022.d
Data file 2: 20111202.B/ical-2.b/1202B022.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR2162
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162
Client ID:
Injection Date: 02-DEC-2011 21:35
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.645	0.003	37374330	4.647	0.003	23944200	20.3	20.6	1.3	Tetrachloro-m-xylene
13.031	0.002	33933325	13.408	0.002	13881724	18.8	18.2	3.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.8	51.5
Decachlorobiphenyl	47.0	45.5

12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	129033764	3.4
Hexabromobiphenyl	134444165	143743337	6.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	90508535	1.2
Hexabromobiphenyl	57341096	61628206	7.5

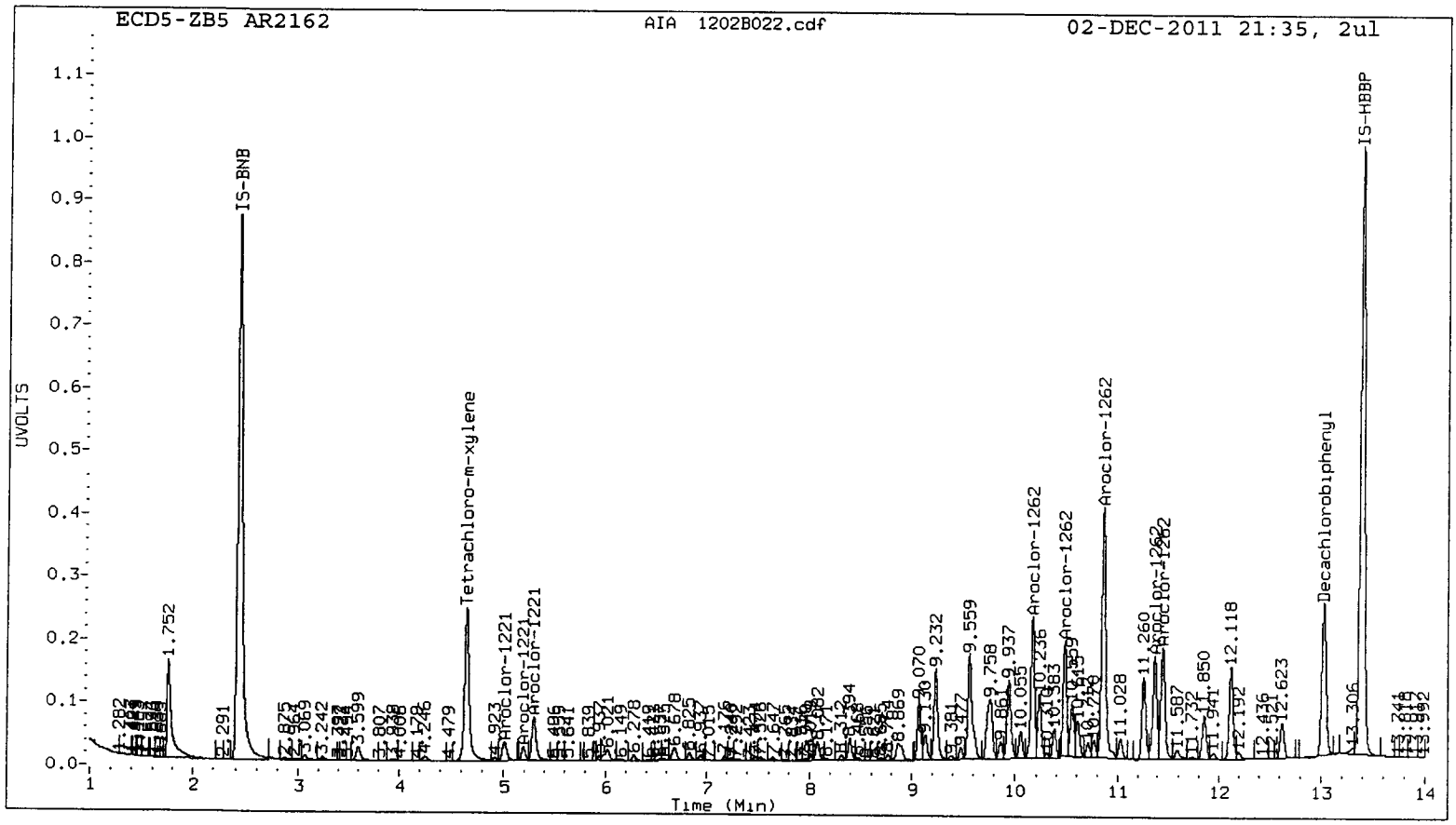
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

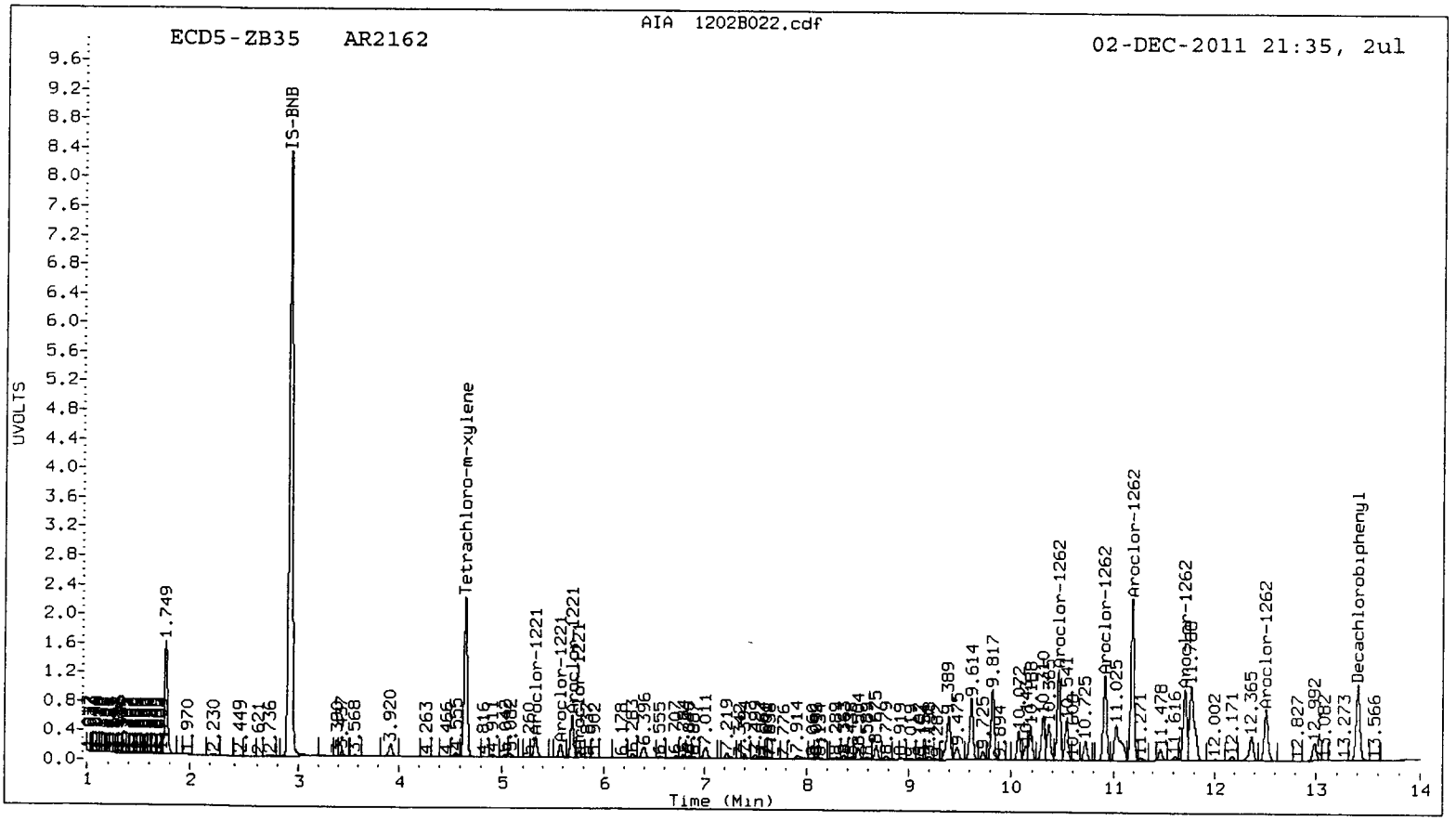
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1221	1	5.017	0.000	4399381	250.0	1	5.332	0.000	3258350	250.0
Aroclor-1221	2	5.196	0.000	3102400	250.0	2	5.579	0.000	1866212	250.0
Aroclor-1221	3	5.300	0.000	10889109	250.0	3	5.691	0.000	5896248	250.0
Aroclor-1221	NS	---			----	4	5.759	0.000	933468	250.0
	Total Col1Ave (3 peaks):				250.0	Total Col2Ave (4 peaks):			250.0	RPD = 0
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):			250.0	
Aroclor-1262	1	10.168	0.000	28621570	250.0	1	10.461	0.000	13853087	250.0
Aroclor-1262	2	10.485	0.000	22307108	250.0	2	10.914	0.000	13165632	250.0
Aroclor-1262	3	10.859	0.000	54743297	250.0	3	11.184	0.000	25612815	250.0
Aroclor-1262	4	11.376	0.000	22779999	250.0	4	11.707	0.000	11376669	250.0
Aroclor-1262	5	11.449	0.000	24457147	250.0	5	12.505	0.000	9129804	250.0
	Total Col1Ave (5 peaks):				250.0	Total Col2Ave (5 peaks):			250.0	RPD = 0
	Corrected Ave (4 peaks):				250.0	Corrected Ave (4 peaks):			250.0	RPD = 0

Total PCB Area Col1 (4.742 - 12.930) = 421438735 Col1 Total PCB = 0.4 ppm*

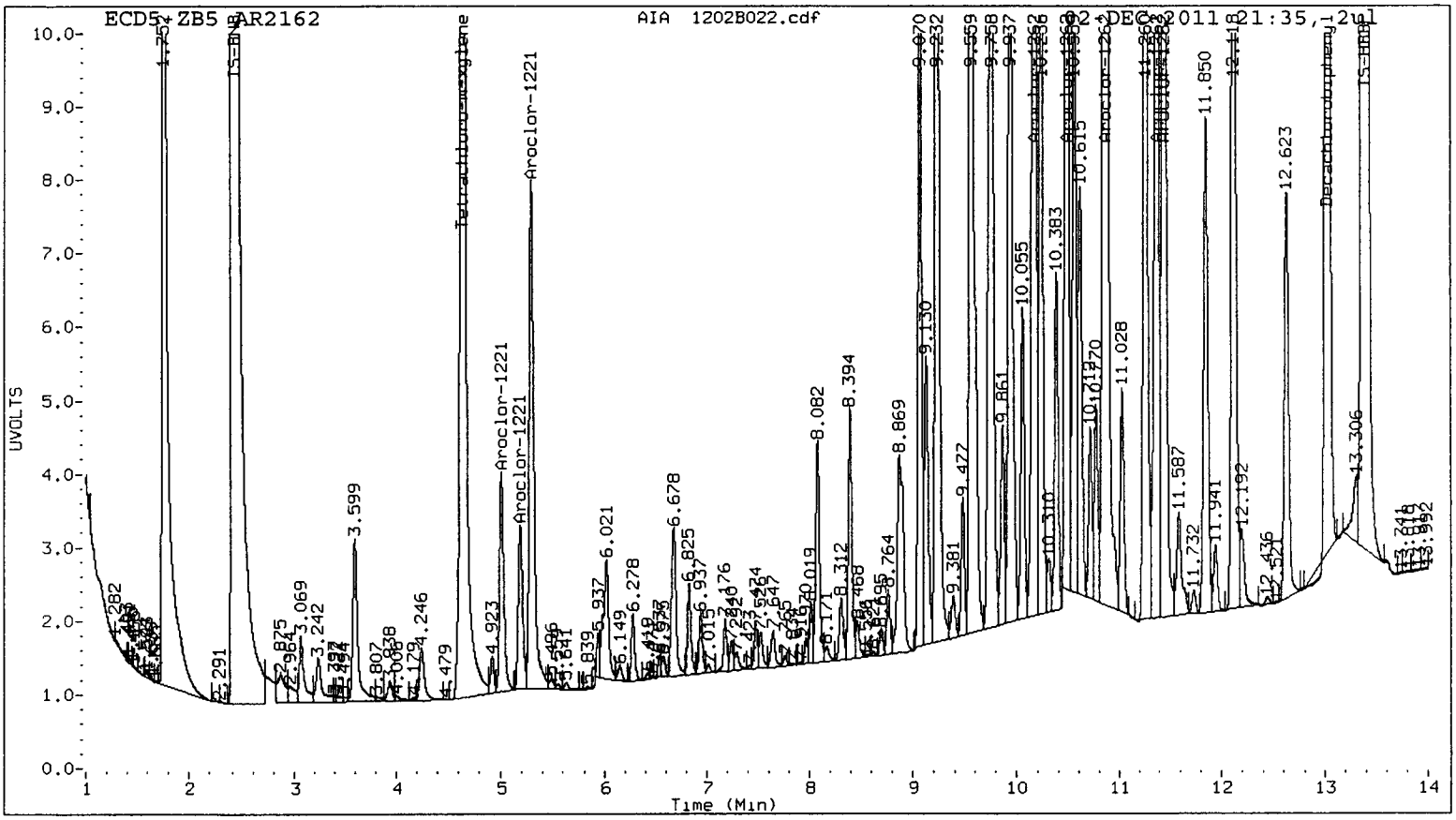
Total PCB Area Col2 (4.744 - 13.306) = 206086365 Col2 Total PCB = 0.4 ppm*

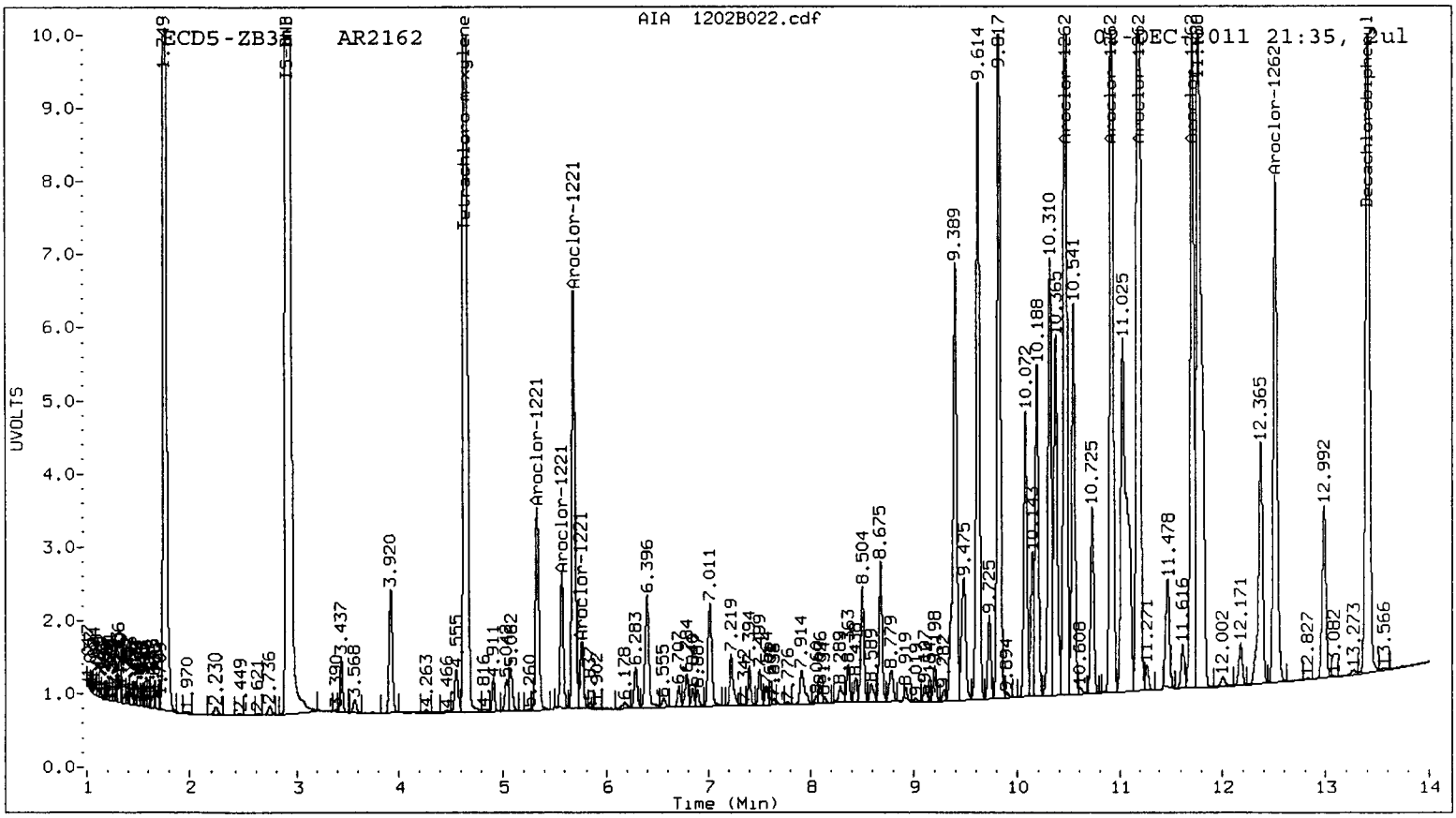
* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR2162
AIA 1202B022.cdf
02-DEC-2011 21:35, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 AR2162
AIA 1202B022.cdf
02-DEC-2011 21:35, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl

TX57 : 01208


ECD5_ZB5 AR2162
AIA 1202B022.cdf
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl


ECD5-ZB3
AR2162
AIA 1202B022.cdf
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B023.d
Data file 2: 20111202.B/ical-2.b/1202B023.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR3268
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268
Client ID:
Injection Date: 02-DEC-2011 21:54
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.645	0.002	35243887	4.646	0.003	22826001	18.9	19.5	2.8	Tetrachloro-m-xylene
13.032	0.003	61803067	13.407	0.001	24583400	34.1	32.0	6.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	47.3	48.7
Decachlorobiphenyl	85.3	80.0

12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	130661085	4.7
Hexabromobiphenyl	134444165	144362449	7.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	91331356	2.1
Hexabromobiphenyl	57341096	62159879	8.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

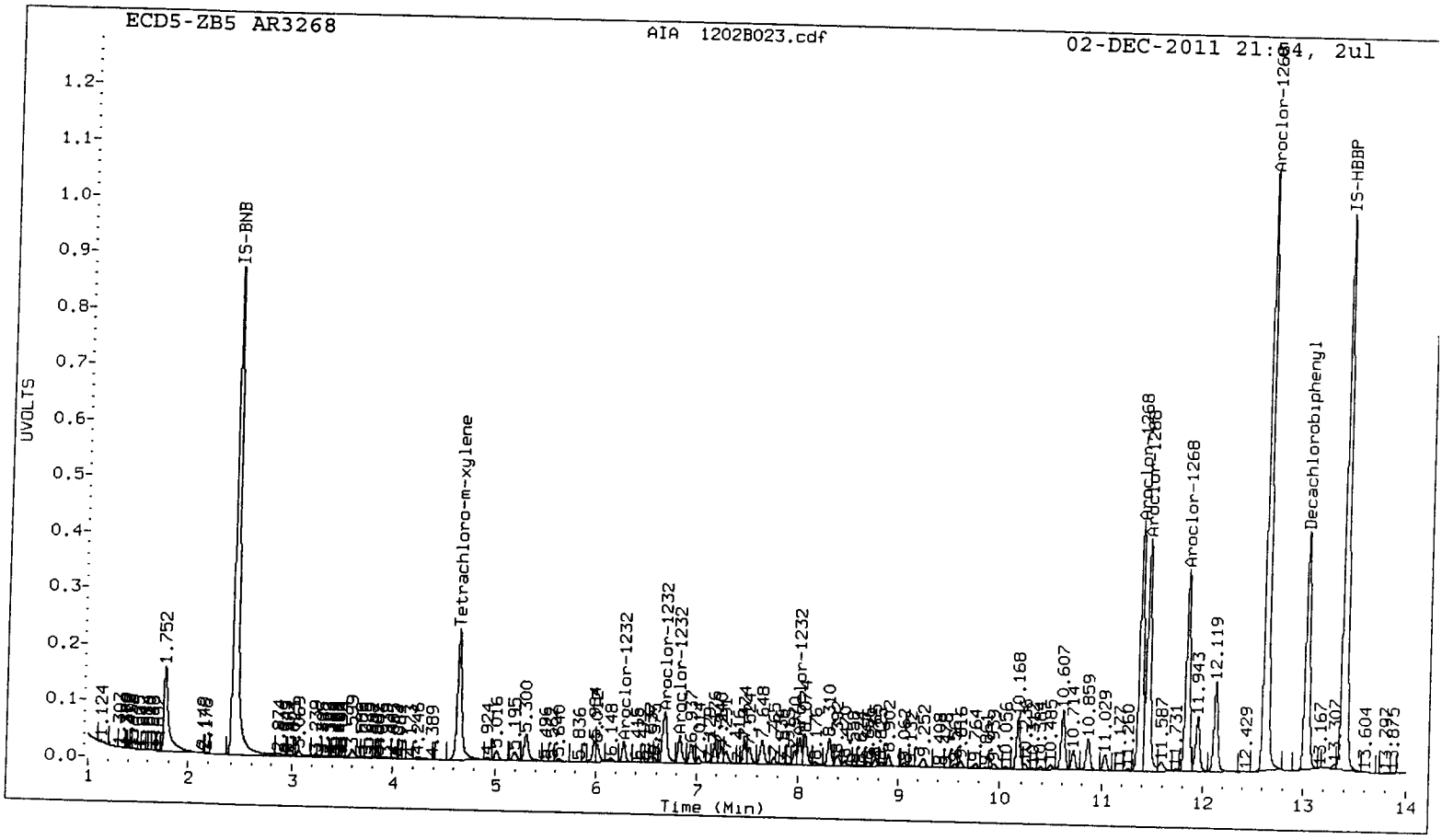
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1232	1	6.278	0.000	4535911	250.0	1	6.385	0.000	4754216	250.0
Aroclor-1232	2	6.677	0.000	15018875	250.0	2	7.010	0.000	8683204	250.0
Aroclor-1232	3	6.826	0.000	6119392	250.0	3	7.219	0.000	3029918	250.0
Aroclor-1232	4	8.019	0.000	5402670	250.0	4	8.364	0.000	2923242	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	11.377	0.000	58951678	250.0	1	11.707	0.000	26963753	250.0
Aroclor-1268	2	11.448	0.000	57650922	250.0	2	11.774	0.000	24591473	250.0
Aroclor-1268	3	11.835	0.000	48668177	250.0	3	12.172	0.000	20355982	250.0
Aroclor-1268	4	12.626	0.000	150378276	250.0	4	12.993	0.000	60444603	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

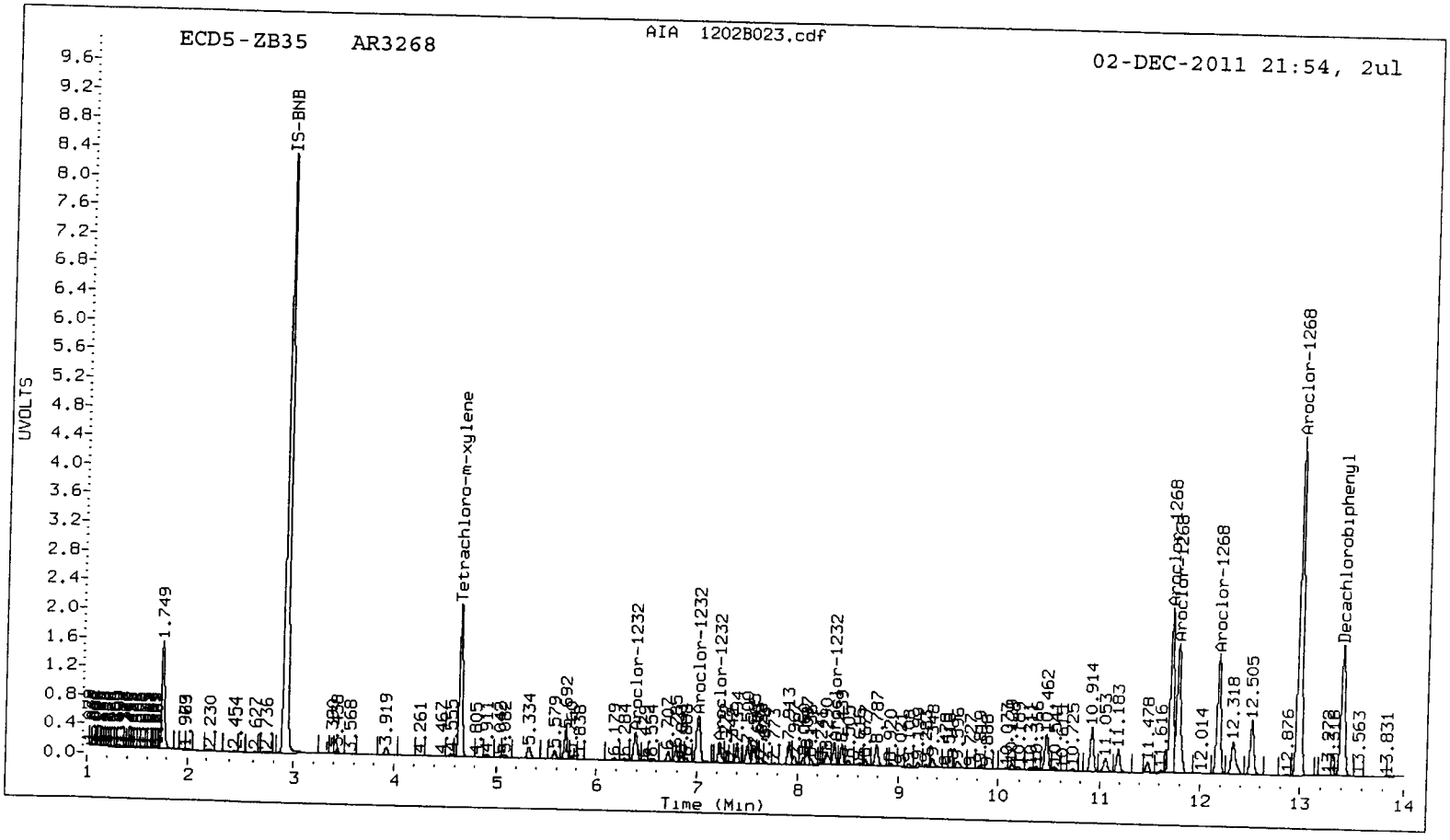
Total PCB Area Col1 (4.742 - 12.930) = 526819148 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.744 - 13.306) = 239752877 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TX017 01212


ECD5-ZB5 AR3268
AIA 1202B023.cdf
02-DEC-2011 21:54, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Aroclor-1268
Aroclor-1232
1.752
12.119
11.943
12.429
13.604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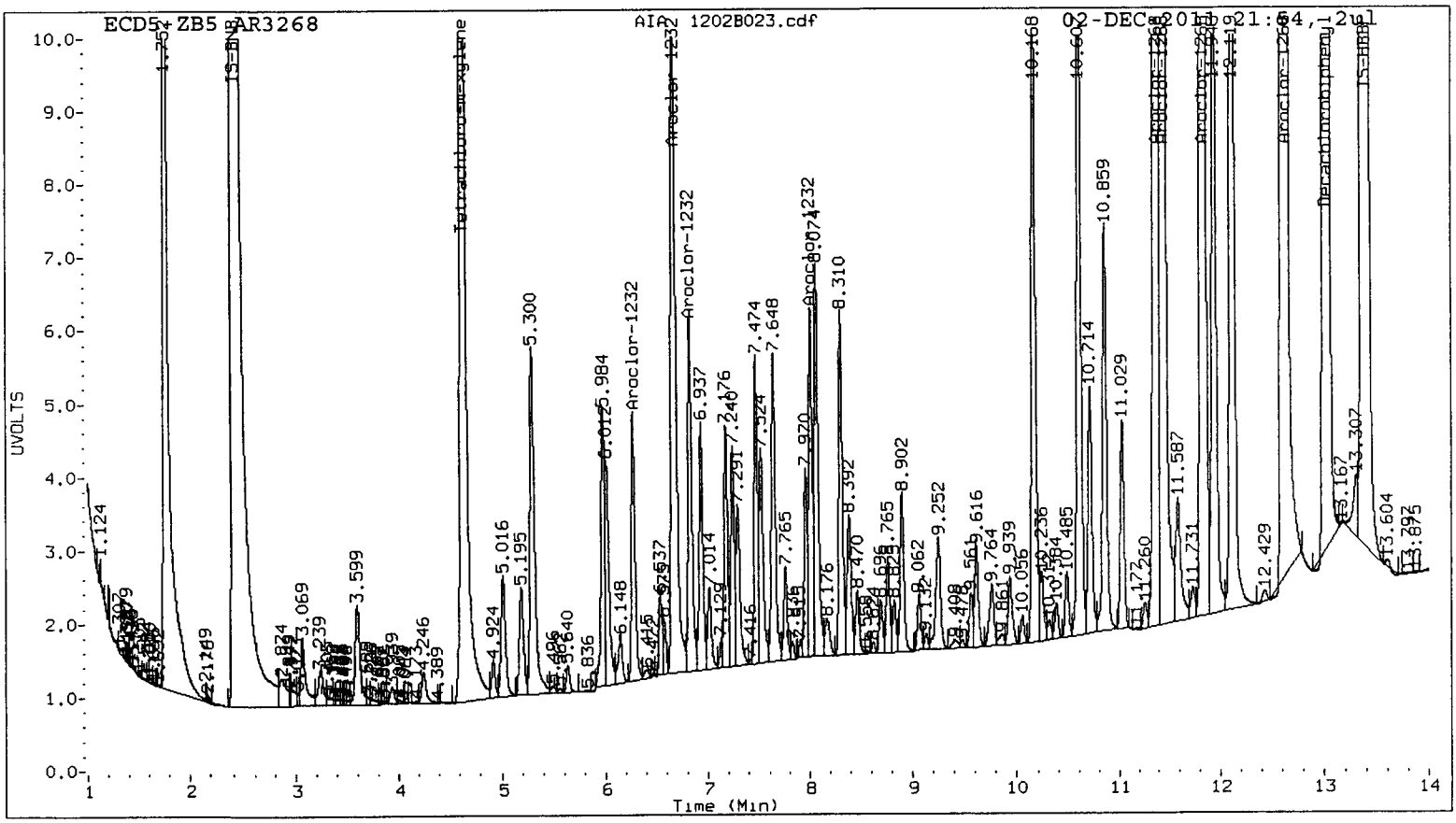
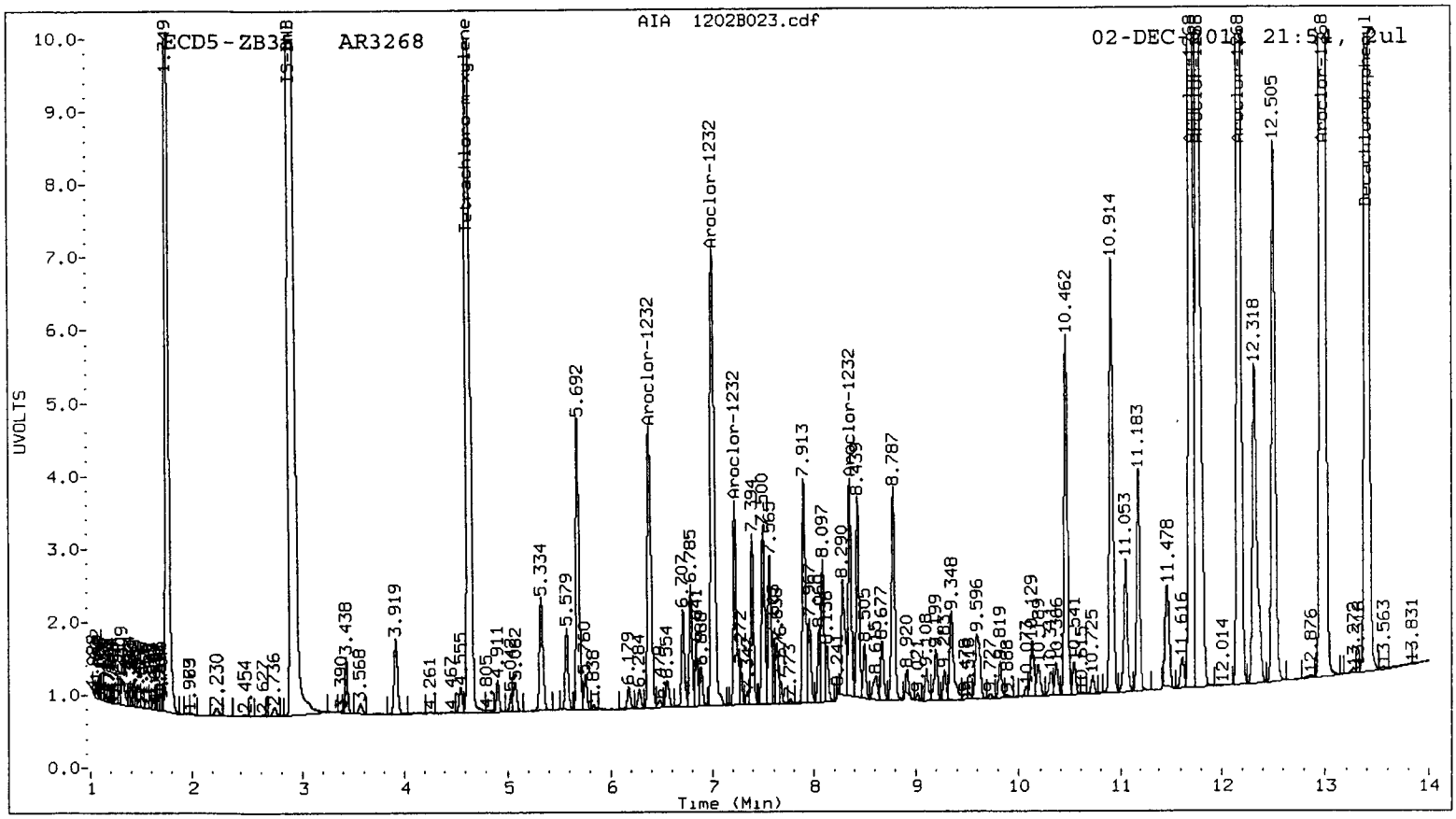
AIA 1202B023.cdf
02-DEC-2011 21:54, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1268
Aroclor-1232
1.749
12.318
12.505
12.876
13.563
13.831


ECD5-ZB5 AR3268
AIA 1202B023.cdf
02-DEC-2011 21:54, 1 2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl


ECD5-ZB3 AR3268
AIA 1202B023.cdf
02-DEC-2011 21:5
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl

TX57 012

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B024.d
Data file 2: 20111202.B/ical-2.b/1202B024.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 ICV
Client ID:
Injection Date: 02-DEC-2011 22:13
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.645	0.003	35826809	4.646	0.002	23065152	19.3	19.4	0.5	Tetrachloro-m-xylene
13.031	0.001	32844918	13.407	0.001	13409404	18.0	17.3	3.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	48.1	48.4
Decachlorobiphenyl	45.0	43.3

12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	130607790	4.7
Hexabromobiphenyl	134444165	145458906	8.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	92807628	3.7
Hexabromobiphenyl	57341096	62582379	9.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.278	0.002	10233446	227.4	1	6.385	0.002	9987848	224.8
Aroclor-1016	2	6.677	0.002	33505835	224.9	2	7.009	0.001	19676909	223.1
Aroclor-1016	3	6.826	0.002	13559742	224.7	3	7.219	0.001	7777850	234.3
Aroclor-1016	4	6.936	0.002	9583152	225.9	4	8.504	0.001	3103196	195.8
	Total Col1Ave (4 peaks):				225.7		Total Col2Ave (4 peaks):			219.5 RPD = 3
	Corrected Ave (3 peaks):				225.2		Corrected Ave (3 peaks):			214.6 RPD = 5
Aroclor-1221	1	5.015	-0.002	1551514	87.1	1	5.335	0.002	1253147	93.8
Aroclor-1221	2	5.195	-0.001	1851747	147.4	2	5.579	0.000	1046971	136.8
Aroclor-1221	3	5.300	0.000	7999990	181.5	3	5.691	0.000	4638893	191.8
Aroclor-1221	NS	---			----	4	5.759	0.000	281557	73.5
	Total Col1Ave (3 peaks):				138.7		Total Col2Ave (4 peaks):			124.0 RPD = 11
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			101.4
Aroclor-1232	1	6.278	-0.001	10233446	564.3	1	6.385	-0.001	9987848	516.9
Aroclor-1232	2	6.677	0.000	33505835	558.0	2	7.009	-0.001	19676909	557.5
Aroclor-1232	3	6.826	-0.001	13559742	554.2	3	7.219	-0.001	7777850	631.5
Aroclor-1232	4	8.018	-0.001	2058278	95.3	4	8.363	-0.001	1078168	90.7
	Total Col1Ave (4 peaks):				442.9		Total Col2Ave (4 peaks):			449.2 RPD = 1
	Corrected Ave (3 peaks):				402.5		Corrected Ave (3 peaks):			388.4 RPD = 4
Aroclor-1242	1	6.278	0.001	10233446	300.7	1	6.385	0.001	9987848	300.3
Aroclor-1242	2	6.677	0.000	33505835	298.6	2	7.009	0.000	19676909	297.7
Aroclor-1242	3	6.826	0.001	13559742	300.1	3	7.219	0.001	7777850	296.9
Aroclor-1242	4	8.018	0.000	2058278	54.0	4	8.363	0.000	1078168	52.0
	Total Col1Ave (4 peaks):				238.4		Total Col2Ave (4 peaks):			236.7 RPD = 1
	Corrected Ave (3 peaks):				217.6		Corrected Ave (3 peaks):			215.5 RPD = 1
Aroclor-1248	1	7.176	0.503	7452891	97.9	1	7.009	0.004	19676909	449.0
Aroclor-1248	2	7.474	0.001	9488354	179.4	2	7.912	0.001	6623560	202.4
Aroclor-1248	3	8.018	0.001	2058278	32.4	3	8.363	0.000	1078168	31.6
Aroclor-1248	4	8.314	0.006	1204932	19.7	4	8.785	0.001	300024	8.1
	Total Col1Ave (4 peaks):				82.4		Total Col2Ave (4 peaks):			172.8 RPD = 71*
	Corrected Ave (3 peaks):				50.0		Corrected Ave (3 peaks):			80.7 RPD = 47*
Aroclor-1254	1	8.395	0.002	7410032	77.9	1	8.504	0.000	3103196	106.2
Aroclor-1254	2	8.764	0.000	1032612	16.9	2	8.675	0.001	3373531	88.4
Aroclor-1254	3	8.897	-0.003	3671426	32.3	3	9.199	0.000	555032	18.5
Aroclor-1254	4	9.231	-0.018	22217819	188.3	4	9.389	0.040	8554937	132.9
Aroclor-1254	5	9.560	-0.052	32531599	407.3	5	10.144	0.013	3745840	94.1
	Total Col1Ave (5 peaks):				144.5		Total Col2Ave (5 peaks):			88.0 RPD = 49*
	Corrected Ave (4 peaks):				78.9		Corrected Ave (4 peaks):			76.8 RPD = 3
Aroclor-1260	1	10.485	0.002	18536402	258.1	1	10.461	0.002	9786560	277.0
Aroclor-1260	2	10.859	0.001	47303062	258.8	2	10.913	0.001	10777156	247.2
Aroclor-1260	3	11.260	0.002	24035582	244.4	3	11.184	0.001	22627766	260.4
Aroclor-1260	4	11.376	0.001	10963693	275.1	4	11.706	0.001	6497936	262.7
Aroclor-1260	5	11.450	0.002	13635252	285.1	NS	---			----
	Total Col1Ave (5 peaks):				264.8		Total Col2Ave (4 peaks):			261.8 RPD = 1
	Corrected Ave (4 peaks):				259.1		Corrected Ave (3 peaks):			256.8 RPD = 1
Aroclor-1262	1	10.168	0.000	19497135	168.3	1	10.461	0.000	9786560	173.9
Aroclor-1262	2	10.485	0.001	18536402	205.3	2	10.913	-0.001	10777156	201.5
Aroclor-1262	3	10.859	0.000	47303062	213.5	3	11.184	0.000	22627766	217.5
Aroclor-1262	4	11.376	0.000	10963693	118.9	4	11.706	-0.001	6497936	140.6
Aroclor-1262	5	11.450	0.001	13635252	137.7	5	12.505	-0.001	5961227	160.7
	Total Col1Ave (5 peaks):				168.7		Total Col2Ave (5 peaks):			178.9 RPD = 6
	Corrected Ave (4 peaks):				157.6		Corrected Ave (4 peaks):			169.2 RPD = 7
Aroclor-1268	1	11.376	-0.001	10963693	46.1	1	11.706	-0.001	6497936	59.8
Aroclor-1268	2	11.450	0.001	13635252	58.7	2	11.767	-0.008	14537253	146.8

TX57:01216

Aroclor-1268	3	11.851	0.016	6023729	30.7	3	12.171	-0.001	195559	2.4
Aroclor-1268	4	12.622	-0.003	3227738	5.3	4	12.992	-0.001	1151646	4.7

Total Col1Ave (4 peaks): 35.2 Total Col2Ave (4 peaks): 53.4 RPD = 41*

Corrected Ave (3 peaks): 27.4 Corrected Ave (3 peaks): 22.3 RPD = 20

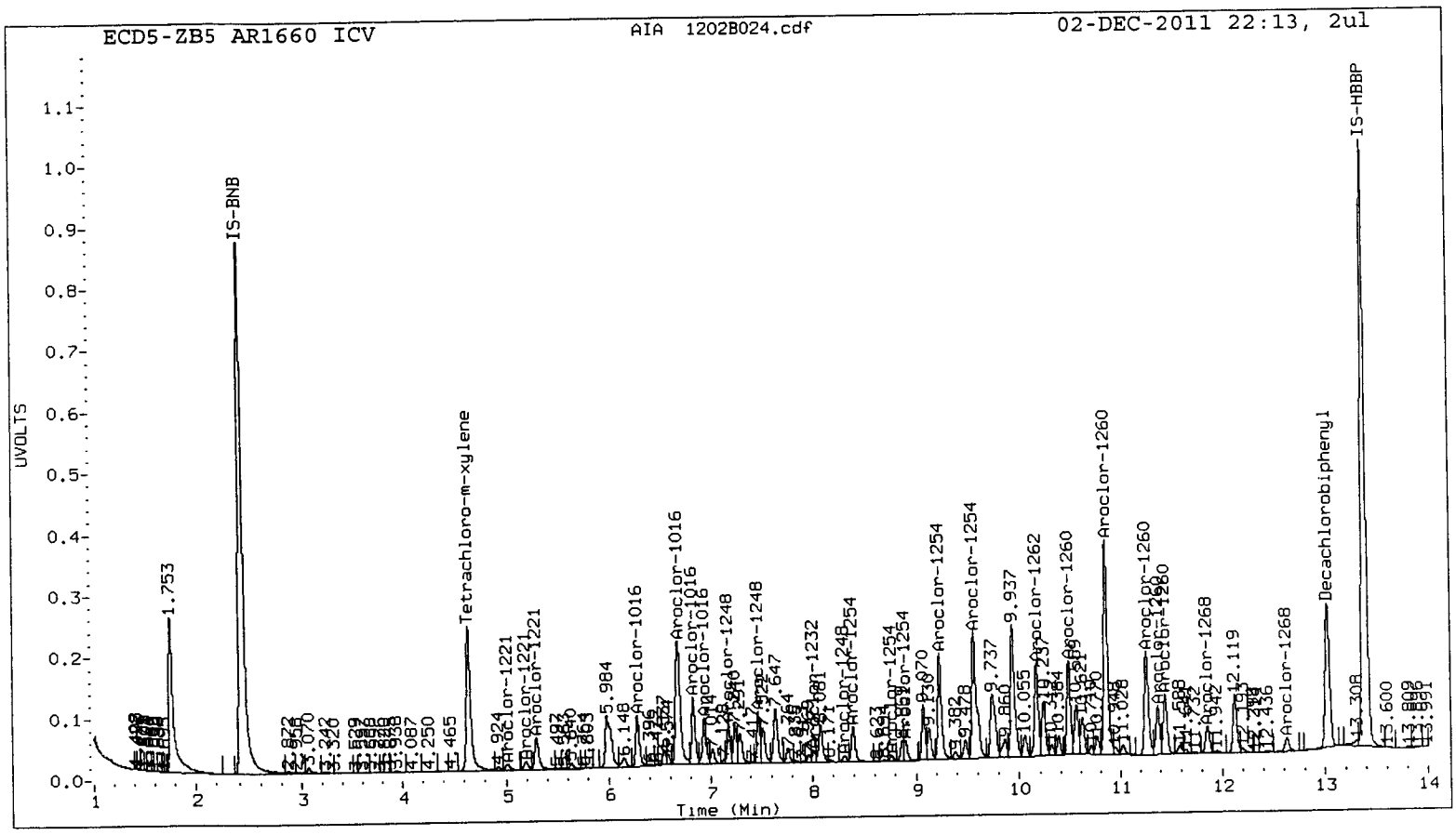
Total PCB Area Col1 (4.742 - 12.930) = 529831186 Col1 Total PCB = 0.5 ppm*

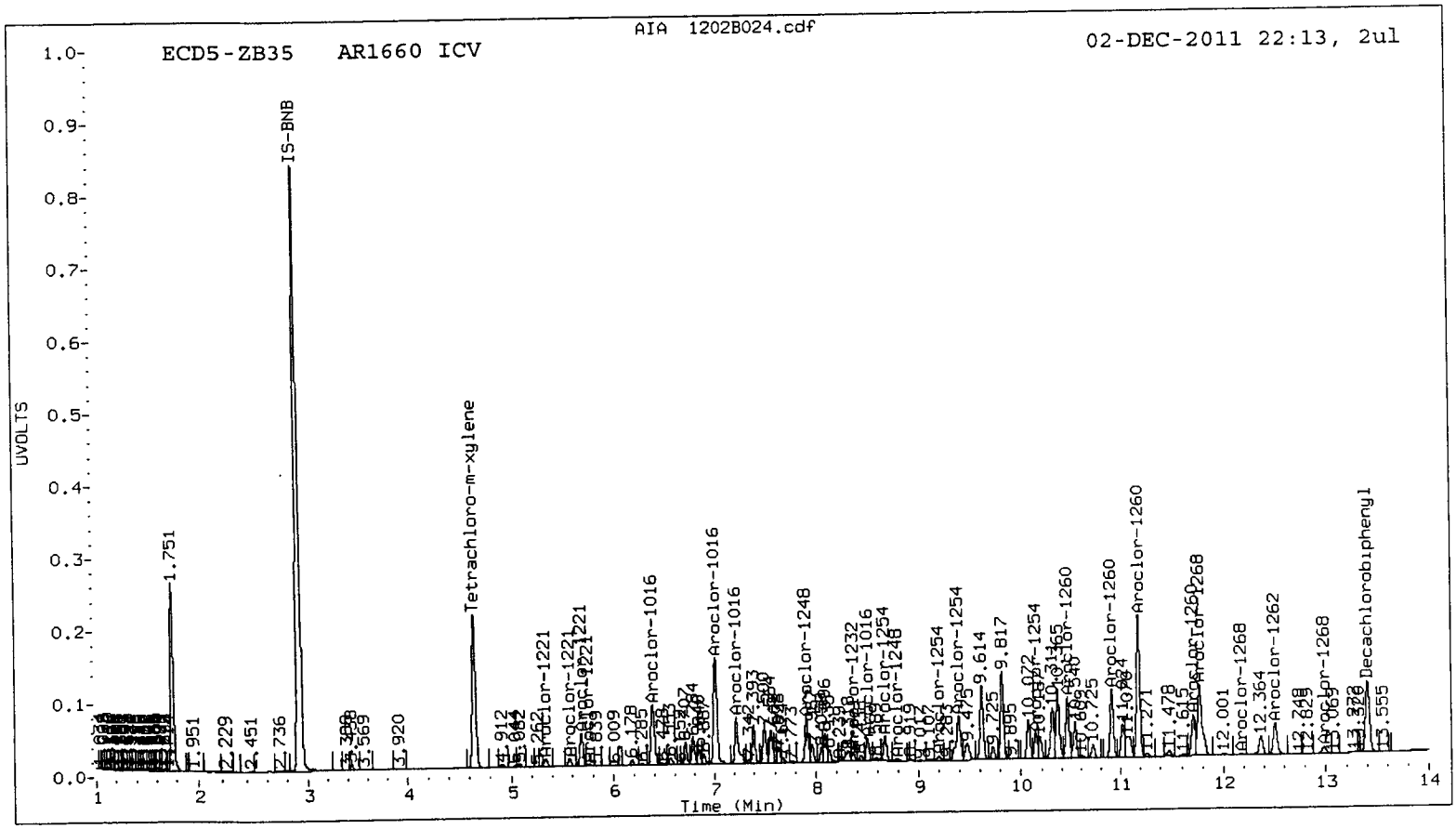
Total PCB Area Col2 (4.744 - 13.306) = 269690218 Col2 Total PCB = 0.5 ppm*

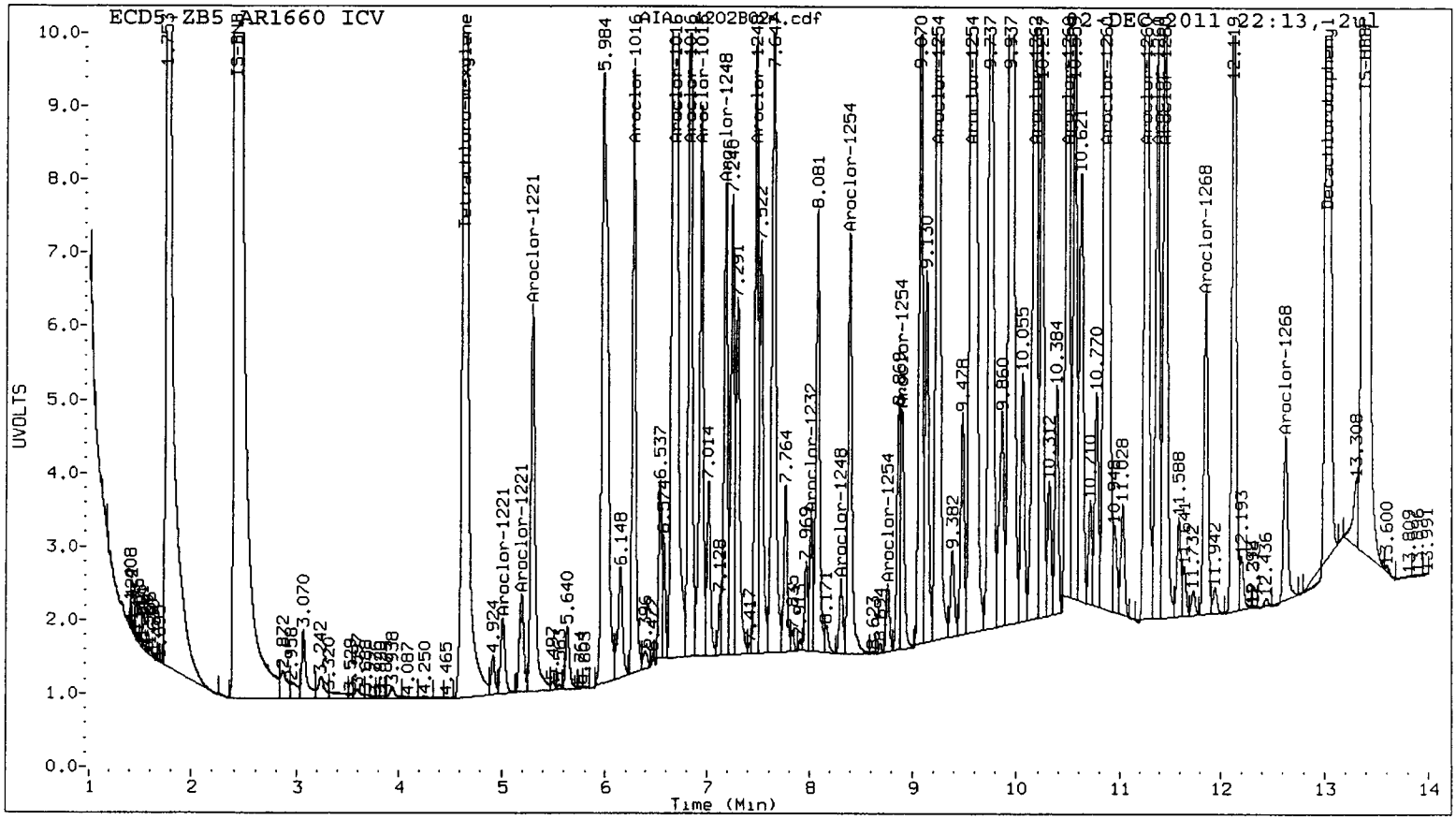
* Quantitated against AR1660 0.25ppm in Ical

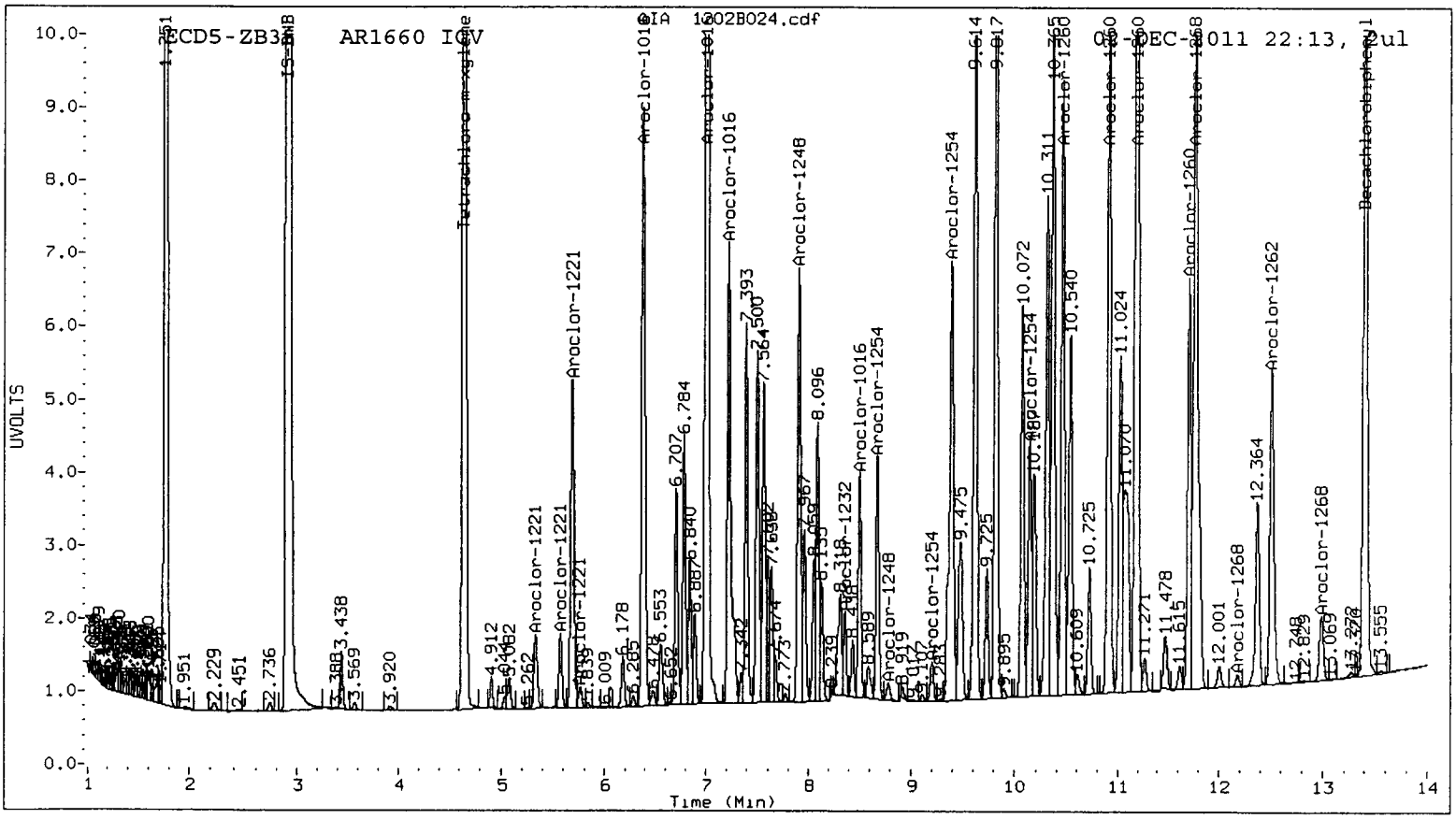
PCB-Form 10 Mod.

TX57:01217


ECD5-ZB5 AR1660 ICV
AIA 1202B024.cdf
02-DEC-2011 22:13, 2ul
UVOLTS
Time (Min)
IS-BNB
IS-HBBP
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268


ECD5-ZB35 AR1660 ICV
AIA 1202B024.cdf
02-DEC-2011 22:13, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268


ECD5-ZB5 AR1660 ICV
UVOLTS
Time (Min)


ECD5-ZB3 AR1660 ICV
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B025.d
Data file 2: 20111202.B/ical-2.b/1202B025.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242 ICV
Client ID:
Injection Date: 02-DEC-2011 22:32
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.645	0.003	37266728	4.645	0.002	24335169	20.0	20.4	1.7	Tetrachloro-m-xylene
13.031	0.002	34583848	13.408	0.002	14116823	18.9	18.2	3.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.1	50.9
Decachlorobiphenyl	47.3	45.6

12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	130647721	4.7
Hexabromobiphenyl	134444165	145488613	8.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	93086564	4.0
Hexabromobiphenyl	57341096	62601391	9.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	ZB5 Col Peak#	RT	Shift	Area	Amount	ZB35 Col Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.278	0.002	8395313	186.5	1	6.383	0.000	8196436	183.9
Aroclor-1016	2	6.677	0.002	27434087	184.1	2	7.009	0.001	16007587	180.9
Aroclor-1016	3	6.826	0.002	11111897	184.1	3	7.218	0.001	6364398	191.2
Aroclor-1016	4	6.936	0.002	7807054	184.0	4	8.504	0.001	1308882	82.4
Total Col1Ave (4 peaks):					184.7	Total Col2Ave (4 peaks):				159.6 RPD = 15
Corrected Ave (3 peaks):					184.0	Corrected Ave (3 peaks):				149.1 RPD = 21
Aroclor-1221	1	5.014	-0.002	1291738	72.5	1	5.335	0.003	1061928	79.2
Aroclor-1221	2	5.194	-0.001	1584795	126.1	2	5.578	-0.001	835024	108.8
Aroclor-1221	3	5.300	-0.001	6476905	146.9	3	5.691	0.000	3781831	155.9
Aroclor-1221	NS	---			----	4	5.759	-0.001	216574	56.4
Total Col1Ave (3 peaks):					115.2	Total Col2Ave (4 peaks):				100.1 RPD = 14
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				81.5
Aroclor-1232	1	6.278	0.000	8395313	462.8	1	6.383	-0.002	8196436	422.9
Aroclor-1232	2	6.677	0.000	27434087	456.7	2	7.009	0.000	16007587	452.2
Aroclor-1232	3	6.826	-0.001	11111897	454.0	3	7.218	-0.001	6364398	515.2
Aroclor-1232	4	8.018	-0.001	8997574	416.4	4	8.363	0.000	4820851	404.5
Total Col1Ave (4 peaks):					447.5	Total Col2Ave (4 peaks):				448.7 RPD = 0
Corrected Ave (3 peaks):					442.4	Corrected Ave (3 peaks):				426.5 RPD = 4
Aroclor-1242	1	6.278	0.001	8395313	246.6	1	6.383	0.000	8196436	245.7
Aroclor-1242	2	6.677	0.001	27434087	244.4	2	7.009	0.000	16007587	241.5
Aroclor-1242	3	6.826	0.001	11111897	245.9	3	7.218	0.001	6364398	242.2
Aroclor-1242	4	8.018	0.000	8997574	236.1	4	8.363	0.000	4820851	231.9
Total Col1Ave (4 peaks):					243.3	Total Col2Ave (4 peaks):				240.3 RPD = 1
Corrected Ave (3 peaks):					242.1	Corrected Ave (3 peaks):				238.5 RPD = 1
Aroclor-1248	1	6.677	0.004	27434087	360.2	1	7.009	0.004	16007587	364.2
Aroclor-1248	2	7.473	0.001	7953916	150.3	2	7.912	0.001	5965445	181.7
Aroclor-1248	3	8.018	0.001	8997574	141.8	3	8.363	0.001	4820851	141.0
Aroclor-1248	4	8.309	0.002	9711558	158.9	4	8.786	0.002	5652579	151.5
Total Col1Ave (4 peaks):					202.8	Total Col2Ave (4 peaks):				209.6 RPD = 3
Corrected Ave (3 peaks):					150.3	Corrected Ave (3 peaks):				158.1 RPD = 5
Aroclor-1254	1	8.392	0.000	4879010	51.3	1	8.504	0.000	1308882	44.7
Aroclor-1254	2	8.765	0.001	3087638	50.6	2	8.676	0.001	1583564	41.4
Aroclor-1254	3	8.901	0.001	5184343	45.5	3	9.198	0.000	1570196	52.1
Aroclor-1254	4	9.253	0.003	4371760	37.0	4	9.348	-0.001	2762141	42.8
Aroclor-1254	5	9.616	0.004	3609747	45.2	5	10.128	-0.003	1764894	44.2
Total Col1Ave (5 peaks):					45.9	Total Col2Ave (5 peaks):				45.0 RPD = 2
Corrected Ave (4 peaks):					44.6	Corrected Ave (4 peaks):				43.3 RPD = 3
Aroclor-1260	1	10.484	0.001	119219	1.7	1	10.462	0.002	64371	1.8
Aroclor-1260	2	10.862	0.004	264806	1.4	2	10.908	-0.004	365512	8.4
Aroclor-1260	3	11.260	0.002	254412	2.6	3	11.183	0.000	178867	2.1
Aroclor-1260	4	11.385	0.011	15793	0.4	4	11.699	-0.006	36648	1.5
Aroclor-1260	5	11.447	-0.001	44214	0.9	NS	---			----
Total Col1Ave (5 peaks):					1.4	Total Col2Ave (4 peaks):				3.4 RPD = 84*
Corrected Ave (4 peaks):					1.1	Corrected Ave (3 peaks):				1.8 RPD = 47*
Aroclor-1262	1	10.166	-0.002	176877	1.5	1	10.462	0.001	64371	1.1
Aroclor-1262	2	10.484	0.000	119219	1.3	2	10.908	-0.006	365512	6.8
Aroclor-1262	3	10.862	0.003	264806	1.2	3	11.183	-0.001	178867	1.7
Aroclor-1262	4	11.373	-0.003	32874	0.4	4	11.699	-0.008	36648	0.8
Aroclor-1262	5	11.447	-0.002	44214	0.4	5	12.549	0.044	241872	6.5
Total Col1Ave (5 peaks):					1.0	Total Col2Ave (5 peaks):				3.4 RPD = 111*
Corrected Ave (4 peaks):					0.8	Corrected Ave (4 peaks):				2.5 RPD = 102*
Aroclor-1268	1	11.373	-0.004	32874	0.1	1	11.699	-0.008	36648	0.3
Aroclor-1268	2	11.447	-0.001	44214	0.2	2	11.764	-0.010	151791	1.5

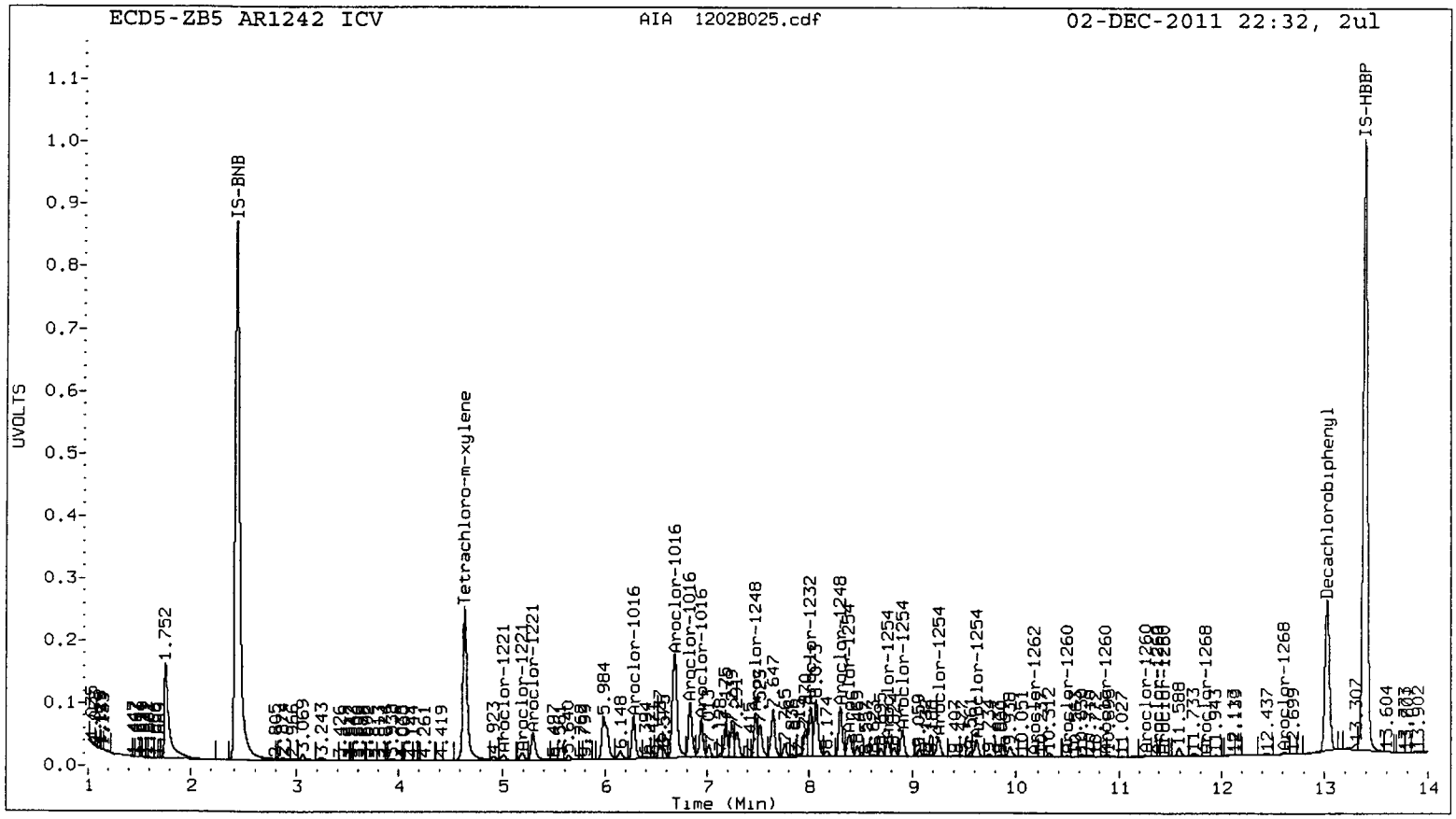
Aroclor-1268 3	11.841	0.007	93293	0.5	3	12.172	0.000	20102	0.2
Aroclor-1268 4	12.612	-0.014	341541	0.6	4	12.994	0.001	48999	0.2
Total Col1Ave (4 peaks):			0.3	Total Col2Ave (4 peaks):				0.6	RPD = 51*
Corrected Ave (3 peaks):			0.3	Corrected Ave (3 peaks):				0.3	RPD = 3

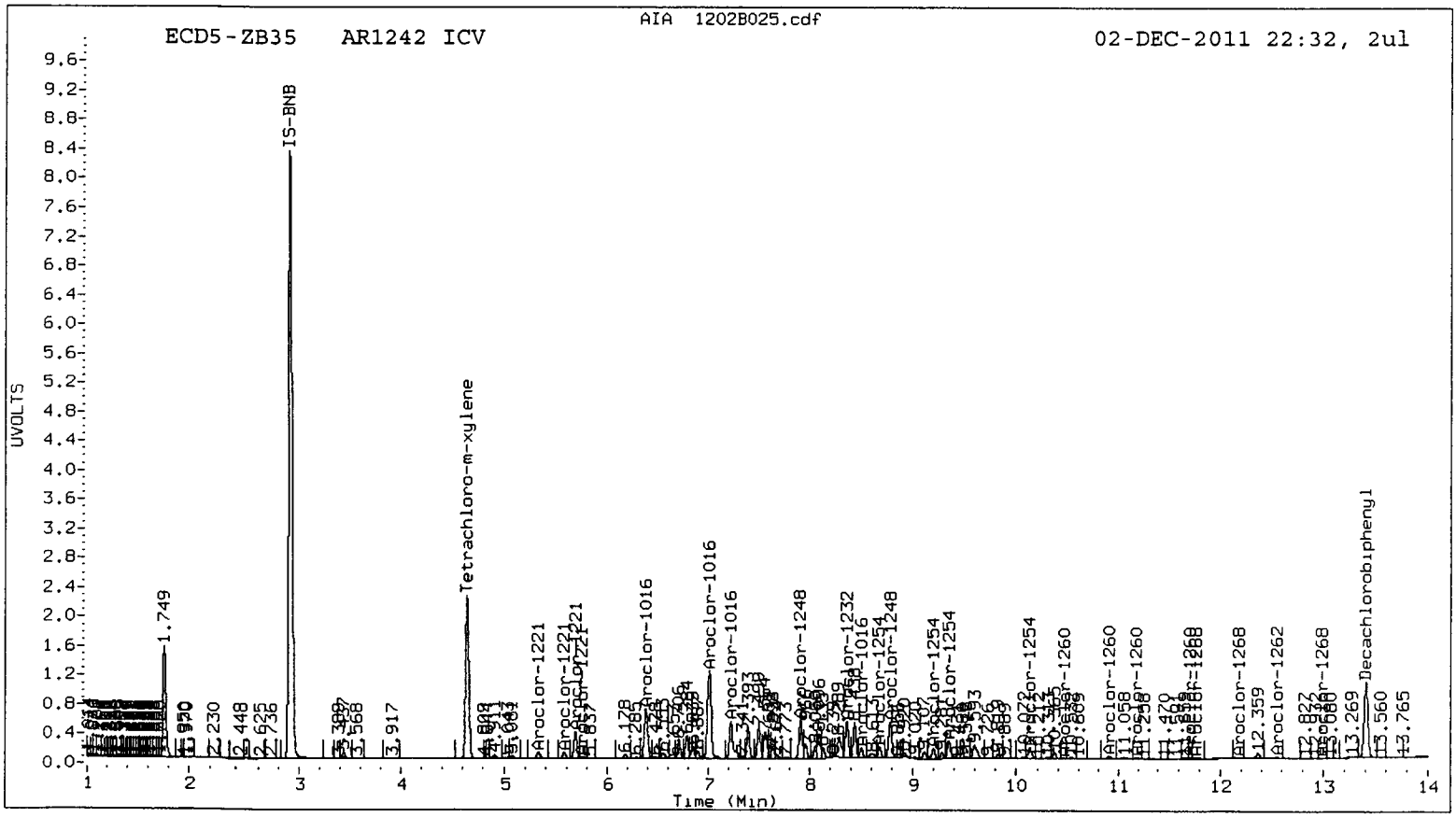
Total PCB Area Col1 (4.742 - 12.930) = 212355027 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.744 - 13.306) = 116792955 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD5-ZB5 AR1242 ICV
AIA 1202B025.cdf
02-DEC-2011 22:32, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
1.752
5.984
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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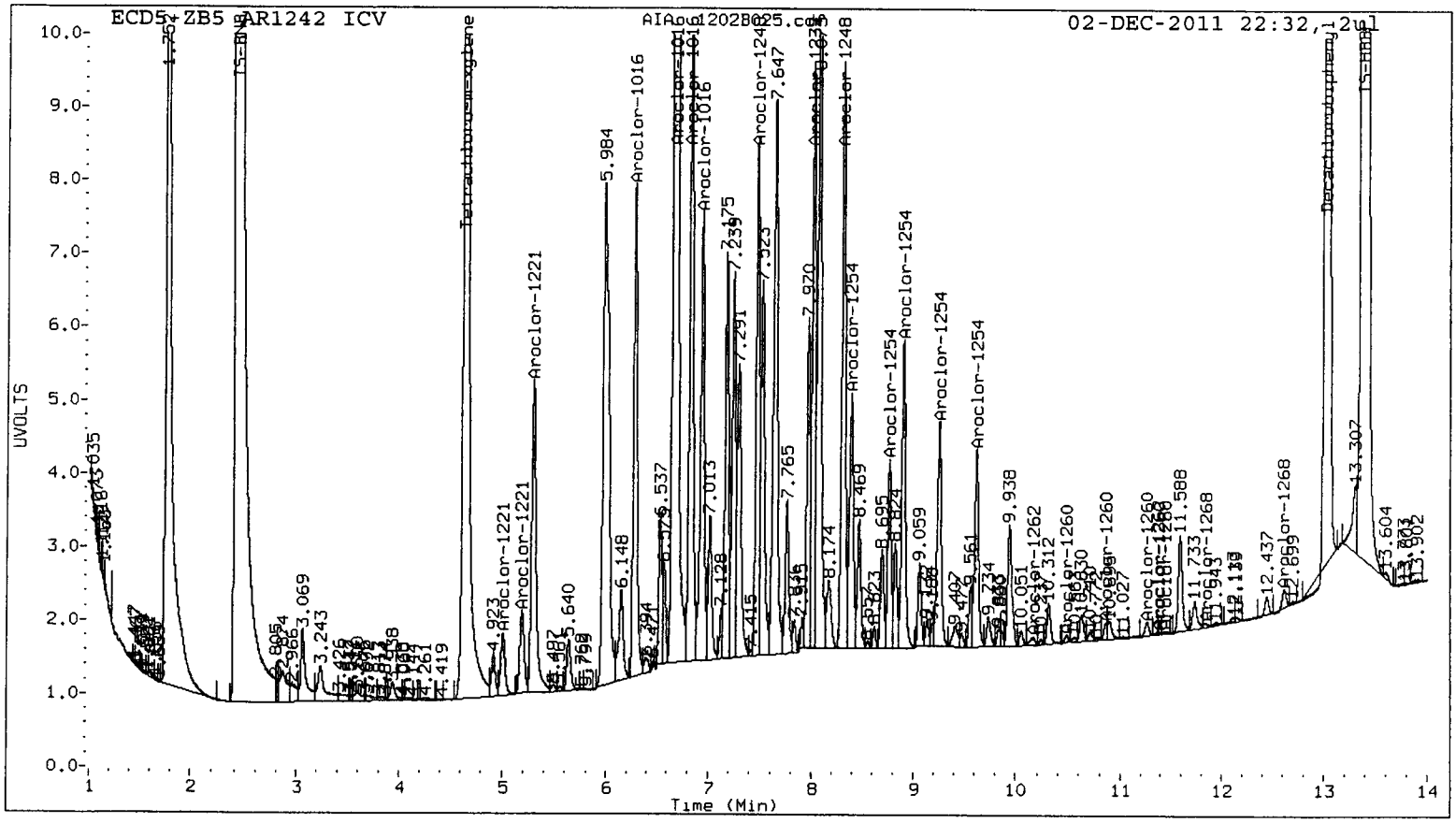
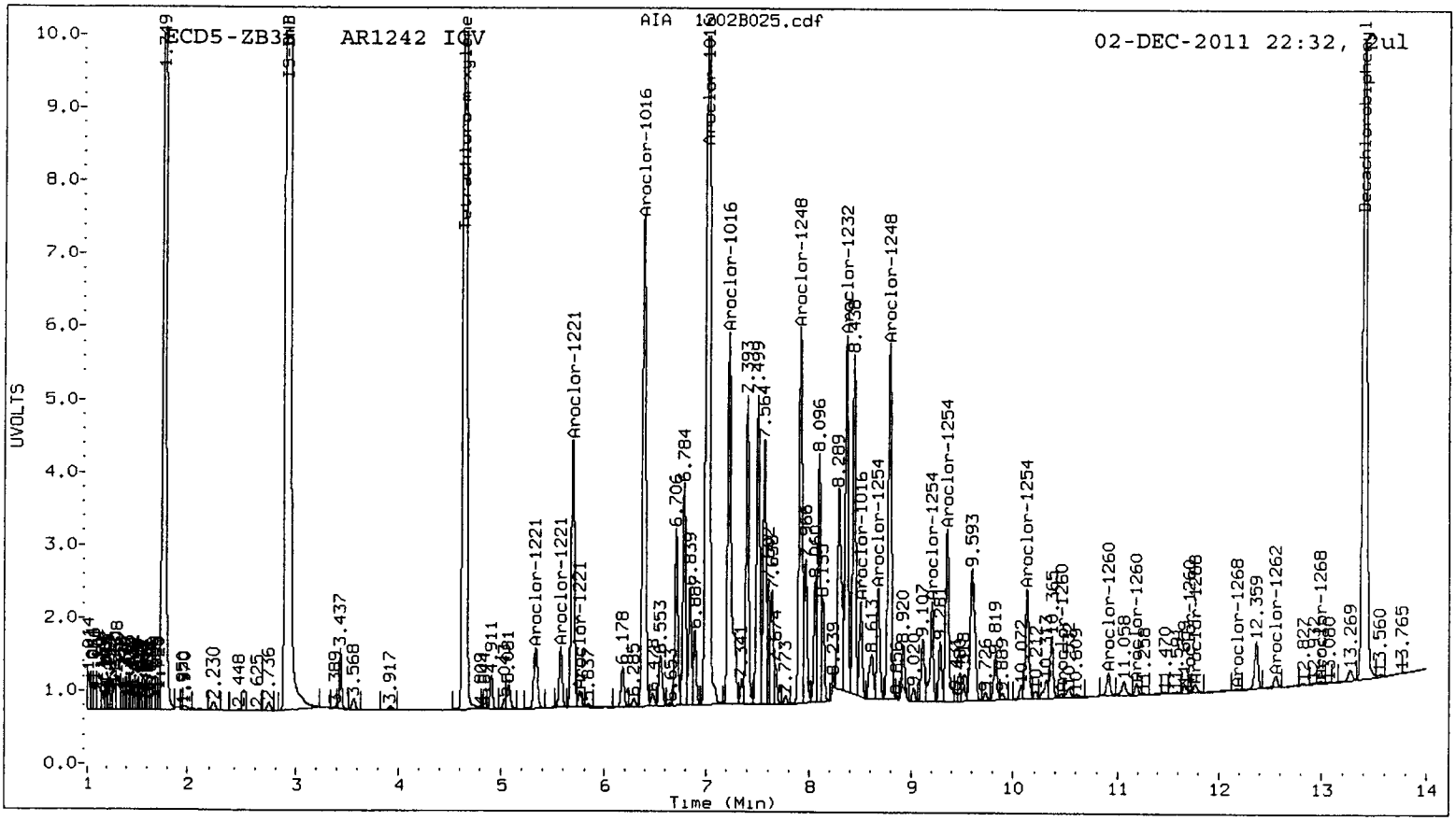
ECD5-ZB35 AR1242 ICV
02-DEC-2011 22:32, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
1.749
3.917
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

TX57 01223


ECD5-ZB5 AR1242 ICV
AIA 1202B025.cdf
02-DEC-2011 22:32, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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AR1242 ICV
AIA 1202B025.cdf
02-DEC-2011 22:32, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

TX57:0122R

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B026.d
Data file 2: 20111202.B/ical-2.b/1202B026.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248 ICV
Client ID:
Injection Date: 02-DEC-2011 22:51
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.644	0.002	35808599	4.646	0.002	23375985	19.1	19.5	2.2	Tetrachloro-m-xylene
13.031	0.001	32980620	13.407	0.001	13438268	18.2	17.5	3.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	47.8	48.8
Decachlorobiphenyl	45.6	43.8

12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	131568071	5.4
Hexabromobiphenyl	134444165	144062372	7.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	93196633	4.2
Hexabromobiphenyl	57341096	61972743	8.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.277	0.001	3901379	86.1	1	6.382	-0.001	4046421	90.7
Aroclor-1016	2	6.673	-0.002	18386096	122.5	2	7.004	-0.004	10508279	118.6
Aroclor-1016	3	6.827	0.003	6525260	107.3	3	7.217	0.000	2522594	75.7
Aroclor-1016	4	6.935	0.001	4660802	109.1	4	8.503	0.001	2587805	162.6
	Total Col1Ave (4 peaks):				106.2		Total Col2Ave (4 peaks):			111.9 RPD = 5
	Corrected Ave (3 peaks):				100.8		Corrected Ave (3 peaks):			95.0 RPD = 6
Aroclor-1221	1	5.011	-0.005	150865	8.4	1	5.349	0.017	350425	26.1
Aroclor-1221	2	5.183	-0.013	426412	33.7	2	5.578	0.000	79696	10.4
Aroclor-1221	3	5.298	-0.002	734723	16.5	3	5.692	0.000	507265	20.9
Aroclor-1221	NS	---			----	4	5.756	-0.003	16110	4.2
	Total Col1Ave (3 peaks):				19.6		Total Col2Ave (4 peaks):			15.4 RPD = 24
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			11.8
Aroclor-1232	1	6.277	-0.001	3901379	213.5	1	6.382	-0.004	4046421	208.5
Aroclor-1232	2	6.673	-0.004	18386096	303.9	2	7.004	-0.006	10508279	296.5
Aroclor-1232	3	6.827	0.001	6525260	264.7	3	7.217	-0.002	2522594	204.0
Aroclor-1232	4	8.018	-0.001	16497082	758.1	4	8.363	-0.001	8844177	741.2
	Total Col1Ave (4 peaks):				385.1		Total Col2Ave (4 peaks):			362.6 RPD = 6
	Corrected Ave (3 peaks):				260.7		Corrected Ave (3 peaks):			236.3 RPD = 10
Aroclor-1242	1	6.277	0.000	3901379	113.8	1	6.382	-0.002	4046421	121.2
Aroclor-1242	2	6.673	-0.004	18386096	162.6	2	7.004	-0.005	10508279	158.3
Aroclor-1242	3	6.827	0.002	6525260	143.4	3	7.217	0.000	2522594	95.9
Aroclor-1242	4	8.018	0.000	16497082	429.9	4	8.363	0.000	8844177	425.0
	Total Col1Ave (4 peaks):				212.4		Total Col2Ave (4 peaks):			200.1 RPD = 6
	Corrected Ave (3 peaks):				139.9		Corrected Ave (3 peaks):			125.1 RPD = 11
Aroclor-1248	1	6.673	0.000	18386096	239.7	1	7.004	-0.001	10508279	238.8
Aroclor-1248	2	7.473	0.000	13595337	255.2	2	7.912	0.001	8277672	251.9
Aroclor-1248	3	8.018	0.001	16497082	258.1	3	8.363	0.000	8844177	258.5
Aroclor-1248	4	8.309	0.001	16075369	261.2	4	8.785	0.001	9746851	261.0
	Total Col1Ave (4 peaks):				253.5		Total Col2Ave (4 peaks):			252.5 RPD = 0
	Corrected Ave (3 peaks):				251.0		Corrected Ave (3 peaks):			249.7 RPD = 1
Aroclor-1254	1	8.390	-0.002	9556865	99.8	1	8.503	0.000	2587805	88.2
Aroclor-1254	2	8.764	0.000	6436805	104.7	2	8.675	0.001	2979542	77.8
Aroclor-1254	3	8.901	0.001	10385387	90.6	3	9.198	0.000	3269801	108.4
Aroclor-1254	4	9.253	0.003	7939521	66.8	4	9.349	0.000	5272712	81.5
Aroclor-1254	5	9.616	0.004	7751790	96.3	5	10.127	-0.004	3811052	95.3
	Total Col1Ave (5 peaks):				91.6		Total Col2Ave (5 peaks):			90.3 RPD = 2
	Corrected Ave (4 peaks):				88.4		Corrected Ave (4 peaks):			85.7 RPD = 3
Aroclor-1260	1	10.485	0.002	126665	1.8	1	10.460	0.001	92442	2.6
Aroclor-1260	2	10.859	0.002	461535	2.5	2	10.908	-0.004	379516	8.8
Aroclor-1260	3	11.259	0.002	245045	2.5	3	11.185	0.002	214224	2.5
Aroclor-1260	4	11.375	0.001	91049	2.3	4	11.709	0.004	53983	2.2
Aroclor-1260	5	11.447	-0.001	94303	2.0	NS	---			----
	Total Col1Ave (5 peaks):				2.2		Total Col2Ave (4 peaks):			4.0 RPD = 58*
	Corrected Ave (4 peaks):				2.1		Corrected Ave (3 peaks):			2.4 RPD = 13
Aroclor-1262	1	10.165	-0.003	161093	1.4	1	10.460	-0.001	92442	1.7
Aroclor-1262	2	10.485	0.000	126665	1.4	2	10.908	-0.006	379516	7.2
Aroclor-1262	3	10.859	0.001	461535	2.1	3	11.185	0.001	214224	2.1
Aroclor-1262	4	11.375	0.000	91049	1.0	4	11.709	0.002	53983	1.2
Aroclor-1262	5	11.447	-0.002	94303	1.0	5	12.549	0.044	235901	6.4
	Total Col1Ave (5 peaks):				1.4		Total Col2Ave (5 peaks):			3.7 RPD = 92*
	Corrected Ave (4 peaks):				1.2		Corrected Ave (4 peaks):			2.8 RPD = 81*
Aroclor-1268	1	11.375	-0.002	91049	0.4	1	11.709	0.002	53983	0.5
Aroclor-1268	2	11.447	-0.001	94303	0.4	2	11.765	-0.009	130048	1.3

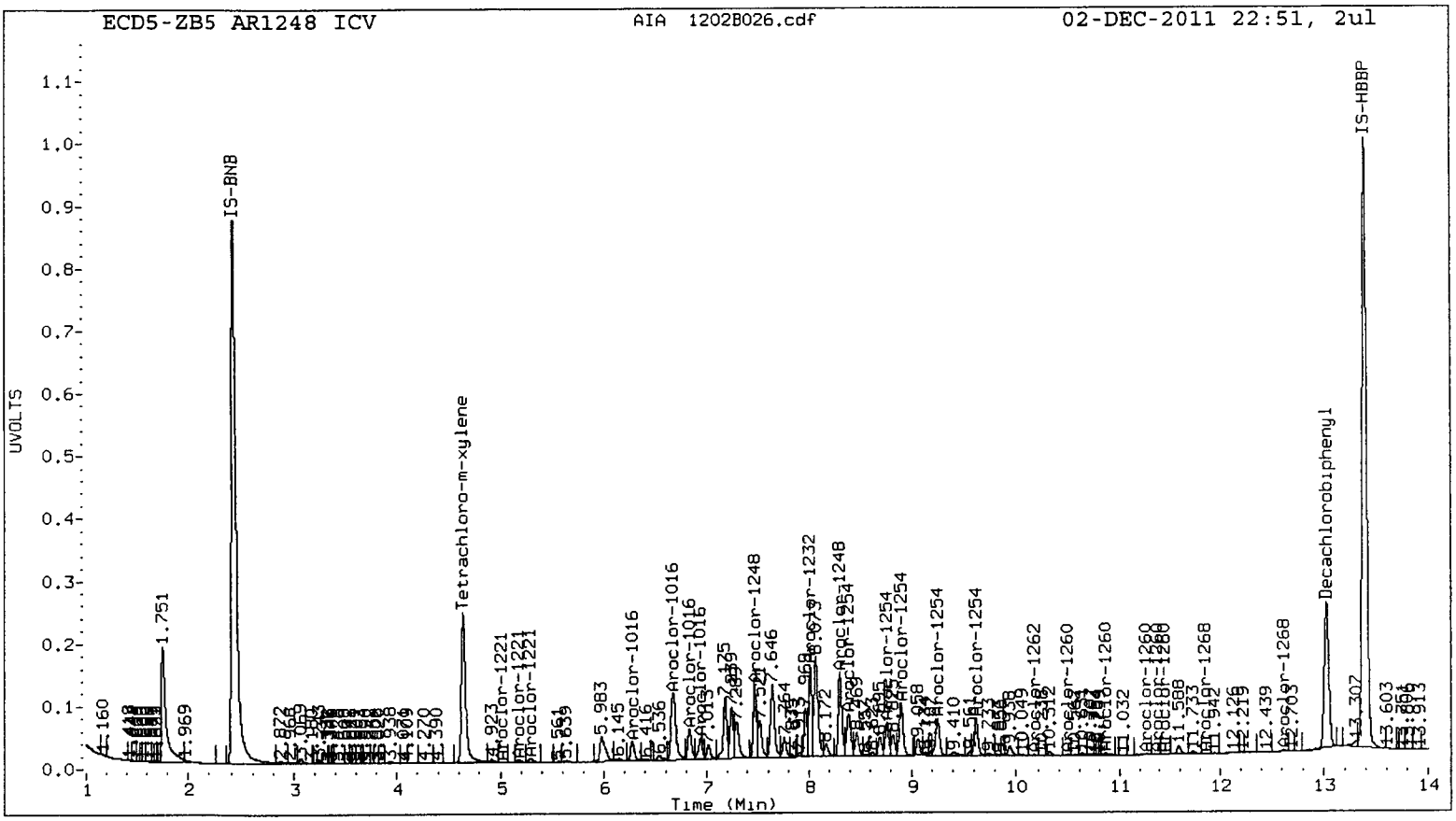
Aroclor-1268 3	11.843	0.008	91672	0.5	3	12.172	0.000	10244	0.1
Aroclor-1268 4	12.613	-0.013	327012	0.5	4	12.995	0.001	44316	0.2
Total Col1Ave (4 peaks):			0.5	Total Col2Ave (4 peaks):				0.5	RPD = 16
Corrected Ave (3 peaks):			0.4	Corrected Ave (3 peaks):				0.3	RPD = 44*

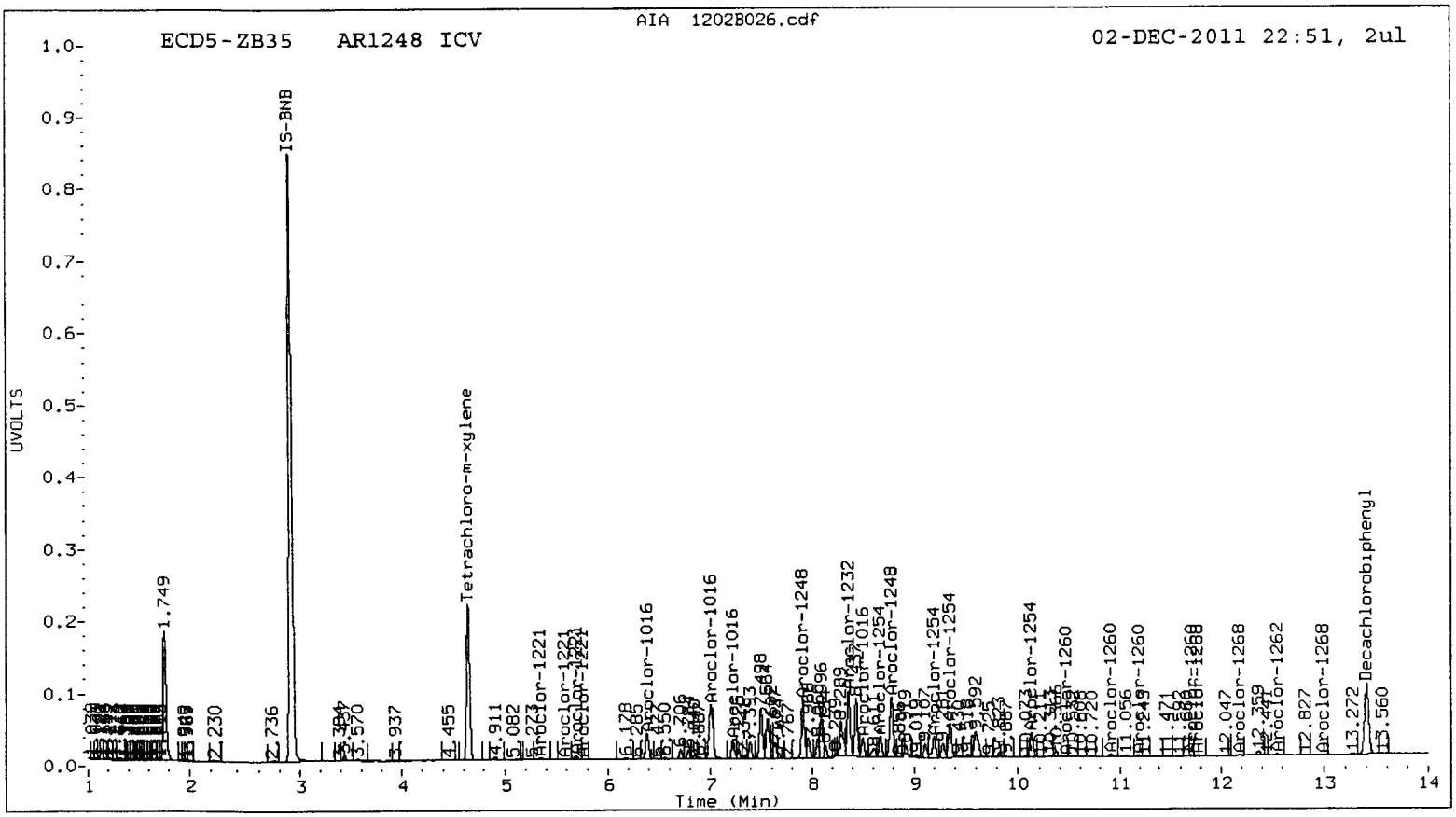
Total PCB Area Col1 (4.742 - 12.930) = 254164044 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.744 - 13.306) = 132818919 Col2 Total PCB = 0.2 ppm*

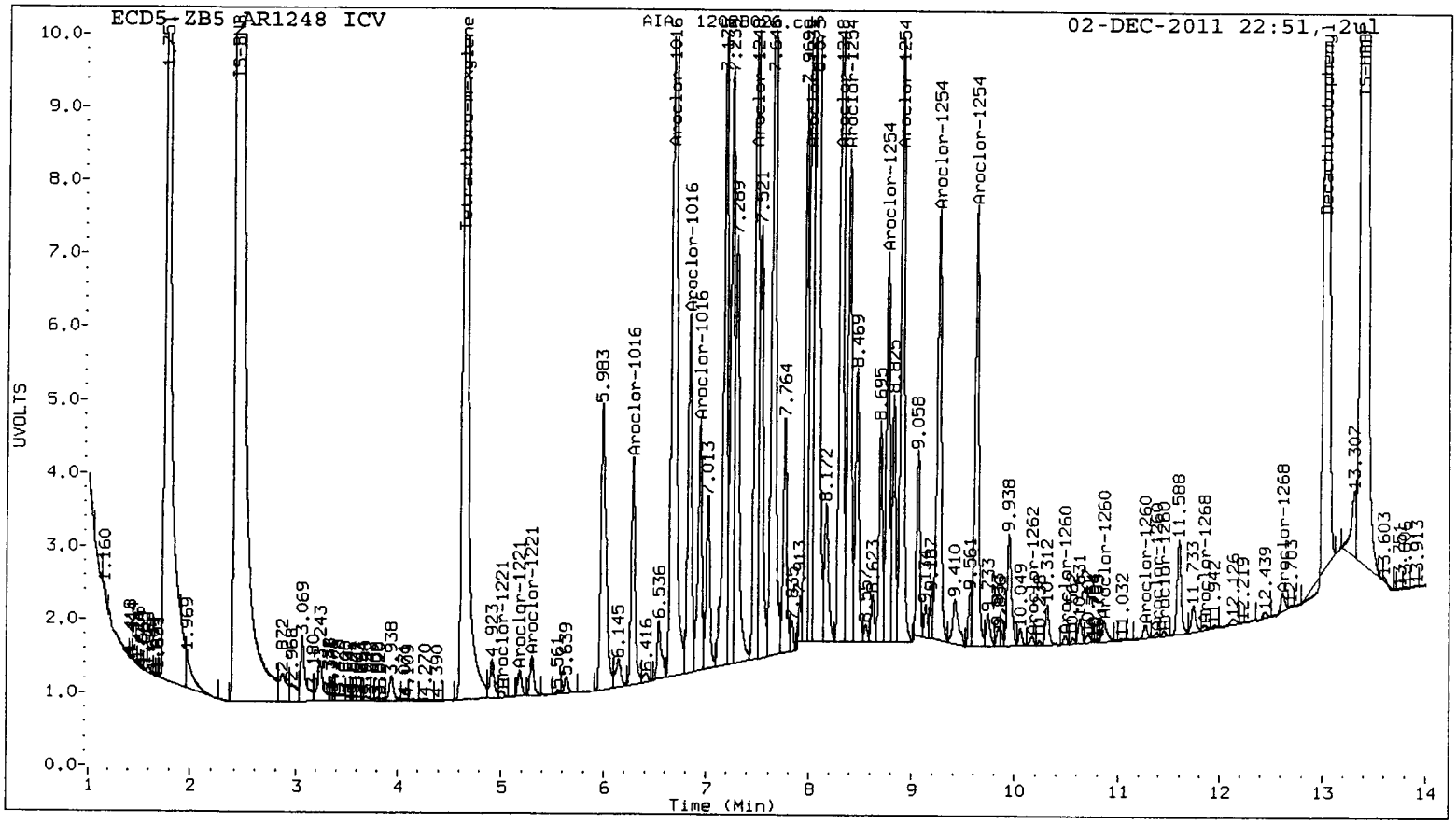
* Quantitated against AR1660 0.25ppm in Ical

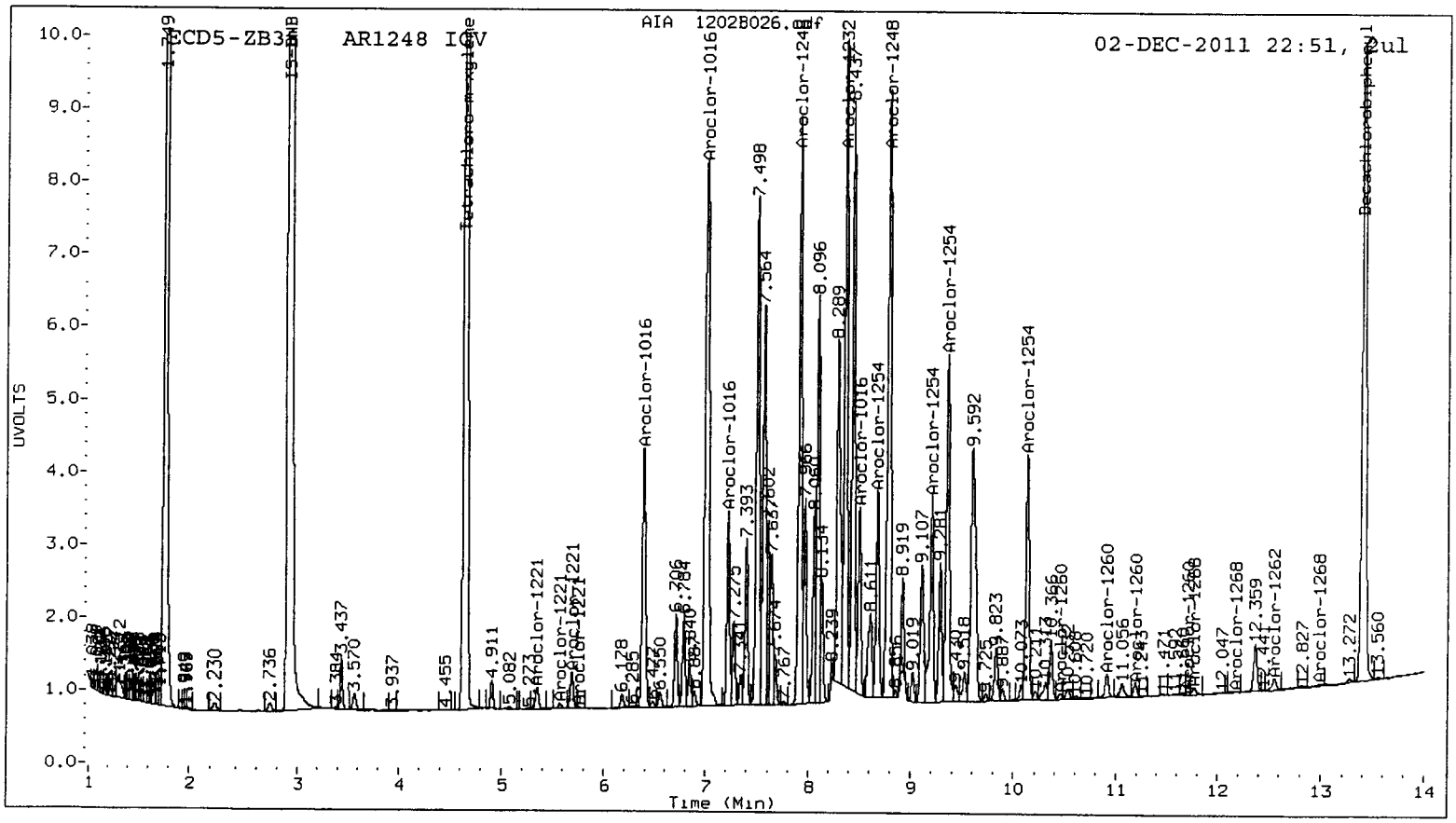
PCB-Form 10 Mod.


ECD5-ZB5 AR1248 ICV
AIA 1202B026.cdf
02-DEC-2011 22:51, 2ul
UVOLTS
Time (Min)
IS-BNB
IS-HBBP
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268


AIA 1202B026.cdf
ECD5-ZB35 AR1248 ICV
02-DEC-2011 22:51, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

TX57 : 01228


ECD5-ZB5 AR1248 ICV
AIA 1202B026.
02-DEC-2011 22:51, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1254
Aroclor-1221
Aroclor-1260
Aroclor-1262
Aroclor-1268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AR1248 ICV
AIA 1202B026.
02-DEC-2011 22:51, ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1254
Aroclor-1221
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B027.d
Data file 2: 20111202.B/ical-2.b/1202B027.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254 ICV
Client ID:
Injection Date: 02-DEC-2011 23:10
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.644	0.002	37635303	4.645	0.002	24748506	20.1	20.6	2.4	Tetrachloro-m-xylene
13.031	0.001	34679089	13.407	0.001	14107257	19.2	18.4	4.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.4	51.6
Decachlorobiphenyl	48.1	46.1

12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	131132964	5.1
Hexabromobiphenyl	134444165	143643010	6.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	93361690	4.4
Hexabromobiphenyl	57341096	61867212	7.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	6.277	0.001	206366	4.6	1	6.383	0.000	222371	5.0
Aroclor-1016	2	6.668	-0.007	785902	5.3	2	7.002	-0.007	463781	5.2
Aroclor-1016	3	6.832	0.008	404559	6.7	3	7.218	0.001	87708	2.6
Aroclor-1016	4	6.935	0.001	190429	4.5	4	8.504	0.001	7551700	473.8
Total Col1Ave (4 peaks):				5.2	Total Col2Ave (4 peaks):				121.6	RPD = 183*
Corrected Ave (3 peaks):				4.8	Corrected Ave (3 peaks):				4.3	RPD = 11
Aroclor-1221	1	5.114	0.098	10976	0.6	1	5.351	0.018	305566	22.7
Aroclor-1221	2	5.181	-0.015	366661	29.1	2	5.581	0.003	25913	3.4
Aroclor-1221	3	5.298	-0.002	77202	1.7	3	5.694	0.003	113921	4.7
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				10.5	Total Col2Ave (3 peaks):				10.3	RPD = 2
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	6.277	-0.002	206366	11.3	1	6.383	-0.002	222371	11.4
Aroclor-1232	2	6.668	-0.009	785902	13.0	2	7.002	-0.008	463781	13.1
Aroclor-1232	3	6.832	0.006	404559	16.5	3	7.218	-0.001	87708	7.1
Aroclor-1232	4	8.018	-0.001	8118557	374.3	4	8.363	-0.001	4407203	368.7
Total Col1Ave (4 peaks):				103.8	Total Col2Ave (4 peaks):				100.1	RPD = 4
Corrected Ave (3 peaks):				13.6	Corrected Ave (3 peaks):				10.5	RPD = 26
Aroclor-1242	1	6.277	0.000	206366	6.0	1	6.383	0.000	222371	6.6
Aroclor-1242	2	6.668	-0.008	785902	7.0	2	7.002	-0.007	463781	7.0
Aroclor-1242	3	6.832	0.007	404559	8.9	3	7.218	0.000	87708	3.3
Aroclor-1242	4	8.018	0.000	8118557	212.3	4	8.363	0.000	4407203	211.4
Total Col1Ave (4 peaks):				58.5	Total Col2Ave (4 peaks):				57.1	RPD = 3
Corrected Ave (3 peaks):				7.3	Corrected Ave (3 peaks):				5.7	RPD = 26
Aroclor-1248	1	7.175	0.503	8740959	114.3	1	7.002	-0.003	463781	10.5
Aroclor-1248	2	7.473	0.001	6136018	115.5	2	7.912	0.001	2862519	86.9
Aroclor-1248	3	8.018	0.001	8118557	127.4	3	8.363	0.001	4407203	128.6
Aroclor-1248	4	8.314	0.007	5559120	90.6	4	8.770	-0.015	5067526	135.4
Total Col1Ave (4 peaks):				112.0	Total Col2Ave (4 peaks):				90.4	RPD = 21
Corrected Ave (3 peaks):				106.8	Corrected Ave (3 peaks):				75.3	RPD = 35
Aroclor-1254	1	8.393	0.001	24471080	256.4	1	8.504	0.001	7551700	257.0
Aroclor-1254	2	8.765	0.001	15907512	259.5	2	8.676	0.001	9908629	258.2
Aroclor-1254	3	8.901	0.001	29138005	255.0	3	9.199	0.000	7915581	262.0
Aroclor-1254	4	9.250	0.000	30451807	257.1	4	9.349	0.000	16472293	254.3
Aroclor-1254	5	9.612	0.000	20344749	253.7	5	10.132	0.001	10136941	253.2
Total Col1Ave (5 peaks):				256.3	Total Col2Ave (5 peaks):				256.9	RPD = 0
Corrected Ave (4 peaks):				255.5	Corrected Ave (4 peaks):				255.7	RPD = 0
Aroclor-1260	1	10.486	0.002	1679525	23.7	1	10.460	0.001	628070	18.0
Aroclor-1260	2	10.858	0.001	4039594	22.4	2	10.907	-0.005	4431459	102.8
Aroclor-1260	3	11.259	0.001	3896518	40.1	3	11.183	0.000	2400732	27.9
Aroclor-1260	4	11.375	0.000	168830	4.3	4	11.706	0.001	375638	15.4
Aroclor-1260	5	11.448	0.000	186322	3.9	NS	---			----
Total Col1Ave (5 peaks):				18.9	Total Col2Ave (4 peaks):				41.0	RPD = 74*
Corrected Ave (4 peaks):				13.6	Corrected Ave (3 peaks):				20.4	RPD = 40*
Aroclor-1262	1	10.165	-0.003	1494971	13.1	1	10.460	-0.001	628070	11.3
Aroclor-1262	2	10.486	0.001	1679525	18.8	2	10.907	-0.007	4431459	83.8
Aroclor-1262	3	10.858	-0.001	4039594	18.5	3	11.183	-0.001	2400732	23.3
Aroclor-1262	4	11.375	-0.001	168830	1.9	4	11.706	-0.001	375638	8.2
Aroclor-1262	5	11.448	-0.001	186322	1.9	5	12.549	0.043	295861	8.1
Total Col1Ave (5 peaks):				10.8	Total Col2Ave (5 peaks):				26.9	RPD = 85*
Corrected Ave (4 peaks):				8.8	Corrected Ave (4 peaks):				12.7	RPD = 36
Aroclor-1268	1	11.375	-0.002	168830	0.7	1	11.706	-0.001	375638	3.5
Aroclor-1268	2	11.448	0.000	186322	0.8	2	11.764	-0.010	1588795	16.2

Aroclor-1268 3	11.848	0.013	163166	0.8	3	12.182	0.010	13520	0.2
Aroclor-1268 4	12.612	-0.014	361046	0.6	4	12.996	0.003	40299	0.2

Total Col1Ave (4 peaks): 0.7 Total Col2Ave (4 peaks): 5.0 RPD = 148*

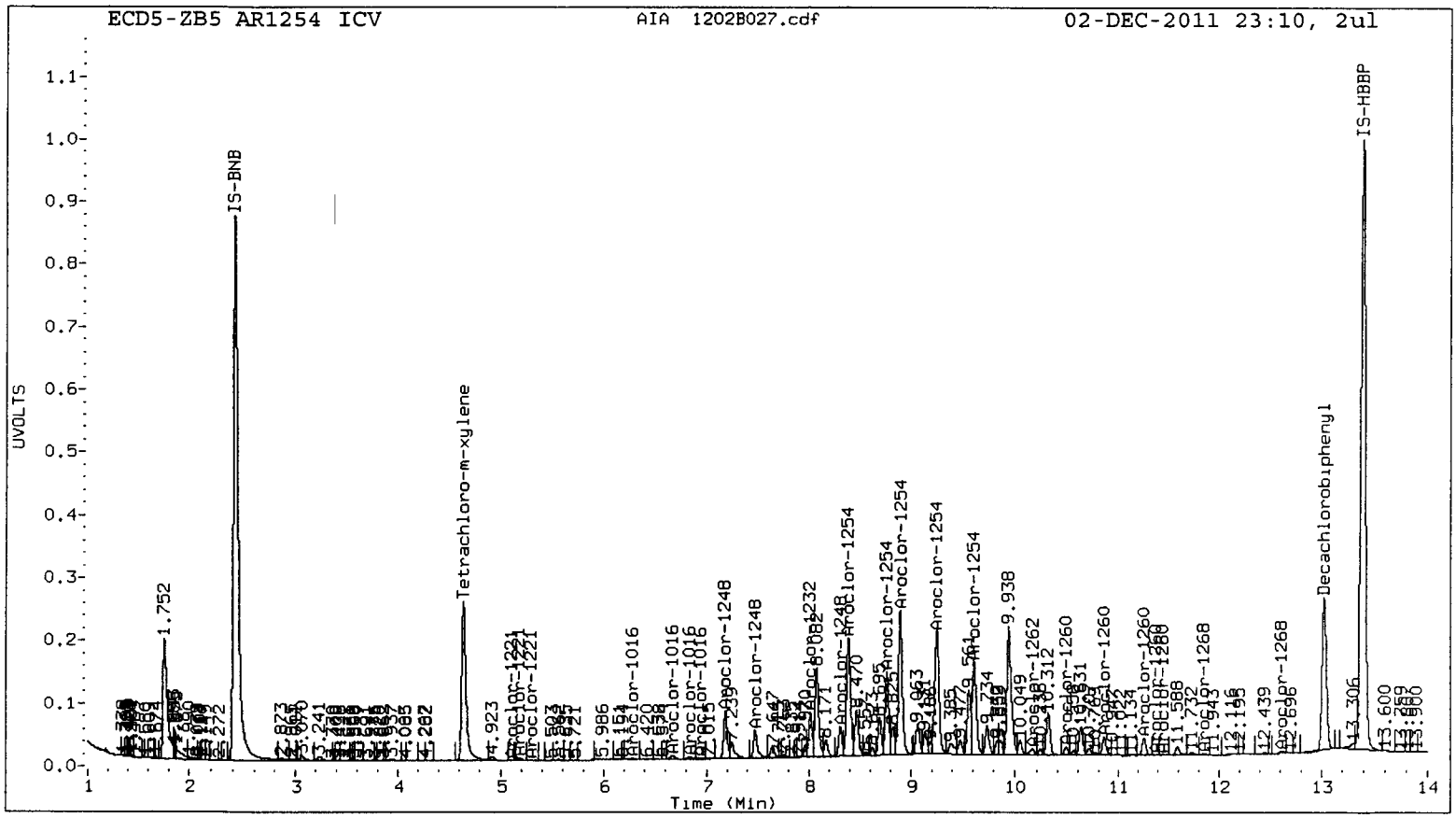
Corrected Ave (3 peaks): 0.7 Corrected Ave (3 peaks): 1.3 RPD = 57*

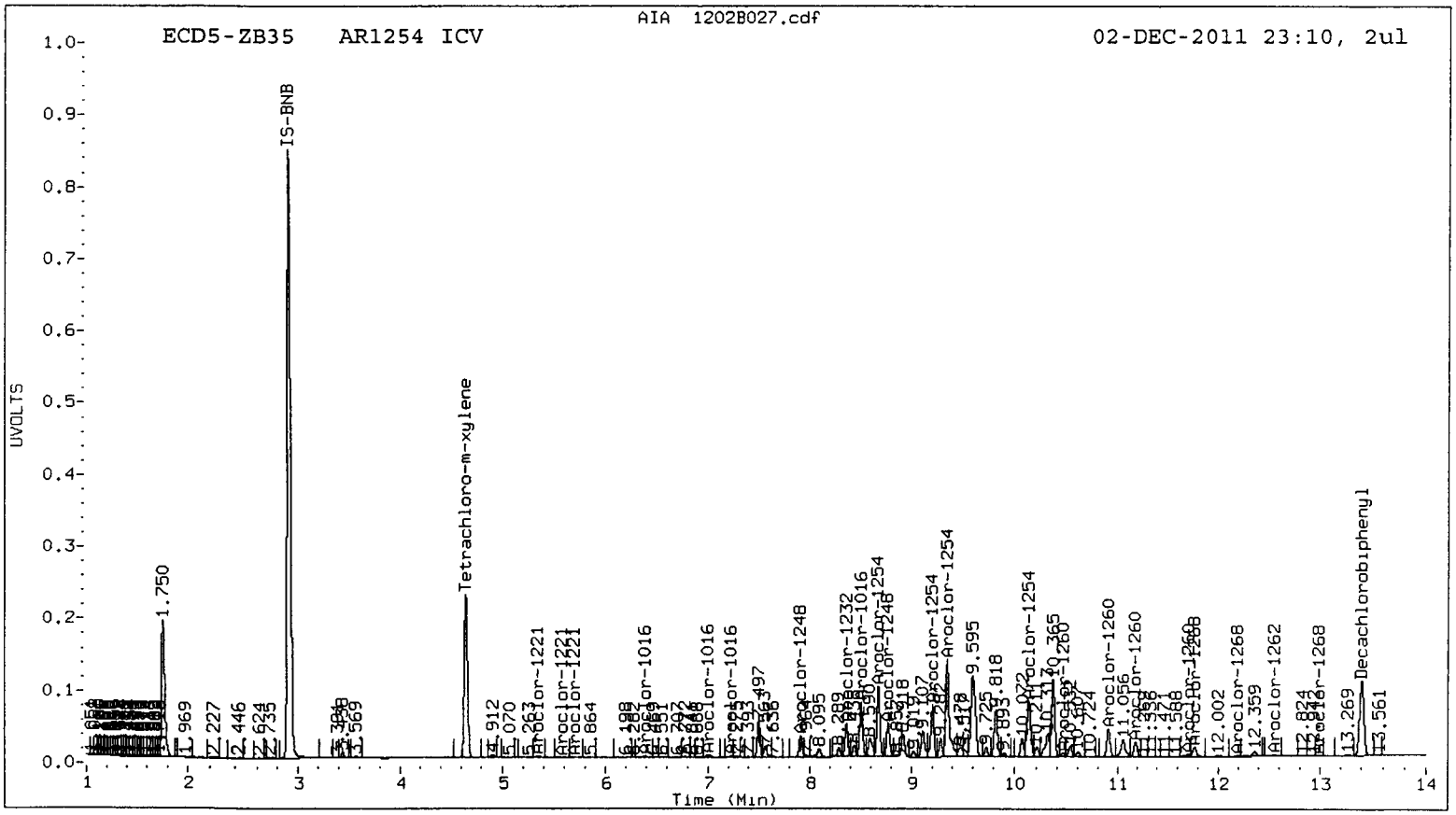
Total PCB Area Col1 (4.742 - 12.930) = 312357086 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.744 - 13.306) = 157361541 Col2 Total PCB = 0.3 ppm*

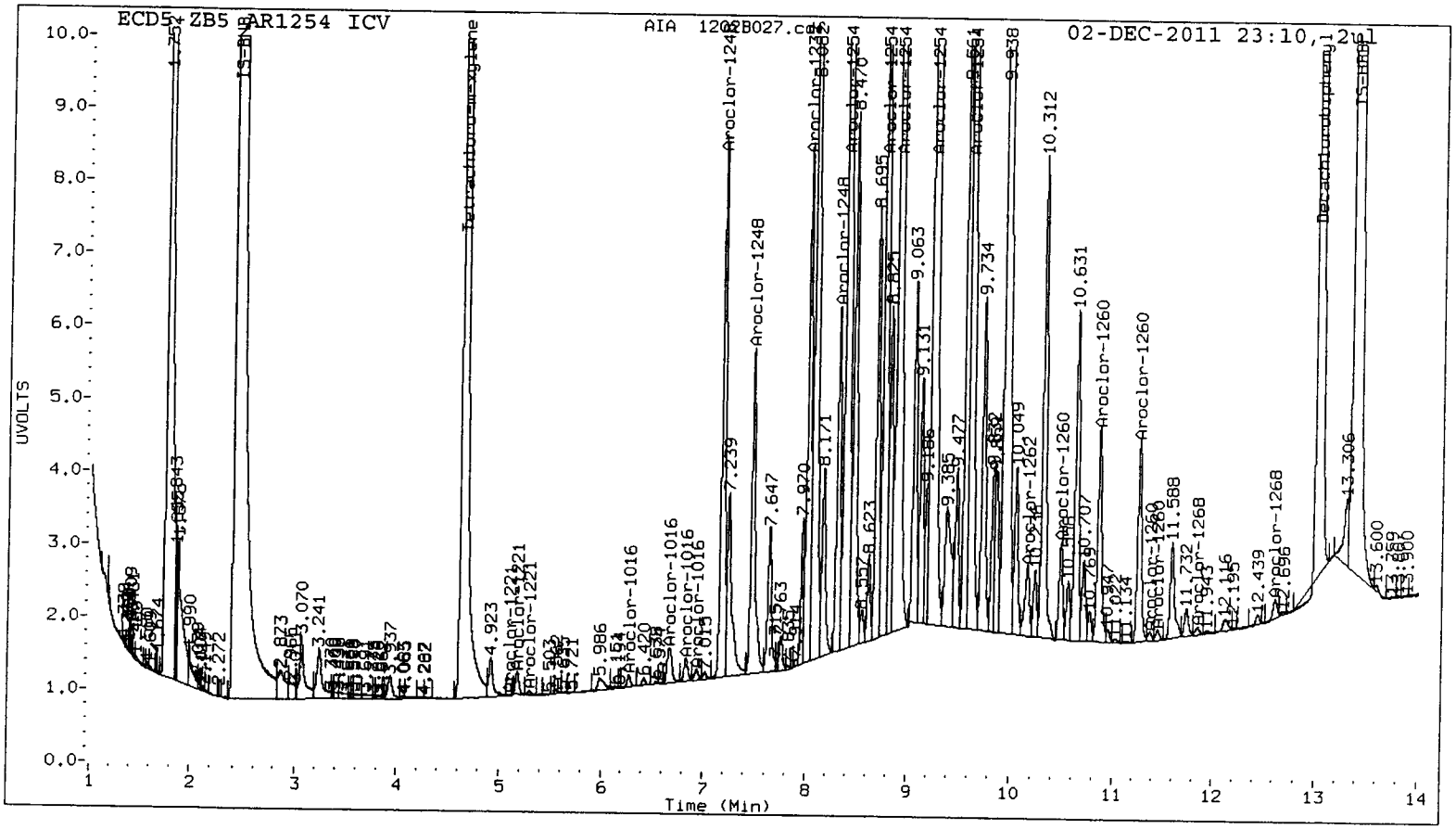
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD5-ZB5 AR1254 ICV
AIA 1202B027.cdf
02-DEC-2011 23:10, 2ul
UVOLTS
Time (Min)
IS-BNB
IS-HBBP
Tetrachloro-m-xylene
Decachlorobiphenyl
1.752
9.938
Aroclor-1254
Aroclor-1248
Aroclor-1016
Aroclor-1260
Aroclor-1268
Aroclor-1262
Aroclor-1232
Aroclor-1221
Aroclor-1260
Aroclor-1268
Aroclor-1262
Aroclor-1268


AIA 1202B027.cdf
ECD5-ZB35 AR1254 ICV
02-DEC-2011 23:10, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
1.750
9.595
Aroclor-1254
Aroclor-1248
Aroclor-1016
Aroclor-1260
Aroclor-1268
Aroclor-1262
Aroclor-1232
Aroclor-1221
Aroclor-1260
Aroclor-1268
Aroclor-1262
Aroclor-1268

TX57 : 01233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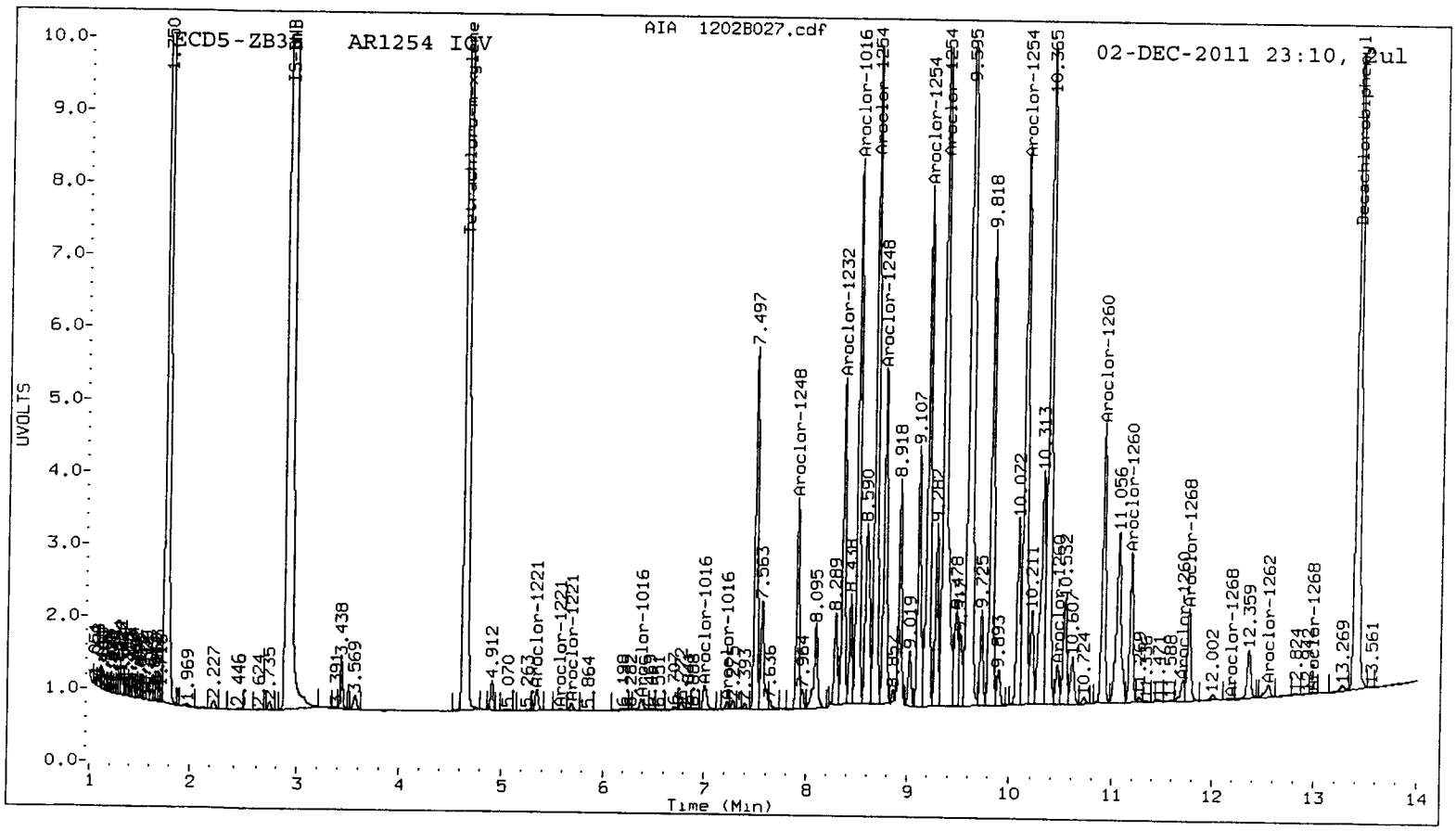
AIA 1202B027.cdf
02-DEC-2011 23:10, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1016
Aroclor-1221
Decachlorobiphenyl


ECD5-ZB35
AR1254 ICV
AIA 1202B027.cdf
02-DEC-2011 23:10, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

TX57 01230

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B028.d
Data file 2: 20111202.B/ical-2.b/1202B028.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162 ICV
Client ID:
Injection Date: 02-DEC-2011 23:29
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.644	0.002	38186522	4.646	0.002	24577400	20.3	20.4	1.0	Tetrachloro-m-xylene
13.031	0.001	35179202	13.407	0.001	14415210	18.7	18.0	3.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.6	51.1
Decachlorobiphenyl	46.7	45.0

JK 12/03/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	132376190	6.1
Hexabromobiphenyl	134444165	149989610	11.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	93623298	4.6
Hexabromobiphenyl	57341096	64755595	12.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount	
Aroclor-1016	1	6.278	0.002	993708	21.8	1	6.396	0.013	1932412	43.1	
Aroclor-1016	2	6.677	0.002	2797445	18.5	2	7.010	0.002	1654634	18.6	
Aroclor-1016	3	6.825	0.001	1269655	20.8	3	7.219	0.002	712253	21.3	
Aroclor-1016	4	6.936	0.002	821075	19.1	4	8.504	0.002	1537681	96.2	
Total Col1Ave (4 peaks):					20.0	Total Col2Ave (4 peaks):				44.8	RPD = 76*
Corrected Ave (3 peaks):					19.5	Corrected Ave (3 peaks):				27.7	RPD = 35
Aroclor-1221	1	5.016	-0.001	4710410	260.9	1	5.331	-0.001	3424625	254.0	
Aroclor-1221	2	5.195	-0.001	3253336	255.5	2	5.578	0.000	1970708	255.2	
Aroclor-1221	3	5.300	0.000	11539035	258.2	3	5.691	-0.001	6221612	255.0	
Aroclor-1221	NS	---			----	4	5.759	0.000	999140	258.7	
Total Col1Ave (3 peaks):					258.2	Total Col2Ave (4 peaks):				255.7	RPD = 1
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				254.8	
Aroclor-1232	1	6.278	-0.001	993708	54.1	1	6.396	0.011	1932412	99.1	
Aroclor-1232	2	6.677	0.000	2797445	46.0	2	7.010	0.000	1654634	46.5	
Aroclor-1232	3	6.825	-0.001	1269655	51.2	3	7.219	0.000	712253	57.3	
Aroclor-1232	4	8.019	-0.001	648294	29.6	4	8.363	-0.001	369690	30.8	
Total Col1Ave (4 peaks):					45.2	Total Col2Ave (4 peaks):				58.4	RPD = 26
Corrected Ave (3 peaks):					42.3	Corrected Ave (3 peaks):				44.9	RPD = 6
Aroclor-1242	1	6.278	0.001	993708	28.8	1	6.396	0.013	1932412	57.6	
Aroclor-1242	2	6.677	0.001	2797445	24.6	2	7.010	0.001	1654634	24.8	
Aroclor-1242	3	6.825	0.000	1269655	27.7	3	7.219	0.001	712253	27.0	
Aroclor-1242	4	8.019	0.000	648294	16.8	4	8.363	0.000	369690	17.7	
Total Col1Ave (4 peaks):					24.5	Total Col2Ave (4 peaks):				31.8	RPD = 26
Corrected Ave (3 peaks):					23.0	Corrected Ave (3 peaks):				23.2	RPD = 0
Aroclor-1248	1	7.175	0.503	656937	8.5	1	7.010	0.005	1654634	37.4	
Aroclor-1248	2	7.474	0.001	559761	10.4	2	7.914	0.003	476146	14.4	
Aroclor-1248	3	8.019	0.001	648294	10.1	3	8.363	0.001	369690	10.8	
Aroclor-1248	4	8.312	0.005	858259	13.9	4	8.781	-0.003	459303	12.2	
Total Col1Ave (4 peaks):					10.7	Total Col2Ave (4 peaks):				18.7	RPD = 54*
Corrected Ave (3 peaks):					9.7	Corrected Ave (3 peaks):				12.5	RPD = 25
Aroclor-1254	1	8.395	0.002	3933264	40.8	1	8.504	0.001	1537681	52.2	
Aroclor-1254	2	8.765	0.001	739495	12.0	2	8.676	0.001	1847227	48.0	
Aroclor-1254	3	8.868	-0.032	5233640	45.4	3	9.199	0.000	401586	13.3	
Aroclor-1254	4	9.232	-0.018	18783152	157.1	4	9.390	0.041	7807933	120.2	
Aroclor-1254	5	9.560	-0.052	24368775	301.0	5	10.144	0.014	1952488	48.6	
Total Col1Ave (5 peaks):					111.2	Total Col2Ave (5 peaks):				56.5	RPD = 65*
Corrected Ave (4 peaks):					63.8	Corrected Ave (4 peaks):				40.5	RPD = 45*
Aroclor-1260	1	10.485	0.002	23924504	323.1	1	10.461	0.002	14262182	390.1	
Aroclor-1260	2	10.858	0.001	54912434	291.3	2	10.914	0.002	14202765	314.8	
Aroclor-1260	3	11.260	0.003	18902616	186.4	3	11.184	0.001	25905010	288.1	
Aroclor-1260	4	11.377	0.002	24757191	602.4	4	11.706	0.001	12329079	481.8	
Aroclor-1260	5	11.450	0.002	26137129	530.0	NS	---			----	
Total Col1Ave (5 peaks):					386.7	Total Col2Ave (4 peaks):				368.7	RPD = 5
Corrected Ave (4 peaks):					332.7	Corrected Ave (3 peaks):				331.0	RPD = 1
Aroclor-1262	1	10.168	0.000	29250159	244.9	1	10.461	0.000	14262182	245.0	
Aroclor-1262	2	10.485	0.001	23924504	257.0	2	10.914	0.000	14202765	256.7	
Aroclor-1262	3	10.858	0.000	54912434	240.3	3	11.184	-0.001	25905010	240.6	
Aroclor-1262	4	11.377	0.001	24757191	260.4	4	11.706	-0.001	12329079	257.8	
Aroclor-1262	5	11.450	0.000	26137129	256.0	5	12.506	0.000	9462931	246.6	
Total Col1Ave (5 peaks):					251.7	Total Col2Ave (5 peaks):				249.3	RPD = 1
Corrected Ave (4 peaks):					249.5	Corrected Ave (4 peaks):				247.2	RPD = 1
Aroclor-1268	1	11.377	0.000	24757191	101.1	1	11.706	-0.001	12329079	109.7	
Aroclor-1268	2	11.450	0.001	26137129	109.1	2	11.768	-0.006	17596261	171.7	

TXST:01236

Aroclor-1268	3	11.850	0.015	10485435	51.8	3	12.172	-0.001	817502	9.6
Aroclor-1268	4	12.622	-0.003	8973402	14.4	4	12.991	-0.003	3445277	13.7

Total Col1Ave (4 peaks): 69.1 Total Col2Ave (4 peaks): 76.2 RPD = 10

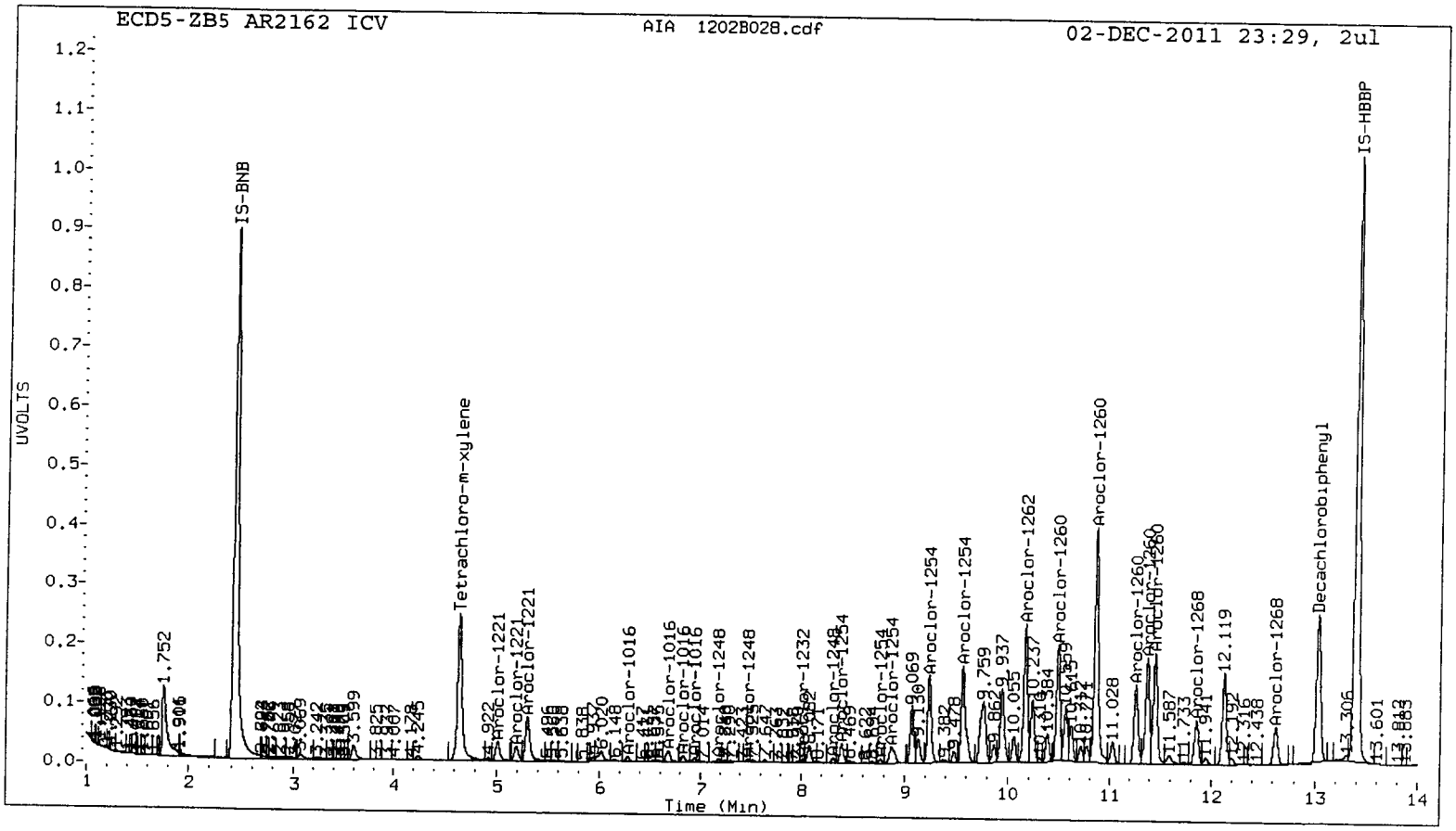
Corrected Ave (3 peaks): 55.7 Corrected Ave (3 peaks): 44.3 RPD = 23

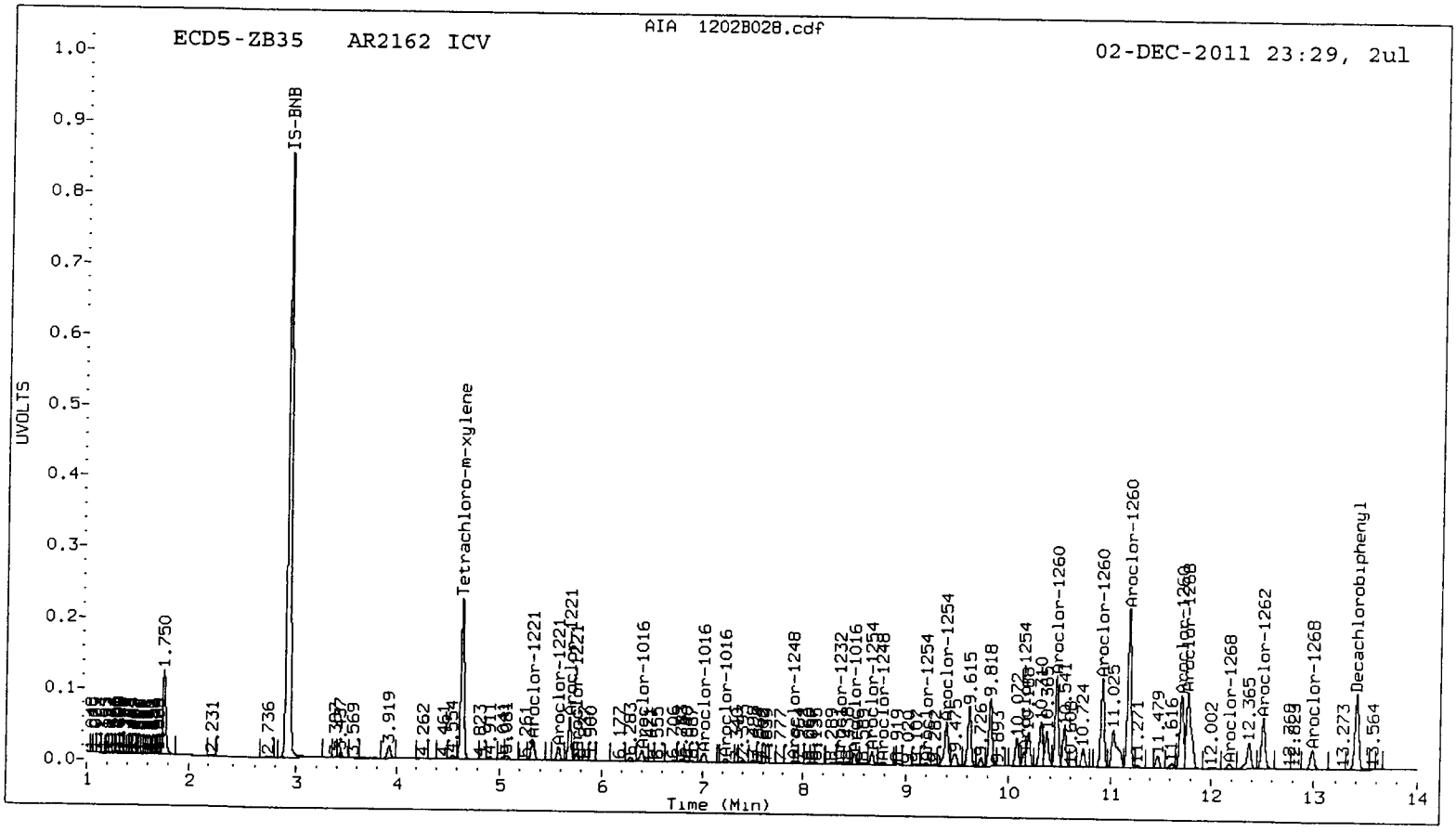
Total PCB Area Col1 (4.742 - 12.930) = 430220079 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.744 - 13.306) = 211130293 Col2 Total PCB = 0.4 ppm*

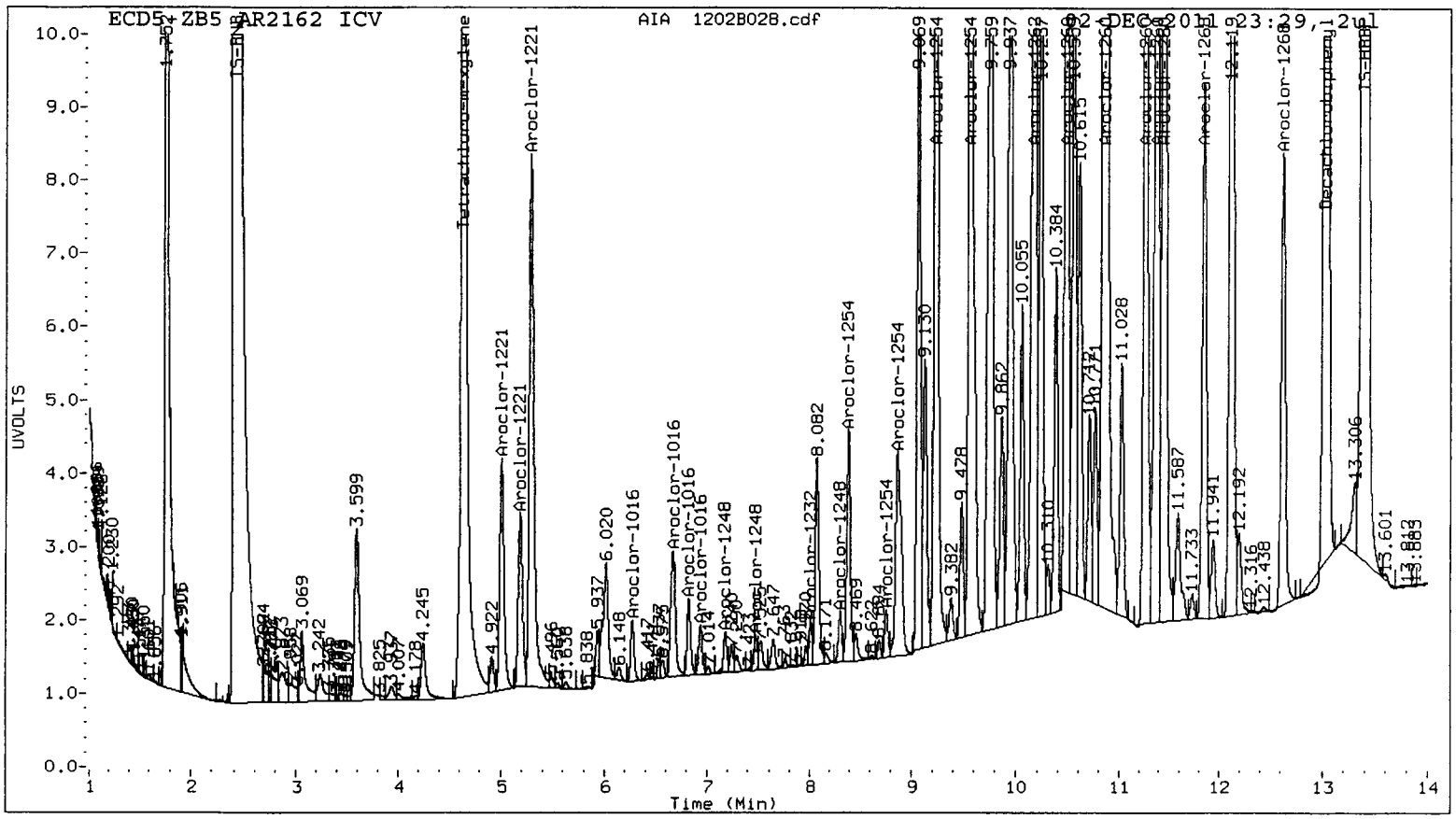
* Quantitated against AR1660 0.25ppm in Ical

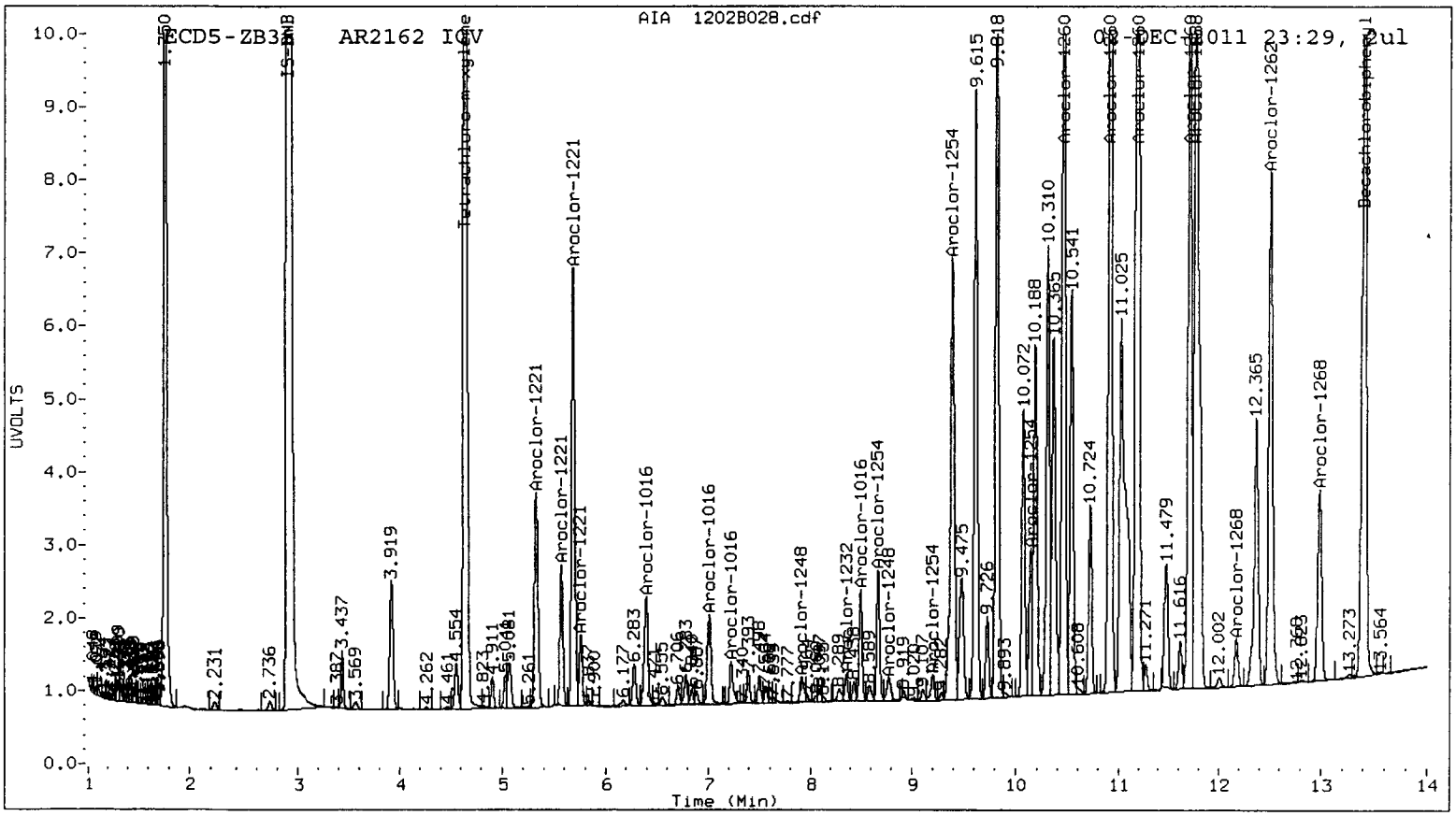
PCB-Form 10 Mod.


ECD5-ZB5 AR2162 ICV
AIA 1202B028.cdf
02-DEC-2011 23:29, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 AR2162 ICV
AIA 1202B028.cdf
02-DEC-2011 23:29, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

TX57:01238


ECD5-ZB5 AR2162 ICV
AIA 1202B028.cdf
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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AIA 1202B028.cdf
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/ical-1.b/1202B029.d
Data file 2: 20111202.B/ical-2.b/1202B029.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268 ICV
Client ID:
Injection Date: 02-DEC-2011 23:47
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.644	0.002	38073884	4.646	0.002	24687473	20.1	20.5	2.1	Tetrachloro-m-xylene
13.032	0.002	57704991	13.408	0.002	23124772	31.5	29.6	6.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.2	51.3
Decachlorobiphenyl	78.7	74.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	133082669	6.6
Hexabromobiphenyl	134444165	146034173	8.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	93702408	4.7
Hexabromobiphenyl	57341096	63070645	10.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.278	0.002	5178168	112.9	1	6.385	0.002	5401824	120.4
Aroclor-1016	2	6.677	0.002	16799727	110.7	2	7.009	0.001	9641743	108.3
Aroclor-1016	3	6.826	0.002	6872155	111.7	3	7.218	0.001	3875517	115.6
Aroclor-1016	4	6.936	0.001	4891391	113.2	4	8.504	0.002	492165	30.8
	Total Col1Ave (4 peaks):				112.1		Total Col2Ave (4 peaks):			93.8 RPD = 18
	Corrected Ave (3 peaks):				111.8		Corrected Ave (3 peaks):			84.9 RPD = 27
Aroclor-1221	1	5.016	0.000	2901619	159.9	1	5.332	0.000	2173917	161.1
Aroclor-1221	2	5.195	-0.001	2337307	182.6	2	5.578	-0.001	1368911	177.1
Aroclor-1221	3	5.299	-0.001	9024870	200.9	3	5.691	-0.001	5062255	207.3
Aroclor-1221	NS	---			----	4	5.759	0.000	563072	145.7
	Total Col1Ave (3 peaks):				181.1		Total Col2Ave (4 peaks):			172.8 RPD = 5
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			161.3
Aroclor-1232	1	6.278	-0.001	5178168	280.2	1	6.385	-0.001	5401824	276.9
Aroclor-1232	2	6.677	0.000	16799727	274.6	2	7.009	0.000	9641743	270.6
Aroclor-1232	3	6.826	-0.001	6872155	275.6	3	7.218	-0.001	3875517	311.7
Aroclor-1232	4	8.019	-0.001	5116081	232.4	4	8.363	-0.001	2748184	229.1
	Total Col1Ave (4 peaks):				265.7		Total Col2Ave (4 peaks):			272.1 RPD = 2
	Corrected Ave (3 peaks):				260.9		Corrected Ave (3 peaks):			258.8 RPD = 1
Aroclor-1242	1	6.278	0.001	5178168	149.3	1	6.385	0.001	5401824	160.9
Aroclor-1242	2	6.677	0.000	16799727	146.9	2	7.009	0.000	9641743	144.5
Aroclor-1242	3	6.826	0.001	6872155	149.3	3	7.218	0.001	3875517	146.5
Aroclor-1242	4	8.019	0.001	5116081	131.8	4	8.363	0.000	2748184	131.3
	Total Col1Ave (4 peaks):				144.3		Total Col2Ave (4 peaks):			145.8 RPD = 1
	Corrected Ave (3 peaks):				142.7		Corrected Ave (3 peaks):			140.8 RPD = 1
Aroclor-1248	1	7.176	0.503	3489978	45.0	1	7.009	0.004	9641743	217.9
Aroclor-1248	2	7.474	0.001	4559080	84.6	2	7.913	0.002	3459027	104.7
Aroclor-1248	3	8.019	0.001	5116081	79.1	3	8.363	0.001	2748184	79.9
Aroclor-1248	4	8.309	0.002	5522687	88.7	4	8.786	0.002	3026110	80.6
	Total Col1Ave (4 peaks):				74.4		Total Col2Ave (4 peaks):			120.8 RPD = 48*
	Corrected Ave (3 peaks):				69.6		Corrected Ave (3 peaks):			88.4 RPD = 24
Aroclor-1254	1	8.392	-0.001	1979228	20.4	1	8.504	0.001	492165	16.7
Aroclor-1254	2	8.765	0.001	1139136	18.3	2	8.676	0.001	559677	14.5
Aroclor-1254	3	8.902	0.002	2012141	17.4	3	9.199	0.000	578753	19.1
Aroclor-1254	4	9.251	0.001	1745153	14.5	4	9.348	-0.001	1242975	19.1
Aroclor-1254	5	9.616	0.004	1231463	15.1	5	10.129	-0.002	565784	14.1
	Total Col1Ave (5 peaks):				17.1		Total Col2Ave (5 peaks):			16.7 RPD = 3
	Corrected Ave (4 peaks):				16.3		Corrected Ave (4 peaks):			16.1 RPD = 1
Aroclor-1260	1	10.485	0.002	1537516	21.3	1	10.462	0.002	7583904	213.0
Aroclor-1260	2	10.858	0.001	10775765	58.7	2	10.914	0.003	8496310	193.3
Aroclor-1260	3	11.261	0.004	444165	4.5	3	11.184	0.001	4992457	57.0
Aroclor-1260	4	11.377	0.003	64739802	1618.0	4	11.707	0.002	29615293	1188.2
Aroclor-1260	5	11.449	0.001	69270111	1442.7	NS	---			----
	Total Col1Ave (5 peaks):				629.1		Total Col2Ave (4 peaks):			412.9 RPD = 41*
	Corrected Ave (4 peaks):				381.8		Corrected Ave (3 peaks):			154.4 RPD = 85*
Aroclor-1262	1	10.169	0.001	15882576	136.6	1	10.462	0.000	7583904	133.7
Aroclor-1262	2	10.485	0.001	1537516	17.0	2	10.914	0.001	8496310	157.6
Aroclor-1262	3	10.858	-0.001	10775765	48.4	3	11.184	0.000	4992457	47.6
Aroclor-1262	4	11.377	0.002	64739802	699.3	4	11.707	0.000	29615293	635.9
Aroclor-1262	5	11.449	-0.001	69270111	697.0	5	12.505	0.000	10390481	278.0
	Total Col1Ave (5 peaks):				319.7		Total Col2Ave (5 peaks):			250.6 RPD = 24
	Corrected Ave (4 peaks):				224.7		Corrected Ave (4 peaks):			154.3 RPD = 37
Aroclor-1268	1	11.377	0.001	64739802	271.4	1	11.707	0.000	29615293	270.6
Aroclor-1268	2	11.449	0.000	69270111	296.9	2	11.774	-0.001	29678966	297.4

Aroclor-1268 3	11.835	0.000	47995771	243.7	3	12.172	-0.001	19922907	241.1
Aroclor-1268 4	12.625	-0.001	138325949	227.3	4	12.993	-0.001	55432787	226.0

Total Col1Ave (4 peaks): 259.9 Total Col2Ave (4 peaks): 258.8 RPD = 0

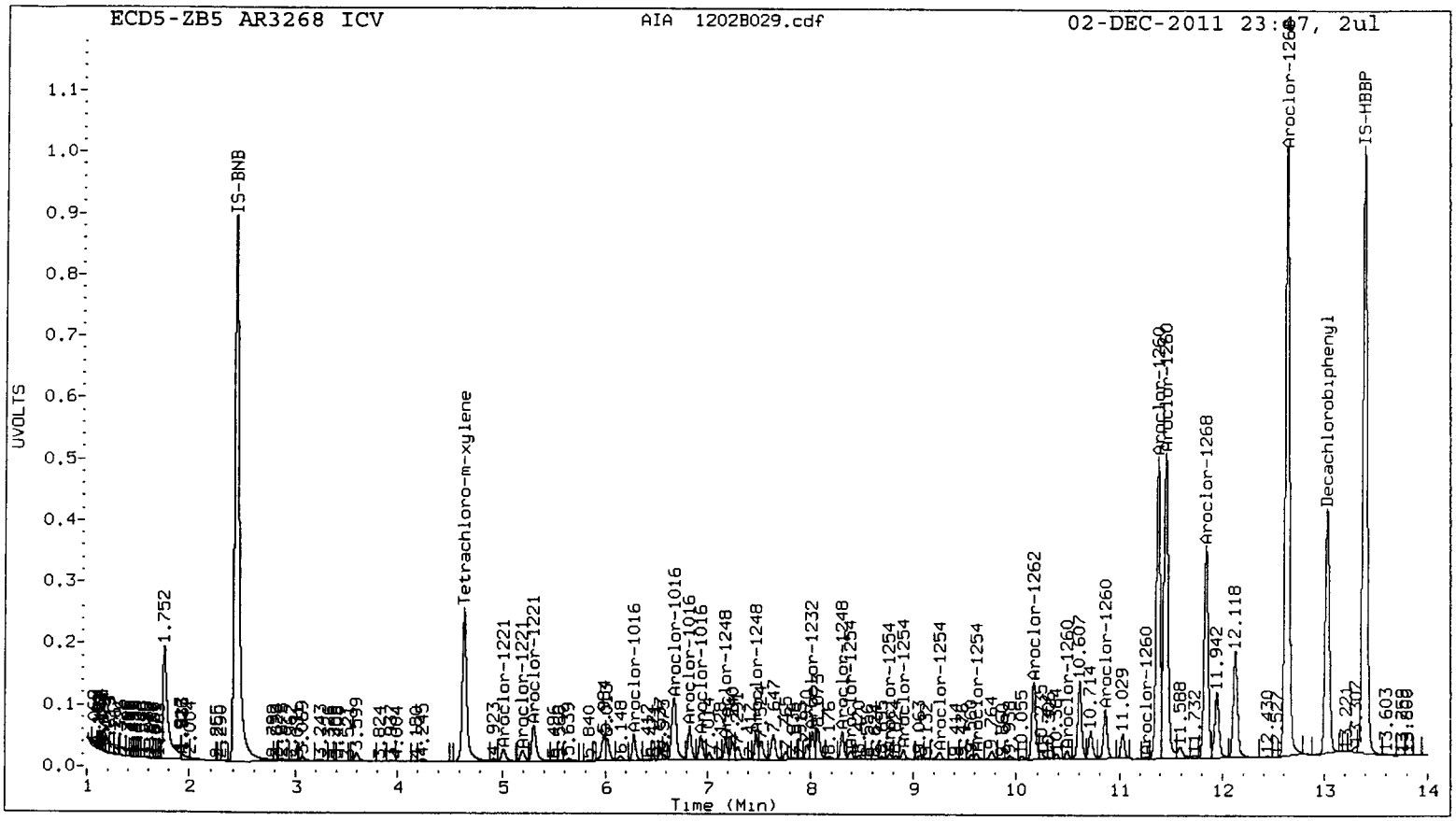
Corrected Ave (3 peaks): 247.5 Corrected Ave (3 peaks): 245.9 RPD = 1

Total PCB Area Col1 (4.742 - 12.930) = 551490950 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.744 - 13.306) = 251863257 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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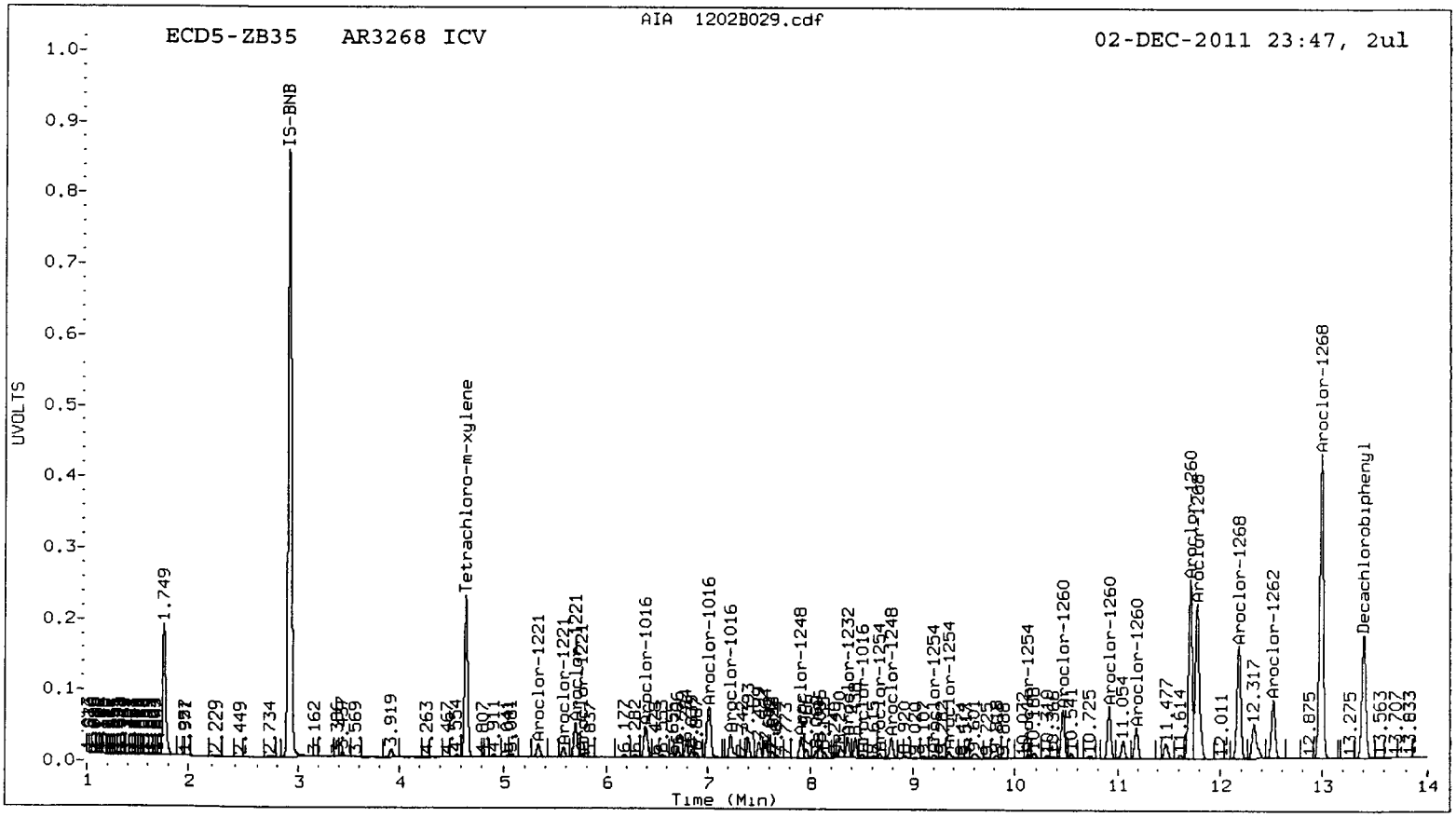
AIA 1202B029.cdf
02-DEC-2011 23:47, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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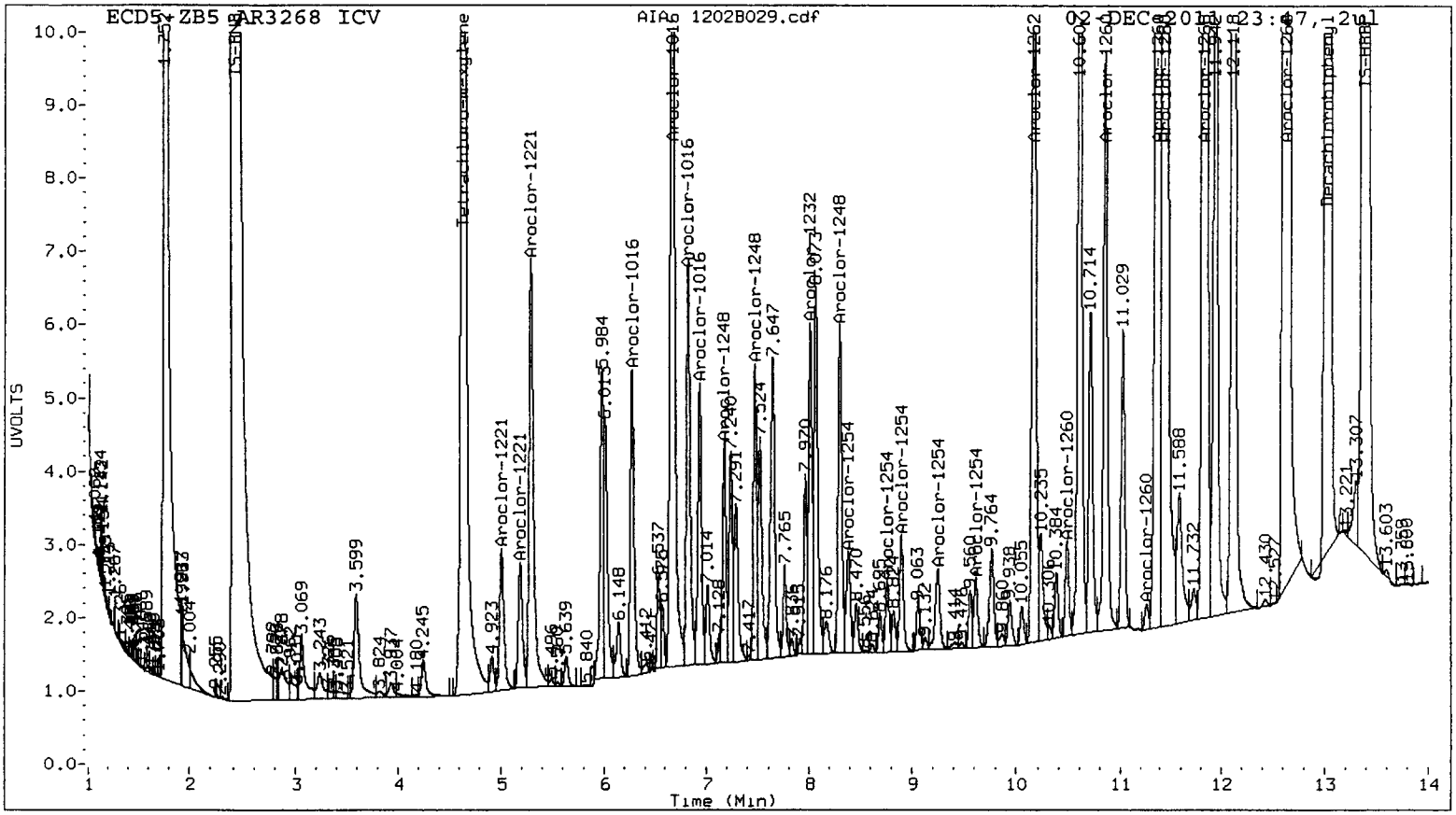
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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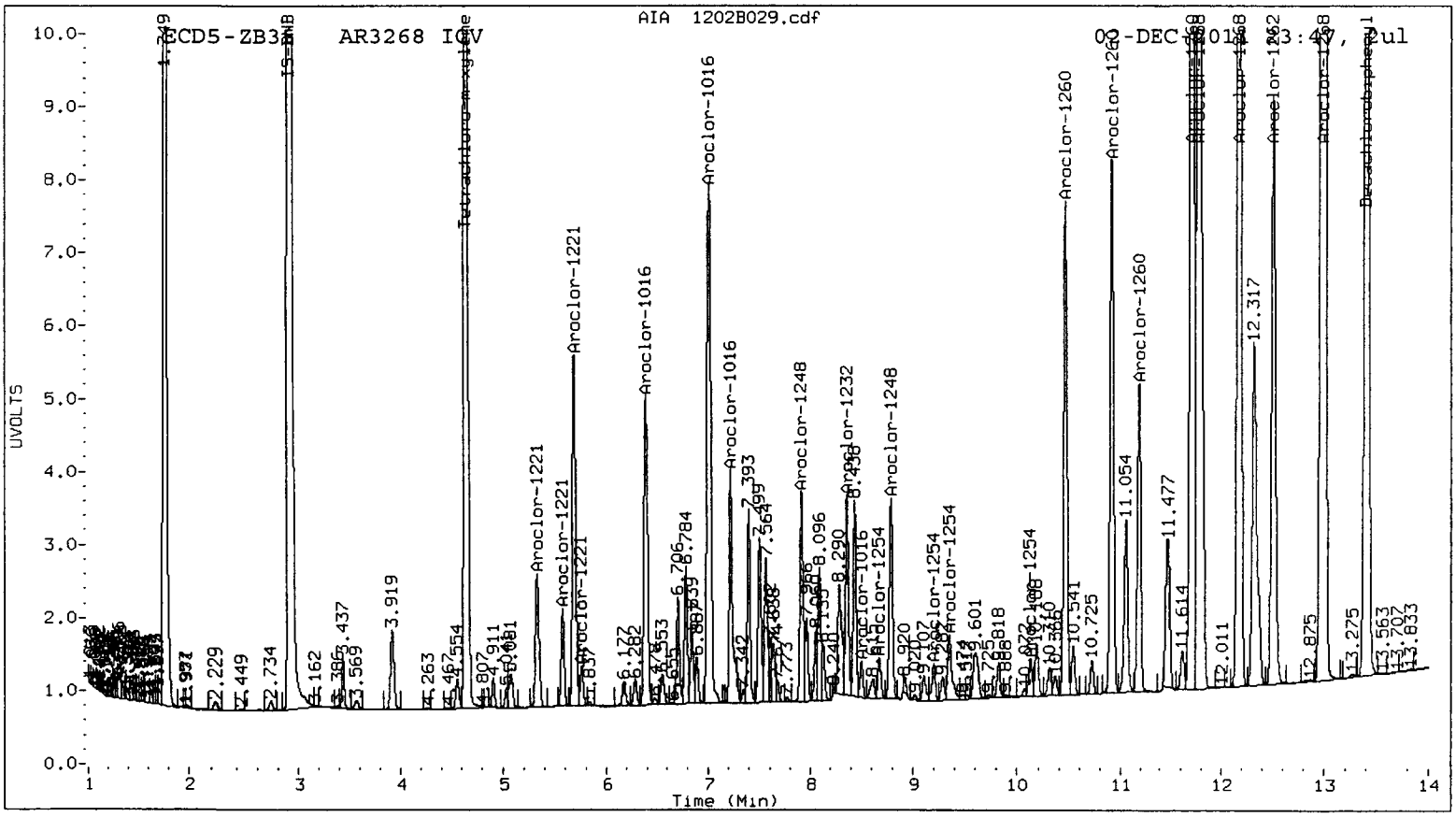
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Decachlorobiphenyl
IS-BNB
IS-BNB


ECD5-ZB3 AR3268 ICV
AIA 1202B029.cdf
02-DEC-2011 23:47, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Decachlorobiphenyl
IS-BNB

TX57:01244

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20111202.B/ddt-1.b/1202B030.d ARI ID: DDT

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
8.361	0.000	118851616	8.767	0.000	59213104	0.100	0.100	0.0	2,4-DDE
8.911	0.000	101155789	9.451	0.000	49894551	0.100	0.100	0.0	2,4-DDD
9.365	0.000	144357090	9.911	0.000	140081239	0.100	0.200#	66.7*	2,4-DDT
8.791	0.000	184056226	9.152	0.000	93210929	0.100	0.100	0.0	4,4-DDE
9.415	0.000	126357305	9.911	0.000	140081239	0.100	0.200#	66.7*	4,4-DDD
9.878	0.000	155251201	10.352	0.000	79326696	0.100	0.100	0.0	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

TX57 : 01245

7E

8082 DDT BREAKDOWN VERIFICATION SUMMARY

Lab ID: DDT BD

Analysis Date: 03-DEC-2011 00:25 Init. Calib. Date: 02-DEC-2011

GC Column: ZB5 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4-DDE	8.789	1172946
4,4-DDD	9.509	2116002
4,4-DDT	9.878	174082984

Col 1: 4,4-DDT Percent Breakdown = 1.9 %

GC Column: ZB35 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4-DDE	9.151	401578
4,4-DDD/2,4-DDT	9.920	1655564
4,4-DDT	10.351	89740319

Col 2: 4,4-DDT Percent Breakdown = 2.2 %

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

TX57 01246

PCB Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: TX57

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: TX57 Client ID: Slip 4 early

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): PCB's TCMX DCB

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

Dates: Curve: 09/30/11 Analysis Start: 11/22/11

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

Manual Integrations for ICal? YES / NO
Manual Integrations for Samples? 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: _____ **Date:** 11/29/11

Reviewer: _____ **Date:** 11/29/11

Analytical Resources Inc.: Organics Instrument Log

ECD-5 Serial No.: US00034118

Date: 11/22/11 Analysis: PCB's Analyst: JH

Column 1 Serial No.: 196398 Column Type: RTX-5

Column 2 Serial No.: 18229 Column Type: RTX-35

GC Method: PCB 2 ICal Date: 09/30/11 Injection Volume: 2µL

IS	Ical/Ccal	ICV
1878-3	1868-4	1802-3
	1801-1,2,3	1803-1,2,3
	1802-1,2	1804-1,2

/chem2/ecd5.1/20110

Document All Maintena /chem2/ecd5.1/20

	Inject Date/Time	Filename	DF	LabID
1	22-NOV-2011 07:11	1122B001.d	1	1914-02A
2	22-NOV-2011 07:30	1122B002.d	1	1914-02A
3	22-NOV-2011 07:49	1122B003.d	1	AR1242
4	22-NOV-2011 08:07	1122B004.d	1	AR1660
5	22-NOV-2011 16:19	1122B005.d	1	RINSE
6	22-NOV-2011 16:38	1122B006.d	1	DDT BD
7	22-NOV-2011 16:57	1122B007.d	1	DDT
8	22-NOV-2011 17:16	1122B008.d	1	AR1660
9	22-NOV-2011 17:35	1122B009.d	1	AR1254
10	22-NOV-2011 17:54	1122B010.d	1	TX57MBW1
11	22-NOV-2011 18:13	1122B011.d	1	TX57LCSW
12	22-NOV-2011 18:32	1122B012.d	1	TX57LCSI
13	22-NOV-2011 18:51	1122B013.d	1	TX57P
14	22-NOV-2011 19:09	1122B014.d	1	TX57Q
15	22-NOV-2011 19:28	1122B015.d	1	TV32BRE
16	22-NOV-2011 19:47	1122B016.d	1	TV32CRE
17	22-NOV-2011 20:06	1122B017.d	1	TV32DRE
18	22-NOV-2011 20:25	1122B018.d	1	TY22MB1
19	22-NOV-2011 20:44	1122B019.d	1	TY22LCS'
20	22-NOV-2011 21:03	1122B020.d	1	TY22LCSI
21	22-NOV-2011 21:22	1122B021.d	1	AR1660
22	22-NOV-2011 21:41	1122B022.d	1	AR1242
23	22-NOV-2011 22:00	1122B023.d	1	TY22A
24	22-NOV-2011 22:18	1122B024.d	1	TY22B
25	22-NOV-2011 22:37	1122B025.d	1	TY22C
26	22-NOV-2011 22:56	1122B026.d	1	TY22D
27	22-NOV-2011 23:15	1122B027.d	1	TY22E
28	22-NOV-2011 23:34	1122B028.d	1	TY22F
29	22-NOV-2011 23:53	1122B029.d	1	TY22G
30	23-NOV-2011 00:12	1122B030.d	1	TY22H
31	23-NOV-2011 00:31	1122B031.d	1	TY22I
32	23-NOV-2011 00:50	1122B032.d	1	TY22J
33	23-NOV-2011 01:09	1122B033.d	1	AR1660
34	23-NOV-2011 01:28	1122B034.d	1	AR1248
35	23-NOV-2011 01:46	1122B035.d	1	TW50MBW
36	23-NOV-2011 02:05	1122B036.d	1	TW50LCS
37	23-NOV-2011 02:24	1122B037.d	1	TW50LCS
38	23-NOV-2011 02:43	1122B038.d	1	TW50QLS
39	23-NOV-2011 03:02	1122B039.d	1	TW50A
40	23-NOV-2011 03:21	1122B040.d	1	TW50B
41	23-NOV-2011 03:40	1122B041.d	1	TW46F
42	23-NOV-2011 03:59	1122B042.d	1	AR1660
43	23-NOV-2011 04:18	1122B043.d	1	AR1254
44	23-NOV-2011 04:37	1122B044.d	1	TV99MB:
45	23-NOV-2011 04:56	1122B045.d	1	TV99LC:
46	23-NOV-2011 05:14	1122B046.d	1	TV99LC.
47	23-NOV-2011 05:33	1122B047.d	1	TV99A
48	23-NOV-2011 05:52	1122B048.d	1	TV99B
49	23-NOV-2011 06:11	1122B049.d	1	TV99C
50	23-NOV-2011 06:30	1122B050.d	1	TV99D
51	23-NOV-2011 06:49	1122B051.d	1	TV99DMS
52	23-NOV-2011 07:08	1122B052.d	1	TV99DMSD
53	23-NOV-2011 07:27	1122B053.d	1	TV99E
54	23-NOV-2011 07:46	1122B054.d	1	TV99F
55	23-NOV-2011 08:05	1122B055.d	1	AR1660
56	23-NOV-2011 08:23	1122B056.d	1	AR1248
57	23-NOV-2011 08:42	1122B057.d	1	TV99G
58	23-NOV-2011 09:01	1122B058.d	1	TV99H
59	23-NOV-2011 09:20	1122B059.d	1	TW05A
60	23-NOV-2011 09:39	1122B060.d	1	TW05B
61	23-NOV-2011 09:58	1122B061.d	1	TW06A
62	23-NOV-2011 10:17	1122B062.d	1	TW06B
63	23-NOV-2011 10:36	1122B063.d	1	TW06C
64	23-NOV-2011 10:55	1122B064.d	1	TW06D
65	23-NOV-2011 11:14	1122B065.d	1	AR1660
66	23-NOV-2011 11:33	1122B066.d	1	AR1242
67	23-NOV-2011 11:56	1122B067.d	1	AR1660
68	23-NOV-2011 12:15	1122B068.d	1	AR1242
69	23-NOV-2011 13:38	1122B069.d	5	TW05A
70	23-NOV-2011 13:57	1122B070.d	5	TW05A
71	23-NOV-2011 14:16	1122B071.d	5	TW05B
72	23-NOV-2011 14:35	1122B072.d	1	AR1660
73	23-NOV-2011 14:54	1122B073.d	1	AR1248

l entries legible. 11/29/11

Page for each QC period. Document All Maintenance Tasks In StarLIMS

TX57:01245

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/1122-1.b/1122B008.d
Data file 2: 20110930.B/1122-2.b/1122B008.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 22-NOV-2011 17:16
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.655	0.001	40403818	4.657	0.002	28128714	20.5	19.8	3.4	Tetrachloro-m-xylene
13.033	-0.001	71973430	13.409	-0.001	32337624	19.8	22.3	11.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	51.3	49.5
Decachlorobiphenyl	49.6	55.6

✓

✓ 11/29/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	114559869	-4.0
Hexabromobiphenyl	247758184	228514163	-7.8

✓

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	94054595	3.1
Hexabromobiphenyl	103671329	104689891	1.0

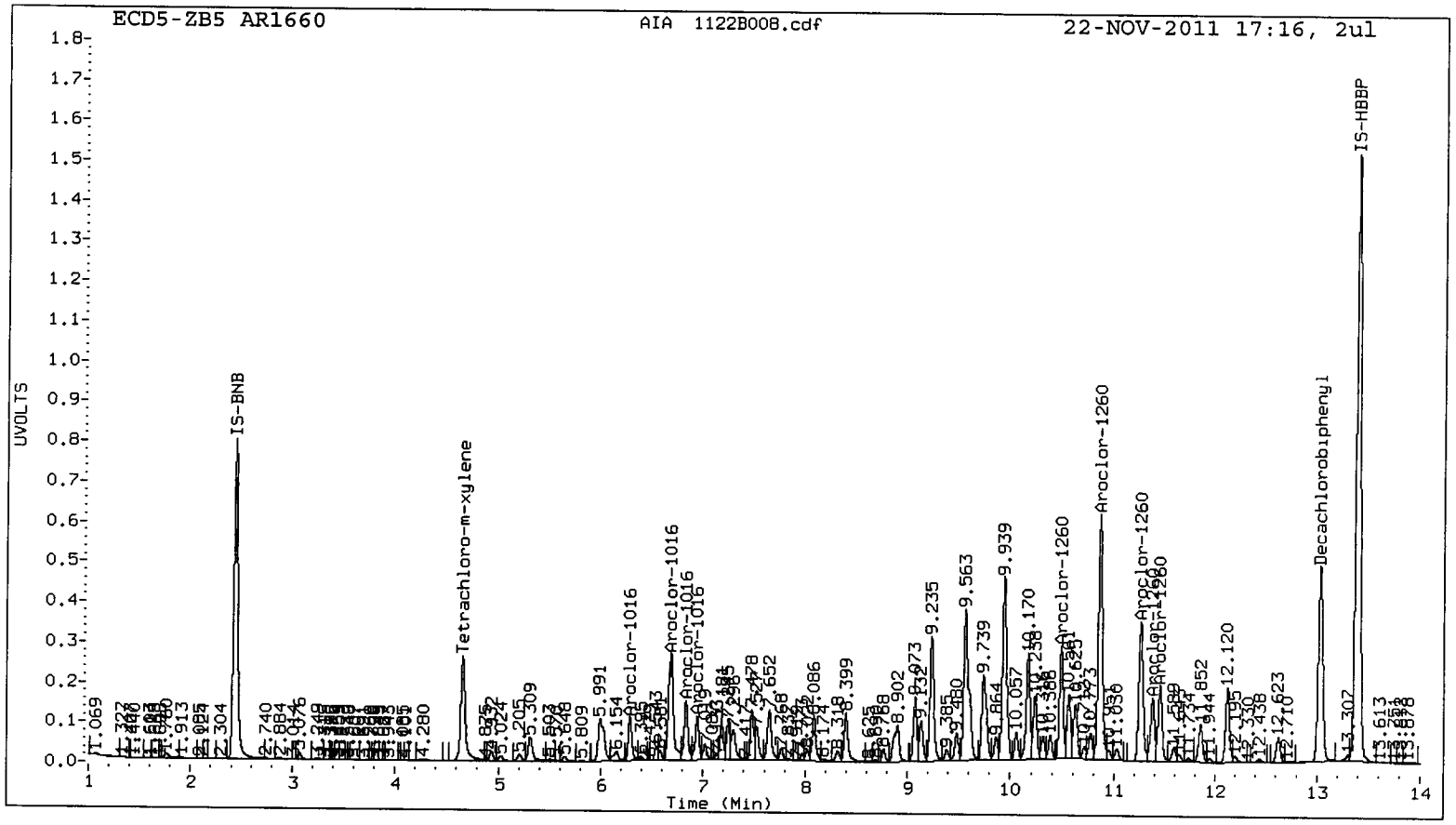
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.285	0.001	13710146	258.7	1	6.391	0.000	13477465	240.4
Aroclor-1016	2	6.684	0.000	45964347	249.8	2	7.015	-0.001	30925379	246.7
Aroclor-1016	3	6.832	0.000	18984077	256.3	3	7.223	-0.001	10692917	222.3
Aroclor-1016	4	6.942	0.000	14066252	267.1	4	8.506	-0.003	6203654	233.9
	Total Col1Ave (4 peaks):				258.0	Total Col2Ave (4 peaks):				235.9 RPD = 9
	Corrected Ave (3 peaks):				254.9	Corrected Ave (3 peaks):				232.2 RPD = 9
Aroclor-1260	1	10.487	-0.001	34755743	281.3	1	10.367	-0.002	24414710	260.0
Aroclor-1260	2	10.861	-0.001	85613291	272.5	2	11.185	-0.001	40663282	279.9
Aroclor-1260	3	11.262	-0.001	50050415	277.2	3	11.707	-0.002	11877977	267.3
Aroclor-1260	4	11.378	-0.001	21937884	283.8	4	12.506	-0.001	9479068	224.7
Aroclor-1260	5	11.452	0.000	26180088	288.3	NS	---			----
	Total Col1Ave (5 peaks):				280.6	Total Col2Ave (4 peaks):				258.0 RPD = 8
	Corrected Ave (4 peaks):				278.7	Corrected Ave (3 peaks):				250.7 RPD = 11

Total PCB Area Col1 (4.754 - 12.935) = 963805397 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (4.756 - 13.310) = 489065771 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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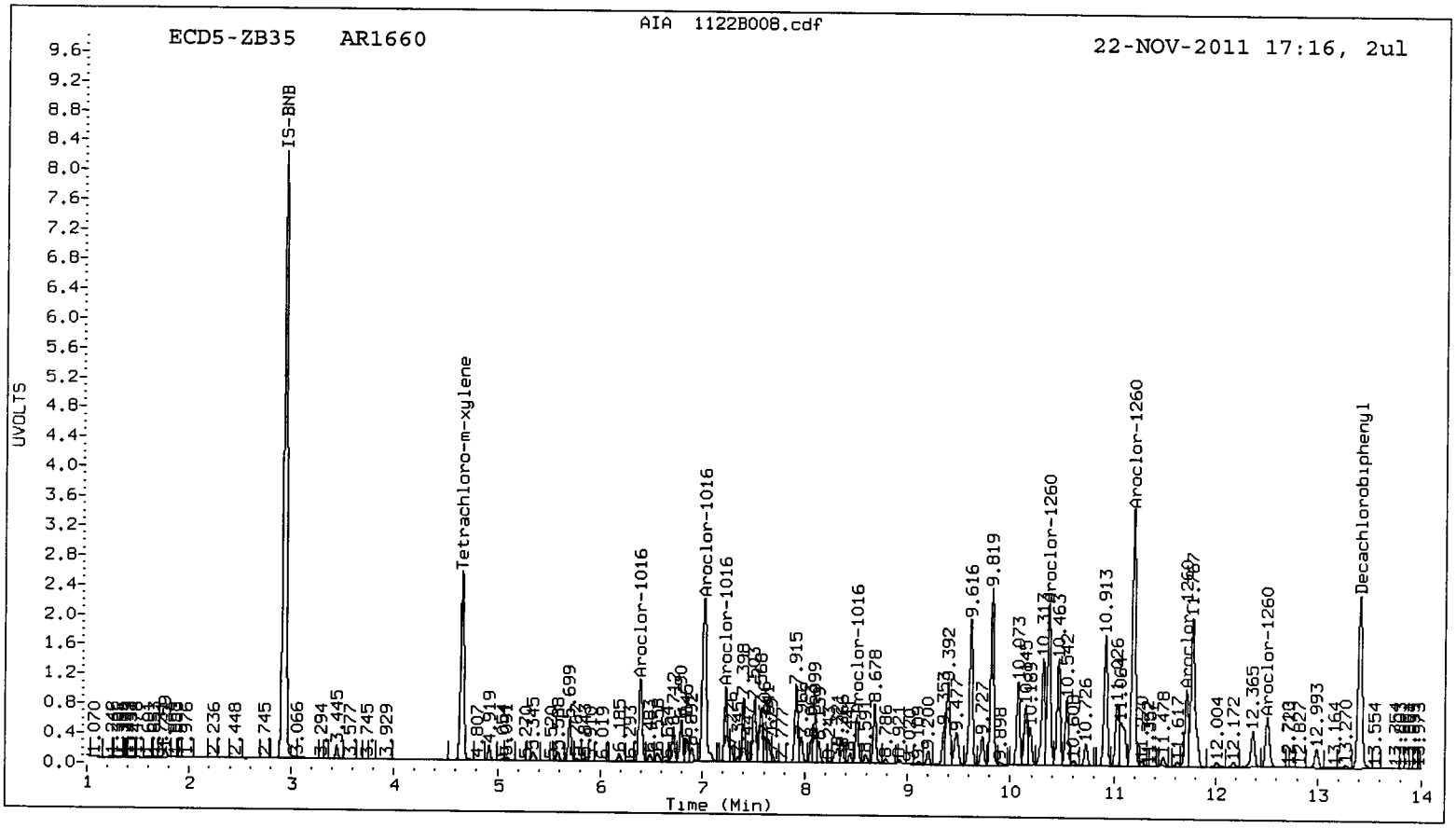
AIA 1122B008.cdf
22-NOV-2011 17:16, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 AR1660
AIA 1122B008.cdf
22-NOV-2011 17:16, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

TX57 - 0125

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/1122-1.b/1122B009.d
Data file 2: 20110930.B/1122-2.b/1122B009.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 22-NOV-2011 17:35
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.655	0.000	42258380	4.657	0.002	32563693	18.7	20.4	8.8	Tetrachloro-m-xylene
13.033	-0.002	81083644	13.408	-0.002	35357133	19.5	21.3	8.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	46.8	51.1
Decachlorobiphenyl	48.7	53.1

11/29/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	131204952	10.0
Hexabromobiphenyl	247758184	261909533	5.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	105506653	15.6
Hexabromobiphenyl	103671329	119857323	15.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

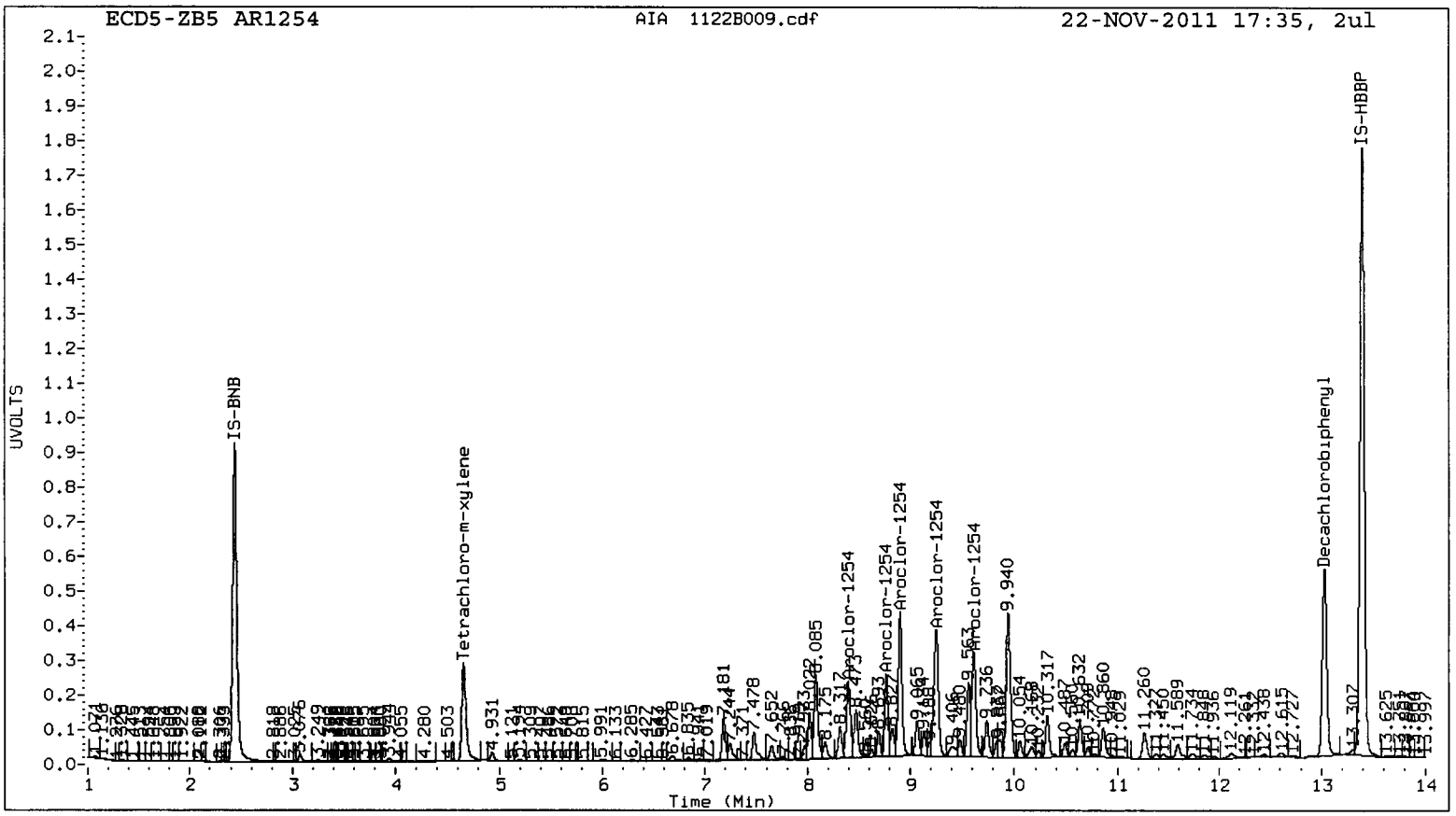
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	8.399	0.001	30708283	193.4	1	8.504	-0.005	11075261	195.1
Aroclor-1254	2	8.768	-0.001	27371678	250.5	2	8.678	-0.002	19420320	262.4
Aroclor-1254	3	8.904	-0.002	53620255	273.1	3	9.199	-0.005	13926912	234.0
Aroclor-1254	4	9.253	-0.002	58887122	263.1	4	9.351	-0.003	34658498	271.6
Aroclor-1254	5	9.615	-0.002	42563686	288.1	5	10.132	-0.004	21990671	277.8
Total Col1Ave (5 peaks):					253.7	Total Col2Ave (5 peaks):				248.2 RPD = 2
Corrected Ave (4 peaks):					245.1	Corrected Ave (4 peaks):				240.8 RPD = 2

Total PCB Area Col1 (4.754 - 12.935) = 618242813 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.756 - 13.310) = 332985807 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TX57 01254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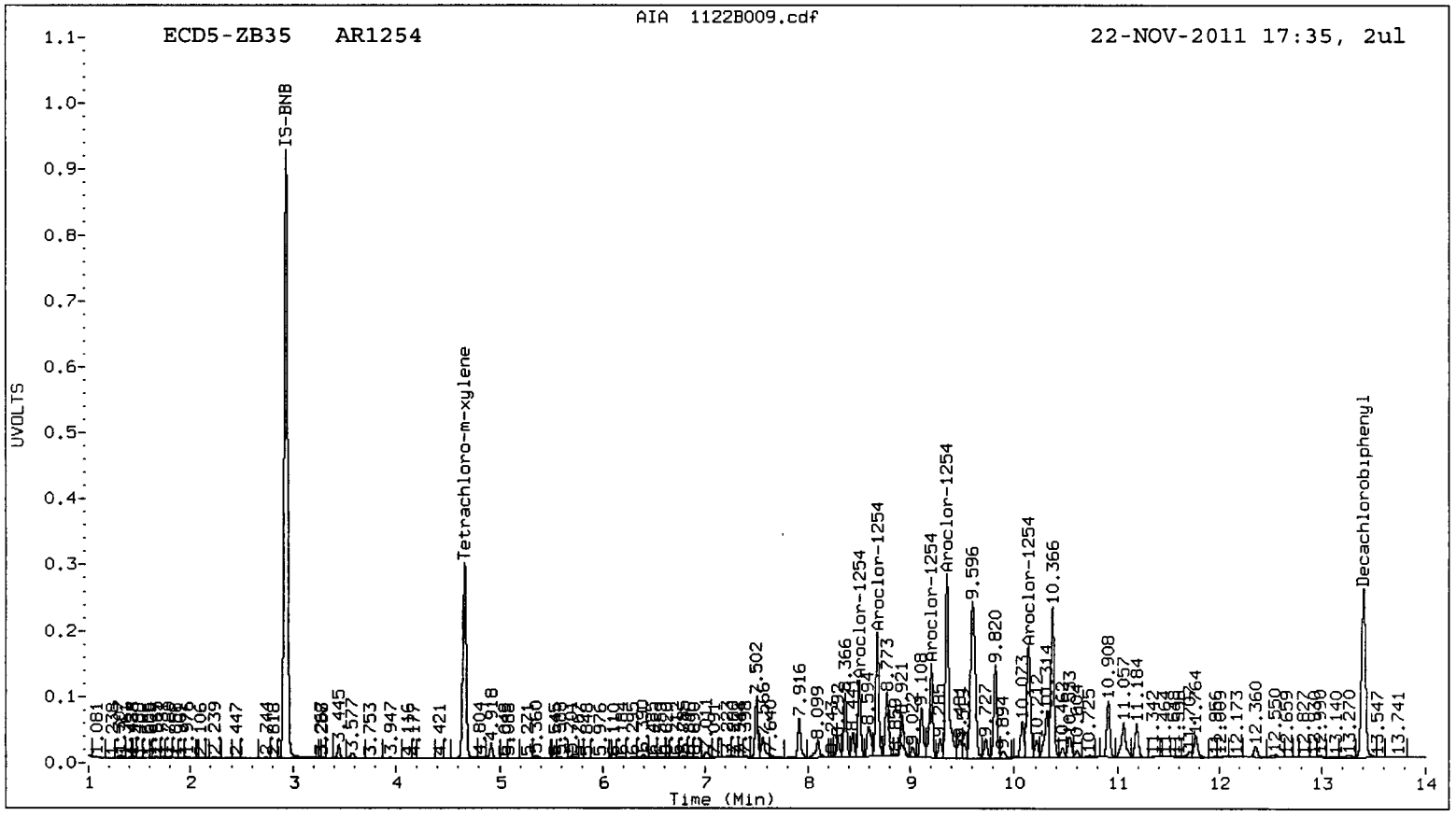
AIA 1122B009.cdf
22-NOV-2011 17:35, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
9.940
Decachlorobiphenyl
IS-HBBP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ECD5-ZB35 AR1254
22-NOV-2011 17:35, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
9.596
9.820
10.366
Decachlorobiphenyl

1X57-01255

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/1122-1.b/1122B010.d
Data file 2: 20110930.B/1122-2.b/1122B010.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57MBW1
Client ID: TX57MBW1
Injection Date: 22-NOV-2011 17:54
Ical Date: 30-SEP-2011
Matrix: WATER
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.656	0.001	38097161	4.657	0.002	25055718	18.2	16.9	7.0	Tetrachloro-m-xylene
13.033	-0.002	100358582	13.409	-0.001	43660761	27.0	29.4	8.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	45.4	42.3
Decachlorobiphenyl	67.6	73.4

11/29/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	121898525	2.2
Hexabromobiphenyl	247758184	233699796	-5.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	97985753	7.4
Hexabromobiphenyl	103671329	107117382	3.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.285	0.000	52179	0.9	1	6.439	0.049	159435	2.7
Aroclor-1016	2	6.688	0.004	189595	1.0	2	7.024	0.008	65250	0.5
Aroclor-1016	3	6.829	-0.002	129632	1.6	3	7.302	0.078	97146	1.9
Aroclor-1016	4	6.937	-0.005	288223	5.1	4	8.500	-0.009	15635	0.6
	Total Col1Ave (4 peaks):			2.2		Total Col2Ave (4 peaks):			1.4	RPD = 41*
	Corrected Ave (3 peaks):			1.2		Corrected Ave (3 peaks):			1.0	RPD = 16
Aroclor-1221	1	4.932	-0.088	2898116	141.3	1	5.362	0.004	398269	23.7
Aroclor-1221	2	5.192	-0.007	364096	25.1	2	5.613	0.026	751943	78.0
Aroclor-1221	3	---			0.0	3	5.712	0.014	105082	3.3
Aroclor-1221	NS	---			----	4	5.769	0.006	71562	13.6
	Col1Ave: <3 Quant Peaks					Col2Ave: 29.7				
Aroclor-1232	1	6.285	0.004	52179	2.2	1	6.439	0.050	159435	5.9
Aroclor-1232	2	6.688	0.009	189595	2.4	2	7.024	0.013	65250	1.2
Aroclor-1232	3	6.829	0.001	129632	4.1	3	7.302	0.079	97146	5.0
Aroclor-1232	4	8.081	0.062	163801	4.9	4	8.364	-0.002	32266	1.5
	Total Col1Ave (4 peaks):			3.4		Total Col2Ave (4 peaks):			3.4	RPD = 1
	Corrected Ave (3 peaks):			2.9		Corrected Ave (3 peaks):			2.6	RPD = 12
Aroclor-1242	1	6.285	0.000	52179	1.2	1	6.439	0.048	159435	3.5
Aroclor-1242	2	6.688	0.004	189595	1.3	2	7.024	0.008	65250	0.6
Aroclor-1242	3	6.829	-0.003	129632	2.2	3	7.302	0.078	97146	2.4
Aroclor-1242	4	8.081	0.057	163801	2.9	4	8.364	-0.004	32266	0.9
	Total Col1Ave (4 peaks):			1.9		Total Col2Ave (4 peaks):			1.8	RPD = 3
	Corrected Ave (3 peaks):			1.6		Corrected Ave (3 peaks):			1.3	RPD = 20
Aroclor-1248	1	7.170	-0.012	1165049	18.0	1	7.510	0.005	48789	1.0
Aroclor-1248	2	7.486	0.006	242301	3.3	2	7.931	0.013	250267	4.6
Aroclor-1248	3	8.081	0.058	163801	1.8	3	8.364	-0.004	32266	0.5
Aroclor-1248	4	8.292	-0.021	1015929	11.1	4	8.731	-0.059	581105	8.9
	Total Col1Ave (4 peaks):			8.5		Total Col2Ave (4 peaks):			3.8	RPD = 78*
	Corrected Ave (3 peaks):			5.4		Corrected Ave (3 peaks):			2.1	RPD = 89*
Aroclor-1254	1	8.394	-0.004	163932	1.1	1	8.500	-0.009	15635	0.3
Aroclor-1254	2	8.791	0.021	145247	1.4	2	8.680	-0.001	20302	0.3
Aroclor-1254	3	8.907	0.002	175993	1.0	3	9.228	0.024	880584	15.9
Aroclor-1254	4	9.232	-0.023	313898	1.5	4	9.353	-0.002	62009	0.5
Aroclor-1254	5	9.615	-0.001	193956	1.4	5	10.133	-0.003	32568	0.4
	Total Col1Ave (5 peaks):			1.3		Total Col2Ave (5 peaks):			3.5	RPD = 92*
	Corrected Ave (4 peaks):			1.2		Corrected Ave (4 peaks):			0.4	RPD = 104*
Aroclor-1260	1	10.490	0.001	46598	0.4	1	10.361	-0.008	54160	0.6
Aroclor-1260	2	10.898	0.035	945517	2.9	2	11.184	-0.002	48632	0.3
Aroclor-1260	3	11.255	-0.007	11997	0.1	3	11.659	-0.050	639708	14.1
Aroclor-1260	4	11.367	-0.011	197288	2.5	4	12.550	0.042	171561	4.0
Aroclor-1260	5	11.452	0.000	35647	0.4	NS	---			----
	Total Col1Ave (5 peaks):			1.3		Total Col2Ave (4 peaks):			4.7	RPD = 116*
	Corrected Ave (4 peaks):			0.8		Corrected Ave (3 peaks):			1.6	RPD = 65*
Aroclor-1262	1	10.169	0.001	290768	1.5	1	10.500	0.036	61652	0.6
Aroclor-1262	2	10.490	0.004	46598	0.3	2	10.910	0.000	29219	0.3
Aroclor-1262	3	10.898	0.038	945517	2.6	3	11.184	-0.001	48632	0.3
Aroclor-1262	4	11.367	-0.009	197288	1.2	4	11.659	-0.048	639708	7.5
Aroclor-1262	5	11.452	0.002	35647	0.2	5	12.550	-0.001	171561	2.4
	Total Col1Ave (5 peaks):			1.2		Total Col2Ave (5 peaks):			2.2	RPD = 63*
	Corrected Ave (4 peaks):			0.8		Corrected Ave (4 peaks):			0.9	RPD = 13
Aroclor-1268	1	11.367	-0.010	197288	0.5	1	11.659	-0.048	639708	3.0
Aroclor-1268	2	11.452	0.003	35647	0.1	2	11.785	0.016	412853	2.3
Aroclor-1268	3	11.839	0.003	304911	0.9	3	12.159	-0.014	111302	0.7

Aroclor-1268	4	12.607	-0.021	1672247	1.6	4	12.987	-0.005	39104	0.1

Total Col1Ave (4 peaks): 0.8 Total Col2Ave (4 peaks): 1.5 RPD = 66*

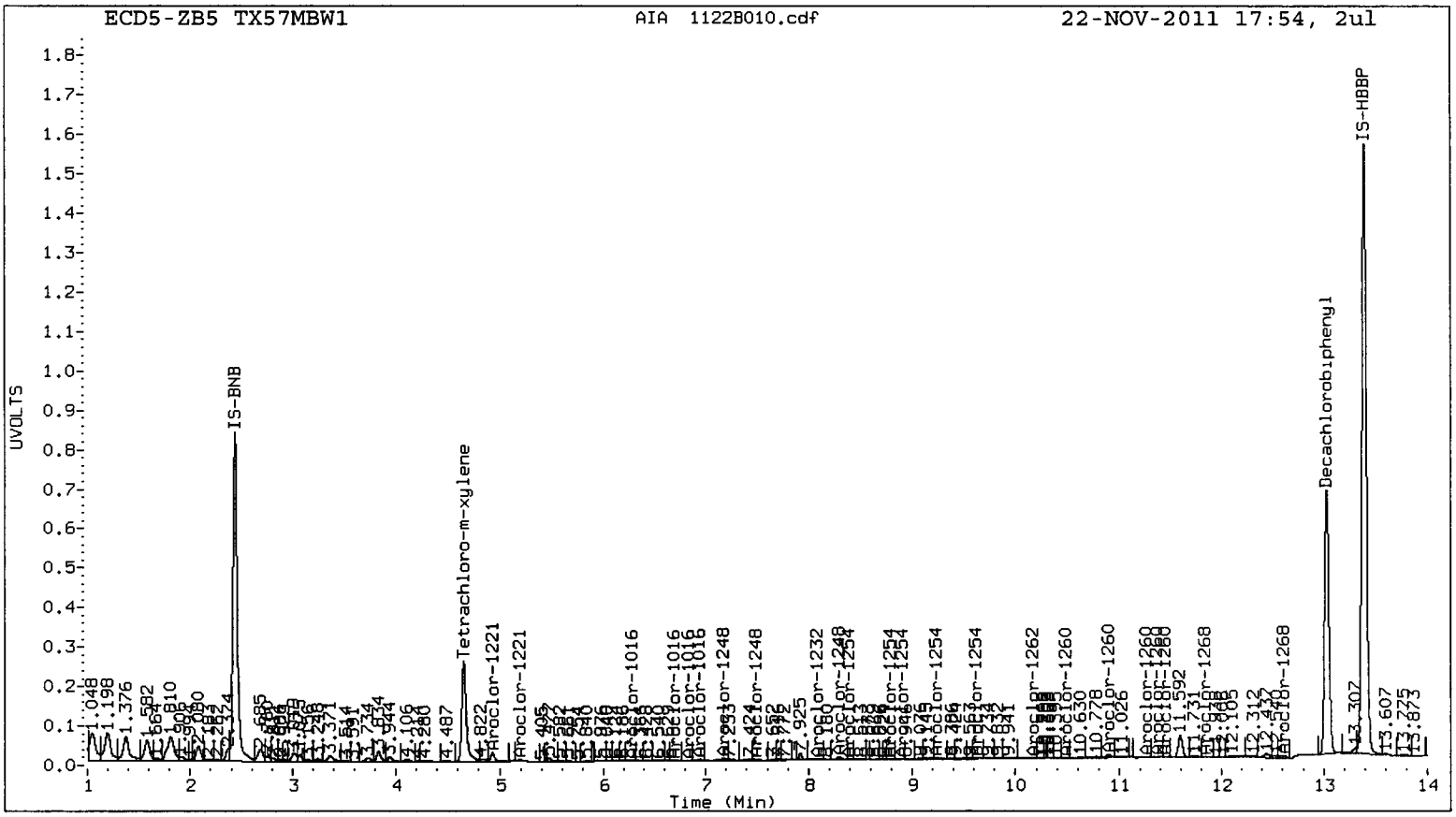
Corrected Ave (3 peaks): 0.5 Corrected Ave (3 peaks): 1.0 RPD = 73*

Total PCB Area Col1 (4.754 - 12.935) = 33585203 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.756 - 13.310) = 14054528 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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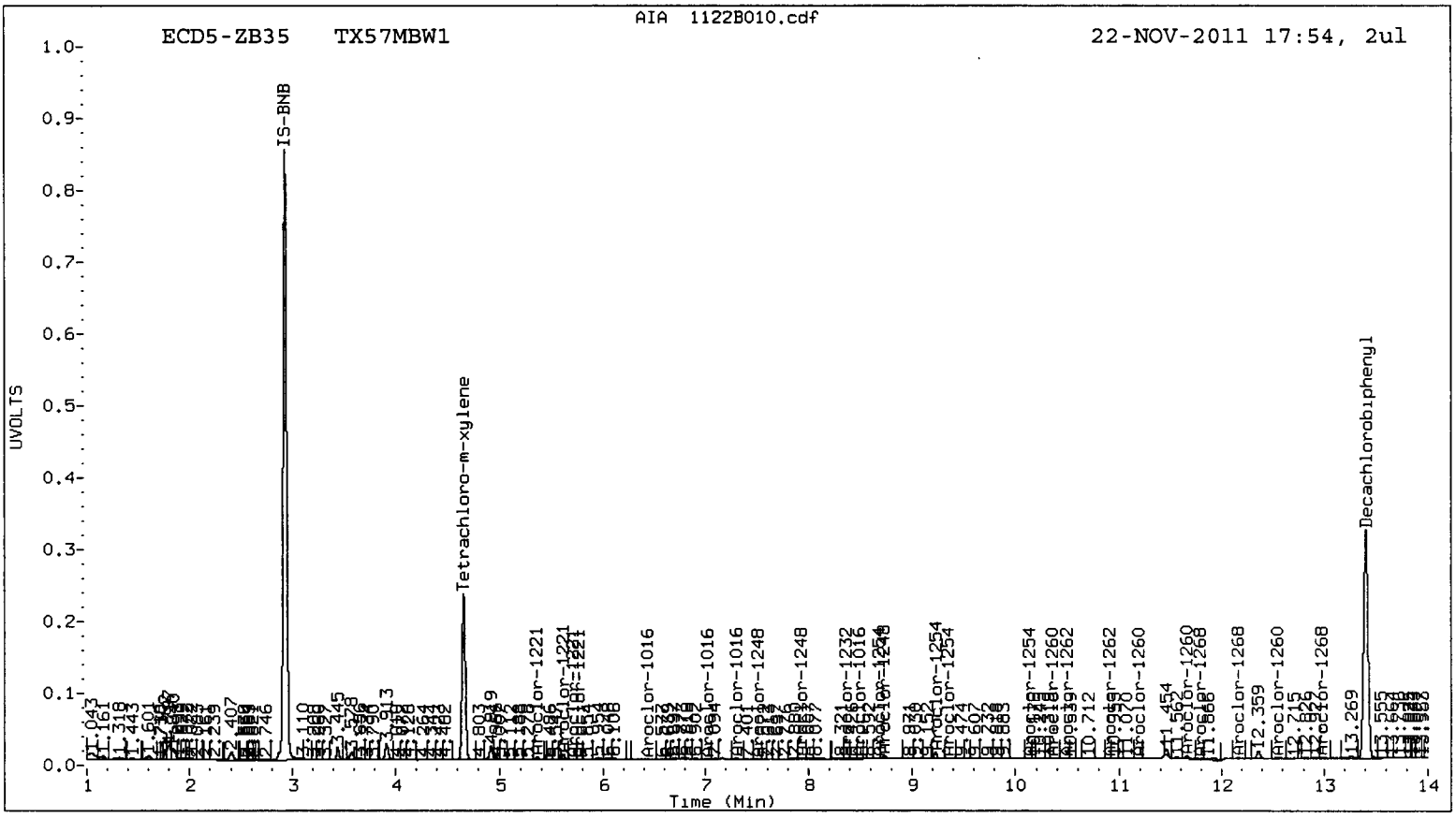
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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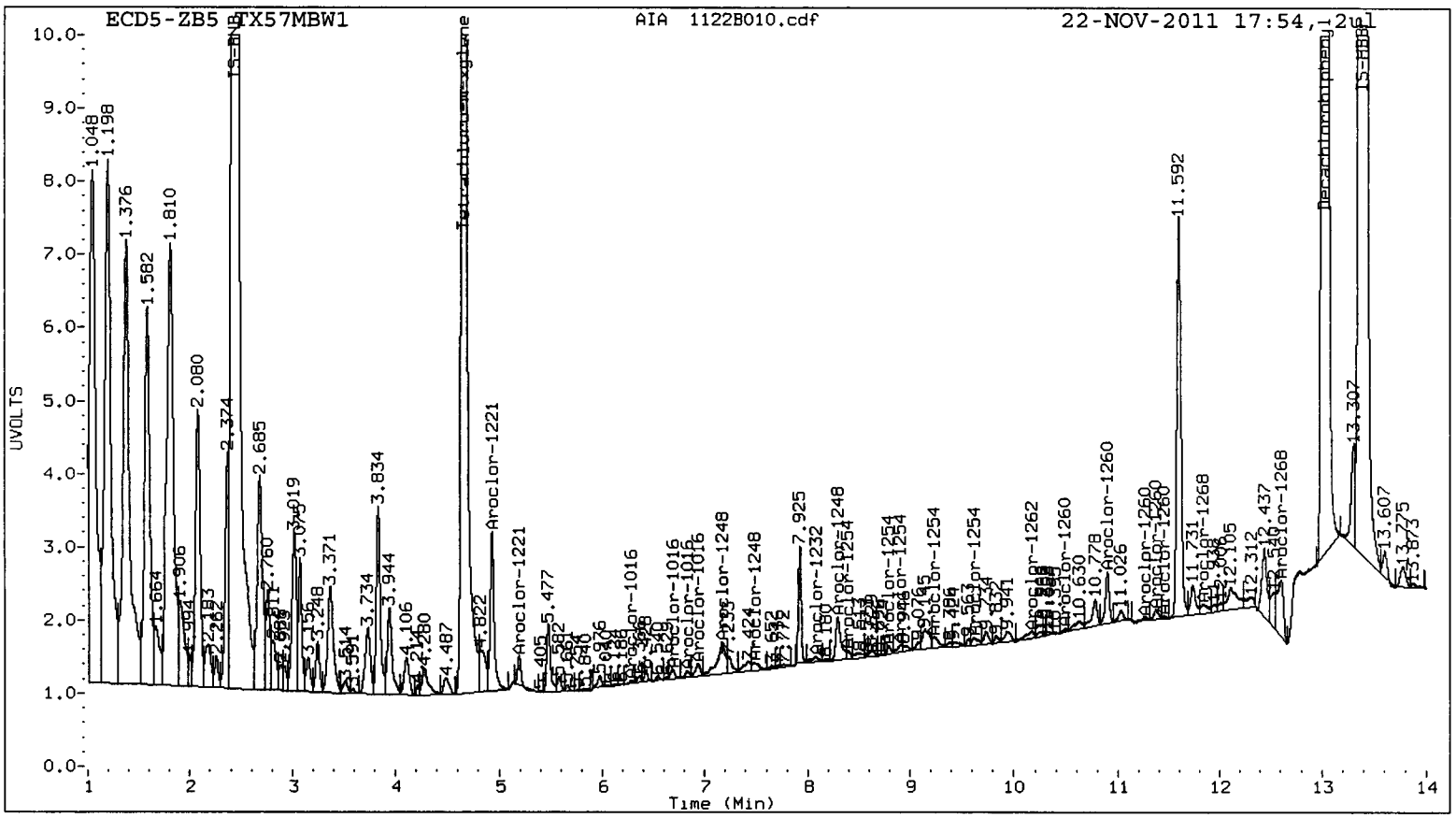
Decachlorobiphenyl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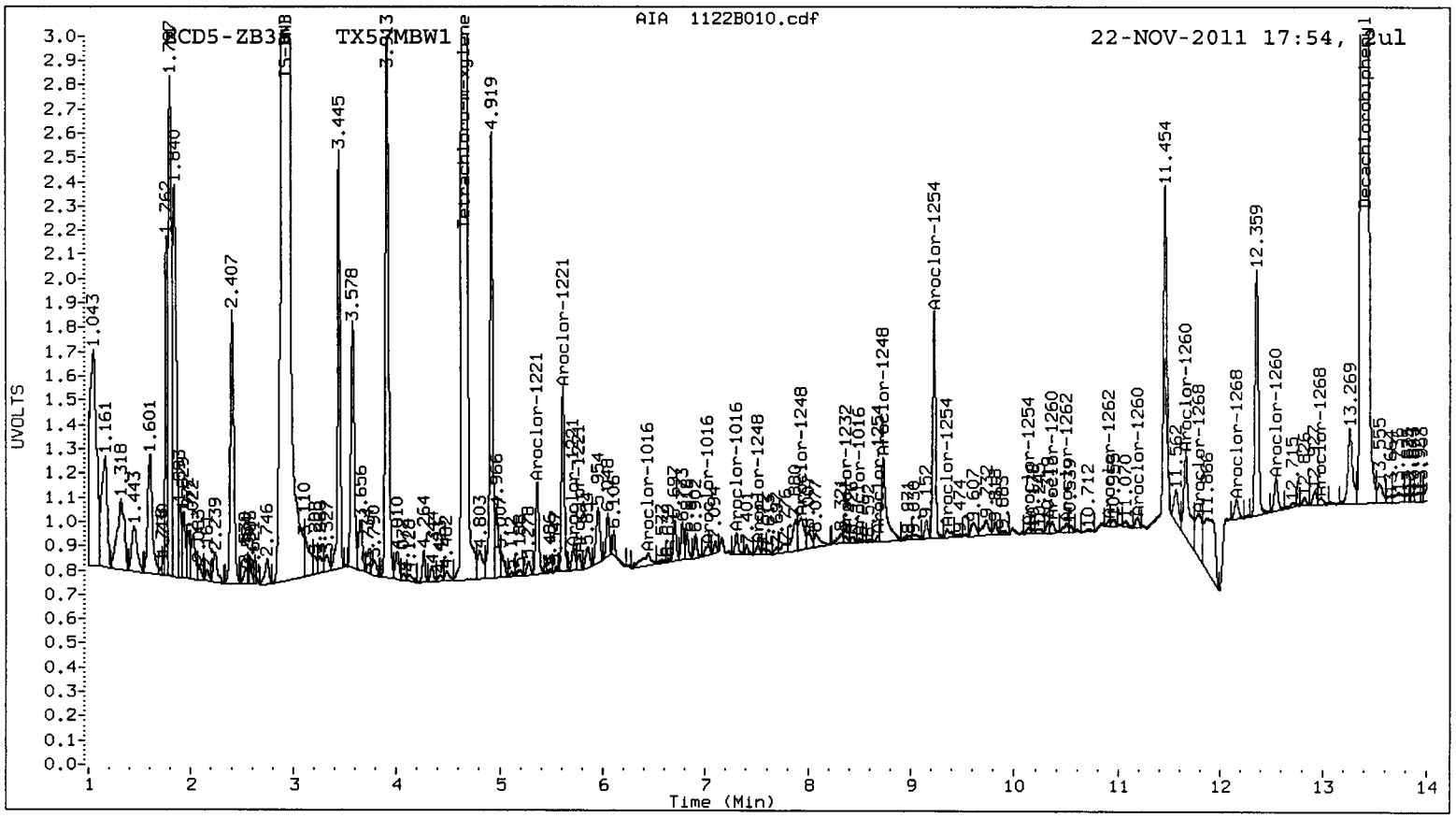
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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UVOLTS
Time (Min)
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Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/1122-1.b/1122B011.d
Data file 2: 20110930.B/1122-2.b/1122B011.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57LCSW1
Client ID: TX57LCSW1
Injection Date: 22-NOV-2011 18:13
Ical Date: 30-SEP-2011
Matrix: WATER
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.656	0.002	39495893	4.659	0.003	25967883	18.8	17.6	6.7	Tetrachloro-m-xylene
13.034	-0.001	100198091	13.408	-0.002	43726704	26.2	28.6	8.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	47.1	44.0
Decachlorobiphenyl	65.4	71.5

11/29/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	121965627	2.2
Hexabromobiphenyl	247758184	241049306	-2.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	97768887	7.1
Hexabromobiphenyl	103671329	110155315	6.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	6.284	0.000	3983201	70.6	1	6.391	0.000	3682795	63.2
Aroclor-1016	2	6.683	-0.001	14093336	71.9	2	7.016	-0.001	8703455	66.8
Aroclor-1016	3	6.831	-0.001	5836088	74.0	3	7.223	-0.001	2946032	58.9
Aroclor-1016	4	6.941	-0.001	4547067	81.1	4	8.507	-0.002	1947749	70.7
	Total Col1Ave (4 peaks):				74.4		Total Col2Ave (4 peaks):			64.9 RPD = 14
	Corrected Ave (3 peaks):				72.2		Corrected Ave (3 peaks):			63.0 RPD = 14
Aroclor-1221	1	5.023	0.003	495013	24.1	1	5.357	-0.001	626296	37.3
Aroclor-1221	2	5.198	-0.001	817248	56.4	2	5.590	0.003	408625	42.5
Aroclor-1221	3	5.309	0.006	2238961	45.7	3	5.700	0.002	1555185	49.5
Aroclor-1221	NS	---			----	4	5.767	0.004	103244	19.7
	Total Col1Ave (3 peaks):				42.1		Total Col2Ave (4 peaks):			37.3 RPD = 12
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			33.2
Aroclor-1232	1	6.284	0.003	3983201	167.7	1	6.391	0.001	3682795	137.3
Aroclor-1232	2	6.683	0.004	14093336	178.4	2	7.016	0.004	8703455	156.7
Aroclor-1232	3	6.831	0.003	5836088	182.4	3	7.223	0.000	2946032	152.6
Aroclor-1232	4	8.022	0.002	967194	28.7	4	8.365	-0.001	552174	25.7
	Total Col1Ave (4 peaks):				139.3		Total Col2Ave (4 peaks):			118.1 RPD = 16
	Corrected Ave (3 peaks):				124.9		Corrected Ave (3 peaks):			105.2 RPD = 17
Aroclor-1242	1	6.284	-0.001	3983201	91.7	1	6.391	-0.001	3682795	80.8
Aroclor-1242	2	6.683	-0.001	14093336	98.7	2	7.016	-0.001	8703455	84.7
Aroclor-1242	3	6.831	-0.002	5836088	100.8	3	7.223	-0.002	2946032	72.8
Aroclor-1242	4	8.022	-0.003	967194	16.9	4	8.365	-0.003	552174	15.0
	Total Col1Ave (4 peaks):				77.0		Total Col2Ave (4 peaks):			63.3 RPD = 20
	Corrected Ave (3 peaks):				69.1		Corrected Ave (3 peaks):			56.2 RPD = 21
Aroclor-1248	1	7.179	-0.002	4866496	75.2	1	7.503	-0.002	2403857	51.5
Aroclor-1248	2	7.477	-0.003	4486042	61.2	2	7.915	-0.003	3436192	63.5
Aroclor-1248	3	8.022	-0.002	967194	10.5	3	8.365	-0.003	552174	9.2
Aroclor-1248	4	8.317	0.003	982344	10.7	4	8.787	-0.004	256830	3.9
	Total Col1Ave (4 peaks):				39.4		Total Col2Ave (4 peaks):			32.0 RPD = 21
	Corrected Ave (3 peaks):				27.5		Corrected Ave (3 peaks):			21.5 RPD = 24
Aroclor-1254	1	8.398	-0.001	5252015	35.6	1	8.507	-0.002	1947749	37.0
Aroclor-1254	2	8.768	-0.002	1149906	11.3	2	8.678	-0.002	2352200	34.3
Aroclor-1254	3	8.901	-0.005	5482634	30.0	3	9.224	0.021	1183219	21.5
Aroclor-1254	4	9.234	-0.021	14449901	69.5	4	9.352	-0.002	1379250	11.7
Aroclor-1254	5	9.562	-0.055	22127350	161.1	5	10.145	0.009	2765520	37.7
	Total Col1Ave (5 peaks):				61.5		Total Col2Ave (5 peaks):			28.4 RPD = 74*
	Corrected Ave (4 peaks):				36.6		Corrected Ave (4 peaks):			26.1 RPD = 33
Aroclor-1260	1	10.486	-0.002	12437269	95.4	1	10.365	-0.003	8122526	82.2
Aroclor-1260	2	10.860	-0.002	33232569	100.3	2	11.184	-0.003	14401447	94.2
Aroclor-1260	3	11.260	-0.002	19235594	101.0	3	11.707	-0.002	4581584	98.0
Aroclor-1260	4	11.377	-0.002	8088586	99.2	4	12.506	-0.002	4077671	91.9
Aroclor-1260	5	11.451	-0.001	9425591	98.4	NS	---			----
	Total Col1Ave (5 peaks):				98.9		Total Col2Ave (4 peaks):			91.6 RPD = 8
	Corrected Ave (4 peaks):				98.3		Corrected Ave (3 peaks):			89.4 RPD = 9
Aroclor-1262	1	10.170	0.001	11902280	61.3	1	10.462	-0.002	5055429	50.9
Aroclor-1262	2	10.486	0.001	12437269	79.1	2	10.913	0.002	6668369	70.3
Aroclor-1262	3	10.860	0.000	33232569	87.2	3	11.184	-0.001	14401447	77.8
Aroclor-1262	4	11.377	0.000	8088586	46.3	4	11.707	0.000	4581584	52.1
Aroclor-1262	5	11.451	0.001	9425591	51.1	5	12.506	-0.045	4077671	56.3
	Total Col1Ave (5 peaks):				65.0		Total Col2Ave (5 peaks):			61.5 RPD = 6
	Corrected Ave (4 peaks):				59.5		Corrected Ave (4 peaks):			57.4 RPD = 4
Aroclor-1268	1	11.377	0.000	8088586	19.1	1	11.707	0.000	4581584	21.1
Aroclor-1268	2	11.451	0.002	9425591	23.0	2	11.767	-0.003	10196518	54.4

Aroclor-1268	3	11.851	0.015	4686162	12.9	3	12.171	-0.003	298288	1.9
Aroclor-1268	4	12.624	-0.003	2956675	2.8	4	12.993	0.001	1169127	2.4

Total Col1Ave (4 peaks): 14.5 Total Col2Ave (4 peaks): 19.9 RPD = 32

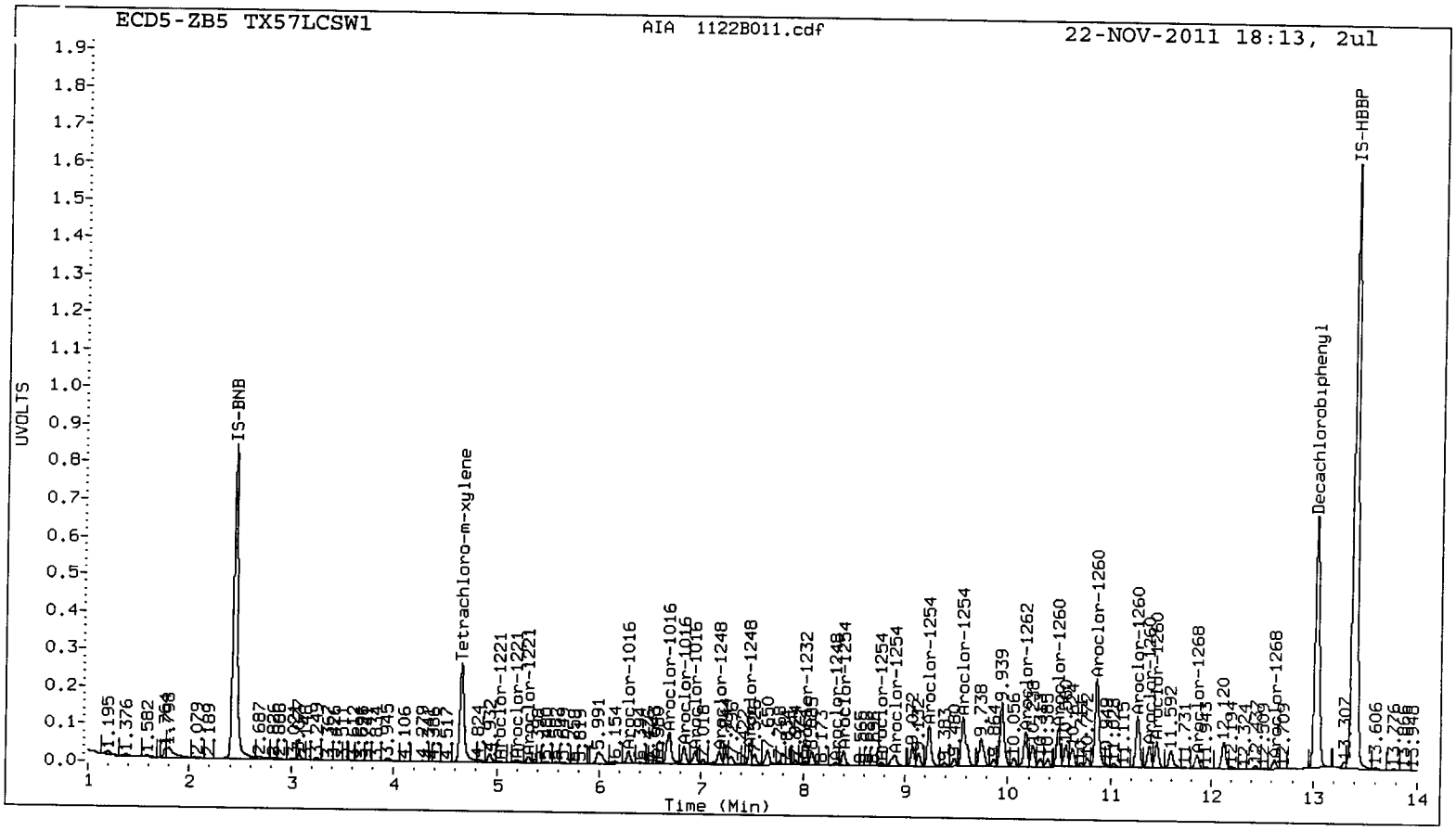
Corrected Ave (3 peaks): 11.6 Corrected Ave (3 peaks): 8.5 RPD = 31

Total PCB Area Col1 (4.754 - 12.935) = 340568841 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.756 - 13.310) = 158279370 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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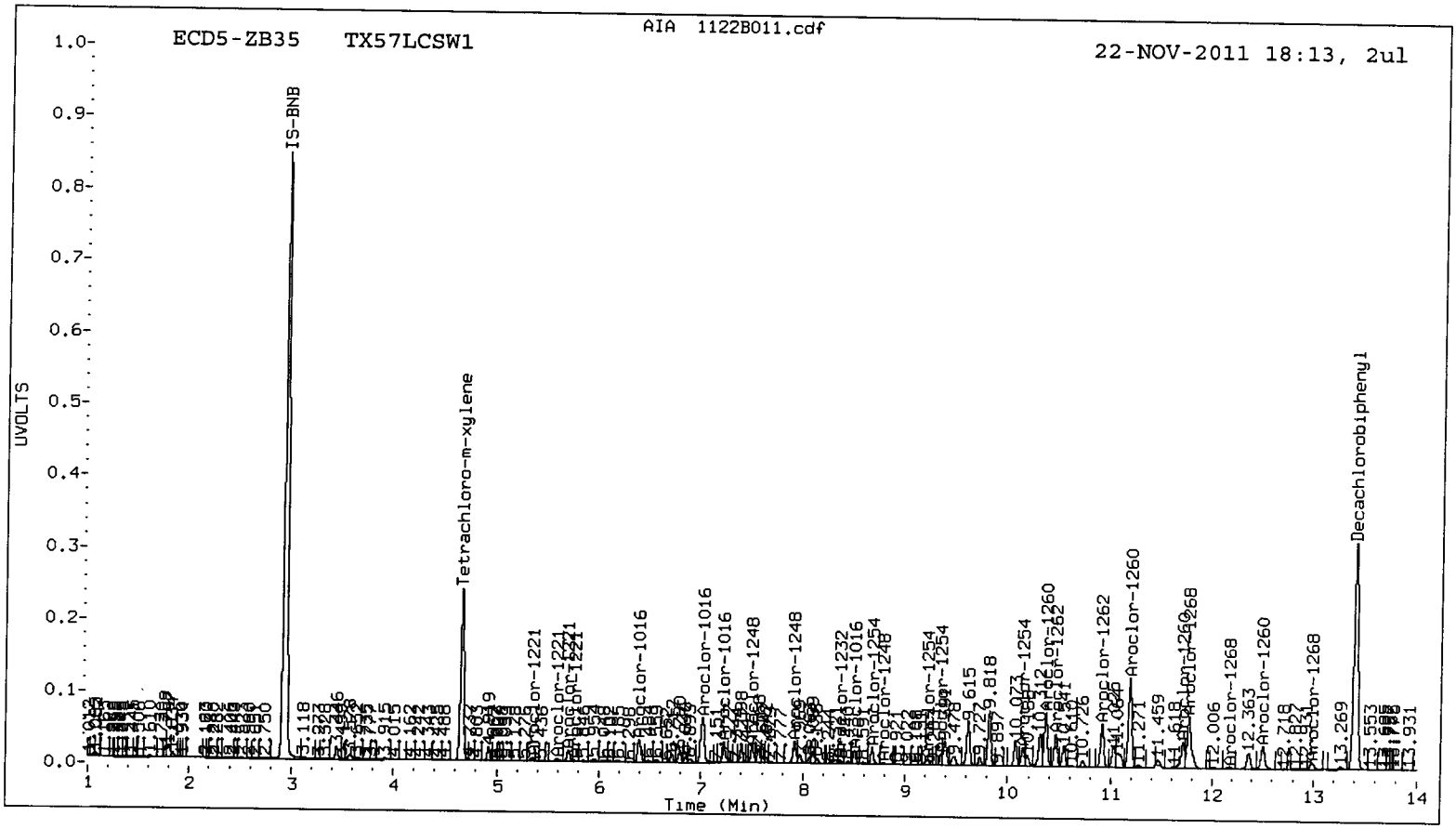
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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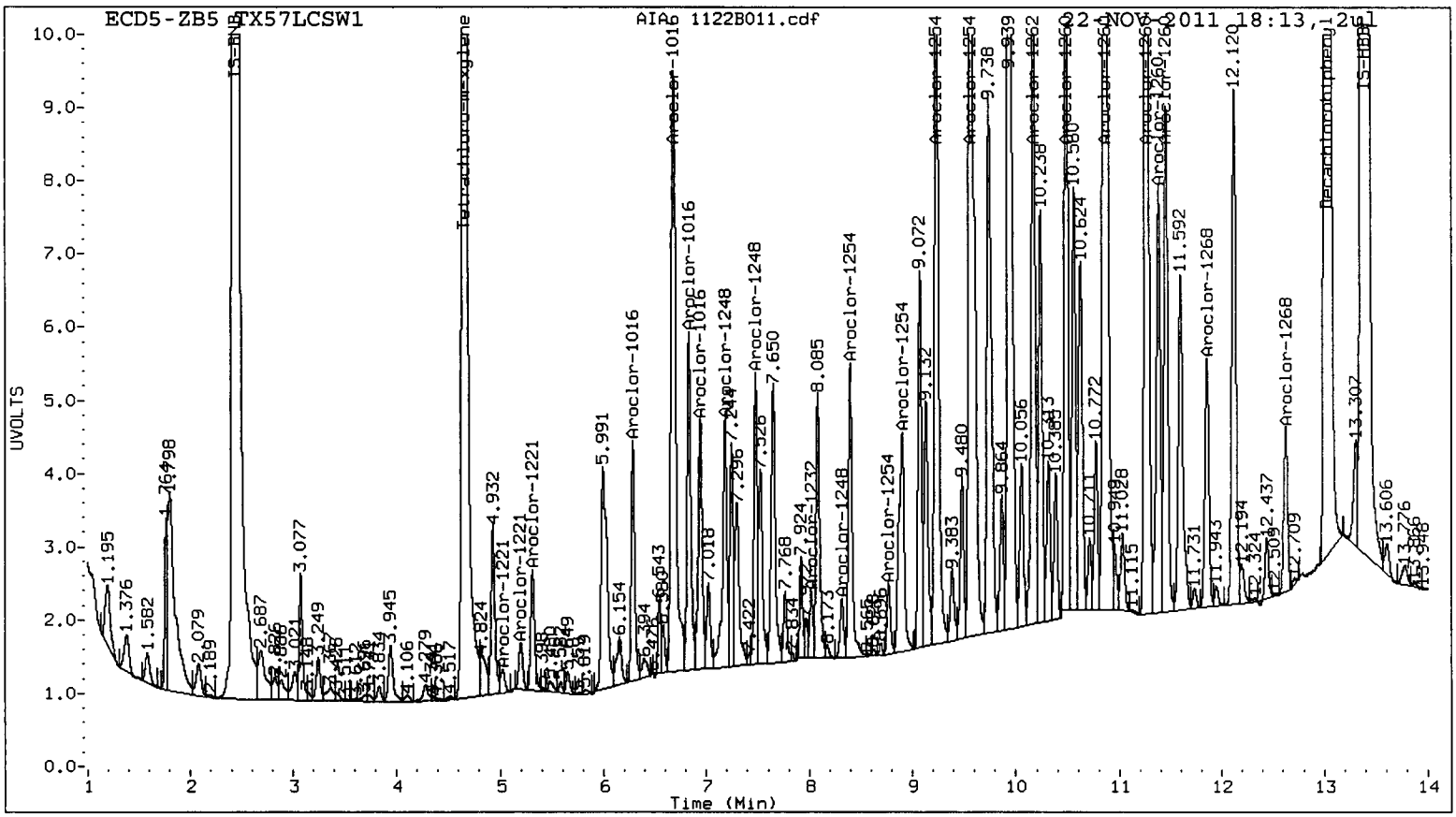
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
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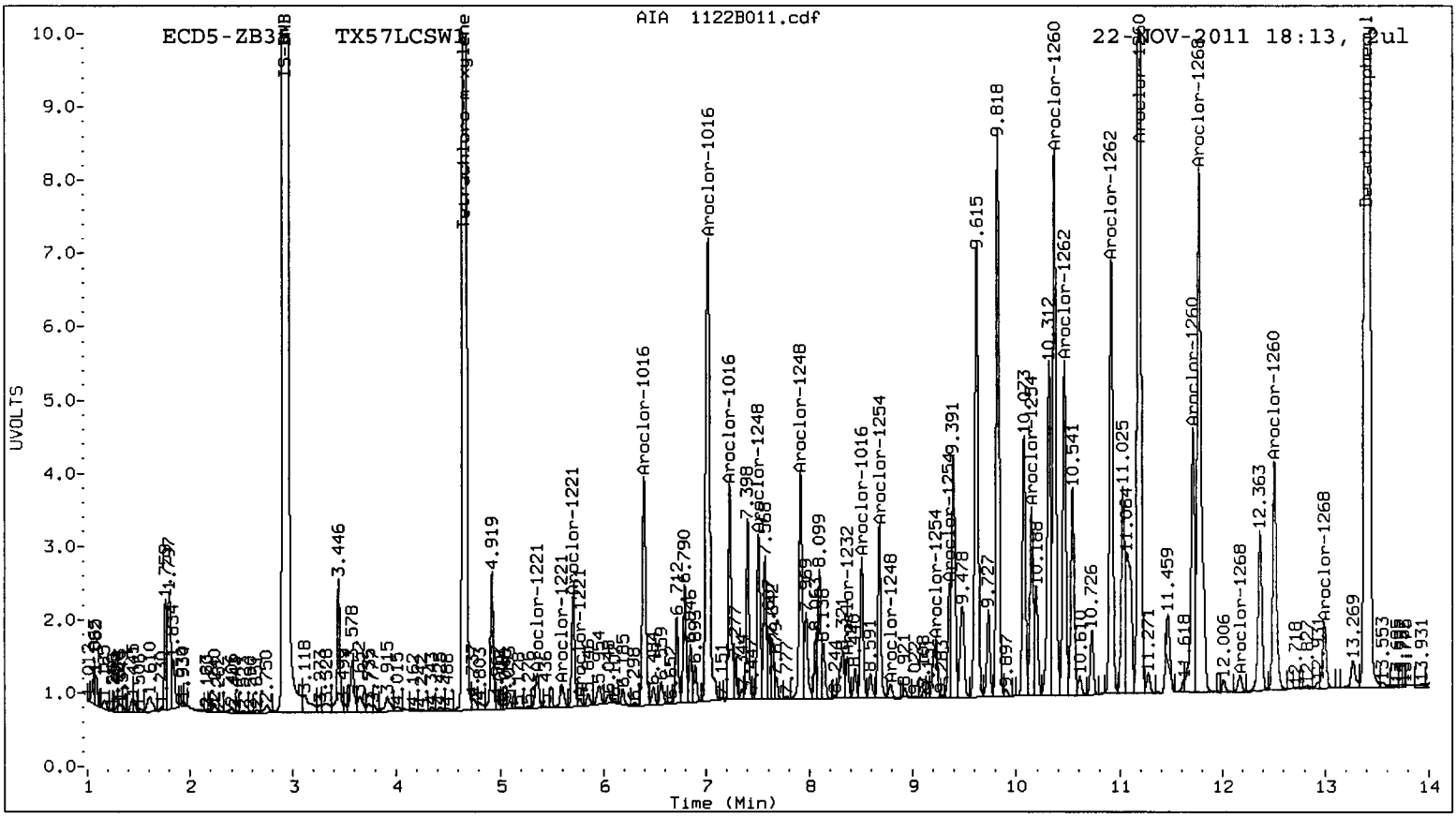
Aroclor-1221
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB


ECD5-ZB3 TX57LCSW1
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22-NOV-2011 18:13,2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/1122-1.b/1122B012.d
Data file 2: 20110930.B/1122-2.b/1122B012.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57LCSDW1
Client ID: TX57LCSDW1
Injection Date: 22-NOV-2011 18:32
Ical Date: 30-SEP-2011
Matrix: WATER
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.656	0.002	37916569	4.658	0.003	24909824	18.0	17.0	6.1	Tetrachloro-m-xylene
13.034	-0.001	100098299	13.409	-0.001	42998578	26.1	28.1	7.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	45.1	42.4
Decachlorobiphenyl	65.3	70.4

11/29/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	122166115	2.4
Hexabromobiphenyl	247758184	241044088	-2.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	97227504	6.5
Hexabromobiphenyl	103671329	110063564	6.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	6.285	0.000	3985817	70.5	1	6.391	0.001	3682600	63.6
Aroclor-1016	2	6.683	-0.001	14136951	72.1	2	7.015	-0.002	8657853	66.8
Aroclor-1016	3	6.831	0.000	5771310	73.1	3	7.224	0.000	2967924	59.7
Aroclor-1016	4	6.941	-0.001	4521938	80.5	4	8.507	-0.002	1936389	70.6
Total Col1Ave (4 peaks):		74.0				Total Col2Ave (4 peaks):		65.2	RPD = 13	
Corrected Ave (3 peaks):		71.9				Corrected Ave (3 peaks):		63.4	RPD = 13	
Aroclor-1221	1	5.024	0.005	519025	25.2	1	5.356	-0.002	637556	38.2
Aroclor-1221	2	5.200	0.001	878834	60.5	2	5.589	0.002	352782	36.9
Aroclor-1221	3	5.309	0.006	2296411	46.8	3	5.703	0.005	1981378	63.5
Aroclor-1221	NS	---			----	4	5.764	0.001	78349	15.0
Total Col1Ave (3 peaks):		44.2				Total Col2Ave (4 peaks):		38.4	RPD = 14	
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):		30.0		
Aroclor-1232	1	6.285	0.004	3985817	167.5	1	6.391	0.002	3682600	138.1
Aroclor-1232	2	6.683	0.004	14136951	178.7	2	7.015	0.003	8657853	156.8
Aroclor-1232	3	6.831	0.003	5771310	180.1	3	7.224	0.001	2967924	154.5
Aroclor-1232	4	8.022	0.002	982039	29.1	4	8.366	0.000	537510	25.1
Total Col1Ave (4 peaks):		138.8				Total Col2Ave (4 peaks):		118.6	RPD = 16	
Corrected Ave (3 peaks):		125.1				Corrected Ave (3 peaks):		105.9	RPD = 17	
Aroclor-1242	1	6.285	0.000	3985817	91.6	1	6.391	0.000	3682600	81.2
Aroclor-1242	2	6.683	-0.001	14136951	98.9	2	7.015	-0.001	8657853	84.7
Aroclor-1242	3	6.831	-0.001	5771310	99.6	3	7.224	-0.001	2967924	73.7
Aroclor-1242	4	8.022	-0.003	982039	17.1	4	8.366	-0.002	537510	14.7
Total Col1Ave (4 peaks):		76.8				Total Col2Ave (4 peaks):		63.6	RPD = 19	
Corrected Ave (3 peaks):		69.2				Corrected Ave (3 peaks):		56.6	RPD = 20	
Aroclor-1248	1	7.180	-0.002	4699376	72.5	1	7.504	-0.001	2417919	52.1
Aroclor-1248	2	7.478	-0.002	4503934	61.3	2	7.916	-0.002	3425678	63.7
Aroclor-1248	3	8.022	-0.002	982039	10.6	3	8.366	-0.002	537510	9.0
Aroclor-1248	4	8.317	0.003	940942	10.2	4	8.788	-0.003	244333	3.8
Total Col1Ave (4 peaks):		38.7				Total Col2Ave (4 peaks):		32.1	RPD = 18	
Corrected Ave (3 peaks):		27.4				Corrected Ave (3 peaks):		21.6	RPD = 24	
Aroclor-1254	1	8.397	-0.001	5233543	35.4	1	8.507	-0.002	1936389	37.0
Aroclor-1254	2	8.768	-0.001	1117386	11.0	2	8.678	-0.003	2306741	33.8
Aroclor-1254	3	8.901	-0.004	5380217	29.4	3	9.206	0.002	501642	9.1
Aroclor-1254	4	9.234	-0.021	14285065	68.5	4	9.353	-0.001	1308866	11.1
Aroclor-1254	5	9.562	-0.055	21844400	158.8	5	10.145	0.009	2730736	37.4
Total Col1Ave (5 peaks):		60.6				Total Col2Ave (5 peaks):		25.7	RPD = 81*	
Corrected Ave (4 peaks):		36.1				Corrected Ave (4 peaks):		22.8	RPD = 45*	
Aroclor-1260	1	10.486	-0.003	12326962	94.6	1	10.366	-0.003	7988327	80.9
Aroclor-1260	2	10.860	-0.003	32674956	98.6	2	11.184	-0.002	14164048	92.7
Aroclor-1260	3	11.260	-0.002	18934798	99.4	3	11.707	-0.002	4341167	92.9
Aroclor-1260	4	11.377	-0.002	8095661	99.3	4	12.505	-0.002	4009620	90.4
Aroclor-1260	5	11.450	-0.003	9484456	99.0	NS	---			----
Total Col1Ave (5 peaks):		98.2				Total Col2Ave (4 peaks):		89.2	RPD = 10	
Corrected Ave (4 peaks):		97.9				Corrected Ave (3 peaks):		88.0	RPD = 11	
Aroclor-1262	1	10.169	0.001	11789670	60.8	1	10.462	-0.002	5008598	50.4
Aroclor-1262	2	10.486	0.001	12326962	78.4	2	10.914	0.003	6590270	69.5
Aroclor-1262	3	10.860	0.000	32674956	85.7	3	11.184	-0.001	14164048	76.6
Aroclor-1262	4	11.377	0.000	8095661	46.3	4	11.707	0.000	4341167	49.4
Aroclor-1262	5	11.450	0.000	9484456	51.4	5	12.505	-0.045	4009620	55.4
Total Col1Ave (5 peaks):		64.5				Total Col2Ave (5 peaks):		60.3	RPD = 7	
Corrected Ave (4 peaks):		59.2				Corrected Ave (4 peaks):		56.2	RPD = 5	
Aroclor-1268	1	11.377	-0.001	8095661	19.1	1	11.707	0.000	4341167	20.0
Aroclor-1268	2	11.450	0.000	9484456	23.2	2	11.767	-0.002	10038666	53.6

Aroclor-1268	3	11.851	0.015	4905703	13.5	3	12.171	-0.003	295382	1.9
Aroclor-1268	4	12.624	-0.003	3073898	2.9	4	12.993	0.001	1151648	2.4

Total Col1Ave (4 peaks): 14.7 Total Col2Ave (4 peaks): 19.5 RPD = 28

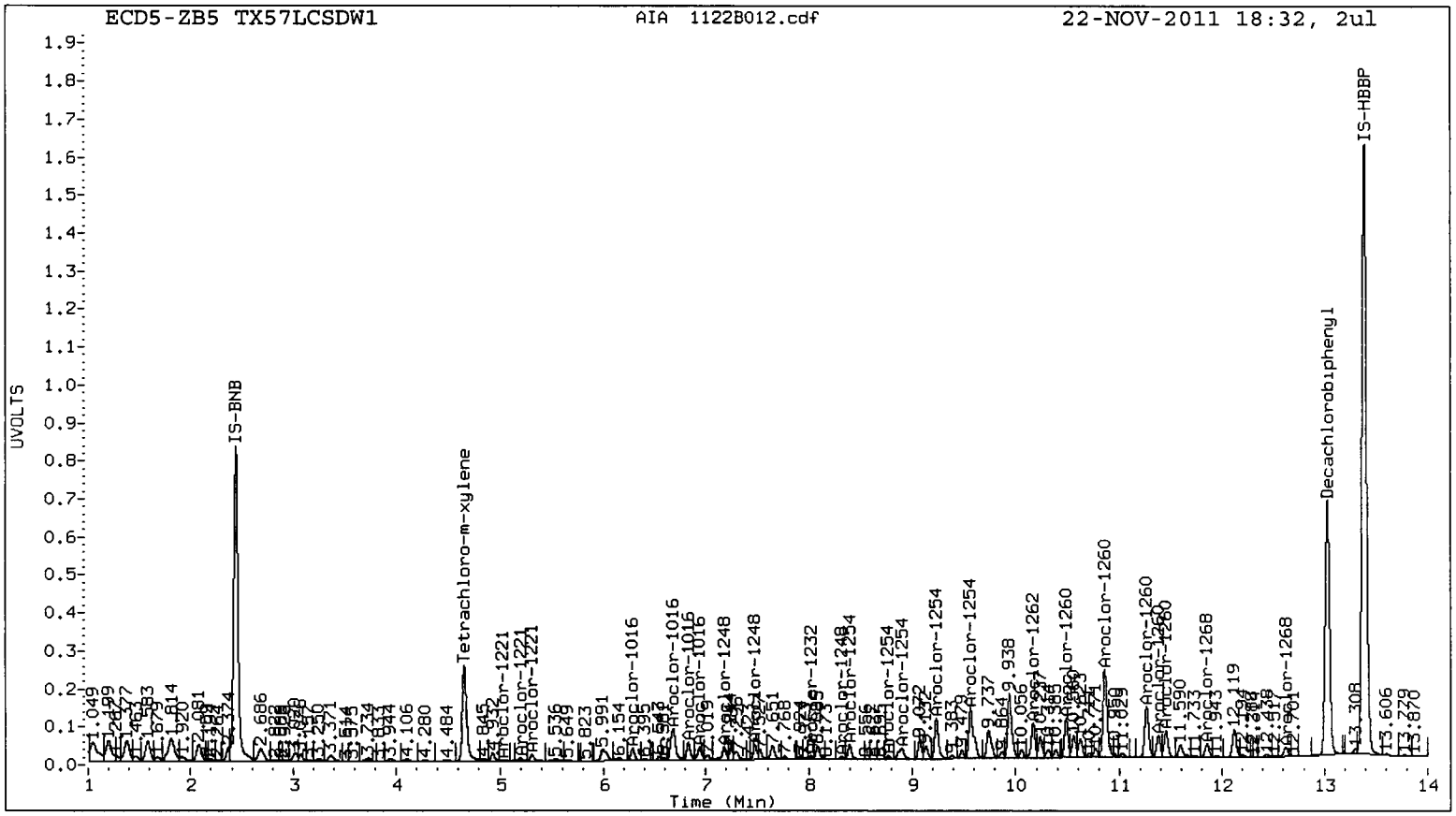
Corrected Ave (3 peaks): 11.8 Corrected Ave (3 peaks): 8.1 RPD = 38

Total PCB Area Col1 (4.754 - 12.935) = 337030373 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.756 - 13.310) = 156596672 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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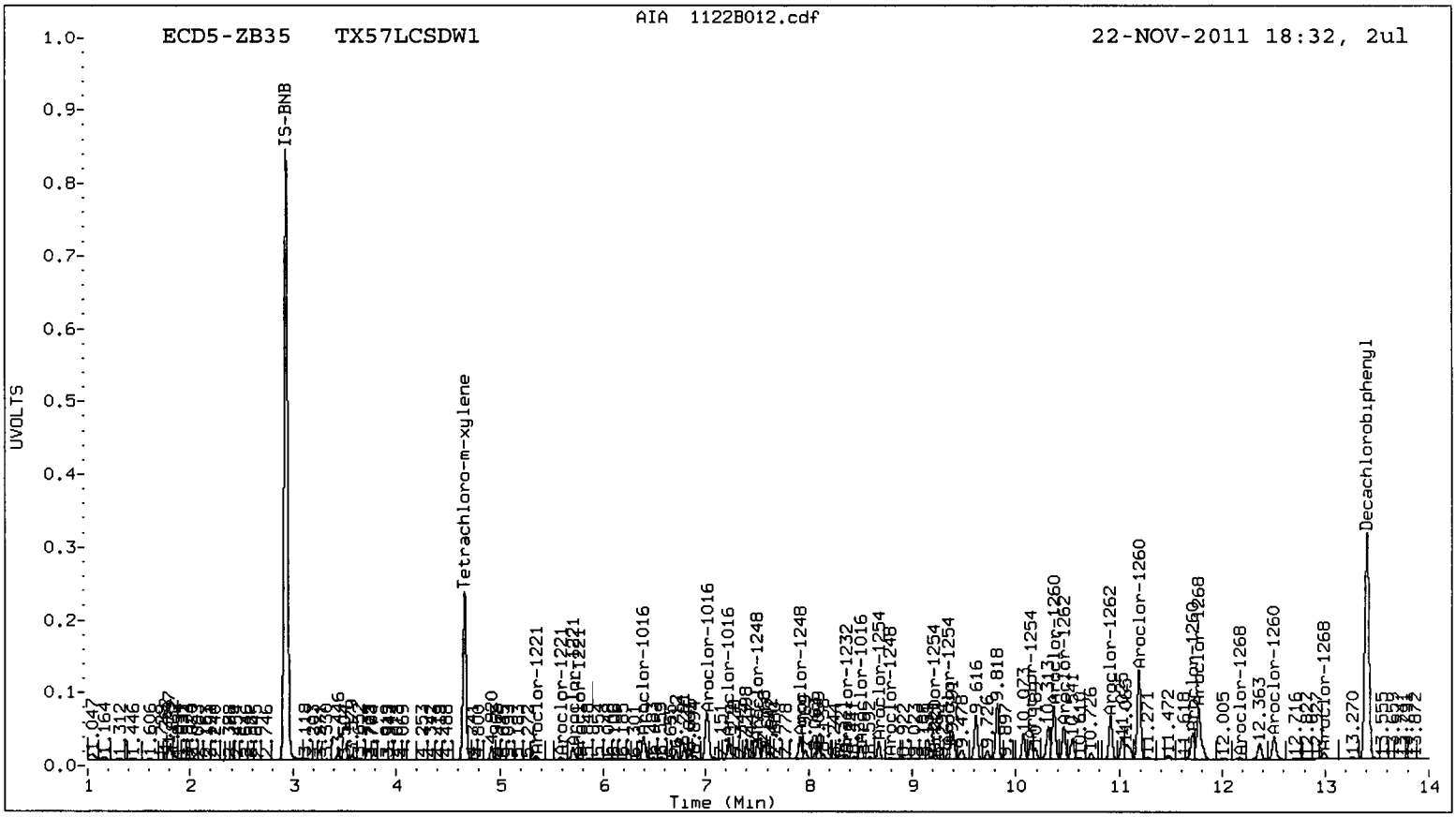
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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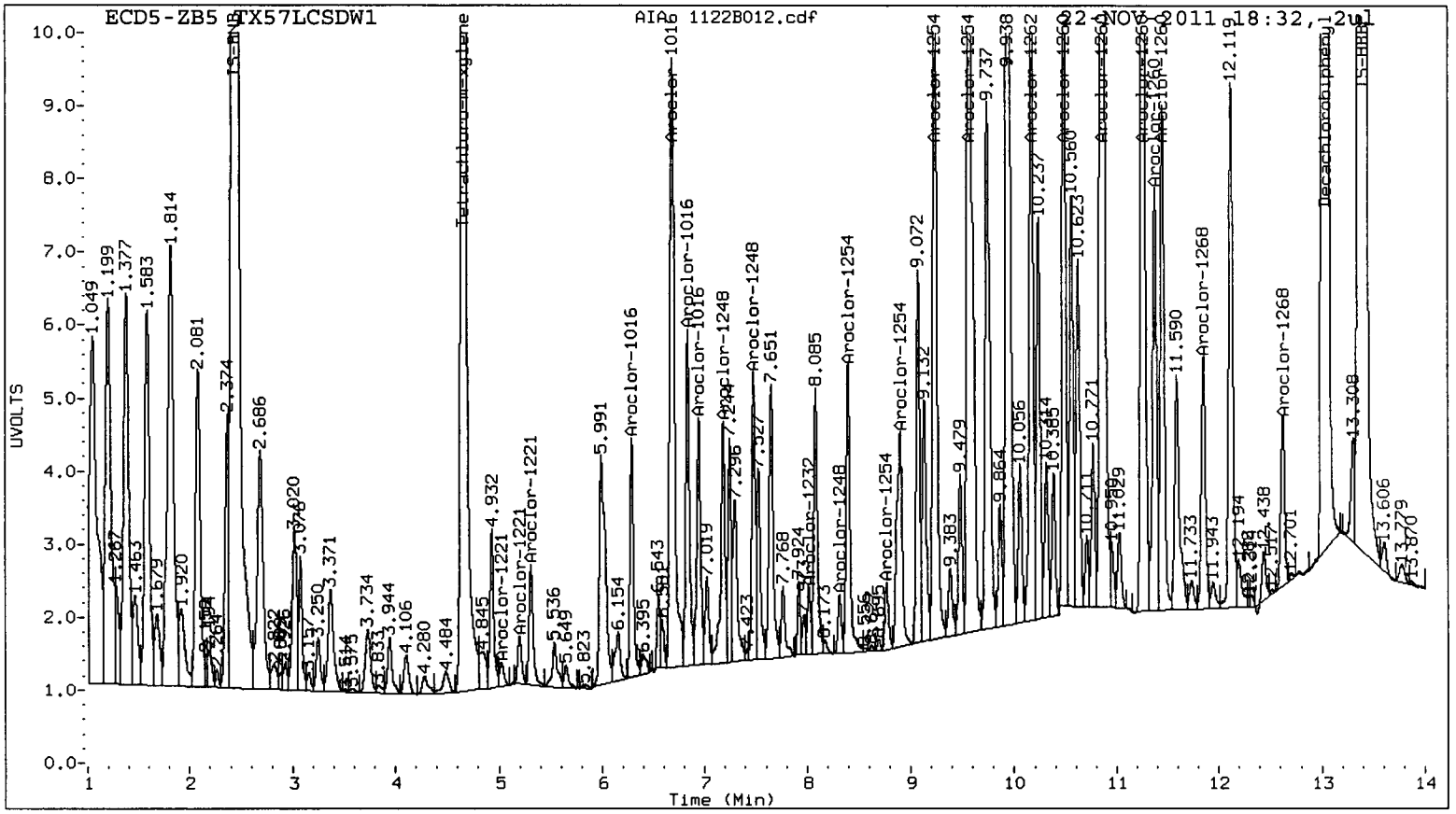
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
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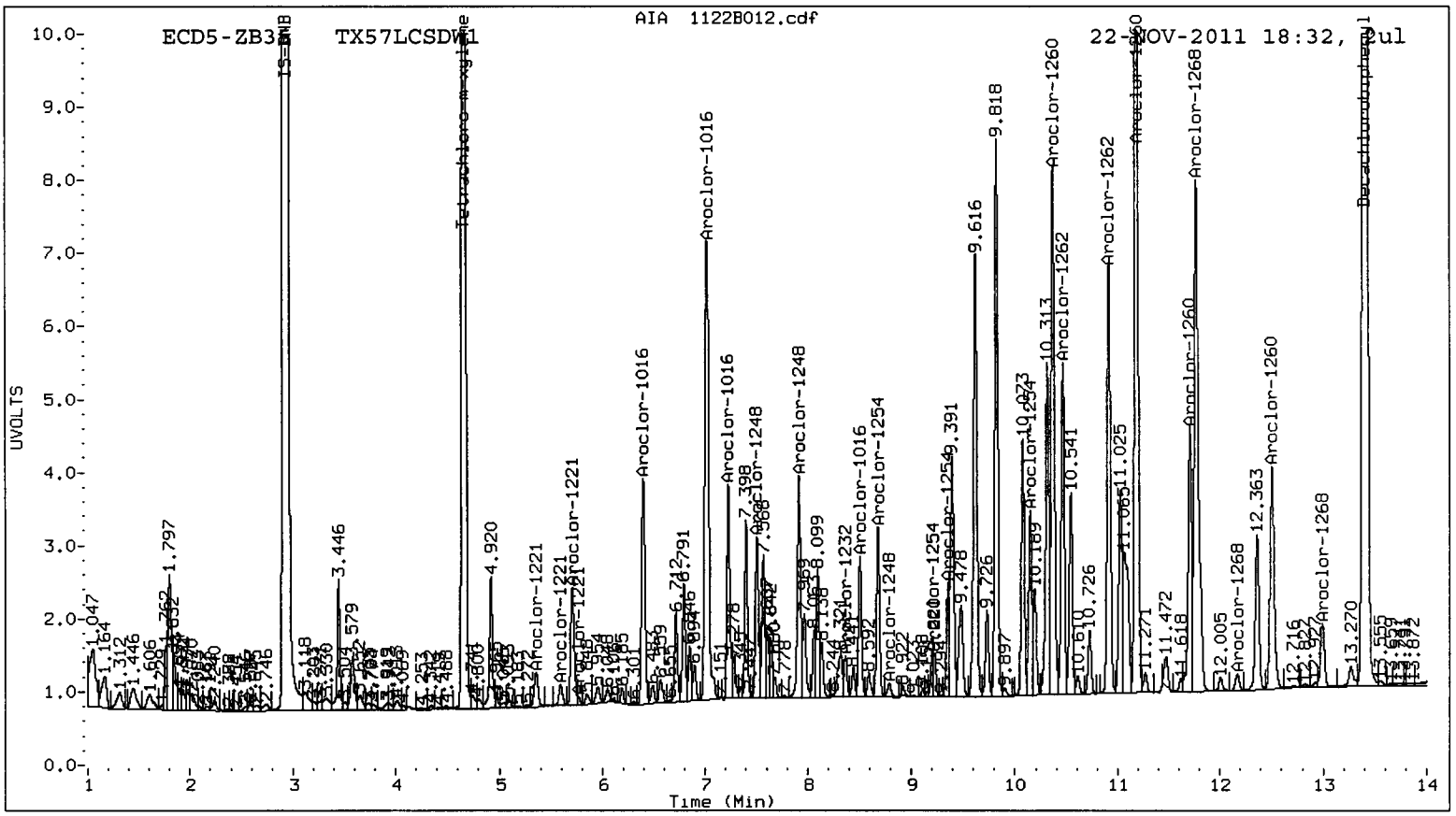
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HHB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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HHB

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/1122-1.b/1122B013.d
Data file 2: 20110930.B/1122-2.b/1122B013.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57P
Client ID:
Injection Date: 22-NOV-2011 18:51
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.655	0.001	49285137	4.656	0.001	32858145	21.7	21.6	0.3	Tetrachloro-m-xylene
13.034	-0.001	86235074	13.408	-0.002	36806649	22.1	23.6	6.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	54.2	54.0
Decachlorobiphenyl	55.2	58.9

11/29/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	132111813	10.7
Hexabromobiphenyl	247758184	245816534	-0.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	100683579	10.3
Hexabromobiphenyl	103671329	112471055	8.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.258	-0.026	151926	2.5	1	6.383	-0.008	150995	2.5
Aroclor-1016	2	6.690	0.005	404882	1.9	2	7.049	0.033	188749	1.4
Aroclor-1016	3	6.882	0.051	603497	7.1	3	7.303	0.079	261815	5.1
Aroclor-1016	4	6.940	-0.002	572111	9.4	4	8.494	-0.015	77573	2.7
	Total Col1Ave (4 peaks):				5.2	Total Col2Ave (4 peaks):				2.9 RPD = 56*
	Corrected Ave (3 peaks):				3.8	Corrected Ave (3 peaks):				2.2 RPD = 53*
Aroclor-1221	1	4.932	-0.088	3853972	173.3	1	5.360	0.002	465389	26.9
Aroclor-1221	2	5.189	-0.010	905582	57.7	2	5.613	0.026	14451736	1459.1
Aroclor-1221	3	5.320	0.017	25850	0.5	3	5.718	0.019	341719	10.6
Aroclor-1221	NS	---			----	4	5.772	0.009	1063511	196.9
	Total Col1Ave (3 peaks):				77.2	Total Col2Ave (4 peaks):				423.4 RPD = 138*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				78.1
Aroclor-1232	1	6.258	-0.023	151926	5.9	1	6.383	-0.007	150995	5.5
Aroclor-1232	2	6.690	0.010	404882	4.7	2	7.049	0.038	188749	3.3
Aroclor-1232	3	6.882	0.054	603497	17.4	3	7.303	0.080	261815	13.2
Aroclor-1232	4	7.979	-0.041	113716	3.1	4	8.326	-0.040	37287	1.7
	Total Col1Ave (4 peaks):				7.8	Total Col2Ave (4 peaks):				5.9 RPD = 28
	Corrected Ave (3 peaks):				4.6	Corrected Ave (3 peaks):				3.5 RPD = 27
Aroclor-1242	1	6.258	-0.027	151926	3.2	1	6.383	-0.009	150995	3.2
Aroclor-1242	2	6.690	0.005	404882	2.6	2	7.049	0.033	188749	1.8
Aroclor-1242	3	6.882	0.050	603497	9.6	3	7.303	0.079	261815	6.3
Aroclor-1242	4	7.979	-0.046	113716	1.8	4	8.326	-0.042	37287	1.0
	Total Col1Ave (4 peaks):				4.3	Total Col2Ave (4 peaks):				3.1 RPD = 34
	Corrected Ave (3 peaks):				2.6	Corrected Ave (3 peaks):				2.0 RPD = 25
Aroclor-1248	1	7.173	-0.009	1112307	15.9	1	7.505	0.000	62881	1.3
Aroclor-1248	2	7.484	0.004	429983	5.4	2	7.879	-0.039	1700799	30.5
Aroclor-1248	3	7.979	-0.045	113716	1.1	3	8.326	-0.042	37287	0.6
Aroclor-1248	4	8.313	-0.001	196124	2.0	4	8.802	0.012	188822	2.8
	Total Col1Ave (4 peaks):				6.1	Total Col2Ave (4 peaks):				8.8 RPD = 36
	Corrected Ave (3 peaks):				2.8	Corrected Ave (3 peaks):				1.6 RPD = 57*
Aroclor-1254	1	8.392	-0.007	203076	1.3	1	8.494	-0.015	77573	1.4
Aroclor-1254	2	8.785	0.016	257205	2.3	2	8.667	-0.014	48972	0.7
Aroclor-1254	3	8.870	-0.036	485238	2.5	3	9.227	0.024	676802	11.9
Aroclor-1254	4	9.272	0.017	882963	3.9	4	9.353	-0.002	132801	1.1
Aroclor-1254	5	9.606	-0.010	2067384	13.9	5	10.135	-0.001	69001	0.9
	Total Col1Ave (5 peaks):				4.8	Total Col2Ave (5 peaks):				3.2 RPD = 39
	Corrected Ave (4 peaks):				2.5	Corrected Ave (4 peaks):				1.0 RPD = 83*
Aroclor-1260	1	10.480	-0.008	167560	1.3	1	10.360	-0.009	142094	1.4
Aroclor-1260	2	10.853	-0.010	519243	1.5	2	11.184	-0.002	326962	2.1
Aroclor-1260	3	11.259	-0.004	622061	3.2	3	11.653	-0.056	552840	11.6
Aroclor-1260	4	11.364	-0.014	722749	8.7	4	12.539	0.031	838125	18.5
Aroclor-1260	5	11.450	-0.002	382249	3.9	NS	---			----
	Total Col1Ave (5 peaks):				3.7	Total Col2Ave (4 peaks):				8.4 RPD = 77*
	Corrected Ave (4 peaks):				2.5	Corrected Ave (3 peaks):				5.0 RPD = 68*
Aroclor-1262	1	10.171	0.003	460879	2.3	1	10.454	-0.010	94507	0.9
Aroclor-1262	2	10.480	-0.005	167560	1.0	2	10.903	-0.007	74710	0.8
Aroclor-1262	3	10.858	-0.007	519243	1.3	3	11.184	-0.001	326962	1.7
Aroclor-1262	4	11.364	-0.012	722749	4.1	4	11.653	-0.054	552840	6.2
Aroclor-1262	5	11.450	0.001	382249	2.0	5	12.539	-0.012	838125	11.3
	Total Col1Ave (5 peaks):				2.2	Total Col2Ave (5 peaks):				4.2 RPD = 64*
	Corrected Ave (4 peaks):				1.7	Corrected Ave (4 peaks):				2.4 RPD = 35
Aroclor-1268	1	11.364	-0.013	722749	1.7	1	11.653	-0.054	552840	2.5
Aroclor-1268	2	11.450	0.001	382249	0.9	2	11.771	0.001	476994	2.5

Aroclor-1268	3	11.845	0.009	1294160	3.5	3	12.161	-0.013	330020	2.0
Aroclor-1268	4	12.621	-0.006	1146728	1.1	4	12.992	0.001	232193	0.5

Total Col1Ave (4 peaks): 1.8 Total Col2Ave (4 peaks): 1.9 RPD = 5

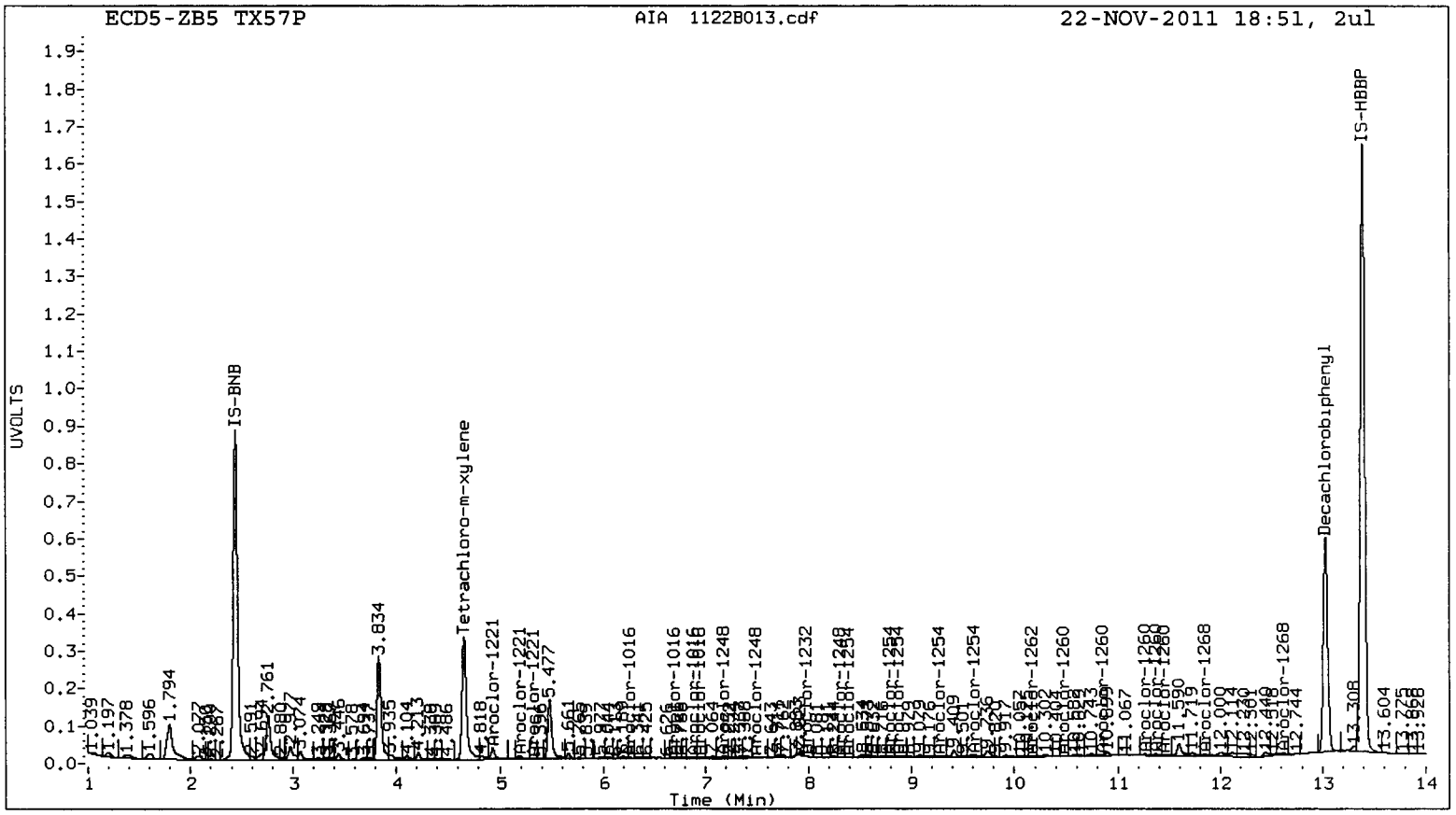
Corrected Ave (3 peaks): 1.2 Corrected Ave (3 peaks): 1.7 RPD = 31

Total PCB Area Col1 (4.754 - 12.935) = 92592032 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.756 - 13.310) = 41843092 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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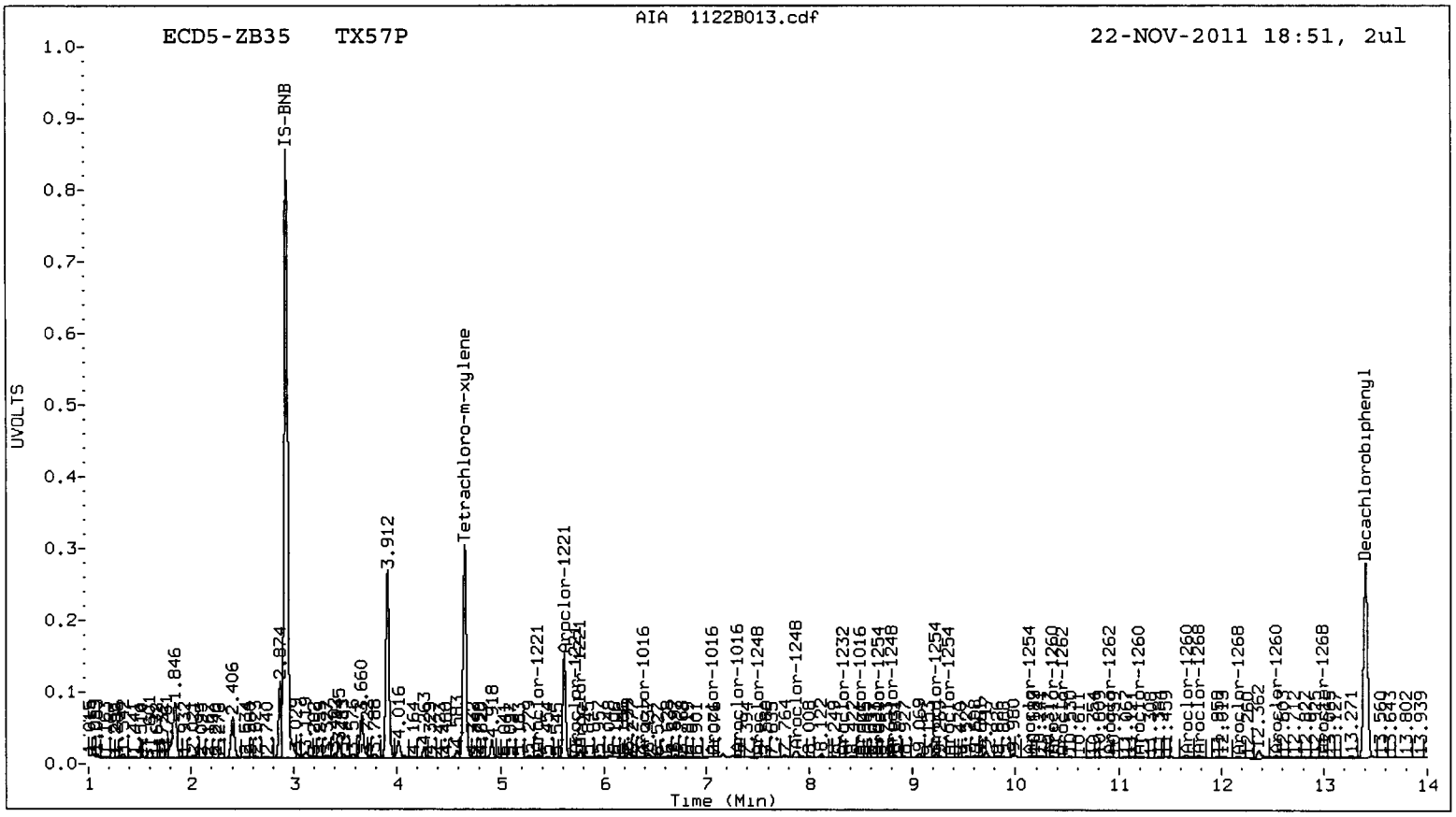
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
3.834
4.818
13.308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IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
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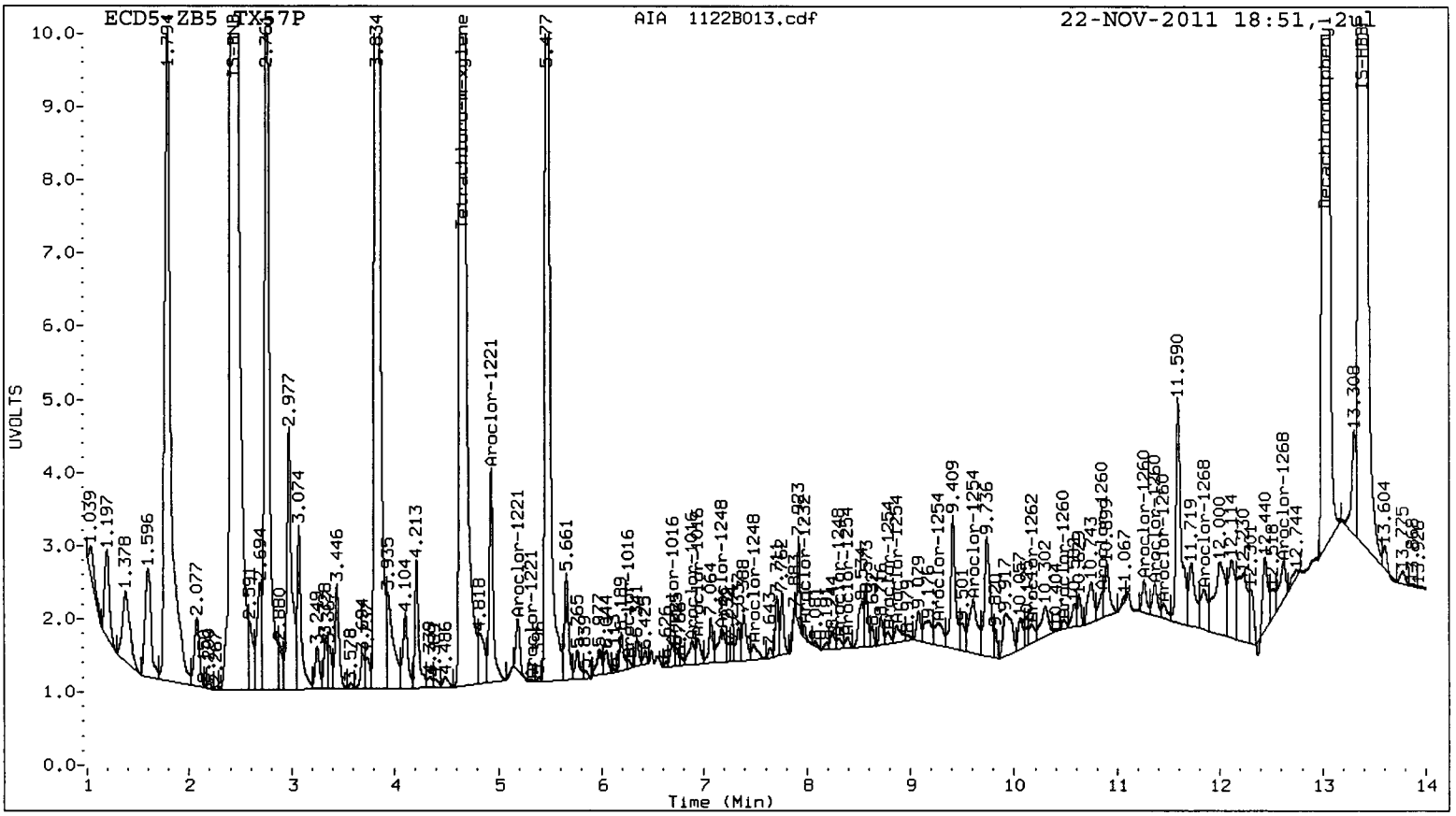
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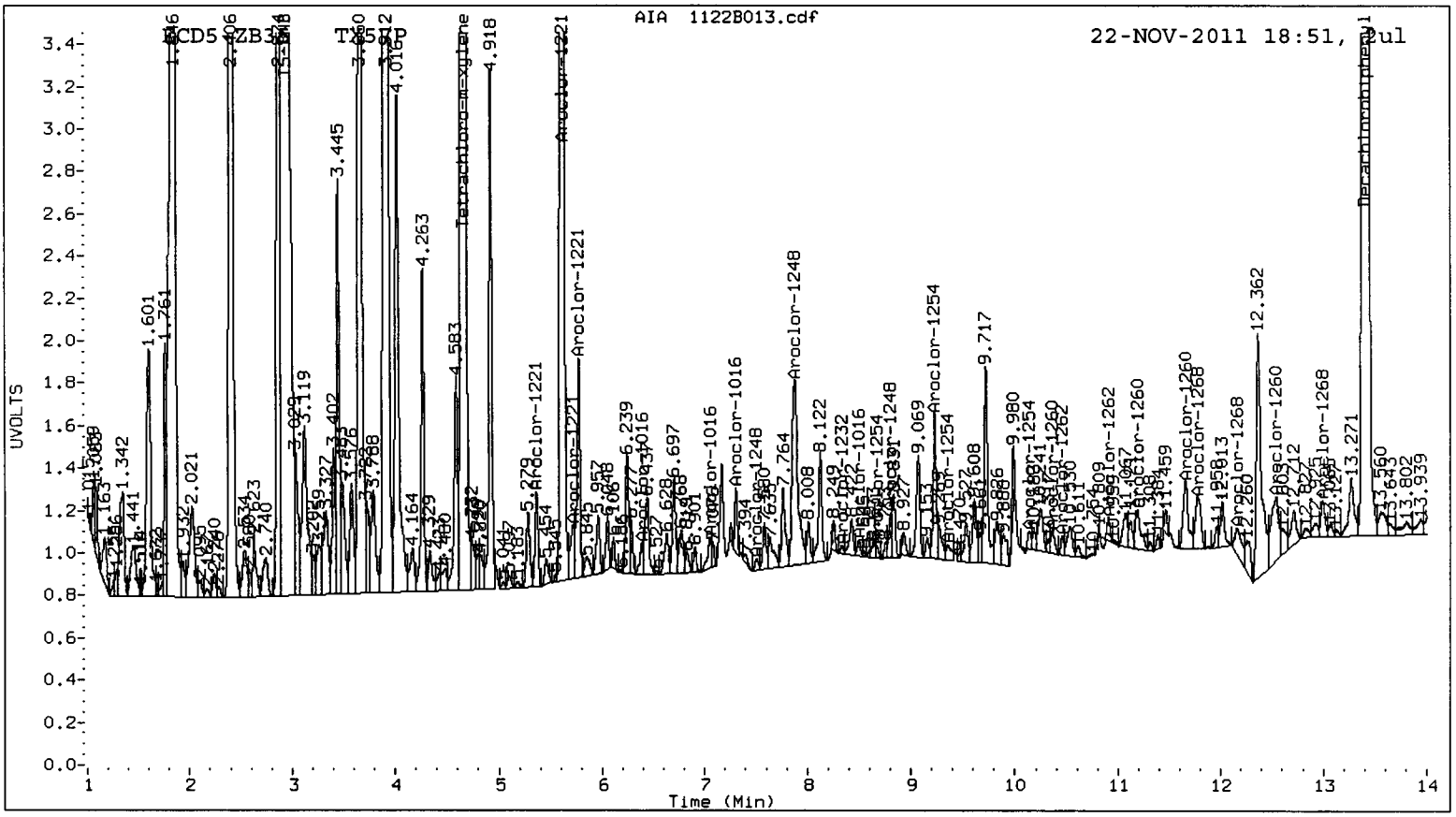
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB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AIA 1122B013.cdf
22-NOV-2011 18:51, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/1122-1.b/1122B014.d
Data file 2: 20110930.B/1122-2.b/1122B014.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57Q
Client ID:
Injection Date: 22-NOV-2011 19:09
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.657	0.003	41579553	4.659	0.004	25535144	19.0	16.7	12.8	Tetrachloro-m-xylene
13.033	-0.002	106580639	13.409	-0.001	45939750	27.1	29.1	7.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	47.4	41.7
Decachlorobiphenyl	67.7	72.7

JA 11/29/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	127358036	6.7
Hexabromobiphenyl	247758184	247628905	-0.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	101311188	11.0
Hexabromobiphenyl	103671329	113748283	9.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.286	0.002	60783	1.0	1	6.438	0.047	117540	1.9
Aroclor-1016	2	6.692	0.008	302851	1.5	2	7.036	0.020	45778	0.3
Aroclor-1016	3	6.859	0.028	113897	1.4	3	7.154	-0.070	17142	0.3
Aroclor-1016	4	6.940	-0.002	455091	7.8	4	8.505	-0.004	36240	1.3
	Total Col1Ave (4 peaks):			2.9		Total Col2Ave (4 peaks):			1.0	RPD = 100*
	Corrected Ave (3 peaks):			1.3		Corrected Ave (3 peaks):			0.6	RPD = 67*
Aroclor-1221	1	4.933	-0.087	3327398	155.2	1	5.362	0.004	396220	22.8
Aroclor-1221	2	5.194	-0.005	38632	2.6	2	5.614	0.027	367628	36.9
Aroclor-1221	3	5.340	0.037	44849	0.9	3	5.713	0.014	113815	3.5
Aroclor-1221	NS	---			----	4	5.758	-0.004	53979	9.9
	Total Col1Ave (3 peaks):			52.9		Total Col2Ave (4 peaks):			18.3	RPD = 97*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):			12.1	
Aroclor-1232	1	6.286	0.006	60783	2.5	1	6.438	0.048	117540	4.2
Aroclor-1232	2	6.692	0.013	302851	3.7	2	7.036	0.025	45778	0.8
Aroclor-1232	3	6.859	0.031	113897	3.4	3	7.154	-0.069	17142	0.9
Aroclor-1232	4	8.019	0.000	35495	1.0	4	8.326	-0.041	42151	1.9
	Total Col1Ave (4 peaks):			2.6		Total Col2Ave (4 peaks):			1.9	RPD = 30
	Corrected Ave (3 peaks):			2.3		Corrected Ave (3 peaks):			1.2	RPD = 64*
Aroclor-1242	1	6.286	0.002	60783	1.3	1	6.438	0.046	117540	2.5
Aroclor-1242	2	6.692	0.008	302851	2.0	2	7.036	0.020	45778	0.4
Aroclor-1242	3	6.859	0.027	113897	1.9	3	7.154	-0.071	17142	0.4
Aroclor-1242	4	8.019	-0.005	35495	0.6	4	8.326	-0.042	42151	1.1
	Total Col1Ave (4 peaks):			1.5		Total Col2Ave (4 peaks):			1.1	RPD = 28
	Corrected Ave (3 peaks):			1.3		Corrected Ave (3 peaks):			0.6	RPD = 65*
Aroclor-1248	1	7.172	-0.010	1225926	18.1	1	7.507	0.002	28919	0.6
Aroclor-1248	2	7.481	0.001	214334	2.8	2	7.927	0.009	211049	3.8
Aroclor-1248	3	8.019	-0.004	35495	0.4	3	8.326	-0.042	42151	0.7
Aroclor-1248	4	8.308	-0.006	126588	1.3	4	8.784	-0.006	119980	1.8
	Total Col1Ave (4 peaks):			5.7		Total Col2Ave (4 peaks):			1.7	RPD = 107*
	Corrected Ave (3 peaks):			1.5		Corrected Ave (3 peaks):			1.0	RPD = 38
Aroclor-1254	1	8.393	-0.005	121991	0.8	1	8.505	-0.004	36240	0.7
Aroclor-1254	2	8.794	0.024	181118	1.7	2	8.675	-0.006	38013	0.5
Aroclor-1254	3	8.913	0.008	106765	0.6	3	9.228	0.024	591072	10.3
Aroclor-1254	4	9.233	-0.022	543821	2.5	4	9.354	-0.001	127094	1.0
Aroclor-1254	5	9.615	-0.001	557152	3.9	5	10.137	0.001	26488	0.3
	Total Col1Ave (5 peaks):			1.9		Total Col2Ave (5 peaks):			2.6	RPD = 31
	Corrected Ave (4 peaks):			1.4		Corrected Ave (4 peaks):			0.6	RPD = 73*
Aroclor-1260	1	10.486	-0.003	74256	0.6	1	10.364	-0.005	63353	0.6
Aroclor-1260	2	10.899	0.036	901155	2.6	2	11.184	-0.002	27145	0.2
Aroclor-1260	3	11.263	0.001	187658	1.0	3	11.658	-0.051	348770	7.2
Aroclor-1260	4	11.364	-0.015	612756	7.3	4	12.549	0.042	571129	12.5
Aroclor-1260	5	11.450	-0.002	244791	2.5	NS	---			----
	Total Col1Ave (5 peaks):			2.8		Total Col2Ave (4 peaks):			5.1	RPD = 59*
	Corrected Ave (4 peaks):			1.7		Corrected Ave (3 peaks):			2.7	RPD = 47*
Aroclor-1262	1	10.170	0.002	913929	4.6	1	10.460	-0.004	33902	0.3
Aroclor-1262	2	10.486	0.001	74256	0.5	2	10.904	-0.006	38122	0.4
Aroclor-1262	3	10.899	0.039	901155	2.3	3	11.184	-0.001	27145	0.1
Aroclor-1262	4	11.364	-0.013	612756	3.4	4	11.658	-0.049	348770	3.8
Aroclor-1262	5	11.450	0.000	244791	1.3	5	12.549	-0.001	571129	7.6
	Total Col1Ave (5 peaks):			2.4		Total Col2Ave (5 peaks):			2.5	RPD = 2
	Corrected Ave (4 peaks):			1.9		Corrected Ave (4 peaks):			1.2	RPD = 45*
Aroclor-1268	1	11.364	-0.013	612756	1.4	1	11.658	-0.049	348770	1.6
Aroclor-1268	2	11.450	0.001	244791	0.6	2	11.787	0.017	180715	0.9

Aroclor-1268	3	11.836	0.000	1067966	2.9	3	12.159	-0.015	288387	1.8
Aroclor-1268	4	12.616	-0.011	939413	0.9	4	12.979	-0.013	32249	0.1

Total Col1Ave (4 peaks): 1.4 Total Col2Ave (4 peaks): 1.1 RPD = 28

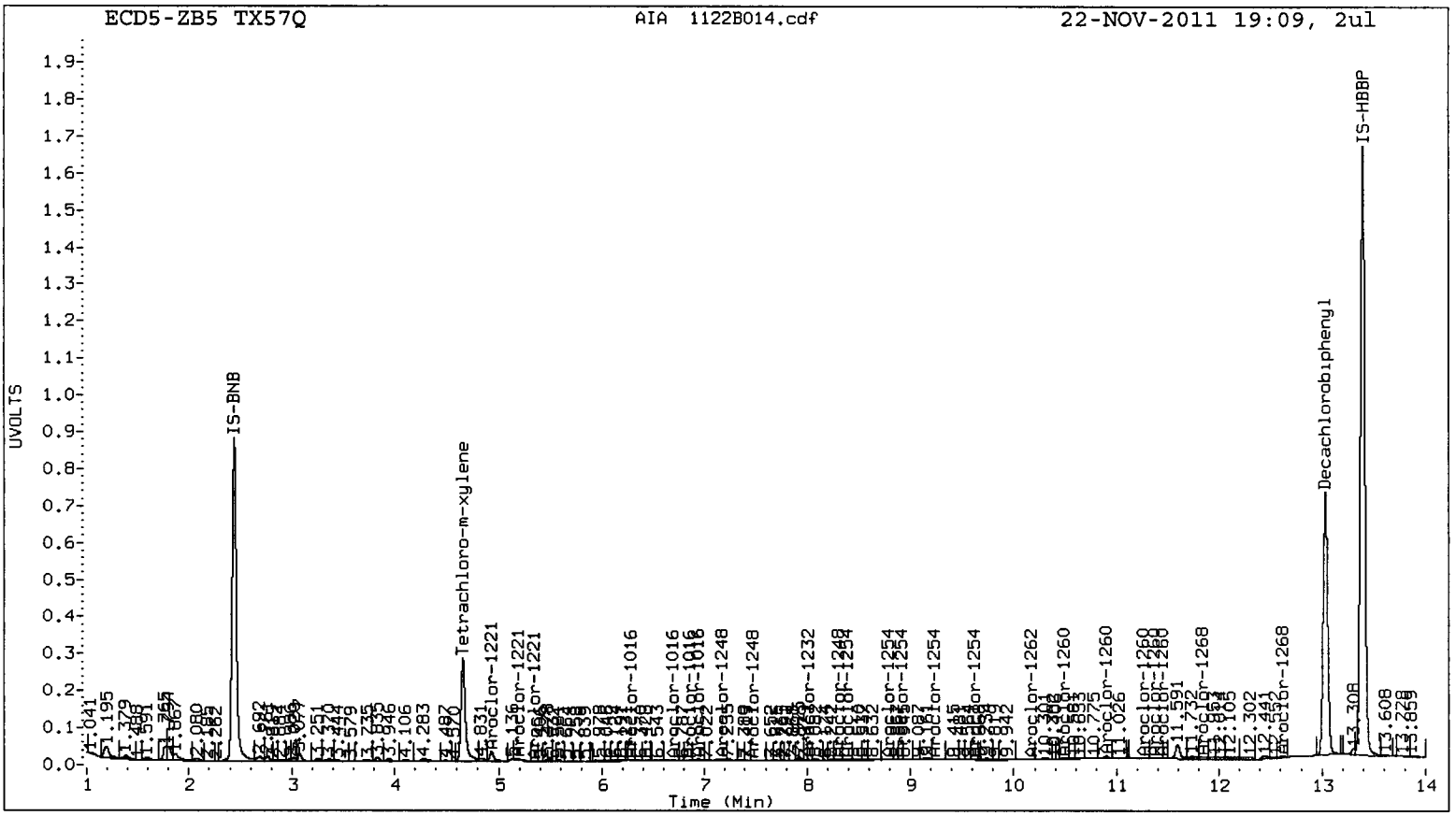
Corrected Ave (3 peaks): 1.0 Corrected Ave (3 peaks): 0.9 RPD = 11

Total PCB Area Col1 (4.754 - 12.935) = 41939072 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.756 - 13.310) = 14427084 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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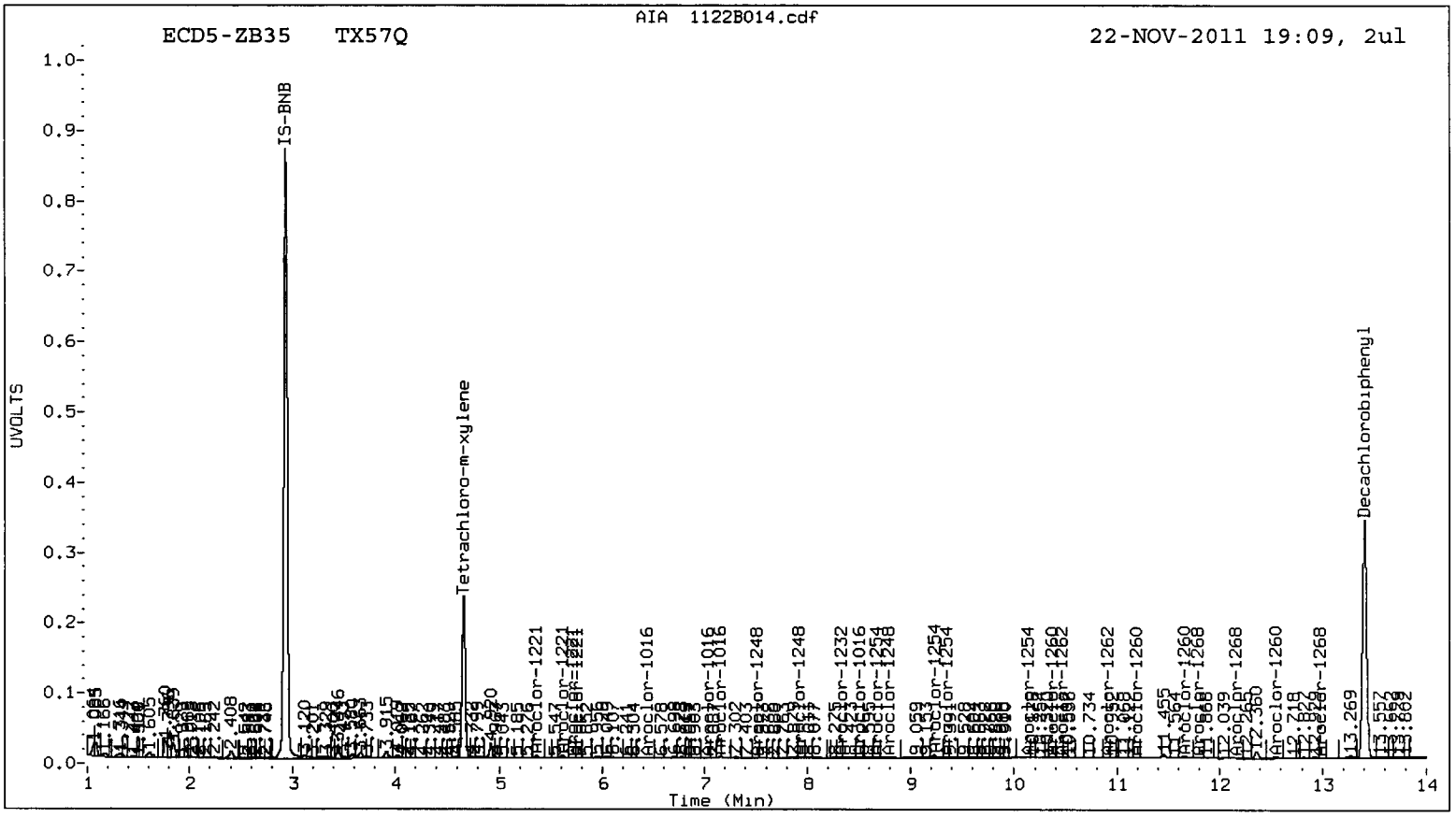
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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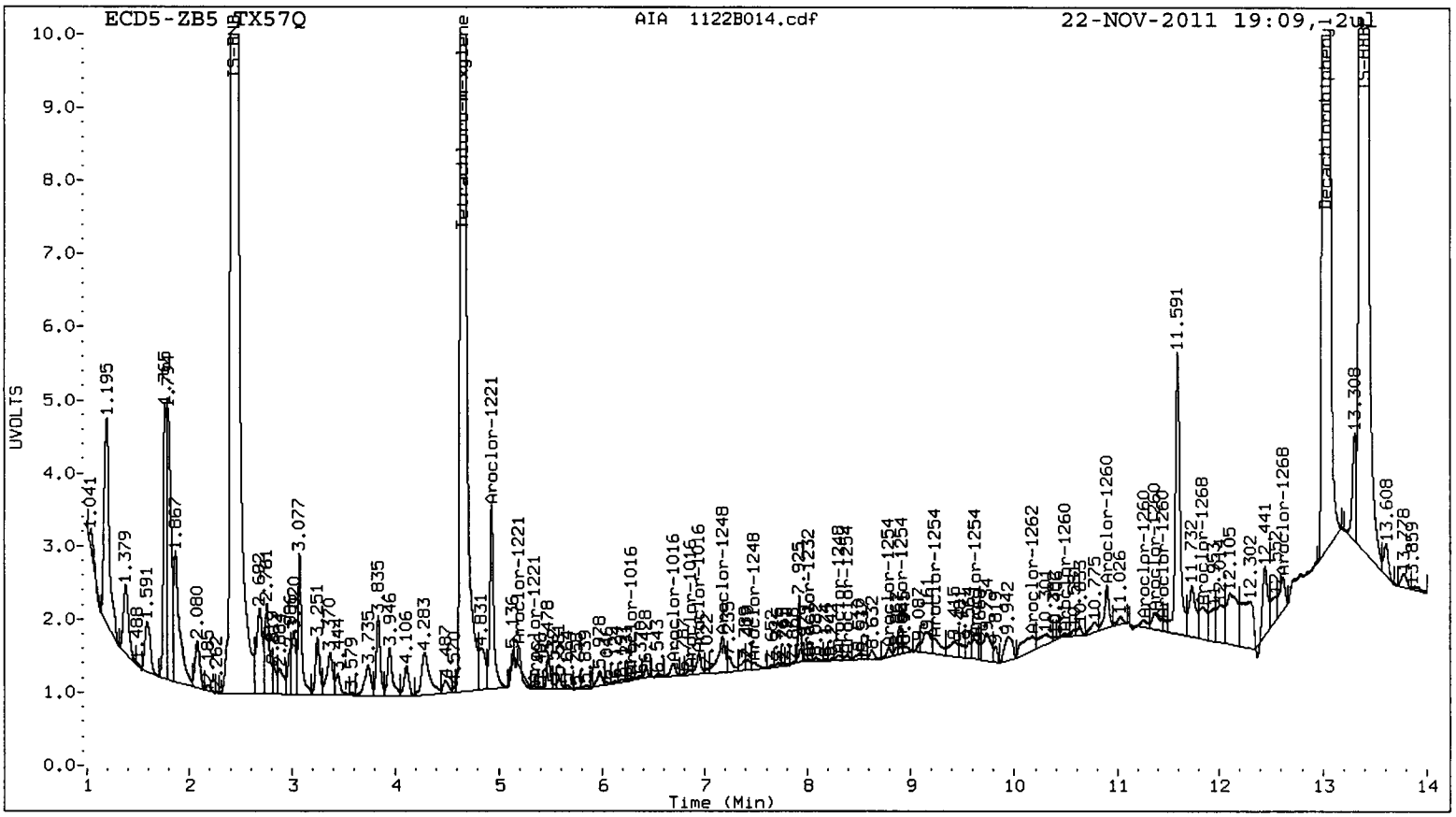
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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Time (Min)
IS-BNB
Tetrachloro-m-xylene
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Aroclor-1016
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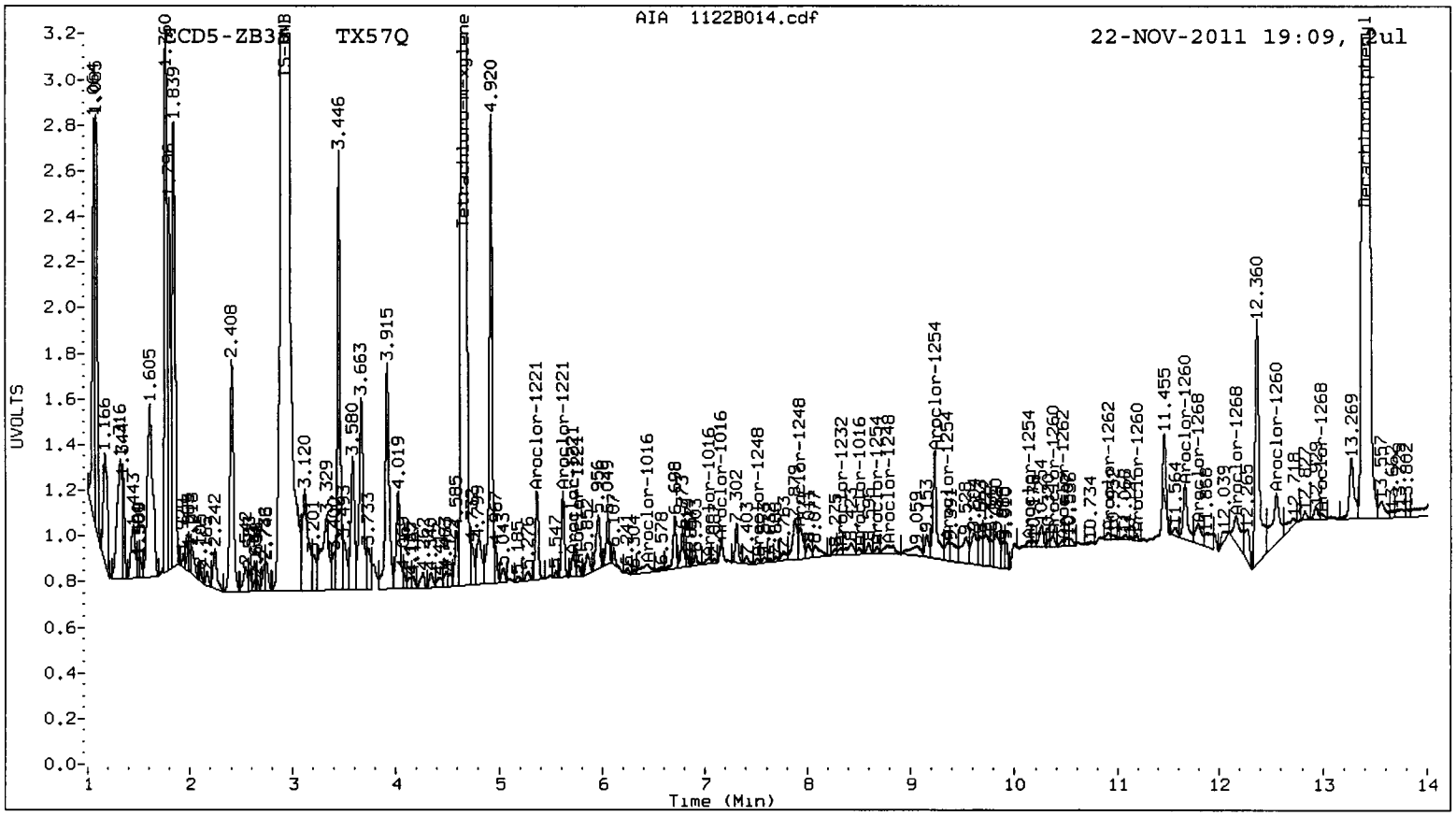
Aroclor-1268
Decachlorobiphenyl
IS-HHB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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/1122-1.b/1122B021.d
Data file 2: 20110930.B/1122-2.b/1122B021.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 22-NOV-2011 21:22
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.654	0.000	41781593	4.656	0.000	27906555	19.9	19.8	0.8	Tetrachloro-m-xylene
13.033	-0.001	61391437	13.408	-0.001	25575586	19.5	21.4	9.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.8	49.4
Decachlorobiphenyl	48.7	53.5

JR 11/29/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	121911362	2.2
Hexabromobiphenyl	247758184	198357324	-19.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	93507017	2.5
Hexabromobiphenyl	103671329	86139906	-16.9

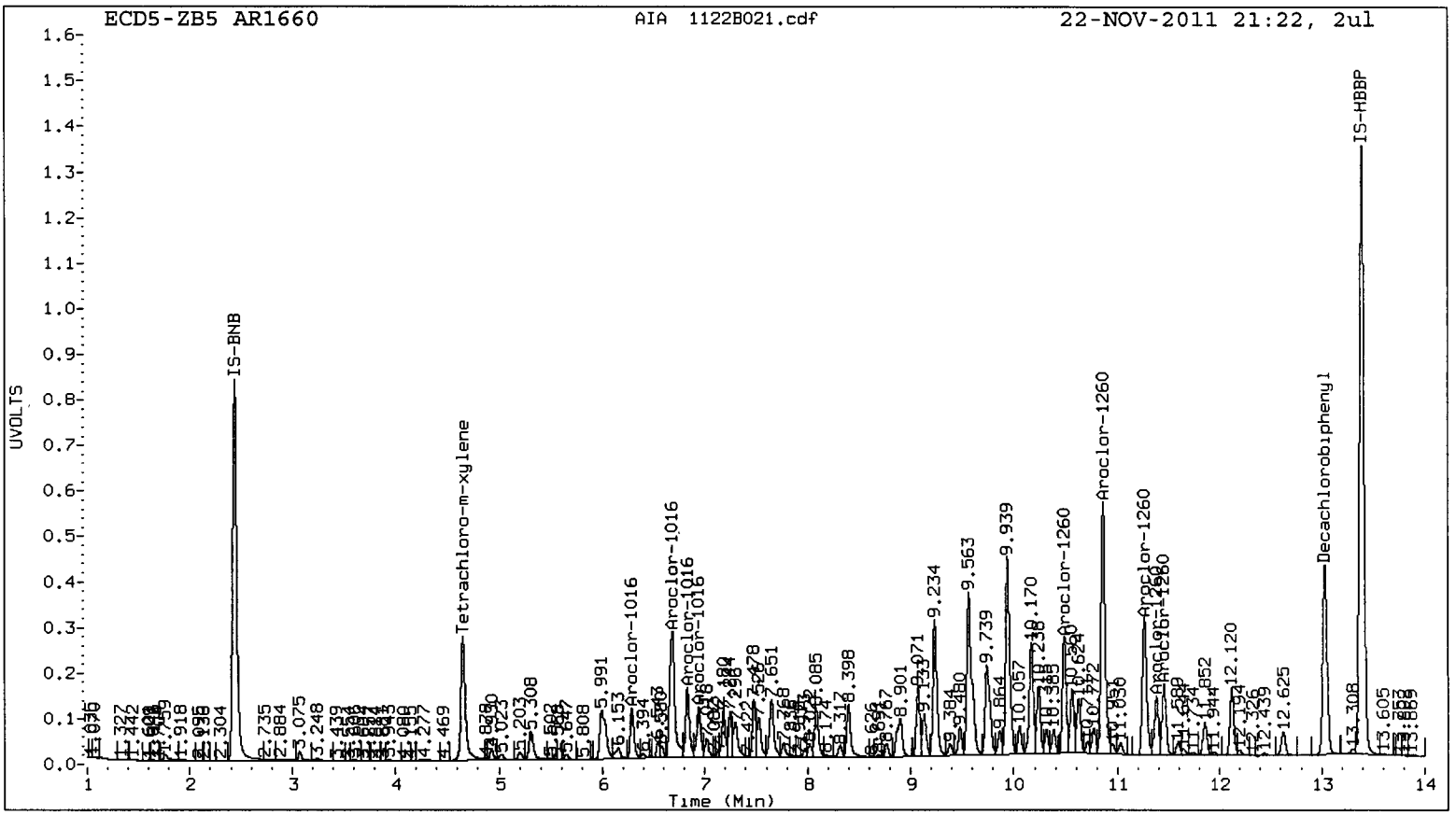
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.284	0.000	14000001	248.2	1	6.390	0.000	13356962	239.7
Aroclor-1016	2	6.683	-0.001	48082499	245.6	2	7.015	-0.001	30393687	243.9
Aroclor-1016	3	6.831	0.000	19507303	247.5	3	7.223	-0.001	10416939	217.9
Aroclor-1016	4	6.941	-0.001	14449863	257.9	4	8.506	-0.003	5919319	224.5
	Total Col1Ave (4 peaks):				249.8	Total Col2Ave (4 peaks):				231.5 RPD = 8
	Corrected Ave (3 peaks):				247.1	Corrected Ave (3 peaks):				227.4 RPD = 8
Aroclor-1260	1	10.486	-0.002	31171164	290.6	1	10.365	-0.003	20989505	271.7
Aroclor-1260	2	10.861	-0.001	77208438	283.1	2	11.184	-0.002	34409796	287.8
Aroclor-1260	3	11.261	-0.001	43122359	275.2	3	11.707	-0.002	10223492	279.6
Aroclor-1260	4	11.378	-0.001	18032494	268.7	4	12.507	-0.001	8144825	234.7
Aroclor-1260	5	11.451	-0.001	21644260	274.6	NS	---			----
	Total Col1Ave (5 peaks):				278.4	Total Col2Ave (4 peaks):				268.4 RPD = 4
	Corrected Ave (4 peaks):				275.4	Corrected Ave (3 peaks):				262.0 RPD = 5

Total PCB Area Col1 (4.754 - 12.935) = 896809599 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.756 - 13.310) = 441802695 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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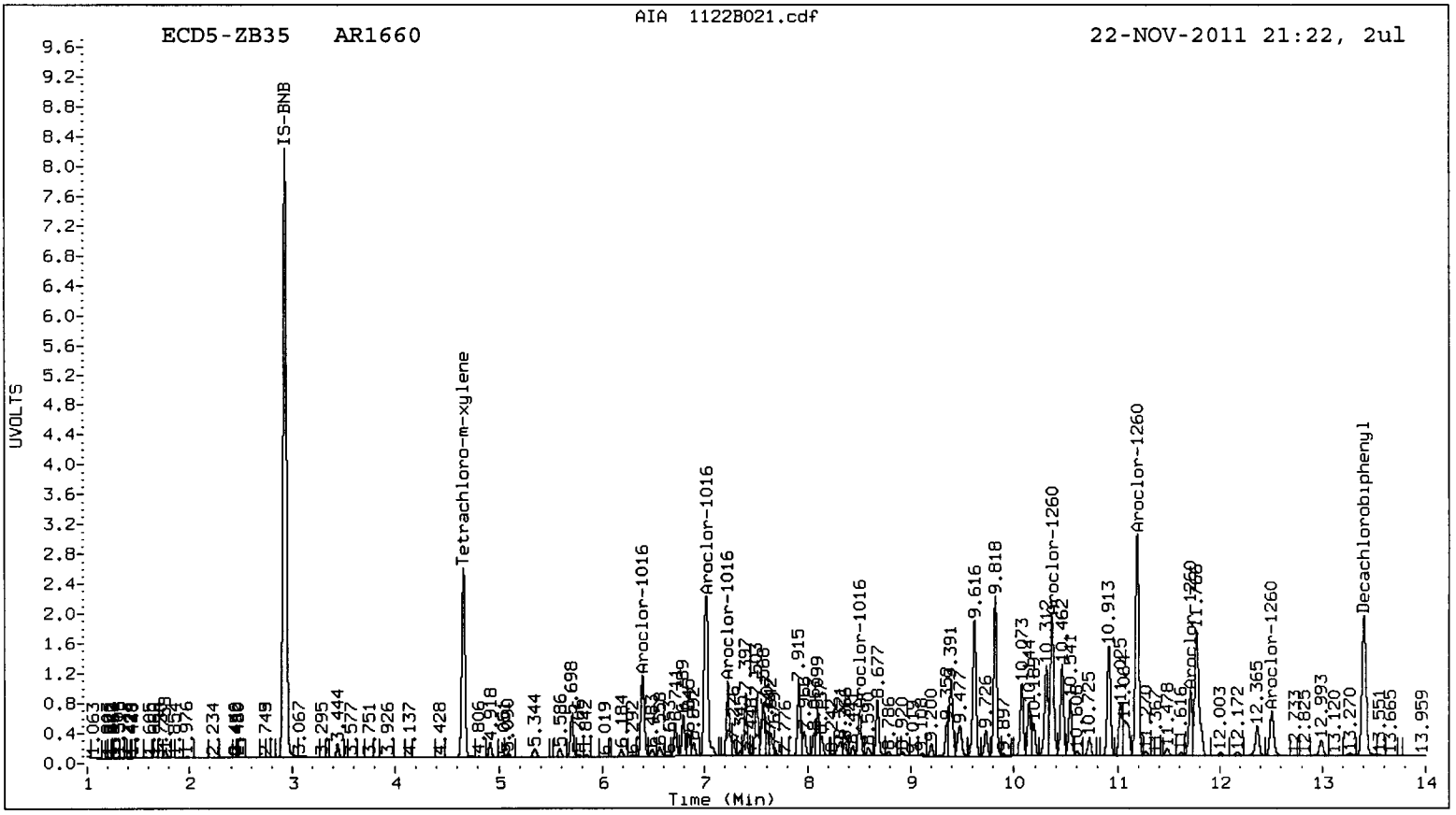
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

TX57 : 01283

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20110930.B/1122-1.b/1122B022.d
Data file 2: 20110930.B/1122-2.b/1122B022.d
Method: /chem2/ecd5.i/20110930.B/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 22-NOV-2011 21:41
Ical Date: 30-SEP-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.654	0.000	45651108	4.657	0.002	31774106	19.4	20.3	4.3	Tetrachloro-m-xylene
13.034	-0.001	67782483	13.408	-0.002	28736885	19.3	21.1	9.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	48.6	50.7
Decachlorobiphenyl	48.2	52.8

gl 11/29/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	119324916	136535185	14.4
Hexabromobiphenyl	247758184	221249270	-10.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	91266419	103752049	13.7
Hexabromobiphenyl	103671329	98006480	-5.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 30-SEP-2011
<- Indicates standard response outside Limits (-50 to +100%)

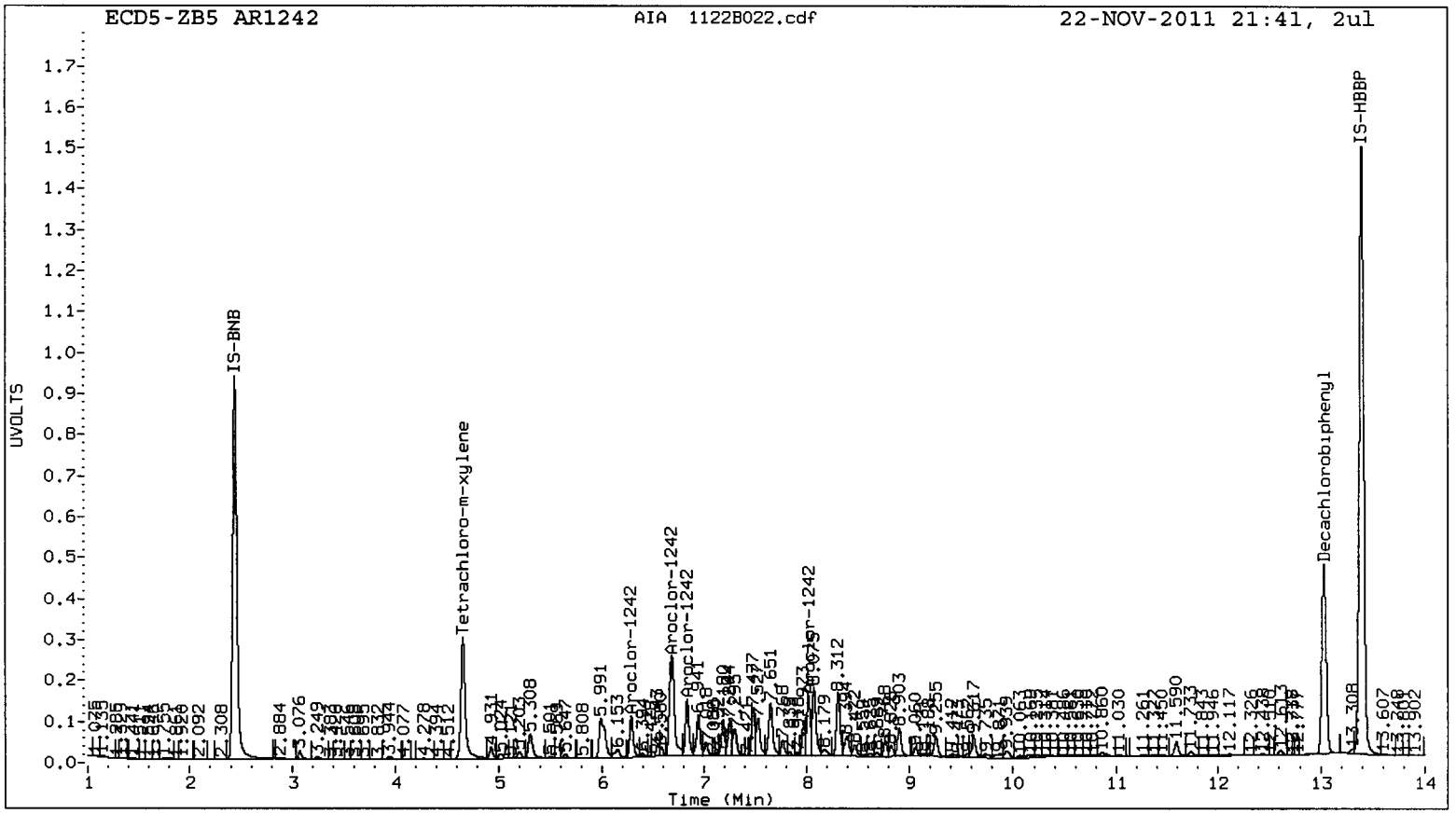
Aroclor	ZB5 Col Peak#	RT	Shift	Area	Amount	ZB35 Col Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	6.284	-0.001	12600701	259.0	1	6.390	-0.001	11884347	245.6
Aroclor-1242	2	6.683	-0.002	42792910	267.8	2	7.016	0.000	26984372	247.5
Aroclor-1242	3	6.831	-0.001	17427582	269.0	3	7.223	-0.001	9315122	216.9
Aroclor-1242	4	8.022	-0.003	16537939	257.5	4	8.366	-0.002	9600557	246.6
Total Col1Ave (4 peaks):					263.3	Total Col2Ave (4 peaks):				239.1 RPD = 10
Corrected Ave (3 peaks):					261.5	Corrected Ave (3 peaks):				236.3 RPD = 10

Total PCB Area Col1 (4.754 - 12.935) = 366107400 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.756 - 13.310) = 203652146 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TX57 : 01285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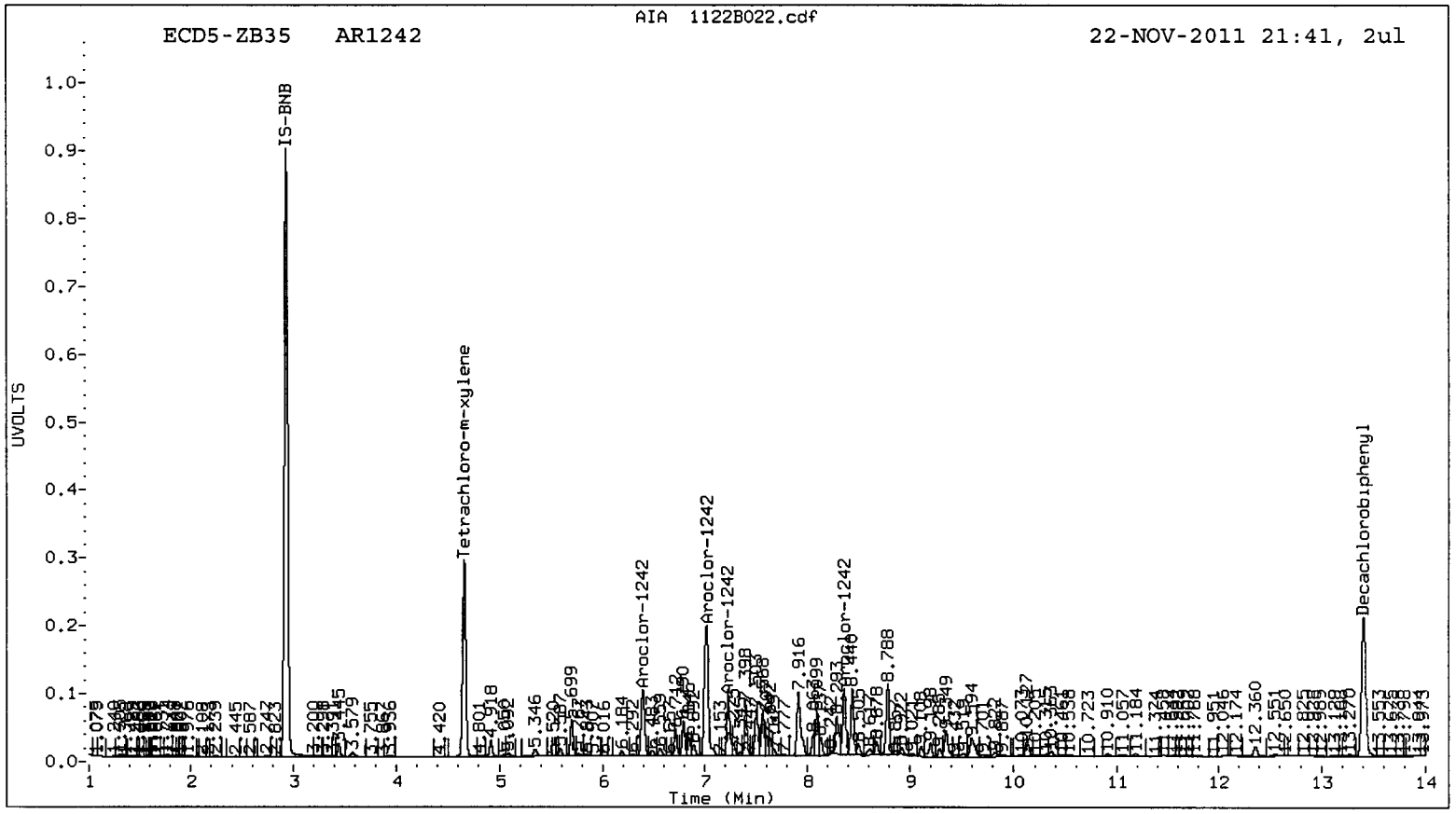
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
IS-HBBP
Time (Min)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UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
Time (Min)

TX57 01286

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: TX57 Client ID: Slip 4 early Action

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest) **427S**(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): PCB's tcmx DCB

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

Dates: Curve: 12/02/11 Analysis Start: 12/06/11

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

Manual Integrations for ICal? YES / NO

Manual Integrations for Samples? 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): 54 in samples inflates 48/60, y-flag for 48 is for AR1016 → 1248 range JR 12/09/11

Additional Details on Reverse: Yes / No

Analyst: [signature] **Date:** 12/09/11

Reviewer: [signature] **Date:** 12/9/11

Form 4060F Version 007 6/18/10

TX57:01287

Analytical Resources Inc.: Organics Instrument Log

ECD-5 Serial No.: US00034118

Date: 12/06/11 Analysis: PCBs Analyst: JF

Column 1 Serial No.: 196398 Column Type: ZB5

Column 2 Serial No.: 182259 Column Type: ZB35

GC Method: PCB7 ICal Date: 12/02/11 Injection Volume: 2µL

IS	Ical/Ccal	ICV
1878-3	1868-4	1802-3
	1801-1,2,3	1803-1,2,3
	1802-1,2	1804-1,2

Document All Maintenance Tasks In StarLIMS

	Inject Date/Time	Filename	DF	LabID
1	06-DEC-2011 07:34	1206B001.d	1	1918.03AT5X
2	06-DEC-2011 07:53	1206B002.d	1	AR1242
3	06-DEC-2011 08:12	1206B003.d	1	AR1660
4	06-DEC-2011 10:45	1206B004.d	1	TX74MBS2
5	06-DEC-2011 11:04	1206B005.d	1	TX74LCSS2
6	06-DEC-2011 11:23	1206B006.d	1	TX74LCSDS2
7	06-DEC-2011 11:41	1206B007.d	10	TX74ARE
8	06-DEC-2011 12:00	1206B008.d	1	AR1248
9	06-DEC-2011 12:19	1206B009.d	1	AR1660
10	06-DEC-2011 15:00	1206B011.d	10	TX74ARE
11	06-DEC-2011 15:19	1206B012.d	1	AR1254
12	06-DEC-2011 15:37	1206B013.d	1	AR1660
13	06-DEC-2011 15:56	1206B014.d	1	TX57MBS1
14	06-DEC-2011 16:15	1206B015.d	1	TX57LCSS1
15	06-DEC-2011 16:34	1206B016.d	10	TX57A
16	06-DEC-2011 16:53	1206B017.d	10	TX57B
17	06-DEC-2011 17:12	1206B018.d	10	TX57C
18	06-DEC-2011 17:31	1206B019.d	10	TX57D
19	06-DEC-2011 17:50	1206B020.d	10	TX57DMS
20	06-DEC-2011 18:09	1206B021.d	10	TX57DMSD
21	06-DEC-2011 18:28	1206B022.d	10	TX57E
22	06-DEC-2011 18:47	1206B023.d	10	TX57F
23	06-DEC-2011 19:06	1206B024.d	1	AR1242
24	06-DEC-2011 19:25	1206B025.d	1	AR1660
25	06-DEC-2011 19:44	1206B026.d	1	TX57G
26	06-DEC-2011 20:03	1206B027.d	10	TX57H
27	06-DEC-2011 20:21	1206B028.d	10	TX57I
28	06-DEC-2011 20:40	1206B029.d	10	TX57J
29	06-DEC-2011 20:59	1206B030.d	1	TX57K
30	06-DEC-2011 21:18	1206B031.d	10	TX57L
31	06-DEC-2011 21:37	1206B032.d	1	TX57M
32	06-DEC-2011 21:56	1206B033.d	10	TX57N
33	06-DEC-2011 22:15	1206B034.d	10	TX57O
34	06-DEC-2011 22:34	1206B035.d	1	AR1248
35	06-DEC-2011 22:53	1206B036.d	1	AR1660
36	06-DEC-2011 23:12	1206B037.d	1	TX93MBS1
37	06-DEC-2011 23:30	1206B038.d	1	TX93LCSS1
38	06-DEC-2011 23:49	1206B039.d	1	TX93LCSDS1
39	07-DEC-2011 00:08	1206B040.d	1	TX93A
40	07-DEC-2011 00:27	1206B041.d	1	TX93B
41	07-DEC-2011 00:46	1206B042.d	1	TX93C
42	07-DEC-2011 01:05	1206B043.d	1	TX93D
43	07-DEC-2011 01:24	1206B044.d	1	TX93DMS
44	07-DEC-2011 01:43	1206B045.d	1	TX93DMSD
45	07-DEC-2011 02:02	1206B046.d	1	AR1254
46	07-DEC-2011 02:21	1206B047.d	1	AR1660
47	07-DEC-2011 02:39	1206B048.d	1	TX93E
48	07-DEC-2011 02:58	1206B049.d	1	TX93F
49	07-DEC-2011 03:17	1206B050.d	1	TX93G
50	07-DEC-2011 03:36	1206B051.d	1	TX93H
51	07-DEC-2011 03:55	1206B052.d	1	TX93I
52	07-DEC-2011 04:14	1206B053.d	5	TX93J
53	07-DEC-2011 04:33	1206B054.d	5	TX93K
54	07-DEC-2011 04:52	1206B055.d	5	TX93L
55	07-DEC-2011 05:11	1206B056.d	1	TX93M
56	07-DEC-2011 05:29	1206B057.d	1	AR1248
57	07-DEC-2011 05:48	1206B058.d	1	AR1660

All entries legible. 12/07/11

Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

TX57:01286

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B012.d
Data file 2: 20111202.B/1206-2.b/1206B012.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 06-DEC-2011 15:19
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.643	0.003	35084182	4.644	0.001	22649773	17.9	19.0	5.5	Tetrachloro-m-xylene
13.029	0.005	38997085	13.402	0.002	14038404	18.9	17.6	7.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	44.9	47.4
Decachlorobiphenyl	47.4	44.1

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12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	137288767	10.0
Hexabromobiphenyl	134444165	163984538	22.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	93051001	4.0
Hexabromobiphenyl	57341096	64322059	12.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

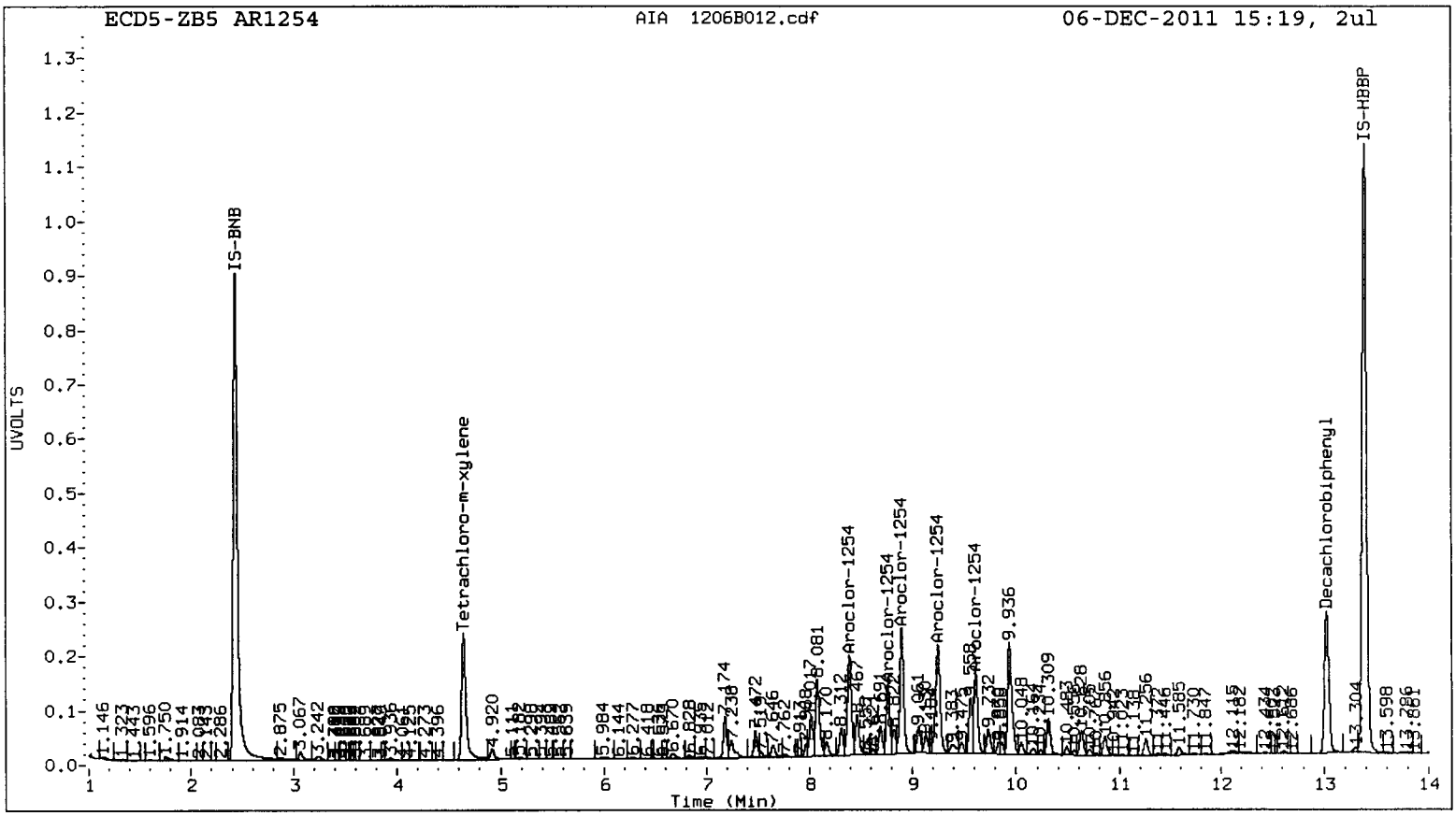
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1254	1	8.392	0.004	24949292	249.7	1	8.500	0.001	7189138	245.4
Aroclor-1254	2	8.763	0.004	15505876	241.6	2	8.672	0.001	9305957	243.3
Aroclor-1254	3	8.899	0.004	29603612	247.5	3	9.195	0.001	6927945	230.1
Aroclor-1254	4	9.249	0.004	30970025	249.7	4	9.345	0.001	15614724	241.8
Aroclor-1254	5	9.610	0.004	20714150	246.7	5	10.127	0.002	9519467	238.5
Total Col1Ave (5 peaks):		247.0				Total Col2Ave (5 peaks):		239.8		RPD = 3
Corrected Ave (4 peaks):		246.4				Corrected Ave (4 peaks):		238.4		RPD = 3

Total PCB Area Col1 (4.740 - 12.923) = 326706295 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 151718474 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TX57 01290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IS-BNB
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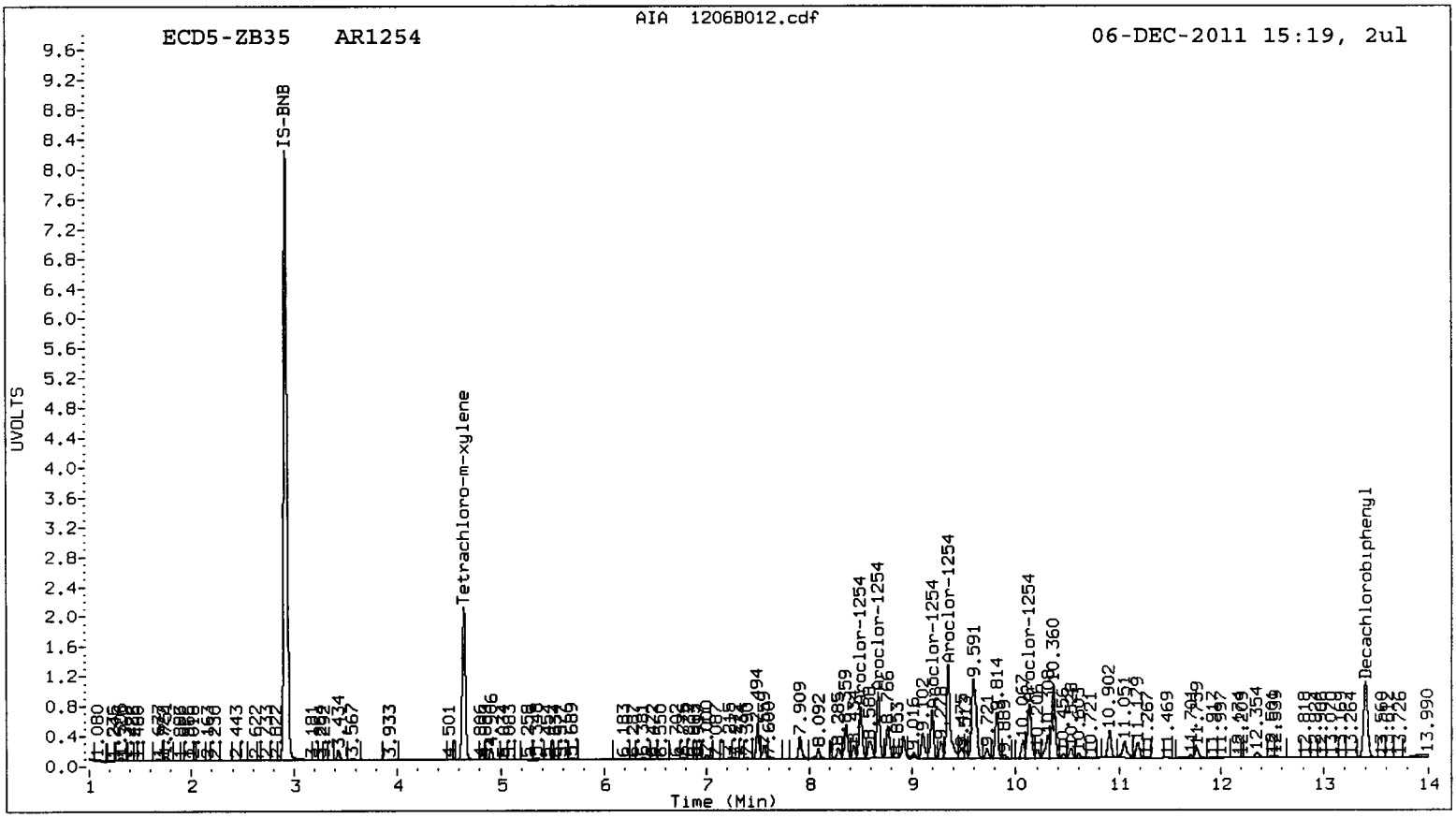
Decachlorobiphenyl
IS-HBBP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IS-BNB
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Aroclor-1254
Aroclor-1254
9.591
Decachlorobiphenyl

TXSP 01291

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B013.d
Data file 2: 20111202.B/1206-2.b/1206B013.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 06-DEC-2011 15:37
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.643	0.003	38311387	4.645	0.002	23062594	19.8	20.0	0.9	Tetrachloro-m-xylene
13.027	0.004	42257827	13.402	0.002	14988179	20.6	19.2	7.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.6	50.0
Decachlorobiphenyl	51.5	47.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	135662115	8.7
Hexabromobiphenyl	134444165	163580947	21.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	89764550	0.3
Hexabromobiphenyl	57341096	63269766	10.3

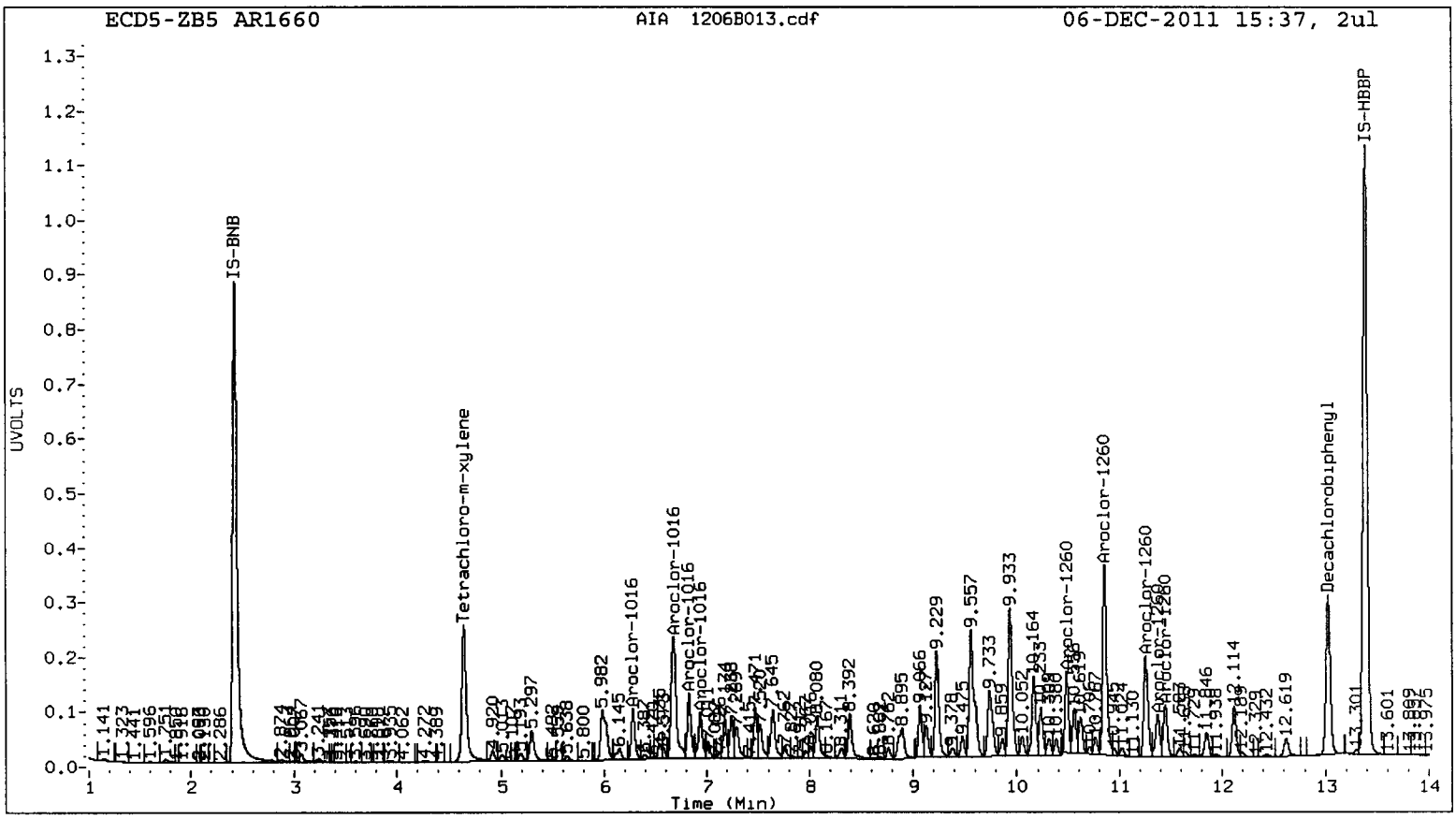
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.276	0.002	11322664	242.2	1	6.382	0.002	10075896	234.5
Aroclor-1016	2	6.675	0.003	38409660	248.2	2	7.007	0.002	20766167	243.4
Aroclor-1016	3	6.824	0.003	15070750	240.4	3	7.216	0.002	6878166	214.2
Aroclor-1016	4	6.934	0.003	11108138	252.1	4	8.501	0.002	3751423	244.8
Total Col1Ave (4 peaks):					245.7	Total Col2Ave (4 peaks):				234.2 RPD = 5
Corrected Ave (3 peaks):					243.6	Corrected Ave (3 peaks):				230.7 RPD = 5
Aroclor-1260	1	10.482	0.004	17665034	218.8	1	10.457	0.002	8278532	231.8
Aroclor-1260	2	10.855	0.003	47155717	229.4	2	10.908	0.001	10363220	235.1
Aroclor-1260	3	11.255	0.003	26403252	238.8	3	11.180	0.001	21021045	239.3
Aroclor-1260	4	11.372	0.003	10970894	244.8	4	11.702	0.002	6052140	242.1
Aroclor-1260	5	11.445	0.003	13257911	246.5	NS	---			----
Total Col1Ave (5 peaks):					235.6	Total Col2Ave (4 peaks):				237.0 RPD = 1
Corrected Ave (4 peaks):					232.9	Corrected Ave (3 peaks):				235.4 RPD = 1

Total PCB Area Col1 (4.740 - 12.923) = 595151173 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 278019928 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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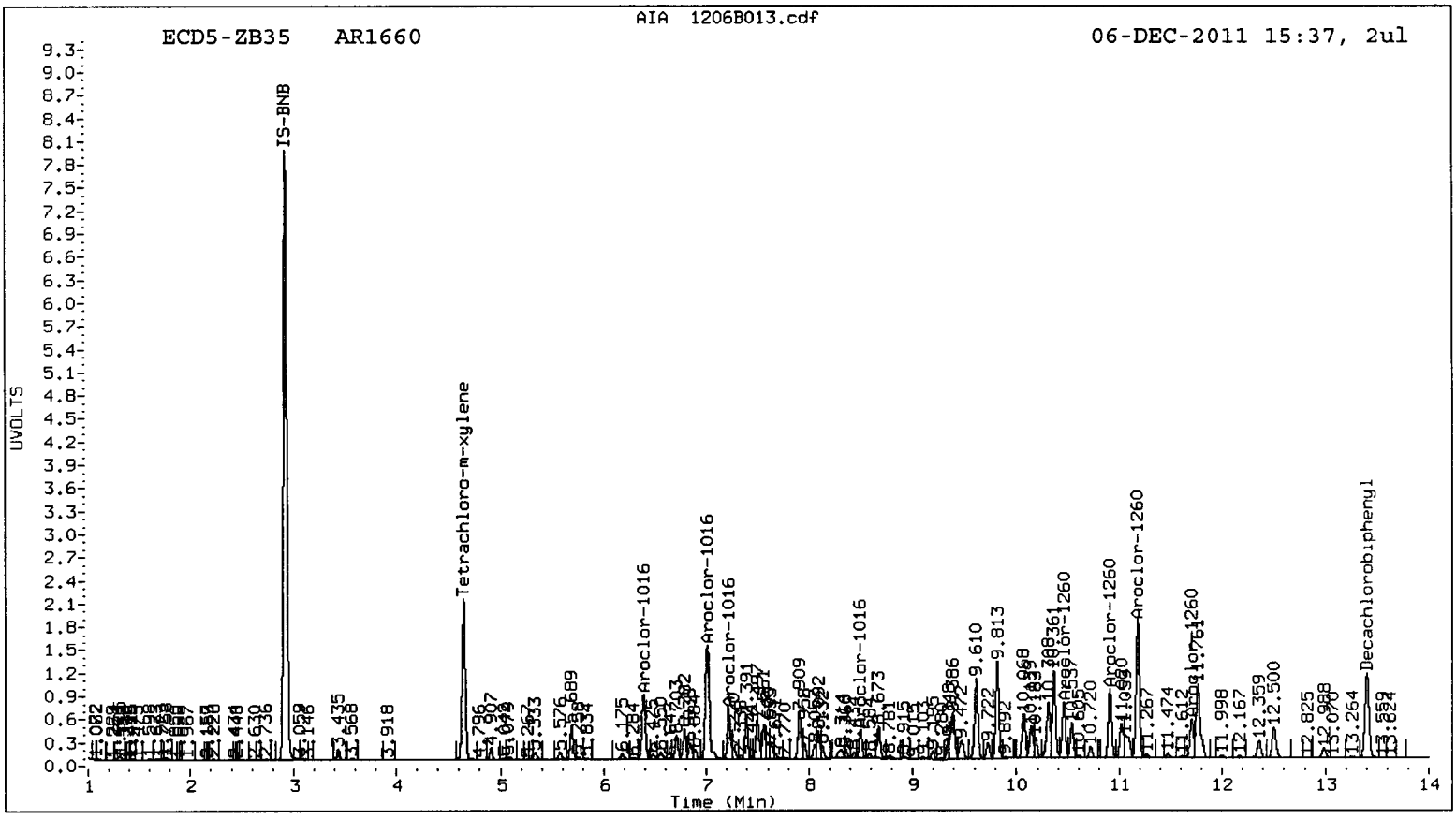
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B014.d
Data file 2: 20111202.B/1206-2.b/1206B014.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57MBS1
Client ID:
Injection Date: 06-DEC-2011 15:56
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.643	0.003	63871225	4.645	0.001	39225819	32.6	33.1	1.6	Tetrachloro-m-xylene
13.027	0.003	88338603	13.403	0.003	32317734	43.3	41.6	3.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	81.5	82.8
Decachlorobiphenyl	108.1	104.0

12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	137512131	10.2
Hexabromobiphenyl	134444165	162704805	21.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	92205887	3.1
Hexabromobiphenyl	57341096	62820056	9.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.276	0.002	75830	1.6	1	6.381	0.001	44353	1.0
Aroclor-1016	2	6.675	0.003	117684	0.8	2	7.003	-0.003	79457	0.9
Aroclor-1016	3	6.830	0.010	106826	1.7	3	7.145	-0.070	14526	0.4
Aroclor-1016	4	6.911	-0.020	621154	13.9	4	8.503	0.004	12346	0.8
	Total Col1Ave (4 peaks):			4.5		Total Col2Ave (4 peaks):			0.8	RPD = 140*
	Corrected Ave (3 peaks):			1.3		Corrected Ave (3 peaks):			0.7	RPD = 62*
Aroclor-1221	1	4.919	-0.097	4596766	245.1	1	5.348	0.016	513607	38.7
Aroclor-1221	2	5.179	-0.017	527654	39.9	2	5.601	0.022	184957	24.3
Aroclor-1221	3	5.396	0.096	28580	0.6	3	5.696	0.004	105221	4.4
Aroclor-1221	NS	---			----	4	5.758	-0.002	32957	8.7
	Total Col1Ave (3 peaks):			95.2		Total Col2Ave (4 peaks):			19.0	RPD = 133*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):			12.5	
Aroclor-1232	1	6.276	-0.003	75830	4.0	1	6.381	-0.004	44353	2.3
Aroclor-1232	2	6.675	-0.002	117684	1.9	2	7.003	-0.007	79457	2.3
Aroclor-1232	3	6.830	0.004	106826	4.1	3	7.145	-0.075	14526	1.2
Aroclor-1232	4	8.016	-0.003	18237	0.8	4	8.356	-0.008	95575	8.1
	Total Col1Ave (4 peaks):			2.7		Total Col2Ave (4 peaks):			3.5	RPD = 25
	Corrected Ave (3 peaks):			2.2		Corrected Ave (3 peaks):			1.9	RPD = 14
Aroclor-1242	1	6.276	0.003	75830	2.1	1	6.381	0.002	44353	1.3
Aroclor-1242	2	6.675	0.004	117684	1.0	2	7.003	-0.002	79457	1.2
Aroclor-1242	3	6.830	0.009	106826	2.2	3	7.145	-0.069	14526	0.6
Aroclor-1242	4	8.016	0.003	18237	0.5	4	8.356	-0.002	95575	4.6
	Total Col1Ave (4 peaks):			1.5		Total Col2Ave (4 peaks):			1.9	RPD = 29
	Corrected Ave (3 peaks):			1.2		Corrected Ave (3 peaks):			1.0	RPD = 14
Aroclor-1248	1	6.675	0.006	117684	1.5	1	7.003	0.000	79457	1.8
Aroclor-1248	2	7.412	-0.057	900478	16.2	2	7.928	0.020	3080969	94.8
Aroclor-1248	3	8.016	0.003	18237	0.3	3	8.356	-0.002	95575	2.8
Aroclor-1248	4	8.292	-0.012	433212	6.7	4	8.729	-0.052	258718	7.0
	Total Col1Ave (4 peaks):			6.2		Total Col2Ave (4 peaks):			26.6	RPD = 125*
	Corrected Ave (3 peaks):			2.8		Corrected Ave (3 peaks):			3.9	RPD = 32
Aroclor-1254	1	8.387	-0.001	100005	1.0	1	8.503	0.003	12346	0.4
Aroclor-1254	2	8.785	0.026	68470	1.1	2	8.670	-0.001	29477	0.8
Aroclor-1254	3	8.948	0.052	590959	4.9	3	9.221	0.028	1106159	37.1
Aroclor-1254	4	9.161	-0.083	6910112	55.6	4	9.347	0.003	43513	0.7
Aroclor-1254	5	9.608	0.002	61545	0.7	5	10.129	0.004	20981	0.5
	Total Col1Ave (5 peaks):			12.7		Total Col2Ave (5 peaks):			7.9	RPD = 46*
	Corrected Ave (4 peaks):			1.9		Corrected Ave (4 peaks):			0.6	RPD = 105*
Aroclor-1260	1	10.483	0.005	22676	0.3	1	10.495	0.040	101324	2.9
Aroclor-1260	2	10.893	0.040	174156	0.9	2	10.906	-0.001	33336	0.8
Aroclor-1260	3	11.242	-0.010	46379	0.4	3	11.182	0.004	27232	0.3
Aroclor-1260	4	11.359	-0.009	50298	1.1	4	11.654	-0.046	110832	4.5
Aroclor-1260	5	11.447	0.005	24469	0.5	NS	---			----
	Total Col1Ave (5 peaks):			0.6		Total Col2Ave (4 peaks):			2.1	RPD = 108*
	Corrected Ave (4 peaks):			0.5		Corrected Ave (3 peaks):			1.3	RPD = 89*
Aroclor-1262	1	10.166	-0.001	80851	0.6	1	10.495	0.034	101324	1.8
Aroclor-1262	2	10.483	-0.002	22676	0.2	2	10.906	-0.008	33336	0.6
Aroclor-1262	3	10.893	0.034	174156	0.7	3	11.182	-0.002	27232	0.3
Aroclor-1262	4	11.359	-0.016	50298	0.5	4	11.654	-0.053	110832	2.4
Aroclor-1262	5	11.447	-0.002	24469	0.2	5	12.545	0.040	195468	5.3
	Total Col1Ave (5 peaks):			0.5		Total Col2Ave (5 peaks):			2.1	RPD = 128*
	Corrected Ave (4 peaks):			0.4		Corrected Ave (4 peaks):			1.3	RPD = 106*
Aroclor-1268	1	11.359	-0.017	50298	0.2	1	11.654	-0.054	110832	1.0
Aroclor-1268	2	11.447	-0.001	24469	0.1	2	11.775	0.001	26454	0.3

Aroclor-1268	3	11.829	-0.006	99386	0.5	3	12.161	-0.012	36210	0.4
Aroclor-1268	4	12.610	-0.015	245390	0.4	4	12.987	-0.006	315894	1.3

Total Col1Ave (4 peaks): 0.3 Total Col2Ave (4 peaks): 0.8 RPD = 93*

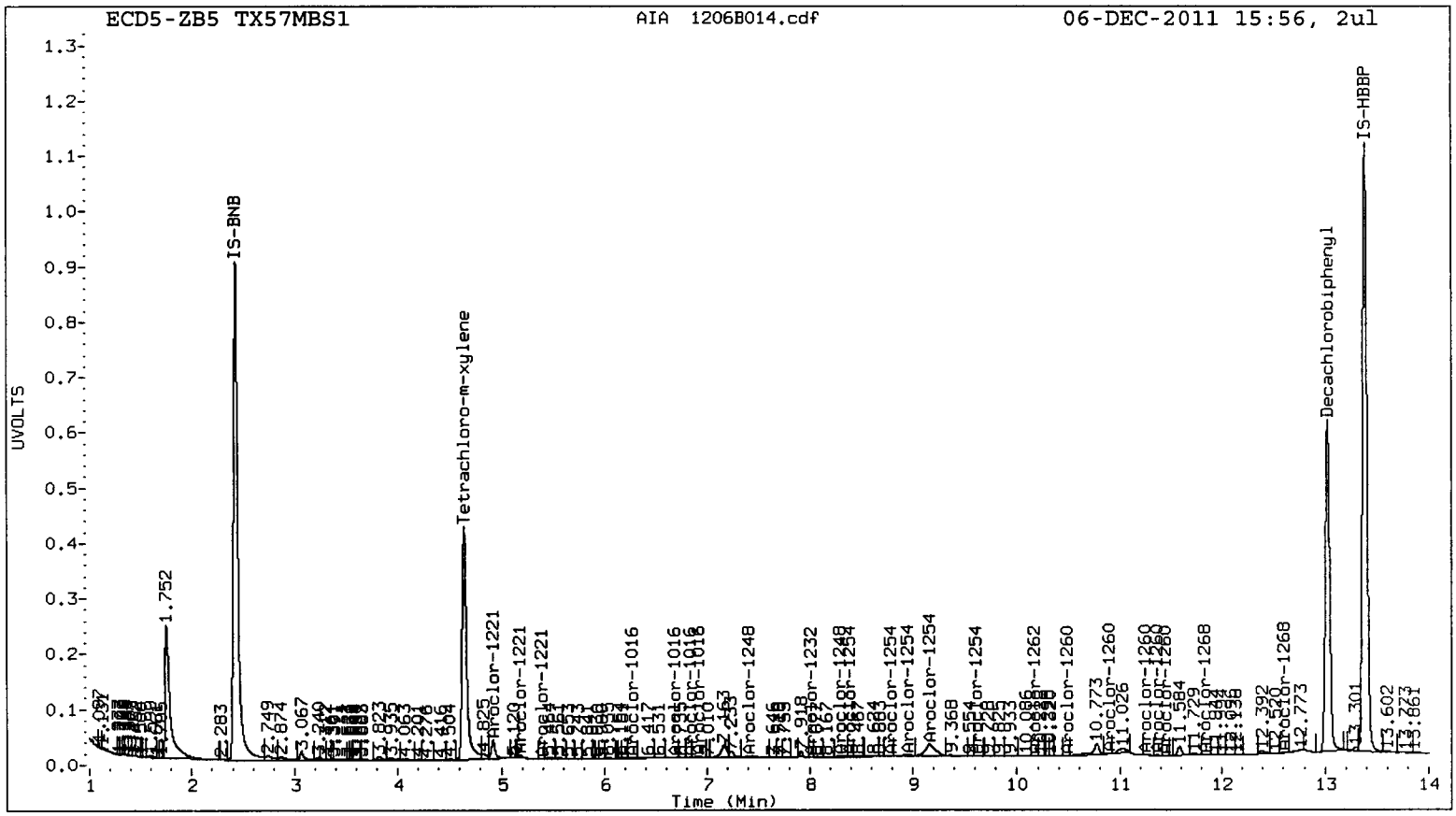
Corrected Ave (3 peaks): 0.2 Corrected Ave (3 peaks): 0.6 RPD = 91*

Total PCB Area Col1 (4.740 - 12.923) = 38416484 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 18846659 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Tetrachloro-m-xylene
Decachlorobiphenyl
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Aroclor-1016
Aroclor-1248
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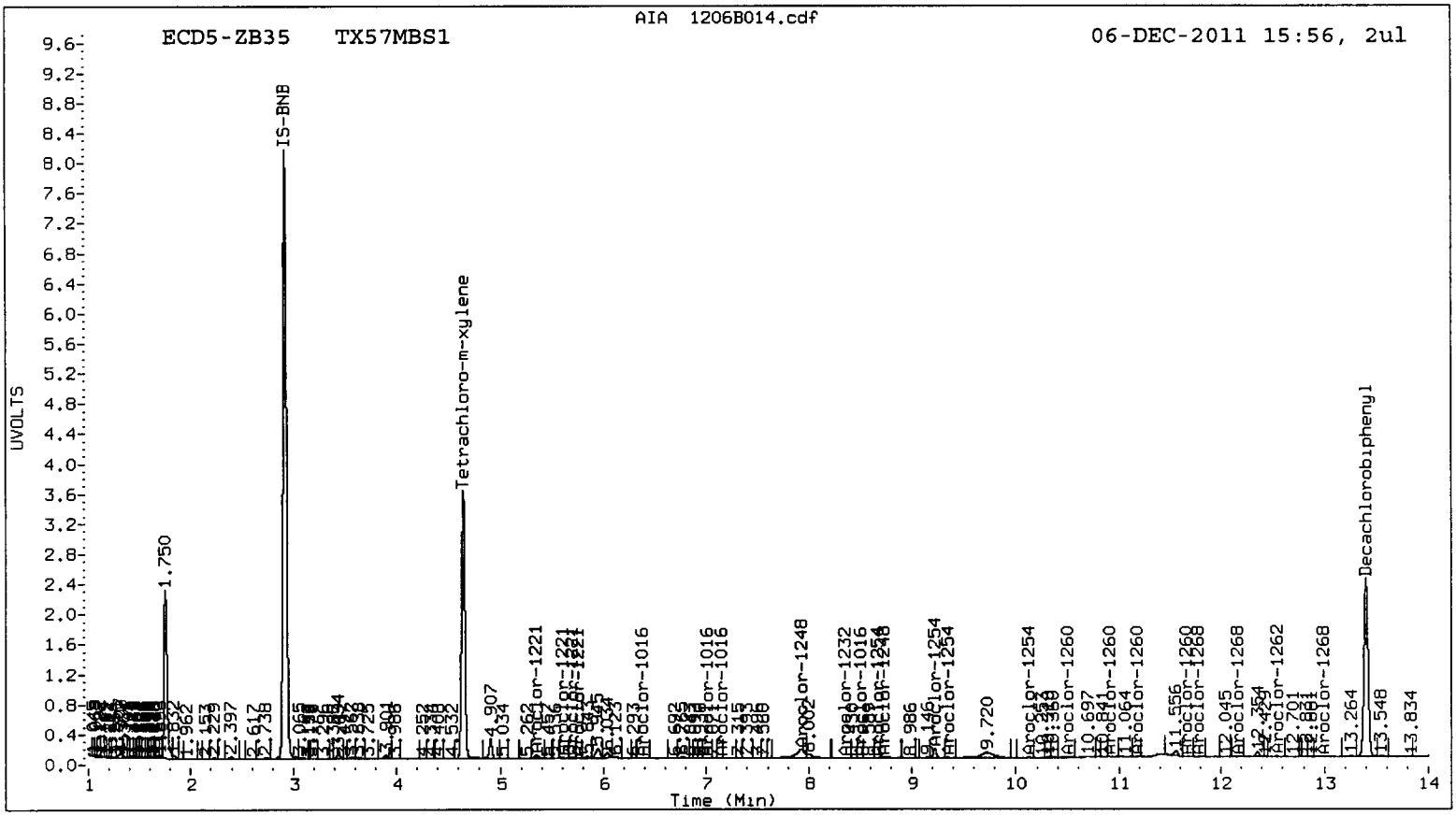
Aroclor-1262
Aroclor-1268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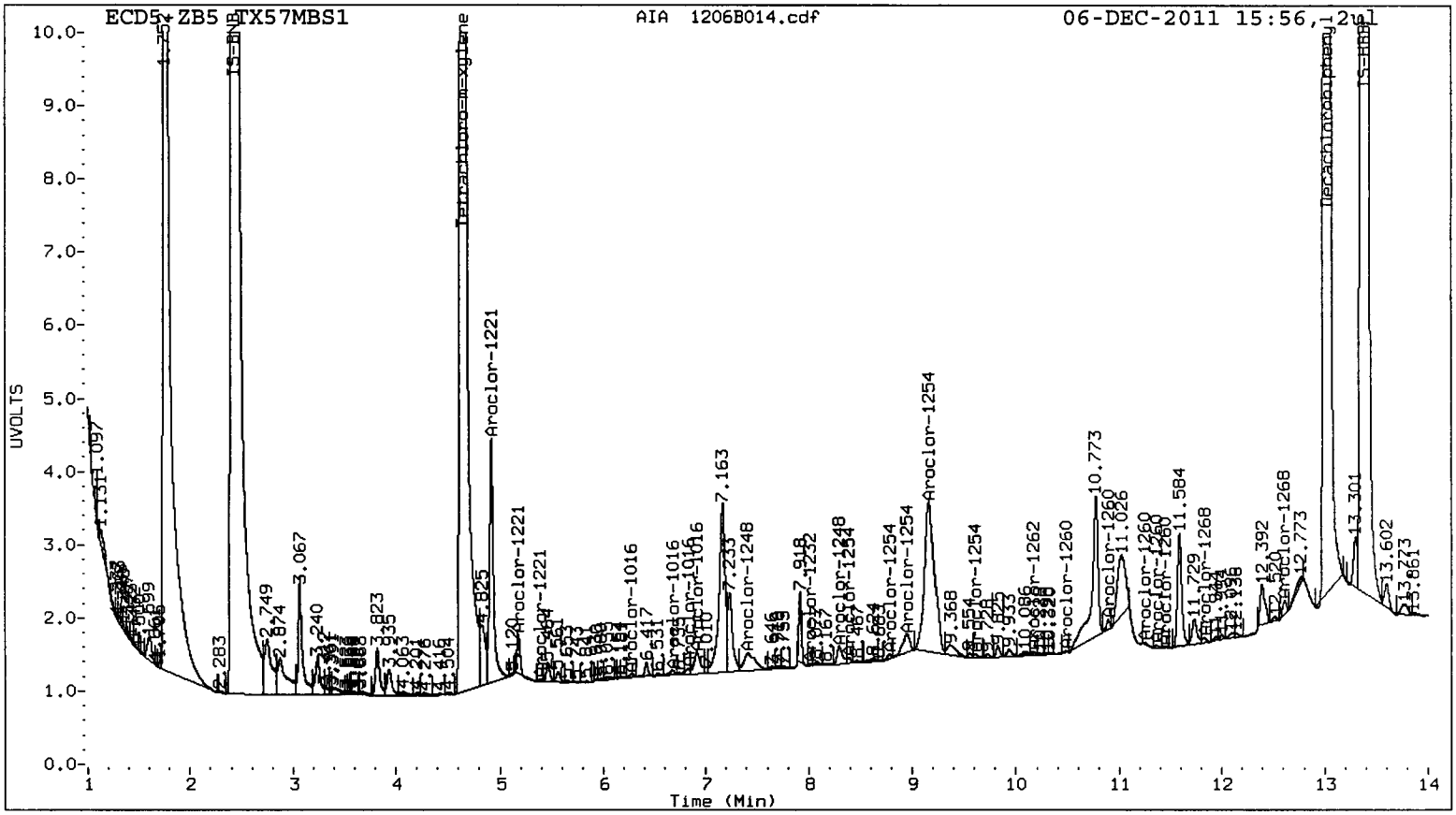
ECD5-ZB35 TX57MBS1
06-DEC-2011 15:56, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
1.750
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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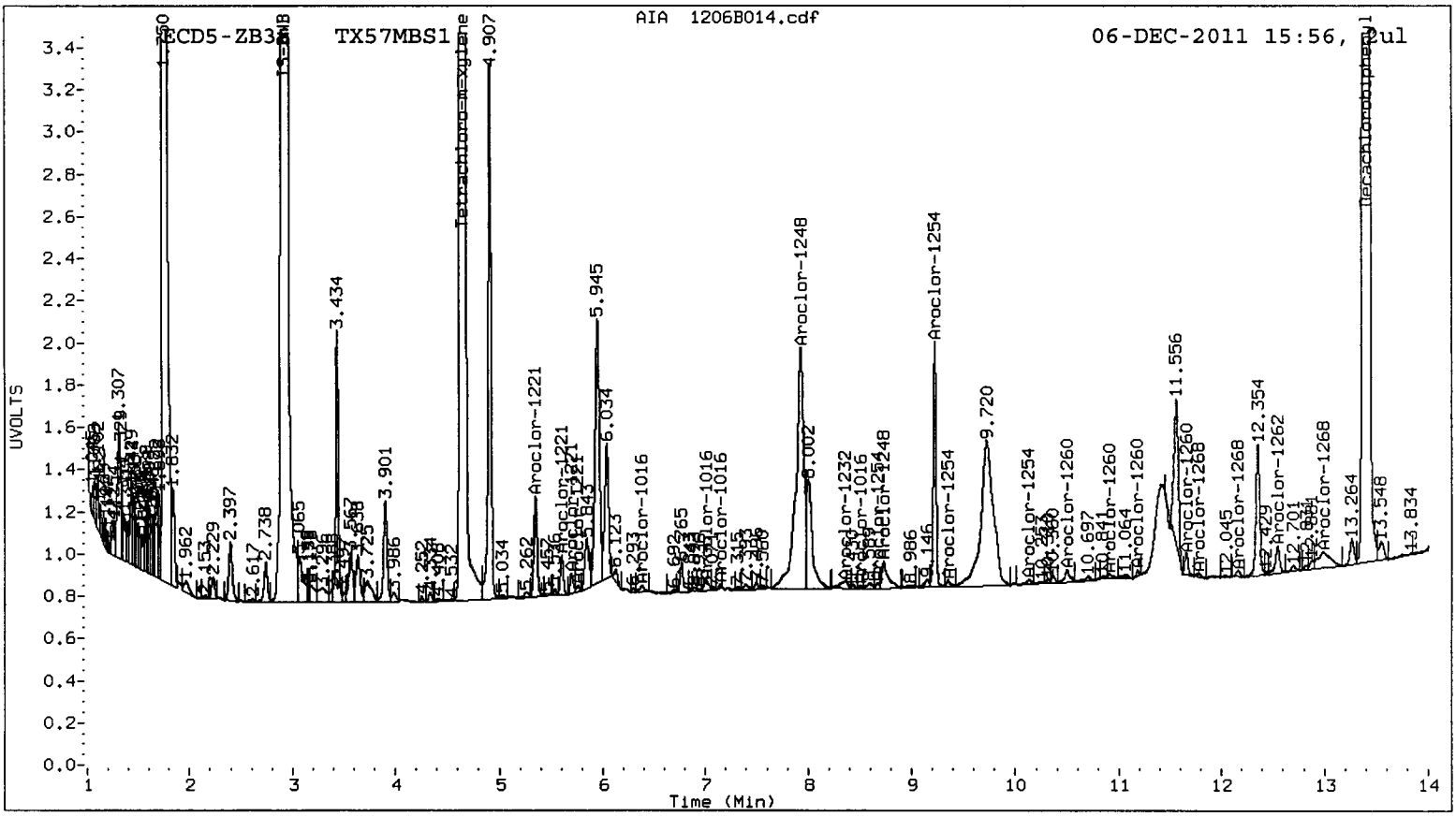
AIA 1206B014.cdf
06-DEC-2011 15:56, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268


ECD5-ZB3 TX57MBS1
AIA 1206B014.cdf
06-DEC-2011 15:56, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B015.d
Data file 2: 20111202.B/1206-2.b/1206B015.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57LCSS1
Client ID:
Injection Date: 06-DEC-2011 16:15
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.644	0.004	68767173	4.644	0.001	42007988	34.8	34.9	0.5	Tetrachloro-m-xylene
13.026	0.003	91885470	13.403	0.003	33341664	43.5	41.7	4.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	86.9	87.4
Decachlorobiphenyl	108.9	104.4

12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	138878705	11.3
Hexabromobiphenyl	134444165	168129362	25.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	93624337	4.6
Hexabromobiphenyl	57341096	64586127	12.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	6.275	0.002	20110406	420.3	1	6.382	0.002	17887935	399.1	
Aroclor-1016	2	6.674	0.002	69695047	440.0	2	7.007	0.001	38813333	436.2	
Aroclor-1016	3	6.823	0.002	27890554	434.6	3	7.215	0.001	12810845	382.6	
Aroclor-1016	4	6.933	0.002	21424455	475.0	4	8.500	0.002	7307354	457.2	
	Total Col1Ave (4 peaks):				442.4	Total Col2Ave (4 peaks):				418.8	RPD = 6
	Corrected Ave (3 peaks):				431.6	Corrected Ave (3 peaks):				406.0	RPD = 6
Aroclor-1221	1	5.012	-0.005	2768417	146.2	1	5.332	0.000	2142004	158.9	
Aroclor-1221	2	5.192	-0.004	3236464	242.3	2	5.576	-0.003	1688672	218.7	
Aroclor-1221	3	5.297	-0.003	13929238	297.1	3	5.688	-0.003	7667163	314.3	
Aroclor-1221	NS	---			----	4	5.756	-0.003	472004	122.2	
	Total Col1Ave (3 peaks):				228.5	Total Col2Ave (4 peaks):				203.5	RPD = 12
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				166.6	
Aroclor-1232	1	6.275	-0.003	20110406	1042.8	1	6.382	-0.004	17887935	917.6	
Aroclor-1232	2	6.674	-0.003	69695047	1091.5	2	7.007	-0.003	38813333	1090.1	
Aroclor-1232	3	6.823	-0.003	27890554	1072.0	3	7.215	-0.004	12810845	1031.1	
Aroclor-1232	4	8.014	-0.005	3665944	159.6	4	8.358	-0.006	1901711	158.7	
	Total Col1Ave (4 peaks):				841.5	Total Col2Ave (4 peaks):				799.4	RPD = 5
	Corrected Ave (3 peaks):				758.1	Corrected Ave (3 peaks):				702.5	RPD = 8
Aroclor-1242	1	6.275	0.002	20110406	555.8	1	6.382	0.002	17887935	533.2	
Aroclor-1242	2	6.674	0.002	69695047	584.1	2	7.007	0.002	38813333	582.1	
Aroclor-1242	3	6.823	0.002	27890554	580.6	3	7.215	0.002	12810845	484.7	
Aroclor-1242	4	8.014	0.001	3665944	90.5	4	8.358	0.000	1901711	91.0	
	Total Col1Ave (4 peaks):				452.7	Total Col2Ave (4 peaks):				422.8	RPD = 7
	Corrected Ave (3 peaks):				408.9	Corrected Ave (3 peaks):				369.6	RPD = 10
Aroclor-1248	1	6.674	0.005	69695047	860.8	1	7.007	0.005	38813333	877.9	
Aroclor-1248	2	7.470	0.002	19932504	354.4	2	7.909	0.001	14462542	438.0	
Aroclor-1248	3	8.014	0.001	3665944	54.3	3	8.358	0.000	1901711	55.3	
Aroclor-1248	4	8.310	0.006	3782503	58.2	4	8.780	-0.001	804447	21.4	
	Total Col1Ave (4 peaks):				331.9	Total Col2Ave (4 peaks):				348.2	RPD = 5
	Corrected Ave (3 peaks):				155.7	Corrected Ave (3 peaks):				171.6	RPD = 10
Aroclor-1254	1	8.391	0.003	20967261	207.4	1	8.500	0.001	7307354	247.9	
Aroclor-1254	2	8.760	0.001	4270304	65.8	2	8.671	0.000	8709692	226.4	
Aroclor-1254	3	8.894	-0.001	20272478	167.5	3	9.196	0.003	2832368	93.5	
Aroclor-1254	4	9.228	-0.016	53673325	427.8	4	9.347	0.003	4313736	66.4	
Aroclor-1254	5	9.557	-0.049	76026345	895.1	5	10.139	0.014	9217538	229.5	
	Total Col1Ave (5 peaks):				352.7	Total Col2Ave (5 peaks):				172.7	RPD = 69*
	Corrected Ave (4 peaks):				217.1	Corrected Ave (4 peaks):				153.9	RPD = 34
Aroclor-1260	1	10.481	0.003	35495517	427.7	1	10.457	0.002	16906494	463.7	
Aroclor-1260	2	10.855	0.002	96580319	457.1	2	10.908	0.001	21308637	473.5	
Aroclor-1260	3	11.254	0.002	53543485	471.1	3	11.179	0.001	44390475	494.9	
Aroclor-1260	4	11.371	0.003	21741641	472.0	4	11.702	0.003	12270924	480.8	
Aroclor-1260	5	11.445	0.002	26610421	481.4	NS	---			----	
	Total Col1Ave (5 peaks):				461.8	Total Col2Ave (4 peaks):				478.2	RPD = 3
	Corrected Ave (4 peaks):				457.0	Corrected Ave (3 peaks):				472.7	RPD = 3
Aroclor-1262	1	10.164	-0.004	38348625	286.4	1	10.457	-0.004	16906494	291.1	
Aroclor-1262	2	10.481	-0.004	35495517	340.1	2	10.908	-0.006	21308637	386.1	
Aroclor-1262	3	10.855	-0.004	96580319	377.1	3	11.179	-0.005	44390475	413.4	
Aroclor-1262	4	11.371	-0.004	21741641	204.0	4	11.702	-0.005	12270924	257.3	
Aroclor-1262	5	11.445	-0.004	26610421	232.6	5	12.500	-0.005	11039749	288.5	
	Total Col1Ave (5 peaks):				288.0	Total Col2Ave (5 peaks):				327.3	RPD = 13
	Corrected Ave (4 peaks):				265.8	Corrected Ave (4 peaks):				305.7	RPD = 14
Aroclor-1268	1	11.371	-0.006	21741641	79.2	1	11.702	-0.005	12270924	109.5	
Aroclor-1268	2	11.445	-0.003	26610421	99.1	2	11.761	-0.013	29149355	285.2	

Aroclor-1268	3	11.846	0.011	12805382	56.5	3	12.166	-0.006	793485	9.4
Aroclor-1268	4	12.619	-0.006	8344558	11.9	4	12.988	-0.005	3562402	14.2

Total Col1Ave (4 peaks): 61.7 Total Col2Ave (4 peaks): 104.6 RPD = 52*

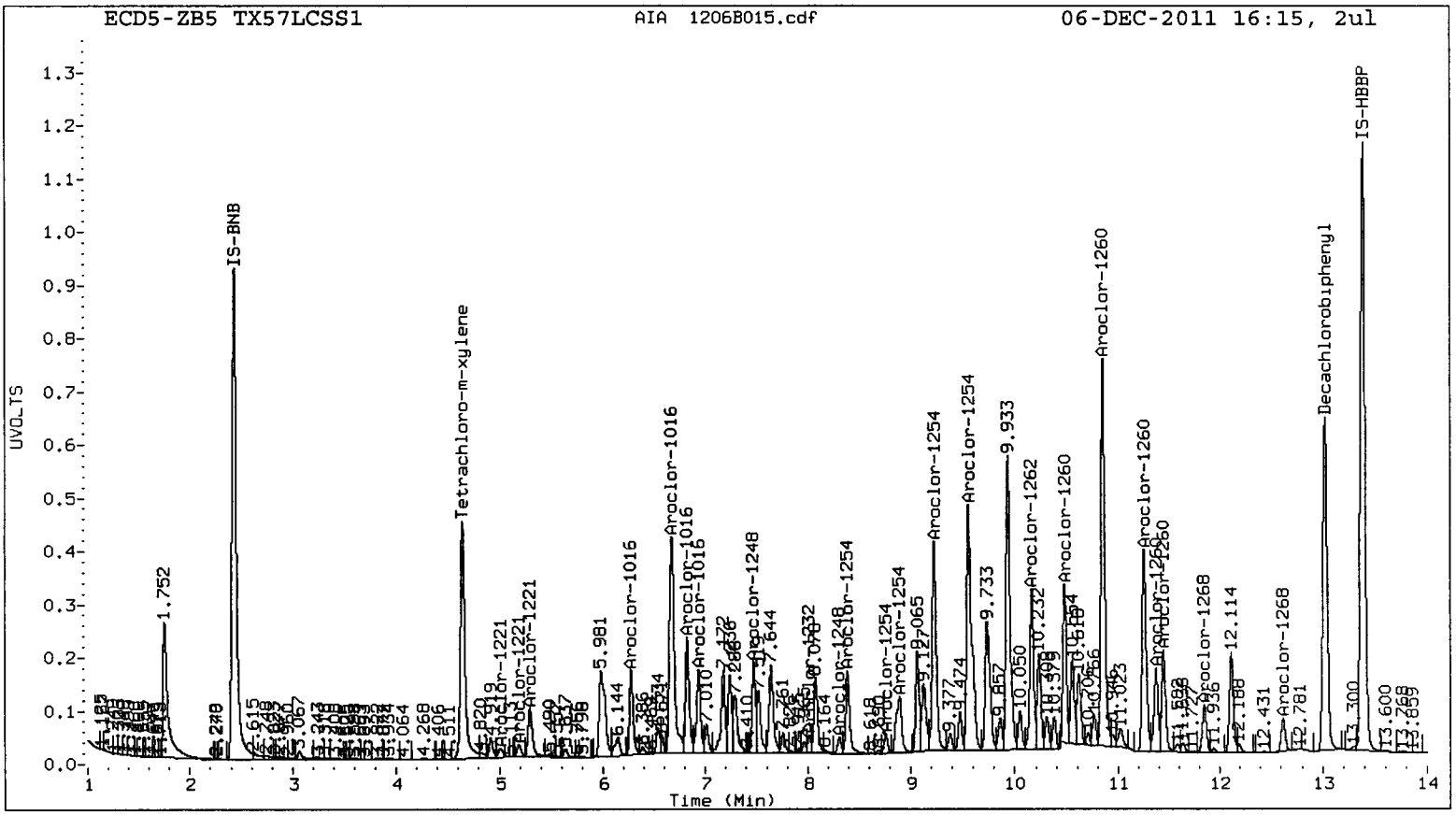
Corrected Ave (3 peaks): 49.2 Corrected Ave (3 peaks): 44.4 RPD = 10

Total PCB Area Col1 (4.740 - 12.923) = 1161655979 Col1 Total PCB = 1.0 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 554967226 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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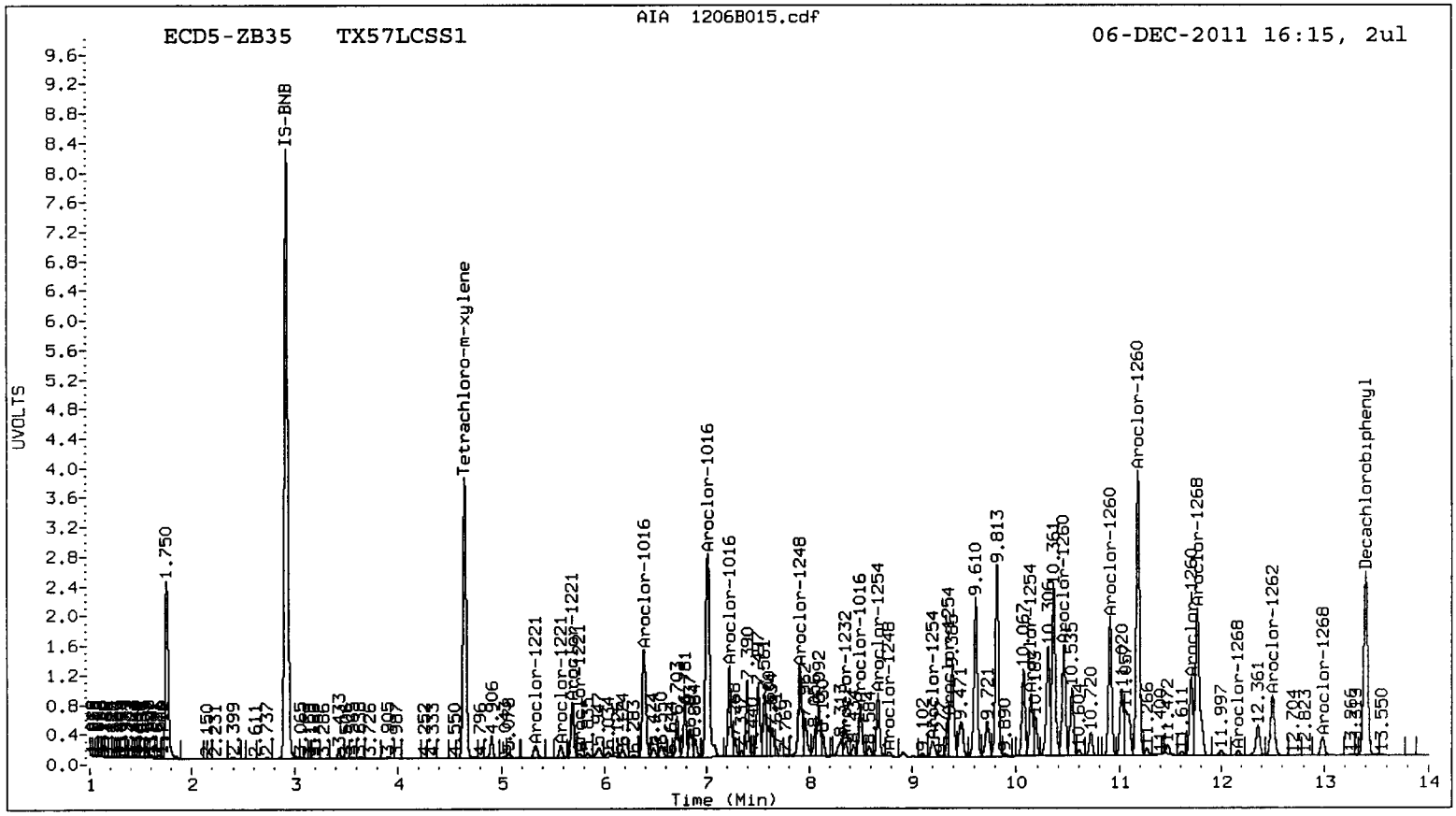
06-DEC-2011 16:15, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
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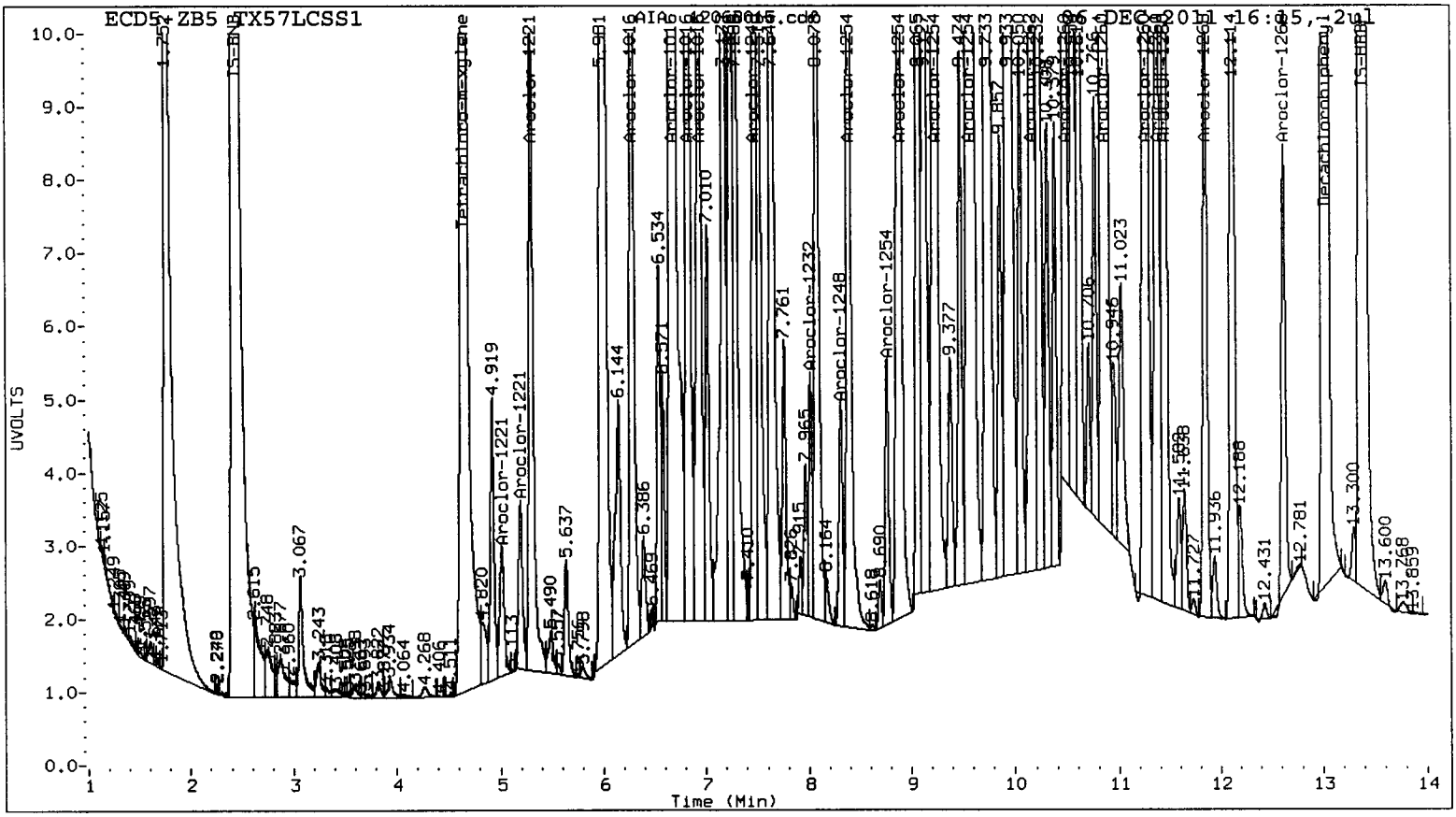
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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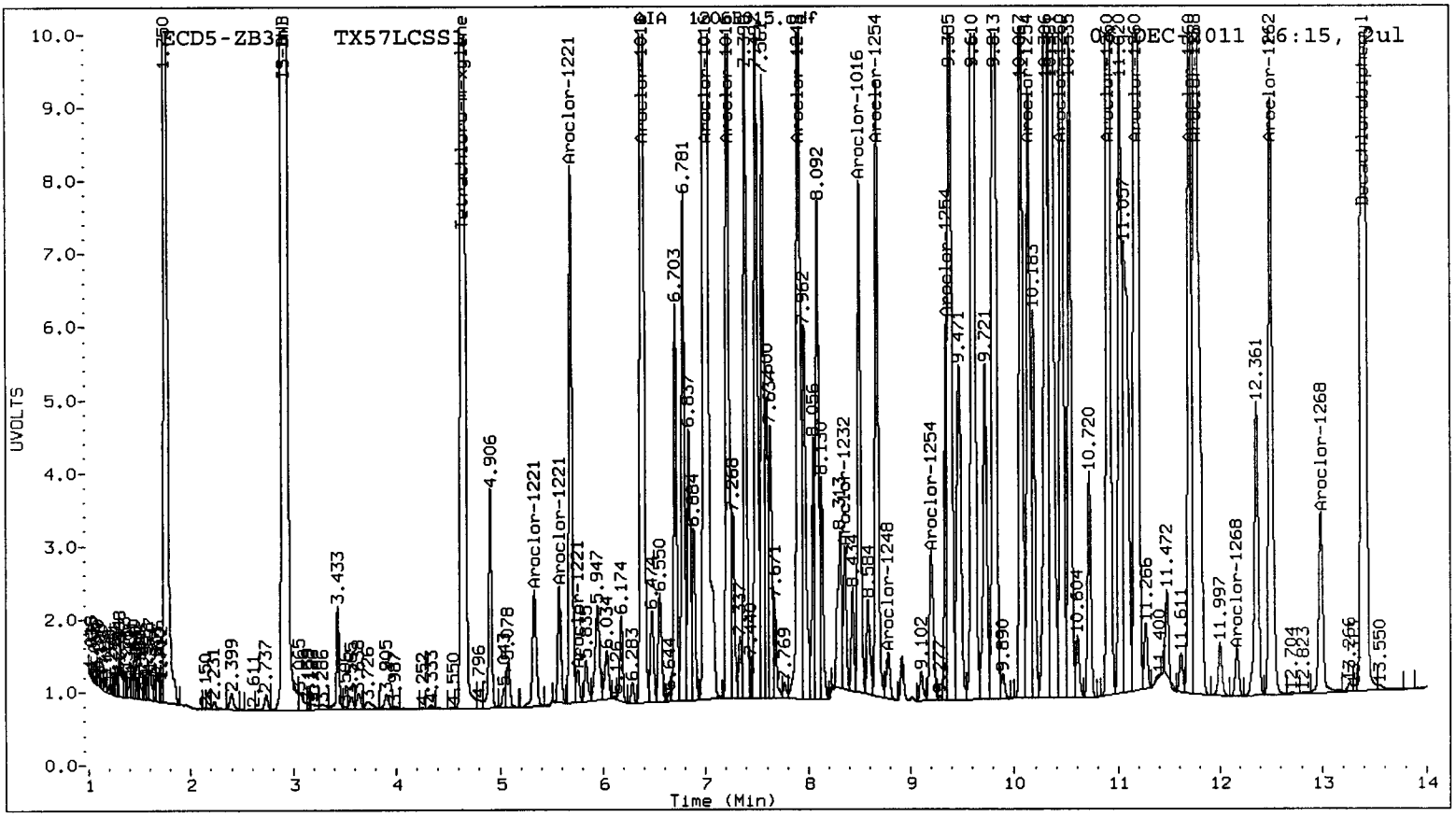
UVOLTS
Time (Min)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UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B016.d
Data file 2: 20111202.B/1206-2.b/1206B016.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57A
Client ID:
Injection Date: 06-DEC-2011 16:34
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 10.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.642	0.002	8559550	4.644	0.001	4834794	4.3	4.1	5.4	Tetrachloro-m-xylene
13.026	0.003	10446108	13.401	0.001	4228442	5.0	5.2	4.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	108.3	102.5
Decachlorobiphenyl	125.6	131.0

12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	138739233	11.2
Hexabromobiphenyl	134444165	165650841	23.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	91798742	2.6
Hexabromobiphenyl	57341096	65235450	13.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.271	-0.002	677358	14.2	1	6.379	-0.001	725448	16.5
Aroclor-1016	2	6.664	-0.009	2208073	14.0	2	6.999	-0.007	879083	10.1
Aroclor-1016	3	6.833	0.013	2040900	31.8	3	7.215	0.001	27054	0.8
Aroclor-1016	4	6.907	-0.024	1327777	29.5	4	8.500	0.002	13594338	867.4
	Total Col1Ave (4 peaks):				22.4	Total Col2Ave (4 peaks):				223.7 RPD = 164*
	Corrected Ave (3 peaks):				19.2	Corrected Ave (3 peaks):				9.1 RPD = 71*
Aroclor-1221	1	5.111	0.094	16664	0.9	1	5.349	0.017	64832	4.9
Aroclor-1221	2	5.185	-0.011	146546	11.0	2	5.598	0.019	154350	20.4
Aroclor-1221	3	5.297	-0.003	70668	1.5	3	5.710	0.019	749536	31.3
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):				4.5	Total Col2Ave (3 peaks):				18.9 RPD = 124*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.271	-0.008	677358	35.2	1	6.379	-0.006	725448	38.0
Aroclor-1232	2	6.664	-0.013	2208073	34.6	2	6.999	-0.011	879083	25.2
Aroclor-1232	3	6.833	0.007	2040900	78.5	3	7.215	-0.004	27054	2.2
Aroclor-1232	4	8.014	-0.005	5971423	260.2	4	8.359	-0.005	3142207	267.4
	Total Col1Ave (4 peaks):				102.1	Total Col2Ave (4 peaks):				83.2 RPD = 20
	Corrected Ave (3 peaks):				49.4	Corrected Ave (3 peaks):				21.8 RPD = 78*
Aroclor-1242	1	6.271	-0.002	677358	18.7	1	6.379	0.000	725448	22.1
Aroclor-1242	2	6.664	-0.008	2208073	18.5	2	6.999	-0.006	879083	13.4
Aroclor-1242	3	6.833	0.012	2040900	42.5	3	7.215	0.002	27054	1.0
Aroclor-1242	4	8.014	0.001	5971423	147.6	4	8.359	0.001	3142207	153.3
	Total Col1Ave (4 peaks):				56.8	Total Col2Ave (4 peaks):				47.5 RPD = 18
	Corrected Ave (3 peaks):				26.6	Corrected Ave (3 peaks):				12.2 RPD = 74*
Aroclor-1248	1	6.664	-0.005	2208073	27.3	1	6.999	-0.003	879083	20.3
Aroclor-1248	2	7.469	0.001	5917308	105.3	2	7.907	0.000	3433458	106.1
Aroclor-1248	3	8.014	0.001	5971423	88.6	3	8.359	0.000	3142207	93.2
Aroclor-1248	4	8.311	0.007	8640372	133.1	4	8.765	-0.016	8358397	227.2
	Total Col1Ave (4 peaks):				88.6	Total Col2Ave (4 peaks):				111.7 RPD = 23
	Corrected Ave (3 peaks):				73.7	Corrected Ave (3 peaks):				73.2 RPD = 1
Aroclor-1254	1	8.389	0.001	41287152	408.9	1	8.500	0.001	13594338	470.4
Aroclor-1254	2	8.760	0.001	21885698	337.4	2	8.672	0.001	15512424	411.2
Aroclor-1254	3	8.896	0.001	58875189	487.0	3	9.194	0.001	9997941	336.5
Aroclor-1254	4	9.237	-0.007	60174812	480.2	4	9.345	0.000	33103789	519.7
Aroclor-1254	5	9.601	-0.004	30945362	364.7	5	10.134	0.008	15483657	393.3
	Total Col1Ave (5 peaks):				415.6	Total Col2Ave (5 peaks):				426.2 RPD = 3
	Corrected Ave (4 peaks):				397.8	Corrected Ave (4 peaks):				402.9 RPD = 1
Aroclor-1260	1	10.480	0.002	12028902	147.1	1	10.455	0.000	6408006	174.0
Aroclor-1260	2	10.854	0.001	37484926	180.1	2	10.904	-0.003	13758753	302.7
Aroclor-1260	3	11.254	0.002	23258742	207.7	3	11.179	0.001	17864683	197.2
Aroclor-1260	4	11.374	0.005	12347397	272.1	4	11.701	0.002	4778616	185.4
Aroclor-1260	5	11.444	0.002	11518163	211.5	NS	---			----
	Total Col1Ave (5 peaks):				203.7	Total Col2Ave (4 peaks):				214.8 RPD = 5
	Corrected Ave (4 peaks):				186.6	Corrected Ave (3 peaks):				185.5 RPD = 1
Aroclor-1262	1	10.163	-0.005	13151688	99.7	1	10.455	-0.006	6408006	109.2
Aroclor-1262	2	10.480	-0.005	12028902	117.0	2	10.904	-0.010	13758753	246.8
Aroclor-1262	3	10.854	-0.005	37484926	148.5	3	11.179	-0.005	17864683	164.7
Aroclor-1262	4	11.374	-0.002	12347397	117.6	4	11.701	-0.006	4778616	99.2
Aroclor-1262	5	11.444	-0.005	11518163	102.2	5	12.500	-0.005	4764468	123.3
	Total Col1Ave (5 peaks):				117.0	Total Col2Ave (5 peaks):				148.6 RPD = 24
	Corrected Ave (4 peaks):				109.1	Corrected Ave (4 peaks):				124.1 RPD = 13
Aroclor-1268	1	11.374	-0.003	12347397	45.6	1	11.701	-0.006	4778616	42.2
Aroclor-1268	2	11.444	-0.004	11518163	43.5	2	11.760	-0.014	12686764	122.9

Aroclor-1268	3	11.846	0.011	4784907	21.4	3	12.166	-0.006	234435	2.7
Aroclor-1268	4	12.618	-0.008	4107798	6.0	4	12.986	-0.007	1379531	5.4

Total Col1Ave (4 peaks): 29.1 Total Col2Ave (4 peaks): 43.3 RPD = 39

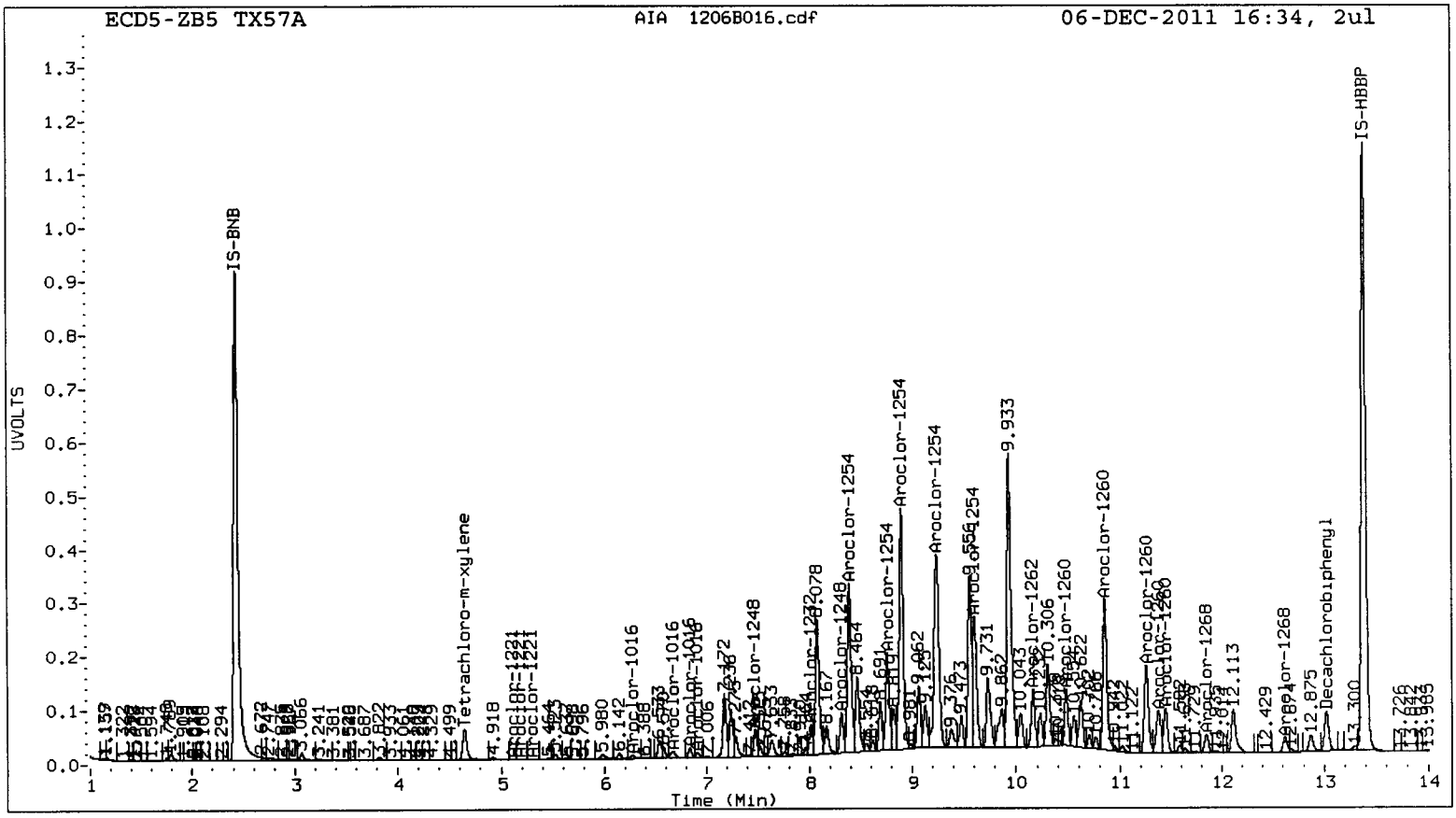
Corrected Ave (3 peaks): 23.6 Corrected Ave (3 peaks): 16.8 RPD = 34

Total PCB Area Col1 (4.740 - 12.923) = 754427595 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 359427909 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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AIA 1206B016.cdf
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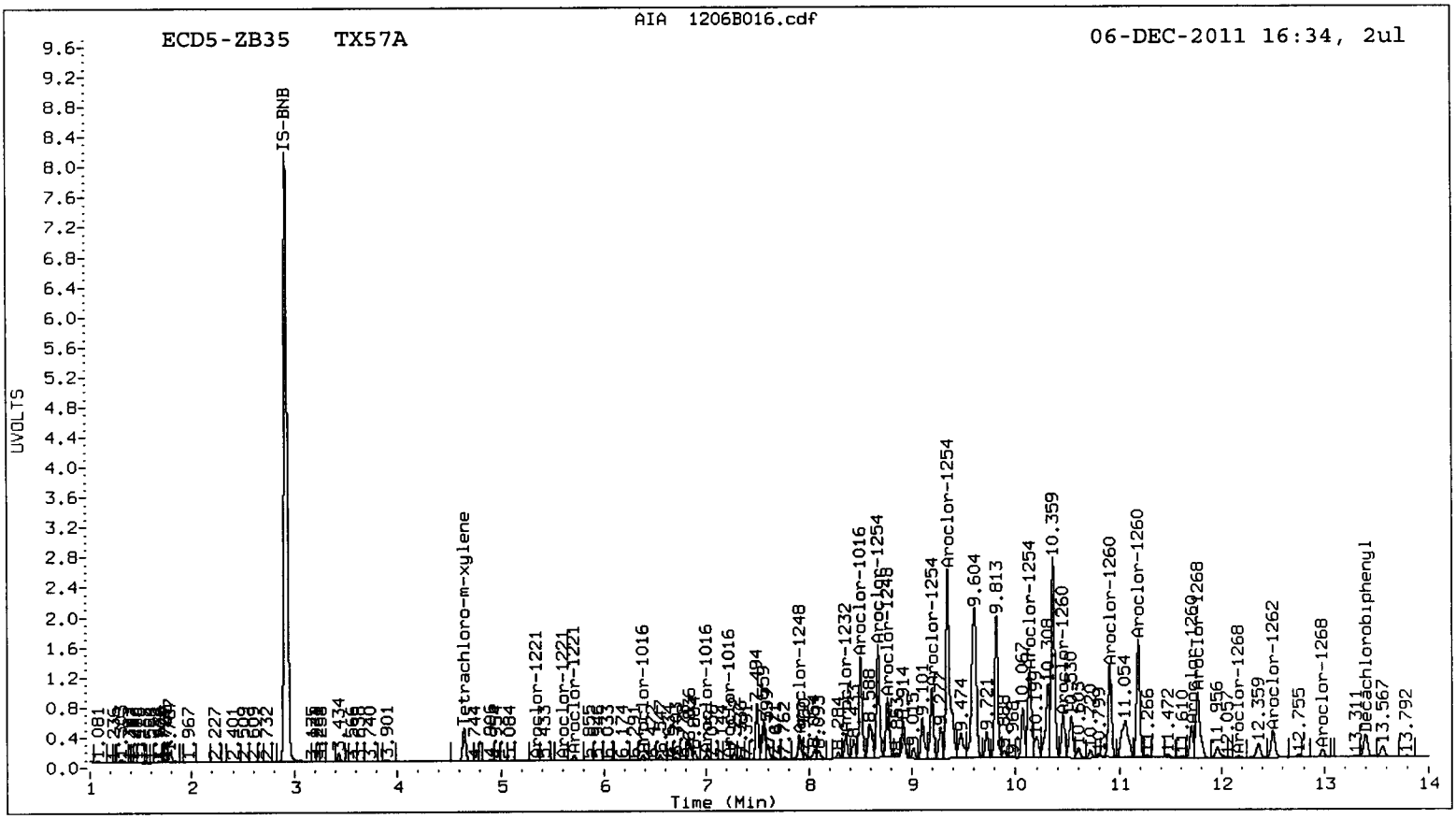
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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ECD5-ZB35 TX57A
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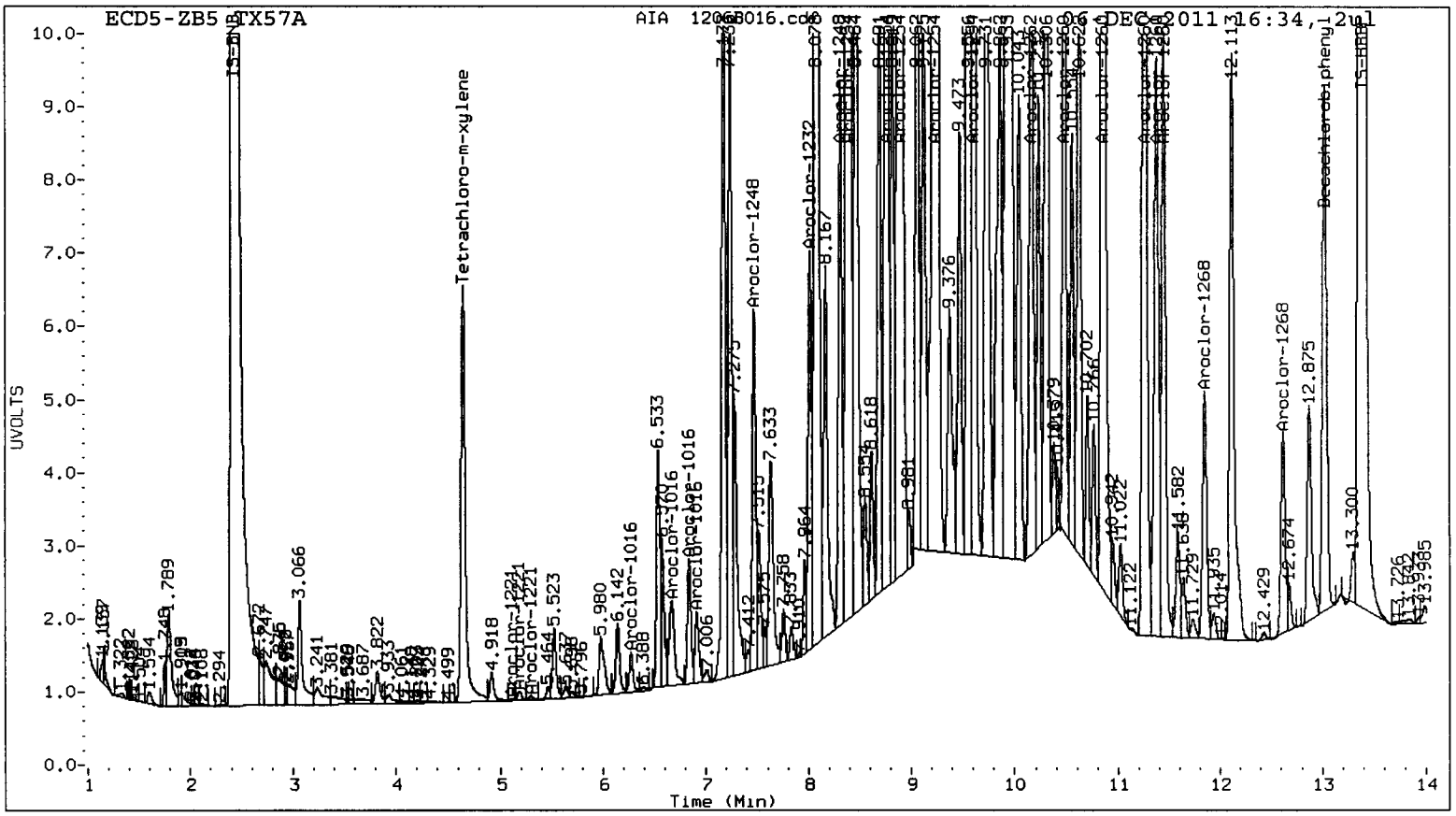
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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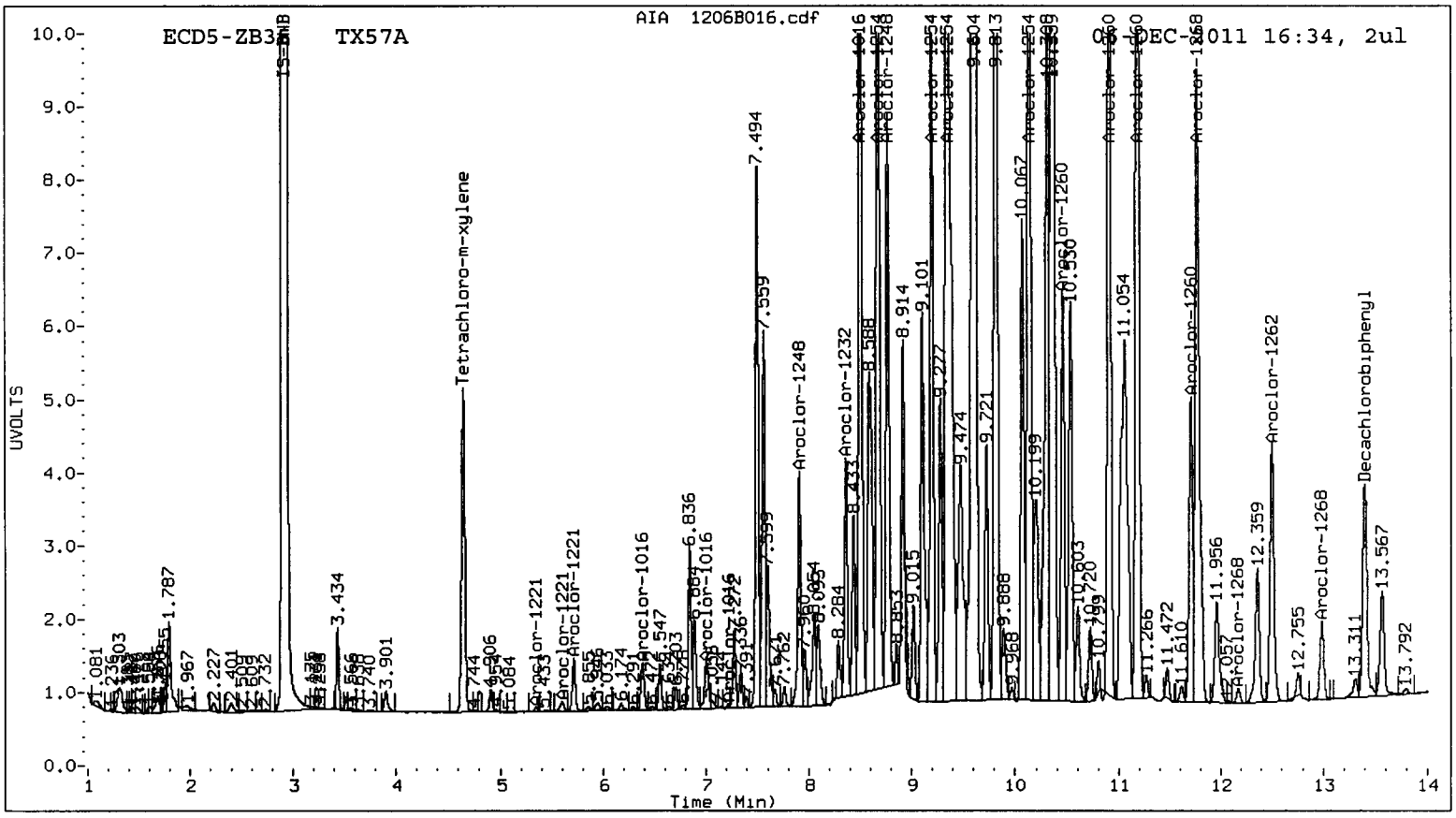
AIA 1206B016.cdf
DEC 2011 16:34, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1248
Aroclor-1268
Decachlorobiphenyl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AIA 1206B016.cdf
DEC 2011 16:34, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1248
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B017.d
Data file 2: 20111202.B/1206-2.b/1206B017.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57B
Client ID:
Injection Date: 06-DEC-2011 16:53
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 10.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.642	0.002	10334957	4.643	0.000	5913567	4.5	4.4	3.6	Tetrachloro-m-xylene
13.027	0.003	12522927	13.402	0.002	4759251	5.2	5.2	0.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	113.2	109.2
Decachlorobiphenyl	131.0	130.3

12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	160171066	28.3
Hexabromobiphenyl	134444165	190427681	41.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	105397228	17.8
Hexabromobiphenyl	57341096	73851886	28.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.270	-0.003	209183	3.8	1	6.378	-0.001	222187	4.4
Aroclor-1016	2	6.663	-0.009	630029	3.4	2	7.000	-0.006	186353	1.9
Aroclor-1016	3	6.833	0.013	665108	9.0	3	7.273	0.059	313180	8.3
Aroclor-1016	4	6.907	-0.024	439938	8.5	4	8.500	0.001	5105456	283.7
	Total Col1Ave (4 peaks):			6.2		Total Col2Ave (4 peaks):			74.6	RPD = 169*
	Corrected Ave (3 peaks):			5.2		Corrected Ave (3 peaks):			4.9	RPD = 7
Aroclor-1221	1	5.112	0.096	27777	1.3	1	5.346	0.014	70565	4.6
Aroclor-1221	2	5.179	-0.017	101098	6.6	2	5.598	0.020	82241	9.5
Aroclor-1221	3	5.298	-0.002	24124	0.4	3	5.709	0.018	254240	9.3
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):			2.8		Total Col2Ave (3 peaks):			7.8	RPD = 95*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.270	-0.008	209183	9.4	1	6.378	-0.007	222187	10.1
Aroclor-1232	2	6.663	-0.014	630029	8.6	2	7.000	-0.010	186353	4.6
Aroclor-1232	3	6.833	0.007	665108	22.2	3	7.273	0.054	313180	22.4
Aroclor-1232	4	8.015	-0.004	847389	32.0	4	8.359	-0.005	474557	35.2
	Total Col1Ave (4 peaks):			18.0		Total Col2Ave (4 peaks):			18.1	RPD = 0
	Corrected Ave (3 peaks):			13.4		Corrected Ave (3 peaks):			12.4	RPD = 8
Aroclor-1242	1	6.270	-0.003	209183	5.0	1	6.378	-0.001	222187	5.9
Aroclor-1242	2	6.663	-0.008	630029	4.6	2	7.000	-0.005	186353	2.5
Aroclor-1242	3	6.833	0.012	665108	12.0	3	7.273	0.059	313180	10.5
Aroclor-1242	4	8.015	0.002	847389	18.1	4	8.359	0.001	474557	20.2
	Total Col1Ave (4 peaks):			9.9		Total Col2Ave (4 peaks):			9.8	RPD = 2
	Corrected Ave (3 peaks):			7.2		Corrected Ave (3 peaks):			6.3	RPD = 13
Aroclor-1248	1	6.663	-0.006	630029	6.7	1	7.000	-0.002	186353	3.7
Aroclor-1248	2	7.470	0.001	1498461	23.1	2	7.908	0.001	1024856	27.6
Aroclor-1248	3	8.015	0.002	847389	10.9	3	8.359	0.000	474557	12.3
Aroclor-1248	4	8.312	0.008	2946199	39.3	4	8.764	-0.016	2598996	61.5
	Total Col1Ave (4 peaks):			20.0		Total Col2Ave (4 peaks):			26.3	RPD = 27
	Corrected Ave (3 peaks):			13.6		Corrected Ave (3 peaks):			14.5	RPD = 7
Aroclor-1254	1	8.389	0.001	13640587	117.0	1	8.500	0.000	5105456	153.9
Aroclor-1254	2	8.761	0.002	6630337	88.6	2	8.672	0.001	4733704	109.3
Aroclor-1254	3	8.897	0.001	19138259	137.1	3	9.195	0.002	3034662	89.0
Aroclor-1254	4	9.233	-0.012	15300502	105.8	4	9.345	0.000	10000710	136.8
Aroclor-1254	5	9.599	-0.006	8251523	84.2	5	10.137	0.012	4003984	88.6
	Total Col1Ave (5 peaks):			106.5		Total Col2Ave (5 peaks):			115.5	RPD = 8
	Corrected Ave (4 peaks):			98.9		Corrected Ave (4 peaks):			105.9	RPD = 7
Aroclor-1260	1	10.481	0.003	2114894	22.5	1	10.456	0.001	1031631	24.7
Aroclor-1260	2	10.854	0.001	5825632	24.3	2	10.904	-0.003	3440698	66.9
Aroclor-1260	3	11.253	0.001	4194326	32.6	3	11.179	0.001	2817580	27.5
Aroclor-1260	4	11.374	0.005	1660975	31.8	4	11.702	0.003	717912	24.6
Aroclor-1260	5	11.444	0.001	1512280	24.2	NS	---			----
	Total Col1Ave (5 peaks):			27.1		Total Col2Ave (4 peaks):			35.9	RPD = 28
	Corrected Ave (4 peaks):			25.7		Corrected Ave (3 peaks):			25.6	RPD = 0
Aroclor-1262	1	10.163	-0.005	2168095	14.3	1	10.456	-0.005	1031631	15.5
Aroclor-1262	2	10.481	-0.004	2114894	17.9	2	10.904	-0.010	3440698	54.5
Aroclor-1262	3	10.854	-0.005	5825632	20.1	3	11.179	-0.005	2817580	22.9
Aroclor-1262	4	11.374	-0.002	1660975	13.8	4	11.702	-0.005	717912	13.2
Aroclor-1262	5	11.444	-0.006	1512280	11.7	5	12.500	-0.006	758232	17.3
	Total Col1Ave (5 peaks):			15.5		Total Col2Ave (5 peaks):			24.7	RPD = 46*
	Corrected Ave (4 peaks):			14.4		Corrected Ave (4 peaks):			17.2	RPD = 18
Aroclor-1268	1	11.374	-0.003	1660975	5.3	1	11.702	-0.005	717912	5.6
Aroclor-1268	2	11.444	-0.005	1512280	5.0	2	11.761	-0.013	2046197	17.5

Aroclor-1268	3	11.845	0.010	679525	2.6	3	12.169	-0.003	52946	0.5
Aroclor-1268	4	12.614	-0.012	792735	1.0	4	12.986	-0.007	234316	0.8

Total Col1Ave (4 peaks): 3.5 Total Col2Ave (4 peaks): 6.1 RPD = 55*

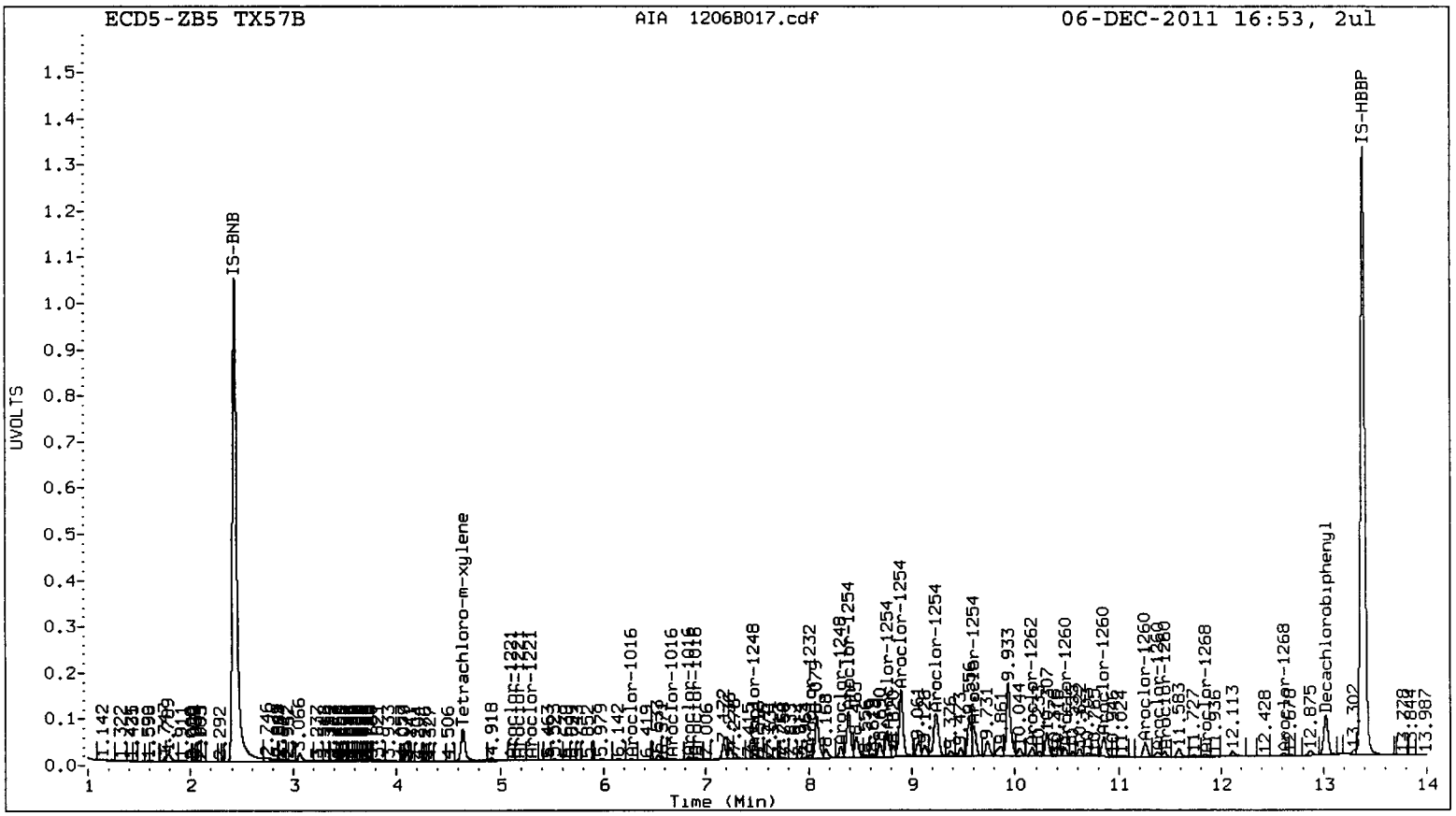
Corrected Ave (3 peaks): 2.9 Corrected Ave (3 peaks): 2.3 RPD = 21

Total PCB Area Col1 (4.740 - 12.923) = 204683591 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 94883006 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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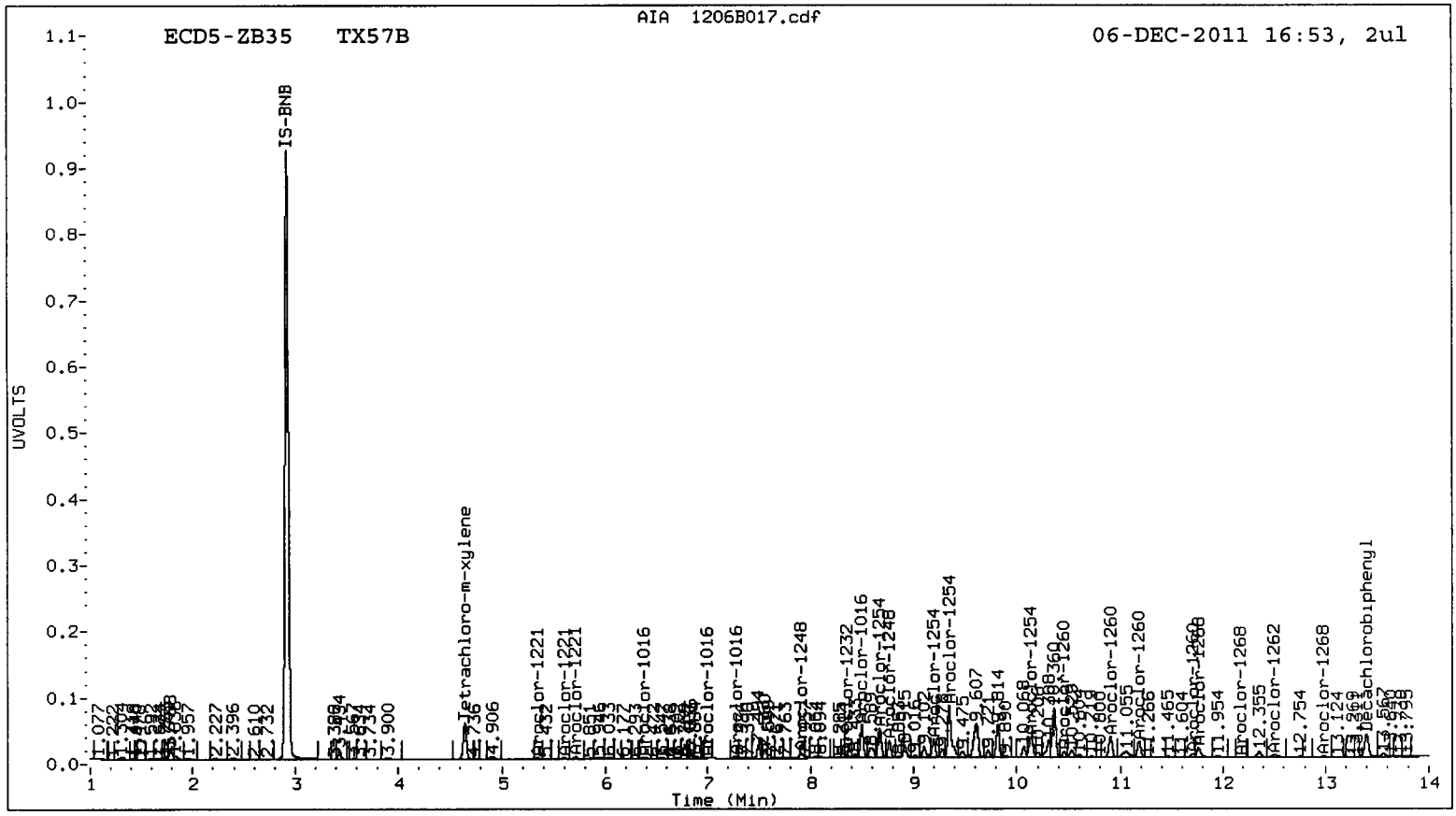
06-DEC-2011 16:53, 2ul
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
UVOLTS
Time (Min)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IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
UVOLTS
Time (Min)

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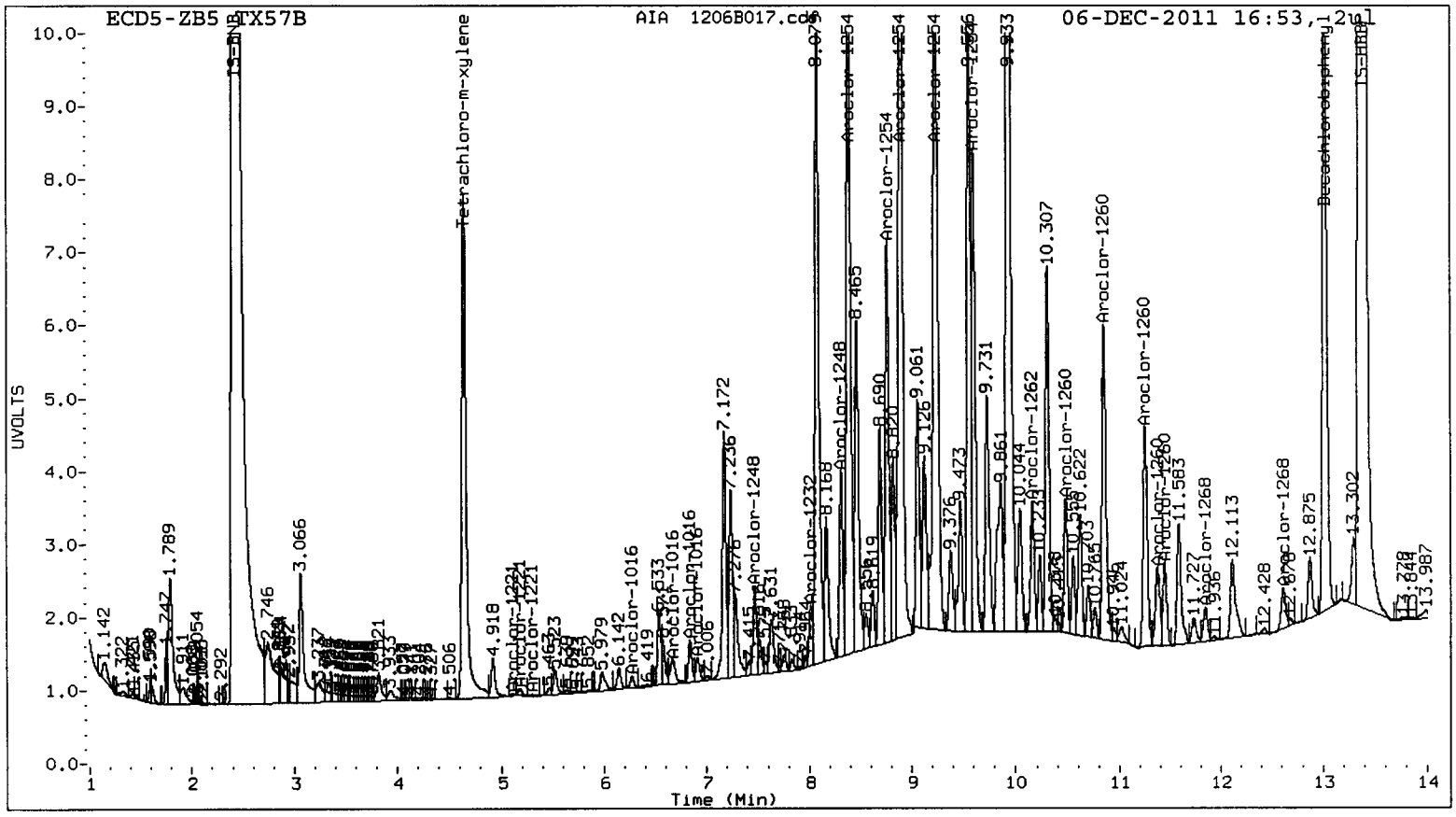
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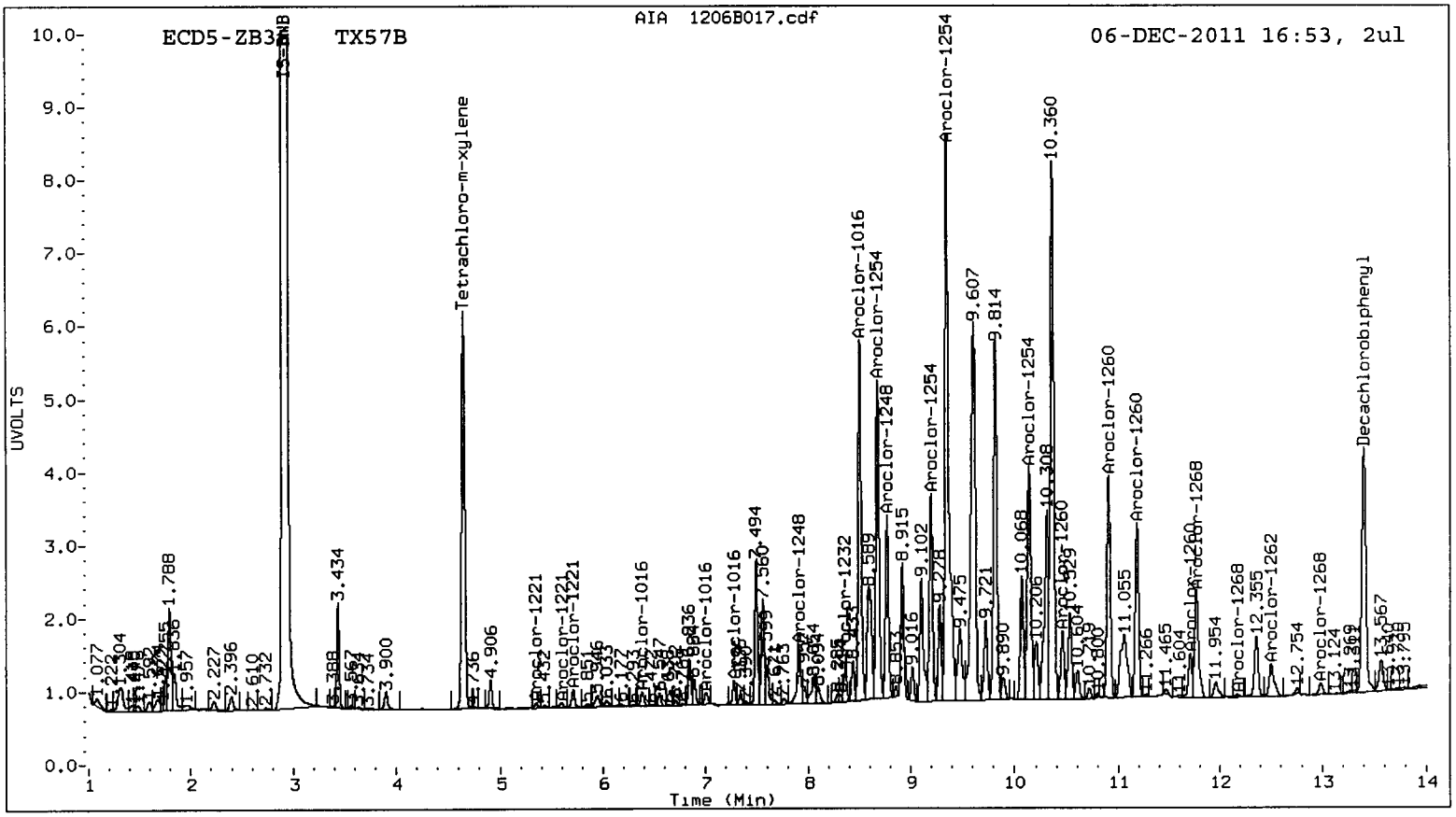
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B018.d
Data file 2: 20111202.B/1206-2.b/1206B018.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57C
Client ID:
Injection Date: 06-DEC-2011 17:12
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 10.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.641	0.001	8588254	4.643	0.000	5013277	4.2	4.2	1.1	Tetrachloro-m-xylene
13.025	0.002	10782803	13.402	0.003	4040305	5.1	4.9	3.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	105.6	104.5
Decachlorobiphenyl	128.1	123.6

12/09/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	142696236	14.3
Hexabromobiphenyl	134444165	167673419	24.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	93408677	4.4
Hexabromobiphenyl	57341096	66086311	15.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	6.270	-0.003	1490088	30.3	1	6.378	-0.002	1555824	34.8
Aroclor-1016	2	6.664	-0.009	4278051	26.3	2	6.998	-0.008	1892758	21.3
Aroclor-1016	3	6.833	0.012	3977516	60.3	3	7.216	0.001	73708	2.2
Aroclor-1016	4	6.906	-0.025	2568907	55.4	4	8.500	0.001	8125830	509.5
Total Col1Ave (4 peaks):					43.1	Total Col2Ave (4 peaks):				142.0 RPD = 107*
Corrected Ave (3 peaks):					37.3	Corrected Ave (3 peaks):				19.4 RPD = 63*
Aroclor-1221	1	5.009	-0.007	42609	2.2	1	5.345	0.013	81914	6.1
Aroclor-1221	2	5.191	-0.005	307888	22.4	2	5.576	-0.003	182955	23.7
Aroclor-1221	3	5.295	-0.005	178547	3.7	3	5.691	0.000	168636	6.9
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):					9.4	Total Col2Ave (3 peaks):				12.3 RPD = 26
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.270	-0.008	1490088	75.2	1	6.378	-0.008	1555824	80.0
Aroclor-1232	2	6.664	-0.013	4278051	65.2	2	6.998	-0.012	1892758	53.3
Aroclor-1232	3	6.833	0.007	3977516	148.8	3	7.216	-0.004	73708	5.9
Aroclor-1232	4	8.014	-0.005	4417317	187.2	4	8.359	-0.005	2300831	192.4
Total Col1Ave (4 peaks):					119.1	Total Col2Ave (4 peaks):				82.9 RPD = 36
Corrected Ave (3 peaks):					96.4	Corrected Ave (3 peaks):				46.4 RPD = 70*
Aroclor-1242	1	6.270	-0.008	1490088	40.1	1	6.378	-0.001	1555824	46.5
Aroclor-1242	2	6.664	-0.008	4278051	34.9	2	6.998	-0.007	1892758	28.5
Aroclor-1242	3	6.833	0.012	3977516	80.6	3	7.216	0.002	73708	2.8
Aroclor-1242	4	8.014	0.001	4417317	106.1	4	8.359	0.001	2300831	110.3
Total Col1Ave (4 peaks):					65.4	Total Col2Ave (4 peaks):				47.0 RPD = 33
Corrected Ave (3 peaks):					51.9	Corrected Ave (3 peaks):				25.9 RPD = 67*
Aroclor-1248	1	6.664	-0.005	4278051	51.4	1	6.998	-0.004	1892758	42.9
Aroclor-1248	2	7.469	0.001	6725898	116.4	2	7.907	-0.001	4116934	125.0
Aroclor-1248	3	8.014	0.001	4417317	63.7	3	8.359	0.000	2300831	67.1
Aroclor-1248	4	8.311	0.007	5441799	81.5	4	8.764	-0.016	5559015	148.5
Total Col1Ave (4 peaks):					78.3	Total Col2Ave (4 peaks):				95.9 RPD = 20
Corrected Ave (3 peaks):					65.6	Corrected Ave (3 peaks):				78.3 RPD = 18
Aroclor-1254	1	8.388	0.000	23158529	223.0	1	8.500	0.000	8125830	276.3
Aroclor-1254	2	8.760	0.001	9614007	144.1	2	8.672	0.000	8309996	216.5
Aroclor-1254	3	8.896	0.001	34534590	277.7	3	9.195	0.001	4270099	141.3
Aroclor-1254	4	9.241	-0.003	31641215	245.5	4	9.345	0.000	17775435	274.3
Aroclor-1254	5	9.602	-0.004	14424977	165.3	5	10.134	0.009	6850744	171.0
Total Col1Ave (5 peaks):					211.1	Total Col2Ave (5 peaks):				215.9 RPD = 2
Corrected Ave (4 peaks):					194.5	Corrected Ave (4 peaks):				200.7 RPD = 3
Aroclor-1260	1	10.480	0.002	2515040	30.4	1	10.456	0.001	1319489	35.4
Aroclor-1260	2	10.854	0.001	7102372	33.7	2	10.903	-0.004	4302885	93.4
Aroclor-1260	3	11.253	0.001	5381791	47.5	3	11.179	0.001	3408742	37.1
Aroclor-1260	4	11.371	0.002	1439954	31.3	4	11.701	0.002	842043	32.2
Aroclor-1260	5	11.443	0.001	1857849	28.3	NS	---			----
Total Col1Ave (5 peaks):					34.2	Total Col2Ave (4 peaks):				49.6 RPD = 37
Corrected Ave (4 peaks):					30.9	Corrected Ave (3 peaks):				34.9 RPD = 12
Aroclor-1262	1	10.162	-0.006	2956081	22.1	1	10.456	-0.005	1319489	22.2
Aroclor-1262	2	10.480	-0.004	2515040	24.2	2	10.903	-0.011	4302885	76.2
Aroclor-1262	3	10.854	-0.005	7102372	27.8	3	11.179	-0.005	3408742	31.0
Aroclor-1262	4	11.371	-0.005	1439954	13.5	4	11.701	-0.006	842043	17.3
Aroclor-1262	5	11.443	-0.006	1557849	13.7	5	12.499	-0.006	855461	21.8
Total Col1Ave (5 peaks):					20.3	Total Col2Ave (5 peaks):				33.7 RPD = 50*
Corrected Ave (4 peaks):					18.4	Corrected Ave (4 peaks):				23.1 RPD = 23
Aroclor-1268	1	11.371	-0.006	1439954	5.3	1	11.701	-0.006	842043	7.3
Aroclor-1268	2	11.443	-0.005	1557849	5.8	2	11.759	-0.015	2481140	23.7

Aroclor-1268	3	11.844	0.009	798433	3.5	3	12.167	-0.005	47813	0.6
Aroclor-1268	4	12.615	-0.010	884807	1.3	4	12.986	-0.007	273283	1.1

Total Col1Ave (4 peaks): 4.0 Total Col2Ave (4 peaks): 8.2 RPD = 69*

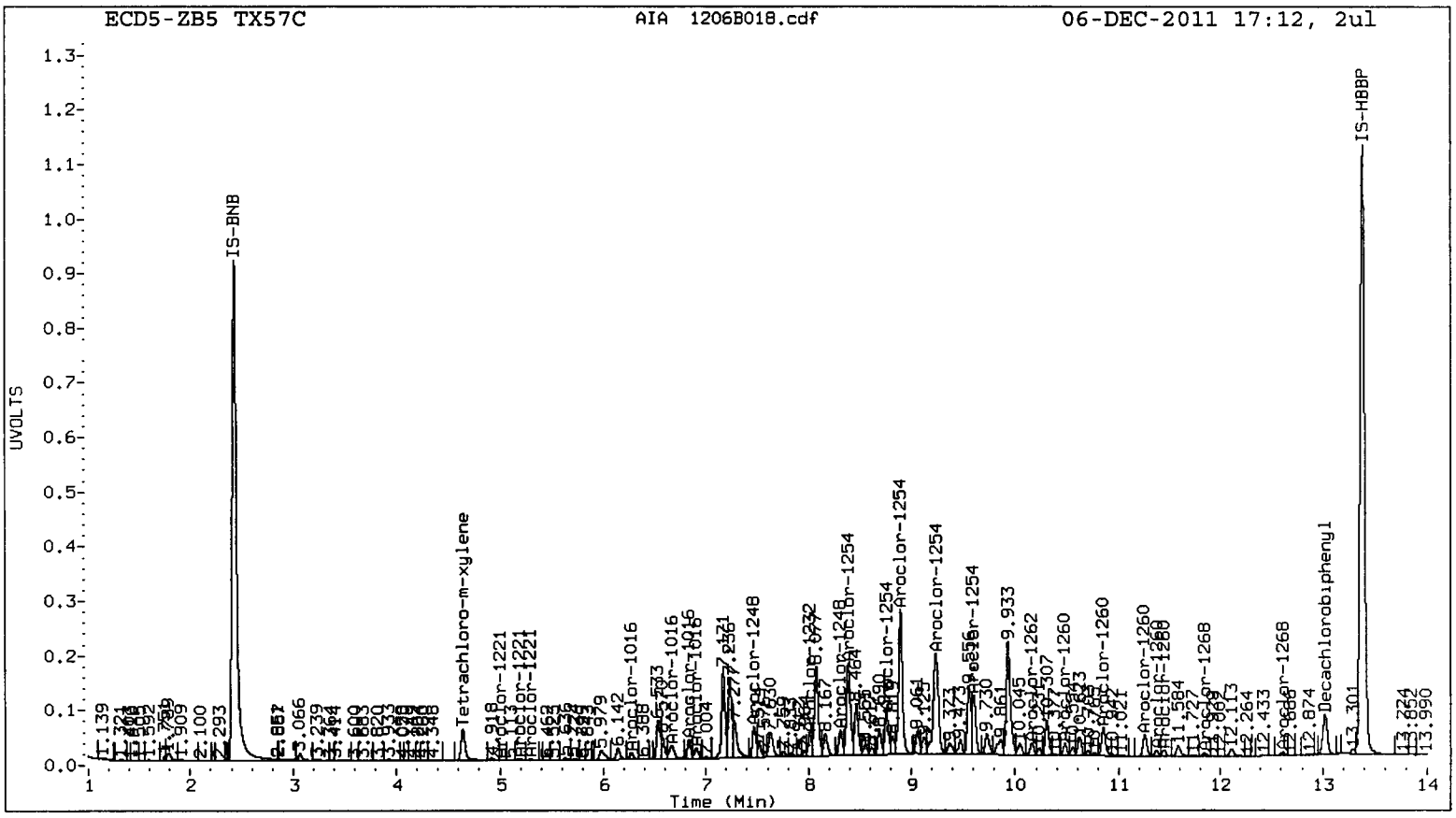
Corrected Ave (3 peaks): 3.4 Corrected Ave (3 peaks): 3.0 RPD = 12

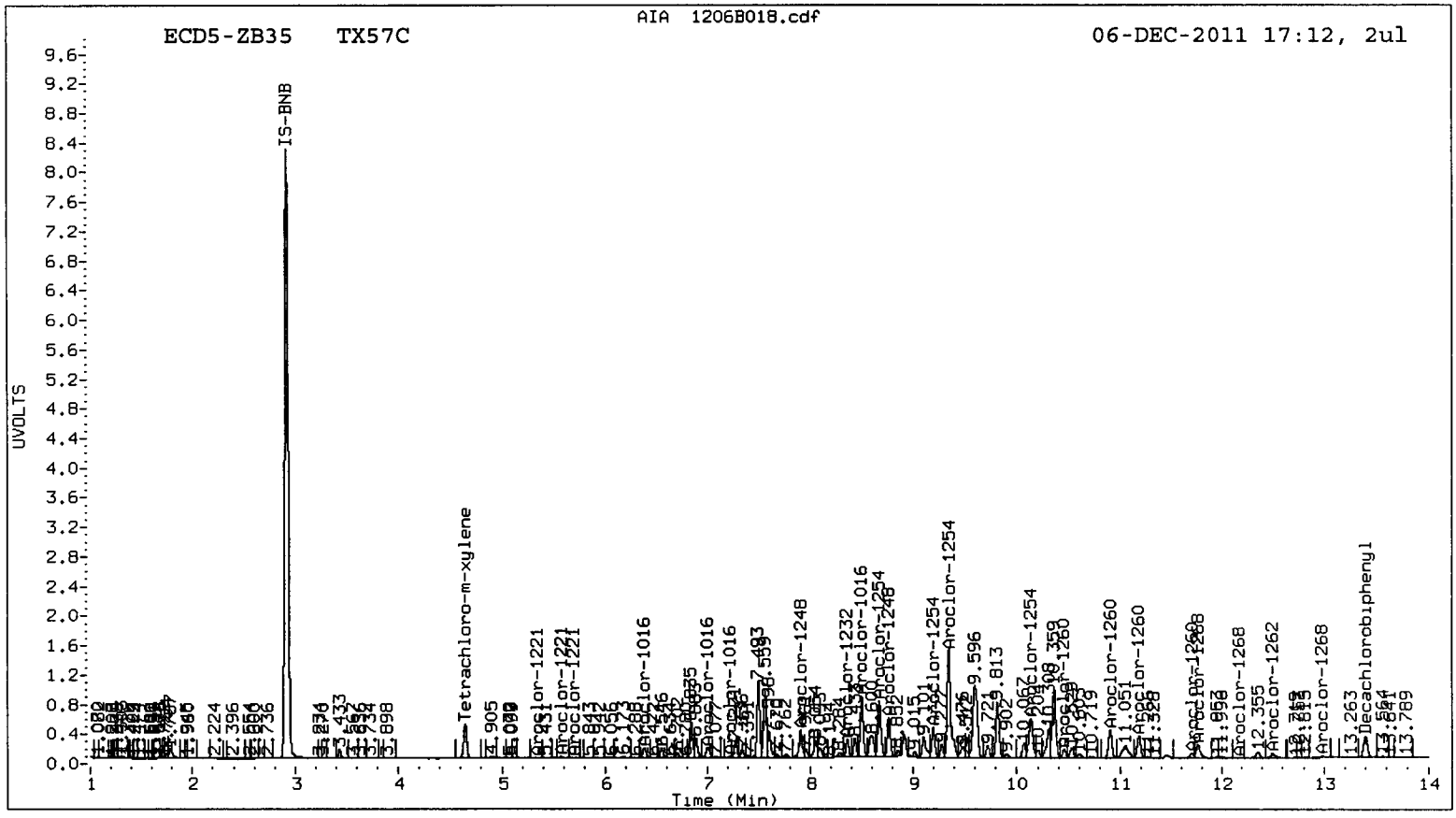
Total PCB Area Col1 (4.740 - 12.923) = 393609939 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 186256856 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TX57:01317


ECD5-ZB5 TX57C
AIA 1206B018.cdf
06-DEC-2011 17:12, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl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ECD5-ZB35 TX57C
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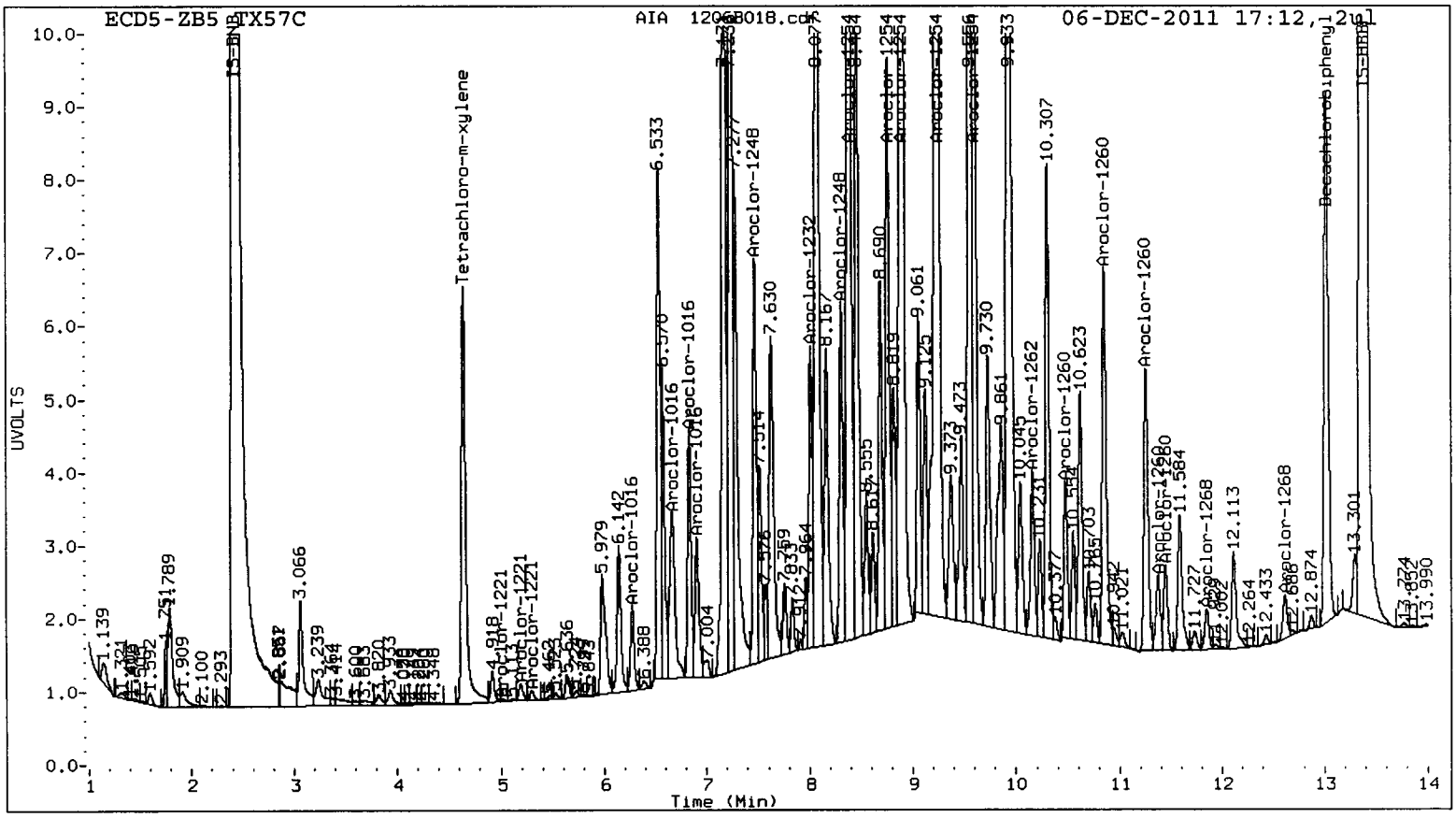
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl

TX57 01328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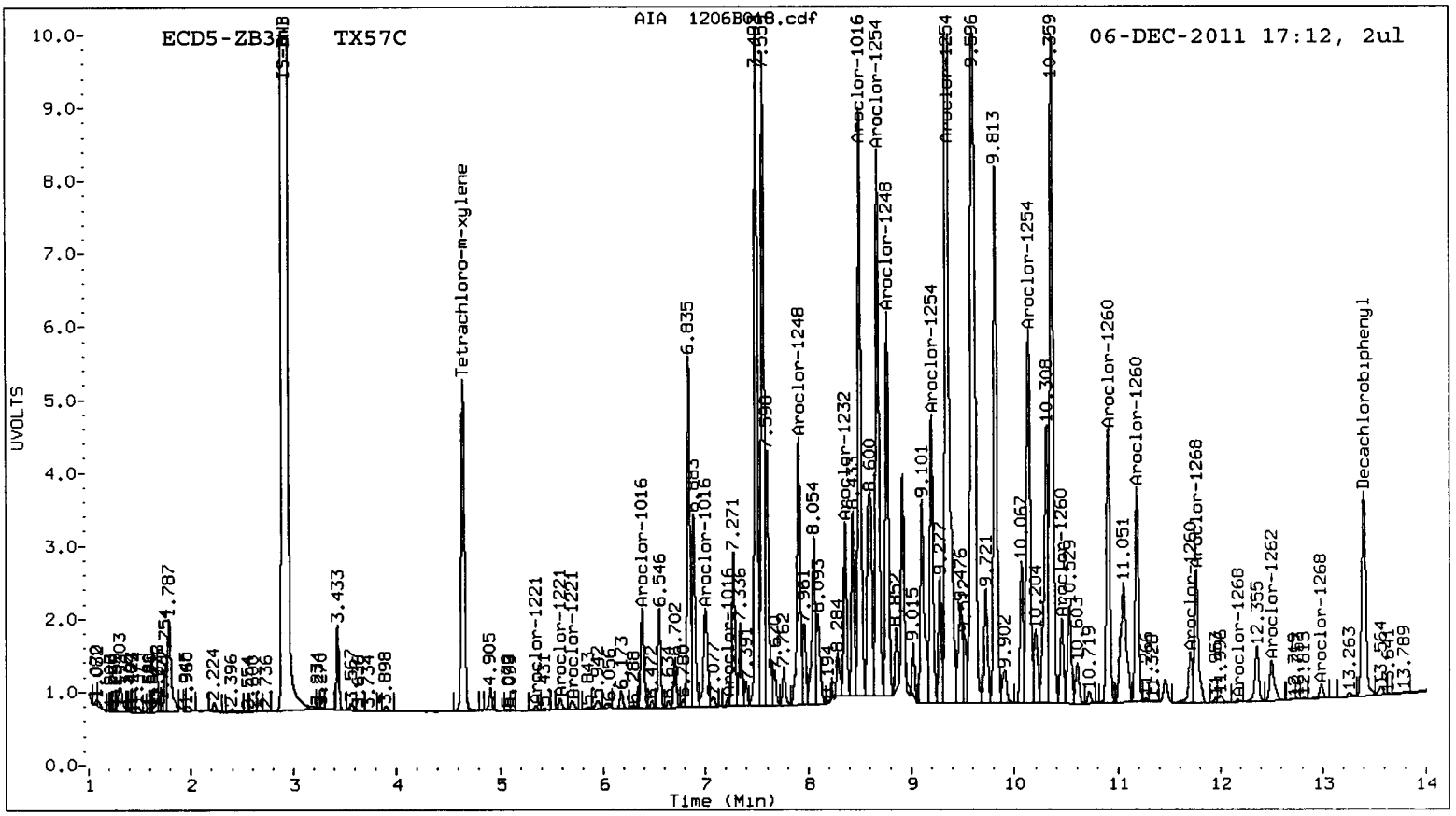
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268


ECD5-ZB3 TX57C
AIA 1206B018.cdf
06-DEC-2011 17:12, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B019.d
Data file 2: 20111202.B/1206-2.b/1206B019.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57D
Client ID:
Injection Date: 06-DEC-2011 17:31
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 10.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.642	0.002	5157713	4.644	0.001	3050627	2.7	2.7	1.6	Tetrachloro-m-xylene
13.026	0.003	7904530	13.402	0.002	2964085	3.9	3.6	6.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

12/08/11

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	68.7	67.6
Decachlorobiphenyl	97.3	90.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	131831159	5.6
Hexabromobiphenyl	134444165	161862258	20.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	87900411	-1.8
Hexabromobiphenyl	57341096	65912427	14.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.271	-0.002	506600	11.2	1	6.380	0.001	534967	12.7
Aroclor-1016	2	6.665	-0.007	3444228	22.9	2	6.999	-0.006	1533646	18.4
Aroclor-1016	3	6.830	0.009	1356512	22.3	3	7.271	0.057	744216	23.7
Aroclor-1016	4	6.915	-0.016	782885	18.3	4	8.500	0.001	19548582	1302.6
	Total Col1Ave (4 peaks):				18.7	Total Col2Ave (4 peaks):				339.3 RPD = 179*
	Corrected Ave (3 peaks):				17.2	Corrected Ave (3 peaks):				18.2 RPD = 6
Aroclor-1221	1	5.010	-0.007	34941	1.9	1	5.346	0.014	43070	3.4
Aroclor-1221	2	5.189	-0.006	125968	9.9	2	5.578	-0.001	98458	13.6
Aroclor-1221	3	5.299	-0.001	164184	3.7	3	5.694	0.003	159341	7.0
Aroclor-1221	NS	---			----	4	5.759	0.000	32760	9.0
	Total Col1Ave (3 peaks):				5.2	Total Col2Ave (4 peaks):				8.2 RPD = 45*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				6.5
Aroclor-1232	1	6.271	-0.007	506600	27.7	1	6.380	-0.005	534967	29.2
Aroclor-1232	2	6.665	-0.012	3444228	56.8	2	6.999	-0.011	1533646	45.9
Aroclor-1232	3	6.830	0.004	1356512	54.9	3	7.271	0.052	744216	63.8
Aroclor-1232	4	8.014	-0.005	19063014	874.3	4	8.359	-0.005	10058656	893.8
	Total Col1Ave (4 peaks):				253.4	Total Col2Ave (4 peaks):				258.2 RPD = 2
	Corrected Ave (3 peaks):				46.5	Corrected Ave (3 peaks):				46.3 RPD = 0
Aroclor-1242	1	6.271	-0.001	506600	14.7	1	6.380	0.001	534967	17.0
Aroclor-1242	2	6.665	-0.007	3444228	30.4	2	6.999	-0.005	1533646	24.5
Aroclor-1242	3	6.830	0.009	1356512	29.7	3	7.271	0.057	744216	30.0
Aroclor-1242	4	8.014	0.001	19063014	495.8	4	8.359	0.001	10058656	512.5
	Total Col1Ave (4 peaks):				142.7	Total Col2Ave (4 peaks):				146.0 RPD = 2
	Corrected Ave (3 peaks):				25.0	Corrected Ave (3 peaks):				23.8 RPD = 5
Aroclor-1248	1	6.665	-0.004	3444228	44.8	1	6.999	-0.003	1533646	36.9
Aroclor-1248	2	7.470	0.001	14683479	275.0	2	7.908	0.000	8490849	273.9
Aroclor-1248	3	8.014	0.001	19063014	297.7	3	8.359	0.000	10058656	311.7
Aroclor-1248	4	8.309	0.006	15697392	254.5	4	8.765	-0.015	13480490	382.7
	Total Col1Ave (4 peaks):				218.0	Total Col2Ave (4 peaks):				251.3 RPD = 14
	Corrected Ave (3 peaks):				191.5	Corrected Ave (3 peaks):				207.5 RPD = 8
Aroclor-1254	1	8.389	0.001	61774468	643.8	1	8.500	0.001	19548582	706.5
Aroclor-1254	2	8.762	0.003	37924081	615.4	2	8.671	0.000	24418200	675.9
Aroclor-1254	3	8.897	0.002	84327593	734.1	3	9.194	0.001	15177220	533.5
Aroclor-1254	4	9.245	0.000	79733342	669.6	4	9.345	0.001	45403417	744.4
Aroclor-1254	5	9.606	0.000	46763504	580.0	5	10.128	0.003	22477327	596.2
	Total Col1Ave (5 peaks):				648.6	Total Col2Ave (5 peaks):				651.3 RPD = 0
	Corrected Ave (4 peaks):				627.2	Corrected Ave (4 peaks):				628.0 RPD = 0
Aroclor-1260	1	10.480	0.002	7540544	94.4	1	10.456	0.001	3895246	104.7
Aroclor-1260	2	10.854	0.001	23911730	117.6	2	10.903	-0.003	11690239	254.6
Aroclor-1260	3	11.254	0.002	15011391	137.2	3	11.179	0.001	11045947	120.7
Aroclor-1260	4	11.370	0.002	5335626	120.3	4	11.701	0.002	2790934	107.1
Aroclor-1260	5	11.444	0.002	6115310	114.9	NS	---			----
	Total Col1Ave (5 peaks):				116.9	Total Col2Ave (4 peaks):				146.8 RPD = 23
	Corrected Ave (4 peaks):				111.8	Corrected Ave (3 peaks):				110.8 RPD = 1
Aroclor-1262	1	10.162	-0.005	8556704	66.4	1	10.456	-0.005	3895246	65.7
Aroclor-1262	2	10.480	-0.004	7540544	75.0	2	10.903	-0.010	11690239	207.6
Aroclor-1262	3	10.854	-0.003	23911730	97.0	3	11.179	-0.005	11045947	100.8
Aroclor-1262	4	11.370	-0.005	5335626	52.0	4	11.701	-0.006	2790934	57.3
Aroclor-1262	5	11.444	-0.005	6115310	55.5	5	12.500	-0.005	2844982	72.8
	Total Col1Ave (5 peaks):				69.2	Total Col2Ave (5 peaks):				100.9 RPD = 37
	Corrected Ave (4 peaks):				62.2	Corrected Ave (4 peaks):				74.2 RPD = 18
Aroclor-1268	1	11.370	-0.006	5335626	20.2	1	11.701	-0.006	2790934	24.4
Aroclor-1268	2	11.444	-0.004	6115310	23.7	2	11.761	-0.013	7646236	73.3

Aroclor-1268	3	11.844	0.010	2851245	13.1	3	12.169	-0.004	194906	2.3
Aroclor-1268	4	12.619	-0.007	2917840	4.3	4	12.988	-0.006	1003586	3.9

Total Col1Ave (4 peaks): 15.3 Total Col2Ave (4 peaks): 26.0 RPD = 52*

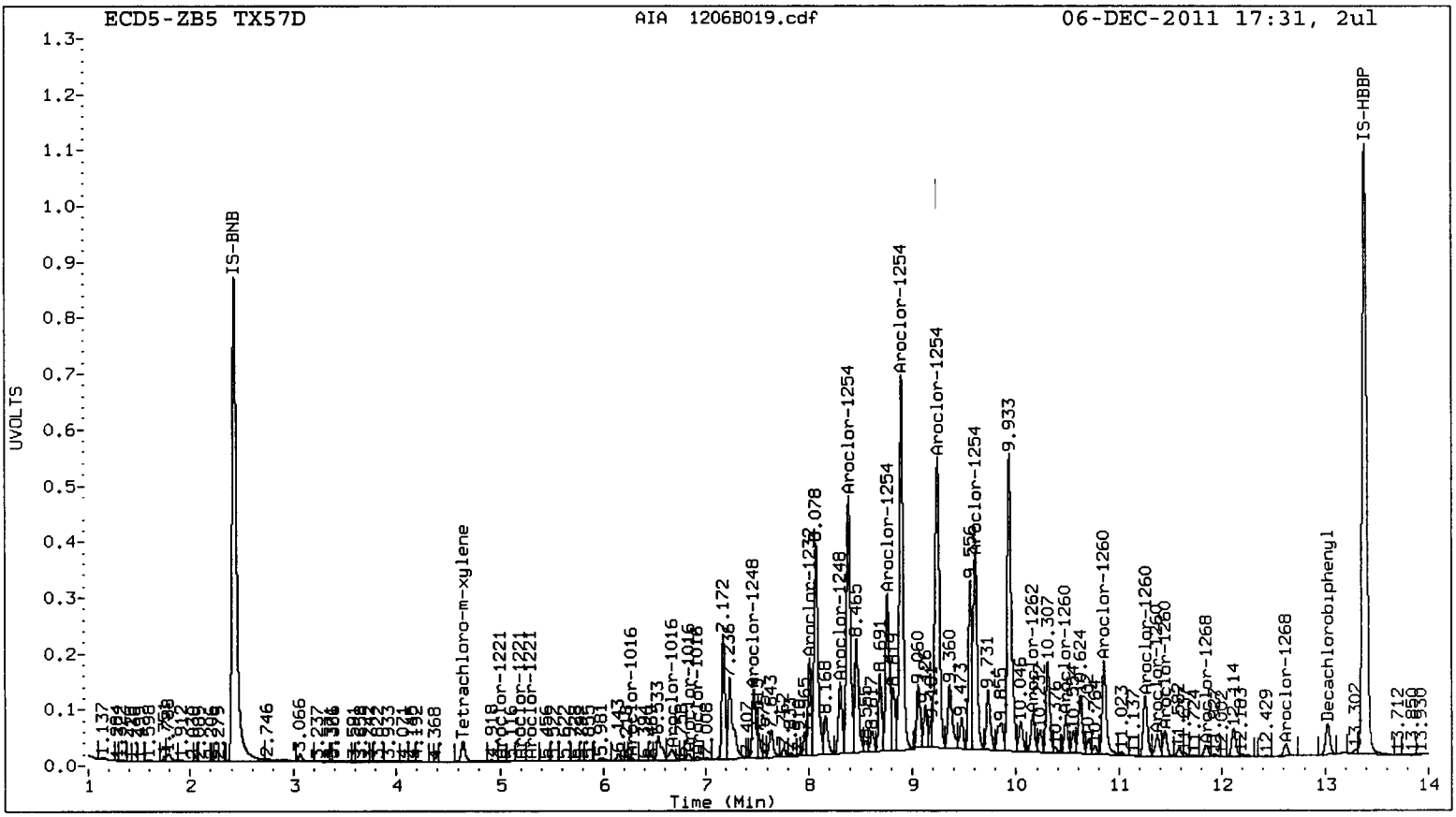
Corrected Ave (3 peaks): 12.5 Corrected Ave (3 peaks): 10.2 RPD = 21

Total PCB Area Col1 (4.740 - 12.923) = 884954427 Col1 Total PCB = 0.8 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 430454853 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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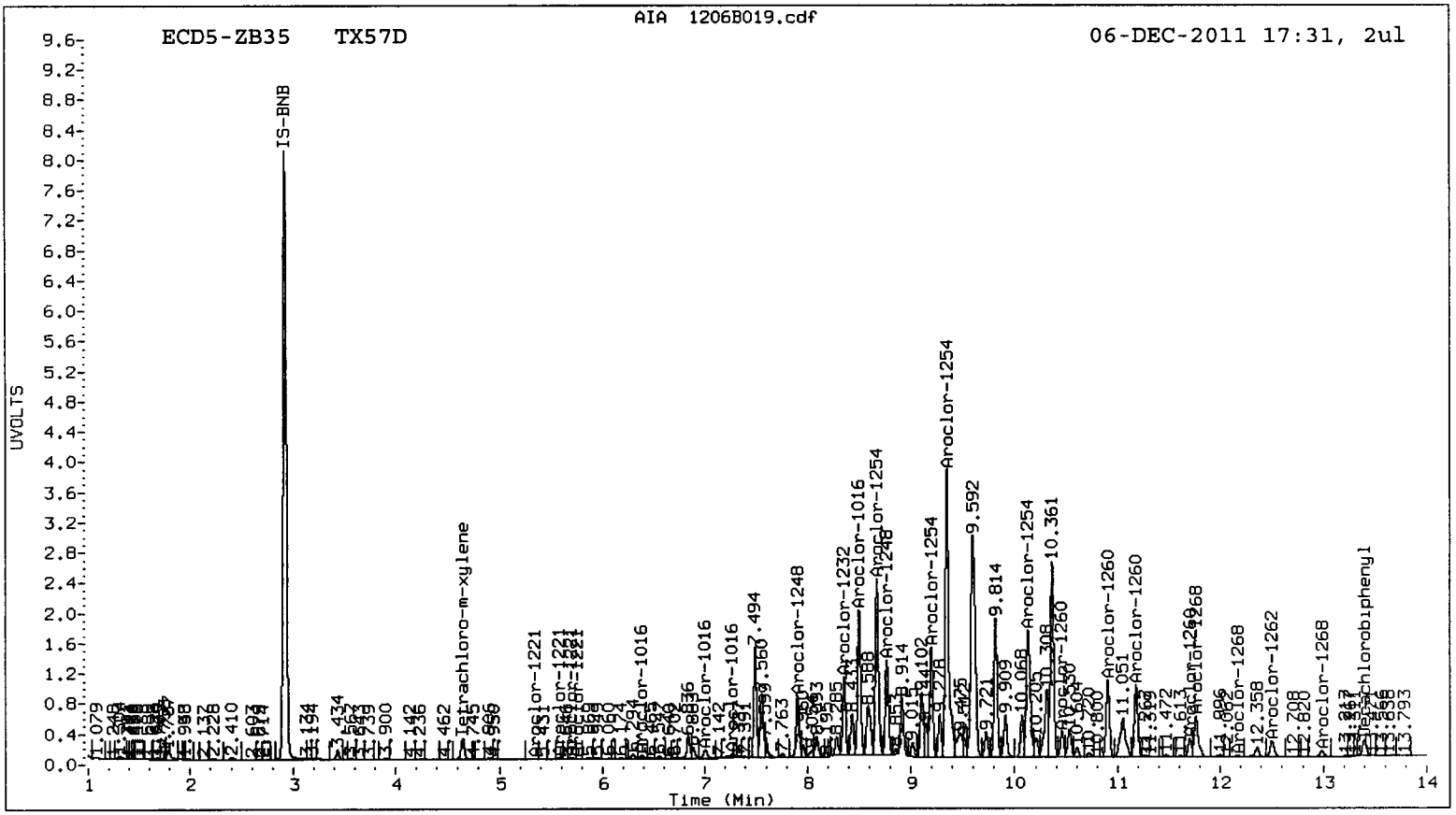
06-DEC-2011 17:31, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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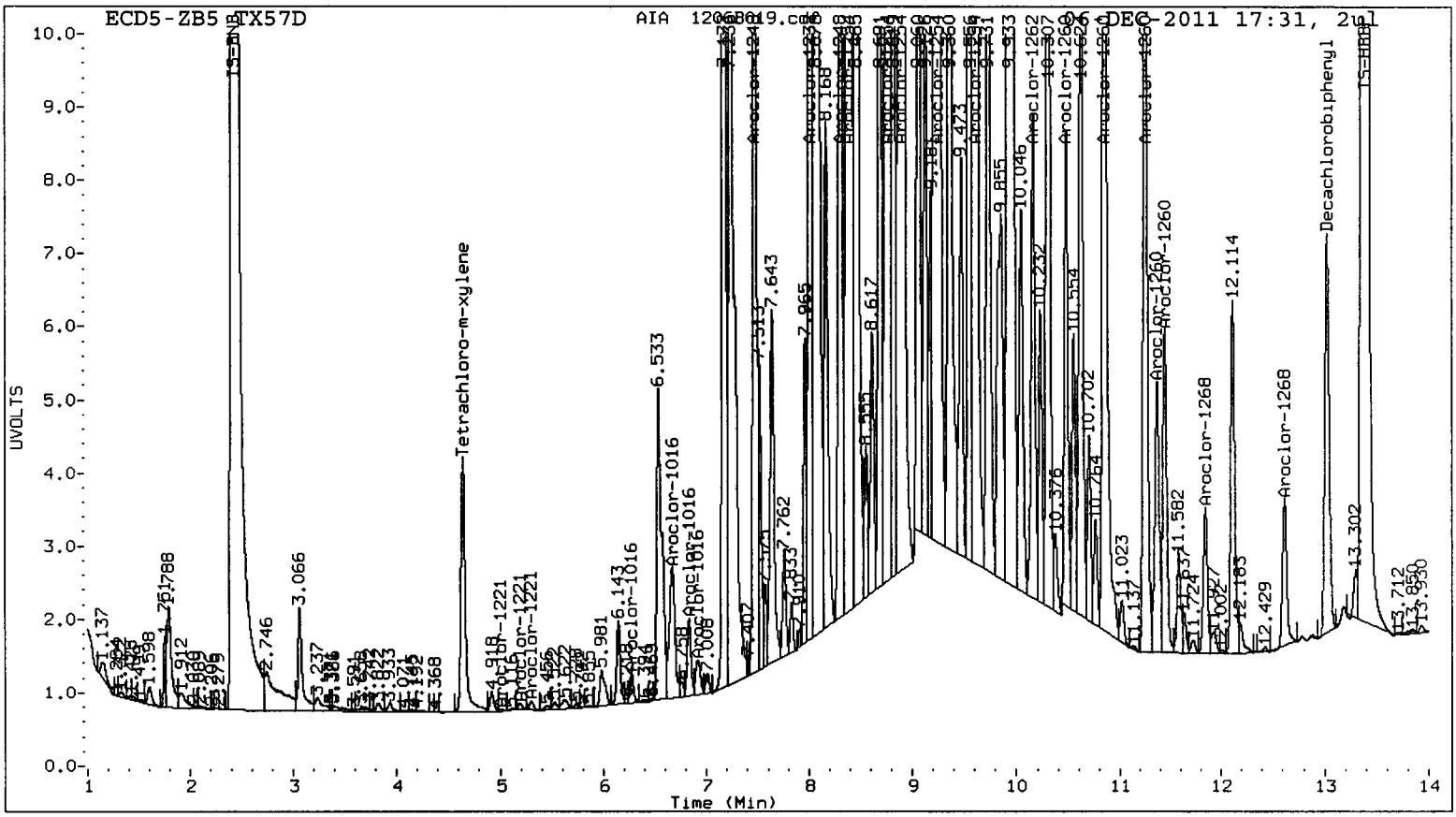
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

TX57 : 01323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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
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Aroclor-1221
Aroclor-1232
Aroclor-1242
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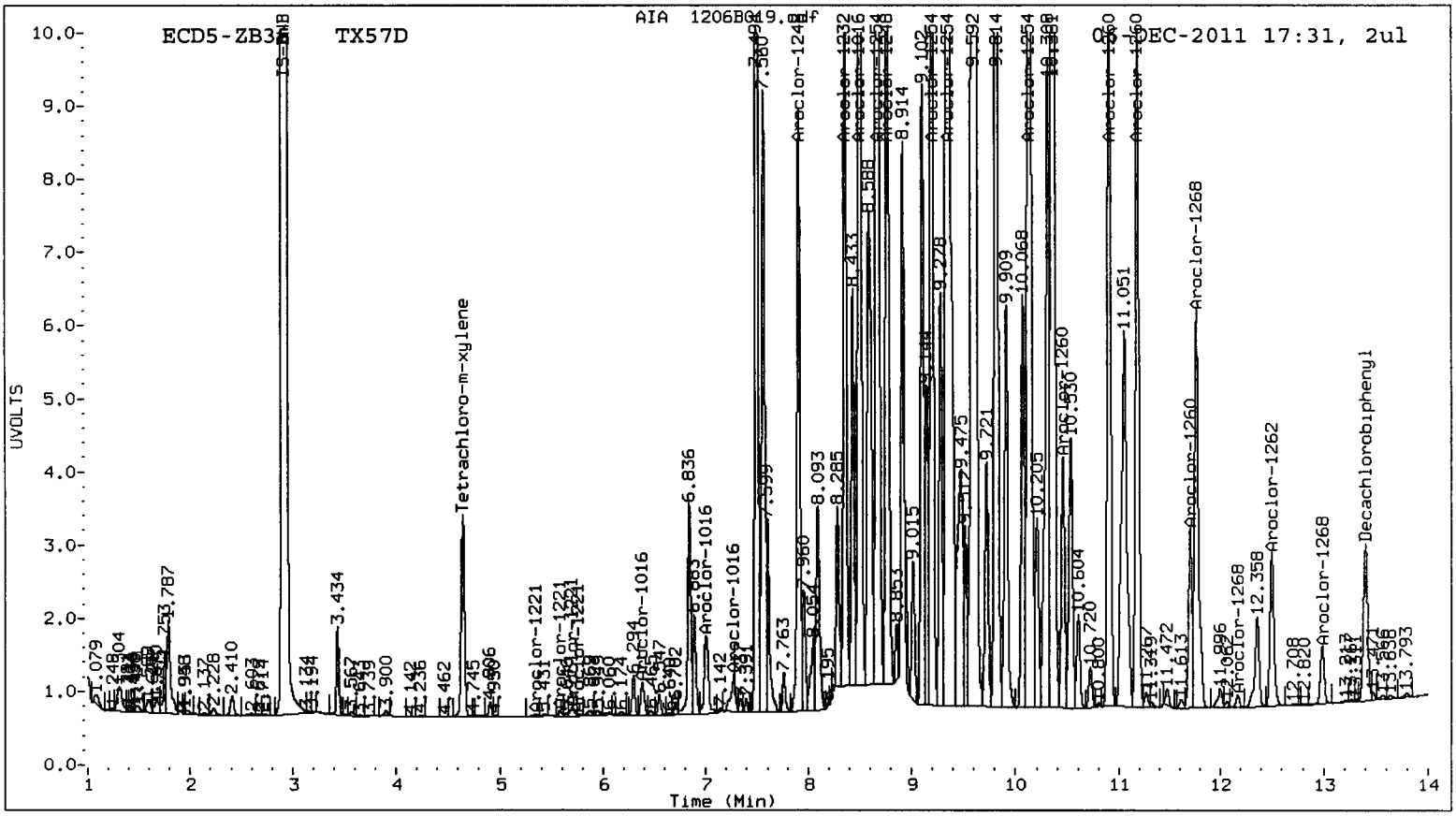
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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AIA 1206B019.cdf
DEC-2011 17:31, 2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B020.d
Data file 2: 20111202.B/1206-2.b/1206B020.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57DMS
Client ID:
Injection Date: 06-DEC-2011 17:50
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: ~~10,000~~ 1X

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.643	0.003	6813791	4.644	0.001	3944040	3.7	3.6	3.8	Tetrachloro-m-xylene
13.026	0.002	10495407	13.403	0.003	4233202	5.4	5.3	0.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	93.3	89.8
Decachlorobiphenyl	134.2	133.4

12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	128152378	2.7
Hexabromobiphenyl	134444165	155724824	15.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	85487263	-4.5
Hexabromobiphenyl	57341096	64163929	11.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.274	0.001	2389185	54.1	1	6.381	0.002	2267695	55.4
Aroclor-1016	2	6.671	-0.001	10335393	70.7	2	7.005	0.000	4921500	60.6
Aroclor-1016	3	6.825	0.004	3814072	64.4	3	7.216	0.002	1277505	41.8
Aroclor-1016	4	6.931	0.000	2533752	60.9	4	8.501	0.003	21973934	1505.5
	Total Col1Ave (4 peaks):				62.5		Total Col2Ave (4 peaks):			415.8 RPD = 148*
	Corrected Ave (3 peaks):				59.8		Corrected Ave (3 peaks):			52.6 RPD = 13
Aroclor-1221	1	5.011	-0.005	236296	13.5	1	5.333	0.001	166500	13.5
Aroclor-1221	2	5.193	-0.003	395329	32.1	2	5.577	-0.002	236957	33.6
Aroclor-1221	3	5.297	-0.003	1447751	33.5	3	5.691	0.000	1153663	51.8
Aroclor-1221	NS	---			----	4	5.758	-0.002	60329	17.1
	Total Col1Ave (3 peaks):				26.4		Total Col2Ave (4 peaks):			29.0 RPD = 10
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			21.4
Aroclor-1232	1	6.274	-0.004	2389185	134.3	1	6.381	-0.004	2267695	127.4
Aroclor-1232	2	6.671	-0.006	10335393	175.4	2	7.005	-0.005	4921500	151.4
Aroclor-1232	3	6.825	-0.001	3814072	158.9	3	7.216	-0.003	1277505	112.6
Aroclor-1232	4	8.015	-0.005	20305570	958.0	4	8.360	-0.004	10849731	991.3
	Total Col1Ave (4 peaks):				356.6		Total Col2Ave (4 peaks):			345.7 RPD = 3
	Corrected Ave (3 peaks):				156.2		Corrected Ave (3 peaks):			130.5 RPD = 18
Aroclor-1242	1	6.274	0.001	2389185	71.6	1	6.381	0.002	2267695	74.0
Aroclor-1242	2	6.671	-0.001	10335393	93.9	2	7.005	0.001	4921500	80.8
Aroclor-1242	3	6.825	0.004	3814072	86.0	3	7.216	0.002	1277505	52.9
Aroclor-1242	4	8.015	0.002	20305570	543.2	4	8.360	0.002	10849731	568.4
	Total Col1Ave (4 peaks):				198.7		Total Col2Ave (4 peaks):			194.0 RPD = 2
	Corrected Ave (3 peaks):				83.8		Corrected Ave (3 peaks):			69.3 RPD = 19
Aroclor-1248	1	6.671	0.002	10335393	138.3	1	7.005	0.003	4921500	121.9
Aroclor-1248	2	7.470	0.001	17275735	332.9	2	7.909	0.001	10309037	342.0
Aroclor-1248	3	8.015	0.001	20305570	326.2	3	8.360	0.002	10849731	345.7
Aroclor-1248	4	8.310	0.006	16680268	278.3	4	8.766	-0.014	14265933	416.4
	Total Col1Ave (4 peaks):				268.9		Total Col2Ave (4 peaks):			306.5 RPD = 13
	Corrected Ave (3 peaks):				247.6		Corrected Ave (3 peaks):			269.8 RPD = 9
Aroclor-1254	1	8.390	0.002	67015692	718.5	1	8.501	0.002	21973934	816.5
Aroclor-1254	2	8.762	0.003	40372780	673.9	2	8.673	0.002	26947342	767.0
Aroclor-1254	3	8.898	0.002	91319207	817.8	3	9.195	0.002	16517935	597.0
Aroclor-1254	4	9.244	0.000	93100259	804.2	4	9.346	0.001	50637859	853.7
Aroclor-1254	5	9.606	0.000	51070910	651.6	5	10.130	0.005	24879826	678.6
	Total Col1Ave (5 peaks):				733.2		Total Col2Ave (5 peaks):			742.6 RPD = 1
	Corrected Ave (4 peaks):				712.1		Corrected Ave (4 peaks):			714.8 RPD = 0
Aroclor-1260	1	10.481	0.002	12839912	167.0	1	10.458	0.002	6381207	176.2
Aroclor-1260	2	10.854	0.001	39757321	203.2	2	10.905	-0.002	15139691	328.7
Aroclor-1260	3	11.254	0.001	23511205	223.3	3	11.179	0.001	18163416	203.8
Aroclor-1260	4	11.371	0.002	8716084	204.3	4	11.702	0.003	4692559	185.1
Aroclor-1260	5	11.444	0.002	10318756	201.5	NS	---			----
	Total Col1Ave (5 peaks):				199.9		Total Col2Ave (4 peaks):			225.9 RPD = 12
	Corrected Ave (4 peaks):				194.0		Corrected Ave (3 peaks):			188.4 RPD = 3
Aroclor-1262	1	10.163	-0.005	14136715	114.0	1	10.458	-0.004	6381207	110.6
Aroclor-1262	2	10.481	-0.004	12839912	132.8	2	10.905	-0.009	15139691	276.1
Aroclor-1262	3	10.854	-0.005	39757321	167.6	3	11.179	-0.005	18163416	170.3
Aroclor-1262	4	11.371	-0.005	8716084	88.3	4	11.702	-0.005	4692559	99.0
Aroclor-1262	5	11.444	-0.005	10318756	97.4	5	12.500	-0.005	4803284	126.3
	Total Col1Ave (5 peaks):				120.0		Total Col2Ave (5 peaks):			156.5 RPD = 26
	Corrected Ave (4 peaks):				108.1		Corrected Ave (4 peaks):			126.6 RPD = 16
Aroclor-1268	1	11.371	-0.006	8716084	34.3	1	11.702	-0.005	4692559	42.1
Aroclor-1268	2	11.444	-0.004	10318756	41.5	2	11.760	-0.014	12359975	121.7

Aroclor-1268	3	11.845	0.010	4858470	23.1	3	12.168	-0.004	303669	3.6
Aroclor-1268	4	12.618	-0.008	4259632	6.6	4	12.988	-0.006	1577042	6.3

Total Col1Ave (4 peaks): 26.4 Total Col2Ave (4 peaks): 43.5 RPD = 49*

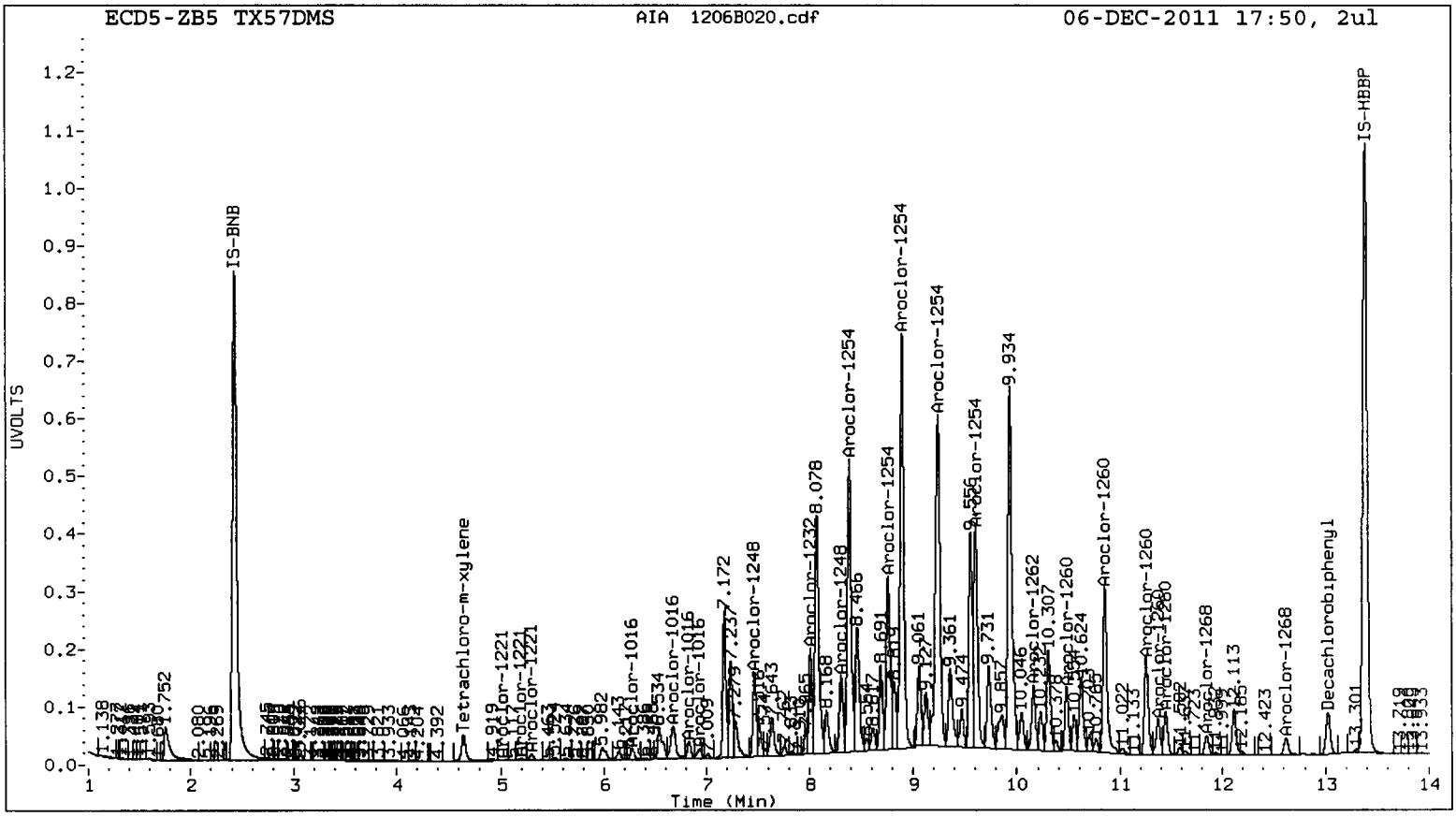
Corrected Ave (3 peaks): 21.3 Corrected Ave (3 peaks): 17.4 RPD = 20

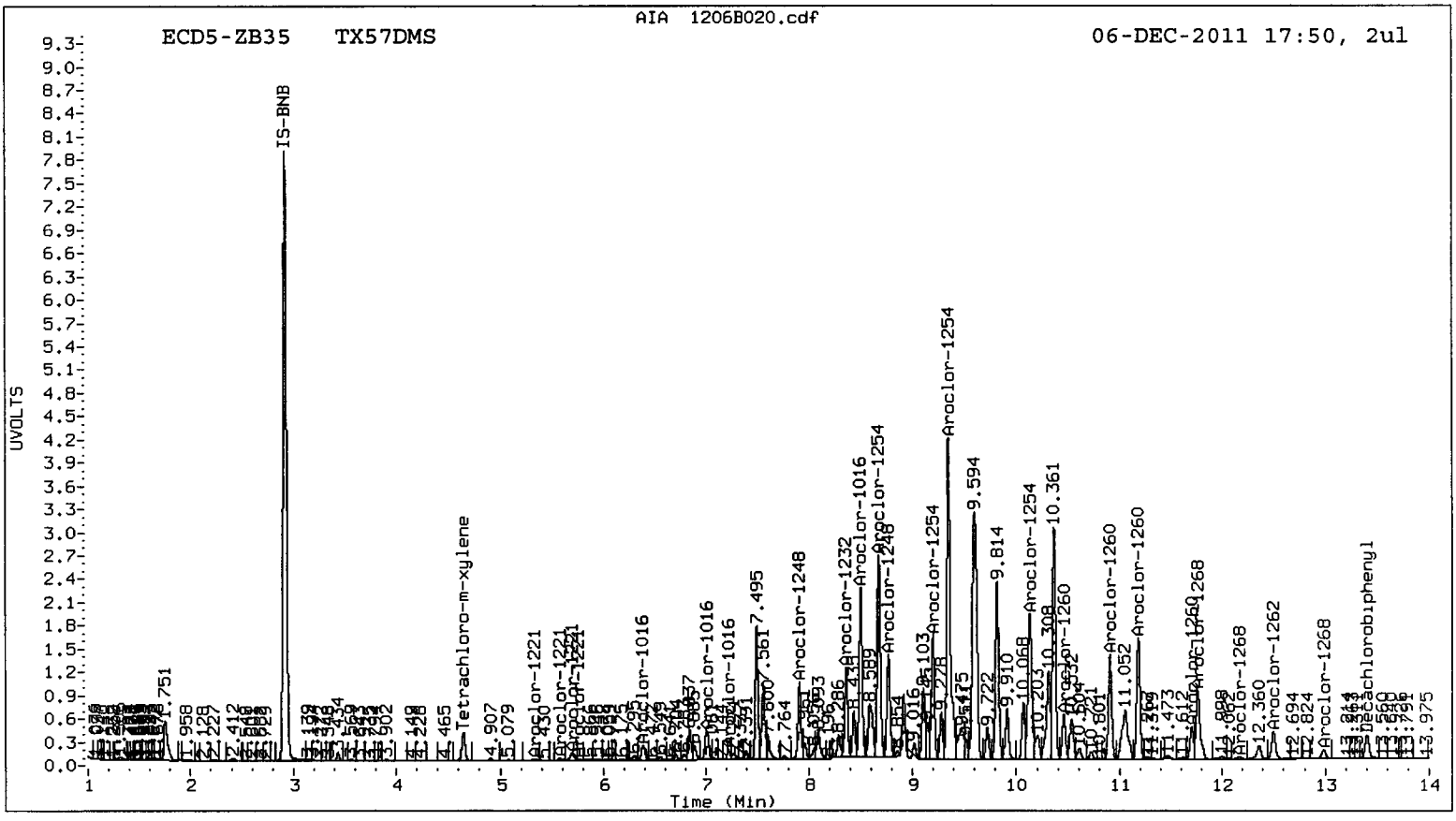
Total PCB Area Col1 (4.740 - 12.923) = 1066117723 Col1 Total PCB = 1.0 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 518751050 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD5-ZB5 TX57DMS
AIA 1206B020.cdf
06-DEC-2011 17:50, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
IS-HBBP
Decachlorobiphenyl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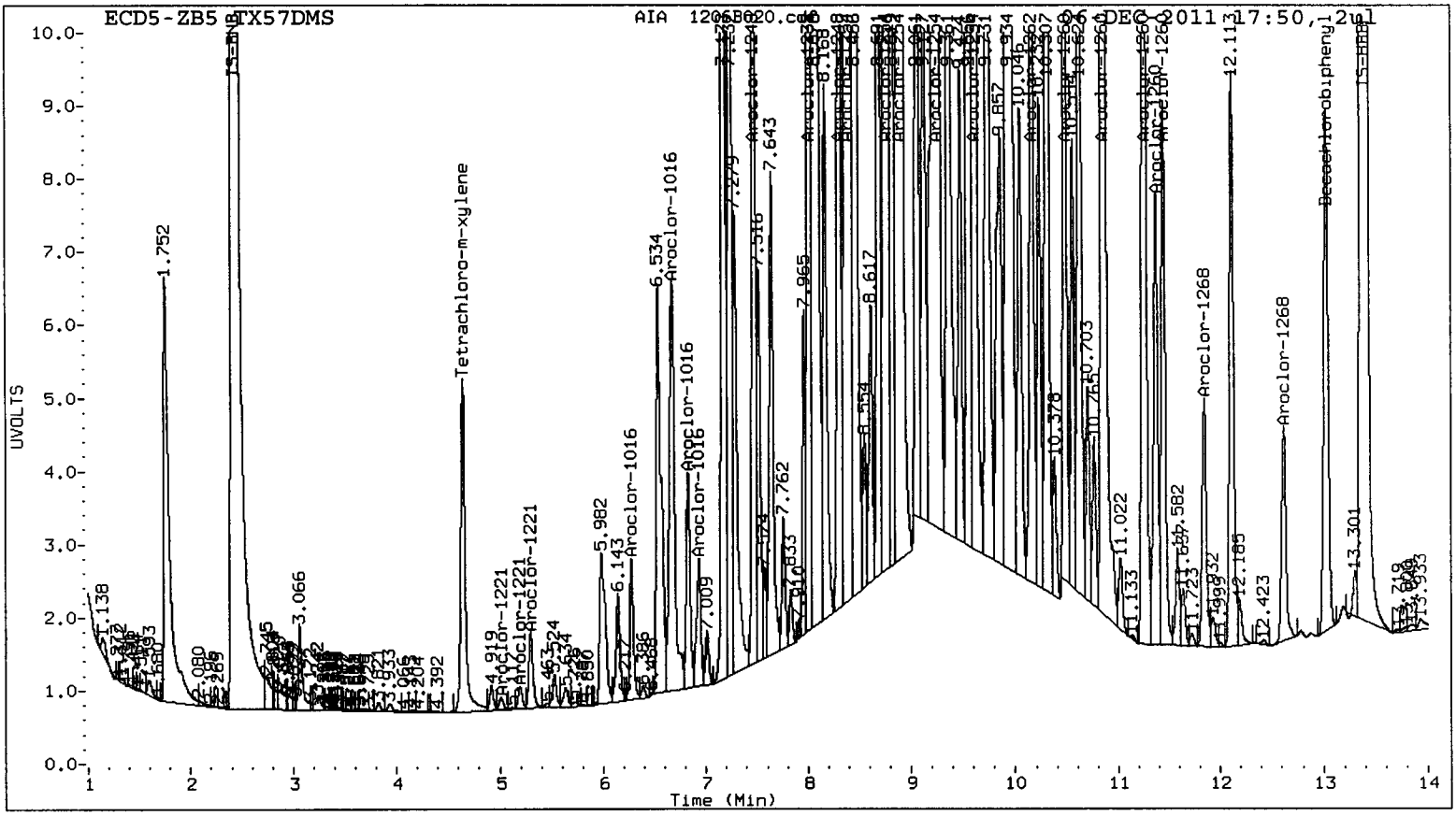
06-DEC-2011 17:50, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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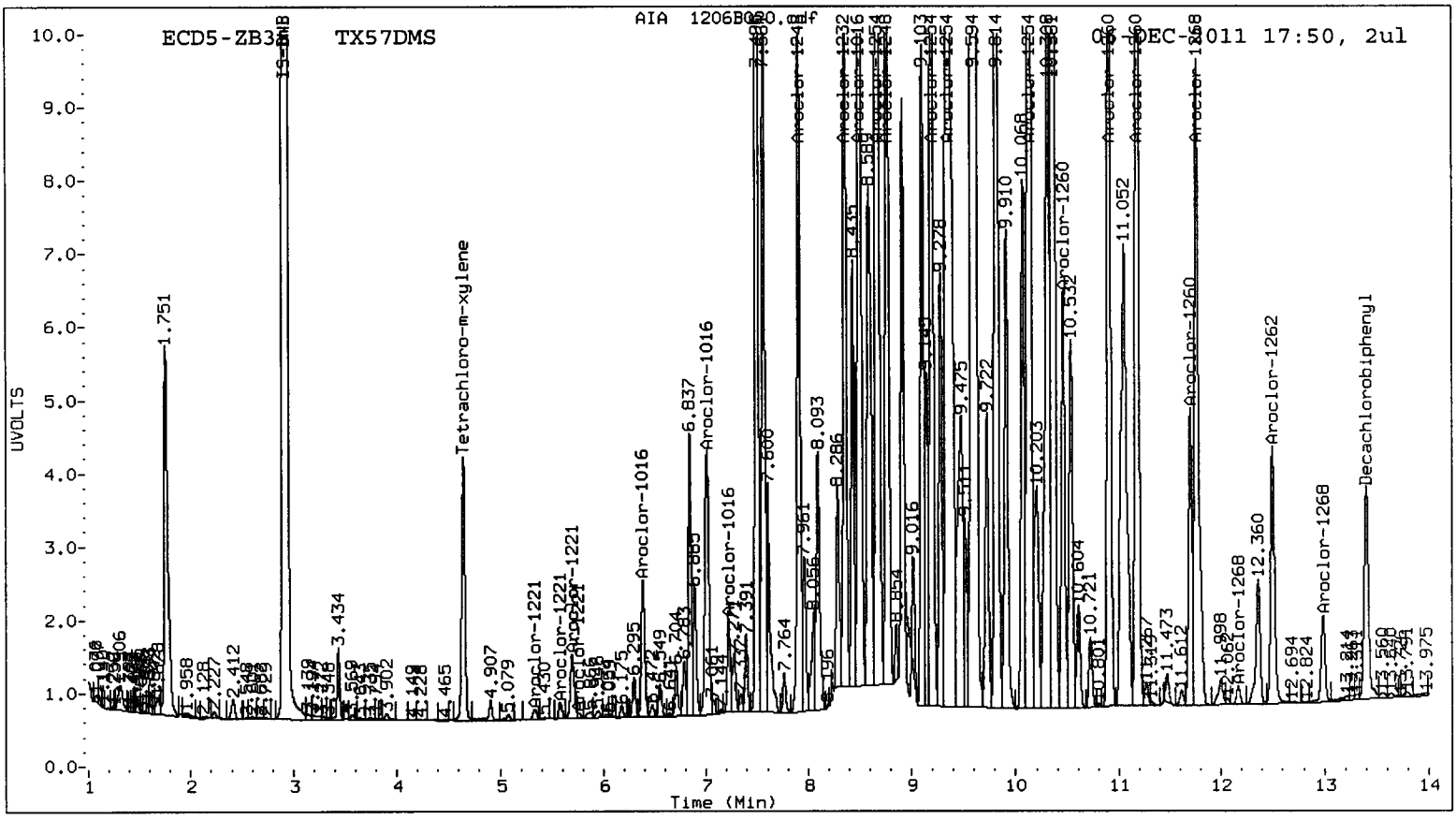
AIA 1206B020.cdf
06-DEC-2011 17:50, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1268
Decachlorobiphenyl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AIA 1206B020.cdf
06-DEC-2011 17:50, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B021.d
Data file 2: 20111202.B/1206-2.b/1206B021.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57DMSD
Client ID:
Injection Date: 06-DEC-2011 18:09
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 10.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.642	0.002	6693941	4.644	0.000	3840842	3.7	3.5	4.4	Tetrachloro-m-xylene
13.026	0.003	9998622	13.402	0.002	3834430	5.2	4.9	6.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	91.6	87.6
Decachlorobiphenyl	130.5	121.7

12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	128246238	2.8
Hexabromobiphenyl	134444165	152634983	13.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	85337031	-4.6
Hexabromobiphenyl	57341096	63687189	11.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.274	0.000	2383251	53.9	1	6.381	0.001	2222412	54.4
Aroclor-1016	2	6.672	-0.001	9651818	66.0	2	7.005	0.000	4904706	60.5
Aroclor-1016	3	6.825	0.004	3802603	64.2	3	7.216	0.002	1310854	42.9
Aroclor-1016	4	6.930	0.000	2511599	60.3	4	8.501	0.002	24379051	1673.3
	Total Col1Ave (4 peaks):				61.1	Total Col2Ave (4 peaks):				457.8 RPD = 153*
	Corrected Ave (3 peaks):				59.5	Corrected Ave (3 peaks):				52.6 RPD = 12
Aroclor-1221	1	5.011	-0.006	243118	13.9	1	5.332	0.000	174412	14.2
Aroclor-1221	2	5.192	-0.004	368775	29.9	2	5.577	-0.001	233760	33.2
Aroclor-1221	3	5.296	-0.004	1447856	33.4	3	5.688	-0.003	918547	41.3
Aroclor-1221	NS	---			----	4	5.755	-0.004	68854	19.6
	Total Col1Ave (3 peaks):				25.7	Total Col2Ave (4 peaks):				27.1 RPD = 5
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				22.3
Aroclor-1232	1	6.274	-0.005	2383251	133.8	1	6.381	-0.005	2222412	125.1
Aroclor-1232	2	6.672	-0.006	9651818	163.7	2	7.005	-0.005	4904706	151.1
Aroclor-1232	3	6.825	-0.001	3802603	158.3	3	7.216	-0.003	1310854	115.8
Aroclor-1232	4	8.015	-0.004	22932681	1081.2	4	8.360	-0.004	12227149	1119.1
	Total Col1Ave (4 peaks):				384.2	Total Col2Ave (4 peaks):				377.8 RPD = 2
	Corrected Ave (3 peaks):				151.9	Corrected Ave (3 peaks):				130.7 RPD = 15
Aroclor-1242	1	6.274	0.001	2383251	71.3	1	6.381	0.001	2222412	72.7
Aroclor-1242	2	6.672	0.000	9651818	87.6	2	7.005	0.001	4904706	80.7
Aroclor-1242	3	6.825	0.004	3802603	85.7	3	7.216	0.002	1310854	54.4
Aroclor-1242	4	8.015	0.002	22932681	613.1	4	8.360	0.002	12227149	641.6
	Total Col1Ave (4 peaks):				214.4	Total Col2Ave (4 peaks):				212.4 RPD = 1
	Corrected Ave (3 peaks):				81.5	Corrected Ave (3 peaks):				69.3 RPD = 16
Aroclor-1248	1	6.672	0.002	9651818	129.1	1	7.005	0.003	4904706	121.7
Aroclor-1248	2	7.470	0.002	18800993	362.0	2	7.908	0.000	11187974	371.8
Aroclor-1248	3	8.015	0.001	22932681	368.1	3	8.360	0.001	12227149	390.2
Aroclor-1248	4	8.309	0.005	21209970	353.6	4	8.766	-0.015	17117768	500.5
	Total Col1Ave (4 peaks):				303.2	Total Col2Ave (4 peaks):				346.1 RPD = 13
	Corrected Ave (3 peaks):				281.6	Corrected Ave (3 peaks):				294.6 RPD = 5
Aroclor-1254	1	8.390	0.002	17114842	826.1	1	8.501	0.002	24379051	907.5
Aroclor-1254	2	8.771	0.012	80894859	1349.3	2	8.672	0.001	31495541	898.1
Aroclor-1254	3	8.899	0.003	111275206	995.8	3	9.195	0.002	18165494	657.7
Aroclor-1254	4	9.244	0.000	104339570	900.7	4	9.346	0.001	56154510	948.4
Aroclor-1254	5	9.606	0.000	57272647	730.2	5	10.129	0.004	27869327	764.2
	Total Col1Ave (5 peaks):				960.4	Total Col2Ave (5 peaks):				835.2 RPD = 14
	Corrected Ave (4 peaks):				863.2	Corrected Ave (4 peaks):				806.9 RPD = 7
Aroclor-1260	1	10.481	0.002	13250306	175.9	1	10.457	0.001	6663461	185.3
Aroclor-1260	2	10.854	0.001	41273968	215.2	2	10.904	-0.002	16441580	370.5
Aroclor-1260	3	11.254	0.001	24596862	238.4	3	11.179	0.001	19037059	215.2
Aroclor-1260	4	11.370	0.002	8996945	215.1	4	11.701	0.002	4869651	193.5
Aroclor-1260	5	11.444	0.002	10648713	212.2	NS	---			----
	Total Col1Ave (5 peaks):				211.8	Total Col2Ave (4 peaks):				241.1 RPD = 13
	Corrected Ave (4 peaks):				204.6	Corrected Ave (3 peaks):				198.0 RPD = 3
Aroclor-1262	1	10.163	-0.005	14629261	120.3	1	10.457	-0.005	6663461	116.4
Aroclor-1262	2	10.481	-0.004	13250306	139.8	2	10.904	-0.009	16441580	302.1
Aroclor-1262	3	10.854	-0.005	41273968	177.5	3	11.179	-0.005	19037059	179.8
Aroclor-1262	4	11.370	-0.005	8996945	93.0	4	11.701	-0.006	4869651	103.6
Aroclor-1262	5	11.444	-0.005	10648713	102.5	5	12.500	-0.005	4795380	127.1
	Total Col1Ave (5 peaks):				126.6	Total Col2Ave (5 peaks):				165.8 RPD = 27
	Corrected Ave (4 peaks):				113.9	Corrected Ave (4 peaks):				131.7 RPD = 14
Aroclor-1268	1	11.370	-0.006	8996945	36.1	1	11.701	-0.006	4869651	44.1
Aroclor-1268	2	11.444	-0.004	10648713	43.7	2	11.761	-0.013	12969303	128.7

Aroclor-1268	3	11.845	0.010	4972087	24.2	3	12.167	-0.005	316242	3.8
Aroclor-1268	4	12.619	-0.007	4455326	7.0	4	12.987	-0.006	1595457	6.4

Total Col1Ave (4 peaks): 27.7 Total Col2Ave (4 peaks): 45.7 RPD = 49*

Corrected Ave (3 peaks): 22.4 Corrected Ave (3 peaks): 18.1 RPD = 21

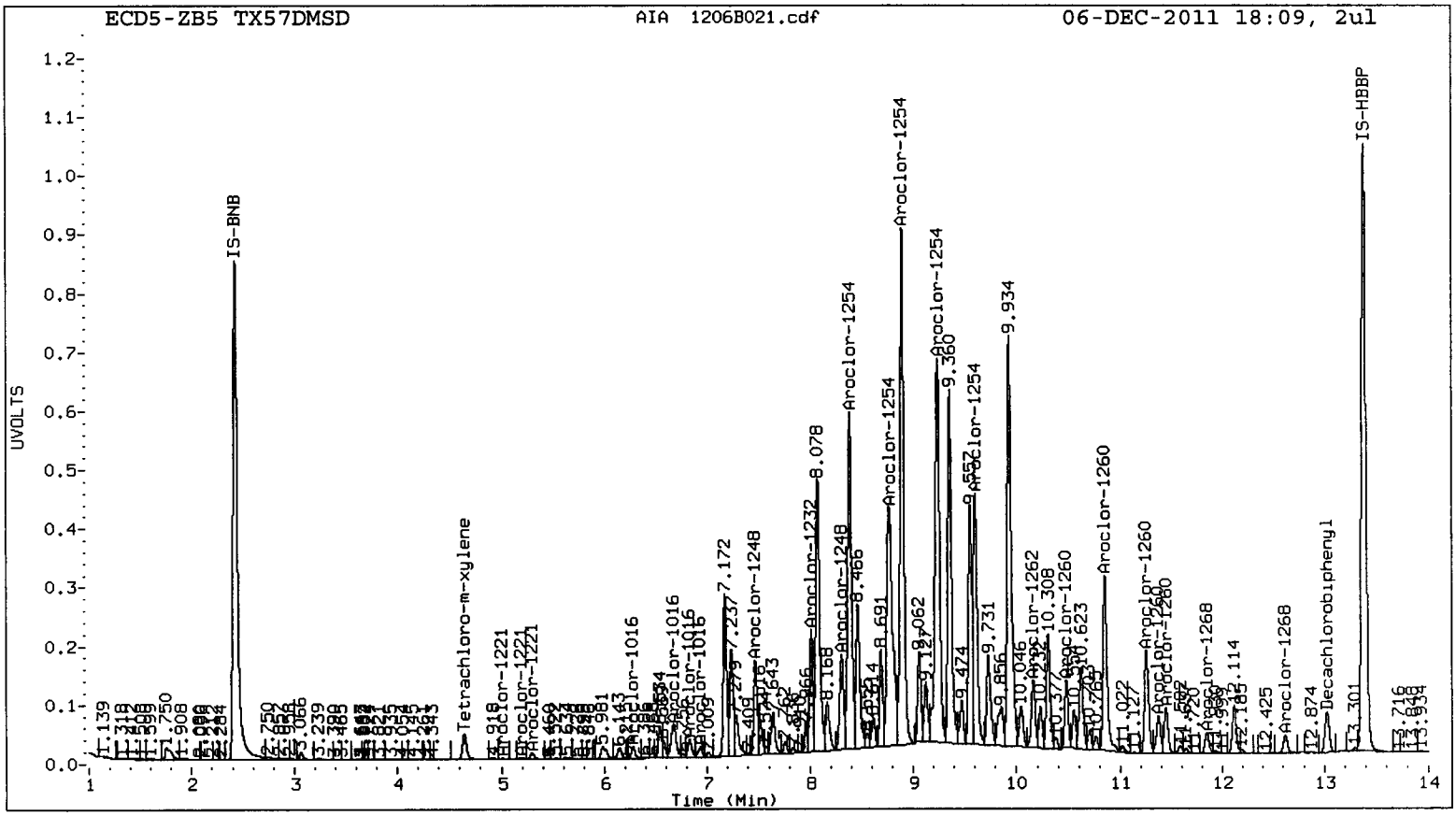
Total PCB Area Col1 (4.740 - 12.923) = 1257785013 Col1 Total PCB = 1.2 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 614438645 Col2 Total PCB = 1.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

TX57:01382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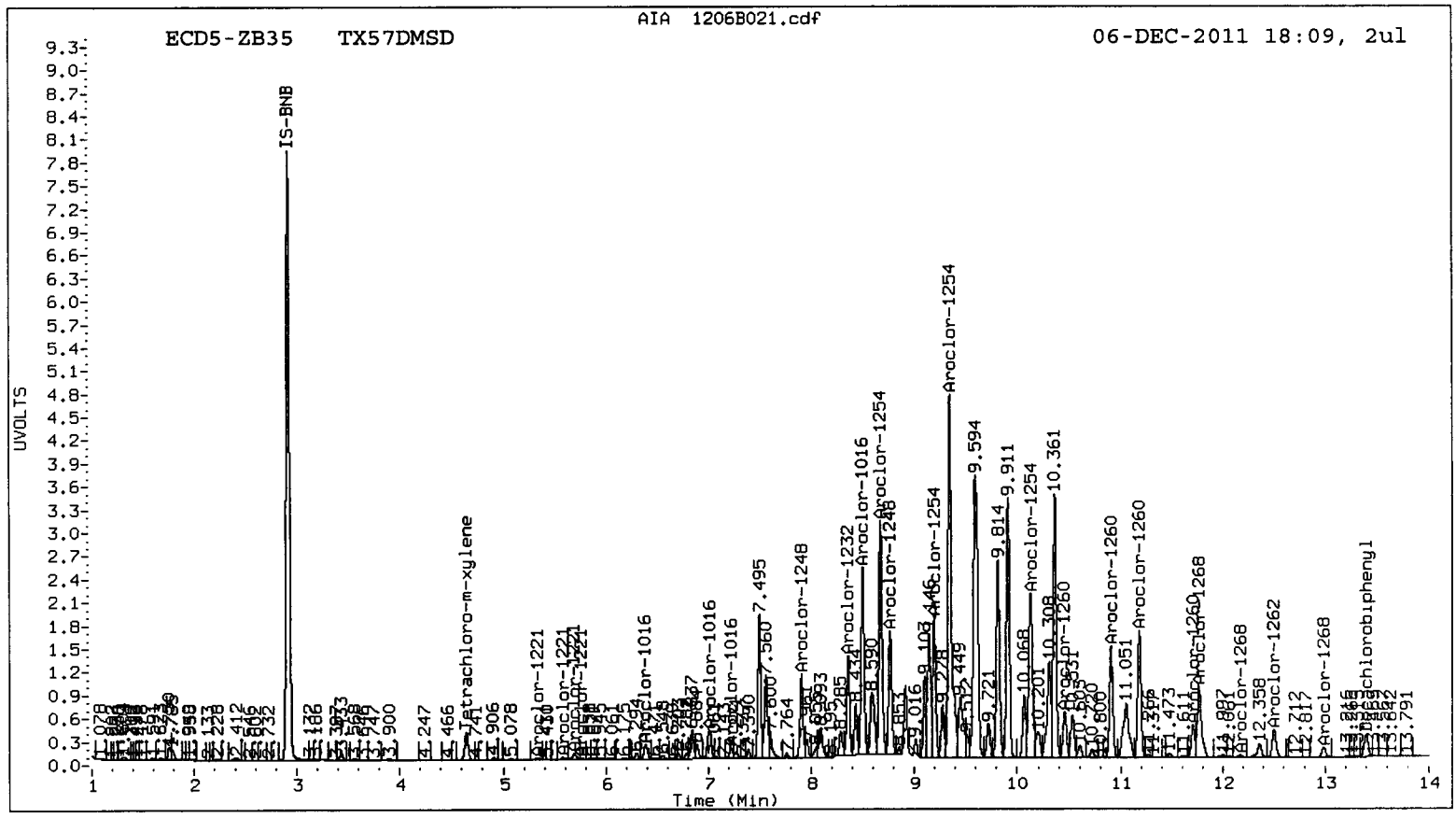
AIA 1206B021.cdf
06-DEC-2011 18:09, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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ECD5-ZB35 TX57DMSD
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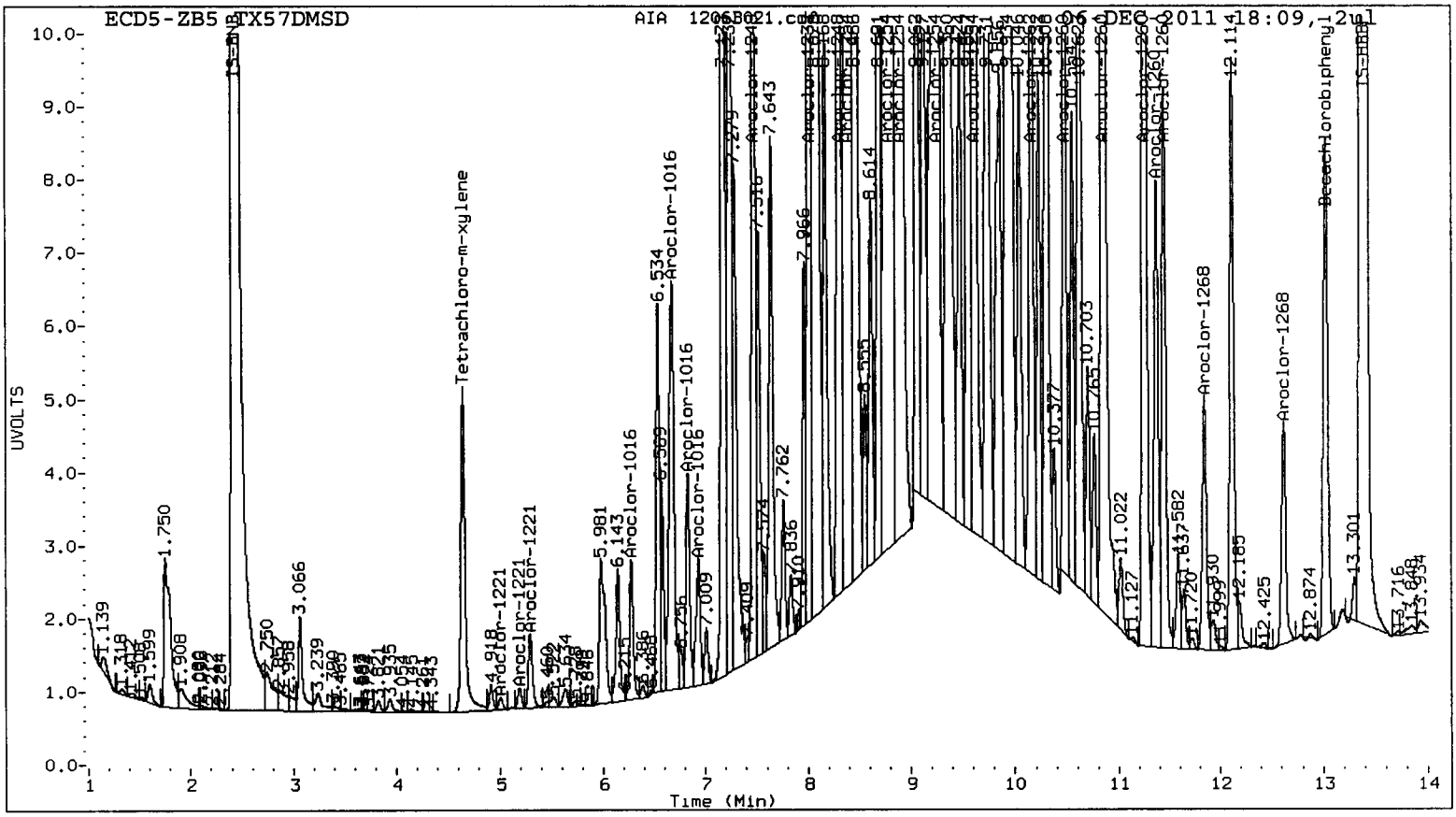
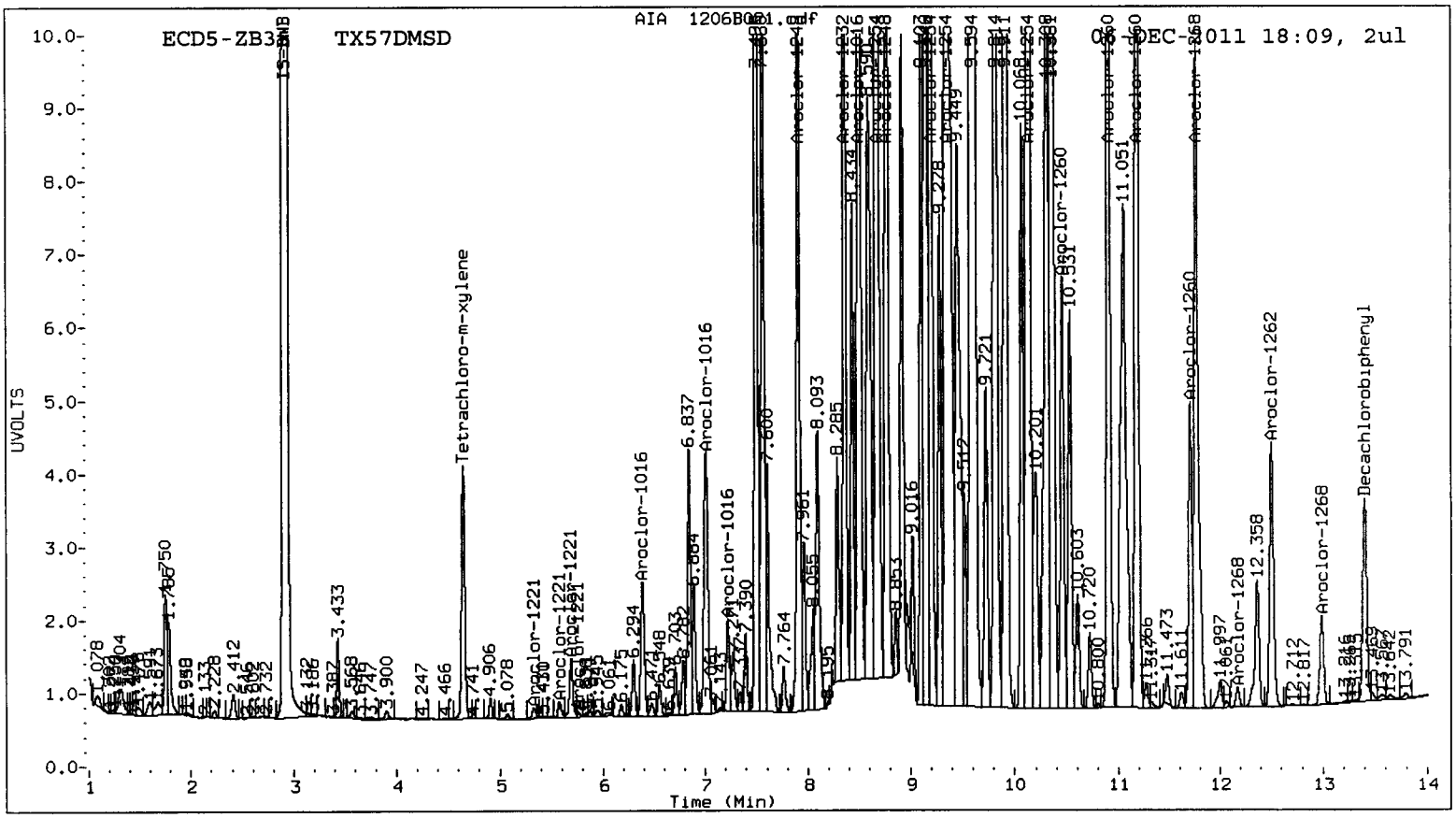
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl


ECD5-ZB5 TX57DMSD
AIA 1206B021.cdf
06-DEC-2011 18:09, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1268
Decachlorobiphenyl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AIA 1206B021.cdf
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UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B022.d
Data file 2: 20111202.B/1206-2.b/1206B022.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57E
Client ID:
Injection Date: 06-DEC-2011 18:28
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 10.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.642	0.002	7644114	4.644	0.001	4513436	4.1	3.9	4.1	Tetrachloro-m-xylene
13.026	0.002	10100896	13.402	0.002	4009087	5.2	5.1	2.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	101.7	97.7
Decachlorobiphenyl	129.8	127.1

12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	131897123	5.7
Hexabromobiphenyl	134444165	155028821	15.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	89978332	0.6
Hexabromobiphenyl	57341096	63760933	11.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.274	0.001	143531	3.2	1	6.381	0.001	126282	2.9
Aroclor-1016	2	6.670	-0.003	931039	6.2	2	7.006	0.001	437849	5.1
Aroclor-1016	3	6.829	0.008	360920	5.9	3	7.219	0.005	124549	3.9
Aroclor-1016	4	6.927	-0.003	236173	5.5	4	8.500	0.002	11638177	757.6
	Total Col1Ave (4 peaks):				5.2	Total Col2Ave (4 peaks):				192.4 RPD = 189*
	Corrected Ave (3 peaks):				4.9	Corrected Ave (3 peaks):				4.0 RPD = 20
Aroclor-1221	1	4.918	-0.099	534674	29.7	1	5.349	0.016	55440	4.3
Aroclor-1221	2	5.178	-0.018	48025	3.8	2	5.601	0.022	306007	41.2
Aroclor-1221	3	5.296	-0.004	33503	0.8	3	5.710	0.019	509091	21.7
Aroclor-1221	NS	---			----	4	5.760	0.001	20115	5.4
	Total Col1Ave (3 peaks):				11.4	Total Col2Ave (4 peaks):				18.2 RPD = 46*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				10.5
Aroclor-1232	1	6.274	-0.005	143531	7.8	1	6.381	-0.004	126282	6.7
Aroclor-1232	2	6.670	-0.008	931039	15.4	2	7.006	-0.004	437849	12.8
Aroclor-1232	3	6.829	0.003	360920	14.6	3	7.219	-0.001	124549	10.4
Aroclor-1232	4	8.015	-0.005	6052041	277.4	4	8.359	-0.004	3229936	280.4
	Total Col1Ave (4 peaks):				78.8	Total Col2Ave (4 peaks):				77.6 RPD = 2
	Corrected Ave (3 peaks):				12.6	Corrected Ave (3 peaks):				10.0 RPD = 23
Aroclor-1242	1	6.274	0.001	143531	4.2	1	6.381	0.002	126282	3.9
Aroclor-1242	2	6.670	-0.002	931039	8.2	2	7.006	0.002	437849	6.8
Aroclor-1242	3	6.829	0.008	360920	7.9	3	7.219	0.005	124549	4.9
Aroclor-1242	4	8.015	0.002	6052041	157.3	4	8.359	0.001	3229936	160.8
	Total Col1Ave (4 peaks):				44.4	Total Col2Ave (4 peaks):				44.1 RPD = 1
	Corrected Ave (3 peaks):				6.8	Corrected Ave (3 peaks):				5.2 RPD = 26
Aroclor-1248	1	6.670	0.000	931039	12.1	1	7.006	0.004	437849	10.3
Aroclor-1248	2	7.470	0.001	3790363	71.0	2	7.909	0.001	2281210	71.9
Aroclor-1248	3	8.015	0.001	6052041	94.5	3	8.359	0.001	3229936	97.8
Aroclor-1248	4	8.309	0.005	8675307	140.6	4	8.766	-0.015	6781434	188.1
	Total Col1Ave (4 peaks):				79.5	Total Col2Ave (4 peaks):				92.0 RPD = 15
	Corrected Ave (3 peaks):				59.2	Corrected Ave (3 peaks):				60.0 RPD = 1
Aroclor-1254	1	8.389	0.001	35442519	369.2	1	8.500	0.001	11638177	410.9
Aroclor-1254	2	8.761	0.002	17746196	287.8	2	8.672	0.001	14470890	391.3
Aroclor-1254	3	8.897	0.001	47428221	412.7	3	9.195	0.002	8075644	277.3
Aroclor-1254	4	9.234	-0.010	61639249	517.4	4	9.346	0.001	21246736	340.3
Aroclor-1254	5	9.602	-0.004	31554090	391.2	5	10.134	0.008	15502088	401.7
	Total Col1Ave (5 peaks):				395.6	Total Col2Ave (5 peaks):				364.3 RPD = 8
	Corrected Ave (4 peaks):				365.2	Corrected Ave (4 peaks):				352.7 RPD = 3
Aroclor-1260	1	10.481	0.002	21117322	275.9	1	10.457	0.002	10291132	285.9
Aroclor-1260	2	10.854	0.002	62363075	320.1	2	10.907	0.000	17143719	385.9
Aroclor-1260	3	11.254	0.002	35241919	336.3	3	11.180	0.001	29037537	327.9
Aroclor-1260	4	11.371	0.002	13076467	307.9	4	11.701	0.002	7327397	290.8
Aroclor-1260	5	11.445	0.002	16206942	318.0	NS	---			----
	Total Col1Ave (5 peaks):				311.6	Total Col2Ave (4 peaks):				322.6 RPD = 3
	Corrected Ave (4 peaks):				305.5	Corrected Ave (3 peaks):				301.6 RPD = 1
Aroclor-1262	1	10.163	-0.005	23096850	187.1	1	10.457	-0.004	10291132	179.5
Aroclor-1262	2	10.481	-0.004	21117322	219.4	2	10.907	-0.007	17143719	314.7
Aroclor-1262	3	10.854	-0.005	62363075	264.1	3	11.180	-0.005	29037537	273.9
Aroclor-1262	4	11.371	-0.005	13076467	133.1	4	11.701	-0.006	7327397	155.6
Aroclor-1262	5	11.445	-0.005	16206942	153.6	5	12.500	-0.005	7117215	188.4
	Total Col1Ave (5 peaks):				191.4	Total Col2Ave (5 peaks):				222.4 RPD = 15
	Corrected Ave (4 peaks):				173.3	Corrected Ave (4 peaks):				199.4 RPD = 14
Aroclor-1268	1	11.371	-0.006	13076467	51.6	1	11.701	-0.006	7327397	66.2
Aroclor-1268	2	11.445	-0.004	16206942	65.4	2	11.761	-0.013	19125859	189.6

Aroclor-1268	3	11.846	0.011	7164177	34.3	3	12.167	-0.005	242847	2.9
Aroclor-1268	4	12.618	-0.008	4466340	6.9	4	12.987	-0.006	1490618	6.0

Total Col1Ave (4 peaks): 39.6 Total Col2Ave (4 peaks): 66.2 RPD = 50*

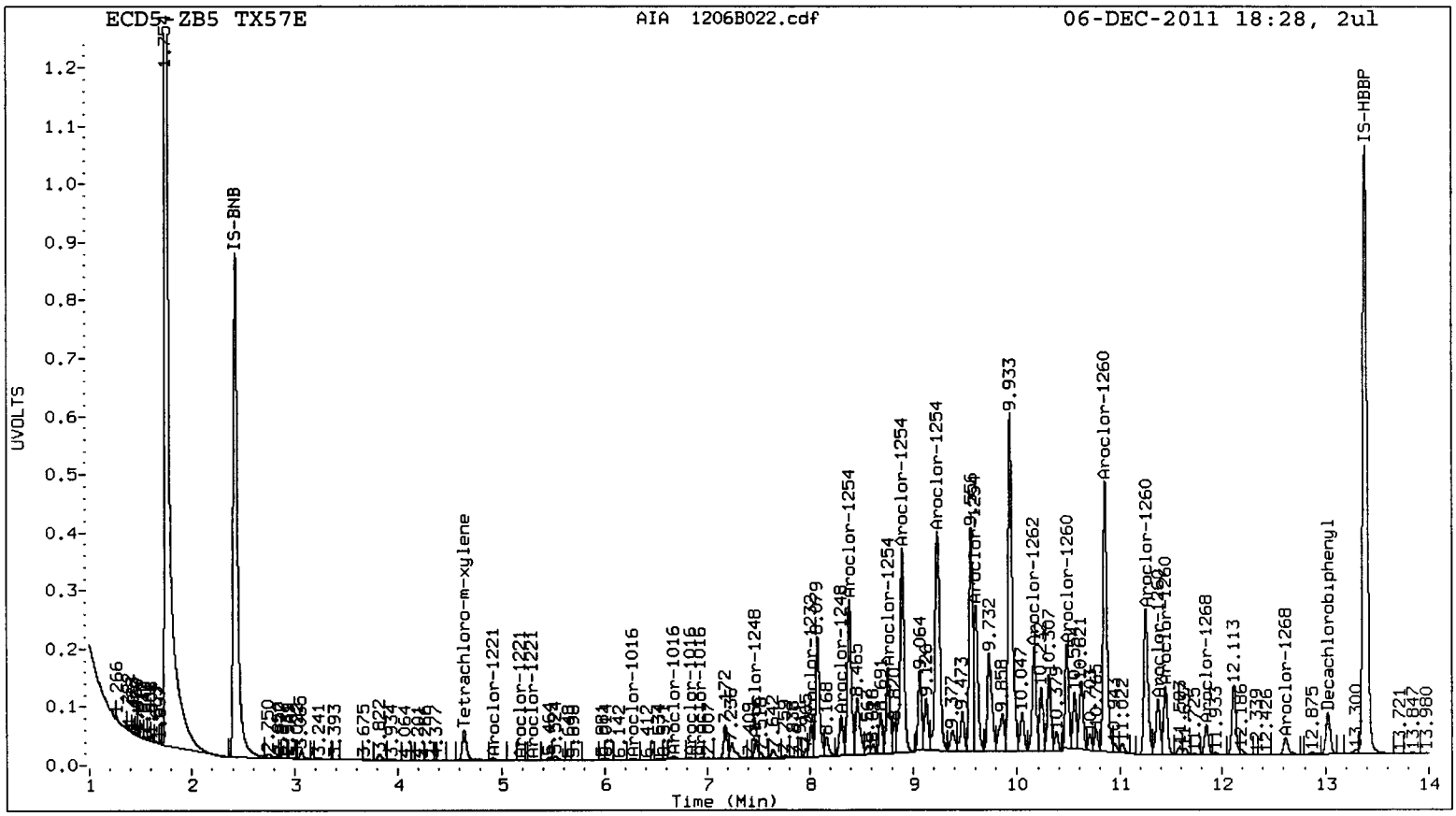
Corrected Ave (3 peaks): 30.9 Corrected Ave (3 peaks): 25.0 RPD = 21

Total PCB Area Col1 (4.740 - 12.923) = 786349703 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 368743380 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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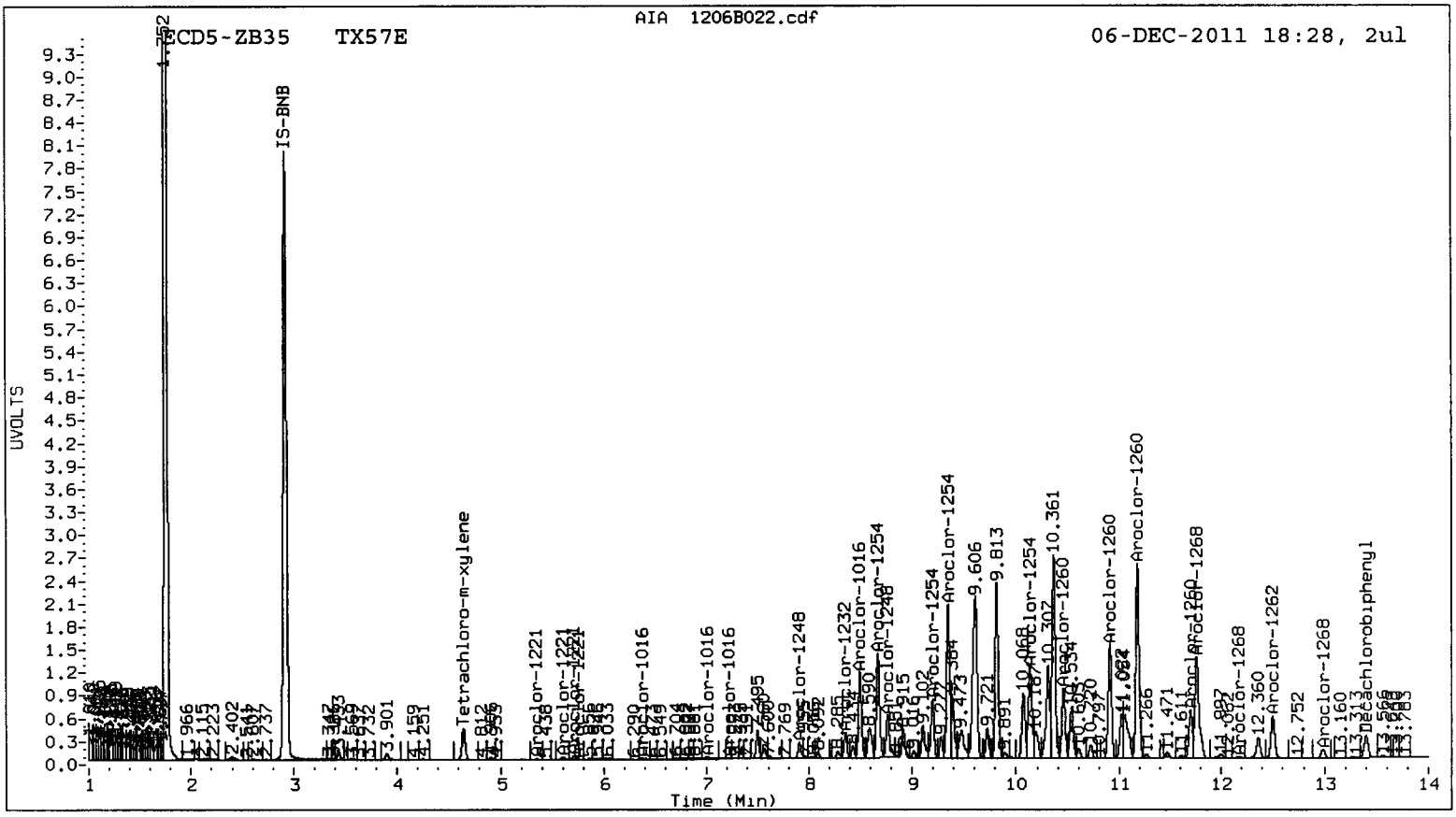
UVOLTS
Time (Min)
IS-BNB
IS-HBBP
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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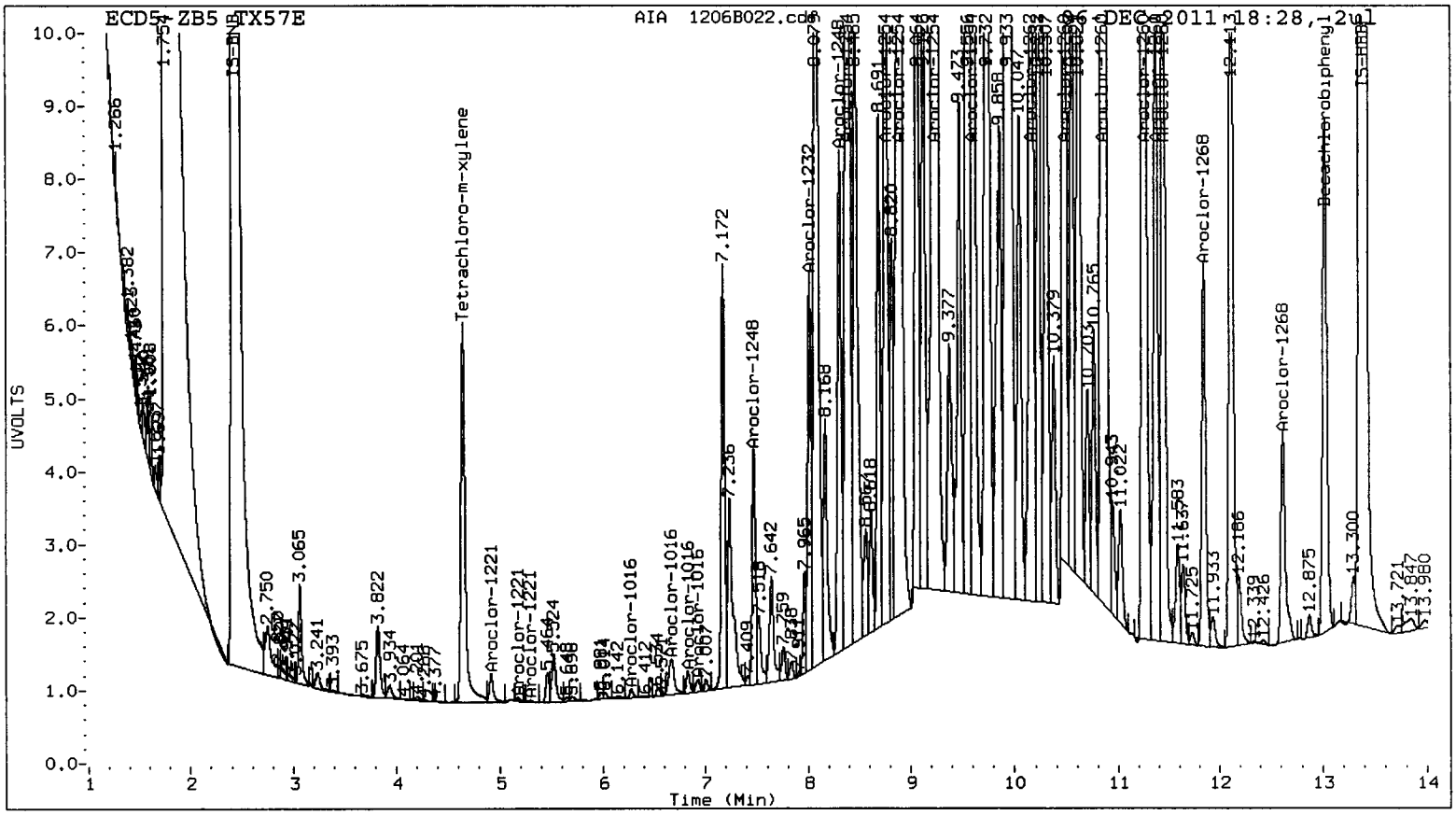
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

TX57 : 01338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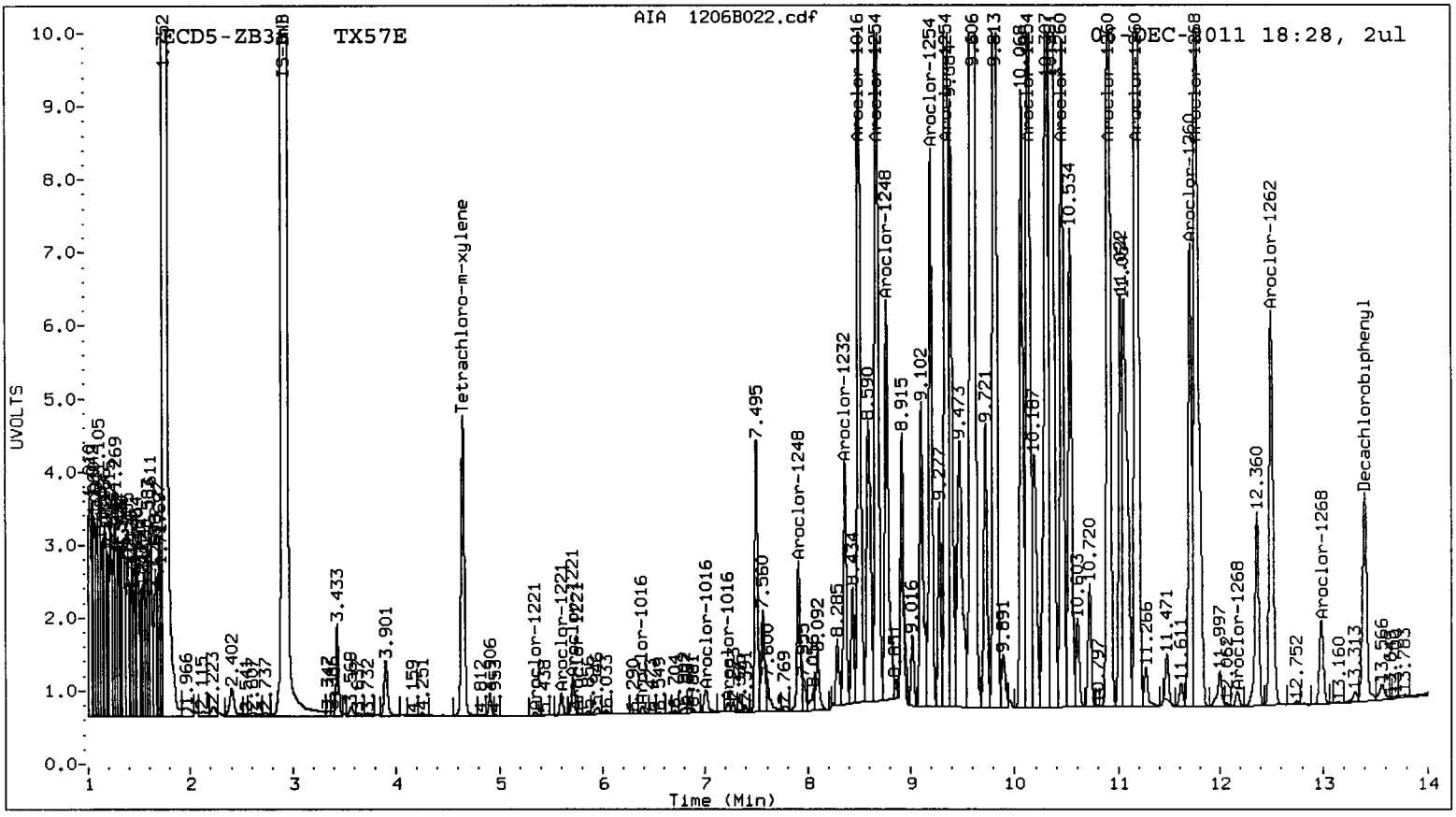
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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AIA 1206B022.cdf
DEC 2011 18:28, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B023.d
Data file 2: 20111202.B/1206-2.b/1206B023.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57F
Client ID:
Injection Date: 06-DEC-2011 18:47
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 10.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.642	0.002	8062532	4.643	0.000	4694756	4.1	3.9	3.3	Tetrachloro-m-xylene
13.026	0.002	9477645	13.402	0.002	3636006	4.8	4.8	1.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	101.8	98.5
Decachlorobiphenyl	120.9	118.8

JC 12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	138984980	11.4
Hexabromobiphenyl	134444165	156197958	16.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	92830226	3.8
Hexabromobiphenyl	57341096	61864360	7.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	6.273	-0.001	143320	3.0	1	6.379	-0.001	110579	2.5	
Aroclor-1016	2	6.673	0.001	705492	4.5	2	7.007	0.001	358848	4.1	
Aroclor-1016	3	6.832	0.011	334958	5.2	3	7.216	0.002	26132	0.8	
Aroclor-1016	4	6.923	-0.007	199912	4.4	4	8.500	0.002	7482280	472.1	
	Total Col1Ave (4 peaks):				4.3	Total Col2Ave (4 peaks):				119.9	RPD = 186*
	Corrected Ave (3 peaks):				4.0	Corrected Ave (3 peaks):				2.4	RPD = 47*
Aroclor-1221	1	5.111	0.094	23516	1.2	1	5.348	0.016	57109	4.3	
Aroclor-1221	2	5.179	-0.017	54253	4.1	2	5.599	0.020	197695	25.8	
Aroclor-1221	3	5.306	0.006	13462	0.3	3	5.710	0.018	270802	11.2	
Aroclor-1221	NS	---			----	4	5.758	-0.001	14250	3.7	
	Total Col1Ave (3 peaks):				1.9	Total Col2Ave (4 peaks):				11.3	RPD = 143*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				6.4	
Aroclor-1232	1	6.273	-0.006	143320	7.4	1	6.379	-0.007	110579	5.7	
Aroclor-1232	2	6.673	-0.004	705492	11.0	2	7.007	-0.003	358848	10.2	
Aroclor-1232	3	6.832	0.006	334958	12.9	3	7.216	-0.003	26132	2.1	
Aroclor-1232	4	8.015	-0.004	3127617	136.1	4	8.359	-0.004	1707735	143.7	
	Total Col1Ave (4 peaks):				41.8	Total Col2Ave (4 peaks):				40.4	RPD = 3
	Corrected Ave (3 peaks):				10.4	Corrected Ave (3 peaks):				6.0	RPD = 54*
Aroclor-1242	1	6.273	0.000	143320	4.0	1	6.379	0.000	110579	3.3	
Aroclor-1242	2	6.673	0.001	705492	5.9	2	7.007	0.002	358848	5.4	
Aroclor-1242	3	6.832	0.011	334958	7.0	3	7.216	0.002	26132	1.0	
Aroclor-1242	4	8.015	0.002	3127617	77.2	4	8.359	0.002	1707735	82.4	
	Total Col1Ave (4 peaks):				23.5	Total Col2Ave (4 peaks):				23.0	RPD = 2
	Corrected Ave (3 peaks):				5.6	Corrected Ave (3 peaks):				3.2	RPD = 53*
Aroclor-1248	1	6.673	0.004	705492	8.7	1	7.007	0.005	358848	8.2	
Aroclor-1248	2	7.470	0.001	3154523	56.0	2	7.909	0.001	1851436	56.6	
Aroclor-1248	3	8.015	0.001	3127617	46.3	3	8.359	0.001	1707735	50.1	
Aroclor-1248	4	8.311	0.007	4998465	76.9	4	8.765	-0.015	4372295	117.5	
	Total Col1Ave (4 peaks):				47.0	Total Col2Ave (4 peaks):				58.1	RPD = 21
	Corrected Ave (3 peaks):				37.0	Corrected Ave (3 peaks):				38.3	RPD = 3
Aroclor-1254	1	8.390	0.002	23736071	234.6	1	8.500	0.001	7482280	256.0	
Aroclor-1254	2	8.761	0.002	14188453	218.4	2	8.672	0.001	9179667	240.6	
Aroclor-1254	3	8.897	0.001	33100899	273.3	3	9.195	0.002	6445313	214.5	
Aroclor-1254	4	9.243	-0.002	32626191	259.9	4	9.345	0.000	17839323	277.0	
Aroclor-1254	5	9.604	-0.002	17817884	209.6	5	10.132	0.007	8428950	211.7	
	Total Col1Ave (5 peaks):				239.2	Total Col2Ave (5 peaks):				240.0	RPD = 0
	Corrected Ave (4 peaks):				230.6	Corrected Ave (4 peaks):				236.7	RPD = 0
Aroclor-1260	1	10.480	0.002	4138035	53.7	1	10.456	0.001	1894551	54.2	
Aroclor-1260	2	10.854	0.001	11797645	60.1	2	10.903	-0.004	6007391	139.4	
Aroclor-1260	3	11.254	0.001	7555260	71.5	3	11.179	0.001	5468250	63.7	
Aroclor-1260	4	11.370	0.002	2268301	53.0	4	11.701	0.002	1285802	52.6	
Aroclor-1260	5	11.444	0.002	2564759	49.9	NS	---			----	
	Total Col1Ave (5 peaks):				57.7	Total Col2Ave (4 peaks):				77.5	RPD = 29
	Corrected Ave (4 peaks):				54.2	Corrected Ave (3 peaks):				56.8	RPD = 5
Aroclor-1262	1	10.162	-0.005	4404723	35.4	1	10.456	-0.005	1894551	34.1	
Aroclor-1262	2	10.480	-0.005	4138035	42.7	2	10.903	-0.010	6007391	113.6	
Aroclor-1262	3	10.854	-0.005	11797645	49.6	3	11.179	-0.005	5468250	53.2	
Aroclor-1262	4	11.370	-0.006	2268301	22.9	4	11.701	-0.006	1285802	28.1	
Aroclor-1262	5	11.444	-0.005	2564759	24.1	5	12.500	-0.005	1170798	31.9	
	Total Col1Ave (5 peaks):				34.9	Total Col2Ave (5 peaks):				52.2	RPD = 40
	Corrected Ave (4 peaks):				31.3	Corrected Ave (4 peaks):				36.8	RPD = 16
Aroclor-1268	1	11.370	-0.006	2268301	8.9	1	11.701	-0.006	1285802	12.0	
Aroclor-1268	2	11.444	-0.004	2564759	10.3	2	11.759	-0.015	3636111	37.1	

Aroclor-1268	3	11.844	0.009	1191313	5.7	3	12.170	-0.002	70270	0.9
Aroclor-1268	4	12.616	-0.009	993429	1.5	4	12.988	-0.005	304921	1.3

Total Col1Ave (4 peaks): 6.6 Total Col2Ave (4 peaks): 12.8 RPD = 64*

Corrected Ave (3 peaks): 5.4 Corrected Ave (3 peaks): 4.7 RPD = 13

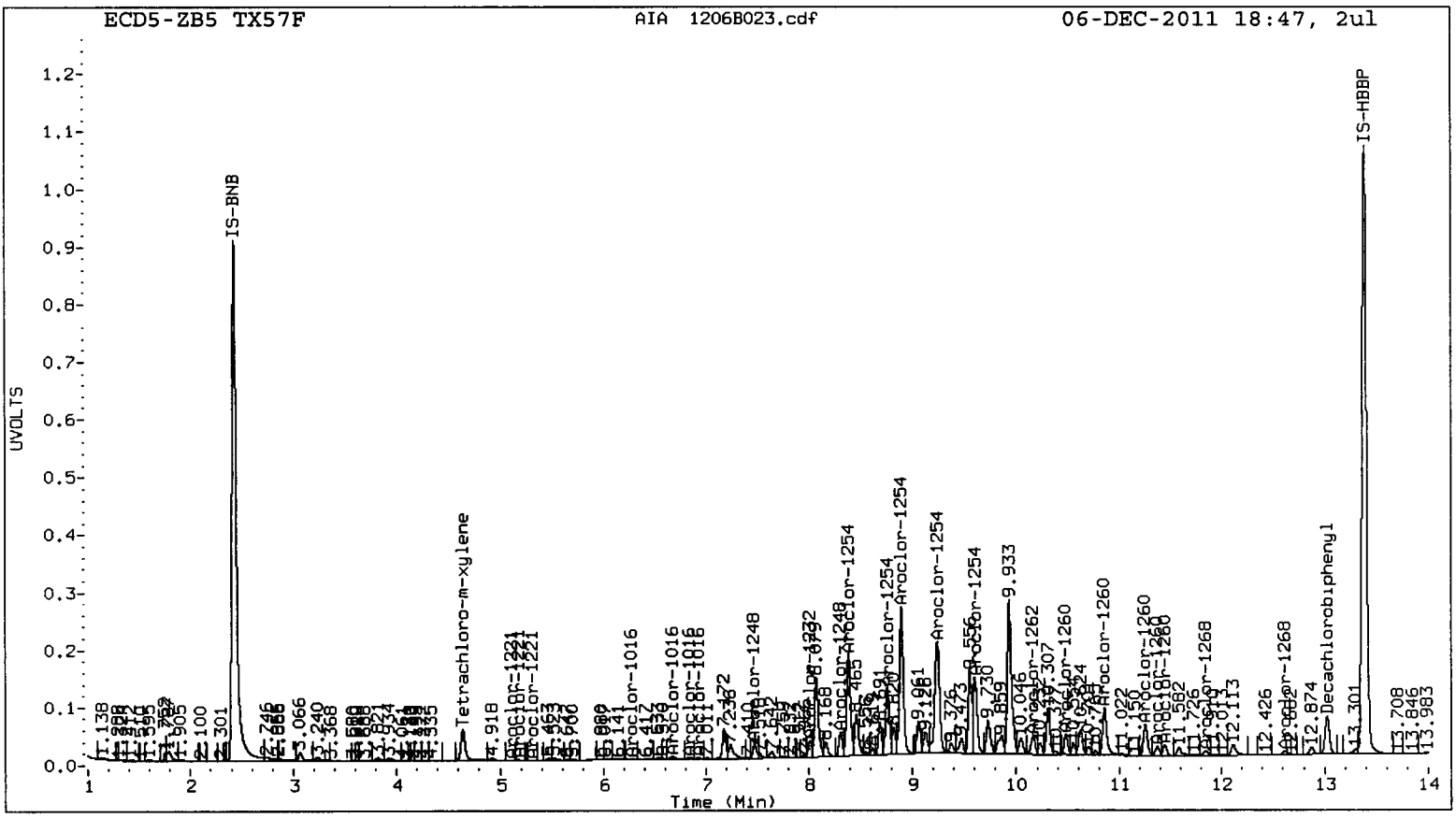
Total PCB Area Col1 (4.740 - 12.923) = 349715196 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 163777006 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

TX57 01345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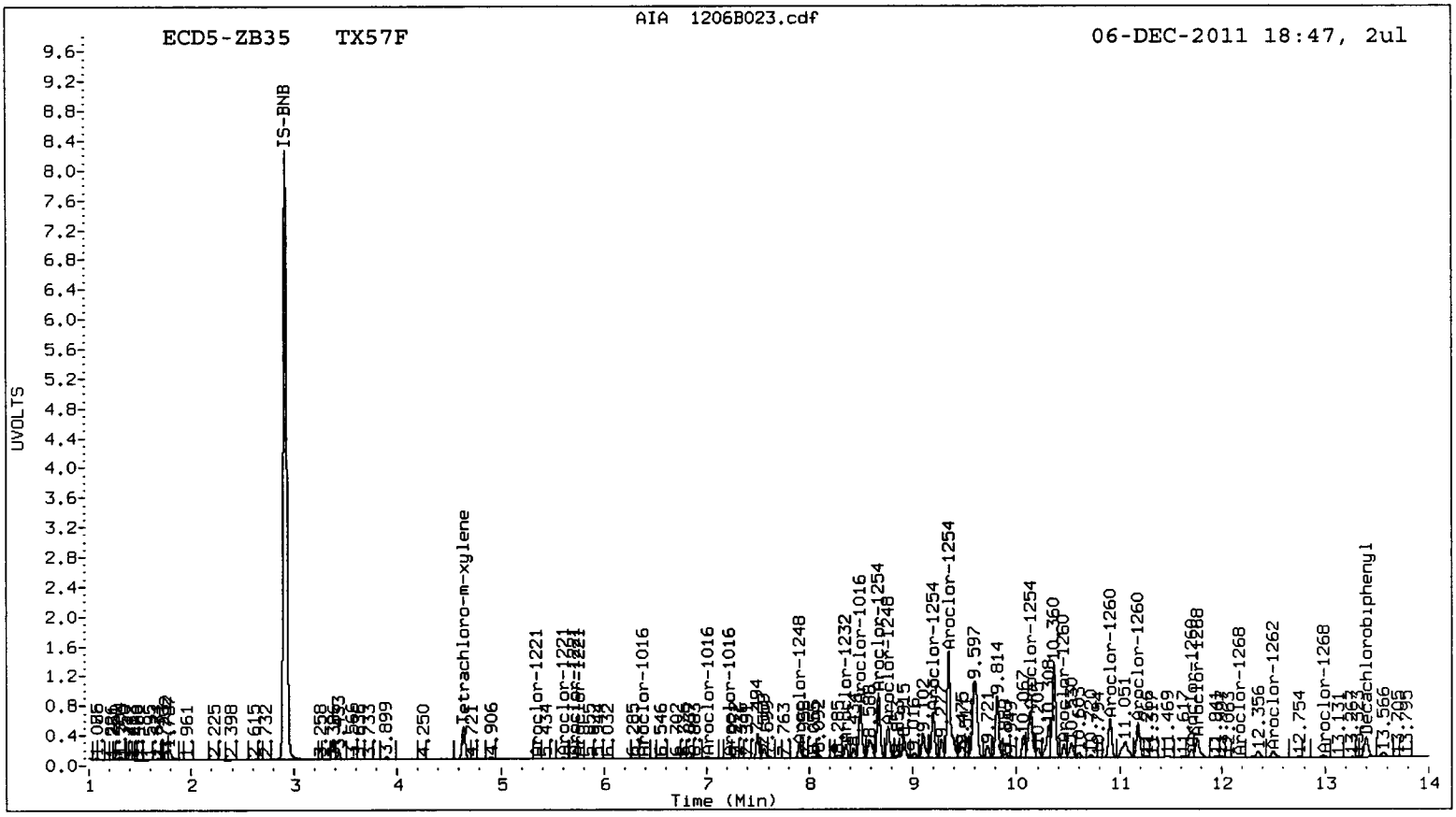
AIA 1206B023.cdf
06-DEC-2011 18:47, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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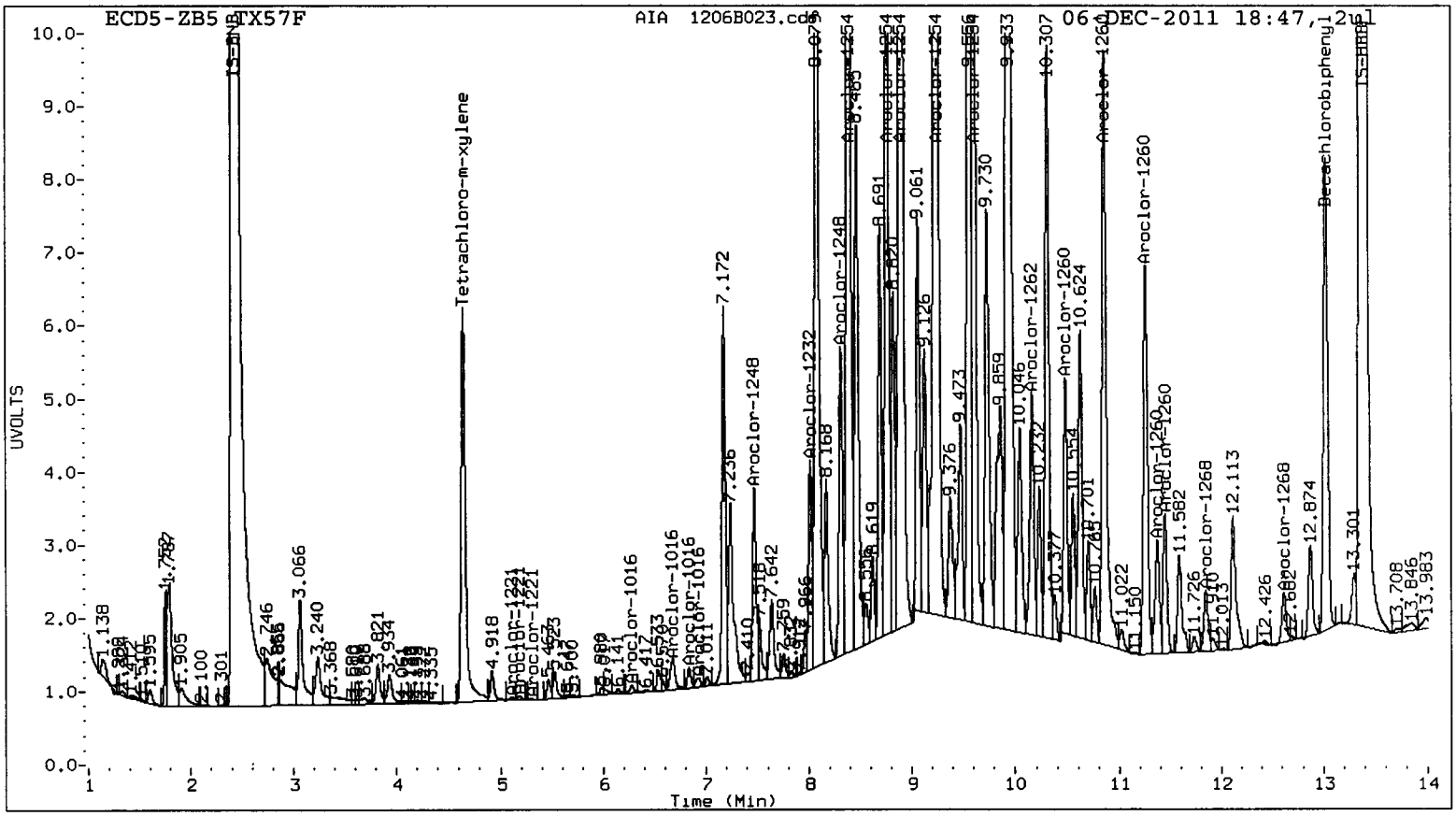
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl

TX57 04940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AIA 1206B023.cdf
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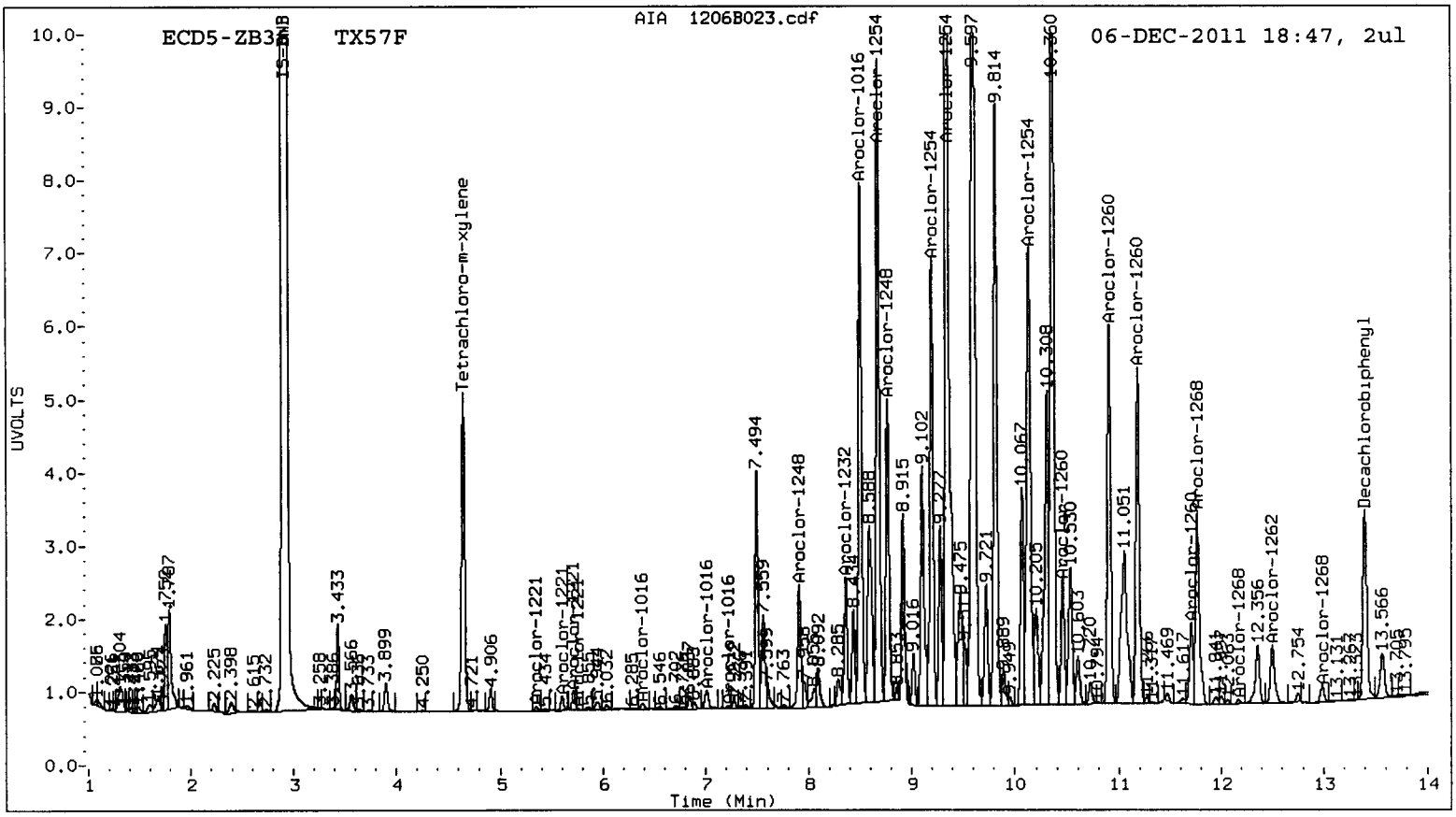
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B024.d
Data file 2: 20111202.B/1206-2.b/1206B024.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 06-DEC-2011 19:06
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.642	0.002	37730119	4.645	0.002	23467389	19.1	19.7	3.2	Tetrachloro-m-xylene
13.027	0.004	38003454	13.403	0.003	13845808	18.9	18.0	4.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	47.7	49.3
Decachlorobiphenyl	47.1	45.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	138790903	11.2
Hexabromobiphenyl	134444165	160540976	19.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	92758559	3.7
Hexabromobiphenyl	57341096	62114510	8.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

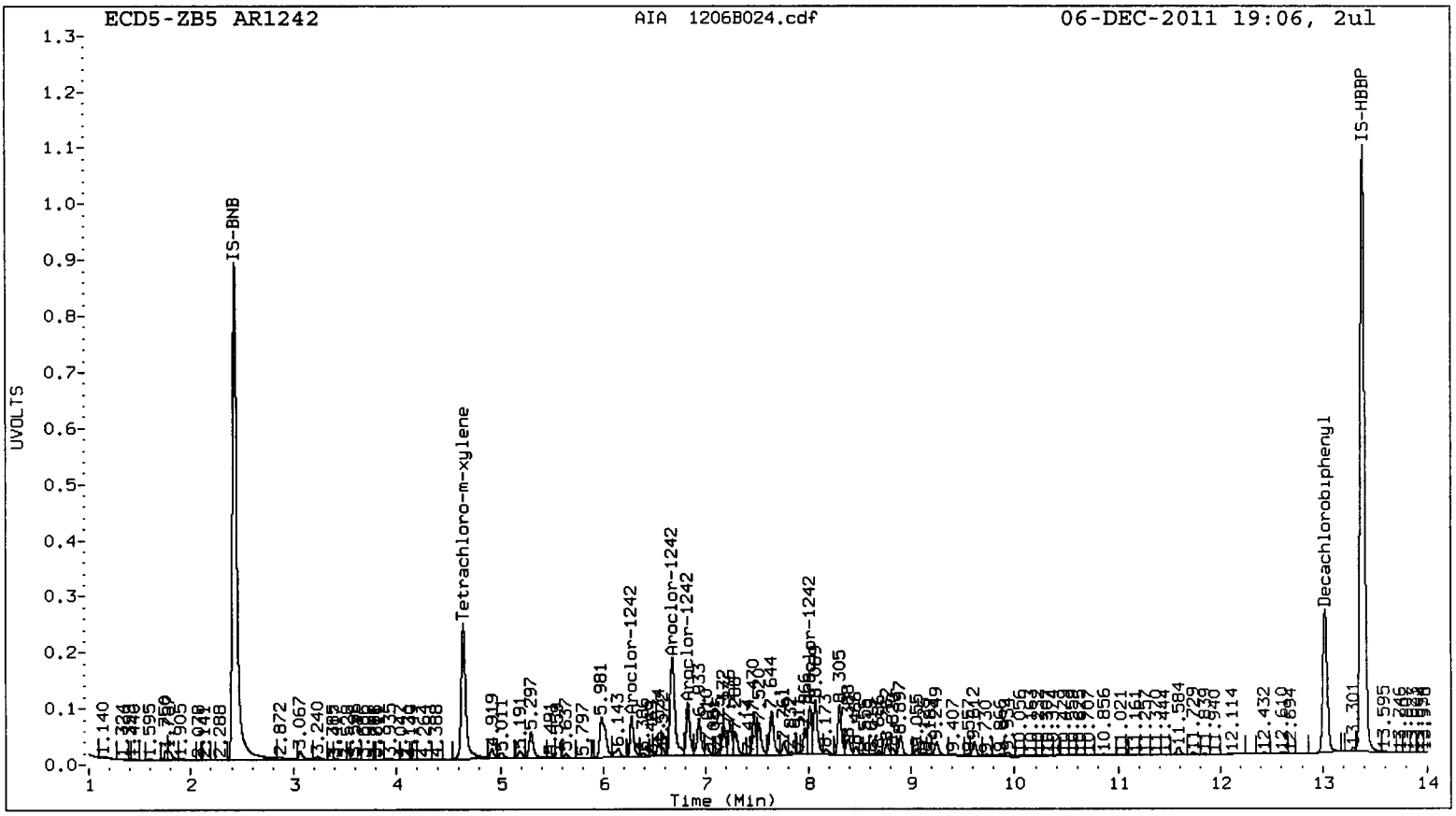
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	6.275	0.002	9011826	249.2	1	6.382	0.003	8127935	244.5
Aroclor-1242	2	6.674	0.002	30184447	253.1	2	7.007	0.002	15894050	240.6
Aroclor-1242	3	6.823	0.002	11933507	248.6	3	7.216	0.002	5484135	209.4
Aroclor-1242	4	8.015	0.002	9855786	243.5	4	8.360	0.002	4972025	240.0
Total Col1Ave (4 peaks):					248.6	Total Col2Ave (4 peaks):				233.7 RPD = 6
Corrected Ave (3 peaks):					247.1	Corrected Ave (3 peaks):				230.0 RPD = 7

Total PCB Area Col1 (4.740 - 12.923) = 224480291 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 114221499 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TX57 · 01346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AIA 1206B024.cdf
06-DEC-2011 19:06, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
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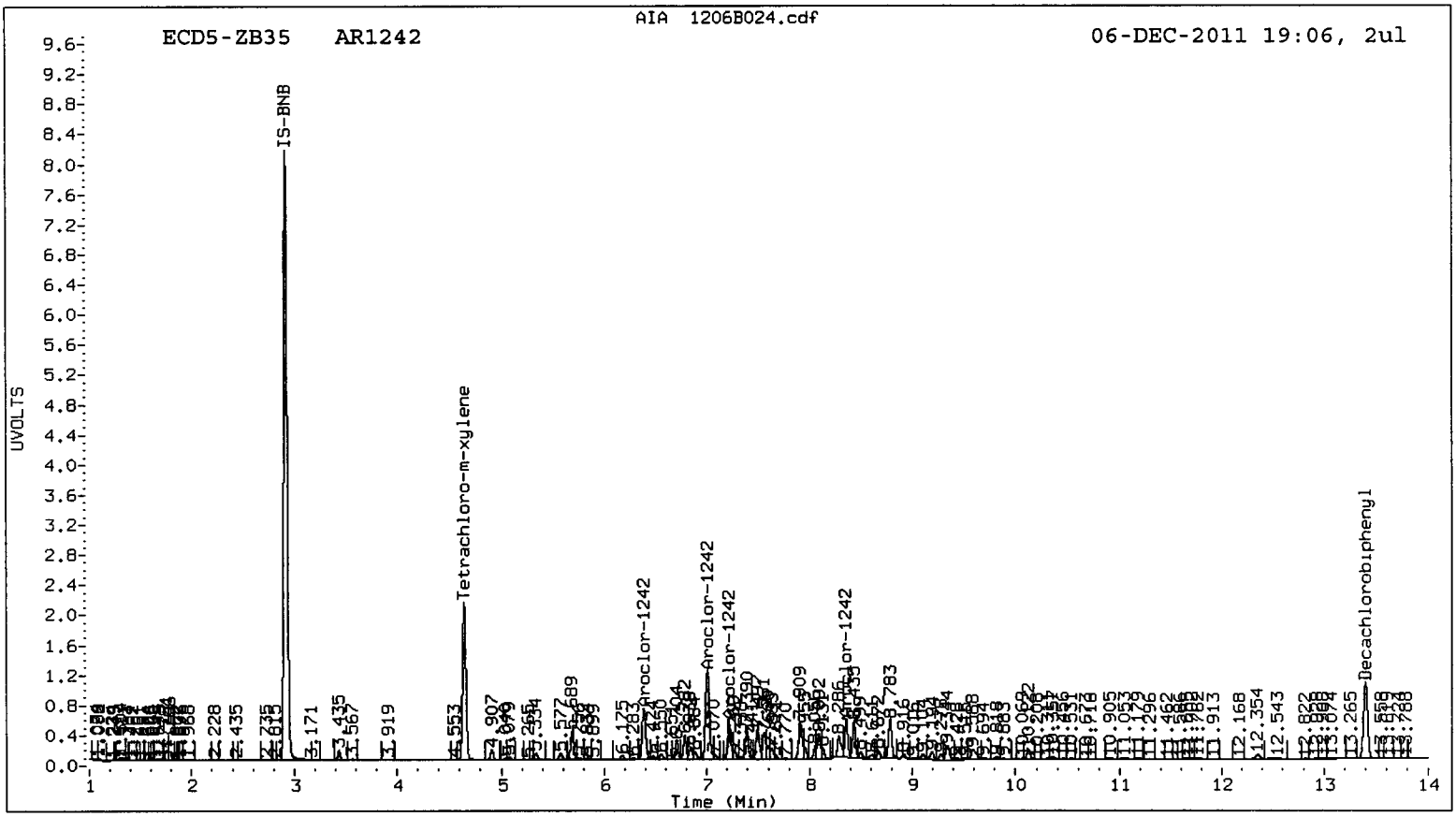
Aroclor-1242
Decachlorobiphenyl
IS-HBBP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ECD5-ZB35 AR1242
06-DEC-2011 19:06, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B025.d
Data file 2: 20111202.B/1206-2.b/1206B025.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 06-DEC-2011 19:25
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.642	0.002	39441413	4.645	0.002	24151884	19.7	20.1	2.0	Tetrachloro-m-xylene
13.027	0.003	42123523	13.403	0.003	15274945	20.1	19.3	4.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.1	50.1
Decachlorobiphenyl	50.4	48.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	140900918	12.9
Hexabromobiphenyl	134444165	166567030	23.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	93803682	4.8
Hexabromobiphenyl	57341096	64064369	11.7

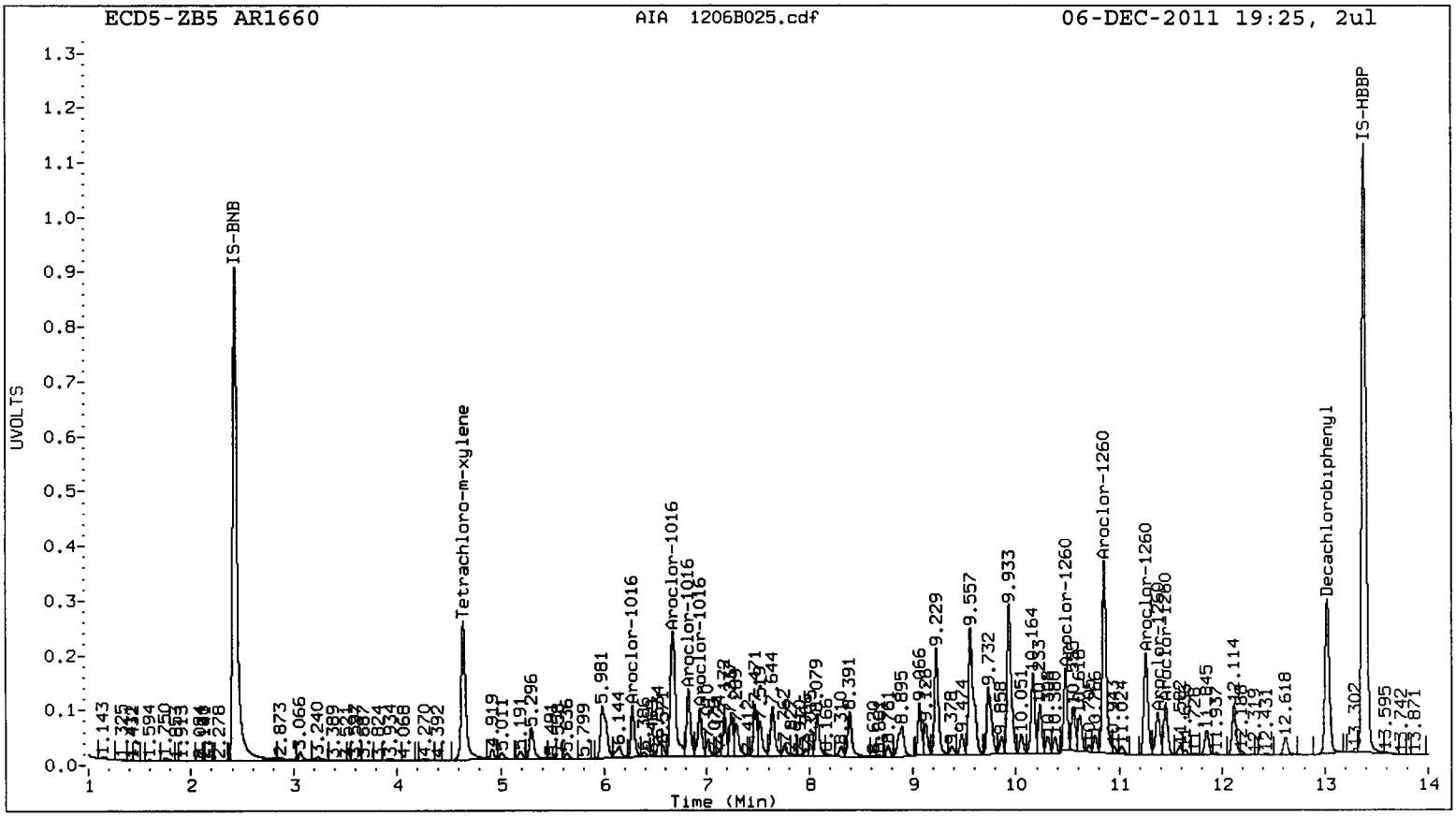
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.275	0.001	11733656	241.7	1	6.381	0.002	10655262	237.3
Aroclor-1016	2	6.674	0.001	39737907	247.3	2	7.007	0.001	20897322	234.4
Aroclor-1016	3	6.823	0.002	15653112	240.4	3	7.215	0.001	7201485	214.6
Aroclor-1016	4	6.933	0.002	11474909	250.7	4	8.501	0.002	3921494	244.9
Total Col1Ave (4 peaks):					245.0	Total Col2Ave (4 peaks):				232.8 RPD = 5
Corrected Ave (3 peaks):					243.1	Corrected Ave (3 peaks):				228.8 RPD = 6
Aroclor-1260	1	10.481	0.003	17571802	213.7	1	10.457	0.001	8394775	232.1
Aroclor-1260	2	10.854	0.002	47281547	225.9	2	10.908	0.001	10452261	234.2
Aroclor-1260	3	11.255	0.003	26404766	234.5	3	11.180	0.001	21274031	239.1
Aroclor-1260	4	11.371	0.003	10900082	238.8	4	11.701	0.002	6141200	242.6
Aroclor-1260	5	11.445	0.003	13222046	241.4	NS	---			----
Total Col1Ave (5 peaks):					230.9	Total Col2Ave (4 peaks):				237.0 RPD = 3
Corrected Ave (4 peaks):					228.2	Corrected Ave (3 peaks):				235.1 RPD = 3

Total PCB Area Col1 (4.740 - 12.923) = 601324756 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 286136971 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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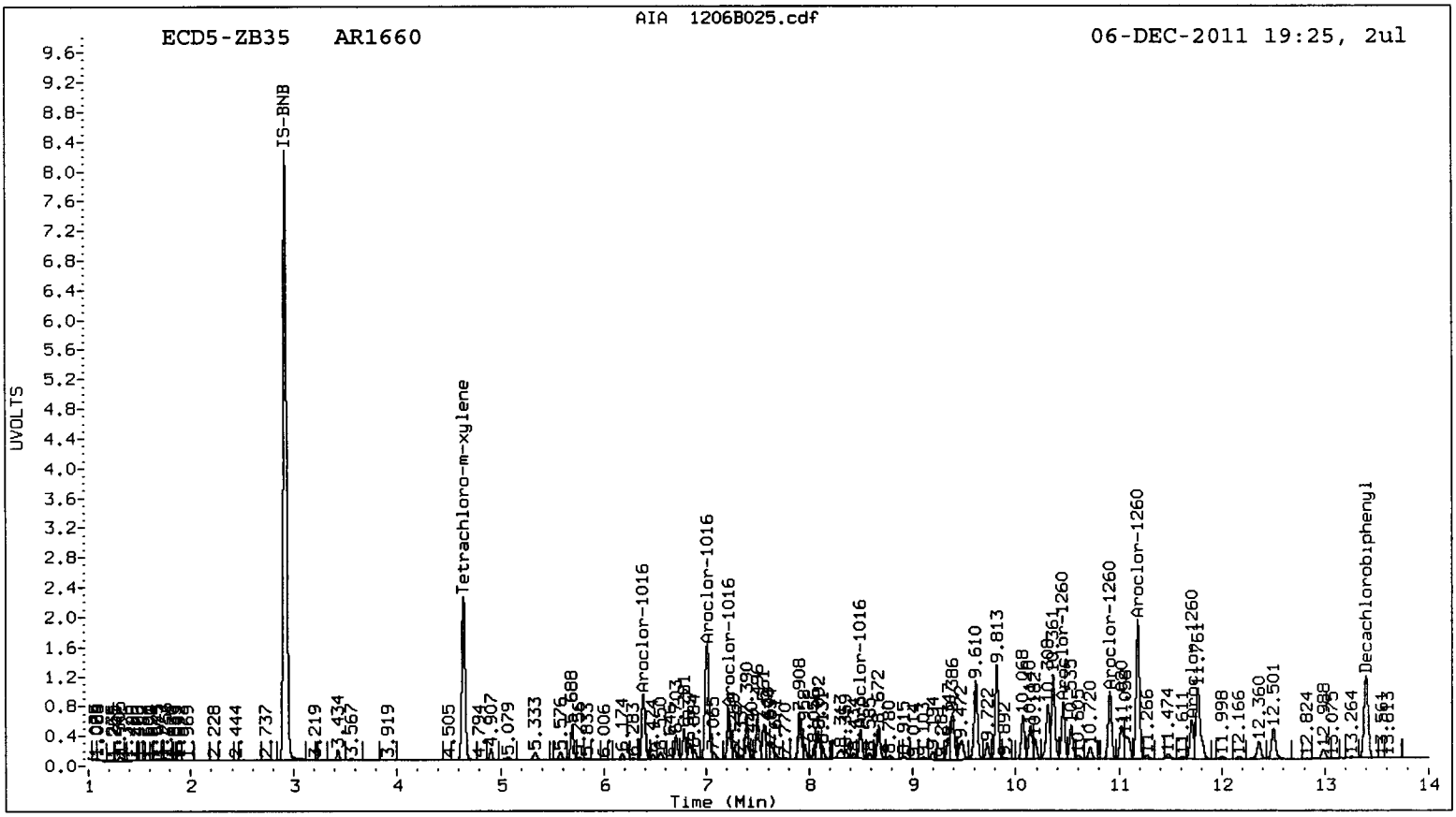
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

TX5T : 01358

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B026.d
Data file 2: 20111202.B/1206-2.b/1206B026.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57G
Client ID:
Injection Date: 06-DEC-2011 19:44
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.643	0.002	72752639	4.645	0.002	44727214	35.1	35.1	0.1	Tetrachloro-m-xylene
13.027	0.003	80662903	13.402	0.002	31887117	37.7	38.4	1.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	87.9	87.8
Decachlorobiphenyl	94.2	96.0

jr 12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	145313650	16.4
Hexabromobiphenyl	134444165	170489686	26.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	99224509	10.9
Hexabromobiphenyl	57341096	67148660	17.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.271	-0.002	1329450	26.6	1	6.379	0.000	1061199	22.3
Aroclor-1016	2	6.660	-0.012	2199657	13.3	2	6.996	-0.010	919560	9.8
Aroclor-1016	3	6.833	0.013	3989263	59.4	3	7.272	0.058	2118031	59.7
Aroclor-1016	4	6.906	-0.025	3138770	66.5	4	8.500	0.002	1436717	84.8
	Total Col1Ave (4 peaks):				41.4	Total Col2Ave (4 peaks):				44.1 RPD = 6
	Corrected Ave (3 peaks):				33.1	Corrected Ave (3 peaks):				30.6 RPD = 8
Aroclor-1221	1	5.109	0.093	103318	5.2	1	5.348	0.016	635963	44.5
Aroclor-1221	2	5.179	-0.016	574298	41.1	2	5.601	0.022	707423	86.4
Aroclor-1221	3	5.394	0.094	21800	0.4	3	5.710	0.019	2597767	100.5
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):				15.6	Total Col2Ave (3 peaks):				77.1 RPD = 133*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.271	-0.007	1329450	65.9	1	6.379	-0.006	1061199	51.4
Aroclor-1232	2	6.660	-0.017	2199657	32.9	2	6.996	-0.014	919560	24.4
Aroclor-1232	3	6.833	0.007	3989263	146.5	3	7.272	0.053	2118031	160.9
Aroclor-1232	4	8.078	0.058	4270069	177.7	4	8.359	-0.005	314960	24.8
	Total Col1Ave (4 peaks):				105.8	Total Col2Ave (4 peaks):				65.3 RPD = 47*
	Corrected Ave (3 peaks):				81.8	Corrected Ave (3 peaks):				33.5 RPD = 84*
Aroclor-1242	1	6.271	-0.002	1329450	35.1	1	6.379	0.000	1061199	29.8
Aroclor-1242	2	6.660	-0.012	2199657	17.6	2	6.996	-0.009	919560	13.0
Aroclor-1242	3	6.833	0.012	3989263	79.4	3	7.272	0.059	2118031	75.6
Aroclor-1242	4	8.078	0.065	4270069	100.7	4	8.359	0.001	314960	14.2
	Total Col1Ave (4 peaks):				58.2	Total Col2Ave (4 peaks):				33.2 RPD = 55*
	Corrected Ave (3 peaks):				44.0	Corrected Ave (3 peaks):				19.0 RPD = 79*
Aroclor-1248	1	6.660	-0.009	2199657	26.0	1	6.996	-0.006	919560	19.6
Aroclor-1248	2	7.470	0.001	2512742	42.7	2	7.911	0.004	3753565	107.3
Aroclor-1248	3	8.078	0.064	4270069	60.5	3	8.359	0.000	314960	8.6
Aroclor-1248	4	8.310	0.006	2821135	41.5	4	8.765	-0.015	837461	21.1
	Total Col1Ave (4 peaks):				42.7	Total Col2Ave (4 peaks):				39.1 RPD = 9
	Corrected Ave (3 peaks):				36.7	Corrected Ave (3 peaks):				16.4 RPD = 76*
Aroclor-1254	1	8.389	0.002	3922378	37.1	1	8.500	0.001	1436717	46.0
Aroclor-1254	2	8.762	0.003	1333113	19.6	2	8.680	0.009	1538576	37.7
Aroclor-1254	3	8.896	0.001	7083789	55.9	3	9.219	0.026	3043384	94.8
Aroclor-1254	4	9.229	-0.015	7887891	60.1	4	9.345	0.001	2682228	39.0
Aroclor-1254	5	9.597	-0.009	2932445	33.0	5	10.138	0.013	1439891	33.8
	Total Col1Ave (5 peaks):				41.1	Total Col2Ave (5 peaks):				50.3 RPD = 20
	Corrected Ave (4 peaks):				36.4	Corrected Ave (4 peaks):				39.1 RPD = 7
Aroclor-1260	1	10.481	0.003	1652890	19.6	1	10.456	0.001	989450	26.1
Aroclor-1260	2	10.854	0.002	5399944	25.2	2	10.905	-0.002	1578241	33.7
Aroclor-1260	3	11.253	0.001	2881978	25.0	3	11.179	0.001	2098353	22.5
Aroclor-1260	4	11.371	0.002	1346732	28.8	4	11.702	0.003	640075	24.1
Aroclor-1260	5	11.444	0.001	1782038	31.8	NS	---			----
	Total Col1Ave (5 peaks):				26.1	Total Col2Ave (4 peaks):				26.6 RPD = 2
	Corrected Ave (4 peaks):				24.7	Corrected Ave (3 peaks):				24.2 RPD = 2
Aroclor-1262	1	10.163	-0.005	2281963	16.8	1	10.456	-0.005	989450	16.4
Aroclor-1262	2	10.481	-0.004	1652890	15.6	2	10.905	-0.009	1578241	27.5
Aroclor-1262	3	10.854	-0.005	5399944	20.8	3	11.179	-0.005	2098353	18.8
Aroclor-1262	4	11.371	-0.005	1346732	12.5	4	11.702	-0.005	640075	12.9
Aroclor-1262	5	11.444	-0.006	1782038	15.4	5	12.500	-0.005	808226	20.3
	Total Col1Ave (5 peaks):				16.2	Total Col2Ave (5 peaks):				19.2 RPD = 17
	Corrected Ave (4 peaks):				15.1	Corrected Ave (4 peaks):				17.1 RPD = 13
Aroclor-1268	1	11.371	-0.006	1346732	4.8	1	11.702	-0.005	640075	5.5
Aroclor-1268	2	11.444	-0.005	1782038	6.5	2	11.760	-0.014	1560264	14.7

Aroclor-1268	3	11.843	0.008	1033980	4.5	3	12.175	0.003	117610	1.3
Aroclor-1268	4	12.621	-0.005	664092	0.9	4	12.988	-0.005	445008	1.7

Total Col1Ave (4 peaks): 4.2 Total Col2Ave (4 peaks): 5.8 RPD = 32

Corrected Ave (3 peaks): 3.4 Corrected Ave (3 peaks): 2.8 RPD = 18

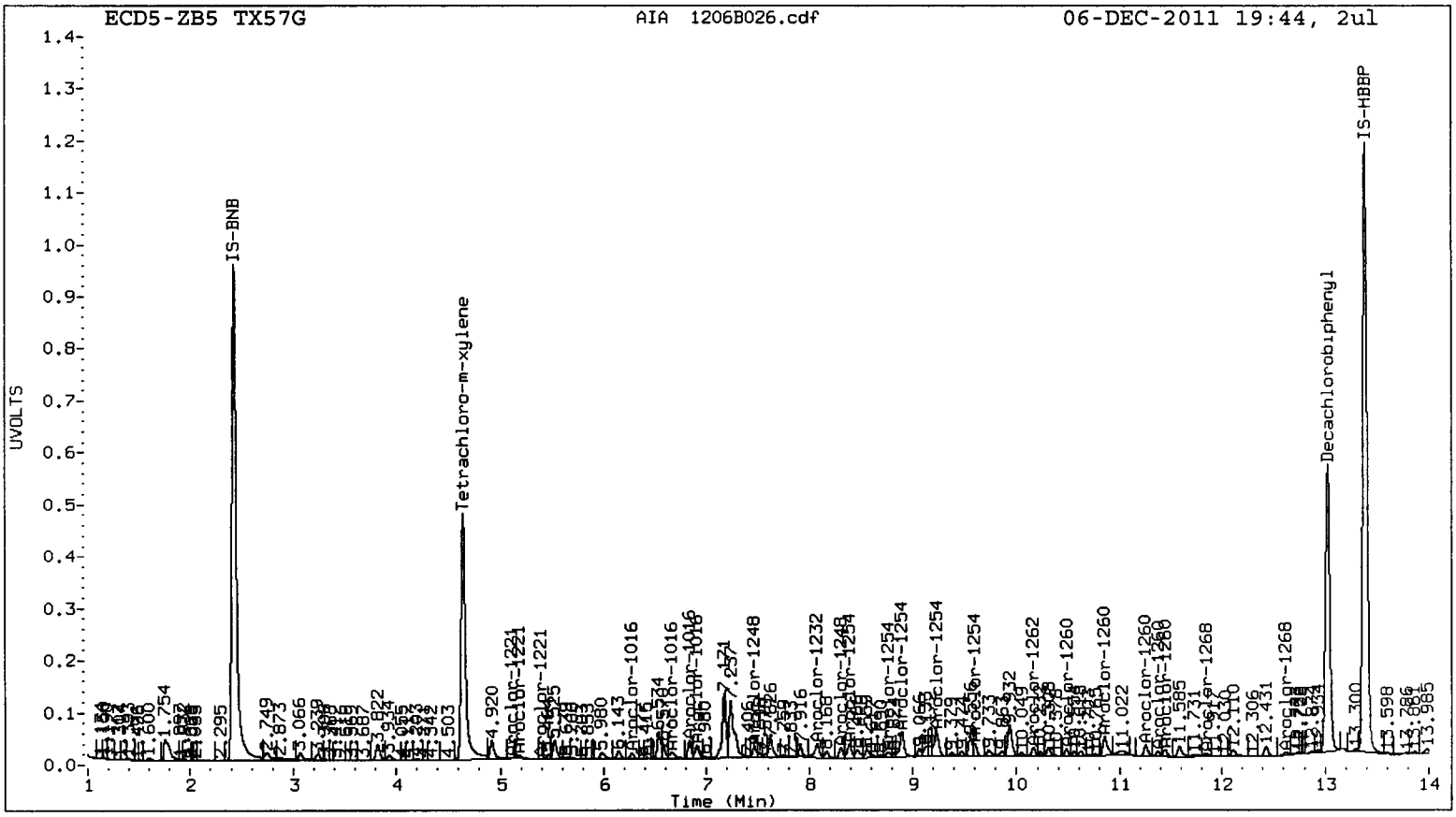
Total PCB Area Col1 (4.740 - 12.923) = 186213557 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 91009086 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

TX5T:01353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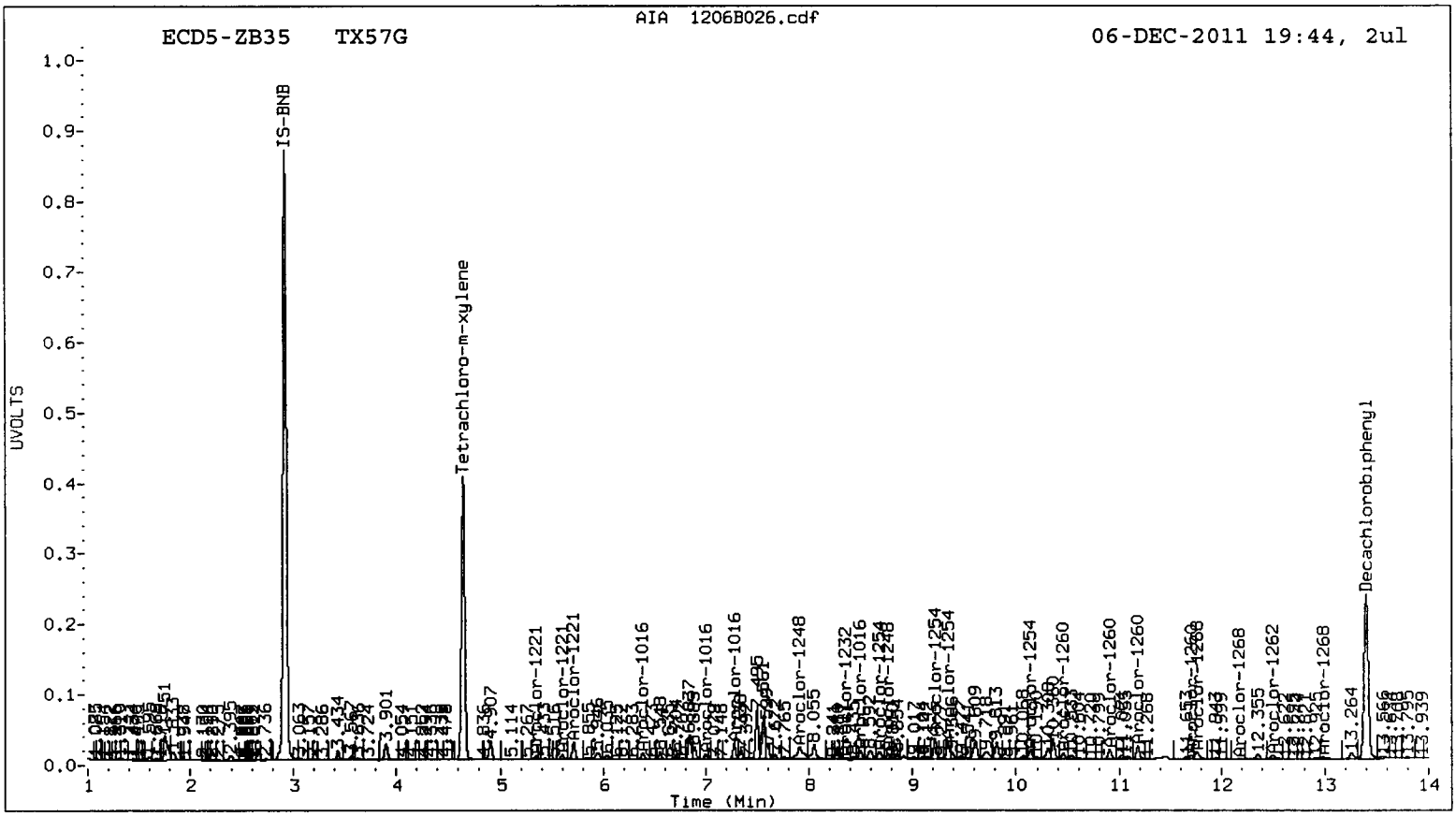
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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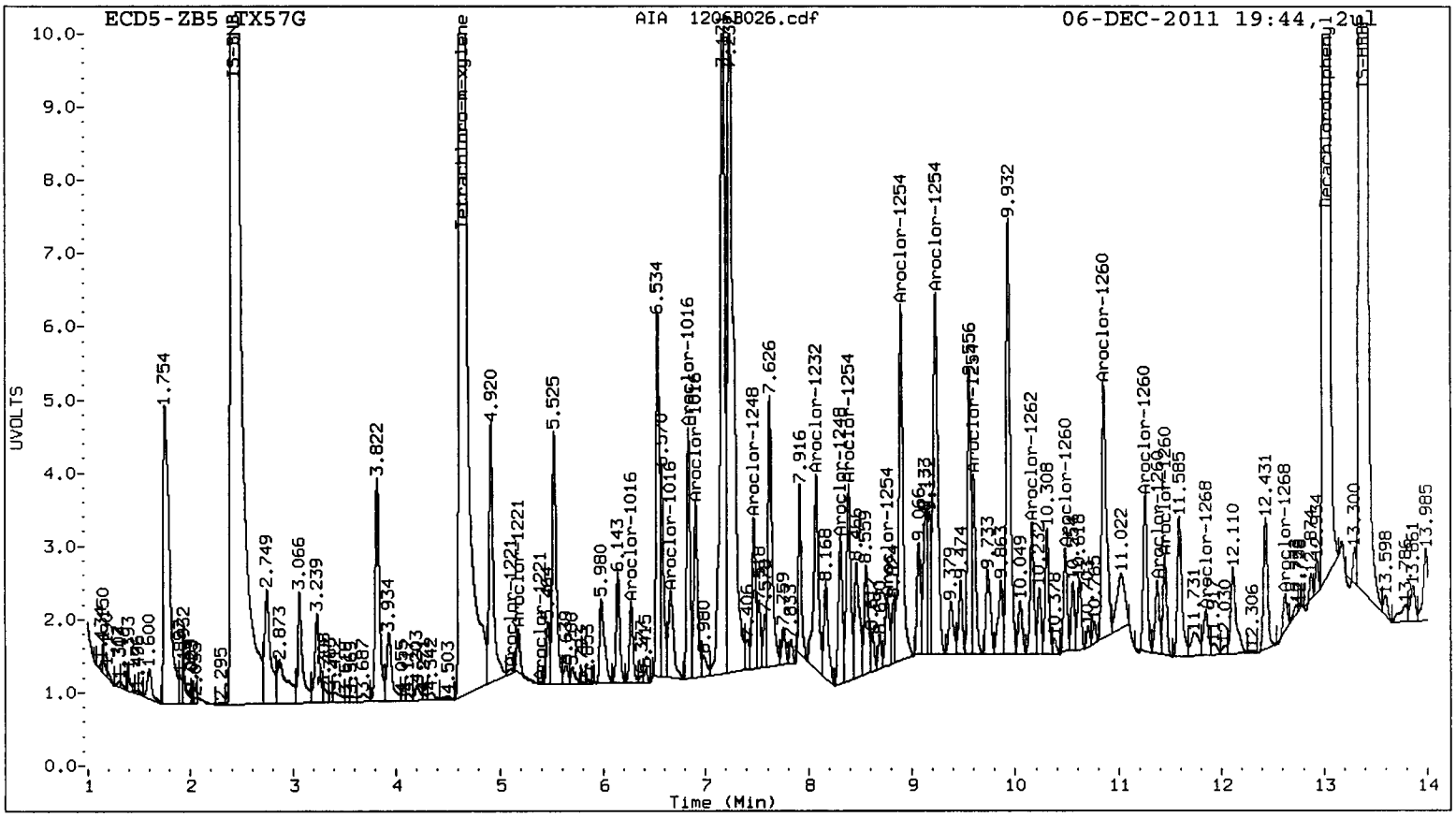
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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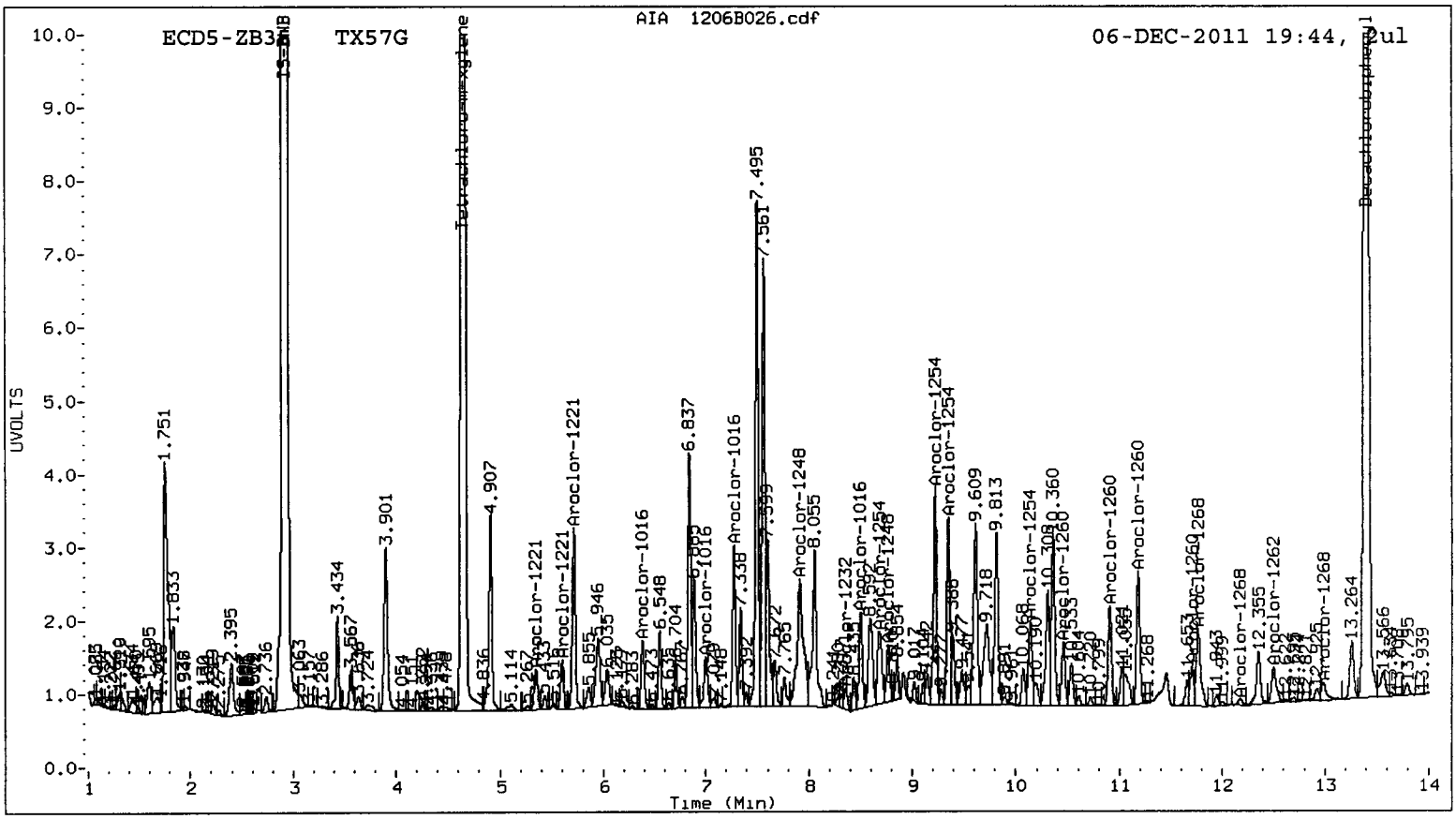
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorodiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorodiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B027.d
Data file 2: 20111202.B/1206-2.b/1206B027.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57H
Client ID:
Injection Date: 06-DEC-2011 20:03
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 10.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.643	0.003	8715621	4.644	0.001	5116992	4.3	4.3	0.5	Tetrachloro-m-xylene
13.026	0.002	9933690	13.402	0.002	3983125	4.9	5.1	3.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	108.2	107.7
Decachlorobiphenyl	122.2	126.3

12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	141399868	13.3
Hexabromobiphenyl	134444165	161936745	20.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	92518840	3.4
Hexabromobiphenyl	57341096	63755283	11.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.275	0.002	145015	3.0	1	6.381	0.001	52328	1.2
Aroclor-1016	2	6.660	-0.012	119623	0.7	2	7.007	0.002	56724	0.6
Aroclor-1016	3	6.835	0.014	87958	1.3	3	7.273	0.059	37719	1.1
Aroclor-1016	4	6.922	-0.009	127155	2.8	4	8.501	0.003	5155695	326.4
	Total Col1Ave (4 peaks):				2.0	Total Col2Ave (4 peaks):				82.3 RPD = 191*
	Corrected Ave (3 peaks):				1.6	Corrected Ave (3 peaks):				1.0 RPD = 48*
Aroclor-1221	1	5.111	0.094	29675	1.5	1	5.350	0.018	72139	5.4
Aroclor-1221	2	5.179	-0.017	68702	5.1	2	5.603	0.024	78333	10.3
Aroclor-1221	3	---			0.0	3	5.711	0.019	327692	13.6
Aroclor-1221	NS	---			----	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: 9.8				
Aroclor-1232	1	6.275	-0.004	145015	7.4	1	6.381	-0.005	52328	2.7
Aroclor-1232	2	6.660	-0.017	119623	1.8	2	7.007	-0.003	56724	1.6
Aroclor-1232	3	6.835	0.009	87958	3.3	3	7.273	0.054	37719	3.1
Aroclor-1232	4	8.015	-0.004	220133	9.4	4	8.360	-0.004	156230	13.2
	Total Col1Ave (4 peaks):				5.5	Total Col2Ave (4 peaks):				5.1 RPD = 6
	Corrected Ave (3 peaks):				4.2	Corrected Ave (3 peaks):				2.5 RPD = 52*
Aroclor-1242	1	6.275	0.002	145015	3.9	1	6.381	0.001	52328	1.6
Aroclor-1242	2	6.660	-0.012	119623	1.0	2	7.007	0.003	56724	0.9
Aroclor-1242	3	6.835	0.014	87958	1.8	3	7.273	0.059	37719	1.4
Aroclor-1242	4	8.015	0.002	220133	5.3	4	8.360	0.002	156230	7.6
	Total Col1Ave (4 peaks):				3.0	Total Col2Ave (4 peaks):				2.9 RPD = 5
	Corrected Ave (3 peaks):				2.2	Corrected Ave (3 peaks):				1.3 RPD = 53*
Aroclor-1248	1	6.660	-0.009	119623	1.5	1	7.007	0.005	56724	1.3
Aroclor-1248	2	7.470	0.002	599502	10.5	2	7.911	0.003	647491	19.8
Aroclor-1248	3	8.015	0.002	220133	3.2	3	8.360	0.001	156230	4.6
Aroclor-1248	4	8.311	0.007	3550791	53.7	4	8.765	-0.015	2548432	68.7
	Total Col1Ave (4 peaks):				17.2	Total Col2Ave (4 peaks):				23.6 RPD = 31
	Corrected Ave (3 peaks):				5.0	Corrected Ave (3 peaks):				8.6 RPD = 52*
Aroclor-1254	1	8.388	0.000	12425268	120.7	1	8.501	0.002	5155695	177.0
Aroclor-1254	2	8.761	0.002	5593489	84.6	2	8.673	0.002	4209598	110.7
Aroclor-1254	3	8.897	0.001	20072490	162.9	3	9.196	0.003	2658869	88.8
Aroclor-1254	4	9.229	-0.015	14113265	110.5	4	9.345	0.001	10808564	168.4
Aroclor-1254	5	9.598	-0.008	8746929	101.1	5	10.139	0.013	4222354	106.4
	Total Col1Ave (5 peaks):				116.0	Total Col2Ave (5 peaks):				130.3 RPD = 12
	Corrected Ave (4 peaks):				104.2	Corrected Ave (4 peaks):				118.6 RPD = 13
Aroclor-1260	1	10.480	0.002	2775705	34.7	1	10.457	0.002	1294441	36.0
Aroclor-1260	2	10.854	0.001	7921852	38.9	2	10.904	-0.003	4487928	101.0
Aroclor-1260	3	11.254	0.001	5150497	47.0	3	11.179	0.001	3698857	41.8
Aroclor-1260	4	11.371	0.002	2027335	45.7	4	11.701	0.002	1048864	41.6
Aroclor-1260	5	11.443	0.001	2162522	40.6	NS	---			----
	Total Col1Ave (5 peaks):				41.4	Total Col2Ave (4 peaks):				55.1 RPD = 28
	Corrected Ave (4 peaks):				40.0	Corrected Ave (3 peaks):				39.8 RPD = 0
Aroclor-1262	1	10.162	-0.005	3016624	23.4	1	10.457	-0.004	1294441	22.6
Aroclor-1262	2	10.480	-0.005	2775705	27.6	2	10.904	-0.010	4487928	82.4
Aroclor-1262	3	10.854	-0.005	7921852	32.1	3	11.179	-0.005	3698857	34.9
Aroclor-1262	4	11.371	-0.005	2027335	19.7	4	11.701	-0.006	1048864	22.3
Aroclor-1262	5	11.443	-0.006	2162522	19.6	5	12.499	-0.006	1044457	27.6
	Total Col1Ave (5 peaks):				24.5	Total Col2Ave (5 peaks):				38.0 RPD = 43*
	Corrected Ave (4 peaks):				22.6	Corrected Ave (4 peaks):				26.9 RPD = 17
Aroclor-1268	1	11.371	-0.006	2027335	7.7	1	11.701	-0.006	1048864	9.5
Aroclor-1268	2	11.443	-0.005	2162522	8.4	2	11.760	-0.014	2705108	26.8
Aroclor-1268	3	11.843	0.009	1034881	4.7	3	12.168	-0.005	100255	1.2

Aroclor-1268	4	12.617	-0.009	1499533	2.2	4	12.987	-0.007	437509	1.8

Total Col1Ave (4 peaks): 5.7 Total Col2Ave (4 peaks): 9.8 RPD = 52*

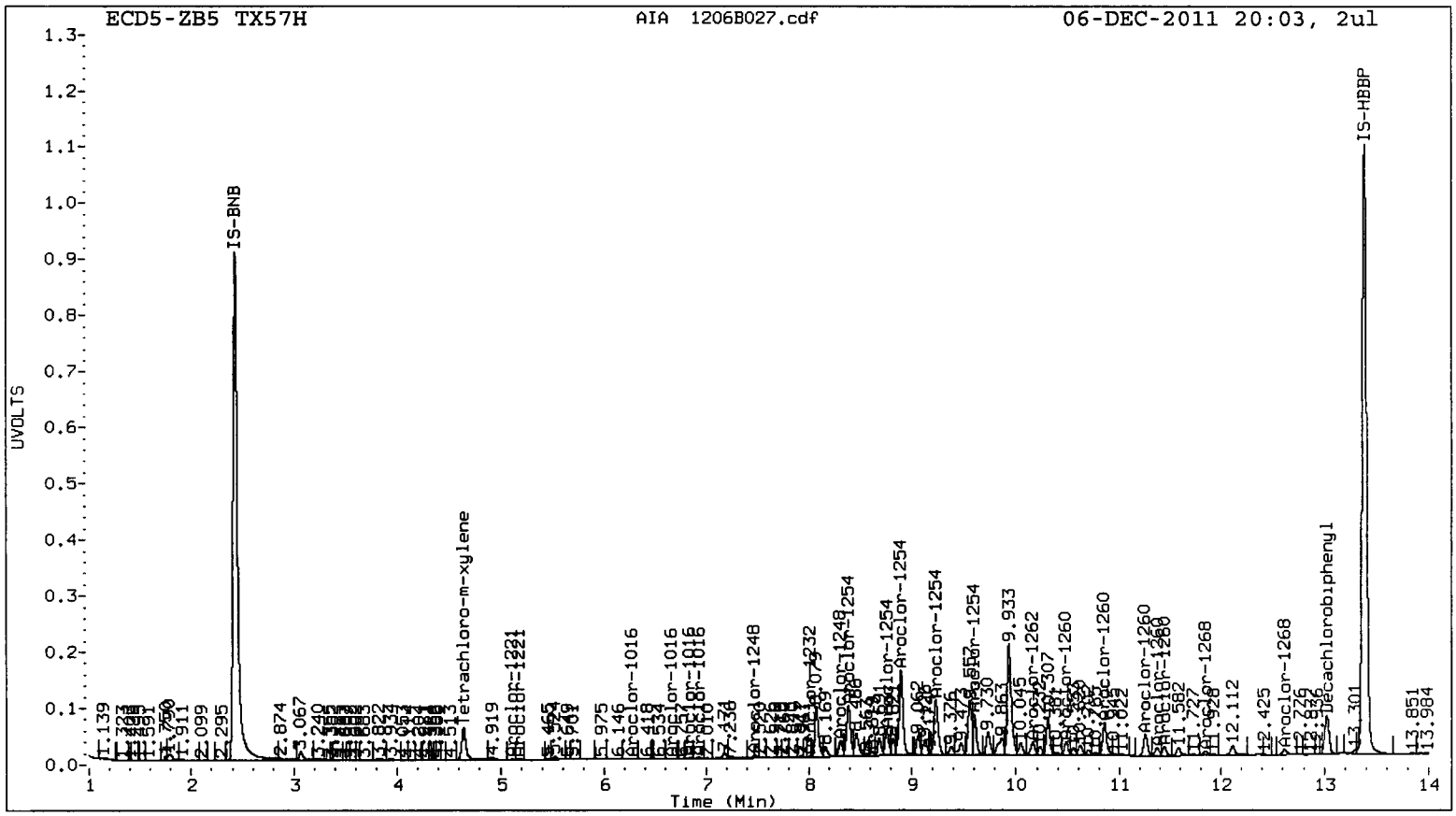
Corrected Ave (3 peaks): 4.9 Corrected Ave (3 peaks): 4.1 RPD = 16

Total PCB Area Col1 (4.740 - 12.923) = 210019468 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 98758688 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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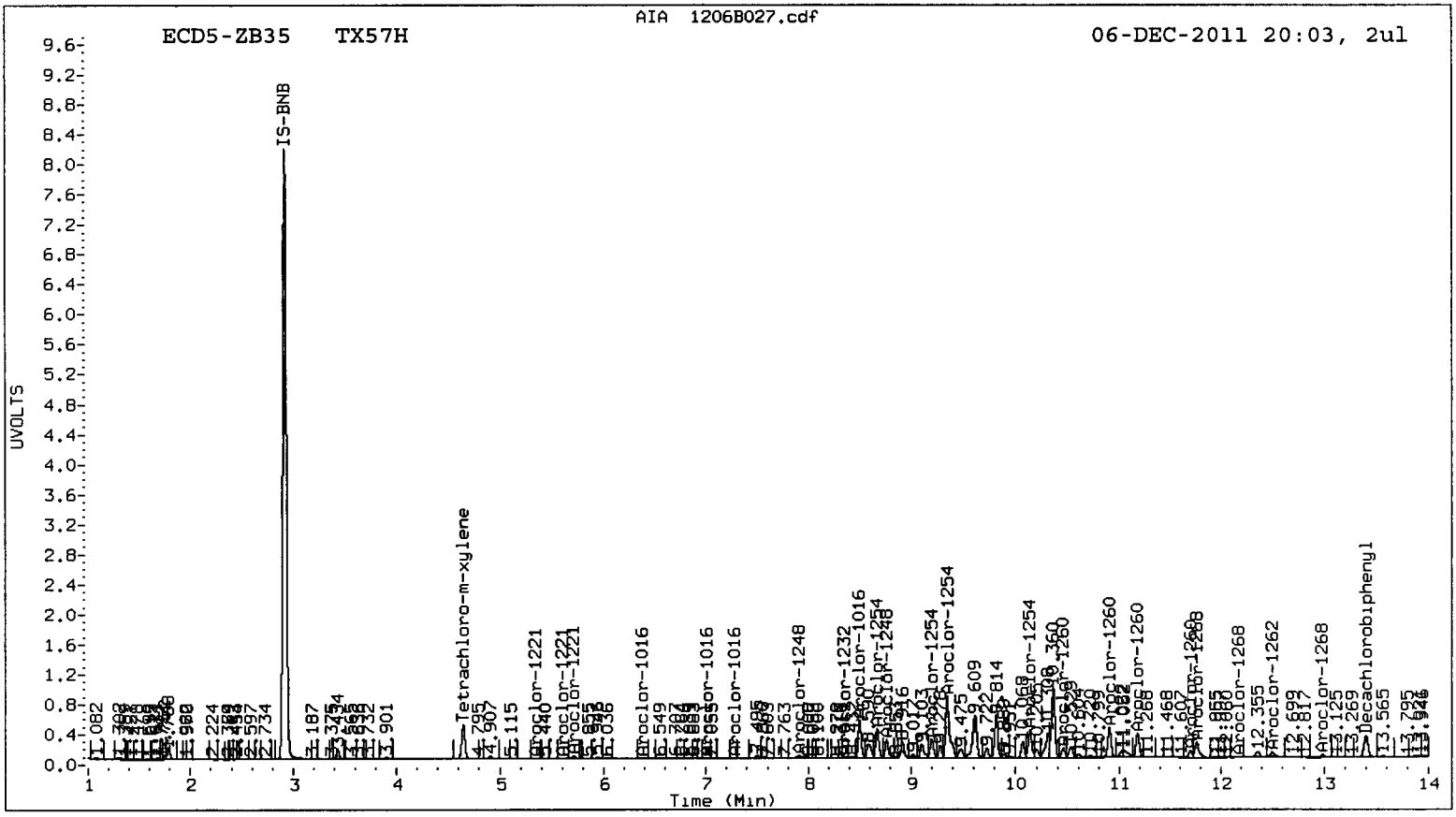
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl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UVOLTS
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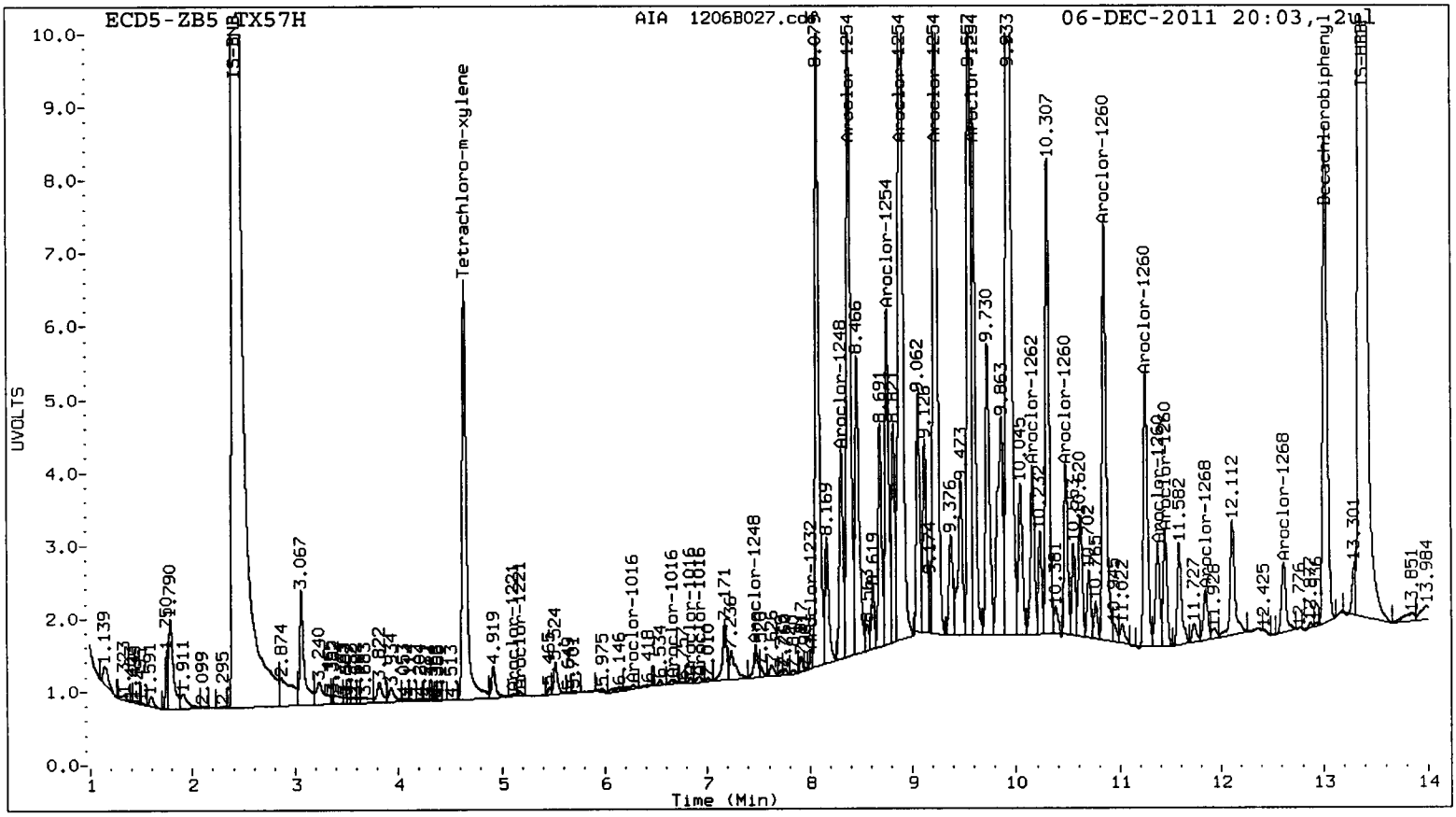
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl

TX57-0135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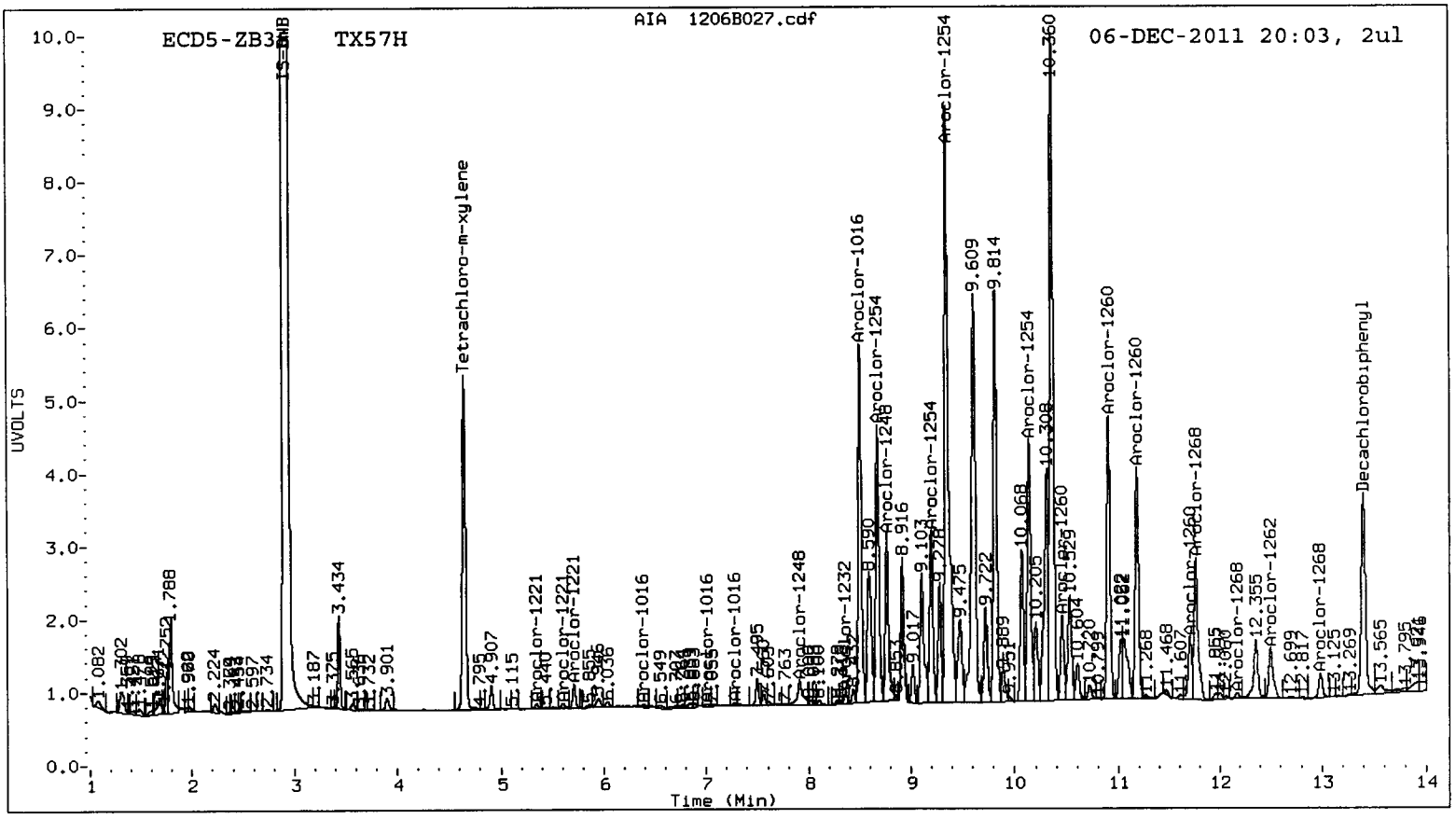
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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06-DEC-2011 20:03, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B028.d
Data file 2: 20111202.B/1206-2.b/1206B028.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57I
Client ID:
Injection Date: 06-DEC-2011 20:21
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 10.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.643	0.003	6702757	4.644	0.001	4006836	3.6	3.5	1.0	Tetrachloro-m-xylene
13.027	0.004	9638737	13.403	0.003	3749605	4.9	4.6	4.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	89.3	88.3
Decachlorobiphenyl	121.5	116.1

12/07/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	131798420	5.6
Hexabromobiphenyl	134444165	158041954	17.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	88316717	-1.3
Hexabromobiphenyl	57341096	65313491	13.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.272	-0.001	126935	2.8	1	6.381	0.001	206284	4.9
Aroclor-1016	2	6.664	-0.008	860086	5.7	2	7.000	-0.005	267244	3.2
Aroclor-1016	3	6.834	0.013	360738	5.9	3	7.219	0.004	54775	1.7
Aroclor-1016	4	6.917	-0.013	424941	9.9	4	8.501	0.002	4693996	311.3
	Total Col1Ave (4 peaks):			6.1		Total Col2Ave (4 peaks):			80.3	RPD = 172*
	Corrected Ave (3 peaks):			4.8		Corrected Ave (3 peaks):			3.3	RPD = 38
Aroclor-1221	1	4.919	-0.098	488854	27.2	1	5.348	0.016	39471	3.1
Aroclor-1221	2	5.180	-0.016	50418	4.0	2	5.601	0.022	94315	12.9
Aroclor-1221	3	5.298	-0.002	28482	0.6	3	5.711	0.019	228516	9.9
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):			10.6		Total Col2Ave (3 peaks):			8.7	RPD = 20
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.272	-0.007	126935	6.9	1	6.381	-0.005	206284	11.2
Aroclor-1232	2	6.664	-0.013	860086	14.2	2	7.000	-0.010	267244	8.0
Aroclor-1232	3	6.834	0.008	360738	14.6	3	7.219	-0.001	54775	4.7
Aroclor-1232	4	8.015	-0.004	3051606	140.0	4	8.360	-0.004	1625152	143.7
	Total Col1Ave (4 peaks):			43.9		Total Col2Ave (4 peaks):			41.9	RPD = 5
	Corrected Ave (3 peaks):			11.9		Corrected Ave (3 peaks):			7.9	RPD = 40
Aroclor-1242	1	6.272	-0.001	126935	3.7	1	6.381	0.001	206284	6.5
Aroclor-1242	2	6.664	-0.007	860086	7.6	2	7.000	-0.004	267244	4.2
Aroclor-1242	3	6.834	0.013	360738	7.9	3	7.219	0.005	54775	2.2
Aroclor-1242	4	8.015	0.002	3051606	79.4	4	8.360	0.002	1625152	82.4
	Total Col1Ave (4 peaks):			24.6		Total Col2Ave (4 peaks):			23.8	RPD = 3
	Corrected Ave (3 peaks):			6.4		Corrected Ave (3 peaks):			4.3	RPD = 39
Aroclor-1248	1	6.664	-0.005	860086	11.2	1	7.000	-0.002	267244	6.4
Aroclor-1248	2	7.471	0.002	2043643	38.3	2	7.910	0.002	1756409	56.4
Aroclor-1248	3	8.015	0.001	3051606	47.7	3	8.360	0.002	1625152	50.1
Aroclor-1248	4	8.310	0.006	3223688	52.3	4	8.766	-0.014	2584877	73.0
	Total Col1Ave (4 peaks):			37.4		Total Col2Ave (4 peaks):			46.5	RPD = 22
	Corrected Ave (3 peaks):			32.4		Corrected Ave (3 peaks):			37.6	RPD = 15
Aroclor-1254	1	8.389	0.001	14039883	146.4	1	8.501	0.002	4693996	168.8
Aroclor-1254	2	8.763	0.004	8682690	140.9	2	8.673	0.002	5329357	146.8
Aroclor-1254	3	8.897	0.001	20676108	180.0	3	9.196	0.002	3431195	120.0
Aroclor-1254	4	9.237	-0.007	24429998	205.2	4	9.346	0.001	9019341	147.2
Aroclor-1254	5	9.603	-0.003	13284281	164.8	5	10.133	0.008	6277322	165.7
	Total Col1Ave (5 peaks):			167.6		Total Col2Ave (5 peaks):			149.7	RPD = 11
	Corrected Ave (4 peaks):			158.0		Corrected Ave (4 peaks):			144.9	RPD = 9
Aroclor-1260	1	10.480	0.002	7257117	93.0	1	10.457	0.001	3633743	98.6
Aroclor-1260	2	10.854	0.001	21604115	108.8	2	10.906	-0.001	6020424	132.3
Aroclor-1260	3	11.254	0.002	12108833	113.3	3	11.180	0.002	9535471	105.1
Aroclor-1260	4	11.371	0.002	4886402	112.8	4	11.702	0.002	2569005	99.5
Aroclor-1260	5	11.445	0.002	5826823	112.1	NS	---			----
	Total Col1Ave (5 peaks):			108.0		Total Col2Ave (4 peaks):			108.9	RPD = 1
	Corrected Ave (4 peaks):			106.7		Corrected Ave (3 peaks):			101.1	RPD = 5
Aroclor-1262	1	10.163	-0.005	8256468	65.6	1	10.457	-0.004	3633743	61.9
Aroclor-1262	2	10.480	-0.004	7257117	74.0	2	10.906	-0.008	6020424	107.9
Aroclor-1262	3	10.854	-0.005	21604115	89.7	3	11.180	-0.004	9535471	87.8
Aroclor-1262	4	11.371	-0.005	4886402	48.8	4	11.702	-0.005	2569005	53.3
Aroclor-1262	5	11.445	-0.005	5826823	54.2	5	12.501	-0.004	2688314	69.5
	Total Col1Ave (5 peaks):			66.4		Total Col2Ave (5 peaks):			76.1	RPD = 13
	Corrected Ave (4 peaks):			60.6		Corrected Ave (4 peaks):			68.1	RPD = 12
Aroclor-1268	1	11.371	-0.006	4886402	18.9	1	11.702	-0.006	2569005	22.7
Aroclor-1268	2	11.445	-0.004	5826823	23.1	2	11.761	-0.013	6468570	62.6

Aroclor-1268	3	11.846	0.011	2701341	12.7	3	12.169	-0.003	107721	1.3
Aroclor-1268	4	12.618	-0.007	1984048	3.0	4	12.988	-0.006	629153	2.5

Total Col1Ave (4 peaks): 14.4 Total Col2Ave (4 peaks): 22.2 RPD = 43*

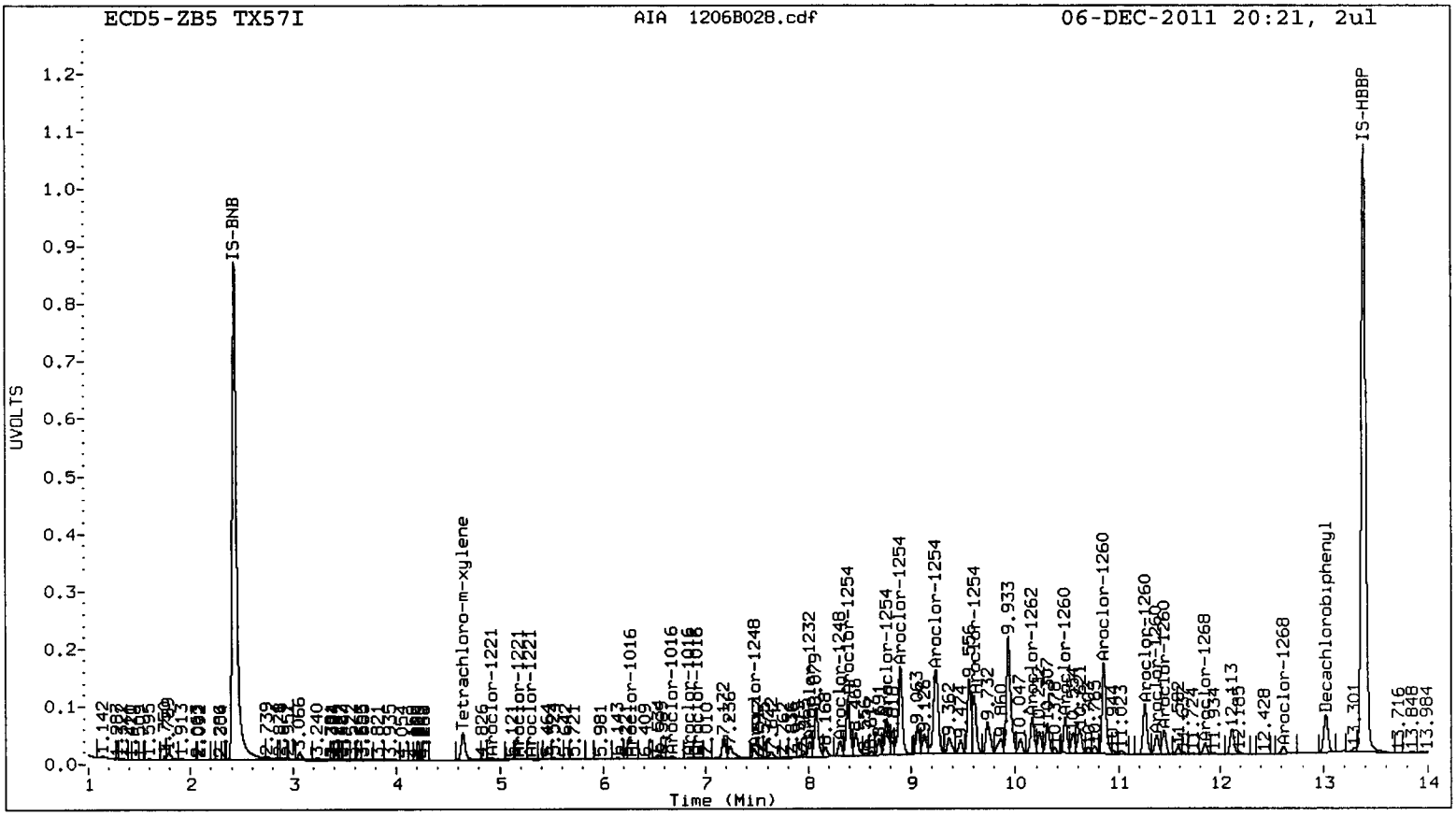
Corrected Ave (3 peaks): 11.5 Corrected Ave (3 peaks): 8.8 RPD = 27

Total PCB Area Col1 (4.740 - 12.923) = 310828557 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 144628855 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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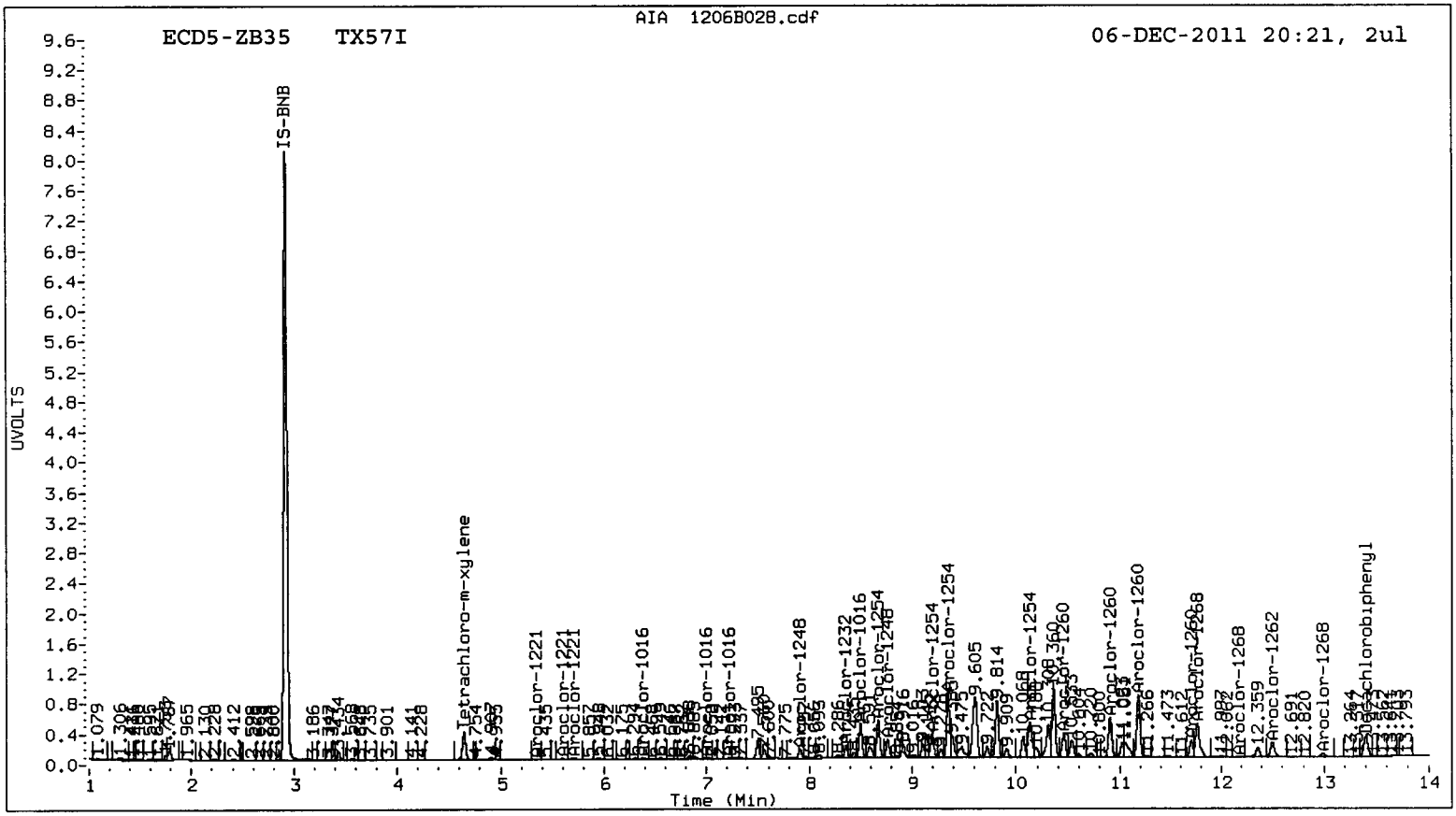
UVOLTS
Time (Min)
IS-BNB
IS-HBBP
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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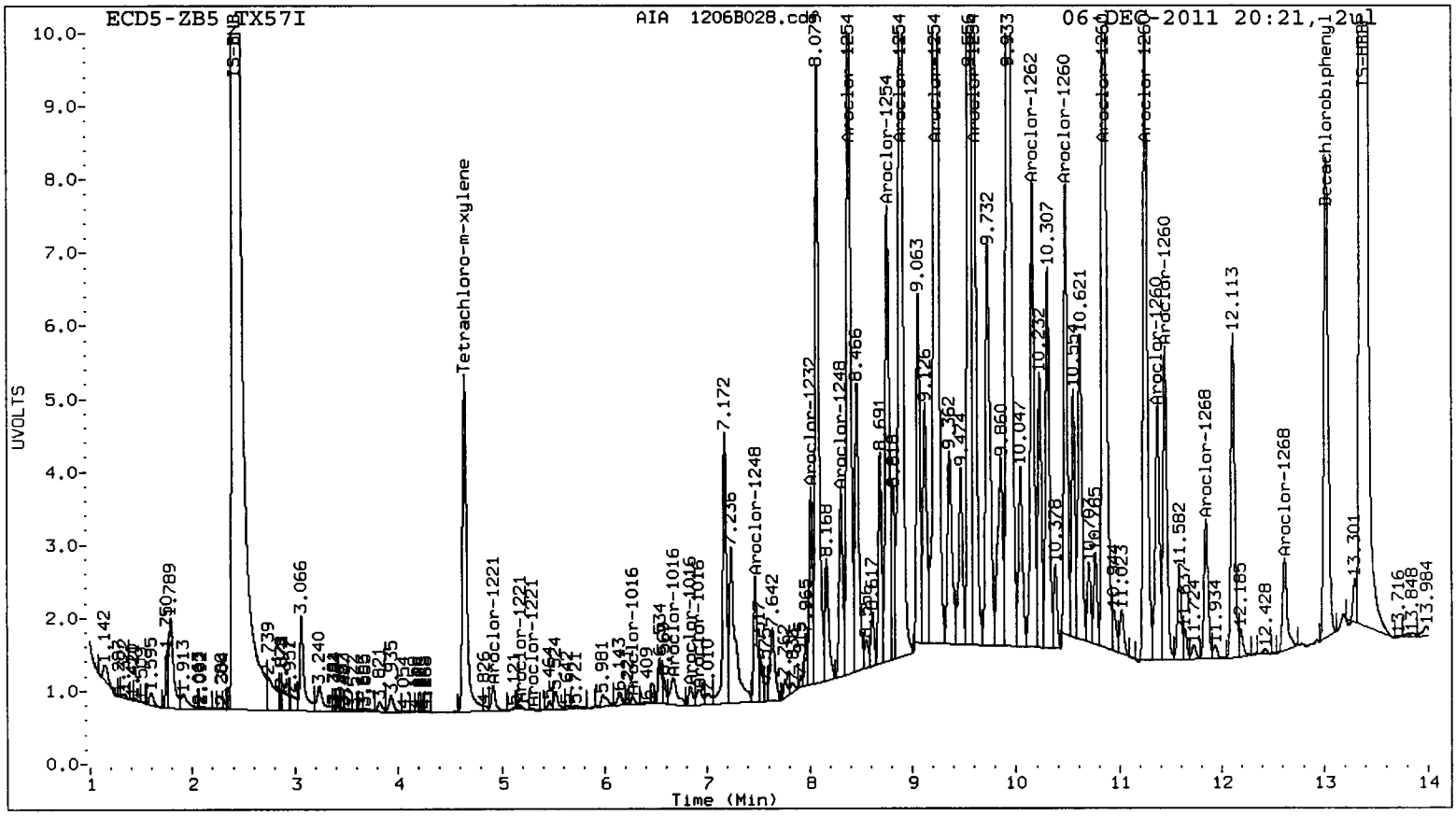
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

TX57 : 01364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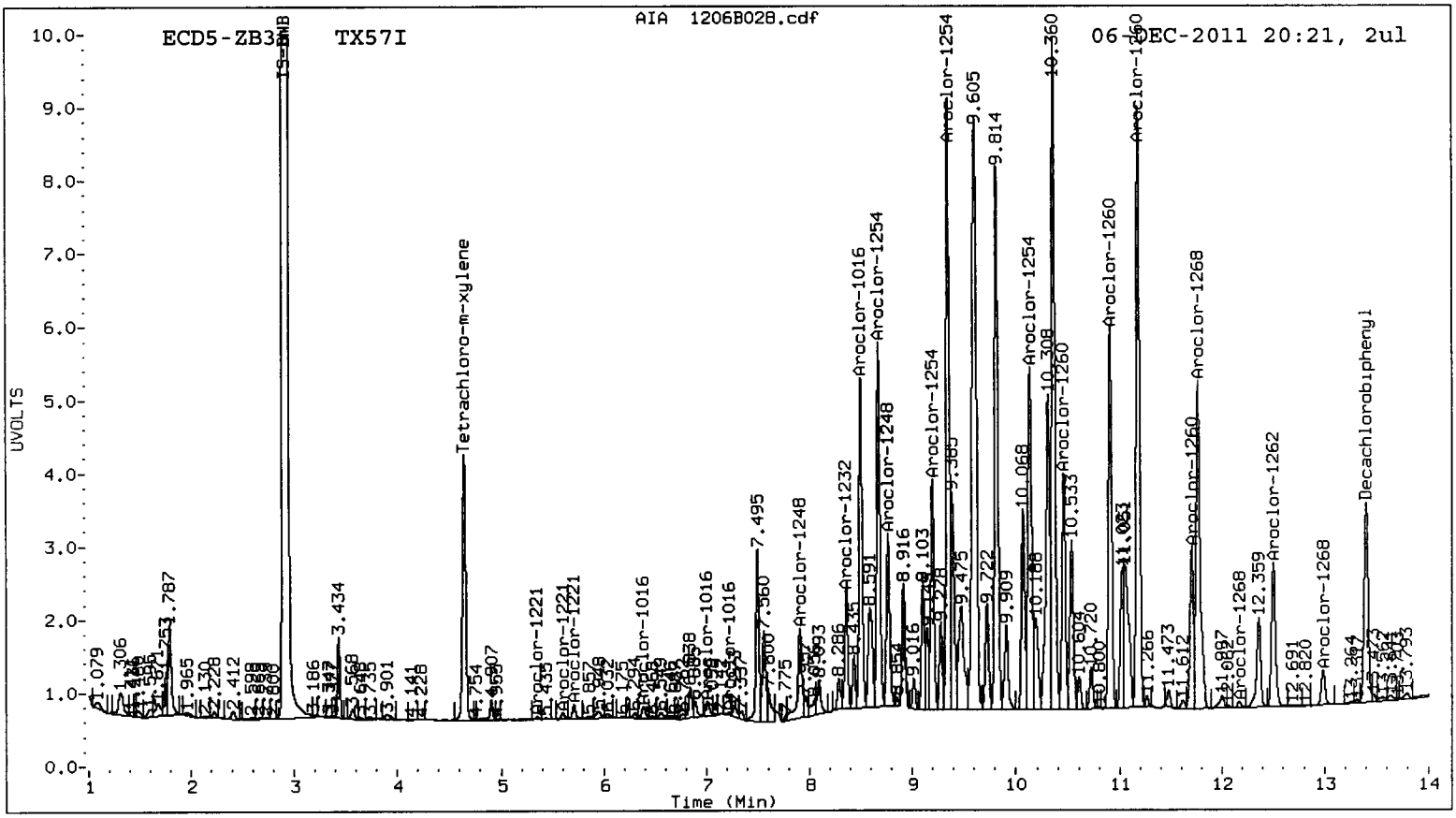
UVOLTS
Time (Min)
TS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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UVOLTS
Time (Min)
TS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

TX57 01386

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B029.d
Data file 2: 20111202.B/1206-2.b/1206B029.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57J
Client ID:
Injection Date: 06-DEC-2011 20:40
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 10.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.643	0.003	7708603	4.644	0.001	4471822	3.9	4.0	0.4	Tetrachloro-m-xylene
13.027	0.004	9736869	13.403	0.003	3841106	5.0	4.9	3.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	98.5	98.9
Decachlorobiphenyl	125.6	121.8

12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	137315518	10.0
Hexabromobiphenyl	134444165	154378856	14.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	88001513	-1.6
Hexabromobiphenyl	57341096	63759948	11.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	6.275	0.002	53479	1.1	1	6.379	-0.001	43339	1.0	
Aroclor-1016	2	6.668	-0.004	350339	2.2	2	7.005	-0.001	155919	1.9	
Aroclor-1016	3	6.833	0.013	204570	3.2	3	7.219	0.005	38792	1.2	
Aroclor-1016	4	6.920	-0.011	140580	3.2	4	8.501	0.003	13524354	900.1	
	Total Col1Ave (4 peaks):				2.4	Total Col2Ave (4 peaks):				226.1	RPD = 196*
	Corrected Ave (3 peaks):				2.2	Corrected Ave (3 peaks):				1.4	RPD = 45*
Aroclor-1221	1	5.110	0.094	27318	1.5	1	5.349	0.017	58242	4.6	
Aroclor-1221	2	5.178	-0.018	53583	4.1	2	5.601	0.023	65092	9.0	
Aroclor-1221	3	5.303	0.003	27698	0.6	3	5.712	0.021	4717911	205.7	
Aroclor-1221	NS	---			----	4	---			0.0	
	Total Col1Ave (3 peaks):				2.0	Total Col2Ave (3 peaks):				73.1	RPD = 189*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	6.275	-0.003	53479	2.8	1	6.379	-0.007	43339	2.4	
Aroclor-1232	2	6.668	-0.009	350339	5.5	2	7.005	-0.005	155919	4.7	
Aroclor-1232	3	6.833	0.007	204570	8.0	3	7.219	0.000	38792	3.3	
Aroclor-1232	4	8.016	-0.004	6042076	266.0	4	8.360	-0.004	3266037	289.9	
	Total Col1Ave (4 peaks):				70.6	Total Col2Ave (4 peaks):				75.1	RPD = 6
	Corrected Ave (3 peaks):				5.4	Corrected Ave (3 peaks):				3.4	RPD = 45*
Aroclor-1242	1	6.275	0.002	53479	1.5	1	6.379	0.000	43339	1.4	
Aroclor-1242	2	6.668	-0.004	350339	3.0	2	7.005	0.000	155919	2.5	
Aroclor-1242	3	6.833	0.012	204570	4.3	3	7.219	0.005	38792	1.6	
Aroclor-1242	4	8.016	0.003	6042076	150.9	4	8.360	0.002	3266037	166.2	
	Total Col1Ave (4 peaks):				39.9	Total Col2Ave (4 peaks):				42.9	RPD = 7
	Corrected Ave (3 peaks):				2.9	Corrected Ave (3 peaks):				1.8	RPD = 47*
Aroclor-1248	1	6.668	-0.001	350339	4.4	1	7.005	0.003	155919	3.8	
Aroclor-1248	2	7.470	0.002	3062456	55.1	2	7.909	0.002	1968809	63.4	
Aroclor-1248	3	8.016	0.002	6042076	90.6	3	8.360	0.002	3266037	101.1	
Aroclor-1248	4	8.312	0.008	7799729	121.4	4	8.766	-0.015	6448315	182.8	
	Total Col1Ave (4 peaks):				67.9	Total Col2Ave (4 peaks):				87.8	RPD = 26
	Corrected Ave (3 peaks):				50.0	Corrected Ave (3 peaks):				56.1	RPD = 11
Aroclor-1254	1	8.391	0.003	41336337	413.6	1	8.501	0.002	13524354	488.2	
Aroclor-1254	2	8.761	0.002	21811264	339.8	2	8.673	0.002	16818786	465.0	
Aroclor-1254	3	8.898	0.002	61859183	517.0	3	9.196	0.003	10265162	360.4	
Aroclor-1254	4	9.235	-0.009	86946516	701.0	4	9.346	0.001	28095414	460.1	
Aroclor-1254	5	9.603	-0.003	45226965	538.6	5	10.135	0.010	22810103	604.3	
	Total Col1Ave (5 peaks):				502.0	Total Col2Ave (5 peaks):				475.6	RPD = 5
	Corrected Ave (4 peaks):				452.2	Corrected Ave (4 peaks):				443.5	RPD = 2
Aroclor-1260	1	10.481	0.003	35639933	467.7	1	10.457	0.002	17368886	482.6	
Aroclor-1260	2	10.855	0.002	109196133	562.8	2	10.907	0.000	27971253	629.6	
Aroclor-1260	3	11.255	0.003	61016093	584.6	3	11.180	0.002	51338310	579.8	
Aroclor-1260	4	11.372	0.003	22542369	532.9	4	11.702	0.003	12795860	507.8	
Aroclor-1260	5	11.446	0.003	28485898	561.2	NS	---			----	
	Total Col1Ave (5 peaks):				541.9	Total Col2Ave (4 peaks):				550.0	RPD = 1
	Corrected Ave (4 peaks):				531.2	Corrected Ave (3 peaks):				523.4	RPD = 1
Aroclor-1262	1	10.164	-0.003	38020719	309.2	1	10.457	-0.004	17368886	303.0	
Aroclor-1262	2	10.481	-0.003	35639933	371.9	2	10.907	-0.007	27971253	513.4	
Aroclor-1262	3	10.855	-0.004	109196133	464.3	3	11.180	-0.004	51338310	484.3	
Aroclor-1262	4	11.372	-0.004	22542369	230.3	4	11.702	-0.005	12795860	271.8	
Aroclor-1262	5	11.446	-0.004	28485898	271.1	5	12.502	-0.003	12930978	342.2	
	Total Col1Ave (5 peaks):				329.4	Total Col2Ave (5 peaks):				382.9	RPD = 15
	Corrected Ave (4 peaks):				295.6	Corrected Ave (4 peaks):				350.3	RPD = 17
Aroclor-1268	1	11.372	-0.005	22542369	89.4	1	11.702	-0.005	12795860	115.7	
Aroclor-1268	2	11.446	-0.003	28485898	115.5	2	11.762	-0.012	33577231	332.8	

Aroclor-1268	3	11.847	0.012	12639864	60.7	3	12.168	-0.005	355616	4.3
Aroclor-1268	4	12.619	-0.007	7348014	11.4	4	12.988	-0.005	2477314	10.0

Total Col1Ave (4 peaks): 69.3 Total Col2Ave (4 peaks): 115.7 RPD = 50*

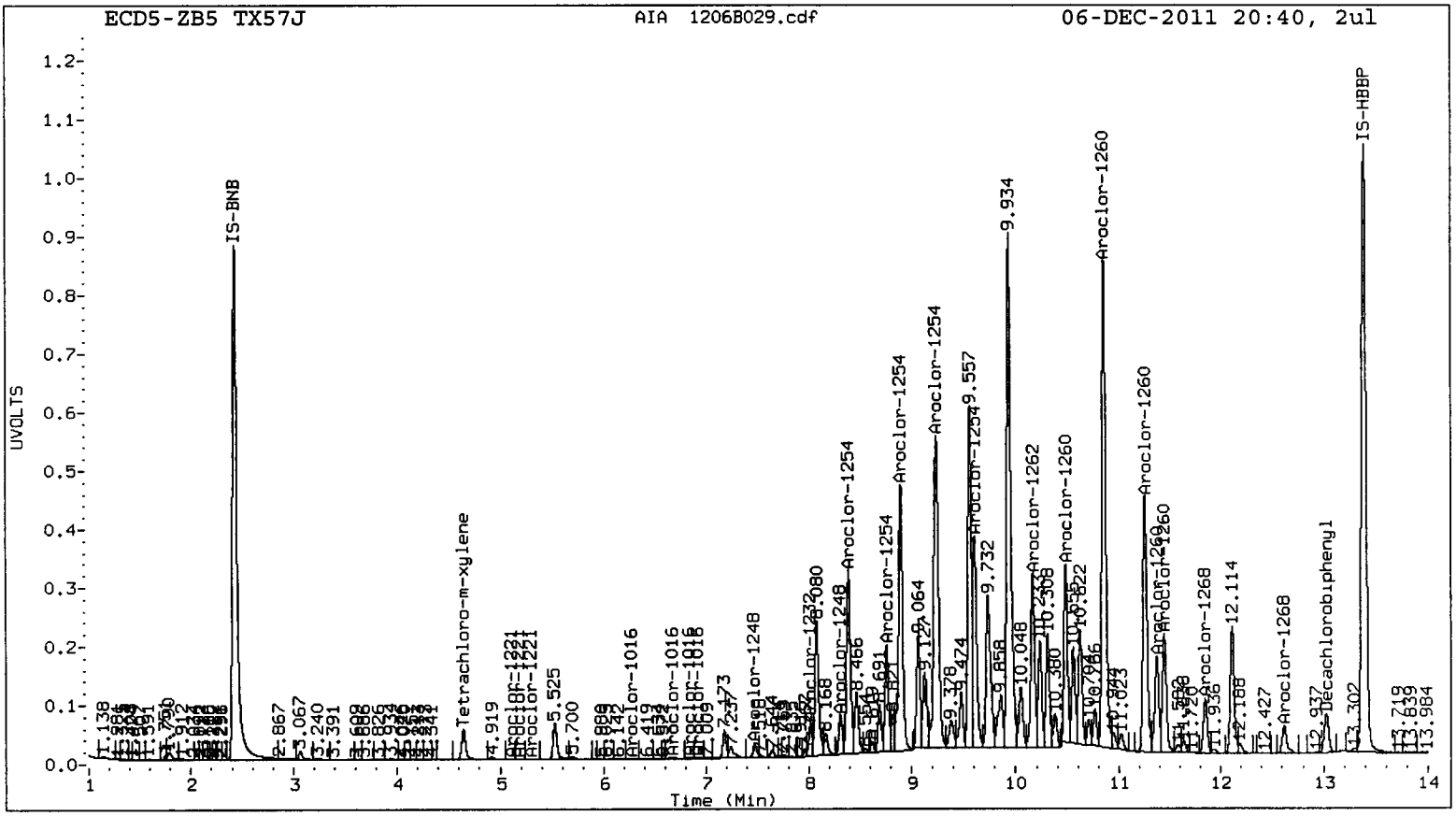
Corrected Ave (3 peaks): 53.8 Corrected Ave (3 peaks): 43.3 RPD = 22

Total PCB Area Col1 (4.740 - 12.923) = 1154066297 Col1 Total PCB = 1.0 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 546720362 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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IS-BNB
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Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
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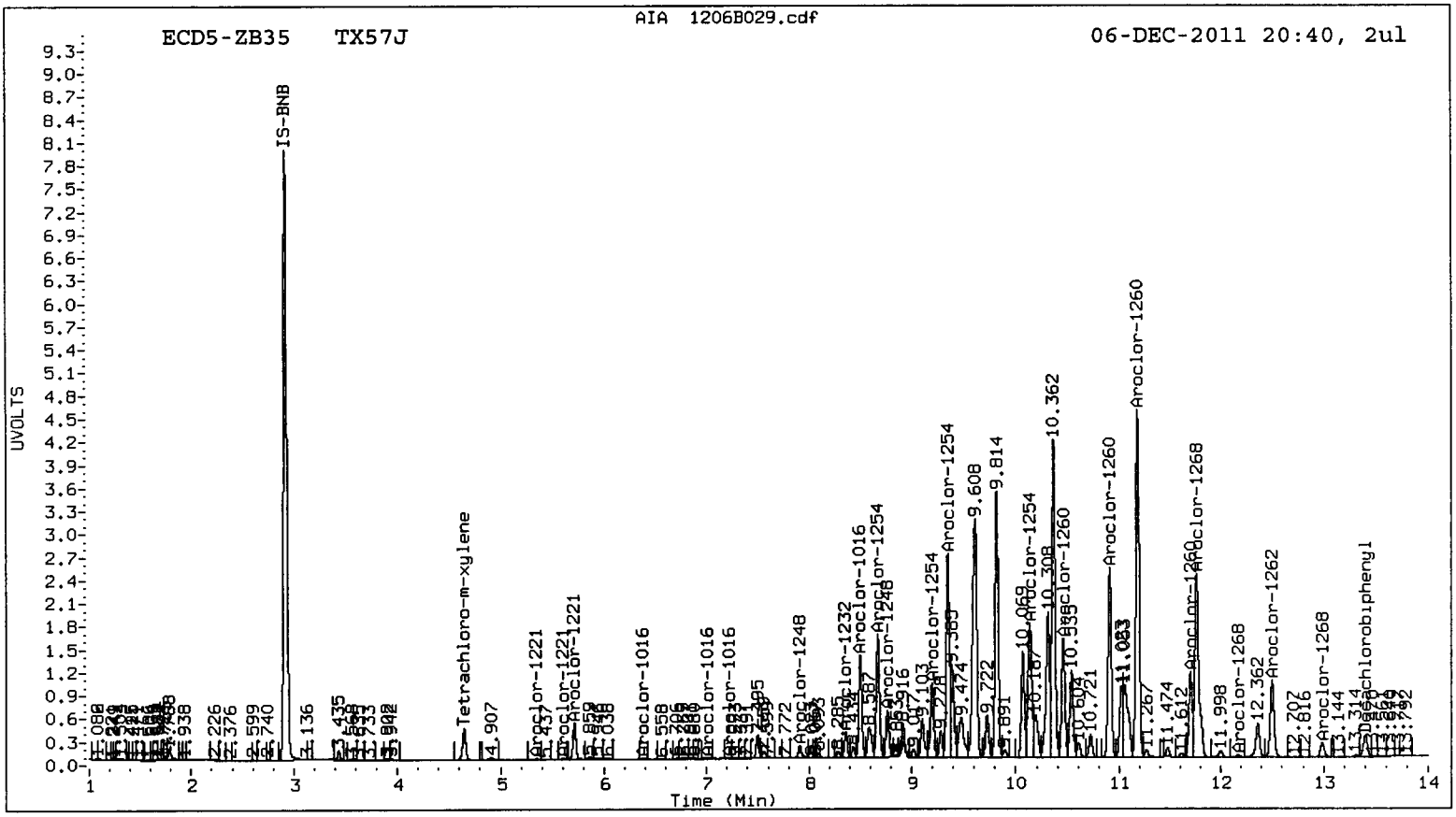
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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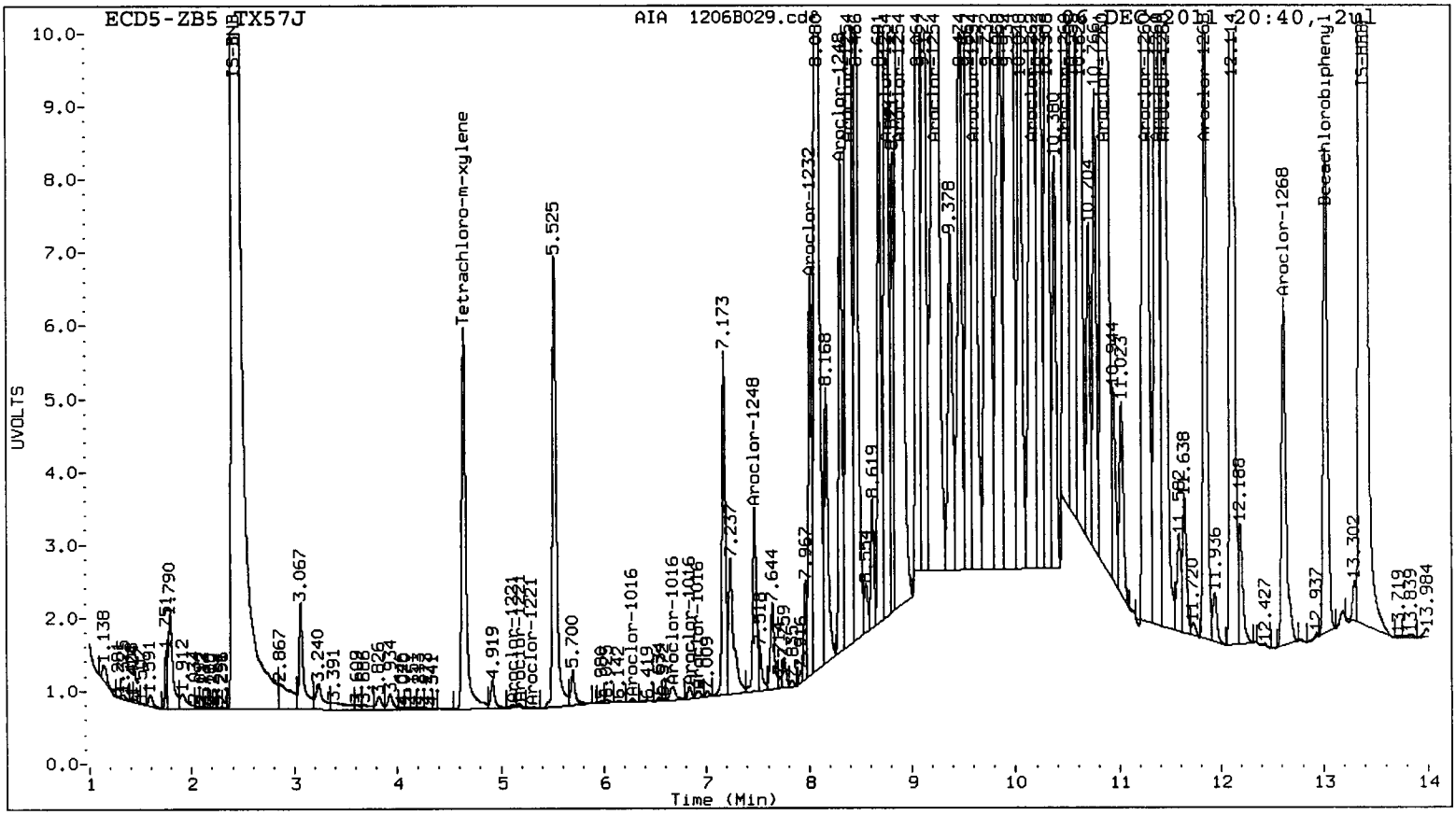
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

TX57:01365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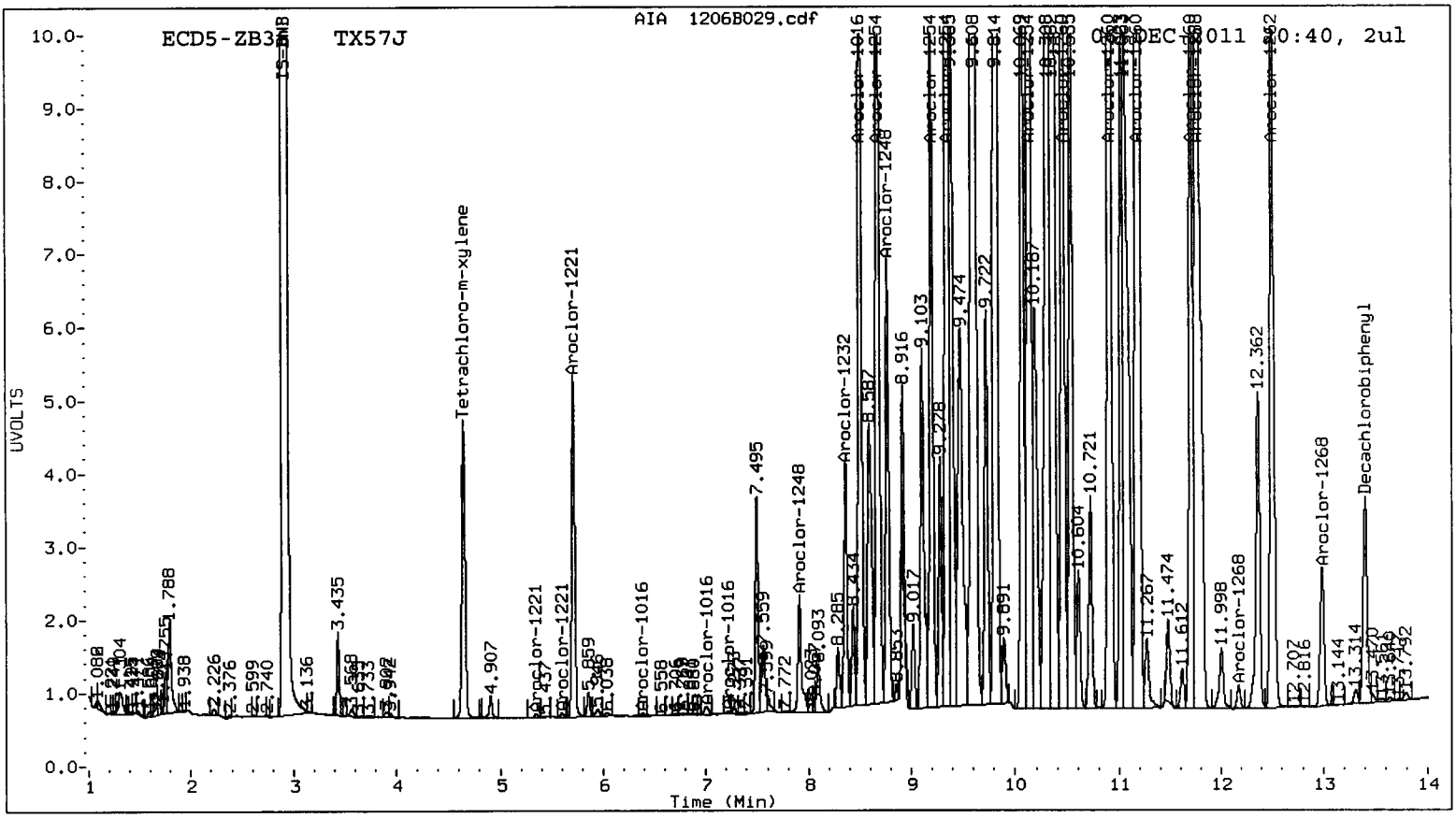
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1248
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl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UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1248
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl

TX57 : 0378

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B030.d
Data file 2: 20111202.B/1206-2.b/1206B030.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57K
Client ID:
Injection Date: 06-DEC-2011 20:59
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.644	0.003	73877001	4.645	0.002	45413139	36.4	36.8	1.0	Tetrachloro-m-xylene
13.027	0.004	84264066	13.403	0.003	32825974	41.6	41.0	1.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	91.0	91.9
Decachlorobiphenyl	104.0	102.4

12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	142415884	14.1
Hexabromobiphenyl	134444165	161351793	20.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	96202103	7.5
Hexabromobiphenyl	57341096	64822194	13.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.269	-0.004	104320	2.1	1	6.382	0.002	87557	1.9
Aroclor-1016	2	6.652	-0.021	181512	1.1	2	7.021	0.015	60947	0.7
Aroclor-1016	3	6.833	0.012	94590	1.4	3	7.277	0.062	10897	0.3
Aroclor-1016	4	6.915	-0.016	434618	9.4	4	8.501	0.003	432886	26.4
	Total Col1Ave (4 peaks):				3.5	Total Col2Ave (4 peaks):				7.3 RPD = 70*
	Corrected Ave (3 peaks):				1.6	Corrected Ave (3 peaks):				1.0 RPD = 47*
Aroclor-1221	1	5.109	0.093	86574	4.5	1	5.349	0.016	679004	49.0
Aroclor-1221	2	5.180	-0.016	561514	41.0	2	5.602	0.023	660597	83.3
Aroclor-1221	3	5.394	0.094	19253	0.4	3	5.710	0.019	500886	20.0
Aroclor-1221	NS	---			----	4	5.763	0.003	43560	11.0
	Total Col1Ave (3 peaks):				15.3	Total Col2Ave (4 peaks):				40.8 RPD = 91*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				26.7
Aroclor-1232	1	6.269	-0.009	104320	5.3	1	6.382	-0.004	87557	4.4
Aroclor-1232	2	6.652	-0.025	181512	2.8	2	7.021	0.011	60947	1.7
Aroclor-1232	3	6.833	0.007	94590	3.5	3	7.277	0.057	10897	0.9
Aroclor-1232	4	8.011	-0.008	172860	7.3	4	8.360	-0.004	138025	11.2
	Total Col1Ave (4 peaks):				4.7	Total Col2Ave (4 peaks):				4.5 RPD = 5
	Corrected Ave (3 peaks):				3.9	Corrected Ave (3 peaks):				2.3 RPD = 51*
Aroclor-1242	1	6.269	-0.004	104320	2.8	1	6.382	0.003	87557	2.5
Aroclor-1242	2	6.652	-0.020	181512	1.5	2	7.021	0.016	60947	0.9
Aroclor-1242	3	6.833	0.012	94590	1.9	3	7.277	0.063	10897	0.4
Aroclor-1242	4	8.011	-0.002	172860	4.2	4	8.360	0.002	138025	6.4
	Total Col1Ave (4 peaks):				2.6	Total Col2Ave (4 peaks):				2.6 RPD = 1
	Corrected Ave (3 peaks):				2.1	Corrected Ave (3 peaks):				1.3 RPD = 47*
Aroclor-1248	1	6.652	-0.018	181512	2.2	1	7.021	0.019	60947	1.3
Aroclor-1248	2	7.470	0.001	509424	8.8	2	7.926	0.018	2402823	70.8
Aroclor-1248	3	8.011	-0.003	172860	2.5	3	8.360	0.001	138025	3.9
Aroclor-1248	4	8.298	-0.006	1002089	15.0	4	8.763	-0.018	279431	7.2
	Total Col1Ave (4 peaks):				7.1	Total Col2Ave (4 peaks):				20.8 RPD = 98*
	Corrected Ave (3 peaks):				4.5	Corrected Ave (3 peaks):				4.2 RPD = 8
Aroclor-1254	1	8.387	-0.001	1457555	14.1	1	8.501	0.002	432886	14.3
Aroclor-1254	2	8.776	0.017	1355480	20.4	2	8.690	0.019	1167795	29.5
Aroclor-1254	3	8.897	0.001	2344376	18.9	3	9.220	0.027	1757920	~~56.5~~
Aroclor-1254	4	9.230	-0.014	3676271	28.6	4	9.346	0.001	880163	13.2
Aroclor-1254	5	9.602	-0.004	1247365	14.3	5	10.135	0.010	607940	14.7
	Total Col1Ave (5 peaks):				19.2	Total Col2Ave (5 peaks):				~~25.6~~ RPD = 29
	Corrected Ave (4 peaks):				16.9	Corrected Ave (4 peaks):				17.9 RPD = 6
Aroclor-1260	1	10.481	0.002	1723841	21.6	1	10.457	0.002	1698887	46.4
Aroclor-1260	2	10.853	0.001	4011151	19.8	2	10.907	0.000	1533125	33.9
Aroclor-1260	3	11.253	0.000	2590976	23.8	3	11.186	0.007	3185973	35.4
Aroclor-1260	4	11.369	0.001	5567080	~~125.9~~	4	11.701	0.002	2528294	~~98.7~~
Aroclor-1260	5	11.444	0.001	5045152	~~95.1~~	NS	---			----
	Total Col1Ave (5 peaks):				~~57.2~~	Total Col2Ave (4 peaks):				~~53.6~~ RPD = 7
	Corrected Ave (4 peaks):				~~40.1~~	Corrected Ave (3 peaks):				~~38.6~~ RPD = 4
Aroclor-1262	1	10.162	-0.006	4035261	31.4	1	10.457	-0.004	1698887	29.1
Aroclor-1262	2	10.481	-0.004	1723841	17.2	2	10.907	-0.006	1533125	27.7
Aroclor-1262	3	10.853	-0.005	4011151	16.3	3	11.186	0.001	3185973	29.6
Aroclor-1262	4	11.369	-0.006	5567080	~~54.4~~	4	11.701	-0.006	2528294	~~52.8~~
Aroclor-1262	5	11.444	-0.006	5045152	45.9	5	12.500	-0.005	1807875	47.1
	Total Col1Ave (5 peaks):				~~33.1~~	Total Col2Ave (5 peaks):				~~37.3~~ RPD = 12
	Corrected Ave (4 peaks):				27.7	Corrected Ave (4 peaks):				33.4 RPD = 18
Aroclor-1268	1	11.369	-0.007	5567080	21.1	1	11.701	-0.006	2528294	22.5
Aroclor-1268	2	11.444	-0.005	5045152	19.6	2	11.765	-0.010	2697421	26.3

looks like 60 or 60/62

Aroclor-1268	3	11.835	0.000	3181633	14.6	3	12.167	-0.005	655458	7.7
Aroclor-1268	4	12.618	-0.007	6256944	9.3	4	12.987	-0.006	2472507	9.8

Total Col1Ave (4 peaks): 16.2 Total Col2Ave (4 peaks): 16.6 RPD = 3

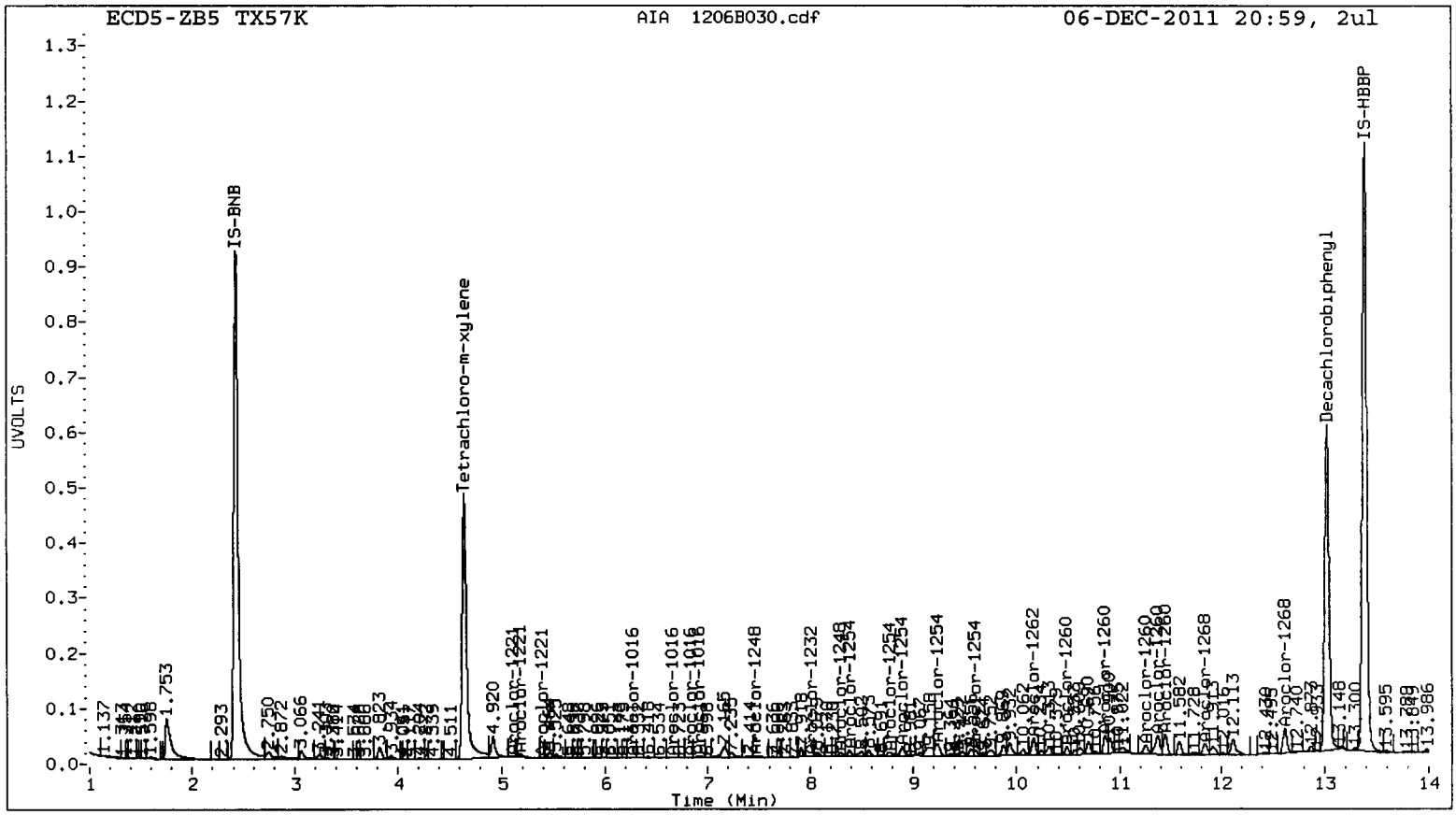
Corrected Ave (3 peaks): 14.5 Corrected Ave (3 peaks): 13.3 RPD = 8

Total PCB Area Col1 (4.740 - 12.923) = 113751325 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 53709003 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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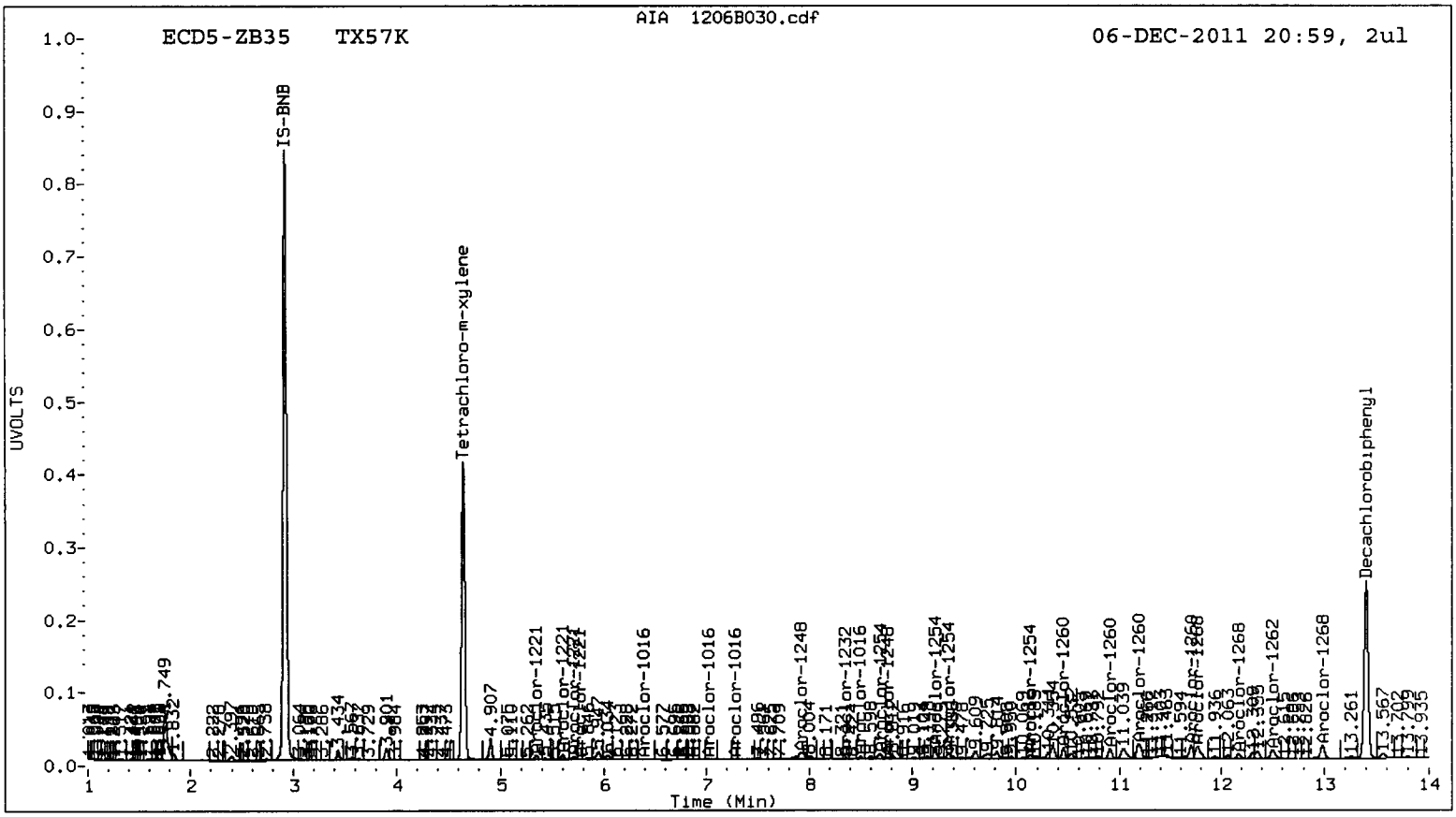
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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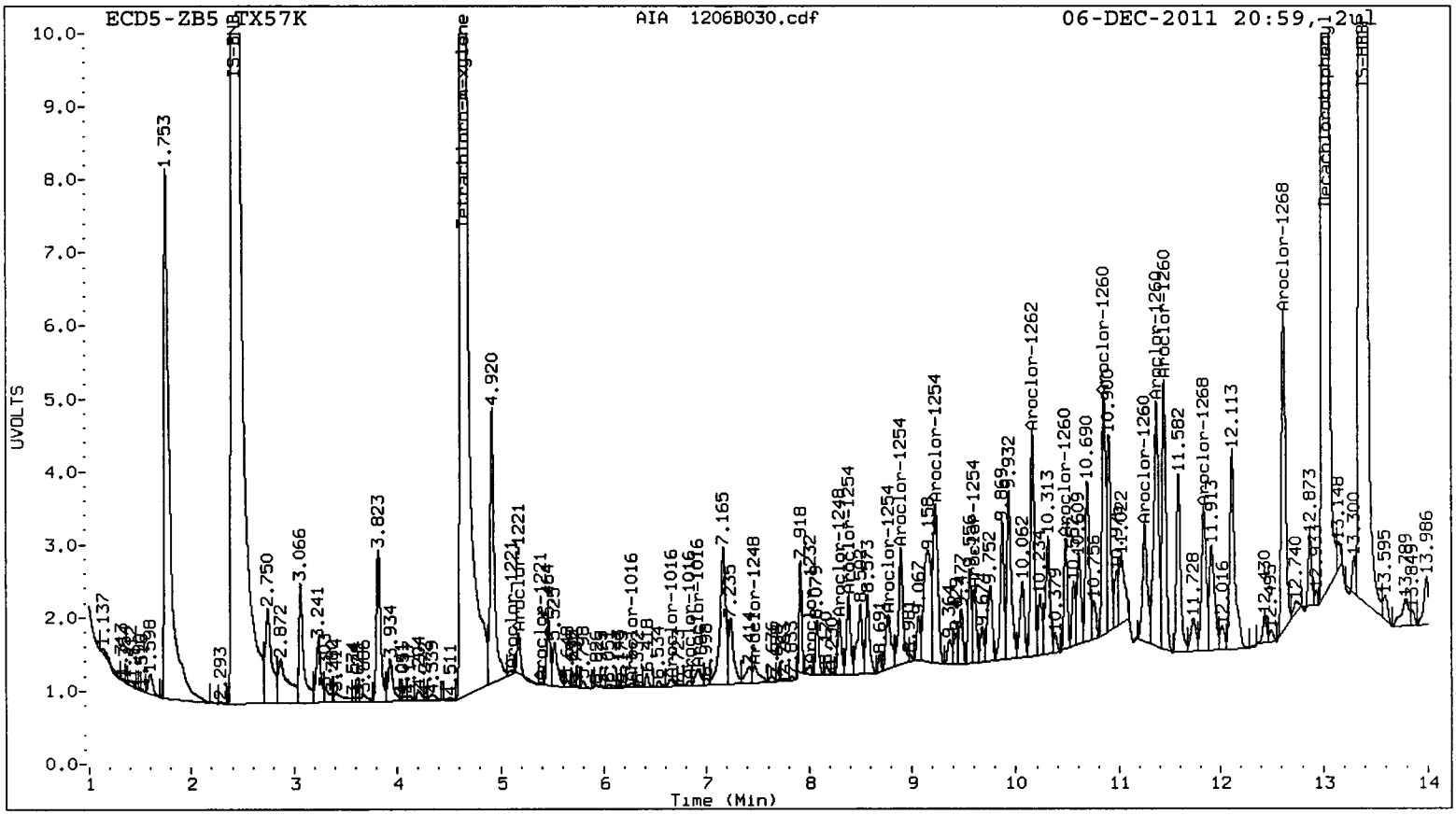
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1268
Aroclor-1262
Aroclor-1260
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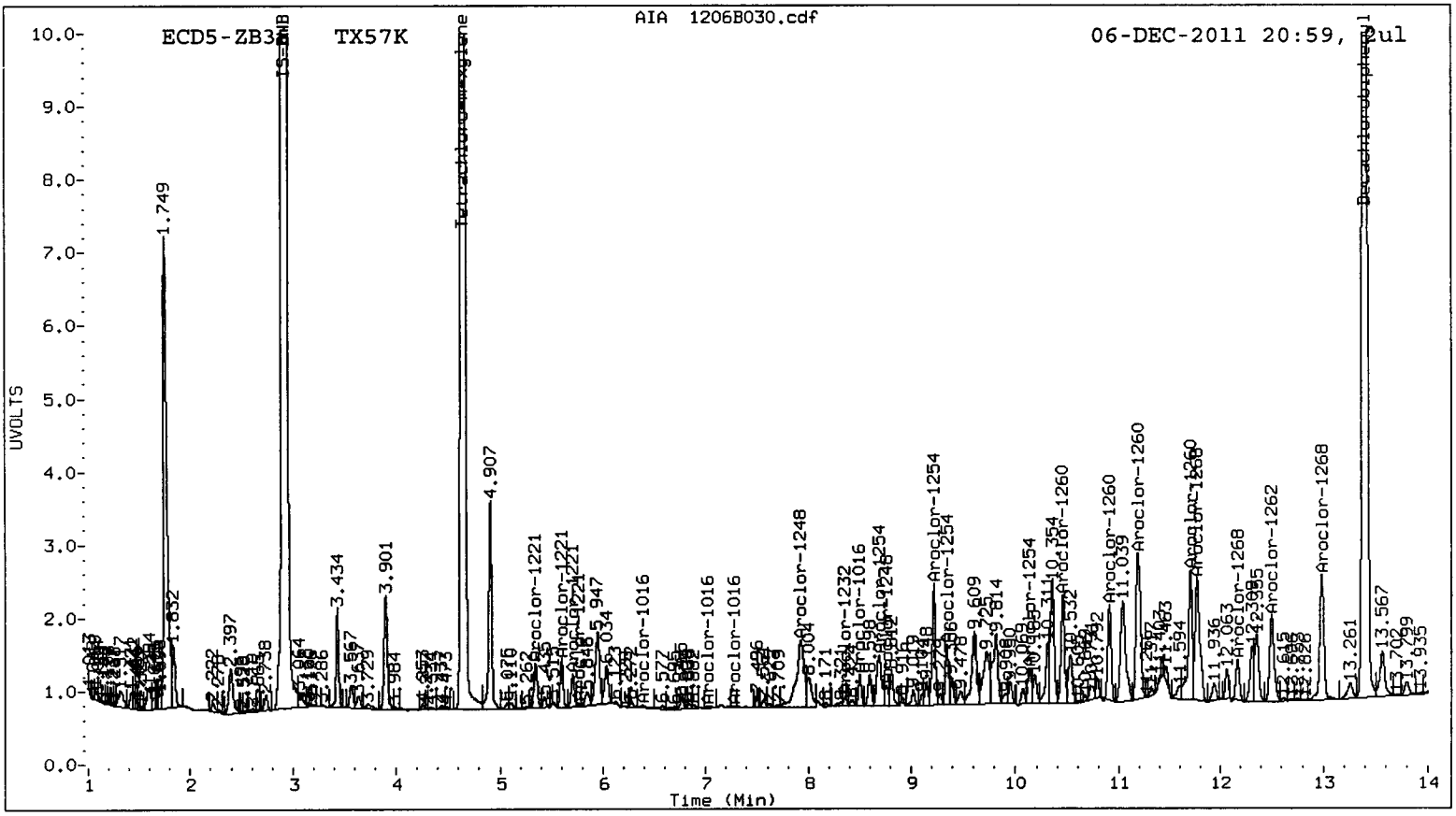
Aroclor-1248
Aroclor-1242
Aroclor-1232
Aroclor-1221
Aroclor-1016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Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1268
Aroclor-1262
Aroclor-1260
Aroclor-1254
Aroclor-1248
Aroclor-1242
Aroclor-1232
Aroclor-1221
Aroclor-1016

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B031.d
Data file 2: 20111202.B/1206-2.b/1206B031.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57L
Client ID:
Injection Date: 06-DEC-2011 21:18
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 10.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.643	0.003	8223872	4.644	0.001	4642482	4.1	3.9	4.6	Tetrachloro-m-xylene
13.025	0.002	10217814	13.401	0.001	4242832	5.2	5.4	4.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	103.1	98.5
Decachlorobiphenyl	129.2	135.3

12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	139934114	12.1
Hexabromobiphenyl	134444165	157461015	17.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	91796298	2.6
Hexabromobiphenyl	57341096	63388499	10.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	6.273	0.000	248520	5.2	1	6.381	0.001	244680	5.6	
Aroclor-1016	2	6.670	-0.002	1268026	7.9	2	7.005	-0.001	556484	6.4	
Aroclor-1016	3	6.831	0.011	572008	8.8	3	7.220	0.005	38629	1.2	
Aroclor-1016	4	6.918	-0.013	374204	8.2	4	8.501	0.002	7109510	453.6	
	Total Col1Ave (4 peaks):				7.5	Total Col2Ave (4 peaks):				116.7	RPD = 176*
	Corrected Ave (3 peaks):				7.1	Corrected Ave (3 peaks):				4.4	RPD = 48*
Aroclor-1221	1	5.109	0.093	23568	1.2	1	5.347	0.014	73675	5.6	
Aroclor-1221	2	5.182	-0.014	69683	5.2	2	5.600	0.021	124953	16.5	
Aroclor-1221	3	5.298	-0.003	55141	1.2	3	5.711	0.019	605853	25.3	
Aroclor-1221	NS	---			----	4	---			0.0	
	Total Col1Ave (3 peaks):				2.5	Total Col2Ave (3 peaks):				15.8	RPD = 145*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	6.273	-0.005	248520	12.8	1	6.381	-0.004	244680	12.8	
Aroclor-1232	2	6.670	-0.007	1268026	19.7	2	7.005	-0.005	556484	15.9	
Aroclor-1232	3	6.831	0.005	572008	21.8	3	7.220	0.000	38629	3.2	
Aroclor-1232	4	8.015	-0.004	1474606	63.7	4	8.359	-0.004	766679	65.2	
	Total Col1Ave (4 peaks):				29.5	Total Col2Ave (4 peaks):				24.3	RPD = 19
	Corrected Ave (3 peaks):				18.1	Corrected Ave (3 peaks):				10.6	RPD = 52*
Aroclor-1242	1	6.273	0.000	248520	6.8	1	6.381	0.002	244680	7.4	
Aroclor-1242	2	6.670	-0.001	1268026	10.5	2	7.005	0.000	556484	8.5	
Aroclor-1242	3	6.831	0.010	572008	11.8	3	7.220	0.006	38629	1.5	
Aroclor-1242	4	8.015	0.002	1474606	36.1	4	8.359	0.002	766679	37.4	
	Total Col1Ave (4 peaks):				16.3	Total Col2Ave (4 peaks):				13.7	RPD = 17
	Corrected Ave (3 peaks):				9.7	Corrected Ave (3 peaks):				5.8	RPD = 50*
Aroclor-1248	1	6.670	0.001	1268026	15.5	1	7.005	0.003	556484	12.8	
Aroclor-1248	2	7.470	0.002	2267746	40.0	2	7.909	0.001	1481215	45.8	
Aroclor-1248	3	8.015	0.002	1474606	21.7	3	8.359	0.001	766679	22.7	
Aroclor-1248	4	8.312	0.008	4995987	76.3	4	8.765	-0.015	4462576	121.3	
	Total Col1Ave (4 peaks):				38.4	Total Col2Ave (4 peaks):				50.7	RPD = 28
	Corrected Ave (3 peaks):				25.8	Corrected Ave (3 peaks):				27.1	RPD = 5
Aroclor-1254	1	8.390	0.002	19490068	191.4	1	8.501	0.001	7109510	246.0	
Aroclor-1254	2	8.761	0.002	10822804	165.4	2	8.672	0.001	7945578	210.6	
Aroclor-1254	3	8.897	0.001	31841977	261.1	3	9.195	0.002	4768026	160.5	
Aroclor-1254	4	9.234	-0.011	26276460	207.9	4	9.345	0.001	17083223	268.2	
Aroclor-1254	5	9.598	-0.008	14221732	166.2	5	10.138	0.013	6813879	173.1	
	Total Col1Ave (5 peaks):				198.4	Total Col2Ave (5 peaks):				211.7	RPD = 6
	Corrected Ave (4 peaks):				182.7	Corrected Ave (4 peaks):				197.6	RPD = 8
Aroclor-1260	1	10.481	0.002	3472555	44.7	1	10.456	0.001	1667625	46.6	
Aroclor-1260	2	10.854	0.001	9713479	49.1	2	10.903	-0.004	6453381	146.1	
Aroclor-1260	3	11.254	0.002	7059328	66.3	3	11.179	0.000	4789826	54.4	
Aroclor-1260	4	11.370	0.002	2381342	55.2	4	11.701	0.002	1317025	52.6	
Aroclor-1260	5	11.443	0.001	2528871	48.8	NS	---			----	
	Total Col1Ave (5 peaks):				52.8	Total Col2Ave (4 peaks):				74.9	RPD = 35
	Corrected Ave (4 peaks):				49.5	Corrected Ave (3 peaks):				51.2	RPD = 3
Aroclor-1262	1	10.163	-0.005	3805663	30.3	1	10.456	-0.005	1667625	29.3	
Aroclor-1262	2	10.481	-0.004	3472555	35.5	2	10.903	-0.011	6453381	119.1	
Aroclor-1262	3	10.854	-0.005	9713479	40.5	3	11.179	-0.006	4789826	45.5	
Aroclor-1262	4	11.370	-0.006	2381342	23.9	4	11.701	-0.006	1317025	28.1	
Aroclor-1262	5	11.443	-0.006	2528871	23.6	5	12.499	-0.006	1131685	30.1	
	Total Col1Ave (5 peaks):				30.8	Total Col2Ave (5 peaks):				50.4	RPD = 48*
	Corrected Ave (4 peaks):				28.3	Corrected Ave (4 peaks):				33.2	RPD = 16
Aroclor-1268	1	11.370	-0.007	2381342	9.3	1	11.701	-0.006	1317025	12.0	
Aroclor-1268	2	11.443	-0.005	2528871	10.1	2	11.760	-0.014	3470155	34.6	

Aroclor-1268	3	11.839	0.004	1711194	8.1	3	12.167	-0.005	272123	3.3
Aroclor-1268	4	12.618	-0.008	2861721	4.4	4	12.987	-0.007	950326	3.9

Total Col1Ave (4 peaks): 7.9 Total Col2Ave (4 peaks): 13.4 RPD = 51*

Corrected Ave (3 peaks): 7.2 Corrected Ave (3 peaks): 6.4 RPD = 13

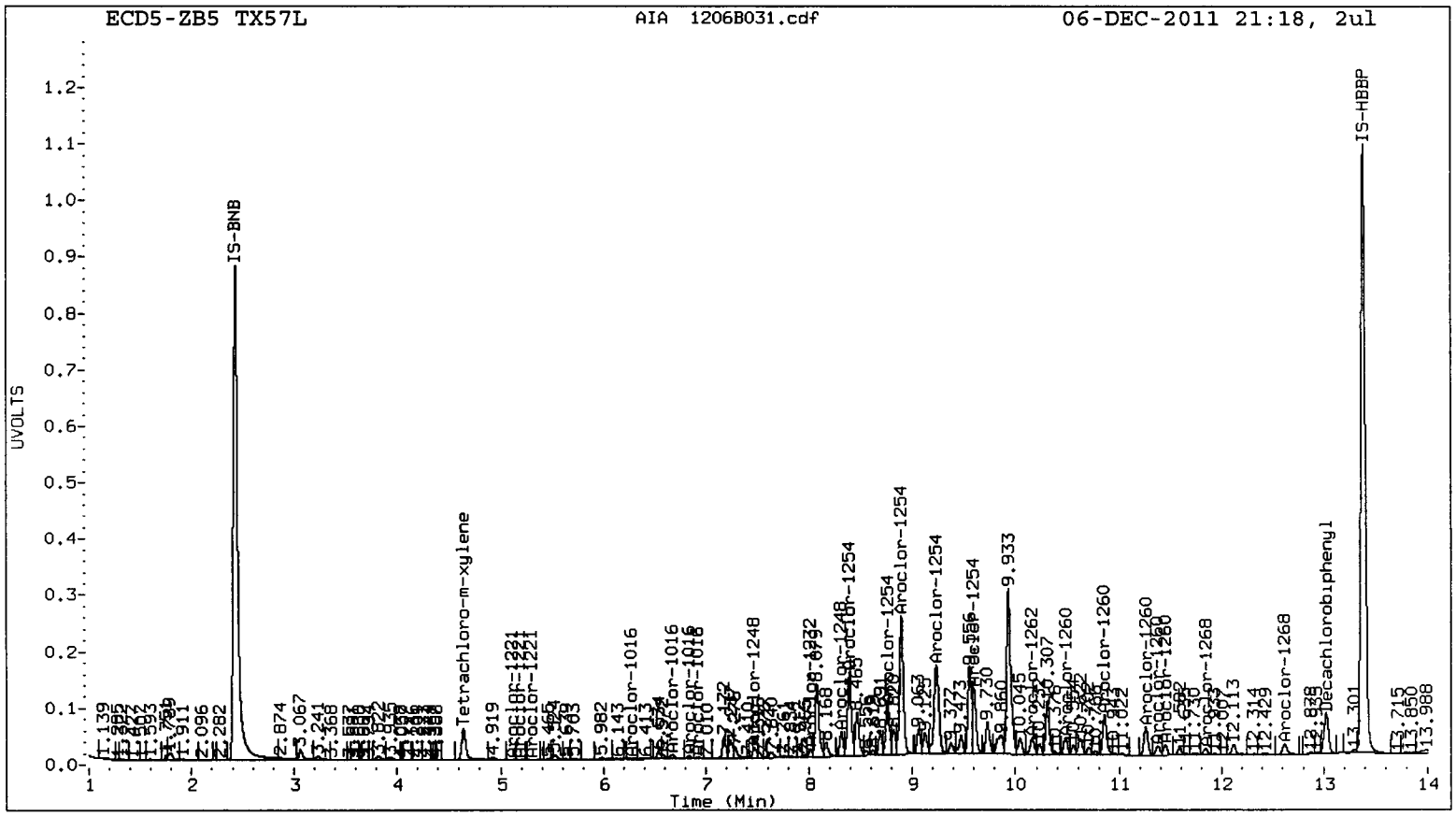
Total PCB Area Col1 (4.740 - 12.923) = 331469208 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 156577692 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

TX57.01378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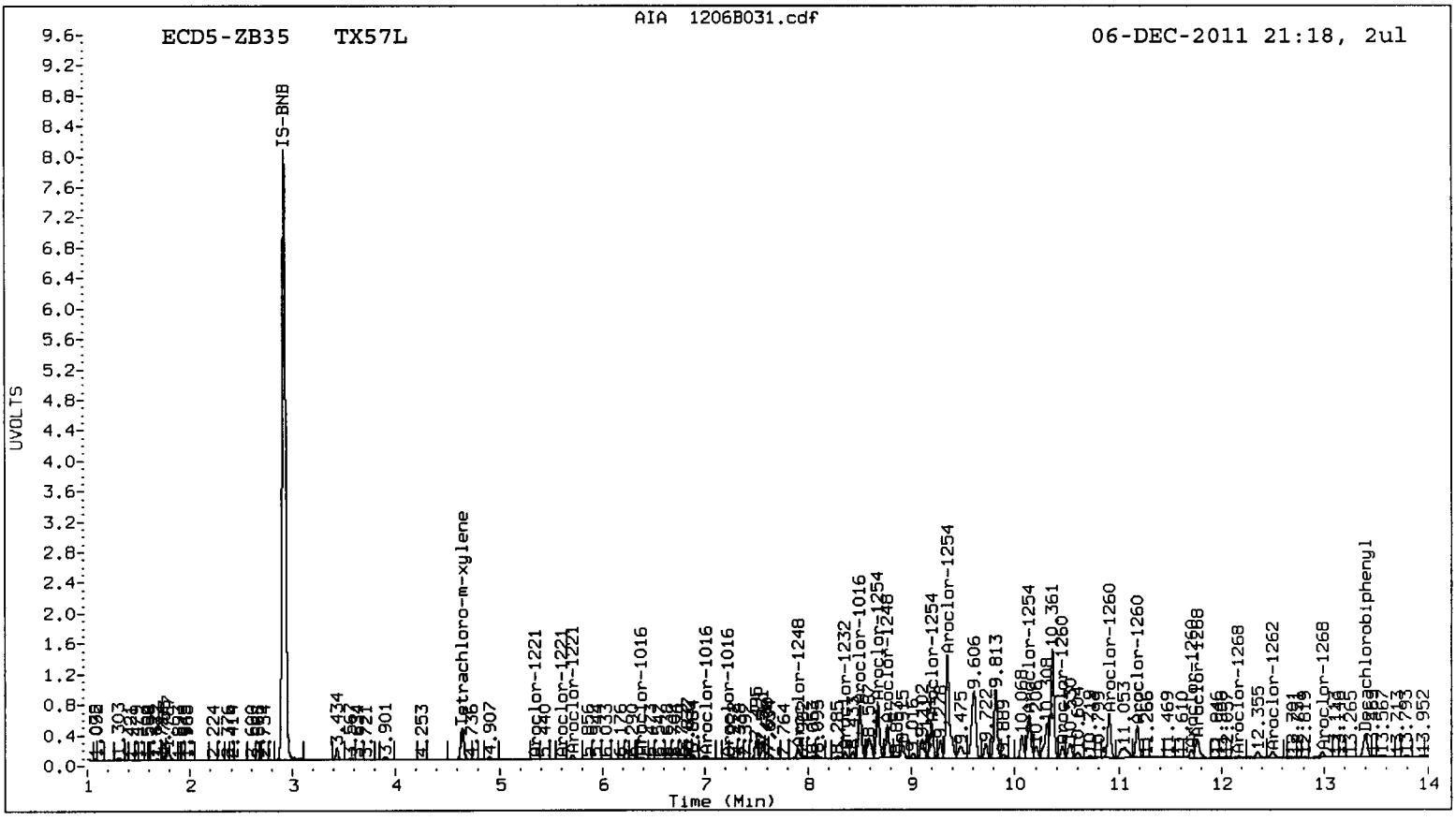
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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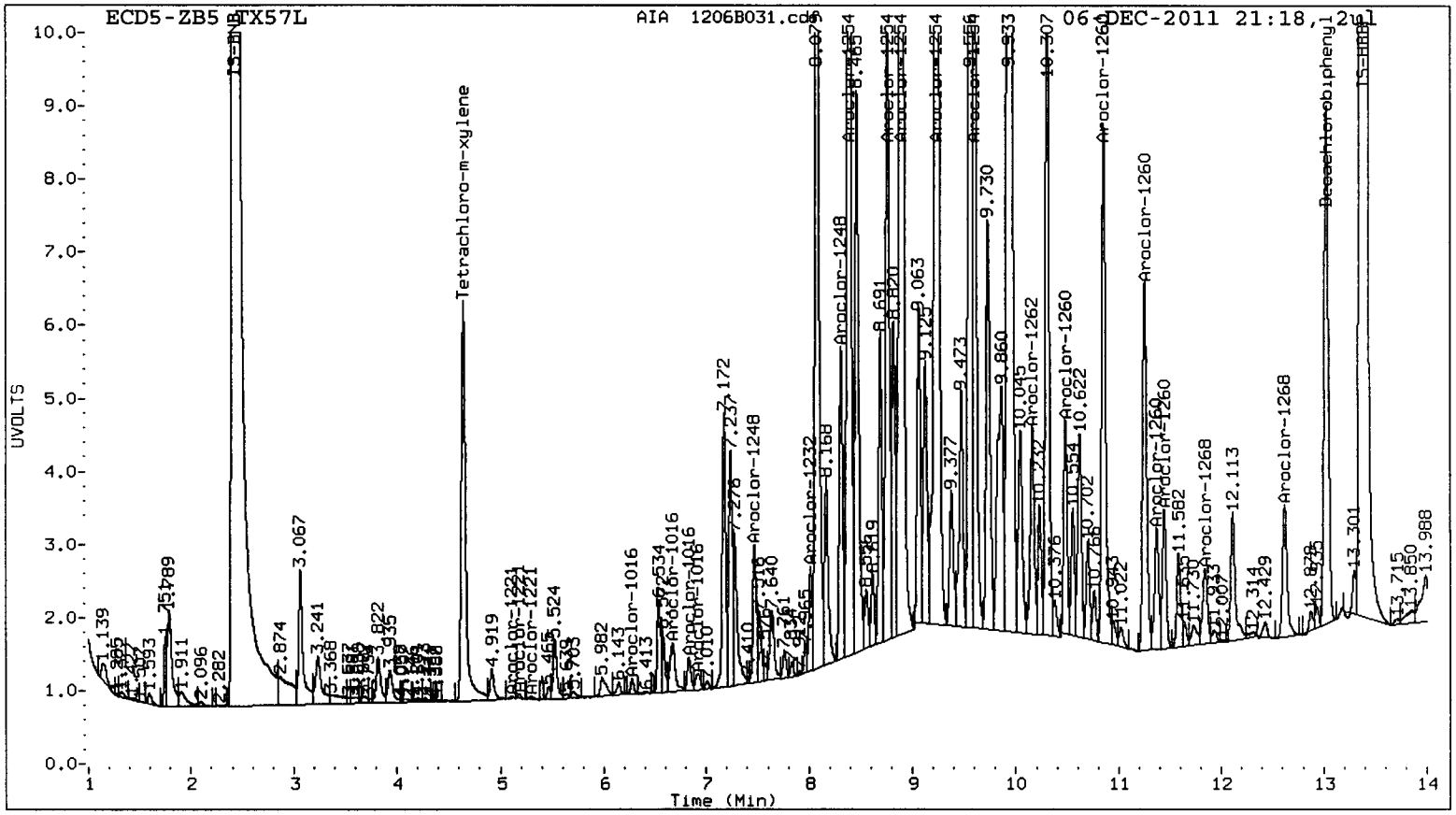
ECD5-ZB35 TX57L
06-DEC-2011 21:18, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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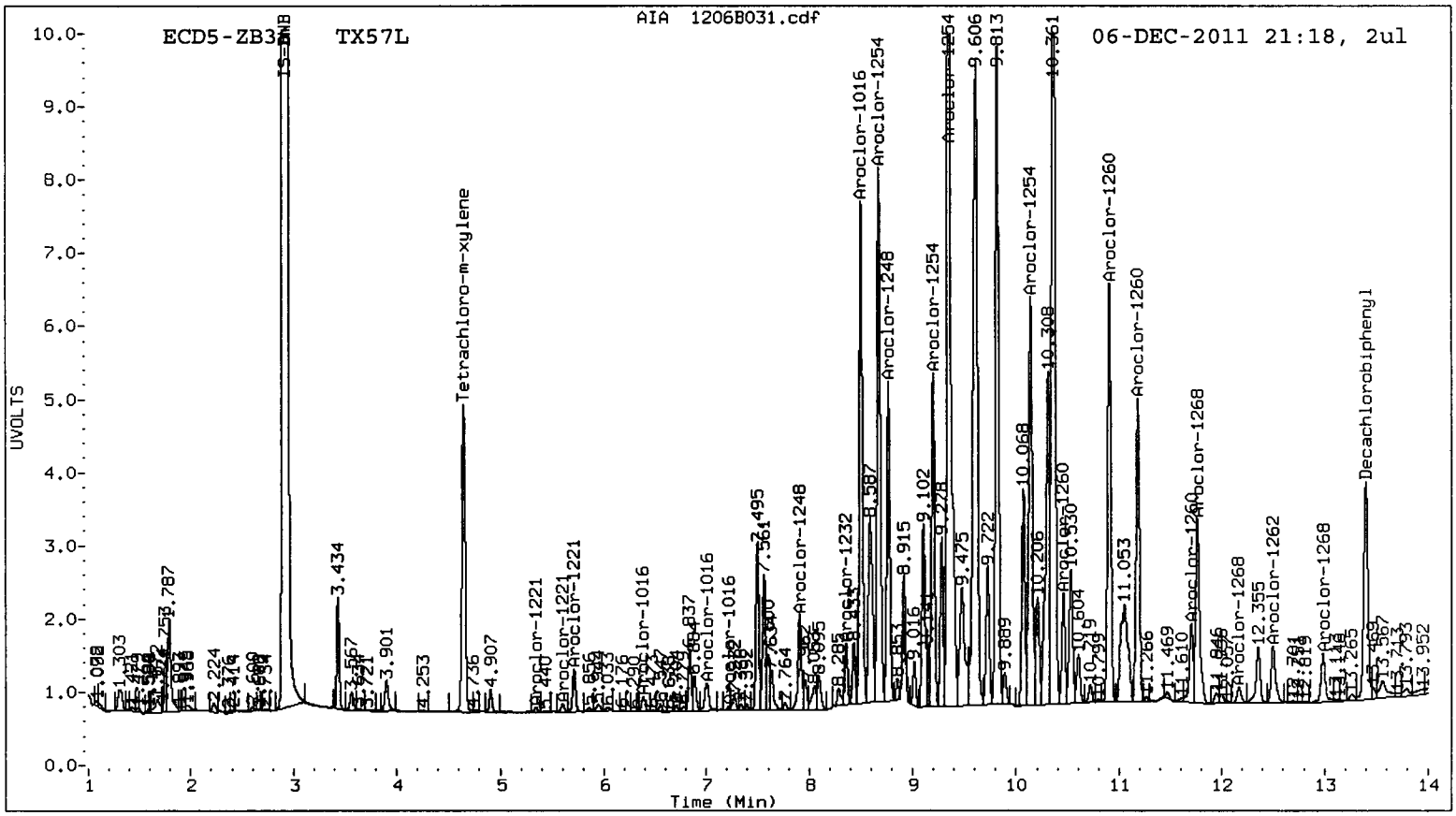
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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AIA 1206B031.cdf
06-DEC-2011 21:18, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

TX57.01380

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B032.d
Data file 2: 20111202.B/1206-2.b/1206B032.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57M
Client ID:
Injection Date: 06-DEC-2011 21:37
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.644	0.003	62931536	4.645	0.002	38233065	33.6	32.9	2.1	Tetrachloro-m-xylene
13.028	0.005	73305918	13.404	0.004	29923587	38.0	36.9	3.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	84.0	82.2
Decachlorobiphenyl	95.1	92.2

12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	131557919	5.4
Hexabromobiphenyl	134444165	153599837	14.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	90595695	1.3
Hexabromobiphenyl	57341096	65585722	14.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	6.271	-0.002	111444	2.5	1	6.379	-0.001	193794	4.5
Aroclor-1016	2	6.657	-0.016	467355	3.1	2	7.011	0.005	72368	0.8
Aroclor-1016	3	6.833	0.012	311481	5.1	3	7.274	0.060	113870	3.5
Aroclor-1016	4	6.917	-0.014	628986	14.7	4	8.500	0.002	1250890	80.9
	Total Col1Ave (4 peaks):			6.4		Total Col2Ave (4 peaks):			22.4	RPD = 112*
	Corrected Ave (3 peaks):			3.6		Corrected Ave (3 peaks):			2.9	RPD = 19
Aroclor-1221	1	4.919	-0.097	5106550	284.6	1	5.350	0.017	457275	35.1
Aroclor-1221	2	5.180	-0.016	451511	35.7	2	5.601	0.023	552438	73.9
Aroclor-1221	3	5.394	0.094	18216	0.4	3	5.711	0.020	1363771	57.8
Aroclor-1221	NS	---			----	4	5.760	0.001	37838	10.1
	Total Col1Ave (3 peaks):			106.9		Total Col2Ave (4 peaks):			44.2	RPD = 83*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):			34.3	
Aroclor-1232	1	6.271	-0.007	111444	6.1	1	6.379	-0.006	193794	10.3
Aroclor-1232	2	6.657	-0.020	467355	7.7	2	7.011	0.001	72368	2.1
Aroclor-1232	3	6.833	0.007	311481	12.6	3	7.274	0.055	113870	9.5
Aroclor-1232	4	8.015	-0.004	274249	12.6	4	8.360	-0.004	116910	10.1
	Total Col1Ave (4 peaks):			9.8		Total Col2Ave (4 peaks):			8.0	RPD = 20
	Corrected Ave (3 peaks):			8.8		Corrected Ave (3 peaks):			7.2	RPD = 20
Aroclor-1242	1	6.271	-0.002	111444	3.3	1	6.379	0.000	193794	6.0
Aroclor-1242	2	6.657	-0.015	467355	4.1	2	7.011	0.006	72368	1.1
Aroclor-1242	3	6.833	0.012	311481	6.8	3	7.274	0.060	113870	4.5
Aroclor-1242	4	8.015	0.002	274249	7.1	4	8.360	0.002	116910	5.8
	Total Col1Ave (4 peaks):			5.3		Total Col2Ave (4 peaks):			4.3	RPD = 21
	Corrected Ave (3 peaks):			4.7		Corrected Ave (3 peaks):			3.8	RPD = 22
Aroclor-1248	1	6.657	-0.013	467355	6.1	1	7.011	0.009	72368	1.7
Aroclor-1248	2	7.470	0.001	538247	10.1	2	7.917	0.010	1968364	61.6
Aroclor-1248	3	8.015	0.002	274249	4.3	3	8.360	0.001	116910	3.5
Aroclor-1248	4	8.298	-0.006	1863568	30.3	4	8.762	-0.018	955567	26.3
	Total Col1Ave (4 peaks):			12.7		Total Col2Ave (4 peaks):			23.3	RPD = 59*
	Corrected Ave (3 peaks):			6.8		Corrected Ave (3 peaks):			10.5	RPD = 42*
Aroclor-1254	1	8.388	0.000	3530646	36.9	1	8.500	0.001	1250890	43.9
Aroclor-1254	2	8.777	0.018	4453878	72.4	2	8.674	0.003	1586439	42.6
Aroclor-1254	3	8.896	0.001	6859297	59.8	3	9.194	0.001	981660	33.5
Aroclor-1254	4	9.229	-0.015	9303696	78.3	4	9.345	0.000	2547544	40.5
Aroclor-1254	5	9.556	-0.050	12772100	158.7	5	10.138	0.013	1808190	46.5
	Total Col1Ave (5 peaks):			81.2		Total Col2Ave (5 peaks):			41.4	RPD = 65*
	Corrected Ave (4 peaks):			61.9		Corrected Ave (4 peaks):			40.1	RPD = 43*
Aroclor-1260	1	10.480	0.002	6102606	80.5	1	10.456	0.001	4409169	119.1
Aroclor-1260	2	10.854	0.002	23497474	121.7	2	10.906	-0.001	5404876	118.3
Aroclor-1260	3	11.254	0.002	9936303	95.7	3	11.179	0.001	10569279	116.0
Aroclor-1260	4	11.371	0.003	9346211	222.1	4	11.701	0.002	4120514	159.0
Aroclor-1260	5	11.444	0.001	9899692	196.0	NS	---			----
	Total Col1Ave (5 peaks):			143.2		Total Col2Ave (4 peaks):			128.1	RPD = 11
	Corrected Ave (4 peaks):			123.5		Corrected Ave (3 peaks):			117.8	RPD = 5
Aroclor-1262	1	10.163	-0.005	9706190	79.3	1	10.456	-0.005	4409169	74.8
Aroclor-1262	2	10.480	-0.005	6102606	64.0	2	10.906	-0.008	5404876	96.4
Aroclor-1262	3	10.854	-0.005	23497474	100.4	3	11.179	-0.005	10569279	96.9
Aroclor-1262	4	11.371	-0.004	9346211	96.0	4	11.701	-0.006	4120514	85.1
Aroclor-1262	5	11.444	-0.005	9899692	94.7	5	12.500	-0.005	3774105	97.1
	Total Col1Ave (5 peaks):			86.9		Total Col2Ave (5 peaks):			90.1	RPD = 4
	Corrected Ave (4 peaks):			83.5		Corrected Ave (4 peaks):			88.3	RPD = 6
Aroclor-1268	1	11.371	-0.005	9346211	37.3	1	11.701	-0.006	4120514	36.2
Aroclor-1268	2	11.444	-0.005	9899692	40.3	2	11.764	-0.011	7613714	73.4

Aroclor-1268	3	11.843	0.008	4599338	22.2	3	12.168	-0.004	514622	6.0
Aroclor-1268	4	12.620	-0.006	5910488	9.2	4	12.988	-0.006	2297295	9.0

Total Col1Ave (4 peaks): 27.3 Total Col2Ave (4 peaks): 31.1 RPD = 13

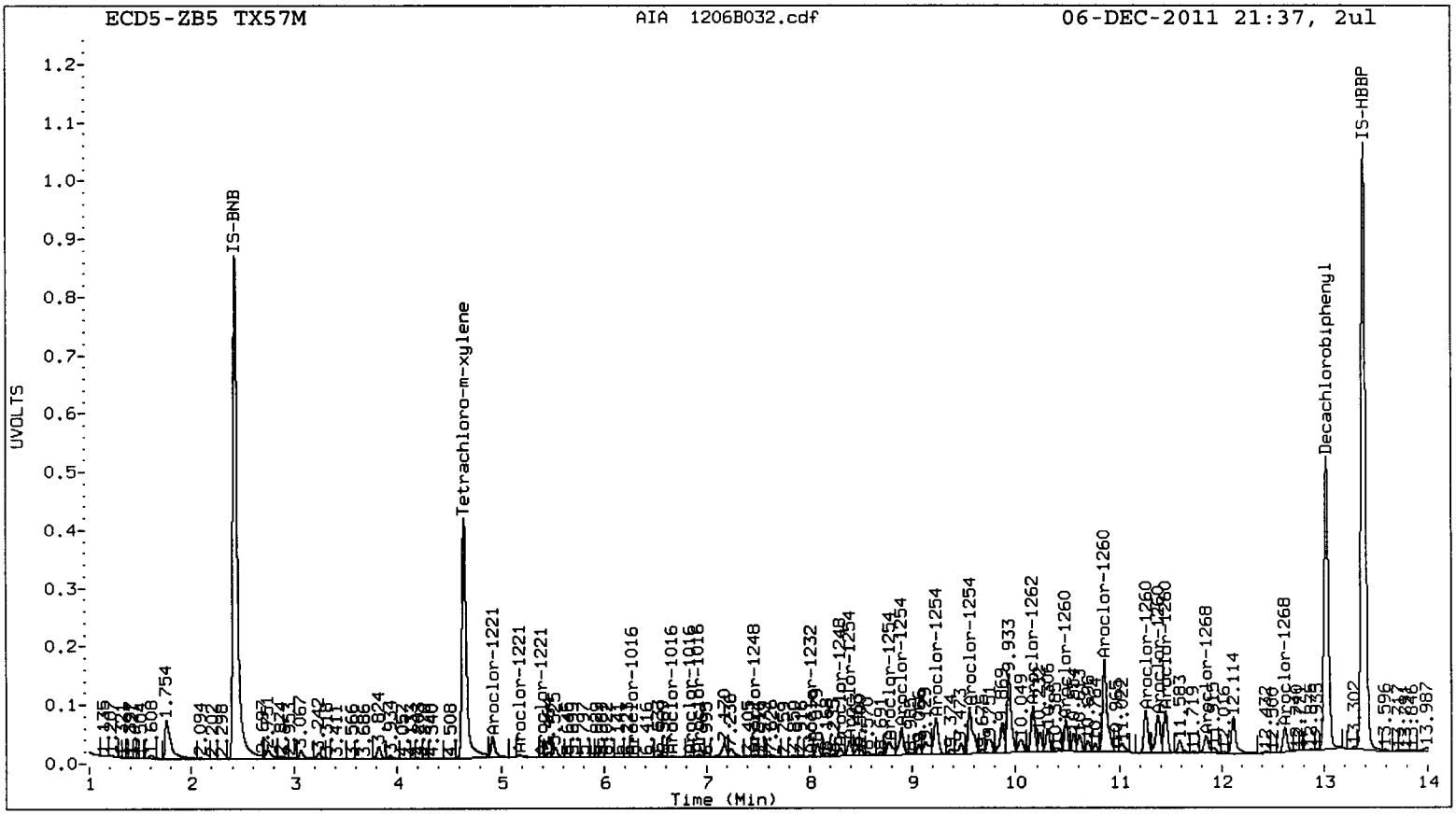
Corrected Ave (3 peaks): 22.9 Corrected Ave (3 peaks): 17.1 RPD = 29

Total PCB Area Col1 (4.740 - 12.923) = 233082457 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 111326653 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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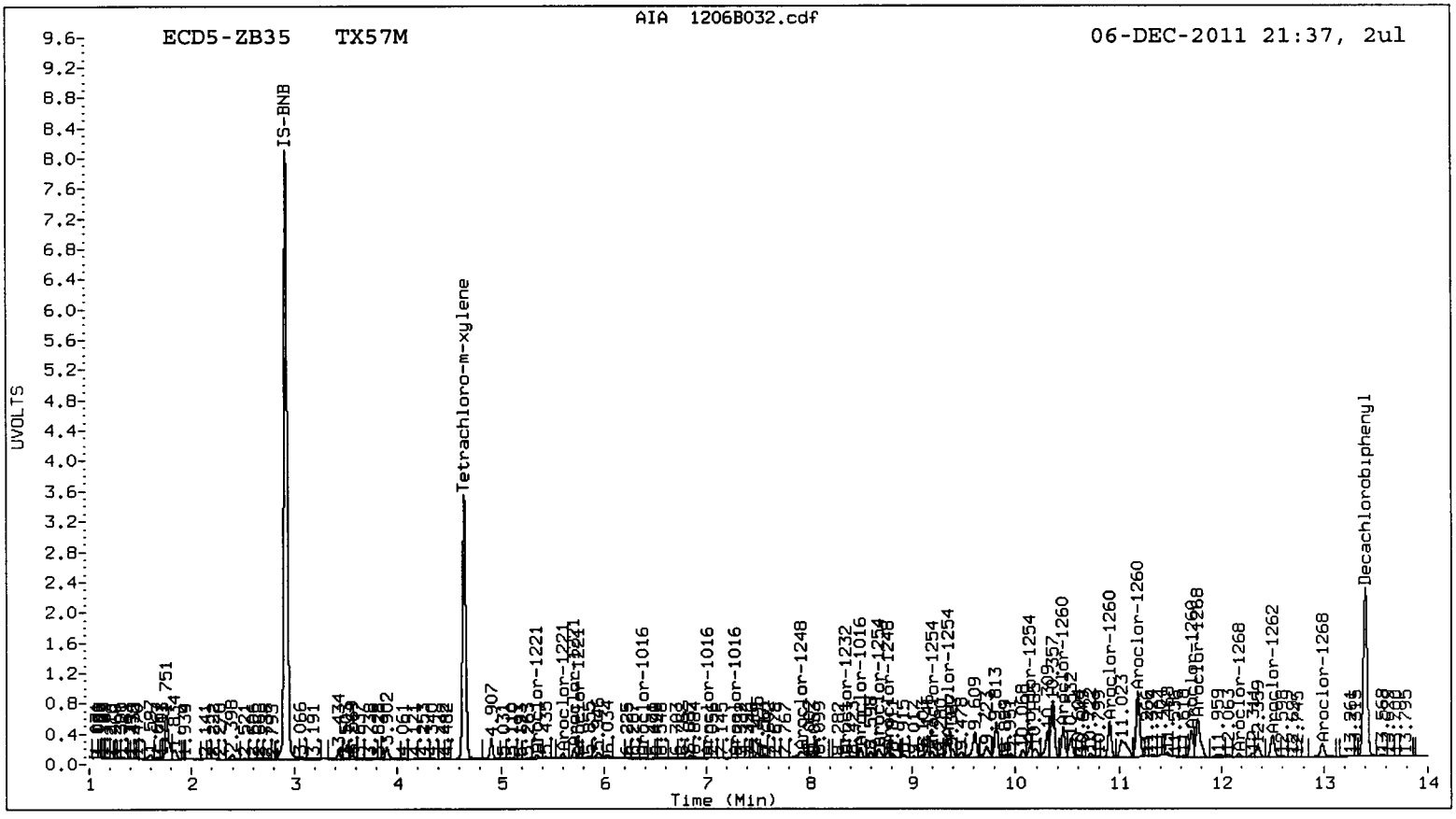
06-DEC-2011 21:37, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268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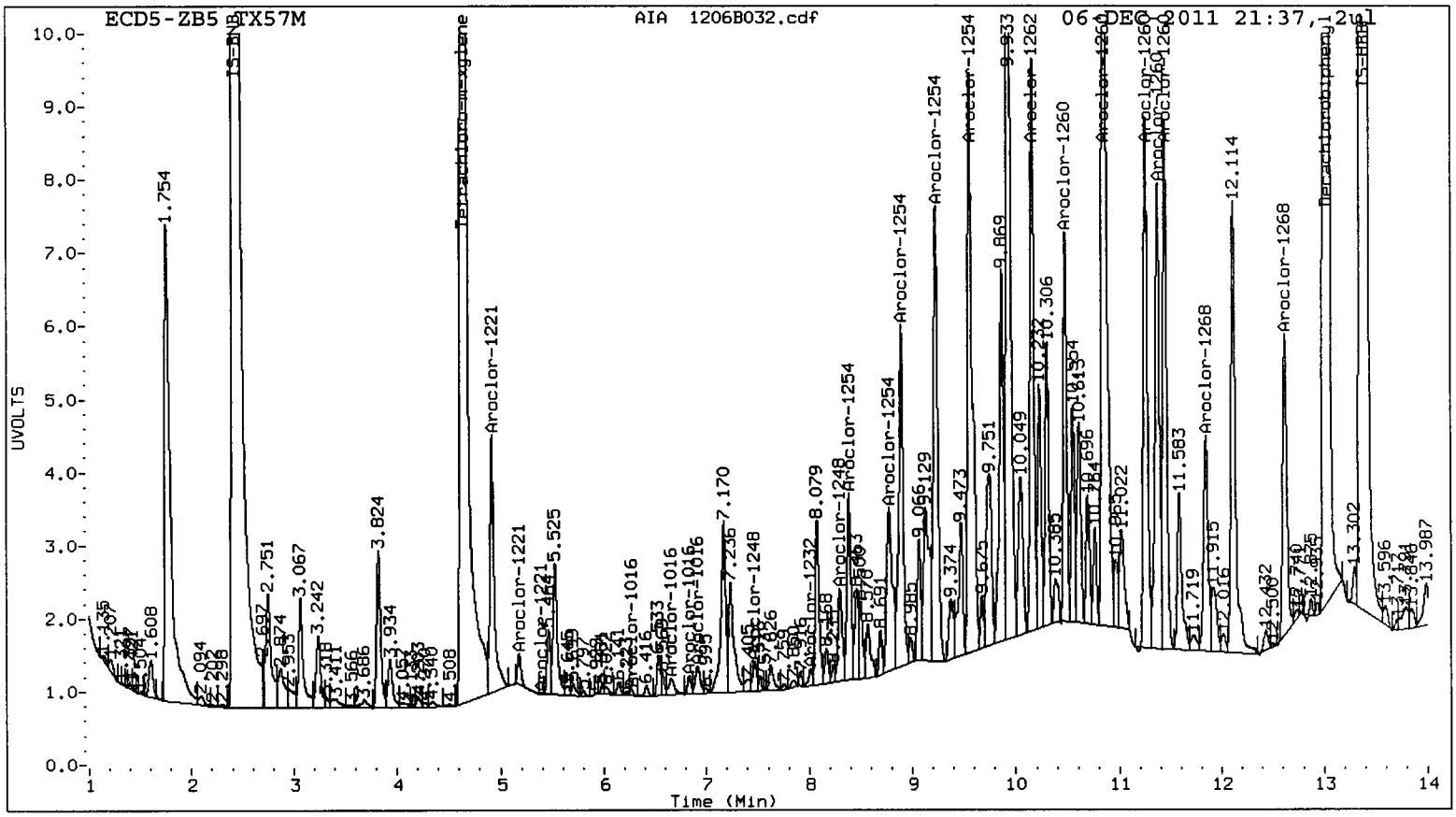
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262

TX57.01384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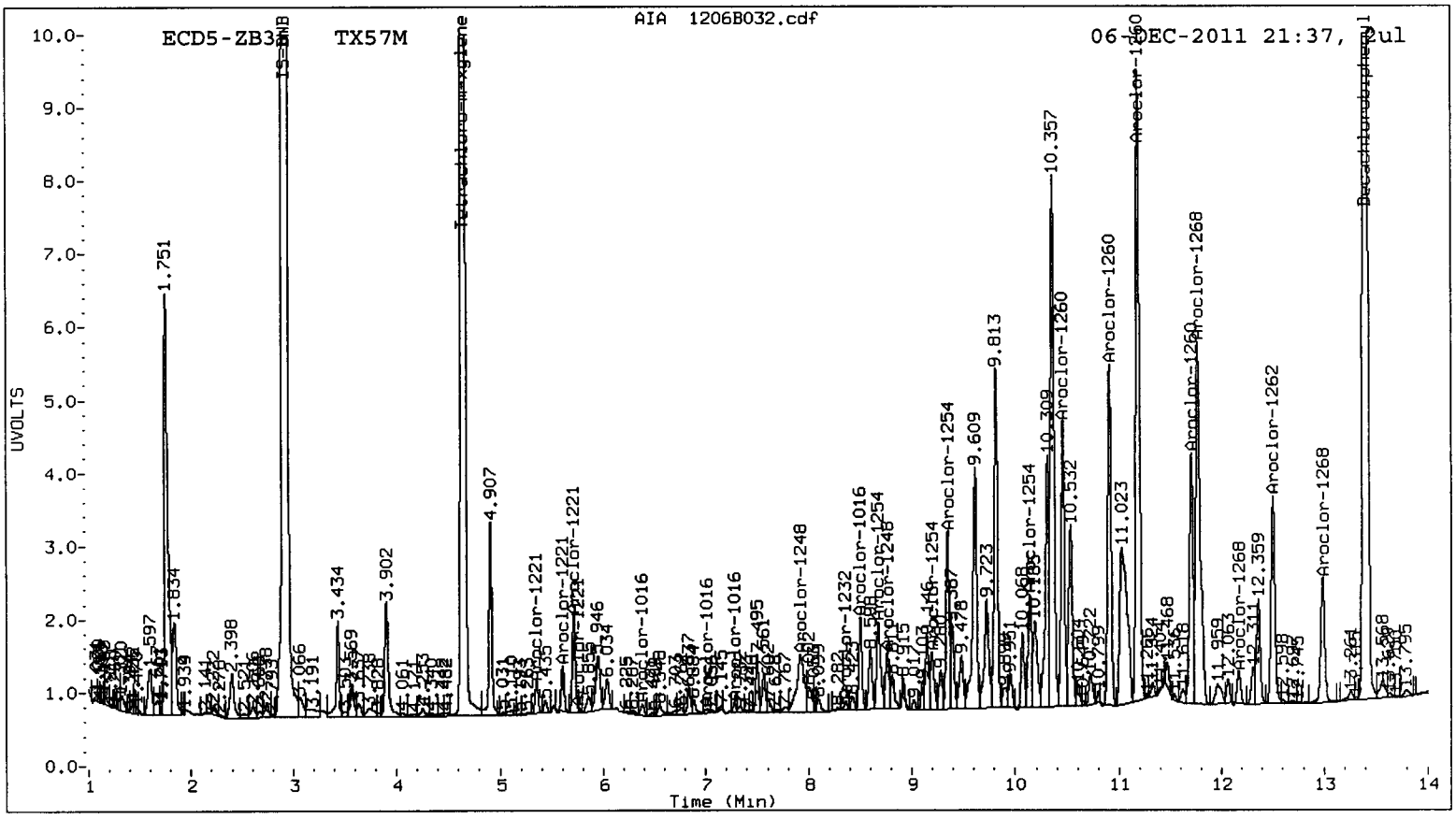
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B035.d
Data file 2: 20111202.B/1206-2.b/1206B035.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 06-DEC-2011 22:34
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.642	0.002	40487506	4.644	0.001	25488992	19.6	20.5	4.2	Tetrachloro-m-xylene
13.026	0.003	41025427	13.403	0.004	15089566	19.5	18.7	3.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.0	51.1
Decachlorobiphenyl	48.7	46.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	145008948	16.2
Hexabromobiphenyl	134444165	167936989	24.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	97072892	8.5
Hexabromobiphenyl	57341096	65184317	13.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

TX57.0198

Aroclor	ZB5 Col Peak#	RT	Shift	Area	Amount	ZB35 Col Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	6.672	0.003	21365185	252.7	1	7.003	0.001	11326104	247.1
Aroclor-1248	2	7.471	0.002	14185083	241.6	2	7.909	0.001	8310154	242.8
Aroclor-1248	3	8.016	0.002	17100039	242.7	3	8.360	0.002	8737071	245.1
Aroclor-1248	4	8.306	0.002	16612618	244.9	4	8.782	0.002	9563562	245.8

Total Col1Ave (4 peaks): 245.5 Total Col2Ave (4 peaks): 245.2 RPD = 0

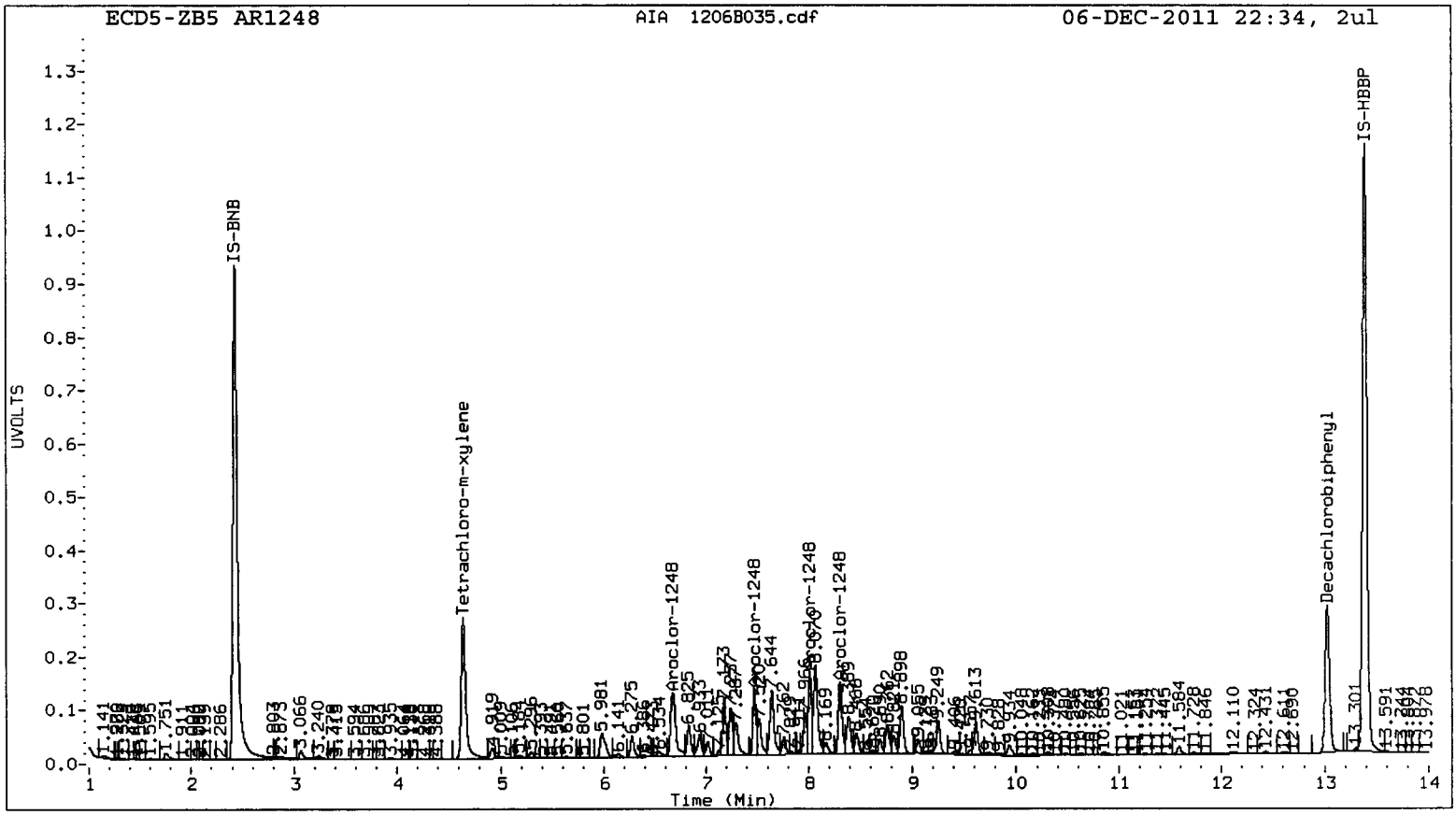
Corrected Ave (3 peaks): 243.1 Corrected Ave (3 peaks): 244.6 RPD = 1

Total PCB Area Col1 (4.740 - 12.923) = 283893855 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 139043874 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TX57:01337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AIA 1206B035.cdf
06-DEC-2011 22:34, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
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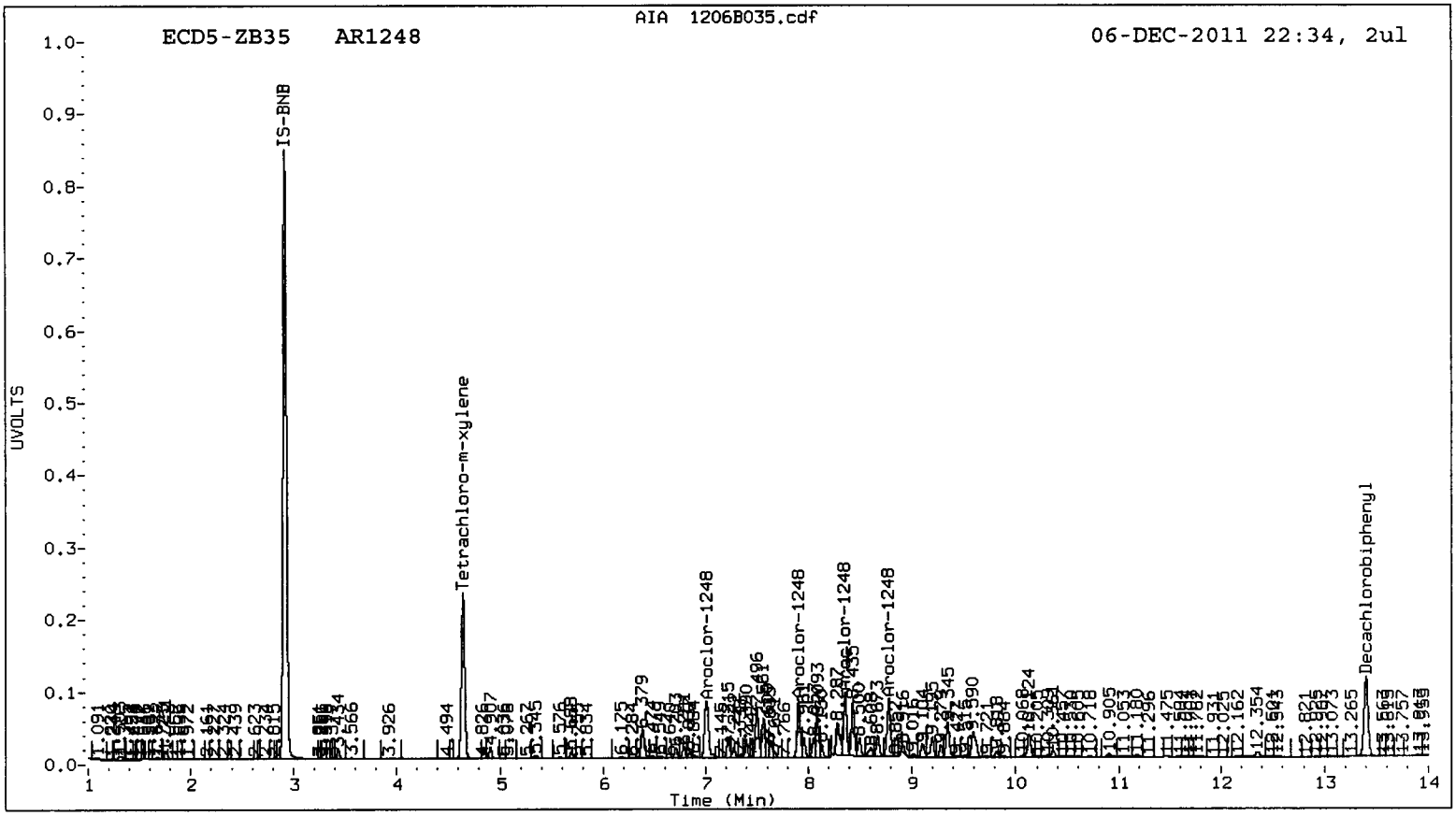
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)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IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
UVOLTS
Time (Min)

TX57 01365

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1206-1.b/1206B036.d
Data file 2: 20111202.B/1206-2.b/1206B036.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 06-DEC-2011 22:53
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.642	0.001	41484890	4.644	0.001	25405297	19.8	20.3	2.3	Tetrachloro-m-xylene
13.026	0.003	43635347	13.402	0.002	16063296	19.9	19.3	3.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.6	50.7
Decachlorobiphenyl	49.9	48.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	146909714	17.7
Hexabromobiphenyl	134444165	174333330	29.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	97499349	9.0
Hexabromobiphenyl	57341096	67318424	17.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

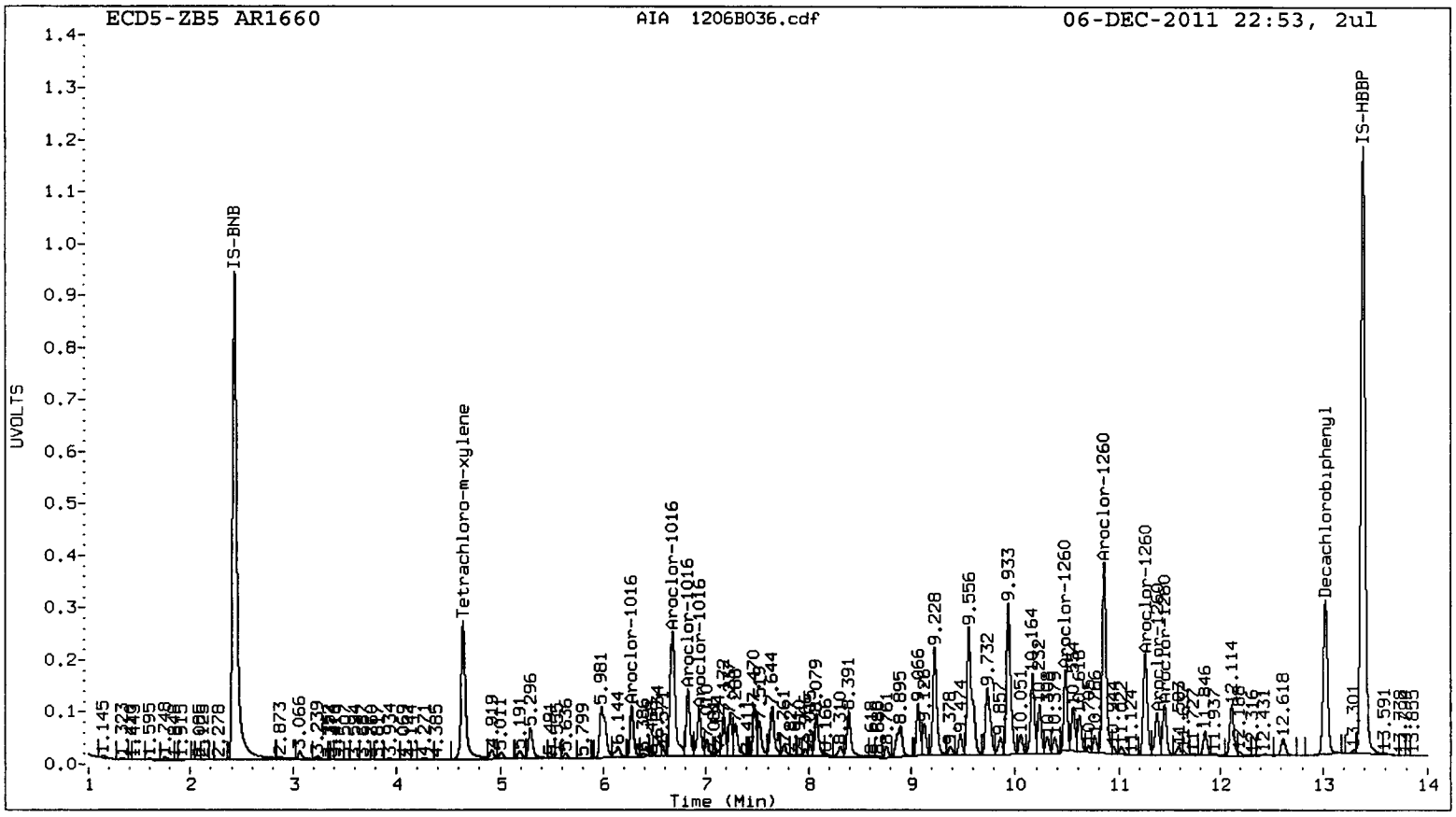
Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	6.274	0.001	12374435	244.5	1	6.381	0.002	11251114	241.1
Aroclor-1016	2	6.674	0.001	41860444	249.8	2	7.007	0.002	23188411	250.2
Aroclor-1016	3	6.823	0.002	16579966	244.2	3	7.216	0.002	7694155	220.6
Aroclor-1016	4	6.933	0.002	12040036	252.3	4	8.500	0.002	4158952	249.8
Total Col1Ave (4 peaks):					247.7	Total Col2Ave (4 peaks):				240.4 RPD = 3
Corrected Ave (3 peaks):					246.2	Corrected Ave (3 peaks):				237.2 RPD = 4
Aroclor-1260	1	10.480	0.002	18368823	213.4	1	10.457	0.002	8973964	236.1
Aroclor-1260	2	10.855	0.002	50097835	228.7	2	10.908	0.002	11227798	239.4
Aroclor-1260	3	11.255	0.003	27752162	235.5	3	11.179	0.001	22833176	244.2
Aroclor-1260	4	11.371	0.002	11396726	238.6	4	11.702	0.003	6437304	242.0
Aroclor-1260	5	11.445	0.003	13768568	240.2	NS	---			----
Total Col1Ave (5 peaks):					231.3	Total Col2Ave (4 peaks):				240.4 RPD = 4
Corrected Ave (4 peaks):					229.0	Corrected Ave (3 peaks):				239.2 RPD = 4

Total PCB Area Col1 (4.740 - 12.923) = 633082221 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.743 - 13.300) = 304127549 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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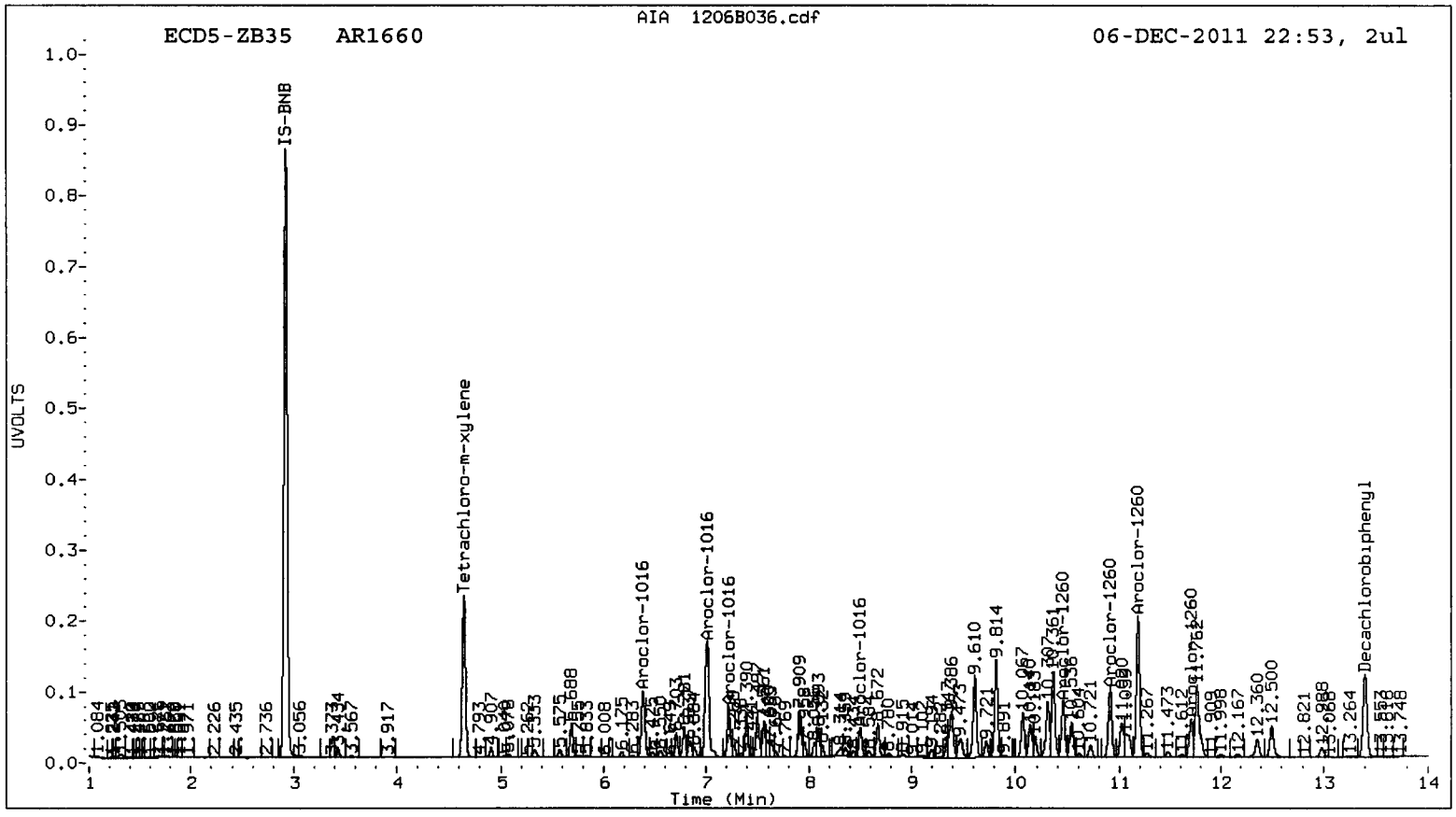
AIA 1206B036.cdf
06-DEC-2011 22:53, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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AIA 1206B036.cdf
06-DEC-2011 22:53, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1208-1.b/1208B002.d
Data file 2: 20111202.B/1208-2.b/1208B002.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 08-DEC-2011 07:54
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.642	0.000	41588176	4.643	-0.002	27522164	19.9	19.9	0.2	Tetrachloro-m-xylene
13.025	0.000	47700924	13.400	0.001	18235911	19.4	18.7	4.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

12/09/11

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.7	49.8
Decachlorobiphenyl	48.6	46.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	146737026	17.6
Hexabromobiphenyl	134444165	195406451	45.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	107532465	20.2
Hexabromobiphenyl	57341096	78988446	37.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

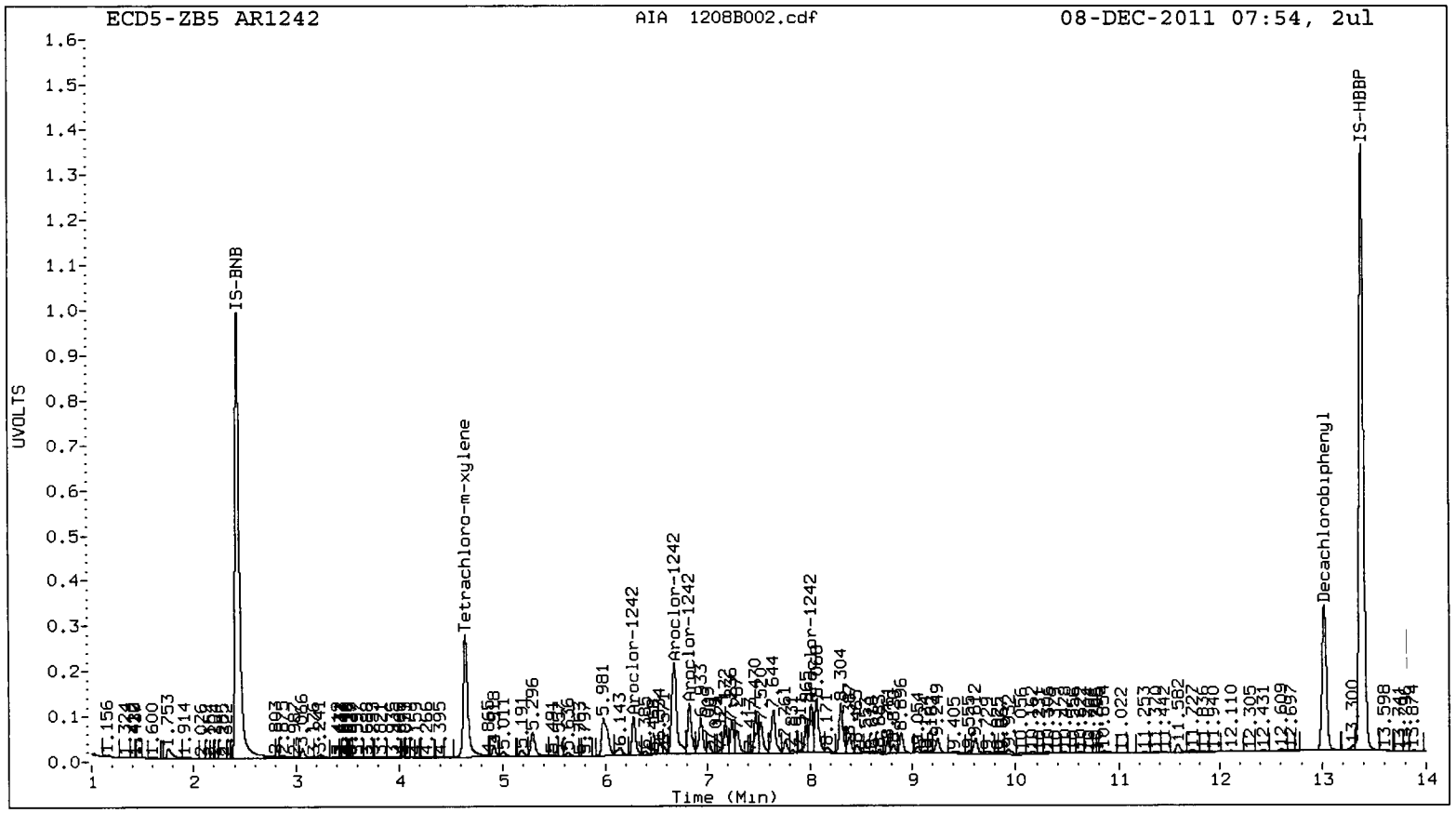
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	6.274	0.000	10489481	274.4	1	6.380	0.000	9692258	251.5
Aroclor-1242	2	6.674	0.000	35279174	279.8	2	7.006	0.000	20150293	263.1
Aroclor-1242	3	6.822	0.000	14141908	278.6	3	7.214	0.000	6669071	219.7
Aroclor-1242	4	8.014	0.000	11914551	278.4	4	8.358	0.000	6201161	258.2
Total Col1Ave (4 peaks):					277.8	Total Col2Ave (4 peaks):				248.2 RPD = 11
Corrected Ave (3 peaks):					277.1	Corrected Ave (3 peaks):				243.2 RPD = 13

Total PCB Area Col1 (4.742 - 12.925) = 278172143 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.745 - 13.300) = 144080466 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TX57 0139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Time (Min)
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Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
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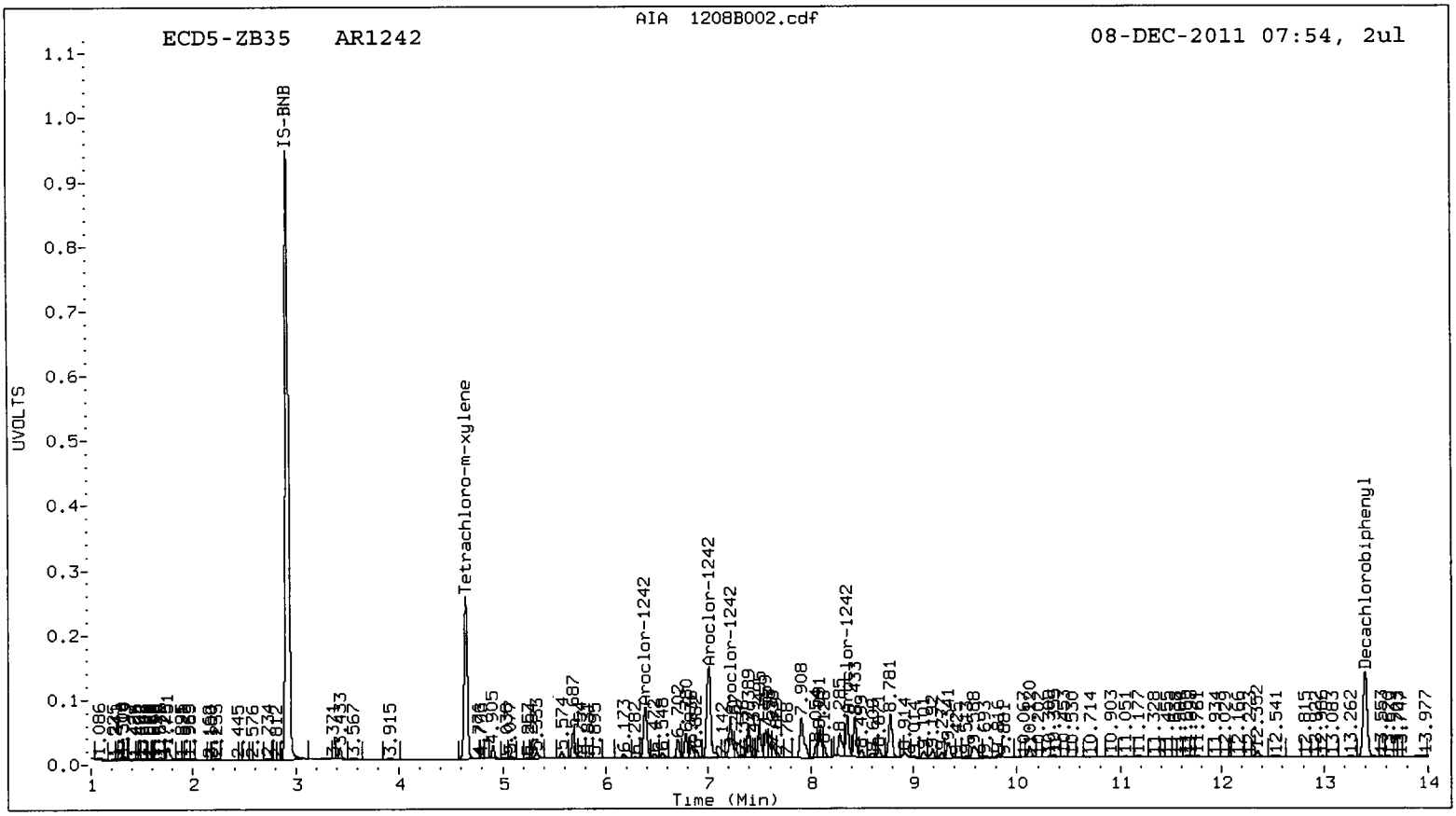
Aroclor-1242
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl

TX57 : 0139

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1208-1.b/1208B003.d
Data file 2: 20111202.B/1208-2.b/1208B003.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 08-DEC-2011 08:13
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.641	0.000	42390484	4.643	-0.002	27511914	20.4	20.2	1.0	Tetrachloro-m-xylene
13.024	0.000	50409366	13.401	0.001	19250922	20.7	19.9	4.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.9	50.4
Decachlorobiphenyl	51.9	49.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	146080074	17.1
Hexabromobiphenyl	134444165	193568609	44.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	106215470	18.7
Hexabromobiphenyl	57341096	78188813	36.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

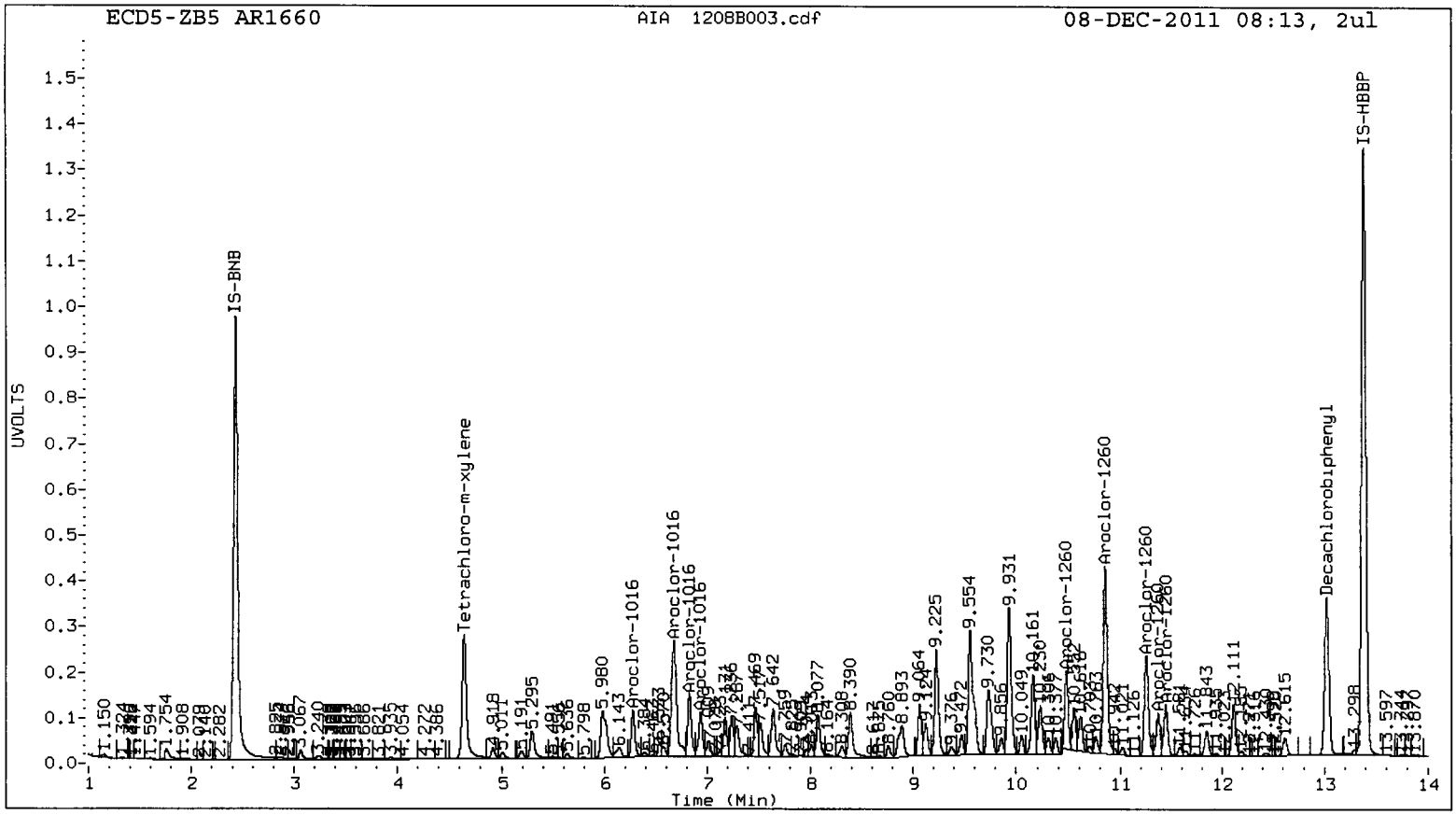
TX57 01396

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.274	0.000	13026165	258.8	1	6.380	0.000	12152820	239.0
Aroclor-1016	2	6.673	0.000	44315799	266.0	2	7.005	-0.001	25390872	251.5
Aroclor-1016	3	6.821	0.000	17549771	260.0	3	7.214	0.000	8351288	219.8
Aroclor-1016	4	6.932	0.000	13033069	274.7	4	8.498	0.000	4615047	254.5
	Total Col1Ave (4 peaks):				264.9	Total Col2Ave (4 peaks):				241.2 RPD = 9
	Corrected Ave (3 peaks):				261.6	Corrected Ave (3 peaks):				236.8 RPD = 10
Aroclor-1260	1	10.478	0.000	20226792	211.7	1	10.454	-0.001	10594551	240.0
Aroclor-1260	2	10.853	0.000	56380849	231.8	2	10.905	0.000	13245119	243.1
Aroclor-1260	3	11.253	0.000	31613283	241.6	3	11.177	0.000	26899215	247.7
Aroclor-1260	4	11.369	0.000	13044421	246.0	4	11.700	0.000	7785605	252.0
Aroclor-1260	5	11.443	0.000	15712872	246.9	NS	---			----
	Total Col1Ave (5 peaks):				235.6	Total Col2Ave (4 peaks):				245.7 RPD = 4
	Corrected Ave (4 peaks):				232.7	Corrected Ave (3 peaks):				243.6 RPD = 5

Total PCB Area Col1 (4.741 - 12.924) = 704320164 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (4.745 - 13.300) = 348960645 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical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Time (Min)
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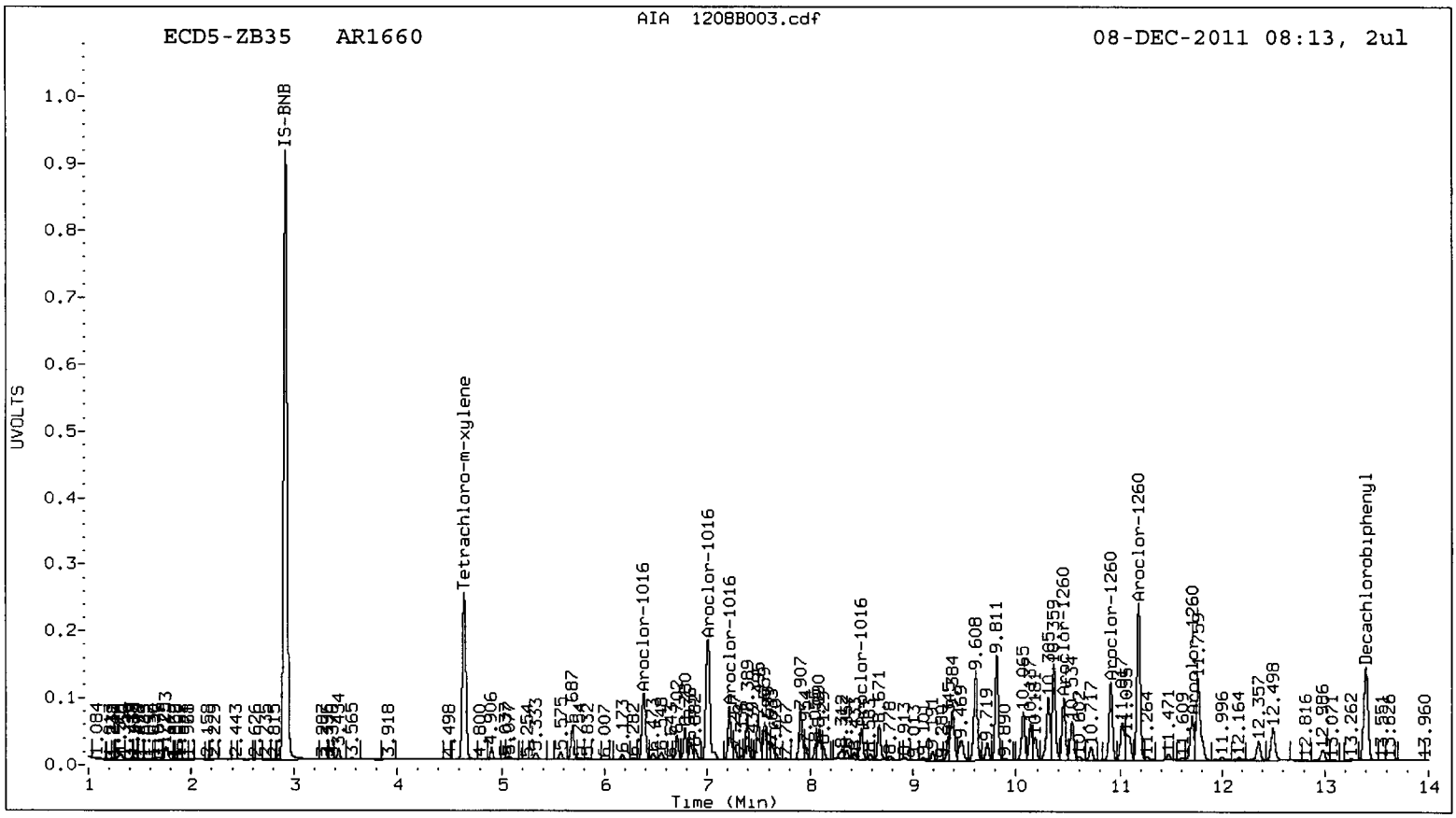
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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AIA 1208B003.cdf
08-DEC-2011 08:13, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

TX57 0139

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1208-1.b/1208B007.d
Data file 2: 20111202.B/1208-2.b/1208B007.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57N
Client ID: SD0011
Injection Date: 08-DEC-2011 09:49
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: ~~50.000~~ 5A

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.649	0.008	1617216	4.633	-0.012	1018408	0.8	0.8	5.1	Tetrachloro-m-xylene
13.030	0.005	17860007	13.399	-0.001	6867380	8.1	7.8	3.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	104.2	99.0
Decachlorobiphenyl	1012.9	979.7

P

12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	136241994	9.2
Hexabromobiphenyl	134444165	175601232	30.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	100129267	11.9
Hexabromobiphenyl	57341096	70856151	23.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	6.280	0.006	431371	9.2	1	6.371	-0.010	389311	8.1	
Aroclor-1016	2	6.673	0.000	2181144	14.0	2	6.994	-0.012	946092	9.9	
Aroclor-1016	3	6.838	0.017	1552008	24.7	3	7.266	0.052	886681	24.8	
Aroclor-1016	4	6.915	-0.017	684282	15.5	4	8.495	-0.004	11827272	691.8	
Total Col1Ave (4 peaks):					15.8	Total Col2Ave (4 peaks):				183.7	RPD = 168*
Corrected Ave (3 peaks):					12.9	Corrected Ave (3 peaks):				14.3	RPD = 10
Aroclor-1221	1	4.979	-0.038	72730	3.9	1	---				0.0
Aroclor-1221	2	5.201	0.005	63529	4.8	2	5.568	-0.011	80467	9.7	
Aroclor-1221	3	5.307	0.007	48139	1.0	3	5.682	-0.009	44591	1.7	
Aroclor-1221	NS	---			----	4	5.836	0.077	13721	3.3	
Total Col1Ave (3 peaks):					3.3	Total Col2Ave (3 peaks):				4.9	RPD = 40*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks					
Aroclor-1232	1	6.280	0.001	431371	22.8	1	6.371	-0.015	389311	18.7	
Aroclor-1232	2	6.673	-0.004	2181144	34.8	2	6.994	-0.016	946092	24.8	
Aroclor-1232	3	6.838	0.012	1552008	60.8	3	7.266	0.047	886681	66.7	
Aroclor-1232	4	8.021	0.001	8661244	384.4	4	8.354	-0.010	4509657	351.8	
Total Col1Ave (4 peaks):					125.7	Total Col2Ave (4 peaks):				115.5	RPD = 8
Corrected Ave (3 peaks):					39.5	Corrected Ave (3 peaks):				36.8	RPD = 7
Aroclor-1242	1	6.280	0.005	431371	12.2	1	6.371	-0.009	389311	10.9	
Aroclor-1242	2	6.673	-0.001	2181144	18.6	2	6.994	-0.012	946092	13.3	
Aroclor-1242	3	6.838	0.016	1552008	32.9	3	7.266	0.052	886681	31.4	
Aroclor-1242	4	8.021	0.006	8661244	218.0	4	8.354	-0.004	4509657	201.7	
Total Col1Ave (4 peaks):					70.4	Total Col2Ave (4 peaks):				64.3	RPD = 9
Corrected Ave (3 peaks):					21.2	Corrected Ave (3 peaks):				18.5	RPD = 14
Aroclor-1248	1	6.673	0.003	2181144	27.5	1	6.994	-0.008	946092	20.0	
Aroclor-1248	2	7.476	0.008	8011325	145.2	2	7.903	-0.004	5136610	145.5	
Aroclor-1248	3	8.021	0.007	8661244	130.9	3	8.354	-0.003	4509657	122.7	
Aroclor-1248	4	8.317	0.013	9102745	142.8	4	8.761	-0.018	9453574	235.6	
Total Col1Ave (4 peaks):					111.6	Total Col2Ave (4 peaks):				130.9	RPD = 16
Corrected Ave (3 peaks):					100.4	Corrected Ave (3 peaks):				96.0	RPD = 4
Aroclor-1254	1	8.396	0.009	40129573	404.7	1	8.495	-0.004	11827272	375.2	
Aroclor-1254	2	8.767	0.008	19507728	306.3	2	8.667	-0.003	16578461	402.9	
Aroclor-1254	3	8.902	0.008	53120782	447.5	3	9.190	-0.003	8953033	276.3	
Aroclor-1254	4	9.251	0.008	55565376	451.5	4	9.341	-0.003	29571060	425.6	
Aroclor-1254	5	9.610	0.005	29626159	355.6	5	10.127	0.001	14439655	336.2	
Total Col1Ave (5 peaks):					393.1	Total Col2Ave (5 peaks):				363.3	RPD = 8
Corrected Ave (4 peaks):					378.5	Corrected Ave (4 peaks):				347.7	RPD = 8
Aroclor-1260	1	10.485	0.007	3153086	36.4	1	10.453	-0.002	1386480	34.7	
Aroclor-1260	2	10.858	0.005	8077767	36.6	2	10.899	-0.007	7231364	146.5	
Aroclor-1260	3	11.258	0.005	7033531	59.2	3	11.175	-0.002	4429520	45.0	
Aroclor-1260	4	11.375	0.007	1220983	25.4	4	11.698	-0.001	839100	30.0	
Aroclor-1260	5	11.448	0.005	1187513	20.6	NS	---			----	
Total Col1Ave (5 peaks):					35.6	Total Col2Ave (4 peaks):				64.0	RPD = 57*
Corrected Ave (4 peaks):					29.7	Corrected Ave (3 peaks):				36.5	RPD = 21
Aroclor-1262	1	10.167	-0.001	3026055	21.6	1	10.453	-0.009	1386480	21.8	
Aroclor-1262	2	10.485	0.000	3153086	28.9	2	10.899	-0.015	7231364	119.4	
Aroclor-1262	3	10.858	-0.001	8077767	30.2	3	11.175	-0.009	4429520	37.6	
Aroclor-1262	4	11.375	0.000	1220983	11.0	4	11.698	-0.009	839100	16.0	
Aroclor-1262	5	11.448	-0.001	1187513	9.9	5	12.497	-0.008	841578	20.0	
Total Col1Ave (5 peaks):					20.3	Total Col2Ave (5 peaks):				43.0	RPD = 72*
Corrected Ave (4 peaks):					17.9	Corrected Ave (4 peaks):				23.9	RPD = 29
Aroclor-1268	1	11.375	-0.002	1220983	4.3	1	11.698	-0.009	839100	6.8	
Aroclor-1268	2	11.448	0.000	1187513	4.2	2	11.755	-0.019	3150188	28.1	

Aroclor-1268	3	11.850	0.015	736787	3.1	3	12.164	-0.008	76622	0.8
Aroclor-1268	4	12.619	-0.007	847552	1.2	4	12.984	-0.010	238968	0.9

Total Col1Ave (4 peaks): 3.2 Total Col2Ave (4 peaks): 9.2 RPD = 97*

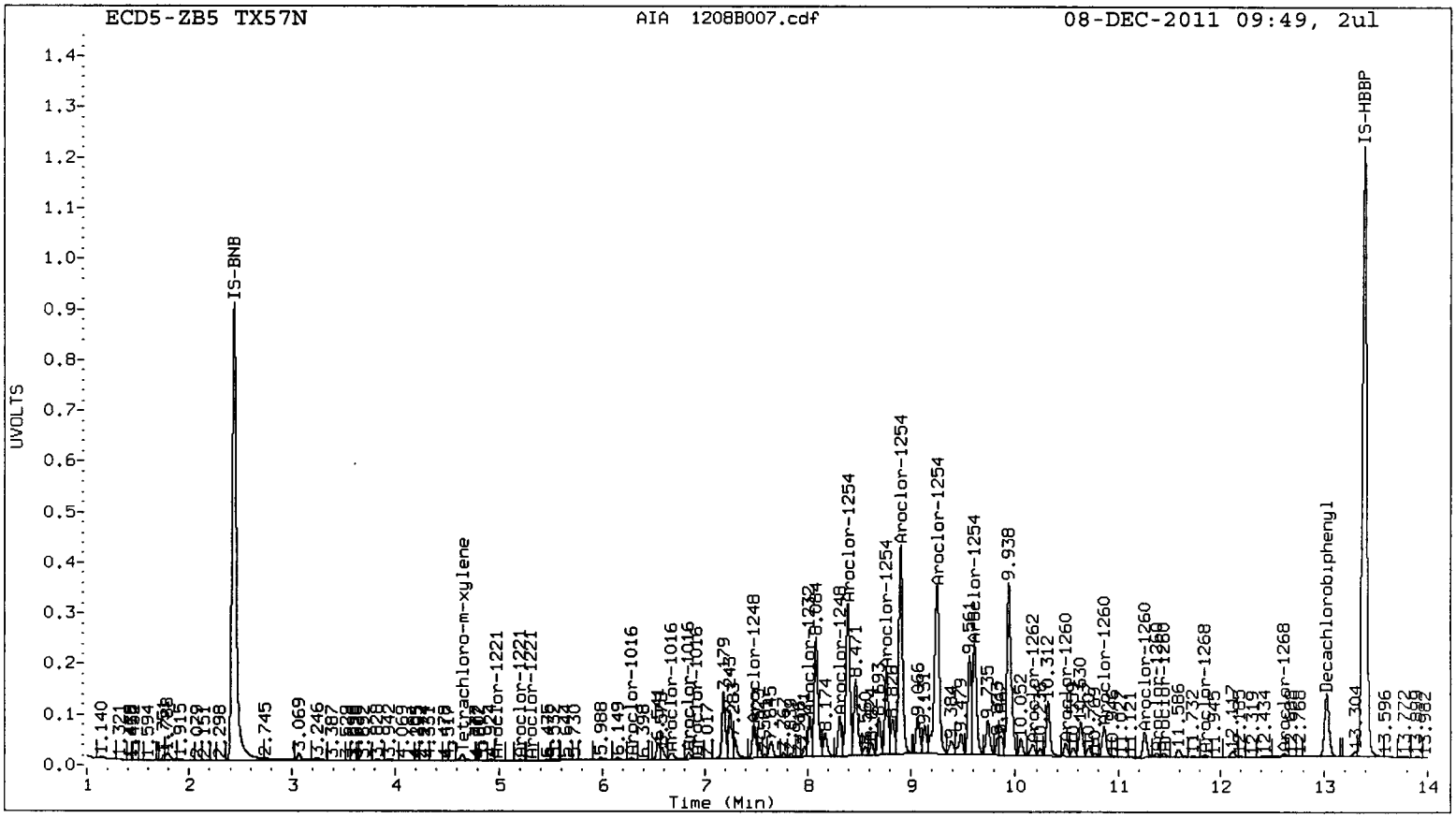
Corrected Ave (3 peaks): 2.8 Corrected Ave (3 peaks): 2.8 RPD = 0

Total PCB Area Col1 (4.741 - 12.924) = 531645930 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.745 - 13.300) = 263456321 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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IS-HBBP
Tetrachloro-m-xylene
Decachlorobiphenyl
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Aroclor-1221
Aroclor-1232
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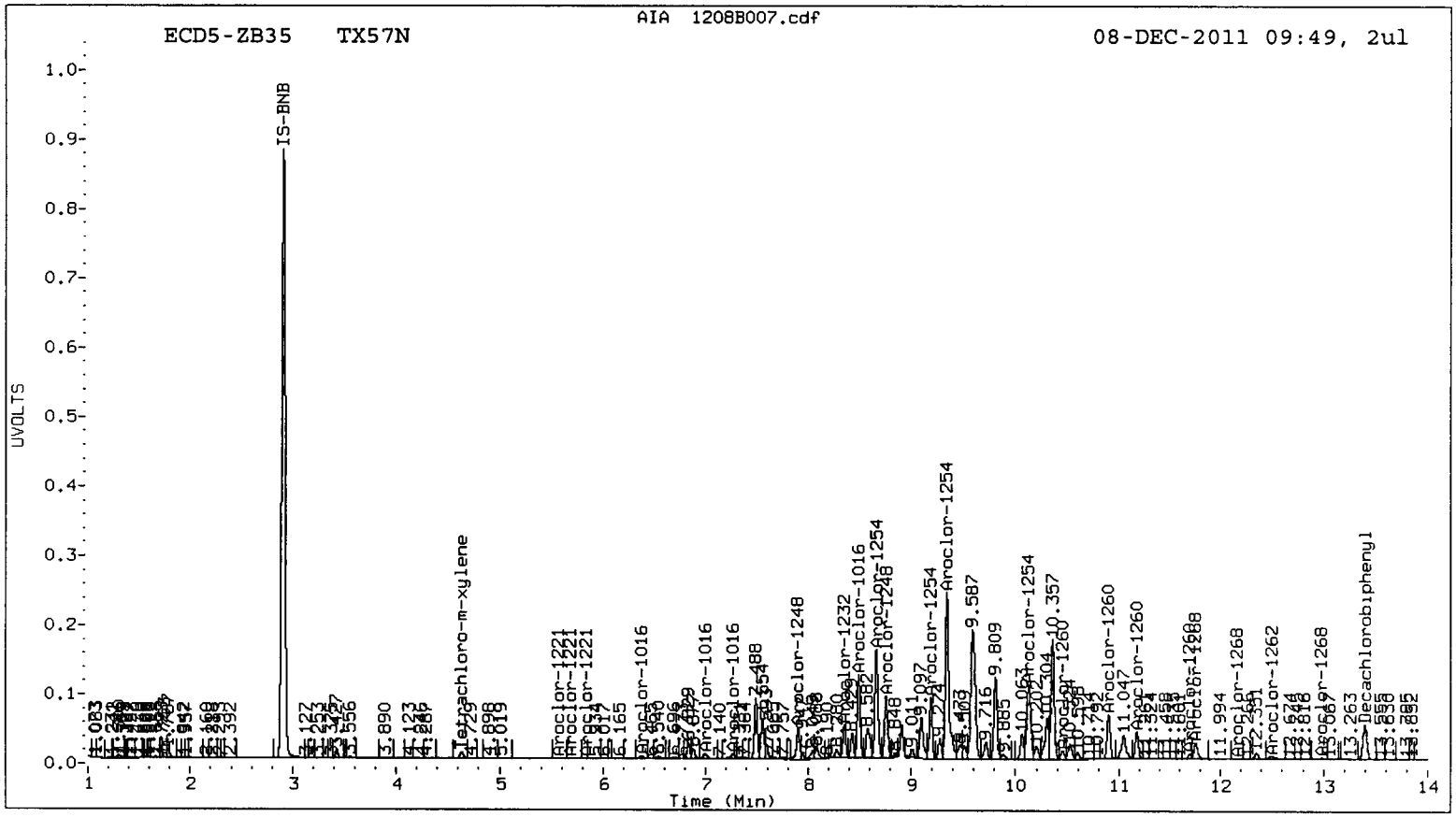
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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
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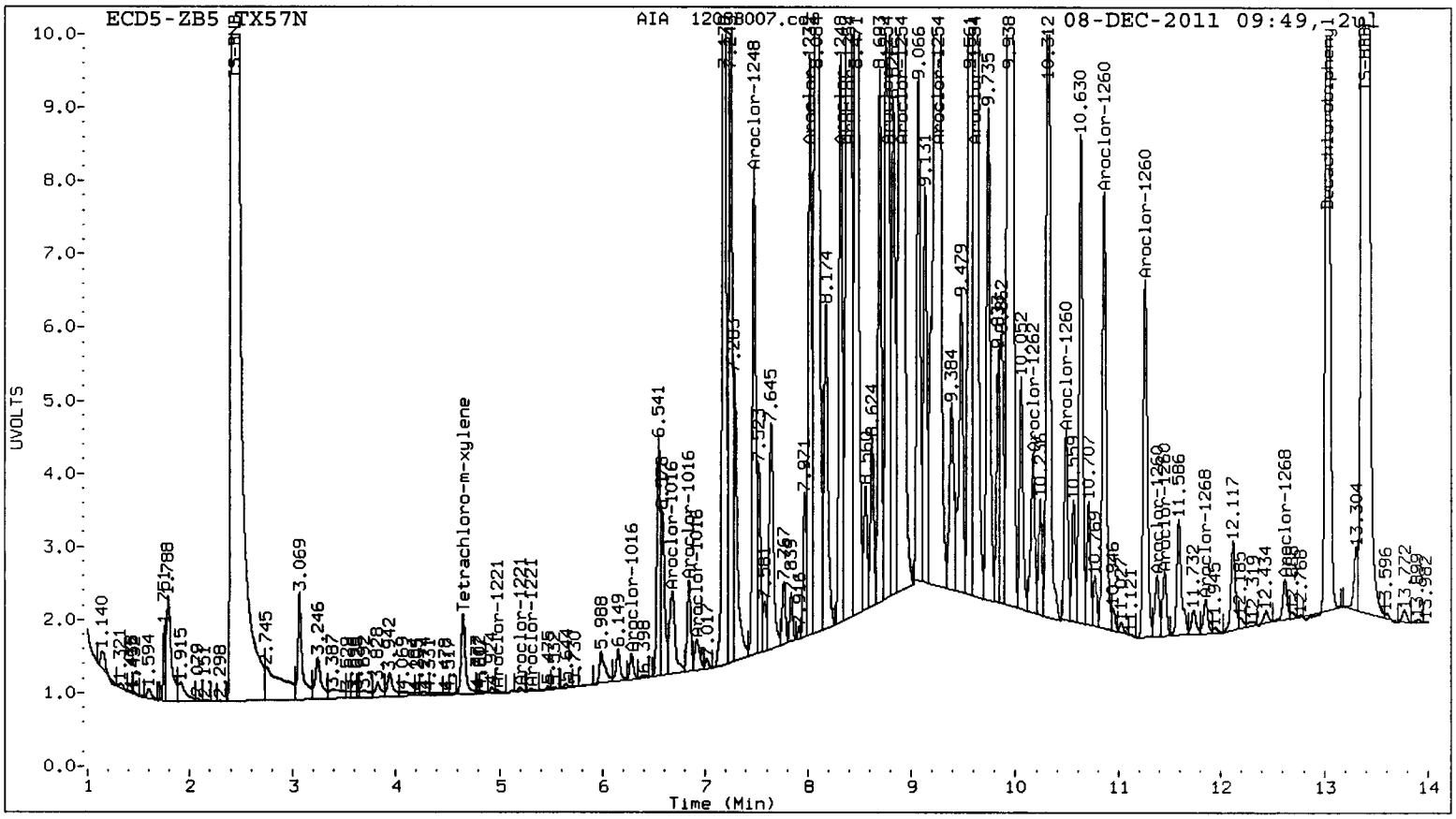
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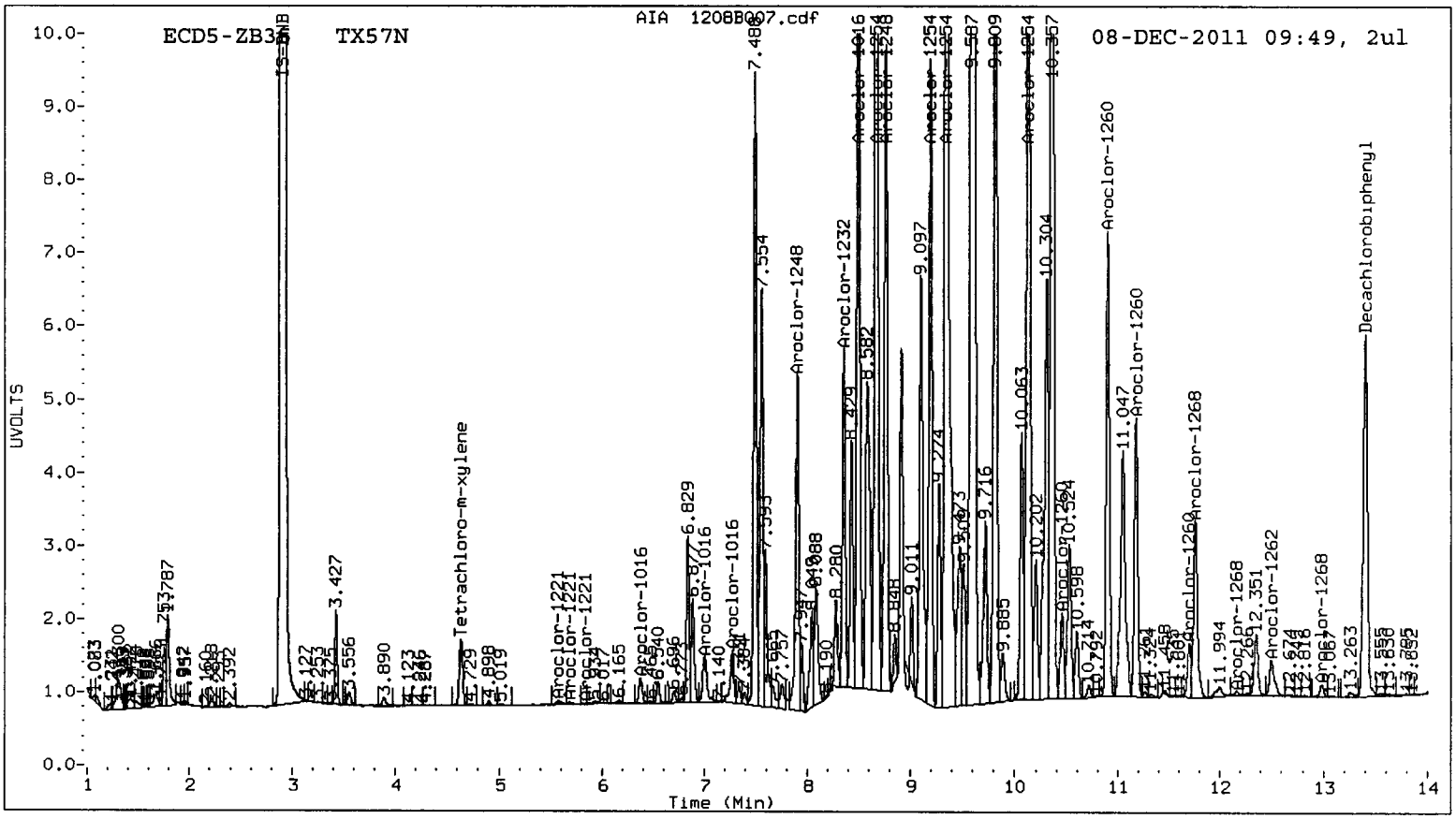
Aroclor-1268
Decachlorobiphenyl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Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

TX57.0408

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1208-1.b/1208B008.d
Data file 2: 20111202.B/1208-2.b/1208B008.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: TX57O
Client ID: SD0010
Injection Date: 08-DEC-2011 10:08
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: ~~50 000~~ 5X

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.640	-0.001	2036798	4.641	-0.004	1034700	1.1	0.8	24.6	Tetrachloro-m-xylene
13.024	0.000	5752650	13.400	0.001	2112320	2.7	2.5	8.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	133.6	104.3
Decachlorobiphenyl	333.2	~~307.6~~ D

12/08/11

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	133816742	7.2
Hexabromobiphenyl	134444165	171953241	27.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	96594482	8.0
Hexabromobiphenyl	57341096	69416336	21.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.271	-0.002	5911341	128.2	1	6.376	-0.004	7967278	172.3
Aroclor-1016	2	6.662	-0.011	22719758	148.9	2	6.998	-0.009	8716723	94.9
Aroclor-1016	3	6.832	0.010	13740289	222.2	3	7.210	-0.004	261546	7.6
Aroclor-1016	4	6.905	-0.027	7156895	164.7	4	8.496	-0.002	17928200	1087.1
	Total Col1Ave (4 peaks):				166.0		Total Col2Ave (4 peaks):			340.5 RPD = 69*
	Corrected Ave (3 peaks):				147.2		Corrected Ave (3 peaks):			91.6 RPD = 47*
Aroclor-1221	1	5.011	-0.006	248013	13.6	1	5.326	-0.006	310363	22.3
Aroclor-1221	2	5.192	-0.004	1781796	138.5	2	5.572	-0.006	1119840	140.6
Aroclor-1221	3	5.294	-0.006	1219493	27.0	3	5.685	-0.006	758535	30.1
Aroclor-1221	NS	---			----	4	5.831	0.071	30631	7.7
	Total Col1Ave (3 peaks):				59.7		Total Col2Ave (4 peaks):			50.2 RPD = 17
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			20.0
Aroclor-1232	1	6.271	-0.007	5911341	318.1	1	6.376	-0.009	7967278	396.1
Aroclor-1232	2	6.662	-0.015	22719758	369.3	2	6.998	-0.012	8716723	237.3
Aroclor-1232	3	6.832	0.005	13740289	548.1	3	7.210	-0.009	261546	20.4
Aroclor-1232	4	8.014	-0.006	7319213	330.7	4	8.356	-0.007	3985737	322.3
	Total Col1Ave (4 peaks):				391.5		Total Col2Ave (4 peaks):			244.0 RPD = 46*
	Corrected Ave (3 peaks):				339.4		Corrected Ave (3 peaks):			193.3 RPD = 55*
Aroclor-1242	1	6.271	-0.003	5911341	169.5	1	6.376	-0.004	7967278	230.2
Aroclor-1242	2	6.662	-0.012	22719758	197.6	2	6.998	-0.008	8716723	126.7
Aroclor-1242	3	6.832	0.010	13740289	296.8	3	7.210	-0.004	261546	9.6
Aroclor-1242	4	8.014	-0.001	7319213	187.5	4	8.356	-0.002	3985737	184.8
	Total Col1Ave (4 peaks):				212.9		Total Col2Ave (4 peaks):			137.8 RPD = 43*
	Corrected Ave (3 peaks):				184.9		Corrected Ave (3 peaks):			107.0 RPD = 53*
Aroclor-1248	1	6.662	-0.008	22719758	291.2	1	6.998	-0.004	8716723	191.1
Aroclor-1248	2	7.468	0.000	25719217	474.6	2	7.905	-0.001	16565814	486.3
Aroclor-1248	3	8.014	0.000	7319213	112.6	3	8.356	0.000	3985737	112.4
Aroclor-1248	4	8.310	0.007	12247209	195.7	4	8.762	-0.016	7975312	206.0
	Total Col1Ave (4 peaks):				268.5		Total Col2Ave (4 peaks):			248.9 RPD = 8
	Corrected Ave (3 peaks):				199.8		Corrected Ave (3 peaks):			169.8 RPD = 16
Aroclor-1254	1	8.387	-0.001	27456596	281.9	1	8.496	-0.003	17928200	589.6
Aroclor-1254	2	8.759	0.000	5591932	89.4	2	8.671	0.000	11101498	279.7
Aroclor-1254	3	8.896	0.002	70297185	602.9	3	9.191	-0.002	2308135	73.8
Aroclor-1254	4	9.232	-0.011	48002277	397.1	4	9.342	-0.001	38210503	570.1
Aroclor-1254	5	9.597	-0.008	19221131	234.9	5	10.135	0.010	9535133	230.2
	Total Col1Ave (5 peaks):				321.2		Total Col2Ave (5 peaks):			348.7 RPD = 8
	Corrected Ave (4 peaks):				250.8		Corrected Ave (4 peaks):			288.4 RPD = 14
Aroclor-1260	1	10.479	0.001	2706298	31.9	1	10.453	-0.001	2406212	61.4
Aroclor-1260	2	10.853	0.001	8799813	40.7	2	10.901	-0.005	4198761	86.8
Aroclor-1260	3	11.253	0.000	6413676	55.2	3	11.176	-0.001	4010869	41.6
Aroclor-1260	4	11.370	0.001	2006981	42.6	4	11.699	0.000	1364873	49.8
Aroclor-1260	5	11.443	0.000	2029802	35.9	NS	---			----
	Total Col1Ave (5 peaks):				41.3		Total Col2Ave (4 peaks):			59.9 RPD = 37
	Corrected Ave (4 peaks):				37.8		Corrected Ave (3 peaks):			50.9 RPD = 30
Aroclor-1262	1	10.162	-0.006	5305068	38.7	1	10.453	-0.008	2406212	38.6
Aroclor-1262	2	10.479	-0.006	2706298	25.4	2	10.901	-0.013	4198761	70.8
Aroclor-1262	3	10.853	-0.006	8799813	33.6	3	11.176	-0.008	4010869	34.8
Aroclor-1262	4	11.370	-0.006	2006981	18.4	4	11.699	-0.008	1364873	26.6
Aroclor-1262	5	11.443	-0.006	2029802	17.3	5	12.498	-0.007	1200433	29.2
	Total Col1Ave (5 peaks):				26.7		Total Col2Ave (5 peaks):			40.0 RPD = 40
	Corrected Ave (4 peaks):				23.7		Corrected Ave (4 peaks):			32.3 RPD = 31
Aroclor-1268	1	11.370	-0.007	2006981	7.1	1	11.699	-0.008	1364873	11.3
Aroclor-1268	2	11.443	-0.005	2029802	7.4	2	11.758	-0.016	3129813	28.5

Aroclor-1268	3	11.844	0.009	1186945	5.1	3	12.165	-0.008	105549	1.2
Aroclor-1268	4	12.616	-0.010	1355421	1.9	4	12.985	-0.009	385627	1.4

Total Col1Ave (4 peaks): 5.4 Total Col2Ave (4 peaks): 10.6 RPD = 65*

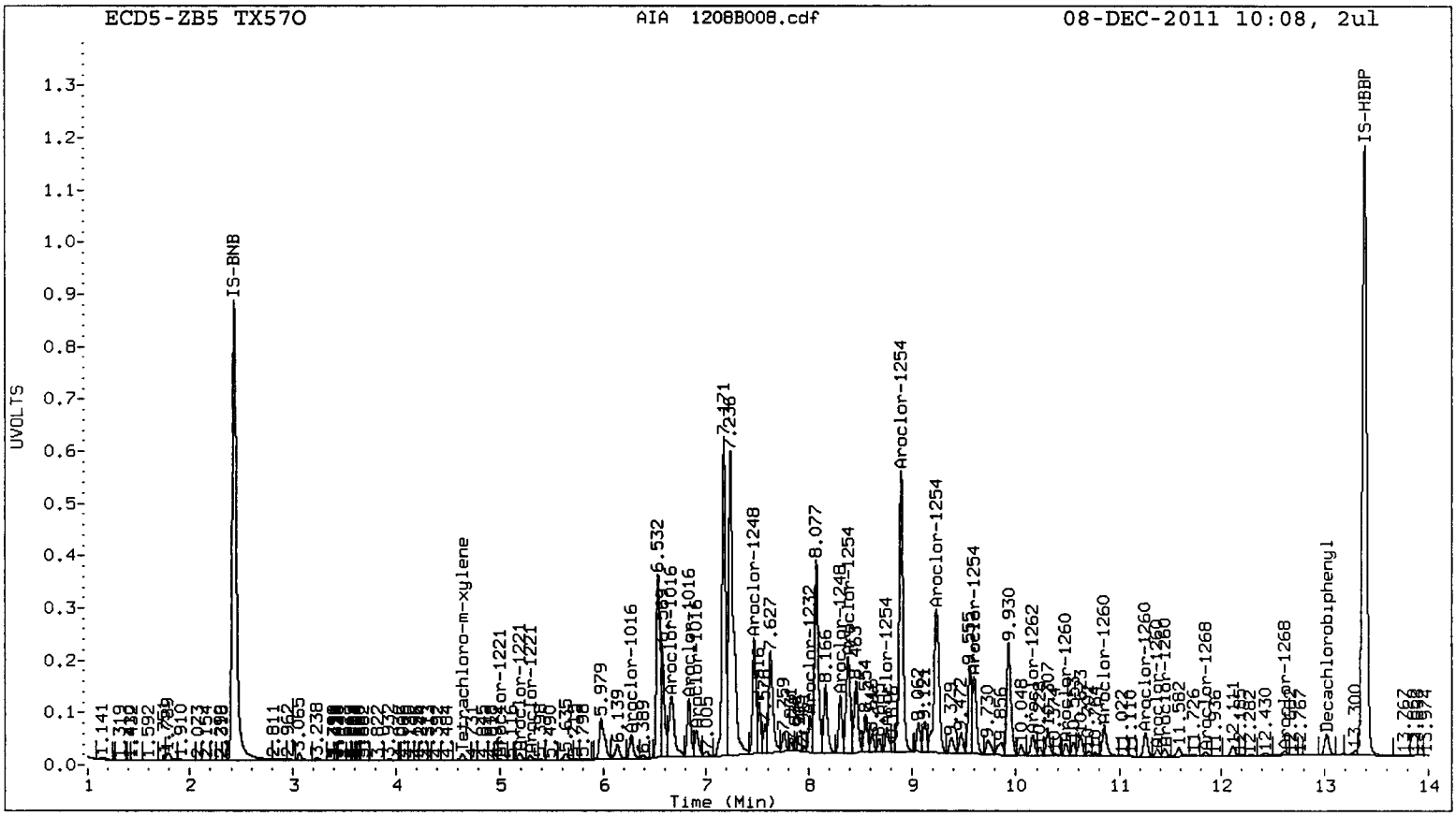
Corrected Ave (3 peaks): 4.7 Corrected Ave (3 peaks): 4.6 RPD = 2

Total PCB Area Col1 (4.741 - 12.924) = 816268511 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (4.745 - 13.300) = 427685320 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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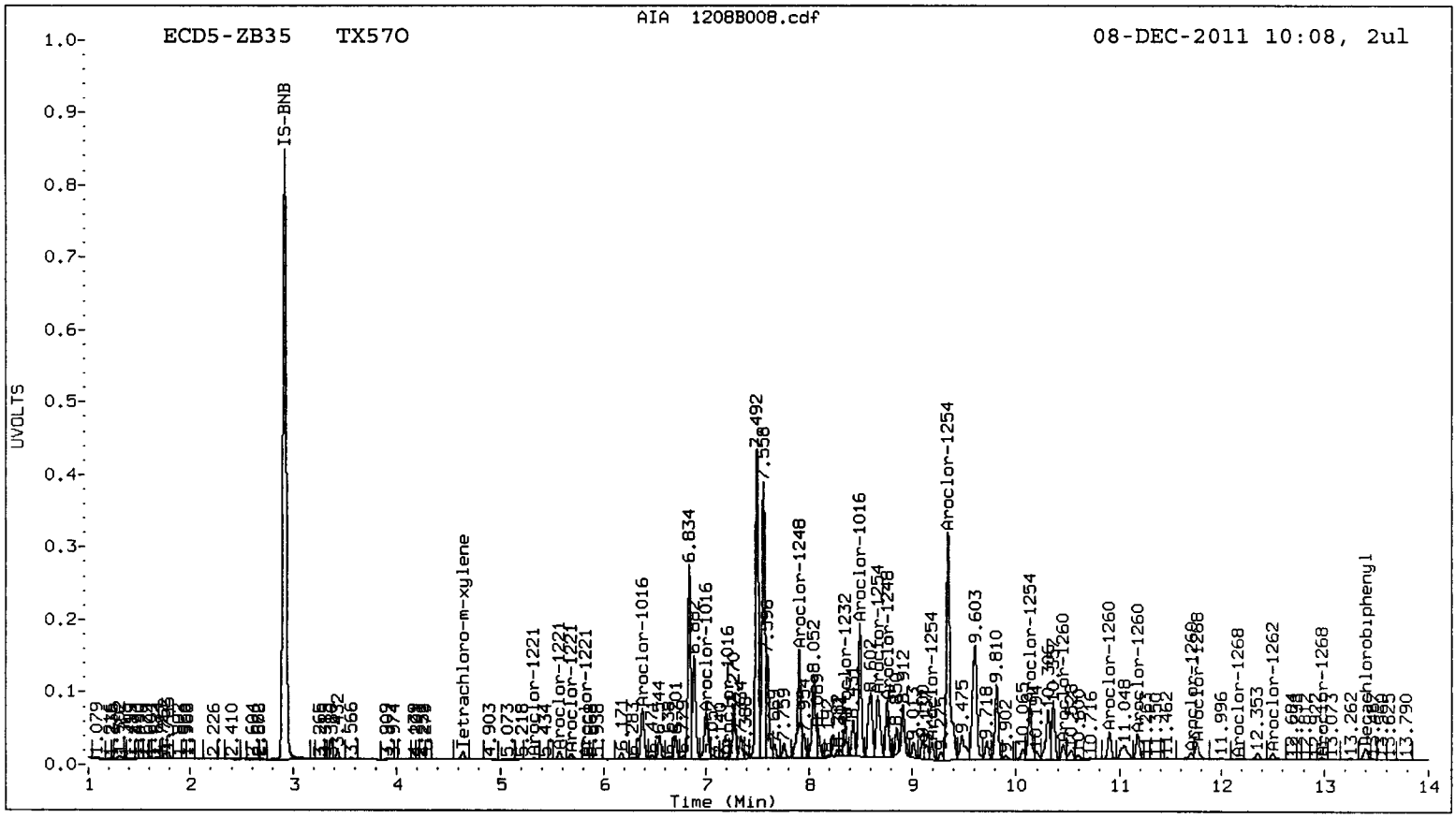
UVOLTS
Time (Min)
IS-BNB
IS-HBBP
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1232
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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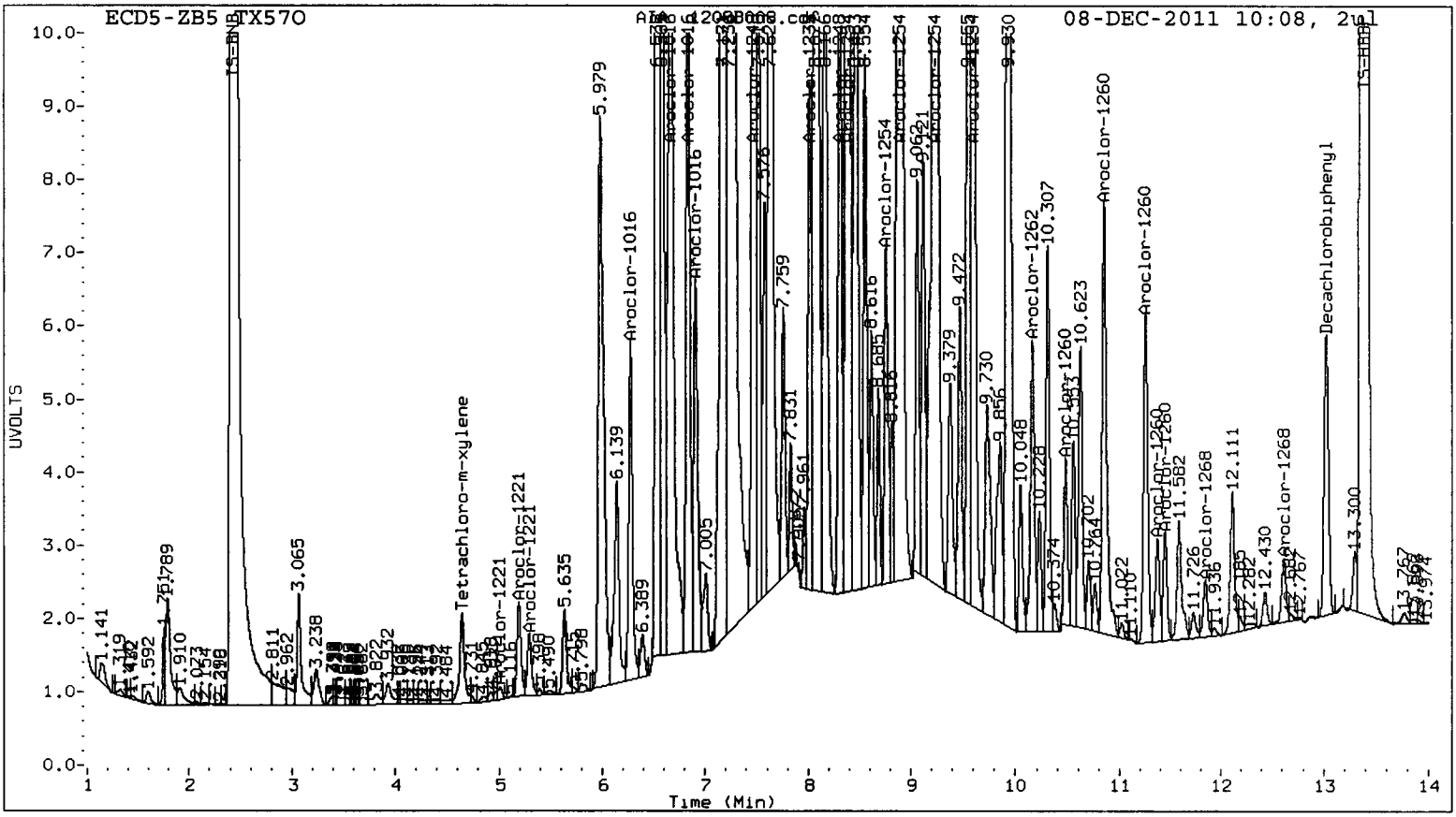
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1232
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl

TX57:01407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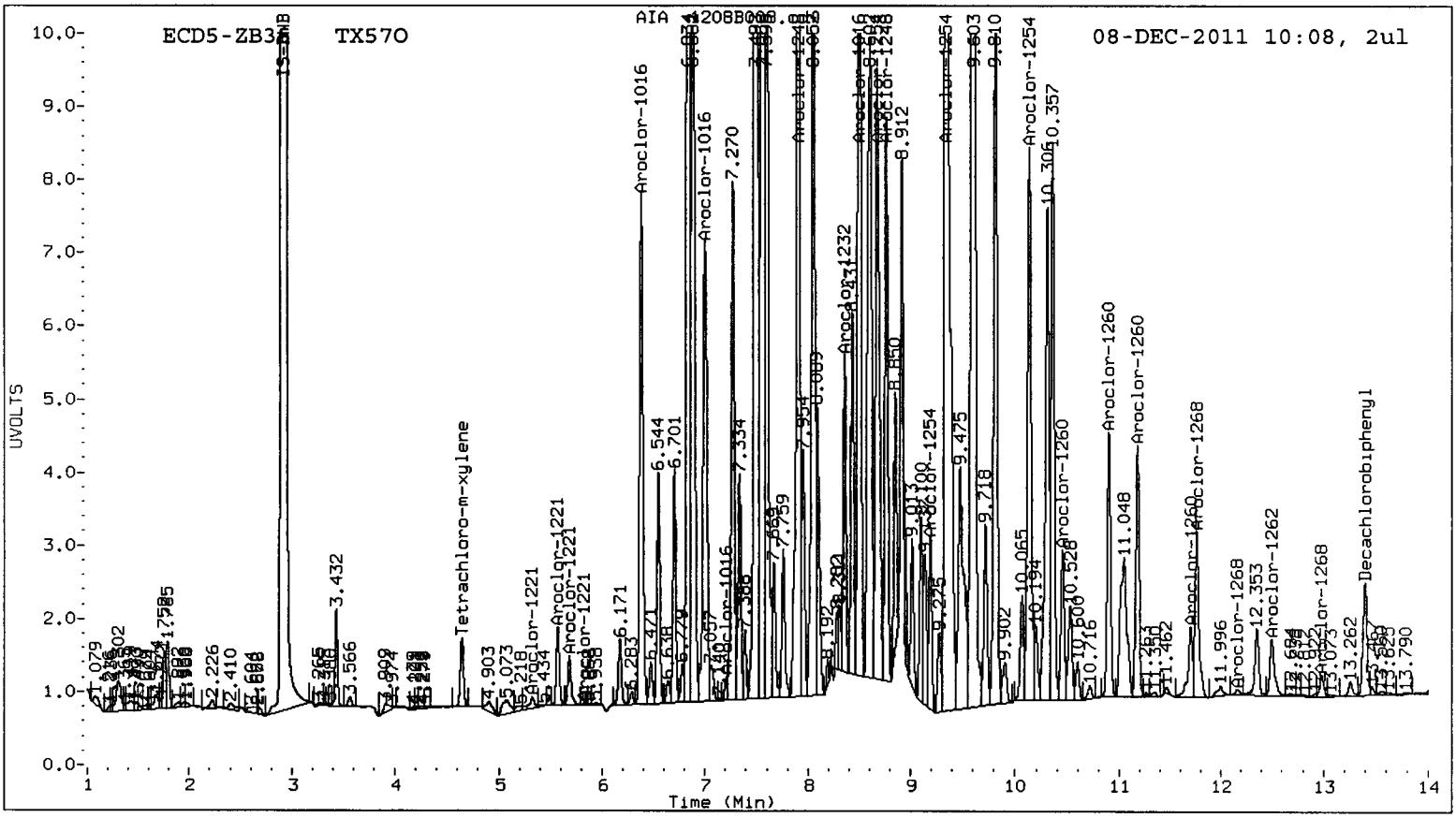
Aroclor-1016
Aroclor-1221
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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Time (Min)
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Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1208-1.b/1208B009.d
Data file 2: 20111202.B/1208-2.b/1208B009.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 08-DEC-2011 10:27
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.640	0.000	45574692	4.642	-0.002	30295963	20.1	20.8	3.6	Tetrachloro-m-xylene
13.023	0.000	51865065	13.400	0.000	19648412	19.8	19.0	4.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.2	52.1
Decachlorobiphenyl	49.5	47.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	159191526	27.6
Hexabromobiphenyl	134444165	208608252	55.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	113212661	26.5
Hexabromobiphenyl	57341096	83732270	46.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

TX57 01405

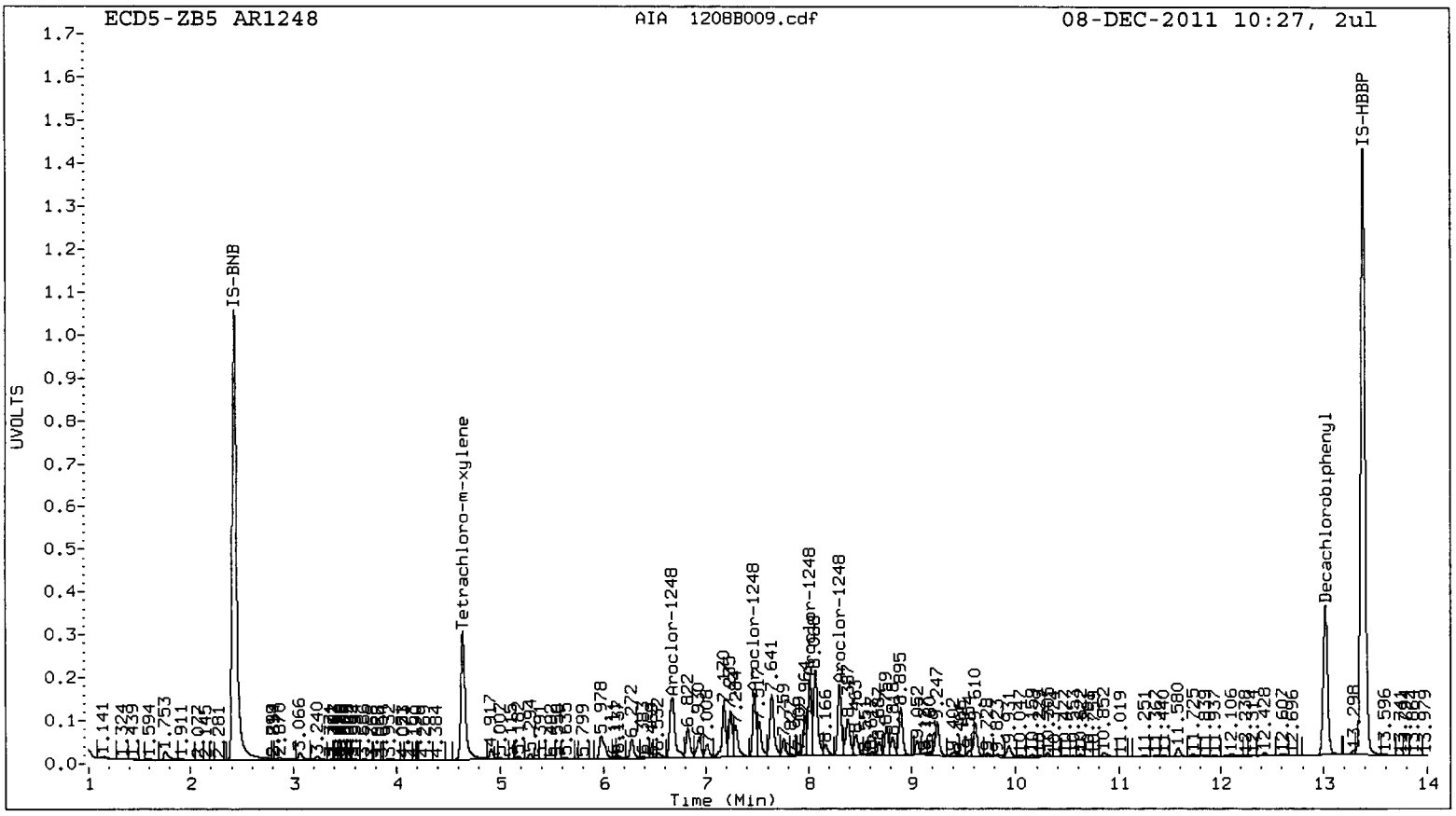
		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	6.669	0.000	25075016	270.2	1	7.002	0.000	13575138	253.9
Aroclor-1248	2	7.468	0.000	17015358	263.9	2	7.907	0.000	10202926	255.6
Aroclor-1248	3	8.013	0.000	20514960	265.3	3	8.357	0.000	10818602	260.3
Aroclor-1248	4	8.303	0.000	20472407	274.9	4	8.779	0.000	12116548	267.0
Total Col1Ave (4 peaks):					268.6	Total Col2Ave (4 peaks):				259.2 RPD = 4
Corrected Ave (3 peaks):					266.5	Corrected Ave (3 peaks):				256.6 RPD = 4

Total PCB Area Col1 (4.740 - 12.923) = 344821815 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.745 - 13.300) = 173289787 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

TXST 01418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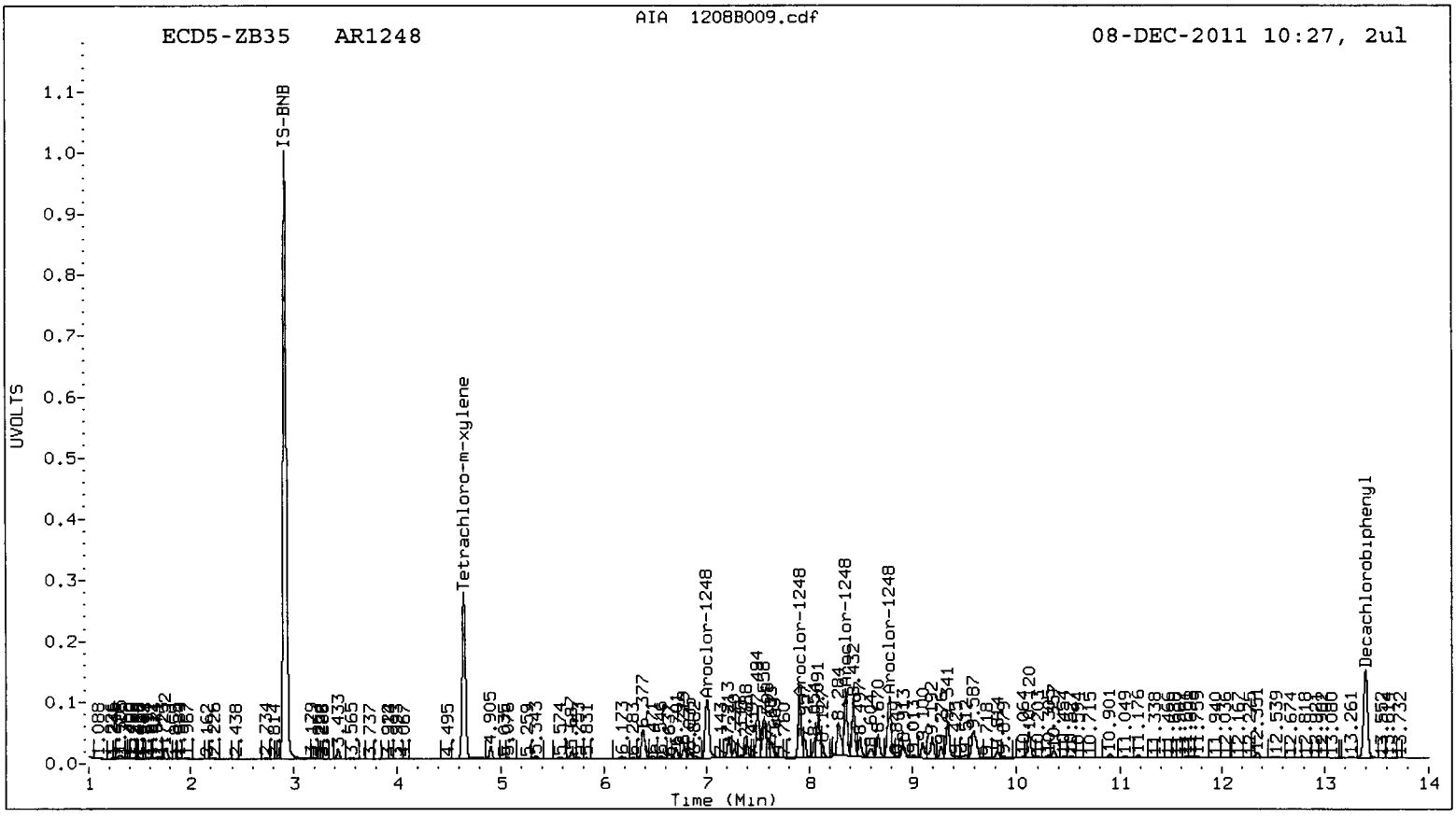
08-DEC-2011 10:27, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)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ECD5-ZB35 AR1248
08-DEC-2011 10:27, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20111202.B/1208-1.b/1208B010.d
Data file 2: 20111202.B/1208-2.b/1208B010.d
Method: /chem2/ecd5.i/20111202.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 08-DEC-2011 10:46
Ical Date: 02-DEC-2011
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.639	0.000	44038687	4.642	-0.003	28373899	20.3	20.4	0.6	Tetrachloro-m-xylene
13.023	0.000	52550968	13.399	0.000	19844052	20.6	19.7	4.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.7	50.9
Decachlorobiphenyl	51.4	49.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	124794321	152577067	22.3
Hexabromobiphenyl	134444165	203559177	51.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	89469381	108442144	21.2
Hexabromobiphenyl	57341096	81468656	42.1

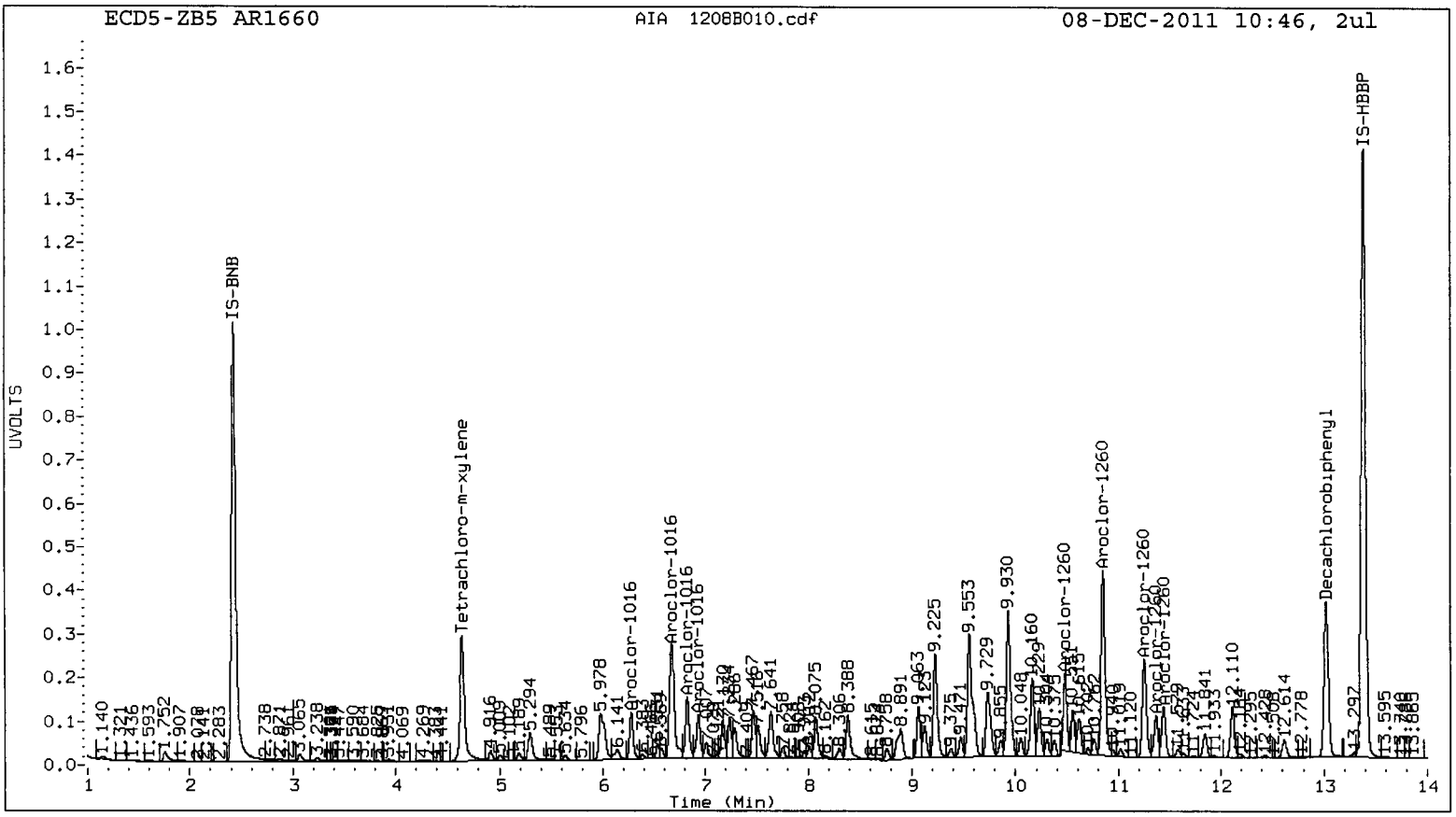
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-DEC-2011
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.272	0.000	13460773	256.0	1	6.379	-0.002	12499577	240.8
Aroclor-1016	2	6.672	0.000	45705713	262.6	2	7.005	-0.001	25951350	251.8
Aroclor-1016	3	6.820	0.000	18188069	258.0	3	7.213	-0.001	8674444	223.6
Aroclor-1016	4	6.930	0.000	13399191	270.4	4	8.497	-0.001	4734153	255.7
	Total Col1Ave (4 peaks):				261.8	Total Col2Ave (4 peaks):				243.0 RPD = 7
	Corrected Ave (3 peaks):				258.9	Corrected Ave (3 peaks):				238.7 RPD = 8
Aroclor-1260	1	10.477	0.000	20202743	201.0	1	10.454	0.000	10863363	236.2
Aroclor-1260	2	10.850	0.000	58083794	227.1	2	10.906	0.000	13573207	239.1
Aroclor-1260	3	11.251	0.000	32634887	237.1	3	11.176	-0.001	27656040	244.5
Aroclor-1260	4	11.367	0.000	13516181	242.3	4	11.699	0.000	8011863	248.9
Aroclor-1260	5	11.441	0.000	16331811	244.0	NS	---			----
	Total Col1Ave (5 peaks):				230.3	Total Col2Ave (4 peaks):				242.2 RPD = 5
	Corrected Ave (4 peaks):				226.9	Corrected Ave (3 peaks):				239.9 RPD = 6

Total PCB Area Col1 (4.739 - 12.923) = 721471166 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (4.745 - 13.300) = 357831398 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical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Time (Min)
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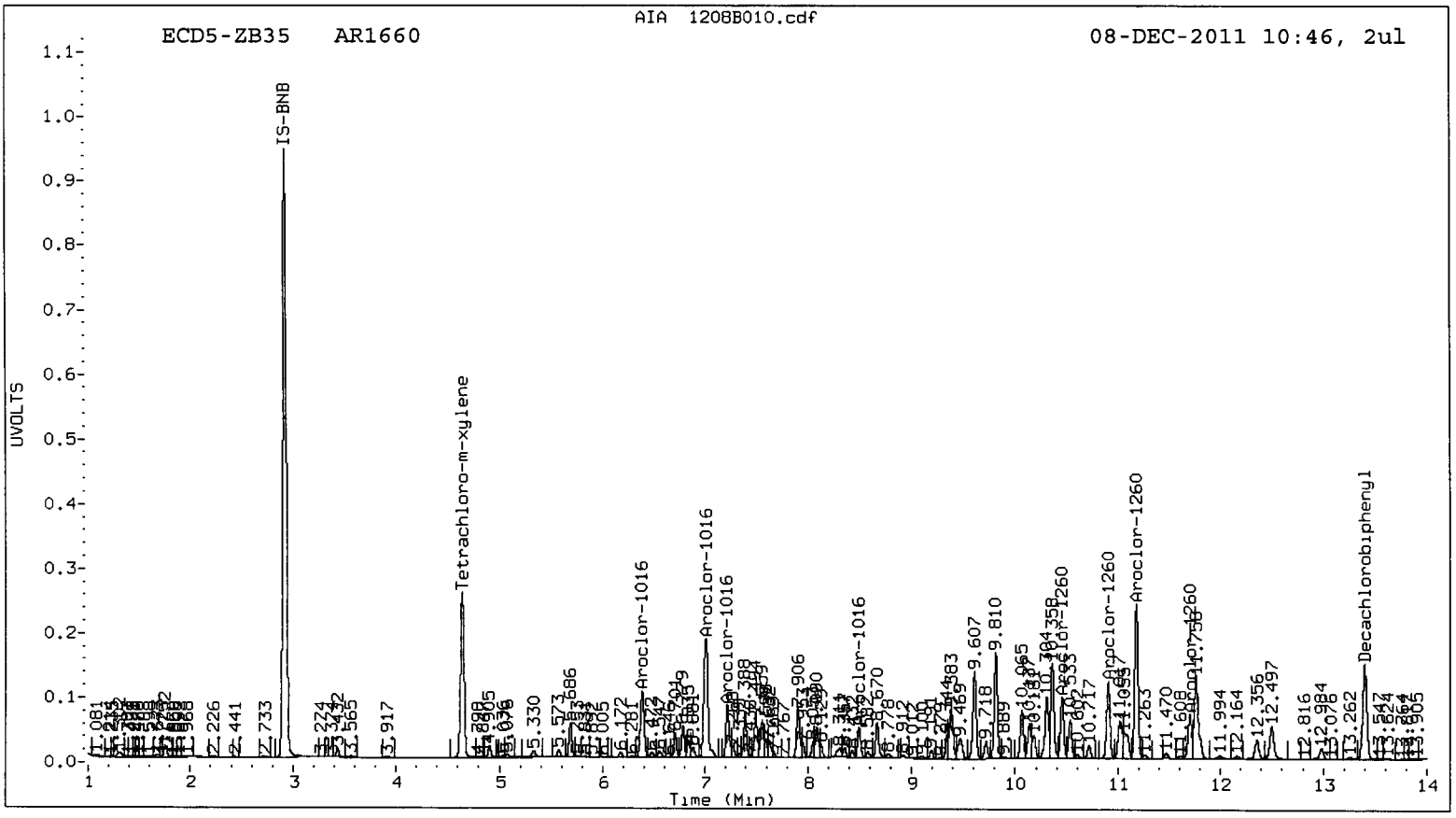
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: TX57

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: KM **Final Volume** 50 **Sample ID** TX57 DSPK, MBISPK

Date: 11/28/11 **Final Volume (Hg):** 50

		Prepcode:	SWC		
		Spike Solution:	ICP Routine	ICP No GFA	GFA
		Standard No.:	2881-7		
		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	SMM	CVA	1.0	0.05	2796-7
Hg MBSPK	SMM	CVA	1.0	0.1	↓
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.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: MJ

Date: 11.23.11

Final Volume 50

Final Volume (Hg): 20

Sample ID TX57 PSPK, MB2SPK

		Prepcode:	TWC		
		Spike Solution:	ICP Routine	ICP No GFA	GFA
		Standard No.:	2881-7		
		Vol Added (mL):	0.5		
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	

	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	TWM	CVA	1.0	0.02	27967
Hg MBSPK	TWM	CVA	1.0	0.04	↓
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.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: MJ Date: 11.23.11

Matrix: water Block ID: #8 Block Temp: 95°C Thermometer: MP7

ARI Sample ID	Btl #	pH<2	Prep Code: TWC Initial ~~Wt (g)~~ Vol (mL)	Prep Code: TWC Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
TX83 A	7	✓	50.0	50.0			
" ADUP	7	✓					
" ASPK	7	✓					
" MB	—	✓					
" MBSPK	—	✓					
TX57P	2	✓					
" PDUP	2	✓					
" PSPK	2	✓					
" Q	2	✓					
" MB2	—	✓					
" MB2SPK	—	✓					
TX84 A	6	—					Preserved in lab
" ADUP	6	—					
" ASPK	6	—					
" MB	—	—					
" MBSPK	—	—					
TX96 A	3	✓					
" ADUP	3	✓					
" ASPK	3	✓					
" B	3	✓					
" C	3	✓					
" MB	—	✓					
" MBSPK	—	✓	50.0	50.0			
				11.23.11 MJ			

Chemical/Reagent ID:

HNO_3: I7125 HCl: MP2212 H_2O_2: — Tube Lot #: 1107181

TX57.01416

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TWM Matrix: Water
Analyst: MJ Date: 11.23.11
Bath Temp: 95°C Start Time: 0855 End Time: 1055

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
TX57P	2	✓	20.0	20.0	11.27 1	Y	
" PDUP	2	✓			1		
" PSPK	2	✓			1		
" Q	2	✓			1		
" MB2	—	✓			1	↓	
" MB2SPK	—	✓			1	Y	
TX83A	7	✓			11.29 1	N	
" ADUP	7	✓			1		
" ASPK	7	✓			1		
" MB	—	✓			1		
" MBSPK	—	✓			1		
TY56B	1	✓			11.27 1		
" BDUP	1	✓			1		
" BSPK	1	✓			1		
" MB2	—	✓			1		
" MB2SPK	—	✓	20.0	20.0	1	N	

11.23.11 KC

Chemical/Reagent ID:
HNO_3: I7125 H_2SO_4: I7184 HCl: —
5% $K_2S_2O_8$: MP2205 5% $KMnO_4$: MP2206 Digest Tube Lot: 110718I

TX57.01119

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: KM Date: 11/28/11

Matrix: Soil Block ID: #2 Block Temp: 91°C Thermometer: 35

ARI Sample ID	Btl #	pH<2	Prep Code: SWC Initial Wt (g) Vol (mL)	Prep Code: SWC Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
TX57 A	2	—	1.046	50.0			
" B	2	—	1.044				
" C	2	—	1.053				
" D	2	—	1.046				
" DDUP	2	—	1.044				
" DSPK	2	—	1.048				
" E	2	—	1.035				
" F	2	—	1.084				
" G	2	—	1.079				
" H	2	—	1.083				
" I	2	—	1.071				
" J	2	—	1.016				
" K	2	—	1.061				
" L	2	—	1.029				
" M	2	—	1.033				
" N	2	—	1.095				
" O	2	—	1.056				
" MB1	—	—	—	↓			
" MB1SPK	—	—	—	50.0			
				KM			
						11/28/11	

Chemical/Reagent ID:

HNO_3: MP2214 HCl: I7219 H_2O_2: I067 Tube Lot #: 1107181

TX57 : 01426

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM
Analyst: KM
Bath Temp: 95°C
Start Time: 1400
Matrix: Soil
Date: 11/28/11
End Time: 1430

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
TX57 A	2	—	0.269	50 0	11/29 1	Y	
" B	2	—	0.271		1		
" C	2	—	0.260		1		
" D	2	—	0.238		1		
" DDUP	2	—	0.239		1		
" DSPK	2	—	0.234		1		
" E	2	—	0.221		1		
" F	2	—	0.238		1		
" G	2	—	0.258		1		
" H	2	—	0.276		1		
" I	2	—	0.232		1		
" J	2	—	0.241		1		
" K	2	—	0.229		1		
" L	2	—	0.215		1		
" M	2	—	0.234		1		
" N	2	—	0.273		1		
" O	2	—	0.264		1		
" MB1	—	—	—		1		
" MB1SPK	—	—	—	50 0	1		
				KM 11/28/11			

Chemical/Reagent ID:

HNO_3: I7125
H_2SO_4: I7184
HCl: —
5% $K_2S_2O_8$: MP2205
5% $KMnO_4$: MP2206
Digest Tube Lot: 1107181

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: TX57

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 10·12·11 Analysis Date: 11·28·11 Analyst: BW

LR Date: 8·3·11 Page: 1 of 2

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		Std 0			2895-2
		2			-11
		3			-12
		4			-13
		5			-14
		ICV			2892-11
		ICB			
		CR1			
		ICSA			V -.0062
		ICSAB			
		CCV1			
		CCB1			
		DI check			
		TX57 MB2	TWC		
		TX83 MB	↓		
		QC21		✓	
		QC7M		✓	
		TX57 Q	TWC	✓	
		Pdup			
		P			
		Psplk		✓	
		MB2spk	↓	✓	
		CCV2			
		CCB2			

TX57 01425

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 11.28.11

ICB 2	Analyst 11.28	Peer 11.28.11	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	✓	✓	
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
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	—	✓	

==========

Analysis Begun

Start Time: 11/28/2011 10:18:11 AM **Plasma On Time:** 11/28/2011 9:18:23 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\CRISETb.sif
Batch ID:
Results Data Set: I2111128
Results Library: C:\pe\metals\Results\Results.mdb

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Method Loaded
Method Name: 7300bcESI2FAST **Method Last Saved:** 10/12/2011 7:38:46 AM
IEC File: 1011min.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	Yes
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:** 11/28/2011 10:18:12 AM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2888221.5	24622.35	0.85%	100.0	%
ScR 361.383	370316.8	4134.56	1.12%	100.0	%
Ag 328.068†	-836.5	57.10	6.83%	[0.00]	mg/L
Al 308.215†	-70.6	4.01	5.68%	[0.00]	mg/L
As 188.979†	-23.0	1.62	7.03%	[0.00]	mg/L
B 249.677†	-52.6	3.45	6.56%	[0.00]	mg/L

TXST 01425

Ba 233.527†	-4.1	2.91	71.85%	[0.00] mg/L
Be 313.042†	994.2	6.89	0.69%	[0.00] mg/L
Ca 317.933†	49.9	12.56	25.18%	[0.00] mg/L
Cd 228.802†	324.2	1.54	0.48%	[0.00] mg/L
Co 228.616†	-114.1	10.19	8.94%	[0.00] mg/L
Cr 267.716†	-3.1	5.52	180.97%	[0.00] mg/L
Cu 324.752†	2295.6	65.50	2.85%	[0.00] mg/L
Fe 273.955†	-25.9	0.94	3.64%	[0.00] mg/L
K 766.490†	-758.2	14.10	1.86%	[0.00] mg/L
Mg 279.077†	32.7	3.05	9.32%	[0.00] mg/L
Mn 257.610†	74.2	2.18	2.94%	[0.00] mg/L
Mo 202.031†	140.5	0.96	0.68%	[0.00] mg/L
Na 589.592†	784.5	14.36	1.83%	[0.00] mg/L
Na 330.237†	-72.5	6.99	9.65%	[0.00] mg/L
Ni 231.604†	-29.0	2.33	8.01%	[0.00] mg/L
Pb 220.353†	-115.9	9.36	8.08%	[0.00] mg/L
Sb 206.836†	378.8	4.22	1.11%	[0.00] mg/L
Se 196.026†	-171.6	5.31	3.10%	[0.00] mg/L
Si 288.158†	-29.0	5.35	18.44%	[0.00] mg/L
Sn 189.927†	-40.1	0.57	1.41%	[0.00] mg/L
Sr 421.552†	-602.4	14.67	2.43%	[0.00] mg/L
Ti 334.903†	56.1	17.99	32.06%	[0.00] mg/L
Tl 190.801†	-33.1	4.03	12.18%	[0.00] mg/L
V 292.402†	242.5	39.14	16.14%	[0.00] mg/L
Zn 206.200†	-24.8	0.72	2.91%	[0.00] mg/L

TX57.01428

Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 11/28/2011 10:22:25 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2942355.7	13896.52	0.47%	101.9	%
ScR 361.383	378215.0	1116.96	0.30%	102.1	%
Ba 233.527†	47620.9	401.17	0.84%	[10]	mg/L
Cd 228.802†	384309.3	2313.03	0.60%	[10]	mg/L
Co 228.616†	474818.0	2436.72	0.51%	[10]	mg/L
Cr 267.716†	54932.6	474.18	0.86%	[10]	mg/L
Cu 324.752†	2653785.9	6542.74	0.25%	[10]	mg/L
Mn 257.610†	312146.4	2922.09	0.94%	[10]	mg/L
V 292.402†	2071117.4	10740.58	0.52%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 11/28/2011 10:24:09 AM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	214.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2933223.6	29754.59	1.01%	101.6	%
ScR 361.383	372181.5	4179.51	1.12%	100.5	%
Ag 328.068†	263867.6	3929.59	1.49%	[1.0]	mg/L
As 188.979†	26147.2	245.76	0.94%	[10]	mg/L
B 249.677†	39152.9	456.30	1.17%	[10]	mg/L
Be 313.042†	2409860.3	10138.95	0.42%	[5.0]	mg/L
Na 589.592†	764345.0	3274.91	0.43%	[50]	mg/L
Ni 231.604†	27091.3	410.50	1.52%	[10]	mg/L
Pb 220.353†	121038.9	1319.81	1.09%	[10]	mg/L
Se 196.026†	17444.0	185.91	1.07%	[10]	mg/L
Sr 421.552†	4260452.4	25896.37	0.61%	[5]	mg/L
Tl 190.801†	26556.5	275.60	1.04%	[10]	mg/L
Zn 206.200†	29097.6	312.39	1.07%	[10]	mg/L

Sequence No.: 4
Sample ID: STD4

Autosampler Location: 4
Date Collected: 11/28/2011 10:26:40 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	2967530.5	25005.97	0.84%	102.7	%
ScR 361.383	383946.9	1814.56	0.47%	103.7	%
Mo 202.031†	239813.9	2126.93	0.89%	[10]	mg/L
Sb 206.836†	46408.0	400.79	0.86%	[10]	mg/L
Si 288.158†	12188.6	13.59	0.11%	[10]	mg/L
Sn 189.927†	60625.9	424.12	0.70%	[10]	mg/L
Ti 334.903†	209985.2	1043.99	0.50%	[10]	mg/L

TXSY : 61429

Sequence No.: 5
Sample ID: STD5

Autosampler Location: 5
Date Collected: 11/28/2011 10:28:52 AM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2765470.2	21489.51	0.78%	95.75	%
ScR 361.383	373706.2	2139.18	0.57%	100.9	%
Al 308.215†	30777.0	344.70	1.12%	[30]	mg/L
Ca 317.933†	272957.8	652.08	0.24%	[30]	mg/L
Fe 273.955†	81203.1	87.09	0.11%	[100]	mg/L
K 766.490†	222762.1	1041.91	0.47%	[100]	mg/L
Mg 279.077†	25005.3	281.11	1.12%	[30]	mg/L
Na 330.237†	2142.8	22.47	1.05%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	263900	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1026	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	2615	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	3915	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	4762	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	482000	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	9099	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	38430	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	47480	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	5493	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	265400	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	812.0	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	2228	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	833.5	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	31210	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	23980	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	15290	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	21.43	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	2709	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	12100	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	4641	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1744	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	1219	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	6063	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	852100	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	21000	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2656	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	207100	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	2910	0.00000	1.000000	

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Analysis Begun

Start Time: 11/28/2011 10:35:42 AM
Logged In Analyst: metals
Spectrometer Model: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/28/2011 9:18:23 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\1128.sif
Batch ID:
Results Data Set: I2111128
Results Library: C:\pe\metals\Results\Results.mdb

==========

Sequence No.: 1
Sample ID: CV

Autosampler Location: 7
Date Collected: 11/28/2011 10:35:43 AM
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	Std.Dev.	RSD
ScA 357.253	2854565.1	98.83	%	0.486				0.49%
ScR 361.383	362890.3	97.99	%	0.323				0.33%
Ag 328.068†	276481.4	1.048	mg/L	0.0041	1.048	mg/L	0.0041	0.40%
Al 308.215†	2124.7	2.036	mg/L	0.0131	2.036	mg/L	0.0131	0.64%
As 188.979†	5275.6	2.020	mg/L	0.0149	2.020	mg/L	0.0149	0.74%
B 249.677†	3921.0	1.000	mg/L	0.0041	1.000	mg/L	0.0041	0.41%
Ba 233.527†	4806.1	1.009	mg/L	0.0031	1.009	mg/L	0.0031	0.31%
Be 313.042†	471547.6	0.9781	mg/L	0.00529	0.9781	mg/L	0.00529	0.54%
Ca 317.933†	19035.9	2.092	mg/L	0.0107	2.092	mg/L	0.0107	0.51%
Cd 228.802†	40869.2	1.053	mg/L	0.0091	1.053	mg/L	0.0091	0.87%
Co 228.616†	47018.2	0.9883	mg/L	0.00966	0.9883	mg/L	0.00966	0.98%
Cr 267.716†	5617.7	1.022	mg/L	0.0036	1.022	mg/L	0.0036	0.36%
Cu 324.752†	270760.7	1.020	mg/L	0.0073	1.020	mg/L	0.0073	0.72%
Fe 273.955†	1682.9	2.066	mg/L	0.0121	2.066	mg/L	0.0121	0.59%
K 766.490†	45772.3	20.55	mg/L	0.137	20.55	mg/L	0.137	0.67%
Mg 279.077†	1697.3	2.042	mg/L	0.0115	2.042	mg/L	0.0115	0.56%
Mn 257.610†	31312.7	1.004	mg/L	0.0016	1.004	mg/L	0.0016	0.16%
Mo 202.031†	24874.9	1.037	mg/L	0.0045	1.037	mg/L	0.0045	0.43%
Na 589.592†	767906.7	50.23	mg/L	0.218	50.23	mg/L	0.218	0.43%
Na 330.237†	1129.7	52.63	mg/L	0.116	52.63	mg/L	0.116	0.22%
Ni 231.604†	2742.1	1.014	mg/L	0.0037	1.014	mg/L	0.0037	0.37%
Pb 220.353†	24516.2	2.027	mg/L	0.0081	2.027	mg/L	0.0081	0.40%
Sb 206.836†	9853.1	2.129	mg/L	0.0118	2.129	mg/L	0.0118	0.56%
Se 196.026†	3574.9	2.050	mg/L	0.0070	2.050	mg/L	0.0070	0.34%
Si 288.158†	2545.8	2.096	mg/L	0.0099	2.096	mg/L	0.0099	0.47%
Sn 189.927†	6331.7	1.046	mg/L	0.0046	1.046	mg/L	0.0046	0.44%
Sr 421.552†	847215.5	0.9943	mg/L	0.00489	0.9943	mg/L	0.00489	0.49%
Ti 334.903†	20695.8	0.9843	mg/L	0.00486	0.9843	mg/L	0.00486	0.49%
Tl 190.801†	5362.4	2.020	mg/L	0.0117	2.020	mg/L	0.0117	0.58%
V 292.402†	206386.6	1.001	mg/L	0.0085	1.001	mg/L	0.0085	0.85%
Zn 206.200†	2922.2	1.004	mg/L	0.0038	1.004	mg/L	0.0038	0.38%

TX57:01491

Sequence No.: 2
Sample ID:\CB

Autosampler Location: 1
Date Collected: 11/28/2011 10:39:43 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	214.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2853309.6	98.79	%	0.391				0.40%
ScR 361.383	366017.0	98.84	%	0.272				0.27%
Ag 328.068†	7.6	0.00003	mg/L	0.000103	0.00003	mg/L	0.000103	358.87%
Al 308.215†	4.1	0.00395	mg/L	0.005595	0.00395	mg/L	0.005595	141.74%
As 188.979†	-3.1	-0.00118	mg/L	0.000592	-0.00118	mg/L	0.000592	50.23%
B 249.677†	11.4	0.00290	mg/L	0.001091	0.00290	mg/L	0.001091	37.60%
Ba 233.527†	2.6	0.00055	mg/L	0.000398	0.00055	mg/L	0.000398	72.59%
Be 313.042†	47.6	0.00010	mg/L	0.000022	0.00010	mg/L	0.000022	22.49%
Ca 317.933†	3.5	0.00039	mg/L	0.001861	0.00039	mg/L	0.001861	478.66%
Cd 228.802†	4.8	0.00013	mg/L	0.000021	0.00013	mg/L	0.000021	15.73%
Co 228.616†	-3.8	-0.00008	mg/L	0.000072	-0.00008	mg/L	0.000072	86.25%
Cr 267.716†	1.1	0.00021	mg/L	0.000629	0.00021	mg/L	0.000629	302.37%
Cu 324.752†	108.9	0.00041	mg/L	0.000028	0.00041	mg/L	0.000028	6.86%
Fe 273.955†	0.7	0.00091	mg/L	0.000868	0.00091	mg/L	0.000868	95.78%
K 766.490†	-15.3	-0.00688	mg/L	0.021797	-0.00688	mg/L	0.021797	316.92%
Mg 279.077†	-1.0	-0.00121	mg/L	0.001747	-0.00121	mg/L	0.001747	144.89%
Mn 257.610†	5.0	0.00016	mg/L	0.000042	0.00016	mg/L	0.000042	25.85%
Mo 202.031†	10.0	0.00042	mg/L	0.000219	0.00042	mg/L	0.000219	52.42%
Na 589.592†	94.1	0.00615	mg/L	0.001513	0.00615	mg/L	0.001513	24.59%
Na 330.237†	0.6	0.02964	mg/L	0.186227	0.02964	mg/L	0.186227	628.36%
Ni 231.604†	-2.1	-0.00076	mg/L	0.000696	-0.00076	mg/L	0.000696	91.45%
Pb 220.353†	-2.4	-0.00020	mg/L	0.000467	-0.00020	mg/L	0.000467	238.93%
Sb 206.836†	3.7	0.00080	mg/L	0.000282	0.00080	mg/L	0.000282	35.06%
Se 196.026†	1.6	0.00092	mg/L	0.002395	0.00092	mg/L	0.002395	259.61%
Si 288.158†	0.3	0.00022	mg/L	0.001223	0.00022	mg/L	0.001223	546.21%
Sn 189.927†	4.9	0.00081	mg/L	0.000679	0.00081	mg/L	0.000679	83.84%
Sr 421.552†	51.2	0.00006	mg/L	0.000010	0.00006	mg/L	0.000010	16.95%
Ti 334.903†	34.6	0.00165	mg/L	0.000916	0.00165	mg/L	0.000916	55.52%
Tl 190.801†	1.7	0.00063	mg/L	0.000863	0.00063	mg/L	0.000863	137.43%
V 292.402†	25.2	0.00012	mg/L	0.000123	0.00012	mg/L	0.000123	100.87%
Zn 206.200†	3.2	0.00111	mg/L	0.000693	0.00111	mg/L	0.000693	62.12%

1X57:01432

Sequence No.: 3
Sample ID: CRI

Autosampler Location: 301
Date Collected: 11/28/2011 10:43:56 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	215.0 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	2868152.8	99.31	%	0.755				0.76%
ScR 361.383	371436.4	100.3	%	0.75				0.75%
Ag 328.068†	796.7	0.00302	mg/L	0.000092	0.00302	mg/L	0.000092	3.05%
Al 308.215†	58.7	0.05710	mg/L	0.004294	0.05710	mg/L	0.004294	7.52%
As 188.979†	135.6	0.05188	mg/L	0.001766	0.05188	mg/L	0.001766	3.40%
B 249.677†	84.4	0.02156	mg/L	0.000620	0.02156	mg/L	0.000620	2.88%
Ba 233.527†	14.3	0.00299	mg/L	0.000607	0.00299	mg/L	0.000607	20.30%
Be 313.042†	512.3	0.00106	mg/L	0.000027	0.00106	mg/L	0.000027	2.53%
Ca 317.933†	455.0	0.05001	mg/L	0.001850	0.05001	mg/L	0.001850	3.70%
Cd 228.802†	95.1	0.00221	mg/L	0.000074	0.00221	mg/L	0.000074	3.37%
Co 228.616†	143.7	0.00302	mg/L	0.000052	0.00302	mg/L	0.000052	1.73%
Cr 267.716†	30.1	0.00547	mg/L	0.000125	0.00547	mg/L	0.000125	2.29%
Cu 324.752†	602.7	0.00227	mg/L	0.000187	0.00227	mg/L	0.000187	8.21%
Fe 273.955†	42.9	0.05285	mg/L	0.001281	0.05285	mg/L	0.001281	2.42%
K 766.490†	1140.1	0.5118	mg/L	0.00819	0.5118	mg/L	0.00819	1.60%
Mg 279.077†	45.0	0.05393	mg/L	0.005397	0.05393	mg/L	0.005397	10.01%
Mn 257.610†	34.7	0.00111	mg/L	0.000062	0.00111	mg/L	0.000062	5.60%
Mo 202.031†	128.1	0.00534	mg/L	0.000083	0.00534	mg/L	0.000083	1.56%
Na 589.592†	7543.0	0.4934	mg/L	0.00748	0.4934	mg/L	0.00748	1.52%
Na 330.237†	19.3	0.8984	mg/L	0.43299	0.8984	mg/L	0.43299	48.19%
Ni 231.604†	24.5	0.00908	mg/L	0.000752	0.00908	mg/L	0.000752	8.29%
Pb 220.353†	245.6	0.02031	mg/L	0.000563	0.02031	mg/L	0.000563	2.77%
Sb 206.836†	253.3	0.05464	mg/L	0.001653	0.05464	mg/L	0.001653	3.03%
Se 196.026†	94.5	0.05420	mg/L	0.003286	0.05420	mg/L	0.003286	6.06%
Si 288.158†	65.4	0.05372	mg/L	0.001899	0.05372	mg/L	0.001899	3.53%
Sn 189.927†	63.1	0.01044	mg/L	0.001254	0.01044	mg/L	0.001254	12.01%
Sr 421.552†	864.3	0.00101	mg/L	0.000017	0.00101	mg/L	0.000017	1.63%
Ti 334.903†	116.3	0.00553	mg/L	0.000584	0.00553	mg/L	0.000584	10.55%
Tl 190.801†	140.5	0.05292	mg/L	0.001504	0.05292	mg/L	0.001504	2.84%
V 292.402†	658.5	0.00320	mg/L	0.000087	0.00320	mg/L	0.000087	2.72%
Zn 206.200†	30.8	0.01057	mg/L	0.000358	0.01057	mg/L	0.000358	3.39%

Sequence No.: 4
Sample ID: ICSA

Autosampler Location: 302
Date Collected: 11/28/2011 10:48:09 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2849940.7	98.67	%	0.446				0.45%
ScR 361.383	368181.8	99.42	%	1.364				1.37%
Ag 328.068†	205.0	-0.00011	mg/L	0.000064	-0.00011	mg/L	0.000064	57.72%
Al 308.215†	205636.1	200.4	mg/L	0.79	200.4	mg/L	0.79	0.39%
As 188.979†	11.0	0.00423	mg/L	0.002706	0.00423	mg/L	0.002706	63.91%
B 249.677†	-43.4	-0.01109	mg/L	0.000192	-0.01109	mg/L	0.000192	1.73%
Ba 233.527†	45.6	-0.00033	mg/L	0.000630	-0.00033	mg/L	0.000630	188.62%
Be 313.042†	22.9	0.00004	mg/L	0.000038	0.00004	mg/L	0.000038	89.07%
Ca 317.933†	935522.5	102.8	mg/L	1.08	102.8	mg/L	1.08	1.05%
Cd 228.802†	27.9	-0.00093	mg/L	0.000105	-0.00093	mg/L	0.000105	11.27%
Co 228.616†	84.8	0.00178	mg/L	0.000138	0.00178	mg/L	0.000138	7.78%
Cr 267.716†	-6.6	0.00063	mg/L	0.001716	0.00063	mg/L	0.001716	272.79%
Cu 324.752†	-2809.5	0.00307	mg/L	0.000081	0.00307	mg/L	0.000081	2.65%
Fe 273.955†	160681.0	197.9	mg/L	1.62	197.9	mg/L	1.62	0.82%
K 766.490†	59.1	0.02652	mg/L	0.024252	0.02652	mg/L	0.024252	91.44%
Mg 279.077†	86423.2	103.5	mg/L	0.16	103.5	mg/L	0.16	0.15%
Mn 257.610†	42.0	0.00032	mg/L	0.000058	0.00032	mg/L	0.000058	17.98%
Mo 202.031†	194.2	0.00694	mg/L	0.000375	0.00694	mg/L	0.000375	5.40%
Na 589.592†	250.3	0.01637	mg/L	0.000673	0.01637	mg/L	0.000673	4.11%
Na 330.237†	-4.5	-0.7301	mg/L	0.26563	-0.7301	mg/L	0.26563	36.38%
Ni 231.604†	-5.6	-0.00199	mg/L	0.001833	-0.00199	mg/L	0.001833	92.18%
Pb 220.353†	-413.1	-0.00873	mg/L	0.000362	-0.00873	mg/L	0.000362	4.14%
Sb 206.836†	478.7	0.00036	mg/L	0.002219	0.00036	mg/L	0.002219	613.93%
Se 196.026†	-77.9	0.02751	mg/L	0.007283	0.02751	mg/L	0.007283	26.47%
Si 288.158†	-19.3	-0.00169	mg/L	0.001417	-0.00169	mg/L	0.001417	83.95%
Sn 189.927†	-105.0	-0.01451	mg/L	0.000878	-0.01451	mg/L	0.000878	6.05%
Sr 421.552†	8889.7	0.01043	mg/L	0.000078	0.01043	mg/L	0.000078	0.74%
Ti 334.903†	117.9	0.00003	mg/L	0.000270	0.00003	mg/L	0.000270	>999.9%
Tl 190.801†	-27.2	-0.01075	mg/L	0.000784	0.01075	mg/L	0.000784	7.29%
V 292.402†	3522.6	-0.00621	mg/L	0.000319	-0.00621	mg/L	0.000319	5.14%
Zn 206.200†	5.8	0.00031	mg/L	0.000455	0.00031	mg/L	0.000455	147.48%

cont.

Sequence No.: 5
Sample ID: ICSAB

Autosampler Location: 303
Date Collected: 11/28/2011 10:52:22 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	216.0 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	2854249.0	98.82	%	0.791				0.80%
ScR 361.383	373974.4	101.0	%	0.39				0.39%
Ag 328.068†	281332.6	1.065	mg/L	0.0041	1.065	mg/L	0.0041	0.39%
Al 308.215†	205072.2	199.9	mg/L	1.01	199.9	mg/L	1.01	0.50%
As 188.979†	2679.2	1.024	mg/L	0.0049	1.024	mg/L	0.0049	0.48%
B 249.677†	-37.9	-0.01165	mg/L	0.001697	-0.01165	mg/L	0.001697	14.57%
Ba 233.527†	4696.9	0.9758	mg/L	0.00513	0.9758	mg/L	0.00513	0.53%
Be 313.042†	470974.1	0.9769	mg/L	0.00373	0.9769	mg/L	0.00373	0.38%
Ca 317.933†	929508.3	102.2	mg/L	0.37	102.2	mg/L	0.37	0.36%
Cd 228.802†	39295.8	1.016	mg/L	0.0049	1.016	mg/L	0.0049	0.48%
Co 228.616†	45028.7	0.9481	mg/L	0.00427	0.9481	mg/L	0.00427	0.45%
Cr 267.716†	5410.3	0.9867	mg/L	0.00350	0.9867	mg/L	0.00350	0.35%
Cu 324.752†	275130.2	1.051	mg/L	0.0048	1.051	mg/L	0.0048	0.45%
Fe 273.955†	161223.9	198.5	mg/L	0.88	198.5	mg/L	0.88	0.45%
K 766.490†	457.0	0.2052	mg/L	0.01708	0.2052	mg/L	0.01708	8.33%
Mg 279.077†	82089.1	98.35	mg/L	0.366	98.35	mg/L	0.366	0.37%
Mn 257.610†	30290.4	0.9696	mg/L	0.00284	0.9696	mg/L	0.00284	0.29%
Mo 202.031†	192.1	0.00691	mg/L	0.000214	0.00691	mg/L	0.000214	3.09%
Na 589.592†	151.2	0.00989	mg/L	0.000994	0.00989	mg/L	0.000994	10.05%
Na 330.237†	15.5	-0.09173	mg/L	0.313567	-0.09173	mg/L	0.313567	341.85%
Ni 231.604†	2534.1	0.9362	mg/L	0.00495	0.9362	mg/L	0.00495	0.53%
Pb 220.353†	11491.7	0.9757	mg/L	0.00545	0.9757	mg/L	0.00545	0.56%
Sb 206.836†	5122.6	0.9944	mg/L	0.00944	0.9944	mg/L	0.00944	0.95%
Se 196.026†	1693.1	1.043	mg/L	0.0052	1.043	mg/L	0.0052	0.50%
Si 288.158†	-16.8	0.00323	mg/L	0.005697	0.00323	mg/L	0.005697	176.51%
Sn 189.927†	-109.4	-0.01467	mg/L	0.000238	-0.01467	mg/L	0.000238	1.62%
Sr 421.552†	8696.4	0.01021	mg/L	0.000060	0.01021	mg/L	0.000060	0.58%
Ti 334.903†	109.5	-0.00050	mg/L	0.000219	-0.00050	mg/L	0.000219	43.83%
Tl 190.801†	2556.3	0.9817	mg/L	0.00590	0.9817	mg/L	0.00590	0.60%
V 292.402†	206653.5	0.9785	mg/L	0.00924	0.9785	mg/L	0.00924	0.94%
Zn 206.200†	2709.9	0.9298	mg/L	0.00334	0.9298	mg/L	0.00334	0.36%

Sequence No.: 6
Sample ID: CV

Autosampler Location: 7
Date Collected: 11/28/2011 10:56:21 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	214.0 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	2901265.0	100.5	%	0.97				0.96%
ScR 361.383	366678.9	99.02	%	0.206				0.21%
Ag 328.068†	276043.9	1.046	mg/L	0.0090	1.046	mg/L	0.0090	0.86%
Al 308.215†	2121.8	2.033	mg/L	0.0044	2.033	mg/L	0.0044	0.22%
As 188.979†	5253.6	2.012	mg/L	0.0154	2.012	mg/L	0.0154	0.76%
B 249.677†	3874.9	0.9886	mg/L	0.00428	0.9886	mg/L	0.00428	0.43%
Ba 233.527†	4757.8	0.9985	mg/L	0.00270	0.9985	mg/L	0.00270	0.27%
Be 313.042†	468747.8	0.9723	mg/L	0.00943	0.9723	mg/L	0.00943	0.97%
Ca 317.933†	18886.4	2.075	mg/L	0.0052	2.075	mg/L	0.0052	0.25%
Cd 228.802†	40556.1	1.045	mg/L	0.0100	1.045	mg/L	0.0100	0.96%
Co 228.616†	46710.1	0.9819	mg/L	0.00991	0.9819	mg/L	0.00991	1.01%
Cr 267.716†	5567.6	1.013	mg/L	0.0025	1.013	mg/L	0.0025	0.25%
Cu 324.752†	269919.4	1.017	mg/L	0.0089	1.017	mg/L	0.0089	0.88%
Fe 273.955†	1673.8	2.055	mg/L	0.0010	2.055	mg/L	0.0010	0.05%
K 766.490†	45762.9	20.54	mg/L	0.143	20.54	mg/L	0.143	0.70%
Mg 279.077†	1692.7	2.037	mg/L	0.0088	2.037	mg/L	0.0088	0.43%
Mn 257.610†	30950.6	0.9920	mg/L	0.00321	0.9920	mg/L	0.00321	0.32%
Mo 202.031†	24669.2	1.029	mg/L	0.0072	1.029	mg/L	0.0072	0.70%
Na 589.592†	762719.1	49.89	mg/L	0.294	49.89	mg/L	0.294	0.59%
Na 330.237†	1121.6	52.26	mg/L	0.245	52.26	mg/L	0.245	0.47%
Ni 231.604†	2715.7	1.004	mg/L	0.0046	1.004	mg/L	0.0046	0.45%
Pb 220.353†	24334.7	2.012	mg/L	0.0132	2.012	mg/L	0.0132	0.66%
Sb 206.836†	9799.8	2.117	mg/L	0.0152	2.117	mg/L	0.0152	0.72%
Se 196.026†	3562.5	2.043	mg/L	0.0109	2.043	mg/L	0.0109	0.53%
Si 288.158†	2519.1	2.073	mg/L	0.0062	2.073	mg/L	0.0062	0.30%
Sn 189.927†	6266.8	1.035	mg/L	0.0042	1.035	mg/L	0.0042	0.40%
Sr 421.552†	845404.8	0.9922	mg/L	0.00487	0.9922	mg/L	0.00487	0.49%
Ti 334.903†	20575.1	0.9785	mg/L	0.00529	0.9785	mg/L	0.00529	0.54%
Tl 190.801†	5298.1	1.995	mg/L	0.0134	1.995	mg/L	0.0134	0.67%
V 292.402†	205317.7	0.9953	mg/L	0.00914	0.9953	mg/L	0.00914	0.92%
Zn 206.200†	2890.1	0.9933	mg/L	0.00253	0.9933	mg/L	0.00253	0.25%

TXST 01435

Sequence No.: 7
Sample ID: CB

Autosampler Location: 1
Date Collected: 11/28/2011 11:00:21 AM
Data Type: Original

Dilution: 1X

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	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2898096.4	100.3	%	0.55				0.55%
ScR 361.383	374517.8	101.1	%	0.85				0.84%
Ag 328.068†	0.7	0.00000	mg/L	0.000027	0.00000	mg/L	0.000027	>999.9%
Al 308.215†	22.0	0.02143	mg/L	0.003847	0.02143	mg/L	0.003847	17.96%
As 188.979†	-2.8	-0.00105	mg/L	0.000295	-0.00105	mg/L	0.000295	27.93%
B 249.677†	12.0	0.00307	mg/L	0.001721	0.00307	mg/L	0.001721	56.06%
Ba 233.527†	0.3	0.00007	mg/L	0.000853	0.00007	mg/L	0.000853	>999.9%
Be 313.042†	43.4	0.00009	mg/L	0.000028	0.00009	mg/L	0.000028	31.30%
Ca 317.933†	59.9	0.00658	mg/L	0.000462	0.00658	mg/L	0.000462	7.01%
Cd 228.802†	5.8	0.00016	mg/L	0.000107	0.00016	mg/L	0.000107	68.13%
Co 228.616†	5.8	0.00012	mg/L	0.000154	0.00012	mg/L	0.000154	127.36%
Cr 267.716†	4.0	0.00072	mg/L	0.000230	0.00072	mg/L	0.000230	31.87%
Cu 324.752†	168.2	0.00063	mg/L	0.000114	0.00063	mg/L	0.000114	18.01%
Fe 273.955†	9.1	0.01123	mg/L	0.002733	0.01123	mg/L	0.002733	24.34%
K 766.490†	-7.9	-0.00356	mg/L	0.031170	-0.00356	mg/L	0.031170	876.50%
Mg 279.077†	10.4	0.01242	mg/L	0.008606	0.01242	mg/L	0.008606	69.28%
Mn 257.610†	3.1	0.00010	mg/L	0.000073	0.00010	mg/L	0.000073	74.41%
Mo 202.031†	4.1	0.00017	mg/L	0.000125	0.00017	mg/L	0.000125	73.82%
Na 589.592†	91.4	0.00598	mg/L	0.001133	0.00598	mg/L	0.001133	18.95%
Na 330.237†	0.8	0.03688	mg/L	0.348150	0.03688	mg/L	0.348150	944.08%
Ni 231.604†	-1.2	-0.00044	mg/L	0.000396	-0.00044	mg/L	0.000396	90.15%
Pb 220.353†	2.5	0.00021	mg/L	0.000802	0.00021	mg/L	0.000802	381.49%
Sb 206.836†	7.0	0.00148	mg/L	0.000510	0.00148	mg/L	0.000510	34.40%
Se 196.026†	4.5	0.00261	mg/L	0.002086	0.00261	mg/L	0.002086	79.95%
Si 288.158†	-0.8	-0.00067	mg/L	0.003252	-0.00067	mg/L	0.003252	485.33%
Sn 189.927†	-0.1	-0.00002	mg/L	0.000511	-0.00002	mg/L	0.000511	>999.9%
Sr 421.552†	40.2	0.00005	mg/L	0.000035	0.00005	mg/L	0.000035	73.83%
Ti 334.903†	14.9	0.00071	mg/L	0.000239	0.00071	mg/L	0.000239	33.75%
Tl 190.801†	3.2	0.00119	mg/L	0.001450	0.00119	mg/L	0.001450	121.69%
V 292.402†	34.1	0.00017	mg/L	0.000135	0.00017	mg/L	0.000135	81.39%
Zn 206.200†	1.5	0.00051	mg/L	0.000206	0.00051	mg/L	0.000206	40.65%

TX57:0145

Sequence No.: 8
Sample ID: DI CHECK

Autosampler Location: 304
Date Collected: 11/28/2011 11:04:34 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: DI CHECK

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: DI CHECK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2927970.1	101.4	%	0.47				0.46%
ScR 361.383	375948.5	101.5	%	1.39				1.37%
Ag 328.068†	-51.4	-0.00019	mg/L	0.000035	-0.00019	mg/L	0.000035	17.76%
Al 308.215†	9.5	0.00927	mg/L	0.007664	0.00927	mg/L	0.007664	82.71%
As 188.979†	3.0	0.00114	mg/L	0.000616	0.00114	mg/L	0.000616	54.13%
B 249.677†	8.1	0.00207	mg/L	0.000959	0.00207	mg/L	0.000959	46.31%
Ba 233.527†	-0.8	-0.00016	mg/L	0.000482	-0.00016	mg/L	0.000482	303.96%
Be 313.042†	28.0	0.00006	mg/L	0.000020	0.00006	mg/L	0.000020	34.96%
Ca 317.933†	16.8	0.00184	mg/L	0.001255	0.00184	mg/L	0.001255	68.13%
Cd 228.802†	0.7	0.00001	mg/L	0.000072	0.00001	mg/L	0.000072	623.08%
Co 228.616†	22.4	0.00047	mg/L	0.000015	0.00047	mg/L	0.000015	3.08%
Cr 267.716†	4.3	0.00078	mg/L	0.000679	0.00078	mg/L	0.000679	86.88%
Cu 324.752†	151.1	0.00057	mg/L	0.000269	0.00057	mg/L	0.000269	47.28%
Fe 273.955†	6.2	0.00761	mg/L	0.002026	0.00761	mg/L	0.002026	26.62%
K 766.490†	13.0	0.00583	mg/L	0.012491	0.00583	mg/L	0.012491	214.08%
Mg 279.077†	6.8	0.00814	mg/L	0.004409	0.00814	mg/L	0.004409	54.19%
Mn 257.610†	-0.5	-0.00001	mg/L	0.000164	-0.00001	mg/L	0.000164	>999.9%
Mo 202.031†	-9.6	-0.00040	mg/L	0.000045	-0.00040	mg/L	0.000045	11.22%
Na 589.592†	78.2	0.00511	mg/L	0.001996	0.00511	mg/L	0.001996	39.02%
Na 330.237†	-4.6	-0.2152	mg/L	0.17993	-0.2152	mg/L	0.17993	83.62%
Ni 231.604†	-0.3	-0.00011	mg/L	0.001018	-0.00011	mg/L	0.001018	905.37%
Pb 220.353†	18.6	0.00154	mg/L	0.000918	0.00154	mg/L	0.000918	59.75%
Sb 206.836†	-19.3	-0.00417	mg/L	0.001830	-0.00417	mg/L	0.001830	43.85%
Se 196.026†	15.1	0.00868	mg/L	0.002597	0.00868	mg/L	0.002597	29.92%
Si 288.158†	-9.6	-0.00785	mg/L	0.005697	-0.00785	mg/L	0.005697	72.59%
Sn 189.927†	3.0	0.00050	mg/L	0.000083	0.00050	mg/L	0.000083	16.58%
Sr 421.552†	30.2	0.00004	mg/L	0.000014	0.00004	mg/L	0.000014	39.29%
Ti 334.903†	16.9	0.00081	mg/L	0.000320	0.00081	mg/L	0.000320	39.69%
Tl 190.801†	14.6	0.00548	mg/L	0.001803	0.00548	mg/L	0.001803	32.91%
V 292.402†	26.7	0.00013	mg/L	0.000098	0.00013	mg/L	0.000098	75.18%
Zn 206.200†	1.8	0.00061	mg/L	0.001080	0.00061	mg/L	0.001080	177.22%

TX57.01439

Sequence No.: 9
Sample ID: TX57 MB2 TWC

Autosampler Location: 305
Date Collected: 11/28/2011 11:08:47 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TX57 MB2 TWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TX57 MB2 TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2926987.0	101.3	%	1.15				1.14%
ScR 361.383	377530.0	101.9	%	0.68				0.67%
Ag 328.068†	24.5	0.00009	mg/L	0.000171	0.00009	mg/L	0.000171	184.56%
Al 308.215†	14.5	0.01409	mg/L	0.001708	0.01409	mg/L	0.001708	12.12%
As 188.979†	-2.8	-0.00108	mg/L	0.002049	-0.00108	mg/L	0.002049	190.30%
B 249.677†	2.6	0.00068	mg/L	0.000499	0.00068	mg/L	0.000499	73.81%
Ba 233.527†	-0.4	-0.00009	mg/L	0.000264	-0.00009	mg/L	0.000264	303.24%
Be 313.042†	7.0	0.00001	mg/L	0.000012	0.00001	mg/L	0.000012	82.62%
Ca 317.933†	53.9	0.00592	mg/L	0.000936	0.00592	mg/L	0.000936	15.81%
Cd 228.802†	0.3	0.00001	mg/L	0.000197	0.00001	mg/L	0.000197	>999.9%
Co 228.616†	-1.7	-0.00004	mg/L	0.000042	-0.00004	mg/L	0.000042	115.64%
Cr 267.716†	5.4	0.00098	mg/L	0.000370	0.00098	mg/L	0.000370	37.96%
Cu 324.752†	467.7	0.00176	mg/L	0.000189	0.00176	mg/L	0.000189	10.72%
Fe 273.955†	3.4	0.00415	mg/L	0.000335	0.00415	mg/L	0.000335	8.08%
K 766.490†	15.3	0.00686	mg/L	0.016736	0.00686	mg/L	0.016736	244.02%
Mg 279.077†	7.0	0.00839	mg/L	0.001383	0.00839	mg/L	0.001383	16.49%
Mn 257.610†	4.4	0.00014	mg/L	0.000030	0.00014	mg/L	0.000030	21.61%
Mo 202.031†	3.9	0.00016	mg/L	0.000250	0.00016	mg/L	0.000250	153.61%
Na 589.592†	87.5	0.00572	mg/L	0.004723	0.00572	mg/L	0.004723	82.55%
Na 330.237†	0.5	0.02061	mg/L	0.488887	0.02061	mg/L	0.488887	>999.9%
Ni 231.604†	-0.8	-0.00030	mg/L	0.001587	-0.00030	mg/L	0.001587	523.62%
Pb 220.353†	3.5	0.00029	mg/L	0.000540	0.00029	mg/L	0.000540	186.62%
Sb 206.836†	-7.8	-0.00170	mg/L	0.000764	-0.00170	mg/L	0.000764	45.00%
Se 196.026†	9.8	0.00560	mg/L	0.001352	0.00560	mg/L	0.001352	24.17%
Si 288.158†	0.9	0.00078	mg/L	0.004525	0.00078	mg/L	0.004525	583.65%
Sn 189.927†	3.4	0.00056	mg/L	0.000421	0.00056	mg/L	0.000421	75.09%
Sr 421.552†	8.7	0.00001	mg/L	0.000042	0.00001	mg/L	0.000042	411.30%
Ti 334.903†	6.9	0.00033	mg/L	0.000313	0.00033	mg/L	0.000313	94.82%
Tl 190.801†	4.5	0.00171	mg/L	0.000906	0.00171	mg/L	0.000906	52.85%
V 292.402†	41.5	0.00020	mg/L	0.000080	0.00020	mg/L	0.000080	39.46%
Zn 206.200†	6.0	0.00205	mg/L	0.000862	0.00205	mg/L	0.000862	42.07%

Sequence No.: 10
Sample ID: TX83 MB TWC

Autosampler Location: 306
Date Collected: 11/28/2011 11:13:04 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TX83 MB TWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TX83 MB TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2989945.4	103.5	%	2.06				1.99%
ScR 361.383	376903.2	101.8	%	0.58				0.57%
Ag 328.068†	-8.5	-0.00003	mg/L	0.000159	-0.00003	mg/L	0.000159	495.15%
Al 308.215†	10.7	0.01047	mg/L	0.003761	0.01047	mg/L	0.003761	35.91%
As 188.979†	-3.3	-0.00126	mg/L	0.002061	-0.00126	mg/L	0.002061	163.21%
B 249.677†	3.0	0.00077	mg/L	0.001346	0.00077	mg/L	0.001346	173.68%
Ba 233.527†	1.5	0.00032	mg/L	0.000110	0.00032	mg/L	0.000110	34.23%
Be 313.042†	-4.3	-0.00001	mg/L	0.000006	-0.00001	mg/L	0.000006	65.94%
Ca 317.933†	31.6	0.00347	mg/L	0.001356	0.00347	mg/L	0.001356	39.09%
Cd 228.802†	-0.8	-0.00001	mg/L	0.000095	-0.00001	mg/L	0.000095	641.69%
Co 228.616†	-3.6	-0.00008	mg/L	0.000137	-0.00008	mg/L	0.000137	179.51%
Cr 267.716†	3.6	0.00065	mg/L	0.001083	0.00065	mg/L	0.001083	165.44%
Cu 324.752†	164.1	0.00062	mg/L	0.000071	0.00062	mg/L	0.000071	11.42%
Fe 273.955†	3.2	0.00399	mg/L	0.001328	0.00399	mg/L	0.001328	33.32%
K 766.490†	43.0	0.01929	mg/L	0.007943	0.01929	mg/L	0.007943	41.17%
Mg 279.077†	8.7	0.01046	mg/L	0.004625	0.01046	mg/L	0.004625	44.21%
Mn 257.610†	0.8	0.00003	mg/L	0.000040	0.00003	mg/L	0.000040	148.36%
Mo 202.031†	-0.2	-0.00001	mg/L	0.000095	-0.00001	mg/L	0.000095	>999.9%
Na 589.592†	29.2	0.00191	mg/L	0.001041	0.00191	mg/L	0.001041	54.43%
Na 330.237†	1.8	0.08153	mg/L	0.485332	0.08153	mg/L	0.485332	595.29%
Ni 231.604†	0.2	0.00007	mg/L	0.000482	0.00007	mg/L	0.000482	645.11%
Pb 220.353†	-0.7	-0.00005	mg/L	0.000767	-0.00005	mg/L	0.000767	>999.9%
Sb 206.836†	-8.9	-0.00192	mg/L	0.001477	-0.00192	mg/L	0.001477	77.09%
Se 196.026†	2.2	0.00124	mg/L	0.002347	0.00124	mg/L	0.002347	189.62%
Si 288.158†	-2.3	-0.00190	mg/L	0.001080	-0.00190	mg/L	0.001080	56.84%
Sn 189.927†	2.1	0.00035	mg/L	0.000333	0.00035	mg/L	0.000333	94.86%
Sr 421.552†	-45.4	-0.00005	mg/L	0.000031	-0.00005	mg/L	0.000031	57.34%
Ti 334.903†	-5.8	-0.00027	mg/L	0.000373	-0.00027	mg/L	0.000373	136.13%
Tl 190.801†	6.6	0.00247	mg/L	0.002482	0.00247	mg/L	0.002482	100.42%
V 292.402†	16.1	0.00008	mg/L	0.000054	0.00008	mg/L	0.000054	67.84%
Zn 206.200†	6.0	0.00207	mg/L	0.001548	0.00207	mg/L	0.001548	74.63%

Sequence No.: 11
Sample ID: QC21

Autosampler Location: 307
Date Collected: 11/28/2011 11:17:16 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: QC21

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: QC21

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2981938.0	103.2	%	0.46				0.45%
ScR 361.383	382238.4	103.2	%	0.96				0.93%
Ag 328.068†	89.6	-0.00001	mg/L	0.000063	-0.00001	mg/L	0.000063	>999.9%
Al 308.215†	85.3	0.01543	mg/L	0.005493	0.01543	mg/L	0.005493	35.60%
As 188.979†	5281.3	2.026	mg/L	0.0134	2.026	mg/L	0.0134	0.66%
B 249.677†	25.5	0.00415	mg/L	0.001029	0.00415	mg/L	0.001029	24.78%
Ba 233.527†	6.9	0.00034	mg/L	0.001055	0.00034	mg/L	0.001055	310.86%
Be 313.042†	938593.1	1.947	mg/L	0.0208	1.947	mg/L	0.0208	1.07%
Ca 317.933†	18484.5	2.031	mg/L	0.0187	2.031	mg/L	0.0187	0.92%
Cd 228.802†	78155.1	2.024	mg/L	0.0378	2.024	mg/L	0.0378	1.87%
Co 228.616†	95174.2	2.001	mg/L	0.0423	2.001	mg/L	0.0423	2.11%
Cr 267.716†	11025.7	2.006	mg/L	0.0157	2.006	mg/L	0.0157	0.78%
Cu 324.752†	522049.1	1.967	mg/L	0.0026	1.967	mg/L	0.0026	0.13%
Fe 273.955†	1706.2	2.088	mg/L	0.0212	2.088	mg/L	0.0212	1.01%
K 766.490†	40.0	0.01796	mg/L	0.012028	0.01796	mg/L	0.012028	66.97%
Mg 279.077†	1744.2	2.106	mg/L	0.0157	2.106	mg/L	0.0157	0.74%
Mn 257.610†	61149.0	1.959	mg/L	0.0105	1.959	mg/L	0.0105	0.53%
Mo 202.031†	47475.2	1.980	mg/L	0.0379	1.980	mg/L	0.0379	1.92%
Na 589.592†	175.0	0.01144	mg/L	0.003472	0.01144	mg/L	0.003472	30.34%
Na 330.237†	-3.4	-0.3241	mg/L	0.19720	-0.3241	mg/L	0.19720	60.85%
Ni 231.604†	5434.8	2.008	mg/L	0.0206	2.008	mg/L	0.0206	1.03%
Pb 220.353†	23730.7	1.963	mg/L	0.0383	1.963	mg/L	0.0383	1.95%
Sb 206.836†	9781.7	2.095	mg/L	0.0144	2.095	mg/L	0.0144	0.69%
Se 196.026†	3541.5	2.030	mg/L	0.0080	2.030	mg/L	0.0080	0.40%
Si 288.158†	44.0	0.04886	mg/L	0.007795	0.04886	mg/L	0.007795	15.95%
Sn 189.927†	-14.6	-0.00051	mg/L	0.000176	-0.00051	mg/L	0.000176	34.32%
Sr 421.552†	1688969.0	1.982	mg/L	0.0099	1.982	mg/L	0.0099	0.50%
Ti 334.903†	41962.5	1.996	mg/L	0.0110	1.996	mg/L	0.0110	0.55%
Tl 190.801†	5488.2	2.067	mg/L	0.0129	2.067	mg/L	0.0129	0.63%
V 292.402†	401861.4	1.948	mg/L	0.0058	1.948	mg/L	0.0058	0.30%
Zn 206.200†	5851.8	2.011	mg/L	0.0169	2.011	mg/L	0.0169	0.84%

TX57 : 0144

Sequence No.: 12
Sample ID: QC7M

Autosampler Location: 308
Date Collected: 11/28/2011 11:21:31 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: QC7M

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: QC7M

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3005431.1	104.1	%	1.54				1.48%
ScR 361.383	386635.1	104.4	%	0.77				0.74%
Ag 328.068†	271814.7	1.030	mg/L	0.0091	1.030	mg/L	0.0091	0.89%
Al 308.215†	2097.5	2.045	mg/L	0.0153	2.045	mg/L	0.0153	0.75%
As 188.979†	-1.8	-0.00067	mg/L	0.000775	-0.00067	mg/L	0.000775	115.00%
B 249.677†	7568.1	1.933	mg/L	0.0121	1.933	mg/L	0.0121	0.62%
Ba 233.527†	9225.6	1.937	mg/L	0.0093	1.937	mg/L	0.0093	0.48%
Be 313.042†	72.0	0.00015	mg/L	0.000041	0.00015	mg/L	0.000041	27.70%
Ca 317.933†	29.7	0.00327	mg/L	0.000751	0.00327	mg/L	0.000751	22.99%
Cd 228.802†	3.8	0.00010	mg/L	0.000240	0.00010	mg/L	0.000240	231.53%
Co 228.616†	21.9	0.00022	mg/L	0.000014	0.00022	mg/L	0.000014	6.36%
Cr 267.716†	3.5	0.00064	mg/L	0.001615	0.00064	mg/L	0.001615	252.73%
Cu 324.752†	194.0	0.00073	mg/L	0.000113	0.00073	mg/L	0.000113	15.38%
Fe 273.955†	4.5	0.00553	mg/L	0.002188	0.00553	mg/L	0.002188	39.57%
K 766.490†	44409.2	19.94	mg/L	0.072	19.94	mg/L	0.072	0.36%
Mg 279.077†	0.1	0.00016	mg/L	0.002091	0.00016	mg/L	0.002091	>999.9%
Mn 257.610†	11.2	0.00035	mg/L	0.000003	0.00035	mg/L	0.000003	0.77%
Mo 202.031†	2.8	0.00012	mg/L	0.000169	0.00012	mg/L	0.000169	144.53%
Na 589.592†	29507.9	1.930	mg/L	0.0032	1.930	mg/L	0.0032	0.17%
Na 330.237†	48.6	2.270	mg/L	0.3685	2.270	mg/L	0.3685	16.24%
Ni 231.604†	3.3	0.00121	mg/L	0.001001	0.00121	mg/L	0.001001	83.00%
Pb 220.353†	6.6	0.00093	mg/L	0.000579	0.00093	mg/L	0.000579	62.03%
Sb 206.836†	-4.4	-0.00174	mg/L	0.000997	-0.00174	mg/L	0.000997	57.29%
Se 196.026†	7.8	0.00493	mg/L	0.002281	0.00493	mg/L	0.002281	46.24%
Si 288.158†	2452.8	2.012	mg/L	0.0179	2.012	mg/L	0.0179	0.89%
Sn 189.927†	4.2	0.00069	mg/L	0.000460	0.00069	mg/L	0.000460	66.47%
Sr 421.552†	89313.3	0.1048	mg/L	0.00008	0.1048	mg/L	0.00008	0.07%
Ti 334.903†	13.9	0.00066	mg/L	0.000894	0.00066	mg/L	0.000894	135.53%
Tl 190.801†	2.8	0.00105	mg/L	0.000594	0.00105	mg/L	0.000594	56.57%
V 292.402†	67.9	0.00033	mg/L	0.000029	0.00033	mg/L	0.000029	8.80%
Zn 206.200†	1.2	0.00041	mg/L	0.000128	0.00041	mg/L	0.000128	30.85%

Sequence No.: 13
Sample ID: TX57 Q TWC

Autosampler Location: 309
Date Collected: 11/28/2011 11:25:43 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TX57 Q TWC

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: TX57 Q TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2931716.5	101.5	%	0.60				0.59%
ScR 361.383	384668.8	103.9	%	1.33				1.28%
Ag 328.068†	-11.5	-0.00004	mg/L	0.000087	-0.00004	mg/L	0.000087	200.27%
Al 308.215†	15.6	0.01518	mg/L	0.002364	0.01518	mg/L	0.002364	15.57%
As 188.979†	-5.2	-0.00200	mg/L	0.001252	-0.00200	mg/L	0.001252	62.60%
B 249.677†	22.6	0.00576	mg/L	0.000396	0.00576	mg/L	0.000396	6.86%
Ba 233.527†	1.4	0.00030	mg/L	0.000261	0.00030	mg/L	0.000261	87.88%
Be 313.042†	-3.8	-0.00001	mg/L	0.000031	-0.00001	mg/L	0.000031	388.63%
Ca 317.933†	102.0	0.01121	mg/L	0.000904	0.01121	mg/L	0.000904	8.06%
Cd 228.802†	1.4	0.00005	mg/L	0.000025	0.00005	mg/L	0.000025	52.79%
Co 228.616†	-2.2	-0.00005	mg/L	0.000057	-0.00005	mg/L	0.000057	122.80%
Cr 267.716†	4.4	0.00080	mg/L	0.001160	0.00080	mg/L	0.001160	144.65%
Cu 324.752†	188.8	0.00071	mg/L	0.000031	0.00071	mg/L	0.000031	4.31%
Fe 273.955†	3.0	0.00371	mg/L	0.001665	0.00371	mg/L	0.001665	44.84%
K 766.490†	58.3	0.02618	mg/L	0.010595	0.02618	mg/L	0.010595	40.47%
Mg 279.077†	3.5	0.00419	mg/L	0.004186	0.00419	mg/L	0.004186	100.01%
Mn 257.610†	1.9	0.00006	mg/L	0.000105	0.00006	mg/L	0.000105	176.27%
Mo 202.031†	1.8	0.00007	mg/L	0.000071	0.00007	mg/L	0.000071	96.23%
Na 589.592†	173.4	0.01134	mg/L	0.001716	0.01134	mg/L	0.001716	15.13%
Na 330.237†	4.6	0.2126	mg/L	0.60644	0.2126	mg/L	0.60644	285.19%
Ni 231.604†	0.9	0.00033	mg/L	0.001136	0.00033	mg/L	0.001136	347.10%
Pb 220.353†	-0.7	-0.00005	mg/L	0.000377	-0.00005	mg/L	0.000377	721.55%
Sb 206.836†	-9.8	-0.00213	mg/L	0.000583	-0.00213	mg/L	0.000583	27.42%
Se 196.026†	1.4	0.00080	mg/L	0.002318	0.00080	mg/L	0.002318	289.84%
Si 288.158†	4.0	0.00325	mg/L	0.003625	0.00325	mg/L	0.003625	111.58%
Sn 189.927†	3.8	0.00063	mg/L	0.000647	0.00063	mg/L	0.000647	103.23%
Sr 421.552†	68.2	0.00008	mg/L	0.000025	0.00008	mg/L	0.000025	31.71%
Ti 334.903†	-0.2	-0.00001	mg/L	0.000446	-0.00001	mg/L	0.000446	>999.9%
Tl 190.801†	4.7	0.00176	mg/L	0.001518	0.00176	mg/L	0.001518	86.04%
V 292.402†	0.3	0.00000	mg/L	0.000138	0.00000	mg/L	0.000138	>999.9%
Zn 206.200†	8.1	0.00279	mg/L	0.000119	0.00279	mg/L	0.000119	4.26%

Sequence No.: 14
Sample ID: TX57 PDUP TWC

Autosampler Location: 310
Date Collected: 11/28/2011 11:29:55 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TX57 PDUP TWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TX57 PDUP TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2964148.7	102.6	%	1.47				1.43%
ScR 361.383	382165.5	103.2	%	0.59				0.57%
Ag 328.068†	15.7	0.00006	mg/L	0.000108	0.00006	mg/L	0.000108	181.62%
Al 308.215†	28.0	0.02724	mg/L	0.007868	0.02724	mg/L	0.007868	28.88%
As 188.979†	-6.0	-0.00229	mg/L	0.001017	-0.00229	mg/L	0.001017	44.41%
B 249.677†	9.4	0.00240	mg/L	0.000704	0.00240	mg/L	0.000704	29.28%
Ba 233.527†	2.6	0.00054	mg/L	0.000149	0.00054	mg/L	0.000149	27.46%
Be 313.042†	20.0	0.00004	mg/L	0.000064	0.00004	mg/L	0.000064	153.35%
Ca 317.933†	170.8	0.01877	mg/L	0.001290	0.01877	mg/L	0.001290	6.87%
Cd 228.802†	1.3	0.00004	mg/L	0.000081	0.00004	mg/L	0.000081	183.22%
Co 228.616†	-2.4	-0.00005	mg/L	0.000227	-0.00005	mg/L	0.000227	430.12%
Cr 267.716†	6.6	0.00119	mg/L	0.000588	0.00119	mg/L	0.000588	49.31%
Cu 324.752†	187.7	0.00071	mg/L	0.000079	0.00071	mg/L	0.000079	11.13%
Fe 273.955†	9.4	0.01163	mg/L	0.000918	0.01163	mg/L	0.000918	7.90%
K 766.490†	48.8	0.02192	mg/L	0.007133	0.02192	mg/L	0.007133	32.54%
Mg 279.077†	17.1	0.02057	mg/L	0.010678	0.02057	mg/L	0.010678	51.92%
Mn 257.610†	22.2	0.00071	mg/L	0.000046	0.00071	mg/L	0.000046	6.41%
Mo 202.031†	4.6	0.00019	mg/L	0.000259	0.00019	mg/L	0.000259	136.57%
Na 589.592†	1822.4	0.1192	mg/L	0.00183	0.1192	mg/L	0.00183	1.54%
Na 330.237†	4.3	0.1981	mg/L	0.29916	0.1981	mg/L	0.29916	150.99%
Ni 231.604†	-0.9	-0.00035	mg/L	0.001557	-0.00035	mg/L	0.001557	449.21%
Pb 220.353†	-1.7	-0.00013	mg/L	0.000328	-0.00013	mg/L	0.000328	243.34%
Sb 206.836†	-8.7	-0.00188	mg/L	0.000337	-0.00188	mg/L	0.000337	17.89%
Se 196.026†	9.5	0.00547	mg/L	0.001811	0.00547	mg/L	0.001811	33.10%
Si 288.158†	20.5	0.01686	mg/L	0.000256	0.01686	mg/L	0.000256	1.52%
Sn 189.927†	5.9	0.00097	mg/L	0.000294	0.00097	mg/L	0.000294	30.23%
Sr 421.552†	225.8	0.00027	mg/L	0.000172	0.00027	mg/L	0.000172	64.88%
Ti 334.903†	16.4	0.00078	mg/L	0.000261	0.00078	mg/L	0.000261	33.39%
Tl 190.801†	2.7	0.00101	mg/L	0.000787	0.00101	mg/L	0.000787	78.04%
V 292.402†	22.2	0.00011	mg/L	0.000087	0.00011	mg/L	0.000087	79.04%
Zn 206.200†	7.2	0.00247	mg/L	0.000842	0.00247	mg/L	0.000842	34.11%

Sequence No.: 15
Sample ID: TX57 P TWC

Autosampler Location: 311
Date Collected: 11/28/2011 11:34:07 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TX57 P TWC

Analyte	Back Pressure	Flow
All	214.0 kPa	0.75 L/min

Mean Data: TX57 P TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2952228.7	102.2	%	0.52				0.50%
ScR 361.383	381192.9	102.9	%	0.86				0.84%
Ag 328.068†	15.6	0.00006	mg/L	0.000052	0.00006	mg/L	0.000052	88.76%
Al 308.215†	28.3	0.02759	mg/L	0.005668	0.02759	mg/L	0.005668	20.55%
As 188.979†	-3.3	-0.00125	mg/L	0.001274	-0.00125	mg/L	0.001274	101.59%
B 249.677†	9.7	0.00248	mg/L	0.000563	0.00248	mg/L	0.000563	22.66%
Ba 233.527†	1.7	0.00035	mg/L	0.000651	0.00035	mg/L	0.000651	185.33%
Be 313.042†	-10.3	-0.00002	mg/L	0.000025	-0.00002	mg/L	0.000025	116.52%
Ca 317.933†	175.3	0.01927	mg/L	0.001461	0.01927	mg/L	0.001461	7.58%
Cd 228.802†	-0.6	-0.00001	mg/L	0.000113	-0.00001	mg/L	0.000113	>999.9%
Co 228.616†	-3.1	-0.00007	mg/L	0.000155	-0.00007	mg/L	0.000155	234.89%
Cr 267.716†	3.5	0.00064	mg/L	0.000430	0.00064	mg/L	0.000430	67.64%
Cu 324.752†	162.4	0.00061	mg/L	0.000388	0.00061	mg/L	0.000388	63.28%
Fe 273.955†	8.5	0.01045	mg/L	0.001106	0.01045	mg/L	0.001106	10.58%
K 766.490†	14.4	0.00648	mg/L	0.004957	0.00648	mg/L	0.004957	76.48%
Mg 279.077†	14.7	0.01762	mg/L	0.007419	0.01762	mg/L	0.007419	42.10%
Mn 257.610†	22.3	0.00071	mg/L	0.000095	0.00071	mg/L	0.000095	13.32%
Mo 202.031†	1.6	0.00006	mg/L	0.000111	0.00006	mg/L	0.000111	171.56%
Na 589.592†	1783.9	0.1167	mg/L	0.00273	0.1167	mg/L	0.00273	2.34%
Na 330.237†	4.9	0.2267	mg/L	0.23150	0.2267	mg/L	0.23150	102.11%
Ni 231.604†	0.9	0.00034	mg/L	0.001521	0.00034	mg/L	0.001521	442.06%
Pb 220.353†	5.2	0.00043	mg/L	0.000725	0.00043	mg/L	0.000725	168.17%
Sb 206.836†	-10.1	-0.00218	mg/L	0.001451	-0.00218	mg/L	0.001451	66.65%
Se 196.026†	4.3	0.00245	mg/L	0.003575	0.00245	mg/L	0.003575	146.07%
Si 288.158†	17.1	0.01406	mg/L	0.002114	0.01406	mg/L	0.002114	15.04%
Sn 189.927†	6.2	0.00102	mg/L	0.000851	0.00102	mg/L	0.000851	82.98%
Sr 421.552†	113.9	0.00013	mg/L	0.000009	0.00013	mg/L	0.000009	6.94%
Ti 334.903†	8.4	0.00040	mg/L	0.000515	0.00040	mg/L	0.000515	128.41%
Tl 190.801†	5.3	0.00198	mg/L	0.001242	0.00198	mg/L	0.001242	62.63%
V 292.402†	25.5	0.00012	mg/L	0.000070	0.00012	mg/L	0.000070	56.52%
Zn 206.200†	8.2	0.00281	mg/L	0.000955	0.00281	mg/L	0.000955	33.94%

Sequence No.: 16
Sample ID: TX57 PSPK TWC

Autosampler Location: 312
Date Collected: 11/28/2011 11:38:19 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TX57 PSPK TWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TX57 PSPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2953544.2	102.3	%	0.28				0.27%
ScR 361.383	384475.8	103.8	%	0.79				0.76%
Ag 328.068†	137709.0	0.5218	mg/L	0.00248	0.5218	mg/L	0.00248	0.48%
Al 308.215†	2173.8	2.110	mg/L	0.0218	2.110	mg/L	0.0218	1.03%
As 188.979†	5409.7	2.069	mg/L	0.0162	2.069	mg/L	0.0162	0.78%
B 249.677†	8.7	0.00119	mg/L	0.001473	0.00119	mg/L	0.001473	124.15%
Ba 233.527†	9675.2	2.031	mg/L	0.0101	2.031	mg/L	0.0101	0.50%
Be 313.042†	231502.7	0.4802	mg/L	0.00250	0.4802	mg/L	0.00250	0.52%
Ca 317.933†	91056.8	10.01	mg/L	0.020	10.01	mg/L	0.020	0.20%
Cd 228.802†	20117.2	0.5129	mg/L	0.00305	0.5129	mg/L	0.00305	0.59%
Co 228.616†	23705.3	0.4989	mg/L	0.00242	0.4989	mg/L	0.00242	0.49%
Cr 267.716†	2794.8	0.5080	mg/L	0.00235	0.5080	mg/L	0.00235	0.46%
Cu 324.752†	136337.9	0.5140	mg/L	0.00367	0.5140	mg/L	0.00367	0.71%
Fe 273.955†	1705.8	2.097	mg/L	0.0079	2.097	mg/L	0.0079	0.38%
K 766.490†	23230.3	10.43	mg/L	0.011	10.43	mg/L	0.011	0.10%
Mg 279.077†	8793.7	10.55	mg/L	0.047	10.55	mg/L	0.047	0.45%
Mn 257.610†	14836.0	0.4757	mg/L	0.00199	0.4757	mg/L	0.00199	0.42%
Mo 202.031†	30.3	0.00115	mg/L	0.000207	0.00115	mg/L	0.000207	18.03%
Na 589.592†	151627.9	9.919	mg/L	0.0350	9.919	mg/L	0.0350	0.35%
Na 330.237†	238.7	10.93	mg/L	0.219	10.93	mg/L	0.219	2.00%
Ni 231.604†	1339.9	0.4946	mg/L	0.00166	0.4946	mg/L	0.00166	0.33%
Pb 220.353†	24343.6	2.012	mg/L	0.0162	2.012	mg/L	0.0162	0.81%
Sb 206.836†	16.8	-0.00095	mg/L	0.000276	-0.00095	mg/L	0.000276	28.91%
Se 196.026†	3582.0	2.054	mg/L	0.0096	2.054	mg/L	0.0096	0.47%
Si 288.158†	10.1	0.01158	mg/L	0.003298	0.01158	mg/L	0.003298	28.49%
Sn 189.927†	-10.4	-0.00144	mg/L	0.000300	-0.00144	mg/L	0.000300	20.81%
Sr 421.552†	423779.2	0.4973	mg/L	0.00121	0.4973	mg/L	0.00121	0.24%
Ti 334.903†	34.4	0.00101	mg/L	0.000122	0.00101	mg/L	0.000122	12.02%
Tl 190.801†	5436.0	2.046	mg/L	0.0112	2.046	mg/L	0.0112	0.55%
V 292.402†	105403.2	0.5107	mg/L	0.00362	0.5107	mg/L	0.00362	0.71%
Zn 206.200†	1432.4	0.4923	mg/L	0.00384	0.4923	mg/L	0.00384	0.78%

Sequence No.: 17
Sample ID: TX57 MB2SPK TWC

Autosampler Location: 313
Date Collected: 11/28/2011 11:42:17 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TX57 MB2SPK TWC

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: TX57 MB2SPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2955113.1	102.3	%	0.66				0.65%
ScR 361.383	381062.0	102.9	%	1.01				0.98%
Ag 328.068†	138669.6	0.5255	mg/L	0.00549	0.5255	mg/L	0.00549	1.04%
Al 308.215†	2158.1	2.095	mg/L	0.0259	2.095	mg/L	0.0259	1.24%
As 188.979†	5417.3	2.072	mg/L	0.0071	2.072	mg/L	0.0071	0.34%
B 249.677†	9.6	0.00142	mg/L	0.001284	0.00142	mg/L	0.001284	90.57%
Ba 233.527†	9666.1	2.029	mg/L	0.0285	2.029	mg/L	0.0285	1.40%
Be 313.042†	233174.4	0.4836	mg/L	0.00254	0.4836	mg/L	0.00254	0.53%
Ca 317.933†	92049.3	10.12	mg/L	0.022	10.12	mg/L	0.022	0.21%
Cd 228.802†	20271.3	0.5169	mg/L	0.00361	0.5169	mg/L	0.00361	0.70%
Co 228.616†	23871.8	0.5024	mg/L	0.00204	0.5024	mg/L	0.00204	0.41%
Cr 267.716†	2800.3	0.5090	mg/L	0.00652	0.5090	mg/L	0.00652	1.28%
Cu 324.752†	137228.0	0.5173	mg/L	0.00039	0.5173	mg/L	0.00039	0.08%
Fe 273.955†	1708.4	2.100	mg/L	0.0315	2.100	mg/L	0.0315	1.50%
K 766.490†	23278.9	10.45	mg/L	0.025	10.45	mg/L	0.025	0.23%
Mg 279.077†	8767.2	10.52	mg/L	0.138	10.52	mg/L	0.138	1.31%
Mn 257.610†	14965.0	0.4798	mg/L	0.00147	0.4798	mg/L	0.00147	0.31%
Mo 202.031†	35.6	0.00137	mg/L	0.000197	0.00137	mg/L	0.000197	14.38%
Na 589.592†	150979.9	9.876	mg/L	0.0329	9.876	mg/L	0.0329	0.33%
Na 330.237†	232.8	10.66	mg/L	0.306	10.66	mg/L	0.306	2.87%
Ni 231.604†	1338.0	0.4939	mg/L	0.00942	0.4939	mg/L	0.00942	1.91%
Pb 220.353†	24410.9	2.018	mg/L	0.0017	2.018	mg/L	0.0017	0.09%
Sb 206.836†	10.5	-0.00230	mg/L	0.001682	-0.00230	mg/L	0.001682	73.07%
Se 196.026†	3587.4	2.057	mg/L	0.0008	2.057	mg/L	0.0008	0.04%
Si 288.158†	-9.1	-0.00417	mg/L	0.000553	-0.00417	mg/L	0.000553	13.26%
Sn 189.927†	-10.4	-0.00145	mg/L	0.000288	-0.00145	mg/L	0.000288	19.90%
Sr 421.552†	427497.8	0.5017	mg/L	0.00060	0.5017	mg/L	0.00060	0.12%
Ti 334.903†	20.6	0.00035	mg/L	0.000306	0.00035	mg/L	0.000306	87.76%
Tl 190.801†	5444.2	2.049	mg/L	0.0072	2.049	mg/L	0.0072	0.35%
V 292.402†	106108.7	0.5142	mg/L	0.00274	0.5142	mg/L	0.00274	0.53%
Zn 206.200†	1423.9	0.4894	mg/L	0.00720	0.4894	mg/L	0.00720	1.47%

TCEQ : DALY

Sequence No.: 18
Sample ID: CV

Autosampler Location: 7
Date Collected: 11/28/2011 11:46:15 AM
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.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2957833.8	102.4	%	0.87				0.85%
ScR 361.383	379495.2	102.5	%	1.56				1.53%
Ag 328.068†	267252.6	1.013	mg/L	0.0113	1.013	mg/L	0.0113	1.11%
Al 308.215†	2078.8	1.992	mg/L	0.0290	1.992	mg/L	0.0290	1.45%
As 188.979†	5137.6	1.967	mg/L	0.0286	1.967	mg/L	0.0286	1.46%
B 249.677†	3833.5	0.9780	mg/L	0.01801	0.9780	mg/L	0.01801	1.84%
Ba 233.527†	4672.6	0.9806	mg/L	0.01824	0.9806	mg/L	0.01824	1.86%
Be 313.042†	464406.5	0.9633	mg/L	0.00966	0.9633	mg/L	0.00966	1.00%
Ca 317.933†	18691.6	2.054	mg/L	0.0351	2.054	mg/L	0.0351	1.71%
Cd 228.802†	39774.5	1.025	mg/L	0.0133	1.025	mg/L	0.0133	1.29%
Co 228.616†	45975.4	0.9664	mg/L	0.01077	0.9664	mg/L	0.01077	1.11%
Cr 267.716†	5500.2	1.001	mg/L	0.0152	1.001	mg/L	0.0152	1.52%
Cu 324.752†	266492.9	1.004	mg/L	0.0104	1.004	mg/L	0.0104	1.03%
Fe 273.955†	1634.3	2.006	mg/L	0.0310	2.006	mg/L	0.0310	1.54%
K 766.490†	45215.7	20.30	mg/L	0.148	20.30	mg/L	0.148	0.73%
Mg 279.077†	1661.7	2.000	mg/L	0.0255	2.000	mg/L	0.0255	1.28%
Mn 257.610†	30373.8	0.9735	mg/L	0.01701	0.9735	mg/L	0.01701	1.75%
Mo 202.031†	24221.5	1.010	mg/L	0.0123	1.010	mg/L	0.0123	1.22%
Na 589.592†	746234.6	48.82	mg/L	0.513	48.82	mg/L	0.513	1.05%
Na 330.237†	1119.7	52.16	mg/L	0.800	52.16	mg/L	0.800	1.53%
Ni 231.604†	2661.1	0.9839	mg/L	0.01802	0.9839	mg/L	0.01802	1.83%
Pb 220.353†	23824.1	1.970	mg/L	0.0259	1.970	mg/L	0.0259	1.31%
Sb 206.836†	9625.7	2.080	mg/L	0.0277	2.080	mg/L	0.0277	1.33%
Se 196.026†	3466.5	1.988	mg/L	0.0205	1.988	mg/L	0.0205	1.03%
Si 288.158†	2473.5	2.036	mg/L	0.0298	2.036	mg/L	0.0298	1.46%
Sn 189.927†	6111.3	1.010	mg/L	0.0124	1.010	mg/L	0.0124	1.23%
Sr 421.552†	838270.8	0.9838	mg/L	0.00972	0.9838	mg/L	0.00972	0.99%
Ti 334.903†	20325.1	0.9667	mg/L	0.00872	0.9667	mg/L	0.00872	0.90%
Tl 190.801†	5194.5	1.956	mg/L	0.0282	1.956	mg/L	0.0282	1.44%
V 292.402†	202162.3	0.9800	mg/L	0.00869	0.9800	mg/L	0.00869	0.89%
Zn 206.200†	2855.1	0.9812	mg/L	0.01484	0.9812	mg/L	0.01484	1.51%

Sequence No.: 19
Sample ID: CB 2

Autosampler Location: 1
Date Collected: 11/28/2011 11:50:16 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2981124.3	103.2	%	1.61				1.56%
ScR 361.383	382166.4	103.2	%	0.69				0.67%
Ag 328.068†	18.2	0.00007	mg/L	0.000160	0.00007	mg/L	0.000160	231.38%
Al 308.215†	9.2	0.00898	mg/L	0.001578	0.00898	mg/L	0.001578	17.57%
As 188.979†	-0.5	-0.00020	mg/L	0.000623	-0.00020	mg/L	0.000623	312.62%
B 249.677†	13.8	0.00351	mg/L	0.000419	0.00351	mg/L	0.000419	11.93%
Ba 233.527†	2.3	0.00049	mg/L	0.000514	0.00049	mg/L	0.000514	105.29%
Be 313.042†	17.0	0.00004	mg/L	0.000062	0.00004	mg/L	0.000062	176.61%
Ca 317.933†	13.4	0.00147	mg/L	0.000553	0.00147	mg/L	0.000553	37.63%
Cd 228.802†	2.3	0.00006	mg/L	0.000145	0.00006	mg/L	0.000145	235.32%
Co 228.616†	8.1	0.00017	mg/L	0.000091	0.00017	mg/L	0.000091	53.72%
Cr 267.716†	4.5	0.00081	mg/L	0.000350	0.00081	mg/L	0.000350	43.21%
Cu 324.752†	195.6	0.00074	mg/L	0.000212	0.00074	mg/L	0.000212	28.80%
Fe 273.955†	1.5	0.00187	mg/L	0.002531	0.00187	mg/L	0.002531	135.36%
K 766.490†	83.6	0.03754	mg/L	0.030394	0.03754	mg/L	0.030394	80.96%
Mg 279.077†	1.4	0.00172	mg/L	0.004518	0.00172	mg/L	0.004518	262.51%
Mn 257.610†	1.7	0.00006	mg/L	0.000211	0.00006	mg/L	0.000211	381.09%
Mo 202.031†	-1.4	-0.00006	mg/L	0.000214	-0.00006	mg/L	0.000214	356.16%
Na 589.592†	97.1	0.00635	mg/L	0.002567	0.00635	mg/L	0.002567	40.42%
Na 330.237†	-4.0	-0.1864	mg/L	0.43653	-0.1864	mg/L	0.43653	234.18%
Ni 231.604†	2.3	0.00085	mg/L	0.000252	0.00085	mg/L	0.000252	29.66%
Pb 220.353†	0.4	0.00004	mg/L	0.000737	0.00004	mg/L	0.000737	>999.9%
Sb 206.836†	-8.6	-0.00184	mg/L	0.001190	-0.00184	mg/L	0.001190	64.58%
Se 196.026†	10.7	0.00616	mg/L	0.002412	0.00616	mg/L	0.002412	39.18%
Si 288.158†	5.0	0.00414	mg/L	0.004878	0.00414	mg/L	0.004878	117.81%
Sn 189.927†	6.6	0.00109	mg/L	0.000389	0.00109	mg/L	0.000389	35.84%
Sr 421.552†	95.6	0.00011	mg/L	0.000088	0.00011	mg/L	0.000088	78.10%
Ti 334.903†	11.8	0.00056	mg/L	0.000590	0.00056	mg/L	0.000590	104.83%
Tl 190.801†	7.2	0.00272	mg/L	0.000802	0.00272	mg/L	0.000802	29.45%
V 292.402†	34.8	0.00017	mg/L	0.000105	0.00017	mg/L	0.000105	61.76%
Zn 206.200†	2.1	0.00071	mg/L	0.000131	0.00071	mg/L	0.000131	18.54%

end package

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 11.28.11 Analysis Date: 11.29.11 Analyst: BW

LR Date: 8.3.11 Page: 1 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		std 0			
		2			
		3			
		4			
		5			
		ICV			
		ICB			
		CRI			
		ICSA			
		ICSAB			
		CCV 1			
		CCB 1			
		TY01 MB2	DMN		
		TZ04 MB1	SwC	2	
		G-L		10 ✓	
		G		2	CAF
		Gdup		✓	
		Gsplk			Zn 6l%
		Gpost		✓	0.08ml ICSsplk Zn
		H			
		I			
		MB/splk		✓	
		CCV 2			
		CCB 2			

TXET : 01456

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11.29.11 Analyst: BLW

LR Date: — Page: 2 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		CRI			
		ICSA			
		ICSAB			
		CCV3			
		CCB3			
		TX57 MBI	SVC	2	
		A			
		B			
		C			
		E			
		F			
		Ddup			
		D			
		Dsdu			
		MBSDU			
		CCV4			
		CCB4			
		TX57 G	SVC	2	
		H			
		I			
		J			
	✓	K			clog ?
	✓	L			↓
		M			

TX57 : 01452

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11.29.11 Analyst: BW

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
		TX57 N	Swc	2	
		↓ O	↓	↓	✓
		TY35 MBsph	TWC		
		CCV5			
		CCB5			
		TY35 MB	TWC		
		↓ B	↓		
	✓	TY01 G	DMN		CV out
		H			
		I			
		J			
		Fdup		✓	
		F			
		Fsph		✓	0.016 Sb 1000 0.08 ml ICPsph Ag noisy
		MB2sph			
		CCV6			Ag high
		CCB6			
		CCV7			
		CCB7			
		TY32 MB	TWC		
		TY35 C			
		D			
		Adup		✓	
		A			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11.29.11 Analyst: BW

LR Date: — Page: 4 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		TY35 Asph	TWC	✓	
		TY32 Adup		✓	
		A			
		Asph		✓	
		MBsph		✓	
		CCV8			
		CCB8			
		HNO_3		10	I7248
		TZ17 MB1	SWC	2	
		TY01 B	TWC		
		TX57K	SWC	2	
		L			
		TZ17 B		5 ✓	
		Adup			
		A			
		Asph		✓	AS5TL
		MB1sph		2 ✓	
		CCV9			
		CCB9			end package
		TY46 MB	TWC		
		TY01 C			
		D		✓	
		Adup			
		A			

11.30.11

TX57 : 01453

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 11.29.11

ICP 2	Analyst 11.30	Peer 11.30.11	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	✓	✓	TY01
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	✓	✓	TY01

TX57 01USL

Analysis Begun

Start Time: 11/29/2011 10:33:34 AM
Logged In Analyst: metals
Plasma On Time: 11/29/2011 9:20:23 AM
Technique: ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C8121202Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\CRISETb.sif
Batch ID:
Results Data Set: I2111129
Results Library: C:\pe\metals\Results\Results.mdb

Method Loaded
Method Name: 7300bcESI2FAST
Method Last Saved: 11/28/2011 3:44:09 PM
IEC File: 112811MIN.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	Yes
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
Sample ID: Calib Blank 1
Autosampler Location: 1
Date Collected: 11/29/2011 10:33:36 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	2767422.1	15053.90	0.54%	100.0	%
ScR 361.383	359200.8	3241.78	0.90%	100.00	%
Ag 328.068†	-849.8	10.86	1.28%	[0.00]	mg/L
Al 308.215†	-73.1	3.48	4.76%	[0.00]	mg/L
As 188.979†	-23.1	4.44	19.20%	[0.00]	mg/L
B 249.677†	-55.0	1.95	3.54%	[0.00]	mg/L

Ba 233.527†	-2.7	4.75	177.85%	[0.00] mg/L
Be 313.042†	965.2	12.30	1.27%	[0.00] mg/L
Ca 317.933†	55.4	15.43	27.86%	[0.00] mg/L
Cd 228.802†	301.0	4.02	1.34%	[0.00] mg/L
Co 228.616†	-101.9	4.19	4.11%	[0.00] mg/L
Cr 267.716†	-1.5	4.16	269.88%	[0.00] mg/L
Cu 324.752†	2017.3	44.75	2.22%	[0.00] mg/L
Fe 273.955†	-28.5	3.58	12.58%	[0.00] mg/L
K 766.490†	-788.2	23.42	2.97%	[0.00] mg/L
Mg 279.077†	40.2	6.93	17.25%	[0.00] mg/L
Mn 257.610†	72.5	5.10	7.03%	[0.00] mg/L
Mo 202.031†	142.8	3.45	2.41%	[0.00] mg/L
Na 589.592†	600.4	22.15	3.69%	[0.00] mg/L
Na 330.237†	-70.5	5.00	7.09%	[0.00] mg/L
Ni 231.604†	-30.2	3.52	11.68%	[0.00] mg/L
Pb 220.353†	-90.3	6.73	7.45%	[0.00] mg/L
Sb 206.836†	373.9	5.30	1.42%	[0.00] mg/L
Se 196.026†	-167.3	2.77	1.65%	[0.00] mg/L
Si 288.158†	-34.9	5.19	14.87%	[0.00] mg/L
Sn 189.927†	-39.2	6.30	16.09%	[0.00] mg/L
Sr 421.552†	-624.9	17.78	2.84%	[0.00] mg/L
Ti 334.903†	67.6	8.28	12.24%	[0.00] mg/L
Tl 190.801†	-30.1	2.82	9.39%	[0.00] mg/L
V 292.402†	264.4	36.12	13.66%	[0.00] mg/L
Zn 206.200†	-21.7	1.23	5.68%	[0.00] mg/L

TX57.01456

Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 11/29/2011 10:37:48 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	214.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2821570.3	10091.36	0.36%	102.0	%
ScR 361.383	364627.2	3499.24	0.96%	101.5	%
Ba 233.527†	47550.7	711.82	1.50%	[10]	mg/L
Cd 228.802†	364665.9	2268.51	0.62%	[10]	mg/L
Co 228.616†	448072.1	1553.69	0.35%	[10]	mg/L
Cr 267.716†	53934.7	899.53	1.67%	[10]	mg/L
Cu 324.752†	2532417.1	3680.20	0.15%	[10]	mg/L
Mn 257.610†	317078.1	4444.99	1.40%	[10]	mg/L
V 292.402†	1977266.3	15821.44	0.80%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 11/29/2011 10:39:47 AM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	214.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2830103.0	25838.51	0.91%	102.3	%
ScR 361.383	356840.5	2518.39	0.71%	99.34	%
Ag 328.068†	265610.4	1482.76	0.56%	[1.0]	mg/L
As 188.979†	25658.3	217.74	0.85%	[10]	mg/L
B 249.677†	38205.6	213.89	0.56%	[10]	mg/L
Be 313.042†	2426991.9	23574.50	0.97%	[5.0]	mg/L
Na 589.592†	774777.2	5457.84	0.70%	[50]	mg/L
Ni 231.604†	27394.9	63.08	0.23%	[10]	mg/L
Pb 220.353†	115938.0	364.09	0.31%	[10]	mg/L
Se 196.026†	17404.7	168.50	0.97%	[10]	mg/L
Sr 421.552†	4171957.6	12853.66	0.31%	[5]	mg/L
Tl 190.801†	26445.3	211.51	0.80%	[10]	mg/L
Zn 206.200†	27966.0	139.95	0.50%	[10]	mg/L

TXST : 01456

Sequence No.: 4
Sample ID: STD4

Autosampler Location: 4
Date Collected: 11/29/2011 10:42:19 AM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2869954.2	20745.21	0.72%	103.7	%
ScR 361.383	371546.1	2516.43	0.68%	103.4	%
Mo 202.031†	232723.5	3117.36	1.34%	[10]	mg/L
Sb 206.836†	44453.4	574.16	1.29%	[10]	mg/L
Si 288.158†	11988.4	74.21	0.62%	[10]	mg/L
Sn 189.927†	59815.9	804.84	1.35%	[10]	mg/L
Ti 334.903†	210336.2	657.91	0.31%	[10]	mg/L

TX57.91455

Sequence No.: 5
Sample ID: STD5

Autosampler Location: 5
Date Collected: 11/29/2011 10:44:31 AM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2688913.0	26227.49	0.98%	97.16	%
ScR 361.383	364636.2	3283.36	0.90%	101.5	%
Al 308.215†	30194.3	358.74	1.19%	[30]	mg/L
Ca 317.933†	263851.5	1294.98	0.49%	[30]	mg/L
Fe 273.955†	81678.3	479.63	0.59%	[100]	mg/L
K 766.490†	216785.2	1556.07	0.72%	[100]	mg/L
Mg 279.077†	24366.7	322.29	1.32%	[30]	mg/L
Na 330.237†	2107.6	41.64	1.98%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	265600	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1006	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	2566	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	3821	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	4755	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	485400	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	8795	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	36470	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	44810	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	5393	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	253200	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	816.8	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	2168	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	812.2	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	31710	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	23270	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	15500	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	21.08	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	2739	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	11590	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	4445	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1740	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	1199	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	5982	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	834400	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	21030	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2645	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	197700	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	2797	0.00000	1.000000	

Analysis Begun

Start Time: 11/29/2011 10:48:22 AM
Logged In Analyst: metals
Spectrometer Model: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/29/2011 9:20:23 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\1129.sif
Batch ID:
Results Data Set: I2111129
Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 1
Sample ID: CV
Autosampler Location: 7
Date Collected: 11/29/2011 10:48:23 AM
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	Std.Dev.	RSD
ScA 357.253	2844339.8	102.8	%	0.42				0.41%
ScR 361.383	357030.8	99.40	%	0.561				0.56%
Ag 328.068†	277668.9	1.045	mg/L	0.0077	1.045	mg/L	0.0077	0.73%
Al 308.215†	2081.3	2.033	mg/L	0.0166	2.033	mg/L	0.0166	0.82%
As 188.979†	5085.0	1.984	mg/L	0.0087	1.984	mg/L	0.0087	0.44%
B 249.677†	3840.9	1.004	mg/L	0.0123	1.004	mg/L	0.0123	1.23%
Ba 233.527†	4849.4	1.019	mg/L	0.0092	1.019	mg/L	0.0092	0.90%
Be 313.042†	489417.5	1.008	mg/L	0.0102	1.008	mg/L	0.0102	1.02%
Ca 317.933†	18303.9	2.081	mg/L	0.0226	2.081	mg/L	0.0226	1.09%
Cd 228.802†	38577.8	1.048	mg/L	0.0060	1.048	mg/L	0.0060	0.57%
Co 228.616†	44153.2	0.9835	mg/L	0.00515	0.9835	mg/L	0.00515	0.52%
Cr 267.716†	5499.6	1.019	mg/L	0.0108	1.019	mg/L	0.0108	1.06%
Cu 324.752†	257313.0	1.016	mg/L	0.0034	1.016	mg/L	0.0034	0.34%
Fe 273.955†	1699.4	2.074	mg/L	0.0158	2.074	mg/L	0.0158	0.76%
K 766.490†	44642.3	20.59	mg/L	0.087	20.59	mg/L	0.087	0.42%
Mg 279.077†	1644.2	2.031	mg/L	0.0191	2.031	mg/L	0.0191	0.94%
Mn 257.610†	32126.9	1.014	mg/L	0.0092	1.014	mg/L	0.0092	0.91%
Mo 202.031†	24023.9	1.032	mg/L	0.0054	1.032	mg/L	0.0054	0.53%
Na 589.592†	791369.6	51.07	mg/L	0.324	51.07	mg/L	0.324	0.63%
Na 330.237†	1112.6	52.71	mg/L	0.202	52.71	mg/L	0.202	0.38%
Ni 231.604†	2797.9	1.023	mg/L	0.0104	1.023	mg/L	0.0104	1.02%
Pb 220.353†	23741.7	2.049	mg/L	0.0097	2.049	mg/L	0.0097	0.47%
Sb 206.836†	9372.6	2.114	mg/L	0.0111	2.114	mg/L	0.0111	0.53%
Se 196.026†	3518.9	2.022	mg/L	0.0139	2.022	mg/L	0.0139	0.69%
Si 288.158†	2515.7	2.105	mg/L	0.0275	2.105	mg/L	0.0275	1.31%
Sn 189.927†	6238.5	1.044	mg/L	0.0075	1.044	mg/L	0.0075	0.72%
Sr 421.552†	844180.0	1.012	mg/L	0.0063	1.012	mg/L	0.0063	0.62%
Ti 334.903†	21056.8	0.9998	mg/L	0.00771	0.9998	mg/L	0.00771	0.77%
Tl 190.801†	5277.4	1.996	mg/L	0.0118	1.996	mg/L	0.0118	0.59%
V 292.402†	195089.3	0.9908	mg/L	0.00268	0.9908	mg/L	0.00268	0.27%
Zn 206.200†	2806.8	1.004	mg/L	0.0106	1.004	mg/L	0.0106	1.06%

TX57:8146:1

Sequence No.: 2
Sample ID: CB

Autosampler Location: 1
Date Collected: 11/29/2011 10:52:23 AM
Data Type: Original

Dilution: 1X

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	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2822732.9	102.0	%	1.29				1.27%
ScR 361.383	366154.8	101.9	%	1.13				1.10%
Ag 328.068†	39.9	0.00015	mg/L	0.000090	0.00015	mg/L	0.000090	59.86%
Al 308.215†	12.0	0.01189	mg/L	0.002962	0.01189	mg/L	0.002962	24.92%
As 188.979†	-0.7	-0.00029	mg/L	0.000166	-0.00029	mg/L	0.000166	58.18%
B 249.677†	18.1	0.00473	mg/L	0.001047	0.00473	mg/L	0.001047	22.13%
Ba 233.527†	-2.5	-0.00052	mg/L	0.000401	-0.00052	mg/L	0.000401	77.02%
Be 313.042†	27.4	0.00006	mg/L	0.000021	0.00006	mg/L	0.000021	37.27%
Ca 317.933†	-3.5	-0.00040	mg/L	0.000206	-0.00040	mg/L	0.000206	51.16%
Cd 228.802†	-0.7	-0.00002	mg/L	0.000160	-0.00002	mg/L	0.000160	917.91%
Co 228.616†	-2.4	-0.00005	mg/L	0.000200	-0.00005	mg/L	0.000200	383.59%
Cr 267.716†	-0.0	0.00000	mg/L	0.000685	0.00000	mg/L	0.000685	>999.9%
Cu 324.752†	4.5	0.00002	mg/L	0.000102	0.00002	mg/L	0.000102	562.91%
Fe 273.955†	4.2	0.00510	mg/L	0.001798	0.00510	mg/L	0.001798	35.26%
K 766.490†	17.0	0.00782	mg/L	0.012301	0.00782	mg/L	0.012301	157.28%
Mg 279.077†	-2.6	-0.00325	mg/L	0.008547	-0.00325	mg/L	0.008547	262.77%
Mn 257.610†	2.3	0.00007	mg/L	0.000060	0.00007	mg/L	0.000060	83.43%
Mo 202.031†	3.6	0.00015	mg/L	0.000178	0.00015	mg/L	0.000178	115.06%
Na 589.592†	103.3	0.00667	mg/L	0.001351	0.00667	mg/L	0.001351	20.26%
Na 330.237†	11.6	0.5502	mg/L	0.55877	0.5502	mg/L	0.55877	101.55%
Ni 231.604†	3.0	0.00108	mg/L	0.001478	0.00108	mg/L	0.001478	137.26%
Pb 220.353†	0.2	0.00002	mg/L	0.000761	0.00002	mg/L	0.000761	>999.9%
Sb 206.836†	-3.4	-0.00075	mg/L	0.000302	-0.00075	mg/L	0.000302	40.09%
Se 196.026†	0.1	0.00006	mg/L	0.000780	0.00006	mg/L	0.000780	>999.9%
Si 288.158†	-0.4	-0.00036	mg/L	0.001418	-0.00036	mg/L	0.001418	390.49%
Sn 189.927†	4.6	0.00077	mg/L	0.000416	0.00077	mg/L	0.000416	54.35%
Sr 421.552†	71.9	0.00009	mg/L	0.000031	0.00009	mg/L	0.000031	36.34%
Ti 334.903†	-14.0	-0.00067	mg/L	0.000675	-0.00067	mg/L	0.000675	101.43%
Tl 190.801†	5.4	0.00205	mg/L	0.001376	0.00205	mg/L	0.001376	67.13%
V 292.402†	16.2	0.00008	mg/L	0.000055	0.00008	mg/L	0.000055	66.40%
Zn 206.200†	-2.0	-0.00072	mg/L	0.000658	-0.00072	mg/L	0.000658	91.16%

TX57:01482

Sequence No.: 3
Sample ID: CRI

Autosampler Location: 301
Date Collected: 11/29/2011 10:56:36 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	215.0 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	2841066.5	102.7	%	0.92				0.90%
ScR 361.383	368641.2	102.6	%	0.35				0.34%
Ag 328.068†	866.9	0.00326	mg/L	0.000193	0.00326	mg/L	0.000193	5.92%
Al 308.215†	63.9	0.06334	mg/L	0.001681	0.06334	mg/L	0.001681	2.65%
As 188.979†	131.1	0.05109	mg/L	0.000646	0.05109	mg/L	0.000646	1.26%
B 249.677†	86.6	0.02267	mg/L	0.001177	0.02267	mg/L	0.001177	5.19%
Ba 233.527†	13.2	0.00276	mg/L	0.000627	0.00276	mg/L	0.000627	22.67%
Be 313.042†	505.0	0.00104	mg/L	0.000047	0.00104	mg/L	0.000047	4.50%
Ca 317.933†	428.9	0.04876	mg/L	0.000859	0.04876	mg/L	0.000859	1.76%
Cd 228.802†	80.5	0.00195	mg/L	0.000168	0.00195	mg/L	0.000168	8.64%
Co 228.616†	138.7	0.00309	mg/L	0.000107	0.00309	mg/L	0.000107	3.48%
Cr 267.716†	28.1	0.00520	mg/L	0.000358	0.00520	mg/L	0.000358	6.88%
Cu 324.752†	509.5	0.00201	mg/L	0.000121	0.00201	mg/L	0.000121	6.01%
Fe 273.955†	46.2	0.05649	mg/L	0.001056	0.05649	mg/L	0.001056	1.87%
K 766.490†	1116.9	0.5152	mg/L	0.01847	0.5152	mg/L	0.01847	3.58%
Mg 279.077†	39.4	0.04848	mg/L	0.007092	0.04848	mg/L	0.007092	14.63%
Mn 257.610†	31.3	0.00099	mg/L	0.000129	0.00099	mg/L	0.000129	13.04%
Mo 202.031†	121.8	0.00523	mg/L	0.000034	0.00523	mg/L	0.000034	0.66%
Na 589.592†	7523.4	0.4855	mg/L	0.00416	0.4855	mg/L	0.00416	0.86%
Na 330.237†	-1.4	-0.06651	mg/L	0.601307	-0.06651	mg/L	0.601307	904.02%
Ni 231.604†	27.6	0.01011	mg/L	0.001111	0.01011	mg/L	0.001111	10.99%
Pb 220.353†	244.2	0.02108	mg/L	0.000062	0.02108	mg/L	0.000062	0.29%
Sb 206.836†	225.0	0.05067	mg/L	0.002181	0.05067	mg/L	0.002181	4.30%
Se 196.026†	94.8	0.05449	mg/L	0.002867	0.05449	mg/L	0.002867	5.26%
Si 288.158†	78.4	0.06545	mg/L	0.003205	0.06545	mg/L	0.003205	4.90%
Sn 189.927†	61.7	0.01034	mg/L	0.000620	0.01034	mg/L	0.000620	6.00%
Sr 421.552†	899.3	0.00108	mg/L	0.000020	0.00108	mg/L	0.000020	1.83%
Ti 334.903†	102.7	0.00487	mg/L	0.000414	0.00487	mg/L	0.000414	8.49%
Tl 190.801†	137.8	0.05211	mg/L	0.000931	0.05211	mg/L	0.000931	1.79%
V 292.402†	560.6	0.00285	mg/L	0.000065	0.00285	mg/L	0.000065	2.28%
Zn 206.200†	25.9	0.00924	mg/L	0.000424	0.00924	mg/L	0.000424	4.59%

Sequence No.: 4
Sample ID: ICSA

Autosampler Location: 302
Date Collected: 11/29/2011 11:00:49 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2752467.5	99.46	%	0.650				0.65%
ScR 361.383	357555.7	99.54	%	1.174				1.18%
Ag 328.068†	114.0	-0.00066	mg/L	0.000118	-0.00066	mg/L	0.000118	17.73%
Al 308.215†	202748.0	201.4	mg/L	1.39	201.4	mg/L	1.39	0.69%
As 188.979†	1.6	-0.00282	mg/L	0.001225	-0.00282	mg/L	0.001225	43.42%
B 249.677†	-39.3	-0.01029	mg/L	0.001887	-0.01029	mg/L	0.001887	18.35%
Ba 233.527†	40.9	-0.00108	mg/L	0.001361	-0.00108	mg/L	0.001361	125.80%
Be 313.042†	63.8	0.00013	mg/L	0.000045	0.00013	mg/L	0.000045	35.72%
Ca 317.933†	891929.5	101.4	mg/L	0.39	101.4	mg/L	0.39	0.38%
Cd 228.802†	25.4	0.00069	mg/L	0.000059	0.00069	mg/L	0.000059	8.52%
Co 228.616†	71.3	0.00158	mg/L	0.000142	0.00158	mg/L	0.000142	8.97%
Cr 267.716†	-6.8	-0.00034	mg/L	0.000949	-0.00034	mg/L	0.000949	279.73%
Cu 324.752†	-3093.6	-0.00111	mg/L	0.000193	-0.00111	mg/L	0.000193	17.39%
Fe 273.955†	163403.9	200.1	mg/L	1.92	200.1	mg/L	1.92	0.96%
K 766.490†	108.7	0.05016	mg/L	0.013380	0.05016	mg/L	0.013380	26.67%
Mg 279.077†	83595.7	102.8	mg/L	1.20	102.8	mg/L	1.20	1.17%
Mn 257.610†	50.9	0.00076	mg/L	0.000073	0.00076	mg/L	0.000073	9.61%
Mo 202.031†	182.6	0.00549	mg/L	0.000474	0.00549	mg/L	0.000474	8.63%
Na 589.592†	286.5	0.01849	mg/L	0.007662	0.01849	mg/L	0.007662	41.44%
Na 330.237†	5.3	0.2505	mg/L	0.23960	0.2505	mg/L	0.23960	95.64%
Ni 231.604†	-1.7	-0.00053	mg/L	0.001693	-0.00053	mg/L	0.001693	318.62%
Pb 220.353†	-395.4	-0.00425	mg/L	0.000741	-0.00425	mg/L	0.000741	17.44%
Sb 206.836†	458.5	0.00097	mg/L	0.002307	0.00097	mg/L	0.002307	238.22%
Se 196.026†	-92.4	0.00537	mg/L	0.005963	0.00537	mg/L	0.005963	111.00%
Si 288.158†	-20.5	-0.01712	mg/L	0.002257	-0.01712	mg/L	0.002257	13.19%
Sn 189.927†	-79.0	-0.01315	mg/L	0.000742	-0.01315	mg/L	0.000742	5.65%
Sr 421.552†	8625.4	0.01034	mg/L	0.000146	0.01034	mg/L	0.000146	1.41%
Ti 334.903†	98.4	0.00074	mg/L	0.000325	0.00074	mg/L	0.000325	43.73%
Tl 190.801†	-37.8	0.00854	mg/L	0.001285	0.00854	mg/L	0.001285	15.05%
V 292.402†	4030.2	0.00576	mg/L	0.000268	0.00576	mg/L	0.000268	4.66%
Zn 206.200†	0.7	-0.00237	mg/L	0.000504	-0.00237	mg/L	0.000504	21.29%

Sequence No.: 5
Sample ID: ICSAB

Autosampler Location: 303
Date Collected: 11/29/2011 11:05:02 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	216.0 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	2736917.0	98.90	%	0.395				0.40%
ScR 361.383	357924.0	99.64	%	0.249				0.25%
Ag 328.068†	287468.7	1.081	mg/L	0.0061	1.081	mg/L	0.0061	0.57%
Al 308.215†	202747.8	201.4	mg/L	0.19	201.4	mg/L	0.19	0.10%
As 188.979†	2623.1	1.019	mg/L	0.0058	1.019	mg/L	0.0058	0.57%
B 249.677†	-22.8	-0.00796	mg/L	0.000943	-0.00796	mg/L	0.000943	11.85%
Ba 233.527†	4796.1	0.9984	mg/L	0.00924	0.9984	mg/L	0.00924	0.93%
Be 313.042†	490780.5	1.011	mg/L	0.0043	1.011	mg/L	0.0043	0.42%
Ca 317.933†	891388.4	101.4	mg/L	0.27	101.4	mg/L	0.27	0.27%
Cd 228.802†	37914.1	1.035	mg/L	0.0022	1.035	mg/L	0.0022	0.21%
Co 228.616†	43202.9	0.9639	mg/L	0.00203	0.9639	mg/L	0.00203	0.21%
Cr 267.716†	5371.4	0.9967	mg/L	0.00923	0.9967	mg/L	0.00923	0.93%
Cu 324.752†	264509.2	1.056	mg/L	0.0026	1.056	mg/L	0.0026	0.25%
Fe 273.955†	163833.1	200.6	mg/L	0.77	200.6	mg/L	0.77	0.38%
K 766.490†	489.5	0.2258	mg/L	0.02107	0.2258	mg/L	0.02107	9.33%
Mg 279.077†	81089.3	99.73	mg/L	0.281	99.73	mg/L	0.281	0.28%
Mn 257.610†	31484.3	0.9924	mg/L	0.00884	0.9924	mg/L	0.00884	0.89%
Mo 202.031†	203.5	0.00642	mg/L	0.000224	0.00642	mg/L	0.000224	3.48%
Na 589.592†	235.3	0.01519	mg/L	0.002595	0.01519	mg/L	0.002595	17.08%
Na 330.237†	13.0	0.3169	mg/L	0.03441	0.3169	mg/L	0.03441	10.86%
Ni 231.604†	2622.5	0.9582	mg/L	0.01147	0.9582	mg/L	0.01147	1.20%
Pb 220.353†	11406.2	1.015	mg/L	0.0051	1.015	mg/L	0.0051	0.50%
Sb 206.836†	4952.0	1.005	mg/L	0.0088	1.005	mg/L	0.0088	0.88%
Se 196.026†	1684.4	1.026	mg/L	0.0094	1.026	mg/L	0.0094	0.92%
Si 288.158†	-21.5	-0.01430	mg/L	0.002701	-0.01430	mg/L	0.002701	18.89%
Sn 189.927†	-86.7	-0.01385	mg/L	0.000914	-0.01385	mg/L	0.000914	6.60%
Sr 421.552†	8576.1	0.01028	mg/L	0.000021	0.01028	mg/L	0.000021	0.20%
Ti 334.903†	85.1	-0.00005	mg/L	0.000333	-0.00005	mg/L	0.000333	692.87%
Tl 190.801†	2566.2	0.9913	mg/L	0.00319	0.9913	mg/L	0.00319	0.32%
V 292.402†	199594.0	0.9988	mg/L	0.00815	0.9988	mg/L	0.00815	0.82%
Zn 206.200†	2647.8	0.9444	mg/L	0.00964	0.9444	mg/L	0.00964	1.02%

Sequence No.: 6
Sample ID: CV

Autosampler Location: 7
Date Collected: 11/29/2011 11:09:01 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	215.0 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	2765909.5	99.95	%	0.145				0.14%
ScR 361.383	352275.6	98.07	%	1.150				1.17%
Ag 328.068†	280611.7	1.056	mg/L	0.0048	1.056	mg/L	0.0048	0.45%
Al 308.215†	2101.5	2.053	mg/L	0.0443	2.053	mg/L	0.0443	2.16%
As 188.979†	5134.8	2.004	mg/L	0.0032	2.004	mg/L	0.0032	0.16%
B 249.677†	3793.2	0.9917	mg/L	0.01113	0.9917	mg/L	0.01113	1.12%
Ba 233.527†	4787.7	1.006	mg/L	0.0132	1.006	mg/L	0.0132	1.31%
Be 313.042†	483276.2	0.9953	mg/L	0.00933	0.9953	mg/L	0.00933	0.94%
Ca 317.933†	18328.6	2.083	mg/L	0.0371	2.083	mg/L	0.0371	1.78%
Cd 228.802†	38942.3	1.058	mg/L	0.0034	1.058	mg/L	0.0034	0.32%
Co 228.616†	44585.9	0.9931	mg/L	0.00555	0.9931	mg/L	0.00555	0.56%
Cr 267.716†	5452.2	1.010	mg/L	0.0128	1.010	mg/L	0.0128	1.27%
Cu 324.752†	259936.1	1.026	mg/L	0.0045	1.026	mg/L	0.0045	0.44%
Fe 273.955†	1707.9	2.084	mg/L	0.0568	2.084	mg/L	0.0568	2.73%
K 766.490†	44851.4	20.69	mg/L	0.090	20.69	mg/L	0.090	0.44%
Mg 279.077†	1648.3	2.036	mg/L	0.0407	2.036	mg/L	0.0407	2.00%
Mn 257.610†	31724.7	1.001	mg/L	0.0142	1.001	mg/L	0.0142	1.41%
Mo 202.031†	24263.3	1.043	mg/L	0.0033	1.043	mg/L	0.0033	0.32%
Na 589.592†	785495.0	50.69	mg/L	0.356	50.69	mg/L	0.356	0.70%
Na 330.237†	1105.3	52.37	mg/L	0.486	52.37	mg/L	0.486	0.93%
Ni 231.604†	2768.1	1.012	mg/L	0.0154	1.012	mg/L	0.0154	1.52%
Pb 220.353†	23981.7	2.070	mg/L	0.0076	2.070	mg/L	0.0076	0.37%
Sb 206.836†	9473.7	2.137	mg/L	0.0071	2.137	mg/L	0.0071	0.33%
Se 196.026†	3544.9	2.037	mg/L	0.0096	2.037	mg/L	0.0096	0.47%
Si 288.158†	2500.1	2.092	mg/L	0.0307	2.092	mg/L	0.0307	1.47%
Sn 189.927†	6267.4	1.049	mg/L	0.0009	1.049	mg/L	0.0009	0.09%
Sr 421.552†	838936.8	1.005	mg/L	0.0041	1.005	mg/L	0.0041	0.40%
Ti 334.903†	20859.4	0.9904	mg/L	0.00604	0.9904	mg/L	0.00604	0.61%
Tl 190.801†	5322.9	2.013	mg/L	0.0039	2.013	mg/L	0.0039	0.19%
V 292.402†	197256.5	1.002	mg/L	0.0092	1.002	mg/L	0.0092	0.92%
Zn 206.200†	2787.8	0.9968	mg/L	0.01359	0.9968	mg/L	0.01359	1.36%

Sequence No.: 7
Sample ID: CB

Autosampler Location: 1
Date Collected: 11/29/2011 11:13:06 AM
Data Type: Original

Dilution: 1X

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	2770345.3	100.1	%	0.16				0.15%
ScR 361.383	357414.9	99.50	%	0.700				0.70%
Ag 328.068†	43.0	0.00016	mg/L	0.000094	0.00016	mg/L	0.000094	57.95%
Al 308.215†	13.4	0.01328	mg/L	0.001464	0.01328	mg/L	0.001464	11.02%
As 188.979†	-2.3	-0.00088	mg/L	0.001672	-0.00088	mg/L	0.001672	190.15%
B 249.677†	19.1	0.00501	mg/L	0.000660	0.00501	mg/L	0.000660	13.19%
Ba 233.527†	-3.2	-0.00067	mg/L	0.000485	-0.00067	mg/L	0.000485	72.48%
Be 313.042†	56.2	0.00012	mg/L	0.000008	0.00012	mg/L	0.000008	6.72%
Ca 317.933†	15.8	0.00180	mg/L	0.001035	0.00180	mg/L	0.001035	57.45%
Cd 228.802†	1.0	0.00003	mg/L	0.000108	0.00003	mg/L	0.000108	320.98%
Co 228.616†	-2.3	-0.00005	mg/L	0.000092	-0.00005	mg/L	0.000092	178.61%
Cr 267.716†	1.0	0.00018	mg/L	0.000762	0.00018	mg/L	0.000762	426.76%
Cu 324.752†	21.3	0.00008	mg/L	0.000070	0.00008	mg/L	0.000070	82.33%
Fe 273.955†	7.1	0.00872	mg/L	0.000650	0.00872	mg/L	0.000650	7.45%
K 766.490†	17.9	0.00828	mg/L	0.008651	0.00828	mg/L	0.008651	104.52%
Mg 279.077†	-1.7	-0.00209	mg/L	0.003750	-0.00209	mg/L	0.003750	179.30%
Mn 257.610†	4.1	0.00013	mg/L	0.000022	0.00013	mg/L	0.000022	16.95%
Mo 202.031†	1.6	0.00007	mg/L	0.000189	0.00007	mg/L	0.000189	283.08%
Na 589.592†	102.9	0.00664	mg/L	0.002072	0.00664	mg/L	0.002072	31.19%
Na 330.237†	5.6	0.2661	mg/L	0.41168	0.2661	mg/L	0.41168	154.73%
Ni 231.604†	4.9	0.00178	mg/L	0.000376	0.00178	mg/L	0.000376	21.07%
Pb 220.353†	-1.4	-0.00012	mg/L	0.000573	-0.00012	mg/L	0.000573	471.39%
Sb 206.836†	3.0	0.00068	mg/L	0.000791	0.00068	mg/L	0.000791	116.40%
Se 196.026†	-5.8	-0.00334	mg/L	0.001018	-0.00334	mg/L	0.001018	30.47%
Si 288.158†	0.8	0.00066	mg/L	0.004499	0.00066	mg/L	0.004499	680.08%
Sn 189.927†	3.2	0.00054	mg/L	0.000460	0.00054	mg/L	0.000460	84.70%
Sr 421.552†	59.1	0.00007	mg/L	0.000038	0.00007	mg/L	0.000038	53.84%
Ti 334.903†	5.5	0.00026	mg/L	0.000747	0.00026	mg/L	0.000747	287.99%
Tl 190.801†	5.1	0.00193	mg/L	0.002178	0.00193	mg/L	0.002178	113.13%
V 292.402†	11.1	0.00006	mg/L	0.000100	0.00006	mg/L	0.000100	179.36%
Zn 206.200†	1.6	0.00058	mg/L	0.000530	0.00058	mg/L	0.000530	91.37%

Sequence No.: 8
Sample ID: TY01 MB2 DMN

Autosampler Location: 304
Date Collected: 11/29/2011 11:17:19 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY01 MB2 DMN

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: TY01 MB2 DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2823189.5	102.0	%	0.49				0.48%
ScR 361.383	363676.0	101.2	%	0.72				0.71%
Ag 328.068†	-13.9	-0.00005	mg/L	0.000194	-0.00005	mg/L	0.000194	372.11%
Al 308.215†	11.1	0.01105	mg/L	0.006274	0.01105	mg/L	0.006274	56.81%
As 188.979†	3.7	0.00146	mg/L	0.000452	0.00146	mg/L	0.000452	30.98%
B 249.677†	15.8	0.00412	mg/L	0.000982	0.00412	mg/L	0.000982	23.81%
Ba 233.527†	-2.4	-0.00051	mg/L	0.000837	-0.00051	mg/L	0.000837	162.76%
Be 313.042†	20.3	0.00004	mg/L	0.000035	0.00004	mg/L	0.000035	83.73%
Ca 317.933†	42.7	0.00485	mg/L	0.000652	0.00485	mg/L	0.000652	13.44%
Cd 228.802†	-4.8	-0.00014	mg/L	0.000035	-0.00014	mg/L	0.000035	25.00%
Co 228.616†	11.5	0.00026	mg/L	0.000119	0.00026	mg/L	0.000119	46.08%
Cr 267.716†	2.5	0.00047	mg/L	0.000496	0.00047	mg/L	0.000496	105.24%
Cu 324.752†	55.5	0.00022	mg/L	0.000254	0.00022	mg/L	0.000254	115.46%
Fe 273.955†	6.9	0.00848	mg/L	0.002393	0.00848	mg/L	0.002393	28.23%
K 766.490†	-5.7	-0.00261	mg/L	0.013727	-0.00261	mg/L	0.013727	526.28%
Mg 279.077†	3.9	0.00482	mg/L	0.004320	0.00482	mg/L	0.004320	89.71%
Mn 257.610†	5.0	0.00016	mg/L	0.000011	0.00016	mg/L	0.000011	6.82%
Mo 202.031†	-10.9	-0.00047	mg/L	0.000203	-0.00047	mg/L	0.000203	43.28%
Na 589.592†	323.0	0.02084	mg/L	0.001074	0.02084	mg/L	0.001074	5.15%
Na 330.237†	4.9	0.2321	mg/L	0.35212	0.2321	mg/L	0.35212	151.71%
Ni 231.604†	0.9	0.00032	mg/L	0.000676	0.00032	mg/L	0.000676	210.35%
Pb 220.353†	9.7	0.00084	mg/L	0.000302	0.00084	mg/L	0.000302	35.99%
Sb 206.836†	-25.8	-0.00580	mg/L	0.000627	-0.00580	mg/L	0.000627	10.80%
Se 196.026†	10.0	0.00575	mg/L	0.003748	0.00575	mg/L	0.003748	65.15%
Si 288.158†	-3.5	-0.00295	mg/L	0.002074	-0.00295	mg/L	0.002074	70.38%
Sn 189.927†	2.5	0.00041	mg/L	0.000137	0.00041	mg/L	0.000137	33.11%
Sr 421.552†	100.4	0.00012	mg/L	0.000027	0.00012	mg/L	0.000027	22.31%
Ti 334.903†	-1.2	-0.00006	mg/L	0.000542	-0.00006	mg/L	0.000542	963.05%
Tl 190.801†	7.8	0.00293	mg/L	0.002420	0.00293	mg/L	0.002420	82.57%
V 292.402†	19.7	0.00010	mg/L	0.000081	0.00010	mg/L	0.000081	80.41%
Zn 206.200†	-0.1	-0.00004	mg/L	0.000738	-0.00004	mg/L	0.000738	>999.9%

TX57 01466

Sequence No.: 9
Sample ID: TZ04 MB1 SWC

Autosampler Location: 305
Date Collected: 11/29/2011 11:21:32 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TZ04 MB1 SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TZ04 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2773201.7	100.2	%	0.62				0.62%
ScR 361.383	358551.1	99.82	%	1.369				1.37%
Ag 328.068†	73.6	0.00028	mg/L	0.000083	0.00055	mg/L	0.000166	29.89%
Al 308.215†	17.0	0.01692	mg/L	0.006737	0.03383	mg/L	0.013474	39.83%
As 188.979†	0.9	0.00034	mg/L	0.001055	0.00068	mg/L	0.002109	309.25%
B 249.677†	10.0	0.00263	mg/L	0.000669	0.00525	mg/L	0.001337	25.46%
Ba 233.527†	0.9	0.00019	mg/L	0.000197	0.00038	mg/L	0.000395	103.05%
Be 313.042†	31.2	0.00006	mg/L	0.000060	0.00013	mg/L	0.000120	93.12%
Ca 317.933†	57.2	0.00650	mg/L	0.000800	0.01300	mg/L	0.001600	12.31%
Cd 228.802†	-3.2	-0.00009	mg/L	0.000058	-0.00017	mg/L	0.000115	65.82%
Co 228.616†	-4.1	-0.00009	mg/L	0.000087	-0.00019	mg/L	0.000175	93.98%
Cr 267.716†	5.3	0.00098	mg/L	0.000776	0.00196	mg/L	0.001552	79.37%
Cu 324.752†	61.6	0.00024	mg/L	0.000068	0.00049	mg/L	0.000136	28.01%
Fe 273.955†	5.9	0.00718	mg/L	0.002076	0.01436	mg/L	0.004152	28.92%
K 766.490†	18.0	0.00829	mg/L	0.006007	0.01659	mg/L	0.012013	72.42%
Mg 279.077†	0.8	0.00096	mg/L	0.002426	0.00192	mg/L	0.004852	252.51%
Mn 257.610†	6.8	0.00021	mg/L	0.000171	0.00043	mg/L	0.000343	80.15%
Mo 202.031†	4.1	0.00018	mg/L	0.000190	0.00035	mg/L	0.000381	107.85%
Na 589.592†	-7.2	-0.00047	mg/L	0.003633	-0.00093	mg/L	0.007267	777.92%
Na 330.237†	12.1	0.5748	mg/L	0.14523	1.150	mg/L	0.2905	25.27%
Ni 231.604†	4.1	0.00151	mg/L	0.000615	0.00302	mg/L	0.001229	40.76%
Pb 220.353†	0.3	0.00004	mg/L	0.000299	0.00007	mg/L	0.000597	851.80%
Sb 206.836†	-3.1	-0.00071	mg/L	0.002176	-0.00142	mg/L	0.004352	305.63%
Se 196.026†	-4.3	-0.00246	mg/L	0.000661	-0.00492	mg/L	0.001321	26.86%
Si 288.158†	3.2	0.00264	mg/L	0.005070	0.00528	mg/L	0.010140	191.90%
Sn 189.927†	1.0	0.00017	mg/L	0.000502	0.00033	mg/L	0.001005	301.09%
Sr 421.552†	50.5	0.00006	mg/L	0.000041	0.00012	mg/L	0.000082	67.46%
Ti 334.903†	12.9	0.00061	mg/L	0.000391	0.00123	mg/L	0.000783	63.84%
Tl 190.801†	0.9	0.00034	mg/L	0.000101	0.00067	mg/L	0.000202	30.04%
V 292.402†	-3.0	-0.00001	mg/L	0.000066	-0.00002	mg/L	0.000132	549.00%
Zn 206.200†	0.9	0.00031	mg/L	0.000451	0.00062	mg/L	0.000902	146.40%

Sequence No.: 10
Sample ID: TZ04 G-L SWC

Autosampler Location: 306
Date Collected: 11/29/2011 11:25:44 AM
Data Type: Original

Dilution: 10X

Nebulizer Parameters: TZ04 G-L SWC

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: TZ04 G-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2743617.0	99.14	%	0.131				0.13%
ScR 361.383	352692.2	98.19	%	0.771				0.79%
Ag 328.068†	128.7	0.00021	mg/L	0.000165	0.00207	mg/L	0.001647	79.76%
Al 308.215†	8030.6	7.978	mg/L	0.0751	79.78	mg/L	0.751	0.94%
As 188.979†	22.4	0.01013	mg/L	0.000692	0.1013	mg/L	0.00692	6.83%
B 249.677†	94.9	0.02482	mg/L	0.001474	0.2482	mg/L	0.01474	5.94%
Ba 233.527†	526.5	0.1102	mg/L	0.00011	1.102	mg/L	0.0011	0.10%
Be 313.042†	94.9	0.00019	mg/L	0.000014	0.00188	mg/L	0.000137	7.29%
Ca 317.933†	172903.9	19.66	mg/L	0.105	196.6	mg/L	1.05	0.53%
Cd 228.802†	33.1	0.00088	mg/L	0.000097	0.00876	mg/L	0.000973	11.11%
Co 228.616†	256.3	0.00500	mg/L	0.000174	0.05001	mg/L	0.001739	3.48%
Cr 267.716†	183.2	0.03375	mg/L	0.000636	0.3375	mg/L	0.00636	1.88%
Cu 324.752†	15730.6	0.06271	mg/L	0.000876	0.6271	mg/L	0.00876	1.40%
Fe 273.955†	9928.8	12.16	mg/L	0.081	121.6	mg/L	0.81	0.67%
K 766.490†	21435.0	9.888	mg/L	0.0197	98.88	mg/L	0.197	0.20%
Mg 279.077†	3726.6	4.581	mg/L	0.0375	45.81	mg/L	0.375	0.82%
Mn 257.610†	11632.8	0.3669	mg/L	0.00283	3.669	mg/L	0.0283	0.77%
Mo 202.031†	80.6	0.00317	mg/L	0.000186	0.03169	mg/L	0.001860	5.87%
Na 589.592†	32356.2	2.088	mg/L	0.0172	20.88	mg/L	0.172	0.82%
Na 330.237†	45.1	2.167	mg/L	0.0789	21.67	mg/L	0.789	3.64%
Ni 231.604†	54.1	0.01976	mg/L	0.000756	0.1976	mg/L	0.00756	3.82%
Pb 220.353†	731.3	0.06403	mg/L	0.001098	0.6403	mg/L	0.01098	1.71%
Sb 206.836†	19.7	0.00000	mg/L	0.001847	-0.00001	mg/L	0.018468	>999.9%
Se 196.026†	-7.6	-0.00160	mg/L	0.001560	-0.01597	mg/L	0.015599	97.66%
Si 288.158†	394.1	0.3287	mg/L	0.01460	3.287	mg/L	0.1460	4.44%
Sn 189.927†	10.7	0.00192	mg/L	0.000119	0.01917	mg/L	0.001194	6.23%
Sr 421.552†	73138.2	0.08765	mg/L	0.000730	0.8765	mg/L	0.00730	0.83%
Ti 334.903†	8160.3	0.3872	mg/L	0.00395	3.872	mg/L	0.0395	1.02%
Tl 190.801†	1.6	0.00248	mg/L	0.000503	0.02481	mg/L	0.005031	20.28%
V 292.402†	5076.6	0.02474	mg/L	0.000152	0.2474	mg/L	0.00152	0.62%
Zn 206.200†	585.1	0.2087	mg/L	0.00220	2.087	mg/L	0.0220	1.06%

TX57:01478

Sequence No.: 11
Sample ID: TZ04 G SWC

Autosampler Location: 307
Date Collected: 11/29/2011 11:29:42 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TZ04 G SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TZ04 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2818176.3	101.8	%	1.52				1.49%
ScR 361.383	362608.9	100.9	%	0.62				0.62%
Ag 328.068†	452.5	0.00034	mg/L	0.000125	0.00069	mg/L	0.000249	36.25%
Al 308.215†	39807.8	39.55	mg/L	0.046	79.09	mg/L	0.091	0.12%
As 188.979†	108.1	0.04902	mg/L	0.001144	0.09803	mg/L	0.002287	2.33%
B 249.677†	458.6	0.1200	mg/L	0.00199	0.2400	mg/L	0.00397	1.65%
Ba 233.527†	2560.3	0.5360	mg/L	0.00390	1.072	mg/L	0.0078	0.73%
Be 313.042†	367.6	0.00072	mg/L	0.000022	0.00144	mg/L	0.000043	3.00%
Ca 317.933†	849417.2	96.58	mg/L	0.239	193.2	mg/L	0.48	0.25%
Cd 228.802†	142.7	0.00376	mg/L	0.000235	0.00752	mg/L	0.000470	6.25%
Co 228.616†	1239.7	0.02415	mg/L	0.000374	0.04829	mg/L	0.000748	1.55%
Cr 267.716†	883.4	0.1628	mg/L	0.00112	0.3256	mg/L	0.00224	0.69%
Cu 324.752†	79593.0	0.3172	mg/L	0.00569	0.6344	mg/L	0.01137	1.79%
Fe 273.955†	48457.9	59.33	mg/L	0.189	118.7	mg/L	0.38	0.32%
K 766.490†	105442.3	48.64	mg/L	0.303	97.28	mg/L	0.606	0.62%
Mg 279.077†	17135.8	21.06	mg/L	0.017	42.13	mg/L	0.033	0.08%
Mn 257.610†	56584.9	1.785	mg/L	0.0123	3.569	mg/L	0.0246	0.69%
Mo 202.031†	294.6	0.01124	mg/L	0.000551	0.02247	mg/L	0.001103	4.91%
Na 589.592†	159162.9	10.27	mg/L	0.055	20.54	mg/L	0.109	0.53%
Na 330.237†	231.5	11.12	mg/L	0.202	22.24	mg/L	0.404	1.82%
Ni 231.604†	258.7	0.09447	mg/L	0.001351	0.1889	mg/L	0.00270	1.43%
Pb 220.353†	3583.5	0.3139	mg/L	0.00563	0.6277	mg/L	0.01127	1.79%
Sb 206.836†	101.1	0.00084	mg/L	0.002373	0.00168	mg/L	0.004746	282.93%
Se 196.026†	-4.7	0.01120	mg/L	0.003065	0.02239	mg/L	0.006129	27.37%
Si 288.158†	1930.3	1.610	mg/L	0.0306	3.220	mg/L	0.0612	1.90%
Sn 189.927†	43.8	0.00791	mg/L	0.001334	0.01583	mg/L	0.002668	16.86%
Sr 421.552†	358828.1	0.4300	mg/L	0.00180	0.8601	mg/L	0.00361	0.42%
Ti 334.903†	39978.4	1.897	mg/L	0.0101	3.794	mg/L	0.0202	0.53%
Tl 190.801†	-8.3	0.00592	mg/L	0.002752	0.01184	mg/L	0.005505	46.48%
V 292.402†	24754.1	0.1206	mg/L	0.00180	0.2412	mg/L	0.00360	1.49%
Zn 206.200†	2865.5	1.022	mg/L	0.0082	2.044	mg/L	0.0164	0.80%

Sequence No.: 12
Sample ID: TZ04 GDUP SWC

Autosampler Location: 308
Date Collected: 11/29/2011 11:33:41 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TZ04 GDUP SWC

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: TZ04 GDUP SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2852847.7	103.1	%	1.36				1.32%
ScR 361.383	370606.0	103.2	%	0.22				0.21%
Ag 328.068†	475.1	0.00057	mg/L	0.000099	0.00115	mg/L	0.000198	17.27%
Al 308.215†	51815.3	51.48	mg/L	0.175	103.0	mg/L	0.35	0.34%
As 188.979†	106.5	0.04920	mg/L	0.000945	0.09839	mg/L	0.001891	1.92%
B 249.677†	412.0	0.1078	mg/L	0.00047	0.2156	mg/L	0.00093	0.43%
Ba 233.527†	2481.1	0.5192	mg/L	0.00285	1.038	mg/L	0.0057	0.55%
Be 313.042†	347.6	0.00068	mg/L	0.000008	0.00135	mg/L	0.000016	1.20%
Ca 317.933†	772165.5	87.80	mg/L	0.253	175.6	mg/L	0.51	0.29%
Cd 228.802†	135.9	0.00357	mg/L	0.000238	0.00715	mg/L	0.000476	6.67%
Co 228.616†	1262.6	0.02450	mg/L	0.000315	0.04900	mg/L	0.000630	1.29%
Cr 267.716†	762.8	0.1407	mg/L	0.00108	0.2815	mg/L	0.00217	0.77%
Cu 324.752†	88407.9	0.3521	mg/L	0.00498	0.7042	mg/L	0.00996	1.41%
Fe 273.955†	50026.3	61.25	mg/L	0.170	122.5	mg/L	0.34	0.28%
K 766.490†	99558.8	45.93	mg/L	0.251	91.85	mg/L	0.502	0.55%
Mg 279.077†	16660.6	20.48	mg/L	0.097	40.96	mg/L	0.194	0.47%
Mn 257.610†	51185.1	1.614	mg/L	0.0052	3.228	mg/L	0.0104	0.32%
Mo 202.031†	260.0	0.00986	mg/L	0.000522	0.01973	mg/L	0.001044	5.29%
Na 589.592†	149718.1	9.662	mg/L	0.0220	19.32	mg/L	0.044	0.23%
Na 330.237†	225.7	10.88	mg/L	0.050	21.75	mg/L	0.100	0.46%
Ni 231.604†	253.4	0.09250	mg/L	0.000384	0.1850	mg/L	0.00077	0.41%
Pb 220.353†	3473.2	0.3065	mg/L	0.00312	0.6131	mg/L	0.00623	1.02%
Sb 206.836†	106.3	-0.00250	mg/L	0.001704	-0.00500	mg/L	0.003407	68.18%
Se 196.026†	-16.9	0.00687	mg/L	0.007103	0.01375	mg/L	0.014206	103.32%
Si 288.158†	1535.4	1.281	mg/L	0.0068	2.562	mg/L	0.0136	0.53%
Sn 189.927†	54.6	0.00975	mg/L	0.000228	0.01950	mg/L	0.000456	2.34%
Sr 421.552†	339020.6	0.4063	mg/L	0.00207	0.8126	mg/L	0.00414	0.51%
Ti 334.903†	41793.7	1.984	mg/L	0.0100	3.967	mg/L	0.0201	0.51%
Tl 190.801†	-2.5	0.00809	mg/L	0.000769	0.01618	mg/L	0.001538	9.50%
V 292.402†	27339.7	0.1334	mg/L	0.00237	0.2668	mg/L	0.00474	1.78%
Zn 206.200†	2754.1	0.9826	mg/L	0.00364	1.965	mg/L	0.0073	0.37%

Sequence No.: 13
Sample ID: TZ04 GSPK SWC

Autosampler Location: 309
Date Collected: 11/29/2011 11:37:40 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TZ04 GSPK SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TZ04 GSPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2814212.5	101.7	%	0.34				0.34%
ScR 361.383	366514.1	102.0	%	0.80				0.79%
Ag 328.068†	128113.6	0.4812	mg/L	0.00214	0.9623	mg/L	0.00428	0.44%
Al 308.215†	51354.2	51.01	mg/L	0.279	102.0	mg/L	0.56	0.55%
As 188.979†	5001.6	1.959	mg/L	0.0040	3.919	mg/L	0.0081	0.21%
B 249.677†	387.6	0.1004	mg/L	0.00096	0.2008	mg/L	0.00192	0.96%
Ba 233.527†	11662.0	2.449	mg/L	0.0142	4.898	mg/L	0.0284	0.58%
Be 313.042†	223503.8	0.4603	mg/L	0.00170	0.9206	mg/L	0.00341	0.37%
Ca 317.933†	766250.4	87.12	mg/L	0.334	174.2	mg/L	0.67	0.38%
Cd 228.802†	18377.6	0.4941	mg/L	0.00198	0.9882	mg/L	0.00396	0.40%
Co 228.616†	22363.3	0.4943	mg/L	0.00176	0.9887	mg/L	0.00351	0.36%
Cr 267.716†	3226.0	0.5976	mg/L	0.00482	1.195	mg/L	0.0096	0.81%
Cu 324.752†	199936.5	0.7935	mg/L	0.00446	1.587	mg/L	0.0089	0.56%
Fe 273.955†	64522.9	78.99	mg/L	0.404	158.0	mg/L	0.81	0.51%
K 766.490†	118743.6	54.77	mg/L	0.471	109.5	mg/L	0.94	0.86%
Mg 279.077†	25269.0	31.07	mg/L	0.160	62.14	mg/L	0.320	0.52%
Mn 257.610†	65003.6	2.050	mg/L	0.0054	4.101	mg/L	0.0108	0.26%
Mo 202.031†	276.8	0.01048	mg/L	0.000454	0.02096	mg/L	0.000907	4.33%
Na 589.592†	287527.7	18.56	mg/L	0.066	37.11	mg/L	0.132	0.36%
Na 330.237†	411.8	19.70	mg/L	0.246	39.40	mg/L	0.493	1.25%
Ni 231.604†	1498.7	0.5471	mg/L	0.00317	1.094	mg/L	0.0063	0.58%
Pb 220.353†	24805.6	2.146	mg/L	0.0050	4.292	mg/L	0.0099	0.23%
Sb 206.836†	137.6	-0.00014	mg/L	0.001292	-0.00027	mg/L	0.002585	940.89%
Se 196.026†	3329.3	1.931	mg/L	0.0057	3.861	mg/L	0.0113	0.29%
Si 288.158†	2021.3	1.688	mg/L	0.0254	3.376	mg/L	0.0507	1.50%
Sn 189.927†	37.0	0.00693	mg/L	0.000534	0.01387	mg/L	0.001067	7.69%
Sr 421.552†	726438.8	0.8706	mg/L	0.00457	1.741	mg/L	0.0091	0.53%
Ti 334.903†	50914.9	2.417	mg/L	0.0055	4.834	mg/L	0.0110	0.23%
Tl 190.801†	4916.7	1.869	mg/L	0.0042	3.739	mg/L	0.0083	0.22%
V 292.402†	117004.3	0.5872	mg/L	0.00274	1.174	mg/L	0.0055	0.47%
Zn 206.200†	3711.9	1.325	mg/L	0.0076	2.651	mg/L	0.0152	0.57%

Sequence No.: 14
Sample ID: TZ04 GPOST SWC

Autosampler Location: 310
Date Collected: 11/29/2011 11:41:40 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TZ04 GPOST SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TZ04 GPOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2812245.2	101.6	%	0.55				0.54%
ScR 361.383	364851.2	101.6	%	0.53				0.52%
Ag 328.068†	135305.1	0.5080	mg/L	0.00287	1.016	mg/L	0.0057	0.56%
Al 308.215†	42090.6	41.81	mg/L	0.149	83.61	mg/L	0.298	0.36%
As 188.979†	5419.1	2.118	mg/L	0.0130	4.237	mg/L	0.0261	0.62%
B 249.677†	462.2	0.1199	mg/L	0.00356	0.2398	mg/L	0.00712	2.97%
Ba 233.527†	12376.5	2.600	mg/L	0.0175	5.200	mg/L	0.0351	0.67%
Be 313.042†	244216.5	0.5029	mg/L	0.00224	1.006	mg/L	0.0045	0.44%
Ca 317.933†	945620.4	107.5	mg/L	0.49	215.0	mg/L	0.99	0.46%
Cd 228.802†	20088.9	0.5402	mg/L	0.00180	1.080	mg/L	0.0036	0.33%
Co 228.616†	23959.9	0.5308	mg/L	0.00216	1.062	mg/L	0.0043	0.41%
Cr 267.716†	3645.5	0.6741	mg/L	0.00420	1.348	mg/L	0.0084	0.62%
Cu 324.752†	215565.9	0.8543	mg/L	0.00554	1.709	mg/L	0.0111	0.65%
Fe 273.955†	50122.8	61.36	mg/L	0.285	122.7	mg/L	0.57	0.47%
K 766.490†	130991.1	60.42	mg/L	0.257	120.8	mg/L	0.51	0.42%
Mg 279.077†	26871.6	33.05	mg/L	0.204	66.10	mg/L	0.407	0.62%
Mn 257.610†	72136.9	2.275	mg/L	0.0110	4.551	mg/L	0.0219	0.48%
Mo 202.031†	297.6	0.01110	mg/L	0.000307	0.02220	mg/L	0.000615	2.77%
Na 589.592†	318957.4	20.58	mg/L	0.089	41.17	mg/L	0.178	0.43%
Na 330.237†	463.2	21.96	mg/L	0.124	43.92	mg/L	0.249	0.57%
Ni 231.604†	1624.5	0.5930	mg/L	0.00501	1.186	mg/L	0.0100	0.85%
Pb 220.353†	27220.7	2.353	mg/L	0.0165	4.707	mg/L	0.0330	0.70%
Sb 206.836†	116.2	-0.00042	mg/L	0.001029	-0.00084	mg/L	0.002058	244.88%
Se 196.026†	3698.6	2.139	mg/L	0.0165	4.277	mg/L	0.0330	0.77%
Si 288.158†	1918.8	1.603	mg/L	0.0041	3.205	mg/L	0.0082	0.26%
Sn 189.927†	37.3	0.00683	mg/L	0.000740	0.01367	mg/L	0.001479	10.82%
Sr 421.552†	794530.0	0.9522	mg/L	0.00323	1.904	mg/L	0.0065	0.34%
Ti 334.903†	40281.6	1.911	mg/L	0.0099	3.822	mg/L	0.0197	0.52%
Tl 190.801†	5319.2	2.020	mg/L	0.0184	4.039	mg/L	0.0368	0.91%
V 292.402†	123458.5	0.6217	mg/L	0.00315	1.243	mg/L	0.0063	0.51%
Zn 206.200†	4233.3	1.511	mg/L	0.0107	3.022	mg/L	0.0214	0.71%

Sequence No.: 15
Sample ID: TZ04 H SWC

Autosampler Location: 311
Date Collected: 11/29/2011 11:45:41 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TZ04 H SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TZ04 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2828452.0	102.2	%	0.35				0.34%
ScR 361.383	369592.6	102.9	%	0.82				0.80%
Ag 328.068†	148.6	-0.00024	mg/L	0.000089	-0.00047	mg/L	0.000177	37.33%
Al 308.215†	124368.3	123.6	mg/L	0.44	247.1	mg/L	0.89	0.36%
As 188.979†	-4.4	0.03405	mg/L	0.001150	0.06810	mg/L	0.002301	3.38%
B 249.677†	26.8	0.00686	mg/L	0.000619	0.01373	mg/L	0.001238	9.02%
Ba 233.527†	1935.1	0.3974	mg/L	0.00380	0.7948	mg/L	0.00760	0.96%
Be 313.042†	1570.0	0.00311	mg/L	0.000053	0.00622	mg/L	0.000107	1.71%
Ca 317.933†	466969.4	53.09	mg/L	0.165	106.2	mg/L	0.33	0.31%
Cd 228.802†	78.5	0.00231	mg/L	0.000097	0.00461	mg/L	0.000194	4.21%
Co 228.616†	3578.1	0.06720	mg/L	0.000339	0.1344	mg/L	0.00068	0.50%
Cr 267.716†	1227.2	0.2309	mg/L	0.00134	0.4617	mg/L	0.00267	0.58%
Cu 324.752†	40399.1	0.1684	mg/L	0.00051	0.3368	mg/L	0.00102	0.30%
Fe 273.955†	151985.4	186.1	mg/L	0.59	372.1	mg/L	1.18	0.32%
K 766.490†	17491.6	8.069	mg/L	0.0264	16.14	mg/L	0.053	0.33%
Mg 279.077†	46323.6	56.93	mg/L	0.093	113.9	mg/L	0.19	0.16%
Mn 257.610†	85919.8	2.710	mg/L	0.0130	5.419	mg/L	0.0260	0.48%
Mo 202.031†	157.4	0.00549	mg/L	0.000647	0.01099	mg/L	0.001294	11.78%
Na 589.592†	50835.3	3.281	mg/L	0.0149	6.561	mg/L	0.0297	0.45%
Na 330.237†	30.0	2.999	mg/L	0.1005	5.997	mg/L	0.2009	3.35%
Ni 231.604†	576.5	0.2105	mg/L	0.00357	0.4210	mg/L	0.00715	1.70%
Pb 220.353†	169.0	0.02979	mg/L	0.001169	0.05958	mg/L	0.002338	3.93%
Sb 206.836†	272.0	-0.00383	mg/L	0.000978	-0.00766	mg/L	0.001955	25.51%
Se 196.026†	-57.7	0.01092	mg/L	0.006866	0.02184	mg/L	0.013732	62.87%
Si 288.158†	2508.0	2.092	mg/L	0.0353	4.184	mg/L	0.0707	1.69%
Sn 189.927†	-61.2	-0.00809	mg/L	0.000765	-0.01618	mg/L	0.001530	9.45%
Sr 421.552†	211676.6	0.2537	mg/L	0.00101	0.5074	mg/L	0.00201	0.40%
Ti 334.903†	145941.4	6.936	mg/L	0.0213	13.87	mg/L	0.043	0.31%
Tl 190.801†	-31.1	0.01260	mg/L	0.001165	0.02520	mg/L	0.002330	9.25%
V 292.402†	82166.0	0.3991	mg/L	0.00182	0.7981	mg/L	0.00363	0.46%
Zn 206.200†	954.6	0.3400	mg/L	0.00292	0.6800	mg/L	0.00583	0.86%

Sequence No.: 16
Sample ID: TZ04 I SWC

Autosampler Location: 312
Date Collected: 11/29/2011 11:49:39 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TZ04 I SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TZ04 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2862170.0	103.4	%	0.82				0.79%
ScR 361.383	369340.7	102.8	%	0.10				0.10%
Ag 328.068†	146.3	-0.00029	mg/L	0.000039	-0.00058	mg/L	0.000077	13.28%
Al 308.215†	106151.1	105.5	mg/L	0.67	210.9	mg/L	1.35	0.64%
As 188.979†	36.7	0.04447	mg/L	0.001466	0.08895	mg/L	0.002932	3.30%
B 249.677†	1987.9	0.5202	mg/L	0.00213	1.040	mg/L	0.0043	0.41%
Ba 233.527†	2647.2	0.5489	mg/L	0.00205	1.098	mg/L	0.0041	0.37%
Be 313.042†	887.4	0.00172	mg/L	0.000015	0.00344	mg/L	0.000031	0.89%
Ca 317.933†	496509.3	56.45	mg/L	0.100	112.9	mg/L	0.20	0.18%
Cd 228.802†	49.0	0.00141	mg/L	0.000098	0.00281	mg/L	0.000195	6.94%
Co 228.616†	3078.7	0.05787	mg/L	0.000071	0.1157	mg/L	0.00014	0.12%
Cr 267.716†	970.8	0.1826	mg/L	0.00099	0.3653	mg/L	0.00198	0.54%
Cu 324.752†	45669.4	0.1876	mg/L	0.00215	0.3753	mg/L	0.00430	1.15%
Fe 273.955†	125383.8	153.5	mg/L	0.97	307.0	mg/L	1.94	0.63%
K 766.490†	28496.6	13.15	mg/L	0.038	26.29	mg/L	0.076	0.29%
Mg 279.077†	33662.1	41.36	mg/L	0.132	82.72	mg/L	0.264	0.32%
Mn 257.610†	79113.4	2.495	mg/L	0.0119	4.990	mg/L	0.0238	0.48%
Mo 202.031†	181.5	0.00666	mg/L	0.000492	0.01331	mg/L	0.000984	7.39%
Na 589.592†	60639.0	3.913	mg/L	0.0176	7.827	mg/L	0.0351	0.45%
Na 330.237†	54.4	3.896	mg/L	0.2526	7.793	mg/L	0.5053	6.48%
Ni 231.604†	553.0	0.2019	mg/L	0.00224	0.4038	mg/L	0.00447	1.11%
Pb 220.353†	459.0	0.05277	mg/L	0.000345	0.1055	mg/L	0.00069	0.65%
Sb 206.836†	225.4	-0.00392	mg/L	0.001398	-0.00784	mg/L	0.002796	35.68%
Se 196.026†	-51.0	0.00822	mg/L	0.003581	0.01643	mg/L	0.007163	43.59%
Si 288.158†	1573.6	1.313	mg/L	0.0039	2.625	mg/L	0.0078	0.30%
Sn 189.927†	-44.7	-0.00563	mg/L	0.000741	-0.01127	mg/L	0.001482	13.15%
Sr 421.552†	270262.8	0.3239	mg/L	0.00080	0.6478	mg/L	0.00160	0.25%
Ti 334.903†	124638.5	5.923	mg/L	0.0252	11.85	mg/L	0.050	0.43%
Tl 190.801†	-28.8	0.00953	mg/L	0.001060	0.01906	mg/L	0.002119	11.12%
V 292.402†	73126.9	0.3561	mg/L	0.00279	0.7122	mg/L	0.00558	0.78%
Zn 206.200†	1047.6	0.3732	mg/L	0.00246	0.7464	mg/L	0.00492	0.66%

TXST : 01476

Sequence No.: 17
Sample ID: TZ04 MB1SPK SWC

Autosampler Location: 313
Date Collected: 11/29/2011 11:53:37 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TZ04 MB1SPK SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TZ04 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2857855.4	103.3	%	1.09				1.06%
ScR 361.383	364594.3	101.5	%	0.20				0.20%
Ag 328.068†	132804.6	0.4999	mg/L	0.00744	0.9998	mg/L	0.01488	1.49%
Al 308.215†	2051.3	2.029	mg/L	0.0080	4.059	mg/L	0.0161	0.40%
As 188.979†	5007.8	1.951	mg/L	0.0197	3.903	mg/L	0.0393	1.01%
B 249.677†	16.0	0.00319	mg/L	0.001104	0.00639	mg/L	0.002207	34.56%
Ba 233.527†	9334.1	1.963	mg/L	0.0038	3.925	mg/L	0.0076	0.19%
Be 313.042†	225134.7	0.4637	mg/L	0.00186	0.9273	mg/L	0.00372	0.40%
Ca 317.933†	84166.5	9.570	mg/L	0.0169	19.14	mg/L	0.034	0.18%
Cd 228.802†	18281.7	0.4914	mg/L	0.00621	0.9828	mg/L	0.01242	1.26%
Co 228.616†	21471.3	0.4789	mg/L	0.00634	0.9577	mg/L	0.01268	1.32%
Cr 267.716†	2610.5	0.4833	mg/L	0.00205	0.9666	mg/L	0.00409	0.42%
Cu 324.752†	124453.8	0.4916	mg/L	0.00597	0.9833	mg/L	0.01193	1.21%
Fe 273.955†	1684.8	2.059	mg/L	0.0077	4.119	mg/L	0.0154	0.37%
K 766.490†	21605.9	9.967	mg/L	0.0202	19.93	mg/L	0.040	0.20%
Mg 279.077†	8170.1	10.06	mg/L	0.020	20.12	mg/L	0.040	0.20%
Mn 257.610†	14640.2	0.4621	mg/L	0.00160	0.9242	mg/L	0.00320	0.35%
Mo 202.031†	29.7	0.00105	mg/L	0.000105	0.00210	mg/L	0.000210	10.00%
Na 589.592†	147372.5	9.511	mg/L	0.0120	19.02	mg/L	0.024	0.13%
Na 330.237†	220.4	10.31	mg/L	0.109	20.61	mg/L	0.219	1.06%
Ni 231.604†	1305.0	0.4764	mg/L	0.00071	0.9527	mg/L	0.00141	0.15%
Pb 220.353†	22729.6	1.961	mg/L	0.0247	3.923	mg/L	0.0493	1.26%
Sb 206.836†	5.5	-0.00309	mg/L	0.001520	-0.00618	mg/L	0.003039	49.21%
Se 196.026†	3383.7	1.944	mg/L	0.0214	3.888	mg/L	0.0428	1.10%
Si 288.158†	2.6	0.00388	mg/L	0.003756	0.00776	mg/L	0.007513	96.77%
Sn 189.927†	-0.4	-0.00007	mg/L	0.000076	-0.00014	mg/L	0.000152	107.97%
Sr 421.552†	401044.8	0.4806	mg/L	0.00056	0.9613	mg/L	0.00111	0.12%
Ti 334.903†	59.8	0.00239	mg/L	0.000186	0.00478	mg/L	0.000373	7.80%
Tl 190.801†	5145.2	1.945	mg/L	0.0203	3.890	mg/L	0.0405	1.04%
V 292.402†	96152.7	0.4881	mg/L	0.00580	0.9762	mg/L	0.01160	1.19%
Zn 206.200†	1316.1	0.4706	mg/L	0.00194	0.9412	mg/L	0.00388	0.41%

Sequence No.: 18
Sample ID: CV 2
Dilution: 1X

Autosampler Location: 7
Date Collected: 11/29/2011 11:57:35 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	2908080.7	105.1	%	0.38				0.36%
ScR 361.383	371200.5	103.3	%	0.93				0.90%
Ag 328.068†	273311.9	1.029	mg/L	0.0044	1.029	mg/L	0.0044	0.43%
Al 308.215†	2067.0	2.019	mg/L	0.0202	2.019	mg/L	0.0202	1.00%
As 188.979†	5033.4	1.964	mg/L	0.0188	1.964	mg/L	0.0188	0.96%
B 249.677†	3782.7	0.9890	mg/L	0.00736	0.9890	mg/L	0.00736	0.74%
Ba 233.527†	4754.9	0.9994	mg/L	0.01053	0.9994	mg/L	0.01053	1.05%
Be 313.042†	480693.0	0.9900	mg/L	0.00859	0.9900	mg/L	0.00859	0.87%
Ca 317.933†	18233.9	2.073	mg/L	0.0168	2.073	mg/L	0.0168	0.81%
Cd 228.802†	38322.9	1.041	mg/L	0.0077	1.041	mg/L	0.0077	0.74%
Co 228.616†	43986.6	0.9798	mg/L	0.00891	0.9798	mg/L	0.00891	0.91%
Cr 267.716†	5443.1	1.009	mg/L	0.0087	1.009	mg/L	0.0087	0.86%
Cu 324.752†	256793.7	1.014	mg/L	0.0097	1.014	mg/L	0.0097	0.96%
Fe 273.955†	1681.2	2.052	mg/L	0.0177	2.052	mg/L	0.0177	0.86%
K 766.490†	44518.2	20.54	mg/L	0.194	20.54	mg/L	0.194	0.94%
Mg 279.077†	1627.9	2.011	mg/L	0.0180	2.011	mg/L	0.0180	0.90%
Mn 257.610†	31506.1	0.9941	mg/L	0.01121	0.9941	mg/L	0.01121	1.13%
Mo 202.031†	23713.0	1.019	mg/L	0.0100	1.019	mg/L	0.0100	0.98%
Na 589.592†	776399.9	50.10	mg/L	0.238	50.10	mg/L	0.238	0.47%
Na 330.237†	1109.0	52.54	mg/L	0.372	52.54	mg/L	0.372	0.71%
Ni 231.604†	2750.9	1.006	mg/L	0.0130	1.006	mg/L	0.0130	1.29%
Pb 220.353†	23486.7	2.027	mg/L	0.0208	2.027	mg/L	0.0208	1.03%
Sb 206.836†	9279.9	2.093	mg/L	0.0188	2.093	mg/L	0.0188	0.90%
Se 196.026†	3465.3	1.991	mg/L	0.0182	1.991	mg/L	0.0182	0.91%
Si 288.158†	2483.6	2.078	mg/L	0.0140	2.078	mg/L	0.0140	0.67%
Sn 189.927†	6125.9	1.026	mg/L	0.0099	1.026	mg/L	0.0099	0.96%
Sr 421.552†	838957.3	1.005	mg/L	0.0061	1.005	mg/L	0.0061	0.61%
Ti 334.903†	20742.4	0.9849	mg/L	0.00421	0.9849	mg/L	0.00421	0.43%
Tl 190.801†	5206.3	1.969	mg/L	0.0200	1.969	mg/L	0.0200	1.02%
V 292.402†	193396.2	0.9822	mg/L	0.01560	0.9822	mg/L	0.01560	1.59%
Zn 206.200†	2777.2	0.9930	mg/L	0.00847	0.9930	mg/L	0.00847	0.85%

Sequence No.: 19
Sample ID: CB 2

Autosampler Location: 1
Date Collected: 11/29/2011 12:01:36 PM
Data Type: Original

Dilution: 1X

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	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2881590.4	104.1	%	0.99				0.95%
ScR 361.383	374990.4	104.4	%	0.52				0.49%
Ag 328.068†	72.2	0.00027	mg/L	0.000173	0.00027	mg/L	0.000173	63.73%
Al 308.215†	16.4	0.01629	mg/L	0.005643	0.01629	mg/L	0.005643	34.64%
As 188.979†	-2.4	-0.00092	mg/L	0.000826	-0.00092	mg/L	0.000826	89.77%
B 249.677†	13.9	0.00364	mg/L	0.001107	0.00364	mg/L	0.001107	30.41%
Ba 233.527†	1.1	0.00024	mg/L	0.000063	0.00024	mg/L	0.000063	26.41%
Be 313.042†	-0.1	0.00000	mg/L	0.000026	0.00000	mg/L	0.000026	>999.9%
Ca 317.933†	19.3	0.00219	mg/L	0.000609	0.00219	mg/L	0.000609	27.76%
Cd 228.802†	-2.6	-0.00007	mg/L	0.000024	-0.00007	mg/L	0.000024	35.59%
Co 228.616†	-2.6	-0.00006	mg/L	0.000072	-0.00006	mg/L	0.000072	123.02%
Cr 267.716†	4.7	0.00087	mg/L	0.000210	0.00087	mg/L	0.000210	24.01%
Cu 324.752†	58.9	0.00023	mg/L	0.000127	0.00023	mg/L	0.000127	54.64%
Fe 273.955†	6.3	0.00772	mg/L	0.001205	0.00772	mg/L	0.001205	15.60%
K 766.490†	59.6	0.02749	mg/L	0.005285	0.02749	mg/L	0.005285	19.23%
Mg 279.077†	-0.5	-0.00067	mg/L	0.005287	-0.00067	mg/L	0.005287	787.98%
Mn 257.610†	1.4	0.00004	mg/L	0.000200	0.00004	mg/L	0.000200	446.93%
Mo 202.031†	-2.4	-0.00010	mg/L	0.000244	-0.00010	mg/L	0.000244	235.33%
Na 589.592†	-12.8	-0.00083	mg/L	0.001929	-0.00083	mg/L	0.001929	233.05%
Na 330.237†	4.8	0.2270	mg/L	0.29984	0.2270	mg/L	0.29984	132.10%
Ni 231.604†	0.6	0.00023	mg/L	0.001115	0.00023	mg/L	0.001115	484.47%
Pb 220.353†	2.2	0.00019	mg/L	0.000298	0.00019	mg/L	0.000298	154.78%
Sb 206.836†	-17.0	-0.00384	mg/L	0.000959	-0.00384	mg/L	0.000959	24.95%
Se 196.026†	4.8	0.00275	mg/L	0.001061	0.00275	mg/L	0.001061	38.61%
Si 288.158†	4.9	0.00413	mg/L	0.004113	0.00413	mg/L	0.004113	99.69%
Sn 189.927†	1.5	0.00025	mg/L	0.000344	0.00025	mg/L	0.000344	140.19%
Sr 421.552†	55.3	0.00007	mg/L	0.000018	0.00007	mg/L	0.000018	26.91%
Ti 334.903†	-6.9	-0.00033	mg/L	0.000668	-0.00033	mg/L	0.000668	203.42%
Tl 190.801†	3.5	0.00133	mg/L	0.002684	0.00133	mg/L	0.002684	201.52%
V 292.402†	-1.8	-0.00001	mg/L	0.000115	-0.00001	mg/L	0.000115	>999.9%
Zn 206.200†	-1.6	-0.00057	mg/L	0.000213	-0.00057	mg/L	0.000213	37.52%

Sequence No.: 20
Sample ID: CRI

Autosampler Location: 314
Date Collected: 11/29/2011 12:05:49 PM
Data Type: Original

Dilution: 1X

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	2881197.3	104.1	%	0.42				0.41%
ScR 361.383	376438.7	104.8	%	0.73				0.70%
Ag 328.068†	843.5	0.00317	mg/L	0.000182	0.00317	mg/L	0.000182	5.73%
Al 308.215†	68.1	0.06751	mg/L	0.002537	0.06751	mg/L	0.002537	3.76%
As 188.979†	130.3	0.05077	mg/L	0.002073	0.05077	mg/L	0.002073	4.08%
B 249.677†	85.5	0.02239	mg/L	0.002214	0.02239	mg/L	0.002214	9.89%
Ba 233.527†	12.8	0.00270	mg/L	0.000269	0.00270	mg/L	0.000269	9.97%
Be 313.042†	477.7	0.00098	mg/L	0.000024	0.00098	mg/L	0.000024	2.46%
Ca 317.933†	443.4	0.05042	mg/L	0.000517	0.05042	mg/L	0.000517	1.02%
Cd 228.802†	83.5	0.00203	mg/L	0.000043	0.00203	mg/L	0.000043	2.10%
Co 228.616†	136.6	0.00304	mg/L	0.000150	0.00304	mg/L	0.000150	4.94%
Cr 267.716†	27.2	0.00503	mg/L	0.000682	0.00503	mg/L	0.000682	13.56%
Cu 324.752†	524.2	0.00207	mg/L	0.000054	0.00207	mg/L	0.000054	2.61%
Fe 273.955†	49.4	0.06049	mg/L	0.002048	0.06049	mg/L	0.002048	3.39%
K 766.490†	1114.3	0.5140	mg/L	0.02017	0.5140	mg/L	0.02017	3.92%
Mg 279.077†	39.9	0.04908	mg/L	0.002039	0.04908	mg/L	0.002039	4.15%
Mn 257.610†	32.5	0.00103	mg/L	0.000071	0.00103	mg/L	0.000071	6.90%
Mo 202.031†	116.6	0.00501	mg/L	0.000250	0.00501	mg/L	0.000250	4.99%
Na 589.592†	7380.8	0.4763	mg/L	0.00690	0.4763	mg/L	0.00690	1.45%
Na 330.237†	13.3	0.6276	mg/L	0.12529	0.6276	mg/L	0.12529	19.96%
Ni 231.604†	28.2	0.01032	mg/L	0.000866	0.01032	mg/L	0.000866	8.40%
Pb 220.353†	239.0	0.02063	mg/L	0.000551	0.02063	mg/L	0.000551	2.67%
Sb 206.836†	220.3	0.04962	mg/L	0.001300	0.04962	mg/L	0.001300	2.62%
Se 196.026†	93.9	0.05399	mg/L	0.002397	0.05399	mg/L	0.002397	4.44%
Si 288.158†	79.9	0.06668	mg/L	0.000697	0.06668	mg/L	0.000697	1.04%
Sn 189.927†	62.5	0.01047	mg/L	0.000244	0.01047	mg/L	0.000244	2.33%
Sr 421.552†	909.1	0.00109	mg/L	0.000028	0.00109	mg/L	0.000028	2.59%
Ti 334.903†	93.7	0.00444	mg/L	0.000219	0.00444	mg/L	0.000219	4.92%
Tl 190.801†	135.2	0.05113	mg/L	0.000757	0.05113	mg/L	0.000757	1.48%
V 292.402†	560.8	0.00285	mg/L	0.000147	0.00285	mg/L	0.000147	5.16%
Zn 206.200†	26.1	0.00934	mg/L	0.000299	0.00934	mg/L	0.000299	3.20%

Sequence No.: 21
Sample ID: ICSA

Autosampler Location: 315
Date Collected: 11/29/2011 12:10:03 PM
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	2778211.1	100.4	%	0.65				0.65%
ScR 361.383	363646.7	101.2	%	0.84				0.83%
Ag 328.068†	141.6	-0.00056	mg/L	0.000028	-0.00056	mg/L	0.000028	4.98%
Al 308.215†	201282.3	200.0	mg/L	1.78	200.0	mg/L	1.78	0.89%
As 188.979†	10.5	0.00065	mg/L	0.001673	0.00065	mg/L	0.001673	257.63%
B 249.677†	-41.8	-0.01094	mg/L	0.002855	-0.01094	mg/L	0.002855	26.09%
Ba 233.527†	43.4	-0.00047	mg/L	0.001160	-0.00047	mg/L	0.001160	249.38%
Be 313.042†	8.5	0.00001	mg/L	0.000005	0.00001	mg/L	0.000005	38.54%
Ca 317.933†	893228.6	101.6	mg/L	0.58	101.6	mg/L	0.58	0.57%
Cd 228.802†	29.6	0.00079	mg/L	0.000155	0.00079	mg/L	0.000155	19.57%
Co 228.616†	74.7	0.00166	mg/L	0.000145	0.00166	mg/L	0.000145	8.73%
Cr 267.716†	0.1	0.00085	mg/L	0.001231	0.00085	mg/L	0.001231	144.24%
Cu 324.752†	-2946.6	-0.00063	mg/L	0.000090	-0.00063	mg/L	0.000090	14.17%
Fe 273.955†	161915.1	198.2	mg/L	1.99	198.2	mg/L	1.99	1.01%
K 766.490†	103.3	0.04764	mg/L	0.013298	0.04764	mg/L	0.013298	27.91%
Mg 279.077†	83632.4	102.9	mg/L	0.62	102.9	mg/L	0.62	0.61%
Mn 257.610†	45.0	0.00058	mg/L	0.000153	0.00058	mg/L	0.000153	26.54%
Mo 202.031†	186.7	0.00566	mg/L	0.000233	0.00566	mg/L	0.000233	4.12%
Na 589.592†	233.5	0.01507	mg/L	0.002747	0.01507	mg/L	0.002747	18.23%
Na 330.237†	8.4	0.3986	mg/L	0.15264	0.3986	mg/L	0.15264	38.30%
Ni 231.604†	-3.1	-0.00107	mg/L	0.000584	-0.00107	mg/L	0.000584	54.79%
Pb 220.353†	-400.8	-0.00491	mg/L	0.000108	-0.00491	mg/L	0.000108	2.19%
Sb 206.836†	460.8	0.00224	mg/L	0.002256	0.00224	mg/L	0.002256	100.72%
Se 196.026†	-89.2	0.00670	mg/L	0.002677	0.00670	mg/L	0.002677	39.96%
Si 288.158†	-13.1	-0.01089	mg/L	0.004680	-0.01089	mg/L	0.004680	42.95%
Sn 189.927†	-85.2	-0.01418	mg/L	0.001399	-0.01418	mg/L	0.001399	9.86%
Sr 421.552†	8535.5	0.01023	mg/L	cont. 0.000052	0.01023	mg/L	0.000052	0.51%
Ti 334.903†	97.6	0.00070	mg/L	0.000589	0.00070	mg/L	0.000589	84.12%
Tl 190.801†	-32.0	0.01053	mg/L	0.000229	0.01053	mg/L	0.000229	2.17%
V 292.402†	3876.5	0.00512	mg/L	0.000113	0.00512	mg/L	0.000113	2.20%
Zn 206.200†	3.2	-0.00148	mg/L	0.000425	-0.00148	mg/L	0.000425	28.71%

Sequence No.: 22
Sample ID: ICSAB

Autosampler Location: 316
Date Collected: 11/29/2011 12:14:16 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	216.0 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	2829592.0	102.2	%	2.18				2.13%
ScR 361.383	369154.2	102.8	%	0.21				0.21%
Ag 328.068†	281524.1	1.059	mg/L	0.0149	1.059	mg/L	0.0149	1.41%
Al 308.215†	199645.1	198.3	mg/L	0.78	198.3	mg/L	0.78	0.39%
As 188.979†	2597.5	1.009	mg/L	0.0200	1.009	mg/L	0.0200	1.99%
B 249.677†	-16.5	-0.00630	mg/L	0.000526	-0.00630	mg/L	0.000526	8.34%
Ba 233.527†	4762.8	0.9916	mg/L	0.00223	0.9916	mg/L	0.00223	0.23%
Be 313.042†	480978.9	0.9906	mg/L	0.00366	0.9906	mg/L	0.00366	0.37%
Ca 317.933†	893148.5	101.6	mg/L	0.27	101.6	mg/L	0.27	0.26%
Cd 228.802†	37527.2	1.024	mg/L	0.0164	1.024	mg/L	0.0164	1.60%
Co 228.616†	42987.0	0.9591	mg/L	0.01757	0.9591	mg/L	0.01757	1.83%
Cr 267.716†	5385.0	0.9991	mg/L	0.00229	0.9991	mg/L	0.00229	0.23%
Cu 324.752†	262975.6	1.050	mg/L	0.0203	1.050	mg/L	0.0203	1.93%
Fe 273.955†	161255.6	197.4	mg/L	0.89	197.4	mg/L	0.89	0.45%
K 766.490†	515.8	0.2379	mg/L	0.01450	0.2379	mg/L	0.01450	6.10%
Mg 279.077†	80574.0	99.09	mg/L	0.343	99.09	mg/L	0.343	0.35%
Mn 257.610†	29766.2	0.9382	mg/L	0.00471	0.9382	mg/L	0.00471	0.50%
Mo 202.031†	187.3	0.00573	mg/L	0.000361	0.00573	mg/L	0.000361	6.31%
Na 589.592†	142.5	0.00920	mg/L	0.003851	0.00920	mg/L	0.003851	41.87%
Na 330.237†	15.1	0.4178	mg/L	0.27193	0.4178	mg/L	0.27193	65.08%
Ni 231.604†	2586.4	0.9450	mg/L	0.00427	0.9450	mg/L	0.00427	0.45%
Pb 220.353†	11276.3	1.003	mg/L	0.0182	1.003	mg/L	0.0182	1.81%
Sb 206.836†	4904.7	0.9958	mg/L	0.02143	0.9958	mg/L	0.02143	2.15%
Se 196.026†	1680.3	1.023	mg/L	0.0203	1.023	mg/L	0.0203	1.98%
Si 288.158†	-19.9	-0.01296	mg/L	0.003751	-0.01296	mg/L	0.003751	28.93%
Sn 189.927†	-91.5	-0.01465	mg/L	0.000943	-0.01465	mg/L	0.000943	6.43%
Sr 421.552†	8460.5	0.01014	mg/L	0.000019	0.01014	mg/L	0.000019	0.19%
Ti 334.903†	89.9	0.00017	mg/L	0.000266	0.00017	mg/L	0.000266	157.00%
Tl 190.801†	2537.4	0.9800	mg/L	0.01929	0.9800	mg/L	0.01929	1.97%
V 292.402†	197952.7	0.9908	mg/L	0.02261	0.9908	mg/L	0.02261	2.28%
Zn 206.200†	2651.9	0.9458	mg/L	0.00368	0.9458	mg/L	0.00368	0.39%

Sequence No.: 23
Sample ID: CV 3
Dilution: 1X

Autosampler Location: 7
Date Collected: 11/29/2011 12:18:15 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	215.0 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	2851043.0	103.0	%	0.25				0.24%
ScR 361.383	361090.3	100.5	%	0.24				0.24%
Ag 328.068†	275123.1	1.036	mg/L	0.0157	1.036	mg/L	0.0157	1.52%
Al 308.215†	2078.0	2.030	mg/L	0.0037	2.030	mg/L	0.0037	0.18%
As 188.979†	5132.2	2.003	mg/L	0.0017	2.003	mg/L	0.0017	0.08%
B 249.677†	3813.1	0.9969	mg/L	0.00330	0.9969	mg/L	0.00330	0.33%
Ba 233.527†	4812.1	1.011	mg/L	0.0007	1.011	mg/L	0.0007	0.07%
Be 313.042†	481568.6	0.9918	mg/L	0.00114	0.9918	mg/L	0.00114	0.12%
Ca 317.933†	18629.2	2.118	mg/L	0.0061	2.118	mg/L	0.0061	0.29%
Cd 228.802†	38754.1	1.053	mg/L	0.0188	1.053	mg/L	0.0188	1.79%
Co 228.616†	44605.4	0.9936	mg/L	0.01671	0.9936	mg/L	0.01671	1.68%
Cr 267.716†	5537.2	1.026	mg/L	0.0020	1.026	mg/L	0.0020	0.19%
Cu 324.752†	256244.9	1.012	mg/L	0.0145	1.012	mg/L	0.0145	1.44%
Fe 273.955†	1702.6	2.078	mg/L	0.0040	2.078	mg/L	0.0040	0.19%
K 766.490†	45065.6	20.79	mg/L	0.097	20.79	mg/L	0.097	0.47%
Mg 279.077†	1665.0	2.056	mg/L	0.0096	2.056	mg/L	0.0096	0.47%
Mn 257.610†	31827.8	1.004	mg/L	0.0014	1.004	mg/L	0.0014	0.13%
Mo 202.031†	24028.4	1.032	mg/L	0.0018	1.032	mg/L	0.0018	0.17%
Na 589.592†	773395.5	49.91	mg/L	0.071	49.91	mg/L	0.071	0.14%
Na 330.237†	1105.5	52.37	mg/L	0.190	52.37	mg/L	0.190	0.36%
Ni 231.604†	2788.3	1.019	mg/L	0.0036	1.019	mg/L	0.0036	0.35%
Pb 220.353†	23948.0	2.067	mg/L	0.0039	2.067	mg/L	0.0039	0.19%
Sb 206.836†	9423.1	2.125	mg/L	0.0072	2.125	mg/L	0.0072	0.34%
Se 196.026†	3539.7	2.034	mg/L	0.0075	2.034	mg/L	0.0075	0.37%
Si 288.158†	2502.1	2.094	mg/L	0.0074	2.094	mg/L	0.0074	0.36%
Sn 189.927†	6242.4	1.045	mg/L	0.0023	1.045	mg/L	0.0023	0.22%
Sr 421.552†	838427.3	1.005	mg/L	0.0039	1.005	mg/L	0.0039	0.39%
Ti 334.903†	20775.5	0.9865	mg/L	0.00336	0.9865	mg/L	0.00336	0.34%
Tl 190.801†	5271.1	1.993	mg/L	0.0062	1.993	mg/L	0.0062	0.31%
V 292.402†	195801.8	0.9944	mg/L	0.01209	0.9944	mg/L	0.01209	1.22%
Zn 206.200†	2865.4	1.025	mg/L	0.0049	1.025	mg/L	0.0049	0.48%

Sequence No.: 24
Sample ID: CB 3
Dilution: 1X

Autosampler Location: 1
Date Collected: 11/29/2011 12:22:15 PM
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	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2845201.0	102.8	%	0.07				0.07%
ScR 361.383	371803.7	103.5	%	0.94				0.91%
Ag 328.068†	58.2	0.00022	mg/L	0.000080	0.00022	mg/L	0.000080	36.40%
Al 308.215†	18.7	0.01860	mg/L	0.004337	0.01860	mg/L	0.004337	23.32%
As 188.979†	-2.1	-0.00082	mg/L	0.002003	-0.00082	mg/L	0.002003	243.30%
B 249.677†	12.3	0.00321	mg/L	0.001170	0.00321	mg/L	0.001170	36.45%
Ba 233.527†	-1.0	-0.00021	mg/L	0.000711	-0.00021	mg/L	0.000711	338.10%
Be 313.042†	36.5	0.00008	mg/L	0.000028	0.00008	mg/L	0.000028	37.20%
Ca 317.933†	32.7	0.00372	mg/L	0.001946	0.00372	mg/L	0.001946	52.31%
Cd 228.802†	1.5	0.00005	mg/L	0.000017	0.00005	mg/L	0.000017	37.23%
Co 228.616†	4.7	0.00011	mg/L	0.000083	0.00011	mg/L	0.000083	78.62%
Cr 267.716†	-3.7	-0.00068	mg/L	0.000333	-0.00068	mg/L	0.000333	49.13%
Cu 324.752†	100.3	0.00040	mg/L	0.000086	0.00040	mg/L	0.000086	21.72%
Fe 273.955†	9.6	0.01171	mg/L	0.002169	0.01171	mg/L	0.002169	18.52%
K 766.490†	18.6	0.00859	mg/L	0.018007	0.00859	mg/L	0.018007	209.69%
Mg 279.077†	2.9	0.00353	mg/L	0.002570	0.00353	mg/L	0.002570	72.87%
Mn 257.610†	3.9	0.00012	mg/L	0.000083	0.00012	mg/L	0.000083	67.41%
Mo 202.031†	4.9	0.00021	mg/L	0.000288	0.00021	mg/L	0.000288	137.73%
Na 589.592†	54.1	0.00349	mg/L	0.002243	0.00349	mg/L	0.002243	64.25%
Na 330.237†	-0.6	-0.02608	mg/L	0.243404	-0.02608	mg/L	0.243404	933.21%
Ni 231.604†	2.4	0.00088	mg/L	0.001222	0.00088	mg/L	0.001222	139.16%
Pb 220.353†	-4.7	-0.00041	mg/L	0.000281	-0.00041	mg/L	0.000281	68.97%
Sb 206.836†	-5.0	-0.00113	mg/L	0.000738	-0.00113	mg/L	0.000738	65.33%
Se 196.026†	2.0	0.00116	mg/L	0.002372	0.00116	mg/L	0.002372	204.91%
Si 288.158†	1.3	0.00106	mg/L	0.003917	0.00106	mg/L	0.003917	370.96%
Sn 189.927†	1.8	0.00030	mg/L	0.000305	0.00030	mg/L	0.000305	102.35%
Sr 421.552†	67.9	0.00008	mg/L	0.000041	0.00008	mg/L	0.000041	50.39%
Ti 334.903†	-11.4	-0.00054	mg/L	0.001029	-0.00054	mg/L	0.001029	190.65%
Tl 190.801†	3.2	0.00122	mg/L	0.000240	0.00122	mg/L	0.000240	19.76%
V 292.402†	23.0	0.00011	mg/L	0.000171	0.00011	mg/L	0.000171	151.21%
Zn 206.200†	-1.9	-0.00069	mg/L	0.000677	-0.00069	mg/L	0.000677	98.63%

TX57:01484

Sequence No.: 25
Sample ID: TX57 MB1 SWC

Dilution: 2X

Autosampler Location: 317
Date Collected: 11/29/2011 12:26:28 PM
Data Type: Original

Nebulizer Parameters: TX57 MB1 SWC

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: TX57 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2801520.6	101.2	%	0.69				0.68%
ScR 361.383	369748.1	102.9	%	0.42				0.41%
Ag 328.068†	-25.6	-0.00010	mg/L	0.000051	-0.00019	mg/L	0.000102	53.00%
Al 308.215†	18.3	0.01819	mg/L	0.006303	0.03637	mg/L	0.012605	34.66%
As 188.979†	0.8	0.00030	mg/L	0.000990	0.00060	mg/L	0.001981	329.44%
B 249.677†	8.8	0.00231	mg/L	0.001343	0.00462	mg/L	0.002685	58.07%
Ba 233.527†	-1.1	-0.00024	mg/L	0.000682	-0.00047	mg/L	0.001364	288.87%
Be 313.042†	13.3	0.00003	mg/L	0.000008	0.00005	mg/L	0.000016	29.96%
Ca 317.933†	80.9	0.00920	mg/L	0.000873	0.01839	mg/L	0.001745	9.49%
Cd 228.802†	5.4	0.00015	mg/L	0.000088	0.00029	mg/L	0.000177	60.70%
Co 228.616†	-2.6	-0.00006	mg/L	0.000092	-0.00012	mg/L	0.000184	158.30%
Cr 267.716†	-1.2	-0.00022	mg/L	0.000703	-0.00044	mg/L	0.001407	321.49%
Cu 324.752†	189.1	0.00075	mg/L	0.000170	0.00149	mg/L	0.000339	22.69%
Fe 273.955†	6.6	0.00808	mg/L	0.001867	0.01617	mg/L	0.003733	23.09%
K 766.490†	27.9	0.01289	mg/L	0.011528	0.02577	mg/L	0.023055	89.46%
Mg 279.077†	-0.5	-0.00059	mg/L	0.004121	-0.00118	mg/L	0.008242	700.02%
Mn 257.610†	2.1	0.00007	mg/L	0.000159	0.00013	mg/L	0.000318	236.04%
Mo 202.031†	-0.5	-0.00002	mg/L	0.000272	-0.00004	mg/L	0.000545	>999.9%
Na 589.592†	-0.0	0.00000	mg/L	0.001133	0.00000	mg/L	0.002266	>999.9%
Na 330.237†	-0.2	-0.01085	mg/L	0.486346	-0.02171	mg/L	0.972692	>999.9%
Ni 231.604†	0.3	0.00011	mg/L	0.001563	0.00021	mg/L	0.003125	>999.9%
Pb 220.353†	-3.6	-0.00031	mg/L	0.000521	-0.00061	mg/L	0.001043	170.05%
Sb 206.836†	-7.3	-0.00165	mg/L	0.000945	-0.00330	mg/L	0.001891	57.37%
Se 196.026†	0.6	0.00035	mg/L	0.004173	0.00070	mg/L	0.008345	>999.9%
Si 288.158†	8.3	0.00694	mg/L	0.003356	0.01388	mg/L	0.006713	48.35%
Sn 189.927†	2.2	0.00037	mg/L	0.000562	0.00074	mg/L	0.001123	150.91%
Sr 421.552†	59.1	0.00007	mg/L	0.000029	0.00014	mg/L	0.000058	40.71%
Ti 334.903†	6.1	0.00029	mg/L	0.000614	0.00058	mg/L	0.001228	213.40%
Tl 190.801†	3.5	0.00133	mg/L	0.001165	0.00265	mg/L	0.002329	87.81%
V 292.402†	8.3	0.00004	mg/L	0.000051	0.00008	mg/L	0.000103	128.10%
Zn 206.200†	1.2	0.00043	mg/L	0.000127	0.00087	mg/L	0.000254	29.19%

Sequence No.: 26
Sample ID: TX57 A SWC

Autosampler Location: 318
Date Collected: 11/29/2011 12:30:41 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 A SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TX57 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2914478.2	105.3	%	0.44				0.42%
ScR 361.383	382121.5	106.4	%	0.68				0.64%
Ag 328.068†	375.2	0.00086	mg/L	0.000131	0.00172	mg/L	0.000263	15.24%
Al 308.215†	71556.3	71.08	mg/L	0.314	142.2	mg/L	0.63	0.44%
As 188.979†	39.1	0.04191	mg/L	0.001446	0.08382	mg/L	0.002893	3.45%
B 249.677†	59.3	0.01542	mg/L	0.001482	0.03085	mg/L	0.002964	9.61%
Ba 233.527†	1035.1	0.2119	mg/L	0.00204	0.4239	mg/L	0.00408	0.96%
Be 313.042†	583.0	0.00110	mg/L	0.000029	0.00221	mg/L	0.000059	2.65%
Ca 317.933†	409819.8	46.60	mg/L	0.191	93.19	mg/L	0.381	0.41%
Cd 228.802†	49.0	0.00135	mg/L	0.000128	0.00270	mg/L	0.000257	9.53%
Co 228.616†	2269.4	0.04116	mg/L	0.000227	0.08232	mg/L	0.000454	0.55%
Cr 267.716†	662.4	0.1248	mg/L	0.00020	0.2495	mg/L	0.00040	0.16%
Cu 324.752†	45557.3	0.1851	mg/L	0.00127	0.3701	mg/L	0.00253	0.68%
Fe 273.955†	92161.3	112.8	mg/L	0.23	225.7	mg/L	0.46	0.20%
K 766.490†	15122.0	6.976	mg/L	0.0421	13.95	mg/L	0.084	0.60%
Mg 279.077†	21913.7	26.92	mg/L	0.101	53.83	mg/L	0.202	0.37%
Mn 257.610†	49417.5	1.559	mg/L	0.0063	3.117	mg/L	0.0126	0.40%
Mo 202.031†	172.0	0.00652	mg/L	0.000081	0.01305	mg/L	0.000163	1.25%
Na 589.592†	187367.6	12.09	mg/L	0.022	24.18	mg/L	0.043	0.18%
Na 330.237†	250.0	12.98	mg/L	0.236	25.97	mg/L	0.471	1.81%
Ni 231.604†	332.0	0.1212	mg/L	0.00168	0.2425	mg/L	0.00336	1.39%
Pb 220.353†	2178.3	0.1962	mg/L	0.00094	0.3924	mg/L	0.00187	0.48%
Sb 206.836†	159.4	-0.00053	mg/L	0.000864	-0.00106	mg/L	0.001727	162.53%
Se 196.026†	-41.2	0.00282	mg/L	0.003168	0.00565	mg/L	0.006335	112.20%
Si 288.158†	1169.2	0.9753	mg/L	0.00358	1.951	mg/L	0.0072	0.37%
Sn 189.927†	67.7	0.01292	mg/L	0.000666	0.02584	mg/L	0.001332	5.16%
Sr 421.552†	266105.9	0.3189	mg/L	0.00085	0.6378	mg/L	0.00169	0.27%
Ti 334.903†	109636.2	5.211	mg/L	0.0173	10.42	mg/L	0.035	0.33%
Tl 190.801†	-29.9	0.00323	mg/L	0.004727	0.00646	mg/L	0.009454	146.30%
V 292.402†	65420.2	0.3202	mg/L	0.00343	0.6404	mg/L	0.00686	1.07%
Zn 206.200†	1248.3	0.4452	mg/L	0.00148	0.8904	mg/L	0.00296	0.33%

Sequence No.: 27
Sample ID: TX57 B SWC

Dilution: 2X

Autosampler Location: 319
Date Collected: 11/29/2011 12:34:39 PM
Data Type: Original

Nebulizer Parameters: TX57 B SWC

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: TX57 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2916030.2	105.4	%	0.60				0.57%
ScR 361.383	382319.9	106.4	%	0.77				0.72%
Ag 328.068†	394.2	0.00093	mg/L	0.000006	0.00186	mg/L	0.000012	0.63%
Al 308.215†	68409.6	67.96	mg/L	0.226	135.9	mg/L	0.45	0.33%
As 188.979†	53.2	0.04892	mg/L	0.001634	0.09783	mg/L	0.003269	3.34%
B 249.677†	61.8	0.01607	mg/L	0.001147	0.03214	mg/L	0.002294	7.14%
Ba 233.527†	938.0	0.1914	mg/L	0.00100	0.3829	mg/L	0.00200	0.52%
Be 313.042†	561.4	0.00106	mg/L	0.000024	0.00211	mg/L	0.000048	2.26%
Ca 317.933†	430841.4	48.99	mg/L	0.077	97.97	mg/L	0.154	0.16%
Cd 228.802†	58.7	0.00158	mg/L	0.000089	0.00316	mg/L	0.000177	5.61%
Co 228.616†	2360.6	0.04267	mg/L	0.000490	0.08535	mg/L	0.000979	1.15%
Cr 267.716†	669.5	0.1261	mg/L	0.00067	0.2522	mg/L	0.00134	0.53%
Cu 324.752†	44260.0	0.1800	mg/L	0.00121	0.3599	mg/L	0.00242	0.67%
Fe 273.955†	93390.9	114.3	mg/L	0.19	228.7	mg/L	0.38	0.17%
K 766.490†	12355.3	5.699	mg/L	0.0160	11.40	mg/L	0.032	0.28%
Mg 279.077†	20759.1	25.49	mg/L	0.031	50.99	mg/L	0.063	0.12%
Mn 257.610†	48409.2	1.527	mg/L	0.0064	3.054	mg/L	0.0127	0.42%
Mo 202.031†	160.6	0.00602	mg/L	0.000338	0.01205	mg/L	0.000677	5.62%
Na 589.592†	183100.7	11.82	mg/L	0.018	23.63	mg/L	0.035	0.15%
Na 330.237†	241.7	12.64	mg/L	0.155	25.28	mg/L	0.310	1.23%
Ni 231.604†	325.8	0.1189	mg/L	0.00084	0.2379	mg/L	0.00168	0.71%
Pb 220.353†	3165.2	0.2806	mg/L	0.00286	0.5612	mg/L	0.00572	1.02%
Sb 206.836†	151.5	-0.00105	mg/L	0.002088	-0.00211	mg/L	0.004175	198.32%
Se 196.026†	-36.5	0.00517	mg/L	0.003408	0.01033	mg/L	0.006816	65.97%
Si 288.158†	1007.3	0.8402	mg/L	0.01126	1.680	mg/L	0.0225	1.34%
Sn 189.927†	50.5	0.01013	mg/L	0.001133	0.02026	mg/L	0.002265	11.18%
Sr 421.552†	269287.0	0.3227	mg/L	0.00121	0.6455	mg/L	0.00242	0.37%
Ti 334.903†	115748.0	5.501	mg/L	0.0153	11.00	mg/L	0.031	0.28%
Tl 190.801†	-22.9	0.00599	mg/L	0.006189	0.01199	mg/L	0.012378	103.25%
V 292.402†	66971.1	0.3278	mg/L	0.00255	0.6555	mg/L	0.00510	0.78%
Zn 206.200†	1403.1	0.5005	mg/L	0.00182	1.001	mg/L	0.0036	0.36%

Sequence No.: 28
Sample ID: TX57 C SWC

Autosampler Location: 320
Date Collected: 11/29/2011 12:38:37 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 C SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TX57 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2928883.9	105.8	%	0.66				0.63%
ScR 361.383	385388.0	107.3	%	0.77				0.72%
Ag 328.068†	219.6	0.00035	mg/L	0.000114	0.00071	mg/L	0.000229	32.36%
Al 308.215†	91491.1	90.89	mg/L	0.074	181.8	mg/L	0.15	0.08%
As 188.979†	27.1	0.04038	mg/L	0.001878	0.08075	mg/L	0.003756	4.65%
B 249.677†	87.7	0.02286	mg/L	0.001856	0.04571	mg/L	0.003711	8.12%
Ba 233.527†	1274.3	0.2624	mg/L	0.00168	0.5248	mg/L	0.00336	0.64%
Be 313.042†	749.1	0.00144	mg/L	0.000009	0.00287	mg/L	0.000018	0.64%
Ca 317.933†	490979.9	55.82	mg/L	0.051	111.6	mg/L	0.10	0.09%
Cd 228.802†	43.7	0.00121	mg/L	0.000123	0.00242	mg/L	0.000246	10.18%
Co 228.616†	2520.4	0.04561	mg/L	0.000376	0.09122	mg/L	0.000753	0.83%
Cr 267.716†	628.0	0.1181	mg/L	0.00098	0.2362	mg/L	0.00197	0.83%
Cu 324.752†	42920.5	0.1744	mg/L	0.00161	0.3488	mg/L	0.00322	0.92%
Fe 273.955†	90803.8	111.2	mg/L	0.35	222.3	mg/L	0.69	0.31%
K 766.490†	15253.9	7.036	mg/L	0.0057	14.07	mg/L	0.011	0.08%
Mg 279.077†	21776.9	26.75	mg/L	0.101	53.50	mg/L	0.203	0.38%
Mn 257.610†	31543.3	0.9947	mg/L	0.00479	1.989	mg/L	0.0096	0.48%
Mo 202.031†	203.0	0.00774	mg/L	0.000185	0.01549	mg/L	0.000370	2.39%
Na 589.592†	298283.2	19.25	mg/L	0.098	38.50	mg/L	0.197	0.51%
Na 330.237†	404.0	20.47	mg/L	0.427	40.95	mg/L	0.854	2.09%
Ni 231.604†	280.1	0.1023	mg/L	0.00008	0.2046	mg/L	0.00015	0.07%
Pb 220.353†	1151.8	0.1117	mg/L	0.00029	0.2235	mg/L	0.00058	0.26%
Sb 206.836†	175.4	-0.00390	mg/L	0.001573	-0.00780	mg/L	0.003146	40.32%
Se 196.026†	-43.5	0.00540	mg/L	0.002237	0.01079	mg/L	0.004474	41.45%
Si 288.158†	1976.5	1.649	mg/L	0.0120	3.297	mg/L	0.0239	0.73%
Sn 189.927†	-26.8	-0.00268	mg/L	0.000437	-0.00537	mg/L	0.000874	16.28%
Sr 421.552†	348751.0	0.4180	mg/L	0.00173	0.8359	mg/L	0.00345	0.41%
Ti 334.903†	122938.9	5.843	mg/L	0.0200	11.69	mg/L	0.040	0.34%
Tl 190.801†	-4.3	0.01189	mg/L	0.004320	0.02379	mg/L	0.008639	36.31%
V 292.402†	72221.7	0.3542	mg/L	0.00356	0.7085	mg/L	0.00713	1.01%
Zn 206.200†	979.7	0.3489	mg/L	0.00136	0.6978	mg/L	0.00272	0.39%

Sequence No.: 29
Sample ID: TX57 E SWC

Dilution: 2X

Autosampler Location: 321
Date Collected: 11/29/2011 12:42:36 PM
Data Type: Original

Nebulizer Parameters: TX57 E SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TX57 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2859174.3	103.3	%	0.88				0.85%
ScR 361.383	370514.8	103.1	%	0.98				0.95%
Ag 328.068†	542.0	-0.00043	mg/L	0.000216	-0.00086	mg/L	0.000432	50.45%
Al 308.215†	141275.8	140.3	mg/L	1.16	280.7	mg/L	2.33	0.83%
As 188.979†	78.9	0.08240	mg/L	0.002480	0.1648	mg/L	0.00496	3.01%
B 249.677†	254.7	0.06646	mg/L	0.001528	0.1329	mg/L	0.00306	2.30%
Ba 233.527†	3435.5	0.7116	mg/L	0.00609	1.423	mg/L	0.0122	0.86%
Be 313.042†	1164.9	0.00225	mg/L	0.000048	0.00451	mg/L	0.000096	2.13%
Ca 317.933†	1132085.8	128.7	mg/L	0.94	257.4	mg/L	1.89	0.73%
Cd 228.802†	103.3	0.00291	mg/L	0.000266	0.00583	mg/L	0.000533	9.14%
Co 228.616†	4914.0	0.09078	mg/L	0.001524	0.1816	mg/L	0.00305	1.68%
Cr 267.716†	1601.1	0.2991	mg/L	0.00288	0.5981	mg/L	0.00577	0.96%
Cu 324.752†	89850.5	0.3649	mg/L	0.00336	0.7297	mg/L	0.00671	0.92%
Fe 273.955†	181283.3	221.9	mg/L	1.86	443.9	mg/L	3.72	0.84%
K 766.490†	25721.4	11.86	mg/L	0.107	23.73	mg/L	0.215	0.91%
Mg 279.077†	58461.8	71.85	mg/L	0.575	143.7	mg/L	1.15	0.80%
Mn 257.610†	219971.8	6.937	mg/L	0.0555	13.87	mg/L	0.111	0.80%
Mo 202.031†	435.9	0.01636	mg/L	0.000066	0.03273	mg/L	0.000132	0.40%
Na 589.592†	162284.7	10.47	mg/L	0.072	20.95	mg/L	0.143	0.68%
Na 330.237†	177.9	10.71	mg/L	0.224	21.42	mg/L	0.448	2.09%
Ni 231.604†	954.6	0.3485	mg/L	0.00401	0.6970	mg/L	0.00803	1.15%
Pb 220.353†	2956.6	0.2716	mg/L	0.00220	0.5432	mg/L	0.00441	0.81%
Sb 206.836†	309.1	-0.00363	mg/L	0.000696	-0.00727	mg/L	0.001391	19.15%
Se 196.026†	-65.7	0.01312	mg/L	0.007840	0.02624	mg/L	0.015680	59.75%
Si 288.158†	1316.9	1.099	mg/L	0.0073	2.197	mg/L	0.0146	0.67%
Sn 189.927†	-53.9	-0.00582	mg/L	0.001011	-0.01165	mg/L	0.002021	17.35%
Sr 421.552†	329603.5	0.3950	mg/L	0.00322	0.7900	mg/L	0.00645	0.82%
Ti 334.903†	217710.3	10.35	mg/L	0.083	20.69	mg/L	0.166	0.80%
Tl 190.801†	-53.5	0.01405	mg/L	0.006063	0.02810	mg/L	0.012125	43.15%
V 292.402†	97624.6	0.4734	mg/L	0.00473	0.9469	mg/L	0.00946	1.00%
Zn 206.200†	2120.5	0.7550	mg/L	0.00441	1.510	mg/L	0.0088	0.58%

Sequence No.: 30
Sample ID: TX57 F SWC

Autosampler Location: 322
Date Collected: 11/29/2011 12:46:37 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 F SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: TX57 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2860724.3	103.4	%	0.14				0.13%
ScR 361.383	380113.4	105.8	%	0.19				0.18%
Ag 328.068†	128.9	-0.00011	mg/L	0.000108	-0.00023	mg/L	0.000216	95.23%
Al 308.215†	71704.1	71.23	mg/L	0.281	142.5	mg/L	0.56	0.40%
As 188.979†	16.2	0.03678	mg/L	0.000653	0.07356	mg/L	0.001306	1.78%
B 249.677†	62.9	0.01635	mg/L	0.000909	0.03271	mg/L	0.001818	5.56%
Ba 233.527†	1142.5	0.2344	mg/L	0.00138	0.4687	mg/L	0.00276	0.59%
Be 313.042†	549.4	0.00103	mg/L	0.000005	0.00206	mg/L	0.000009	0.46%
Ca 317.933†	347991.3	39.57	mg/L	0.120	79.13	mg/L	0.240	0.30%
Cd 228.802†	45.9	0.00132	mg/L	0.000168	0.00264	mg/L	0.000337	12.76%
Co 228.616†	2311.3	0.04090	mg/L	0.000064	0.08180	mg/L	0.000128	0.16%
Cr 267.716†	731.2	0.1377	mg/L	0.00098	0.2755	mg/L	0.00196	0.71%
Cu 324.752†	41357.1	0.1684	mg/L	0.00043	0.3369	mg/L	0.00086	0.25%
Fe 273.955†	93867.3	114.9	mg/L	0.38	229.8	mg/L	0.75	0.33%
K 766.490†	11507.8	5.308	mg/L	0.0146	10.62	mg/L	0.029	0.28%
Mg 279.077†	22464.1	27.59	mg/L	0.043	55.19	mg/L	0.086	0.16%
Mn 257.610†	70057.0	2.209	mg/L	0.0059	4.419	mg/L	0.0118	0.27%
Mo 202.031†	143.9	0.00540	mg/L	0.000122	0.01079	mg/L	0.000244	2.26%
Na 589.592†	184926.8	11.93	mg/L	0.038	23.87	mg/L	0.075	0.32%
Na 330.237†	238.8	12.59	mg/L	0.195	25.17	mg/L	0.390	1.55%
Ni 231.604†	374.2	0.1366	mg/L	0.00165	0.2733	mg/L	0.00331	1.21%
Pb 220.353†	2212.9	0.1991	mg/L	0.00085	0.3983	mg/L	0.00170	0.43%
Sb 206.836†	158.6	-0.00066	mg/L	0.001496	-0.00131	mg/L	0.002993	227.63%
Se 196.026†	-35.9	0.00612	mg/L	0.002045	0.01224	mg/L	0.004089	33.41%
Si 288.158†	1354.6	1.130	mg/L	0.0147	2.260	mg/L	0.0294	1.30%
Sn 189.927†	1.6	0.00208	mg/L	0.000852	0.00416	mg/L	0.001704	40.92%
Sr 421.552†	239287.0	0.2868	mg/L	0.00082	0.5736	mg/L	0.00164	0.29%
Ti 334.903†	123460.2	5.868	mg/L	0.0102	11.74	mg/L	0.020	0.17%
Tl 190.801†	-17.3	0.00915	mg/L	0.009945	0.01829	mg/L	0.019890	108.73%
V 292.402†	67787.3	0.3318	mg/L	0.00104	0.6635	mg/L	0.00207	0.31%
Zn 206.200†	1460.3	0.5212	mg/L	0.00213	1.042	mg/L	0.0043	0.41%

Sequence No.: 31
Sample ID: TX57 DDUP SWC

Autosampler Location: 323
Date Collected: 11/29/2011 12:50:35 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 DDUP SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TX57 DDUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2775609.6	100.3	%	0.90				0.89%
ScR 361.383	357208.6	99.45	%	1.030				1.04%
Ag 328.068†	3465.4	0.00980	mg/L	0.000295	0.01960	mg/L	0.000591	3.01%
Al 308.215†	95090.9	94.46	mg/L	1.271	188.9	mg/L	2.54	1.35%
As 188.979†	122.5	0.06820	mg/L	0.003342	0.1364	mg/L	0.00668	4.90%
B 249.677†	136.0	0.03549	mg/L	0.000607	0.07099	mg/L	0.001214	1.71%
Ba 233.527†	1664.3	0.3439	mg/L	0.00347	0.6879	mg/L	0.00695	1.01%
Be 313.042†	855.8	0.00165	mg/L	0.000038	0.00330	mg/L	0.000076	2.30%
Ca 317.933†	2627751.6	298.8	mg/L	1.06	597.6	mg/L	2.12	0.35%
Cd 228.802†	340.3	0.00919	mg/L	0.000163	0.01838	mg/L	0.000326	1.78%
Co 228.616†	2608.5	0.04788	mg/L	0.000703	0.09577	mg/L	0.001406	1.47%
Cr 267.716†	1207.1	0.2209	mg/L	0.00301	0.4418	mg/L	0.00601	1.36%
Cu 324.752†	65911.0	0.2678	mg/L	0.00370	0.5356	mg/L	0.00740	1.38%
Fe 273.955†	126883.1	155.3	mg/L	2.00	310.7	mg/L	4.00	1.29%
K 766.490†	17459.3	8.054	mg/L	0.0725	16.11	mg/L	0.145	0.90%
Mg 279.077†	28527.0	35.03	mg/L	0.501	70.07	mg/L	1.001	1.43%
Mn 257.610†	49317.6	1.555	mg/L	0.0172	3.111	mg/L	0.0343	1.10%
Mo 202.031†	354.4	0.01116	mg/L	0.000501	0.02232	mg/L	0.001002	4.49%
Na 589.592†	309387.2	19.97	mg/L	0.106	39.93	mg/L	0.212	0.53%
Na 330.237†	436.9	21.85	mg/L	0.155	43.70	mg/L	0.309	0.71%
Ni 231.604†	433.2	0.1582	mg/L	0.00381	0.3163	mg/L	0.00761	2.41%
Pb 220.353†	4043.1	0.3596	mg/L	0.00383	0.7192	mg/L	0.00766	1.06%
Sb 206.836†	214.6	-0.00278	mg/L	0.002432	-0.00557	mg/L	0.004865	87.40%
Se 196.026†	-49.6	0.00748	mg/L	0.006378	0.01495	mg/L	0.012755	85.31%
Si 288.158†	1825.0	1.522	mg/L	0.0152	3.045	mg/L	0.0304	1.00%
Sn 189.927†	55.8	0.01109	mg/L	0.001312	0.02217	mg/L	0.002625	11.84%
Sr 421.552†	573730.2	0.6876	mg/L	0.00103	1.375	mg/L	0.0021	0.15%
Ti 334.903†	119184.8	5.655	mg/L	0.0194	11.31	mg/L	0.039	0.34%
Tl 190.801†	-29.6	0.00813	mg/L	0.001188	0.01625	mg/L	0.002376	14.62%
V 292.402†	74171.8	0.3615	mg/L	0.00389	0.7230	mg/L	0.00778	1.08%
Zn 206.200†	2205.9	0.7811	mg/L	0.00628	1.562	mg/L	0.0126	0.80%

Sequence No.: 32
Sample ID: TX57 D SWC

Autosampler Location: 324
Date Collected: 11/29/2011 12:54:51 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 D SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TX57 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2772526.8	100.2	%	0.50				0.50%
ScR 361.383	363464.5	101.2	%	0.63				0.62%
Ag 328.068†	3417.3	0.00995	mg/L	0.000190	0.01989	mg/L	0.000381	1.91%
Al 308.215†	92711.2	92.10	mg/L	1.100	184.2	mg/L	2.20	1.19%
As 188.979†	117.2	0.06736	mg/L	0.003826	0.1347	mg/L	0.00765	5.68%
B 249.677†	160.0	0.04178	mg/L	0.000837	0.08355	mg/L	0.001674	2.00%
Ba 233.527†	1826.3	0.3780	mg/L	0.00429	0.7559	mg/L	0.00858	1.13%
Be 313.042†	832.6	0.00160	mg/L	0.000026	0.00321	mg/L	0.000052	1.61%
Ca 317.933†	2387913.7	271.5	mg/L	1.80	543.0	mg/L	3.60	0.66%
Cd 228.802†	335.2	0.00906	mg/L	0.000147	0.01813	mg/L	0.000293	1.62%
Co 228.616†	2495.6	0.04525	mg/L	0.000355	0.09049	mg/L	0.000709	0.78%
Cr 267.716†	1277.6	0.2346	mg/L	0.00059	0.4691	mg/L	0.00117	0.25%
Cu 324.752†	64719.7	0.2629	mg/L	0.00099	0.5258	mg/L	0.00199	0.38%
Fe 273.955†	124485.1	152.4	mg/L	1.39	304.8	mg/L	2.78	0.91%
K 766.490†	18967.3	8.749	mg/L	0.1404	17.50	mg/L	0.281	1.60%
Mg 279.077†	27882.2	34.24	mg/L	0.368	68.49	mg/L	0.735	1.07%
Mn 257.610†	45628.5	1.439	mg/L	0.0105	2.878	mg/L	0.0209	0.73%
Mo 202.031†	332.3	0.01055	mg/L	0.000309	0.02111	mg/L	0.000618	2.93%
Na 589.592†	299734.7	19.34	mg/L	0.052	38.69	mg/L	0.104	0.27%
Na 330.237†	421.1	21.13	mg/L	0.155	42.27	mg/L	0.311	0.74%
Ni 231.604†	444.5	0.1623	mg/L	0.00126	0.3246	mg/L	0.00252	0.78%
Pb 220.353†	4203.3	0.3731	mg/L	0.00116	0.7463	mg/L	0.00232	0.31%
Sb 206.836†	207.3	-0.00324	mg/L	0.001672	-0.00649	mg/L	0.003345	51.57%
Se 196.026†	-55.9	0.00303	mg/L	0.005755	0.00605	mg/L	0.011509	190.21%
Si 288.158†	1348.9	1.125	mg/L	0.0084	2.251	mg/L	0.0167	0.74%
Sn 189.927†	62.4	0.01221	mg/L	0.001160	0.02442	mg/L	0.002320	9.50%
Sr 421.552†	561078.9	0.6724	mg/L	0.00270	1.345	mg/L	0.0054	0.40%
Ti 334.903†	120497.2	5.718	mg/L	0.0228	11.44	mg/L	0.046	0.40%
Tl 190.801†	-25.1	0.00931	mg/L	0.001730	0.01862	mg/L	0.003460	18.58%
V 292.402†	73902.0	0.3603	mg/L	0.00216	0.7206	mg/L	0.00431	0.60%
Zn 206.200†	2046.4	0.7248	mg/L	0.00438	1.450	mg/L	0.0088	0.60%

Sequence No.: 33
Sample ID: TX57 DSPK SWC

Autosampler Location: 325
Date Collected: 11/29/2011 12:59:05 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 DSPK SWC

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: TX57 DSPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2773806.1	100.2	%	0.37				0.37%
ScR 361.383	359284.3	100.0	%	0.18				0.18%
Ag 328.068†	133613.9	0.4999	mg/L	0.00346	0.9998	mg/L	0.00692	0.69%
Al 308.215†	96891.1	96.24	mg/L	0.450	192.5	mg/L	0.90	0.47%
As 188.979†	5279.8	2.078	mg/L	0.0045	4.156	mg/L	0.0090	0.22%
B 249.677†	108.7	0.02736	mg/L	0.000071	0.05472	mg/L	0.000141	0.26%
Ba 233.527†	11207.5	2.351	mg/L	0.0117	4.701	mg/L	0.0234	0.50%
Be 313.042†	235962.9	0.4859	mg/L	0.00182	0.9717	mg/L	0.00365	0.38%
Ca 317.933†	2588190.9	294.3	mg/L	1.50	588.6	mg/L	3.00	0.51%
Cd 228.802†	19671.3	0.5290	mg/L	0.00054	1.058	mg/L	0.0011	0.10%
Co 228.616†	24143.5	0.5282	mg/L	0.00101	1.056	mg/L	0.0020	0.19%
Cr 267.716†	3872.5	0.7146	mg/L	0.00311	1.429	mg/L	0.0062	0.43%
Cu 324.752†	196218.0	0.7823	mg/L	0.00153	1.565	mg/L	0.0031	0.20%
Fe 273.955†	125683.1	153.9	mg/L	0.63	307.7	mg/L	1.25	0.41%
K 766.490†	41419.7	19.11	mg/L	0.089	38.21	mg/L	0.177	0.46%
Mg 279.077†	36388.8	44.72	mg/L	0.180	89.43	mg/L	0.361	0.40%
Mn 257.610†	59950.9	1.891	mg/L	0.0058	3.782	mg/L	0.0117	0.31%
Mo 202.031†	308.8	0.00915	mg/L	0.000855	0.01830	mg/L	0.001711	9.35%
Na 589.592†	470452.6	30.36	mg/L	0.040	60.72	mg/L	0.080	0.13%
Na 330.237†	665.2	32.53	mg/L	0.224	65.07	mg/L	0.448	0.69%
Ni 231.604†	1735.3	0.6335	mg/L	0.00537	1.267	mg/L	0.0107	0.85%
Pb 220.353†	27403.8	2.375	mg/L	0.0045	4.751	mg/L	0.0090	0.19%
Sb 206.836†	231.2	-0.00302	mg/L	0.004019	-0.00604	mg/L	0.008038	133.09%
Se 196.026†	3482.9	2.036	mg/L	0.0096	4.073	mg/L	0.0193	0.47%
Si 288.158†	2352.5	1.964	mg/L	0.0331	3.928	mg/L	0.0661	1.68%
Sn 189.927†	77.6	0.01471	mg/L	0.002235	0.02942	mg/L	0.004470	15.19%
Sr 421.552†	988181.5	1.184	mg/L	0.0034	2.369	mg/L	0.0068	0.29%
Ti 334.903†	118447.8	5.620	mg/L	0.0201	11.24	mg/L	0.040	0.36%
Tl 190.801†	5015.0	1.914	mg/L	0.0007	3.829	mg/L	0.0014	0.04%
V 292.402†	165753.2	0.8268	mg/L	0.00686	1.654	mg/L	0.0137	0.83%
Zn 206.200†	3458.9	1.229	mg/L	0.0067	2.459	mg/L	0.0135	0.55%

Sequence No.: 34
Sample ID: TX57 MB1SPK SWC

Autosampler Location: 326
Date Collected: 11/29/2011 1:02:07 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 MB1SPK SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: TX57 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2881686.2	104.1	%	0.60				0.58%
ScR 361.383	372309.5	103.6	%	0.72				0.70%
Ag 328.068†	135606.0	0.5105	mg/L	0.00221	1.021	mg/L	0.0044	0.43%
Al 308.215†	2079.3	2.057	mg/L	0.0093	4.114	mg/L	0.0186	0.45%
As 188.979†	5162.2	2.011	mg/L	0.0048	4.023	mg/L	0.0097	0.24%
B 249.677†	7.9	0.00104	mg/L	0.000467	0.00207	mg/L	0.000935	45.16%
Ba 233.527†	9624.8	2.024	mg/L	0.0152	4.048	mg/L	0.0303	0.75%
Be 313.042†	234792.1	0.4836	mg/L	0.00377	0.9671	mg/L	0.00753	0.78%
Ca 317.933†	87308.3	9.927	mg/L	0.0546	19.85	mg/L	0.109	0.55%
Cd 228.802†	18760.7	0.5042	mg/L	0.00162	1.008	mg/L	0.0032	0.32%
Co 228.616†	22065.0	0.4921	mg/L	0.00163	0.9842	mg/L	0.00326	0.33%
Cr 267.716†	2693.2	0.4986	mg/L	0.00407	0.9973	mg/L	0.00814	0.82%
Cu 324.752†	126635.1	0.5002	mg/L	0.00233	1.000	mg/L	0.0047	0.47%
Fe 273.955†	1720.7	2.103	mg/L	0.0146	4.207	mg/L	0.0293	0.70%
K 766.490†	22436.9	10.35	mg/L	0.085	20.70	mg/L	0.170	0.82%
Mg 279.077†	8437.3	10.39	mg/L	0.082	20.78	mg/L	0.164	0.79%
Mn 257.610†	15087.4	0.4762	mg/L	0.00260	0.9525	mg/L	0.00520	0.55%
Mo 202.031†	28.6	0.00100	mg/L	0.000226	0.00199	mg/L	0.000452	22.69%
Na 589.592†	149198.0	9.628	mg/L	0.0356	19.26	mg/L	0.071	0.37%
Na 330.237†	223.6	10.45	mg/L	0.353	20.91	mg/L	0.706	3.38%
Ni 231.604†	1351.4	0.4933	mg/L	0.00183	0.9866	mg/L	0.00366	0.37%
Pb 220.353†	23390.4	2.018	mg/L	0.0128	4.037	mg/L	0.0256	0.63%
Sb 206.836†	5.9	-0.00313	mg/L	0.000389	-0.00626	mg/L	0.000779	12.44%
Se 196.026†	3521.1	2.023	mg/L	0.0105	4.046	mg/L	0.0211	0.52%
Si 288.158†	-1.2	0.00078	mg/L	0.001037	0.00155	mg/L	0.002075	133.63%
Sn 189.927†	-5.3	-0.00088	mg/L	0.000717	-0.00175	mg/L	0.001434	81.74%
Sr 421.552†	414941.7	0.4973	mg/L	0.00296	0.9946	mg/L	0.00591	0.59%
Ti 334.903†	41.7	0.00151	mg/L	0.000249	0.00303	mg/L	0.000498	16.44%
Tl 190.801†	5277.8	1.995	mg/L	0.0096	3.990	mg/L	0.0193	0.48%
V 292.402†	98204.4	0.4985	mg/L	0.00322	0.9971	mg/L	0.00644	0.65%
Zn 206.200†	1369.0	0.4895	mg/L	0.00437	0.9790	mg/L	0.00873	0.89%

TX57 · B1SPK

Sequence No.: 35
Sample ID: CV 4
Dilution: 1X

Autosampler Location: 7
Date Collected: 11/29/2011 1:06:05 PM
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	2841130.0	102.7	%	2.18				2.13%
ScR 361.383	359474.1	100.1	%	0.65				0.65%
Ag 328.068†	276663.9	1.041	mg/L	0.0071	1.041	mg/L	0.0071	0.68%
Al 308.215†	2084.6	2.036	mg/L	0.0227	2.036	mg/L	0.0227	1.12%
As 188.979†	5109.6	1.994	mg/L	0.0212	1.994	mg/L	0.0212	1.06%
B 249.677†	3812.3	0.9967	mg/L	0.01113	0.9967	mg/L	0.01113	1.12%
Ba 233.527†	4817.2	1.012	mg/L	0.0077	1.012	mg/L	0.0077	0.76%
Be 313.042†	483705.8	0.9962	mg/L	0.00559	0.9962	mg/L	0.00559	0.56%
Ca 317.933†	18585.5	2.113	mg/L	0.0194	2.113	mg/L	0.0194	0.92%
Cd 228.802†	38784.2	1.054	mg/L	0.0043	1.054	mg/L	0.0043	0.41%
Co 228.616†	44608.2	0.9936	mg/L	0.00525	0.9936	mg/L	0.00525	0.53%
Cr 267.716†	5524.7	1.024	mg/L	0.0096	1.024	mg/L	0.0096	0.94%
Cu 324.752†	260021.5	1.027	mg/L	0.0073	1.027	mg/L	0.0073	0.71%
Fe 273.955†	1700.0	2.075	mg/L	0.0159	2.075	mg/L	0.0159	0.77%
K 766.490†	45886.8	21.17	mg/L	0.226	21.17	mg/L	0.226	1.07%
Mg 279.077†	1654.9	2.044	mg/L	0.0138	2.044	mg/L	0.0138	0.67%
Mn 257.610†	31942.2	1.008	mg/L	0.0088	1.008	mg/L	0.0088	0.88%
Mo 202.031†	24060.6	1.034	mg/L	0.0110	1.034	mg/L	0.0110	1.06%
Na 589.592†	772251.6	49.84	mg/L	0.248	49.84	mg/L	0.248	0.50%
Na 330.237†	1116.3	52.88	mg/L	0.244	52.88	mg/L	0.244	0.46%
Ni 231.604†	2792.7	1.021	mg/L	0.0098	1.021	mg/L	0.0098	0.96%
Pb 220.353†	23941.7	2.066	mg/L	0.0228	2.066	mg/L	0.0228	1.10%
Sb 206.836†	9432.8	2.128	mg/L	0.0251	2.128	mg/L	0.0251	1.18%
Se 196.026†	3535.0	2.031	mg/L	0.0223	2.031	mg/L	0.0223	1.10%
Si 288.158†	2499.3	2.091	mg/L	0.0189	2.091	mg/L	0.0189	0.90%
Sn 189.927†	6239.3	1.045	mg/L	0.0121	1.045	mg/L	0.0121	1.16%
Sr 421.552†	848804.6	1.017	mg/L	0.0070	1.017	mg/L	0.0070	0.69%
Ti 334.903†	20840.7	0.9896	mg/L	0.00516	0.9896	mg/L	0.00516	0.52%
Tl 190.801†	5292.3	2.001	mg/L	0.0220	2.001	mg/L	0.0220	1.10%
V 292.402†	196265.7	0.9967	mg/L	0.00965	0.9967	mg/L	0.00965	0.97%
Zn 206.200†	2828.5	1.011	mg/L	0.0081	1.011	mg/L	0.0081	0.81%

Sequence No.: 36
Sample ID: CB 4

Autosampler Location: 1
Date Collected: 11/29/2011 1:10:06 PM
Data Type: Original

Dilution: 1X

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	2814169.0	101.7	%	0.66				0.65%
ScR 361.383	367417.3	102.3	%	1.08				1.06%
Ag 328.068†	64.1	0.00024	mg/L	0.000021	0.00024	mg/L	0.000021	8.52%
Al 308.215†	19.7	0.01956	mg/L	0.008325	0.01956	mg/L	0.008325	42.56%
As 188.979†	0.6	0.00022	mg/L	0.000462	0.00022	mg/L	0.000462	208.04%
B 249.677†	13.7	0.00360	mg/L	0.000611	0.00360	mg/L	0.000611	16.97%
Ba 233.527†	0.9	0.00019	mg/L	0.000157	0.00019	mg/L	0.000157	82.90%
Be 313.042†	40.2	0.00008	mg/L	0.000017	0.00008	mg/L	0.000017	21.07%
Ca 317.933†	86.8	0.00987	mg/L	0.001218	0.00987	mg/L	0.001218	12.33%
Cd 228.802†	2.1	0.00005	mg/L	0.000104	0.00005	mg/L	0.000104	189.10%
Co 228.616†	-0.4	-0.00001	mg/L	0.000098	-0.00001	mg/L	0.000098	>999.9%
Cr 267.716†	1.4	0.00027	mg/L	0.000806	0.00027	mg/L	0.000806	303.46%
Cu 324.752†	68.8	0.00027	mg/L	0.000082	0.00027	mg/L	0.000082	30.12%
Fe 273.955†	8.7	0.01065	mg/L	0.003127	0.01065	mg/L	0.003127	29.36%
K 766.490†	9.8	0.00453	mg/L	0.006353	0.00453	mg/L	0.006353	140.16%
Mg 279.077†	4.2	0.00521	mg/L	0.002619	0.00521	mg/L	0.002619	50.32%
Mn 257.610†	4.8	0.00015	mg/L	0.000132	0.00015	mg/L	0.000132	86.91%
Mo 202.031†	-0.6	-0.00003	mg/L	0.000155	-0.00003	mg/L	0.000155	620.67%
Na 589.592†	81.7	0.00527	mg/L	0.003341	0.00527	mg/L	0.003341	63.38%
Na 330.237†	-4.2	-0.1978	mg/L	0.37595	-0.1978	mg/L	0.37595	190.08%
Ni 231.604†	-1.5	-0.00055	mg/L	0.000947	-0.00055	mg/L	0.000947	172.48%
Pb 220.353†	-0.6	-0.00005	mg/L	0.000375	-0.00005	mg/L	0.000375	821.80%
Sb 206.836†	-2.5	-0.00057	mg/L	0.001711	-0.00057	mg/L	0.001711	297.61%
Se 196.026†	-0.7	-0.00041	mg/L	0.001600	-0.00041	mg/L	0.001600	392.61%
Si 288.158†	8.6	0.00721	mg/L	0.005687	0.00721	mg/L	0.005687	78.85%
Sn 189.927†	2.6	0.00043	mg/L	0.000089	0.00043	mg/L	0.000089	20.44%
Sr 421.552†	92.7	0.00011	mg/L	0.000028	0.00011	mg/L	0.000028	25.17%
Ti 334.903†	2.5	0.00012	mg/L	0.000459	0.00012	mg/L	0.000459	390.68%
Tl 190.801†	3.5	0.00133	mg/L	0.001913	0.00133	mg/L	0.001913	144.25%
V 292.402†	22.5	0.00011	mg/L	0.000064	0.00011	mg/L	0.000064	56.22%
Zn 206.200†	-0.9	-0.00032	mg/L	0.001095	-0.00032	mg/L	0.001095	340.91%

TXST : 01456

Sequence No.: 37
Sample ID: TX57 G SWC

Autosampler Location: 327
Date Collected: 11/29/2011 1:14:19 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 G SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TX57 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2867123.4	103.6	%	0.36				0.35%
ScR 361.383	371346.4	103.4	%	0.96				0.93%
Ag 328.068†	105.7	-0.00046	mg/L	0.000109	-0.00091	mg/L	0.000218	23.93%
Al 308.215†	116585.5	115.8	mg/L	0.31	231.6	mg/L	0.62	0.27%
As 188.979†	8.2	0.03955	mg/L	0.001775	0.07909	mg/L	0.003550	4.49%
B 249.677†	41.9	0.01081	mg/L	0.002505	0.02161	mg/L	0.005009	23.18%
Ba 233.527†	2392.8	0.4953	mg/L	0.00527	0.9907	mg/L	0.01055	1.06%
Be 313.042†	1146.2	0.00225	mg/L	0.000125	0.00450	mg/L	0.000250	5.56%
Ca 317.933†	468286.1	53.24	mg/L	0.078	106.5	mg/L	0.16	0.15%
Cd 228.802†	60.0	0.00183	mg/L	0.000139	0.00367	mg/L	0.000278	7.60%
Co 228.616†	3355.4	0.06199	mg/L	0.000217	0.1240	mg/L	0.00043	0.35%
Cr 267.716†	1374.9	0.2574	mg/L	0.00222	0.5148	mg/L	0.00445	0.86%
Cu 324.752†	36653.6	0.1518	mg/L	0.00038	0.3035	mg/L	0.00077	0.25%
Fe 273.955†	125725.2	153.9	mg/L	0.20	307.8	mg/L	0.39	0.13%
K 766.490†	13257.5	6.115	mg/L	0.0193	12.23	mg/L	0.039	0.32%
Mg 279.077†	38993.5	47.92	mg/L	0.023	95.84	mg/L	0.046	0.05%
Mn 257.610†	92666.2	2.922	mg/L	0.0054	5.845	mg/L	0.0108	0.18%
Mo 202.031†	161.4	0.00576	mg/L	0.000248	0.01152	mg/L	0.000497	4.31%
Na 589.592†	55160.0	3.560	mg/L	0.0115	7.119	mg/L	0.0231	0.32%
Na 330.237†	41.9	3.553	mg/L	0.1556	7.106	mg/L	0.3112	4.38%
Ni 231.604†	792.1	0.2892	mg/L	0.00378	0.5783	mg/L	0.00755	1.31%
Pb 220.353†	453.5	0.05458	mg/L	0.000160	0.1092	mg/L	0.00032	0.29%
Sb 206.836†	238.0	-0.00490	mg/L	0.001082	-0.00981	mg/L	0.002163	22.06%
Se 196.026†	-46.0	0.01277	mg/L	0.002979	0.02554	mg/L	0.005959	23.33%
Si 288.158†	1590.3	1.327	mg/L	0.0150	2.653	mg/L	0.0299	1.13%
Sn 189.927†	-52.5	-0.00659	mg/L	0.000283	-0.01319	mg/L	0.000565	4.28%
Sr 421.552†	262803.1	0.3150	mg/L	0.00096	0.6299	mg/L	0.00192	0.30%
Ti 334.903†	148426.0	7.054	mg/L	0.0046	14.11	mg/L	0.009	0.07%
Tl 190.801†	-27.5	0.01063	mg/L	0.002429	0.02127	mg/L	0.004858	22.84%
V 292.402†	75450.7	0.3675	mg/L	0.00110	0.7350	mg/L	0.00220	0.30%
Zn 206.200†	1266.6	0.4516	mg/L	0.00381	0.9031	mg/L	0.00763	0.84%

Sequence No.: 38
Sample ID: TX57 H SWC

Autosampler Location: 328
Date Collected: 11/29/2011 1:18:18 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 H SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TX57 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2779531.2	100.4	%	0.46				0.45%
ScR 361.383	362859.3	101.0	%	0.81				0.80%
Ag 328.068†	1307.4	0.00149	mg/L	0.000308	0.00298	mg/L	0.000617	20.67%
Al 308.215†	130033.2	129.2	mg/L	1.34	258.3	mg/L	2.67	1.04%
As 188.979†	64.1	0.06071	mg/L	0.002043	0.1214	mg/L	0.00409	3.37%
B 249.677†	60.1	0.01553	mg/L	0.001579	0.03105	mg/L	0.003158	10.17%
Ba 233.527†	2226.0	0.4598	mg/L	0.00384	0.9196	mg/L	0.00768	0.84%
Be 313.042†	916.7	0.00173	mg/L	0.000038	0.00346	mg/L	0.000077	2.21%
Ca 317.933†	2432519.2	276.6	mg/L	2.53	553.2	mg/L	5.06	0.91%
Cd 228.802†	146.9	0.00412	mg/L	0.000188	0.00823	mg/L	0.000376	4.57%
Co 228.616†	4397.8	0.08294	mg/L	0.000724	0.1659	mg/L	0.00145	0.87%
Cr 267.716†	1394.5	0.2568	mg/L	0.00156	0.5135	mg/L	0.00311	0.61%
Cu 324.752†	85201.5	0.3454	mg/L	0.00194	0.6908	mg/L	0.00388	0.56%
Fe 273.955†	158092.6	193.6	mg/L	1.73	387.1	mg/L	3.46	0.89%
K 766.490†	20773.3	9.582	mg/L	0.0738	19.16	mg/L	0.148	0.77%
Mg 279.077†	45051.4	55.36	mg/L	0.597	110.7	mg/L	1.19	1.08%
Mn 257.610†	126390.3	3.986	mg/L	0.0376	7.972	mg/L	0.0752	0.94%
Mo 202.031†	262.2	0.00725	mg/L	0.000349	0.01450	mg/L	0.000698	4.81%
Na 589.592†	197408.4	12.74	mg/L	0.103	25.48	mg/L	0.206	0.81%
Na 330.237†	252.8	13.77	mg/L	0.210	27.55	mg/L	0.420	1.52%
Ni 231.604†	857.7	0.3131	mg/L	0.00316	0.6263	mg/L	0.00631	1.01%
Pb 220.353†	2429.2	0.2253	mg/L	0.00069	0.4506	mg/L	0.00139	0.31%
Sb 206.836†	281.7	-0.00328	mg/L	0.000821	-0.00655	mg/L	0.001643	25.07%
Se 196.026†	-70.9	0.00555	mg/L	0.007912	0.01109	mg/L	0.015825	142.64%
Si 288.158†	1340.9	1.119	mg/L	0.0144	2.237	mg/L	0.0289	1.29%
Sn 189.927†	-13.2	0.00037	mg/L	0.000629	0.00074	mg/L	0.001259	170.04%
Sr 421.552†	528526.5	0.6334	mg/L	0.00592	1.267	mg/L	0.0118	0.93%
Ti 334.903†	175379.7	8.327	mg/L	0.0819	16.65	mg/L	0.164	0.98%
Tl 190.801†	-37.6	0.01260	mg/L	0.002622	0.02519	mg/L	0.005243	20.81%
V 292.402†	104968.8	0.5133	mg/L	0.00247	1.027	mg/L	0.0049	0.48%
Zn 206.200†	2127.0	0.7535	mg/L	0.00496	1.507	mg/L	0.0099	0.66%

Sequence No.: 39
Sample ID: TX57 I SWC

Autosampler Location: 329
Date Collected: 11/29/2011 1:22:18 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 I SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TX57 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2789799.2	100.8	%	0.57				0.56%
ScR 361.383	361208.2	100.6	%	0.49				0.48%
Ag 328.068†	903.9	0.00030	mg/L	0.000240	0.00061	mg/L	0.000480	79.25%
Al 308.215†	121920.0	121.1	mg/L	0.13	242.2	mg/L	0.27	0.11%
As 188.979†	55.9	0.05622	mg/L	0.002536	0.1124	mg/L	0.00507	4.51%
B 249.677†	23.6	0.00600	mg/L	0.001300	0.01200	mg/L	0.002600	21.67%
Ba 233.527†	2501.0	0.5182	mg/L	0.00191	1.036	mg/L	0.0038	0.37%
Be 313.042†	1011.1	0.00194	mg/L	0.000023	0.00388	mg/L	0.000046	1.19%
Ca 317.933†	2404318.9	273.4	mg/L	1.69	546.7	mg/L	3.37	0.62%
Cd 228.802†	115.0	0.00326	mg/L	0.000151	0.00652	mg/L	0.000302	4.64%
Co 228.616†	3902.0	0.07233	mg/L	0.000554	0.1447	mg/L	0.00111	0.77%
Cr 267.716†	1480.7	0.2723	mg/L	0.00268	0.5446	mg/L	0.00537	0.99%
Cu 324.752†	71572.5	0.2910	mg/L	0.00055	0.5820	mg/L	0.00110	0.19%
Fe 273.955†	148780.8	182.2	mg/L	0.39	364.3	mg/L	0.78	0.21%
K 766.490†	21810.0	10.06	mg/L	0.019	20.12	mg/L	0.038	0.19%
Mg 279.077†	47194.2	58.00	mg/L	0.264	116.0	mg/L	0.53	0.45%
Mn 257.610†	84552.5	2.667	mg/L	0.0077	5.333	mg/L	0.0155	0.29%
Mo 202.031†	270.8	0.00763	mg/L	0.000418	0.01527	mg/L	0.000836	5.48%
Na 589.592†	106133.2	6.849	mg/L	0.0141	13.70	mg/L	0.028	0.21%
Na 330.237†	126.5	7.665	mg/L	0.3066	15.33	mg/L	0.613	4.00%
Ni 231.604†	873.0	0.3187	mg/L	0.00274	0.6374	mg/L	0.00547	0.86%
Pb 220.353†	2683.5	0.2463	mg/L	0.00177	0.4927	mg/L	0.00354	0.72%
Sb 206.836†	266.3	-0.00289	mg/L	0.001254	-0.00578	mg/L	0.002509	43.44%
Se 196.026†	-65.9	0.00519	mg/L	0.001616	0.01038	mg/L	0.003233	31.16%
Si 288.158†	1264.6	1.055	mg/L	0.0060	2.110	mg/L	0.0120	0.57%
Sn 189.927†	-40.7	-0.00430	mg/L	0.001151	-0.00860	mg/L	0.002302	26.77%
Sr 421.552†	435435.6	0.5219	mg/L	0.00140	1.044	mg/L	0.0028	0.27%
Ti 334.903†	170016.9	8.072	mg/L	0.0125	16.14	mg/L	0.025	0.15%
Tl 190.801†	-36.0	0.01013	mg/L	0.002003	0.02026	mg/L	0.004006	19.77%
V 292.402†	94153.2	0.4595	mg/L	0.00109	0.9189	mg/L	0.00217	0.24%
Zn 206.200†	2590.0	0.9191	mg/L	0.00514	1.838	mg/L	0.0103	0.56%

TX57_01499

Sequence No.: 40
Sample ID: TX57 J SWC

Autosampler Location: 330
Date Collected: 11/29/2011 1:26:18 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 J SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: TX57 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2855269.0	103.2	%	0.55				0.54%
ScR 361.383	373782.5	104.1	%	0.05				0.05%
Ag 328.068†	537.8	-0.00032	mg/L	0.000063	-0.00063	mg/L	0.000125	19.76%
Al 308.215†	143818.1	142.9	mg/L	0.32	285.7	mg/L	0.63	0.22%
As 188.979†	101.6	0.09489	mg/L	0.001068	0.1898	mg/L	0.00214	1.13%
B 249.677†	734.2	0.1919	mg/L	0.00161	0.3839	mg/L	0.00321	0.84%
Ba 233.527†	3341.7	0.6915	mg/L	0.00321	1.383	mg/L	0.0064	0.46%
Be 313.042†	1287.2	0.00248	mg/L	0.000011	0.00496	mg/L	0.000022	0.44%
Ca 317.933†	1442152.6	164.0	mg/L	1.01	327.9	mg/L	2.02	0.62%
Cd 228.802†	117.5	0.00327	mg/L	0.000130	0.00654	mg/L	0.000260	3.97%
Co 228.616†	5244.3	0.09654	mg/L	0.000549	0.1931	mg/L	0.00110	0.57%
Cr 267.716†	1659.5	0.3092	mg/L	0.00127	0.6183	mg/L	0.00255	0.41%
Cu 324.752†	97616.3	0.3959	mg/L	0.00354	0.7918	mg/L	0.00708	0.89%
Fe 273.955†	190092.8	232.7	mg/L	0.39	465.5	mg/L	0.78	0.17%
K 766.490†	26158.9	12.07	mg/L	0.032	24.13	mg/L	0.064	0.27%
Mg 279.077†	63301.0	77.80	mg/L	0.285	155.6	mg/L	0.57	0.37%
Mn 257.610†	162684.9	5.131	mg/L	0.0052	10.26	mg/L	0.010	0.10%
Mo 202.031†	302.7	0.01014	mg/L	0.000348	0.02029	mg/L	0.000696	3.43%
Na 589.592†	73132.8	4.720	mg/L	0.0038	9.439	mg/L	0.0076	0.08%
Na 330.237†	48.5	4.781	mg/L	0.2122	9.561	mg/L	0.4244	4.44%
Ni 231.604†	1014.1	0.3702	mg/L	0.00200	0.7405	mg/L	0.00400	0.54%
Pb 220.353†	4570.1	0.4107	mg/L	0.00105	0.8214	mg/L	0.00210	0.26%
Sb 206.836†	309.5	-0.00482	mg/L	0.001375	-0.00965	mg/L	0.002750	28.51%
Se 196.026†	-69.8	0.01216	mg/L	0.003843	0.02431	mg/L	0.007685	31.61%
Si 288.158†	1132.0	0.9443	mg/L	0.00692	1.889	mg/L	0.0138	0.73%
Sn 189.927†	-50.5	-0.00499	mg/L	0.001108	-0.00998	mg/L	0.002216	22.21%
Sr 421.552†	413592.9	0.4957	mg/L	0.00102	0.9914	mg/L	0.00204	0.21%
Ti 334.903†	236307.4	11.23	mg/L	0.013	22.46	mg/L	0.025	0.11%
Tl 190.801†	-73.8	0.00491	mg/L	0.002970	0.00983	mg/L	0.005940	60.43%
V 292.402†	115016.1	0.5599	mg/L	0.00450	1.120	mg/L	0.0090	0.80%
Zn 206.200†	2144.9	0.7628	mg/L	0.00237	1.526	mg/L	0.0047	0.31%

Sequence No.: 41
Sample ID: TX57 K SWC

Autosampler Location: 331
Date Collected: 11/29/2011 1:30:18 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 K SWC

Analyte	Back Pressure	Flow
All	213.0 kPa	0.75 L/min

Mean Data: TX57 K SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2843965.6	102.8	%	0.19				0.19%
ScR 361.383	552492.9	153.8	%	88.98				57.85%
Ag 328.068†	415.6	0.00175	mg/L	0.000088	0.00350	mg/L	0.000175	5.01%
Al 308.215†	2614.4	2.583	mg/L	1.0849	5.165	mg/L	2.1698	42.01%
Saturated within auto integration window (code 4)								
As 188.979†	71.9	0.05451	mg/L	0.012789	0.1090	mg/L	0.02558	23.46%
B 249.677†	58.4	0.01514	mg/L	0.000812	0.03027	mg/L	0.001624	5.36%
Ba 233.527†	2225.4	0.4677	mg/L	0.20704	0.9354	mg/L	0.41408	44.27%
Be 313.042†	497.7	0.00090	mg/L	0.001326	0.00181	mg/L	0.002653	146.59%
Saturated within auto integration window (code 4)								
Ca 317.933†	102141.7	11.61	mg/L	5.002	23.23	mg/L	10.003	43.07%
Saturated within auto integration window (code 4)								
Cd 228.802†	109.9	0.00296	mg/L	0.000209	0.00592	mg/L	0.000417	7.04%
Co 228.616†	3311.6	0.06484	mg/L	0.004667	0.1297	mg/L	0.00933	7.20%
Cr 267.716†	692.5	0.1280	mg/L	0.05663	0.2559	mg/L	0.11325	44.25%
Cu 324.752†	70292.9	0.2765	mg/L	0.00241	0.5530	mg/L	0.00483	0.87%
Fe 273.955†	1767.9	2.161	mg/L	0.9176	4.322	mg/L	1.8352	42.46%
Saturated within auto integration window (code 4)								
K 766.490†	12495.1	5.764	mg/L	2.9232	11.53	mg/L	5.846	50.72%
Mg 279.077†	2294.4	2.824	mg/L	1.2289	5.648	mg/L	2.4577	43.52%
Saturated within auto integration window (code 4)								
Mn 257.610†	4303.2	0.1358	mg/L	0.05970	0.2715	mg/L	0.11940	43.97%
Saturated within auto integration window (code 4)								
Mo 202.031†	191.8	0.00807	mg/L	0.000100	0.01613	mg/L	0.000200	1.24%
Na 589.592†	74889.5	4.833	mg/L	2.3353	9.666	mg/L	4.6706	48.32%
Saturated within auto integration window (code 4)								
Na 330.237†	193.8	10.16	mg/L	3.864	20.32	mg/L	7.728	38.03%
Ni 231.604†	385.2	0.1407	mg/L	0.05777	0.2813	mg/L	0.11553	41.07%
Pb 220.353†	3483.9	0.3009	mg/L	0.00056	0.6017	mg/L	0.00111	0.18%
Sb 206.836†	193.2	0.04672	mg/L	0.001138	0.09343	mg/L	0.002276	2.44%
Se 196.026†	-48.1	-0.02705	mg/L	0.003002	-0.05411	mg/L	0.006003	11.10%
Si 288.158†	1013.4	0.8454	mg/L	0.36104	1.691	mg/L	0.7221	42.71%
Sn 189.927†	13.5	0.00380	mg/L	0.000856	0.00759	mg/L	0.001712	22.55%
Sr 421.552†	101098.3	0.1212	mg/L	0.05337	0.2423	mg/L	0.10673	44.04%
Saturated within auto integration window (code 4)								
Ti 334.903†	104364.1	4.961	mg/L	2.6338	9.923	mg/L	5.2676	53.09%
Saturated within auto integration window (code 4)								
Tl 190.801†	-23.8	-0.00925	mg/L	0.001265	-0.01850	mg/L	0.002531	13.68%
V 292.402†	80437.3	0.4042	mg/L	0.00379	0.8084	mg/L	0.00758	0.94%
Zn 206.200†	2103.6	0.7519	mg/L	0.32815	1.504	mg/L	0.6563	43.64%

Sequence No.: 42
Sample ID: TX57 L SWC

Autosampler Location: 332
Date Collected: 11/29/2011 1:34:31 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 L SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TX57 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	5965666.8	215.6	%	185.97				86.27%
ScR 361.383	43844.7	12.21	%	9.054				74.18%
Saturated within auto integration window (code 4)								
Ag 328.068†	713.1	0.00245	mg/L	0.000544	0.00490	mg/L	0.001088	22.19%
Saturated within auto integration window (code 4)								
Al 308.215†	19625.8	19.50	mg/L	33.125	38.99	mg/L	66.250	169.91%
As 188.979†	117.1	0.05124	mg/L	0.015418	0.1025	mg/L	0.03084	30.09%
B 249.677†	-541.1	-0.1417	mg/L	0.14438	-0.2834	mg/L	0.28877	101.88%
Ba 233.527†	350.2	0.07265	mg/L	0.122911	0.1453	mg/L	0.24582	169.18%
Be 313.042†	15629.0	0.03216	mg/L	0.040523	0.06432	mg/L	0.081046	126.01%
Ca 317.933†	162667.8	18.50	mg/L	28.444	36.99	mg/L	56.887	153.79%
Cd 228.802†	22.3	0.00032	mg/L	0.004815	0.00064	mg/L	0.009630	>999.9%
Co 228.616†	2192.8	0.04687	mg/L	0.033492	0.09375	mg/L	0.066984	71.45%
Cr 267.716†	20.3	0.00373	mg/L	0.012976	0.00745	mg/L	0.025952	348.33%
Cu 324.752†	10016.4	0.04044	mg/L	0.030973	0.08087	mg/L	0.061946	76.60%
Saturated within auto integration window (code 4)								
Fe 273.955†	16776.2	20.54	mg/L	34.110	41.08	mg/L	68.221	166.08%
K 766.490†	-7132.7	-3.290	mg/L	3.2876	-6.580	mg/L	6.5752	99.92%
Mg 279.077†	6488.0	7.976	mg/L	13.0078	15.95	mg/L	26.016	163.08%
Mn 257.610†	15826.9	0.4991	mg/L	0.80964	0.9983	mg/L	1.61927	162.21%
Mo 202.031†	231.3	0.00962	mg/L	0.010555	0.01925	mg/L	0.021110	109.68%
Na 589.592†	38802.3	2.504	mg/L	3.8434	5.008	mg/L	7.6868	153.48%
Na 330.237†	-916.3	-43.19	mg/L	49.996	-86.38	mg/L	99.993	115.75%
Ni 231.604†	-174.5	-0.06367	mg/L	0.027869	-0.1273	mg/L	0.05574	43.77%
Pb 220.353†	2831.7	0.2470	mg/L	0.14477	0.4941	mg/L	0.28954	58.60%
Sb 206.836†	47.4	0.00209	mg/L	0.073909	0.00418	mg/L	0.147818	>999.9%
Se 196.026†	14.9	0.01447	mg/L	0.063109	0.02893	mg/L	0.126218	436.22%
Si 288.158†	-113.5	-0.09461	mg/L	0.040604	-0.1892	mg/L	0.08121	42.92%
Sn 189.927†	28.3	0.00508	mg/L	0.001595	0.01016	mg/L	0.003190	31.38%
Sr 421.552†	73118.5	0.08763	mg/L	0.141854	0.1753	mg/L	0.28371	161.88%
Ti 334.903†	24018.8	1.141	mg/L	1.7477	2.282	mg/L	3.4955	153.15%
Tl 190.801†	-9.9	-0.00092	mg/L	0.015402	-0.00184	mg/L	0.030804	>999.9%
Saturated within auto integration window (code 4)								
V 292.402†	26884.1	0.1339	mg/L	0.10691	0.2677	mg/L	0.21381	79.86%
Saturated within auto integration window (code 4)								
Zn 206.200†	-50.0	-0.01833	mg/L	0.014395	-0.03667	mg/L	0.028789	78.52%

User canceled analysis.

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Analysis Begun

Start Time: 11/29/2011 1:42:28 PM **Plasma On Time: 11/29/2011 9:20:23 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\1129.sif
Batch ID:
Results Data Set: I2111129
Results Library: C:\pe\metals\Results\Results.mdb

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Sequence No.: 43 **Autosampler Location: 333**
Sample ID: TX57 M SWC **Date Collected: 11/29/2011 1:42:29 PM**
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 M SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TX57 M SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2820166.3	101.9	%	0.73				0.72%
ScR 361.383	371425.1	103.4	%	0.75				0.72%
Ag 328.068†	102.2	-0.00034	mg/L	0.000112	-0.00068	mg/L	0.000224	32.94%
Al 308.215†	103806.4	103.1	mg/L	1.15	206.2	mg/L	2.30	1.11%
As 188.979†	61.7	0.05776	mg/L	0.001116	0.1155	mg/L	0.00223	1.93%
B 249.677†	68.2	0.01772	mg/L	0.002121	0.03543	mg/L	0.004243	11.97%
Ba 233.527†	1933.8	0.3990	mg/L	0.00074	0.7981	mg/L	0.00147	0.18%
Be 313.042†	843.4	0.00162	mg/L	0.000026	0.00324	mg/L	0.000053	1.63%
Ca 317.933†	537828.1	61.15	mg/L	0.559	122.3	mg/L	1.12	0.91%
Cd 228.802†	116.7	0.00320	mg/L	0.000143	0.00641	mg/L	0.000286	4.46%
Co 228.616†	3099.6	0.05713	mg/L	0.000694	0.1143	mg/L	0.00139	1.22%
Cr 267.716†	914.9	0.1722	mg/L	0.00132	0.3443	mg/L	0.00265	0.77%
Cu 324.752†	55046.1	0.2243	mg/L	0.00160	0.4487	mg/L	0.00321	0.72%
Fe 273.955†	122869.1	150.4	mg/L	1.38	300.9	mg/L	2.76	0.92%
K 766.490†	15803.8	7.290	mg/L	0.1073	14.58	mg/L	0.215	1.47%
Mg 279.077†	31466.1	38.66	mg/L	0.407	77.31	mg/L	0.814	1.05%
Mn 257.610†	62516.6	1.972	mg/L	0.0207	3.943	mg/L	0.0414	1.05%
Mo 202.031†	177.7	0.00646	mg/L	0.000448	0.01293	mg/L	0.000895	6.93%
Na 589.592†	119656.6	7.722	mg/L	0.0620	15.44	mg/L	0.124	0.80%
Na 330.237†	139.7	7.928	mg/L	0.1964	15.86	mg/L	0.393	2.48%
Ni 231.604†	515.6	0.1882	mg/L	0.00228	0.3765	mg/L	0.00457	1.21%
Pb 220.353†	1903.4	0.1770	mg/L	0.00106	0.3540	mg/L	0.00212	0.60%
Sb 206.836†	222.5	-0.00241	mg/L	0.000741	-0.00483	mg/L	0.001483	30.71%
Se 196.026†	-52.9	0.00646	mg/L	0.002031	0.01292	mg/L	0.004062	31.43%
Si 288.158†	1548.7	1.292	mg/L	0.0047	2.584	mg/L	0.0094	0.36%
Sn 189.927†	-1.3	0.00182	mg/L	0.000694	0.00364	mg/L	0.001387	38.10%
Sr 421.552†	316130.3	0.3789	mg/L	0.00419	0.7578	mg/L	0.00838	1.11%
Ti 334.903†	139012.8	6.607	mg/L	0.0691	13.21	mg/L	0.138	1.05%
Tl 190.801†	-26.2	0.00937	mg/L	0.003291	0.01874	mg/L	0.006583	35.13%
V 292.402†	79033.2	0.3857	mg/L	0.00291	0.7714	mg/L	0.00582	0.75%
Zn 206.200†	2660.4	0.9498	mg/L	0.00440	1.900	mg/L	0.0088	0.46%

Sequence No.: 44
Sample ID: TX57 N SWC

Autosampler Location: 334
Date Collected: 11/29/2011 1:46:28 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 N SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TX57 N SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2792638.5	100.9	%	0.98				0.97%
ScR 361.383	363354.4	101.2	%	1.33				1.32%
Ag 328.068†	4872.2	0.01522	mg/L	0.000288	0.03044	mg/L	0.000576	1.89%
Al 308.215†	80455.7	79.93	mg/L	1.266	159.9	mg/L	2.53	1.58%
As 188.979†	91.6	0.05273	mg/L	0.001838	0.1055	mg/L	0.00368	3.49%
B 249.677†	510.0	0.1334	mg/L	0.00248	0.2668	mg/L	0.00496	1.86%
Ba 233.527†	2277.5	0.4747	mg/L	0.00725	0.9494	mg/L	0.01451	1.53%
Be 313.042†	718.6	0.00140	mg/L	0.000051	0.00279	mg/L	0.000103	3.68%
Ca 317.933†	2399449.6	272.8	mg/L	1.22	545.6	mg/L	2.43	0.45%
Cd 228.802†	277.6	0.00753	mg/L	0.000095	0.01505	mg/L	0.000190	1.26%
Co 228.616†	2108.4	0.03815	mg/L	0.000585	0.07630	mg/L	0.001170	1.53%
Cr 267.716†	994.1	0.1775	mg/L	0.00273	0.3550	mg/L	0.00546	1.54%
Cu 324.752†	64553.1	0.2600	mg/L	0.00299	0.5200	mg/L	0.00598	1.15%
Fe 273.955†	96836.2	118.6	mg/L	1.64	237.1	mg/L	3.28	1.38%
K 766.490†	15310.1	7.062	mg/L	0.1013	14.12	mg/L	0.203	1.43%
Mg 279.077†	92084.3	113.3	mg/L	1.52	226.6	mg/L	3.03	1.34%
Mn 257.610†	61760.9	1.947	mg/L	0.0222	3.895	mg/L	0.0443	1.14%
Mo 202.031†	331.1	0.00964	mg/L	0.000441	0.01928	mg/L	0.000883	4.58%
Na 589.592†	370913.8	23.94	mg/L	0.086	47.87	mg/L	0.172	0.36%
Na 330.237†	529.9	26.06	mg/L	0.540	52.12	mg/L	1.080	2.07%
Ni 231.604†	390.7	0.1426	mg/L	0.00165	0.2853	mg/L	0.00329	1.15%
Pb 220.353†	4324.2	0.3828	mg/L	0.00244	0.7656	mg/L	0.00489	0.64%
Sb 206.836†	182.6	-0.00062	mg/L	0.002666	-0.00124	mg/L	0.005332	428.91%
Se 196.026†	-20.8	0.01071	mg/L	0.004813	0.02143	mg/L	0.009627	44.92%
Si 288.158†	1124.9	0.9384	mg/L	0.01046	1.877	mg/L	0.0209	1.12%
Sn 189.927†	26.4	0.00592	mg/L	0.001109	0.01185	mg/L	0.002219	18.73%
Sr 421.552†	427434.8	0.5123	mg/L	0.00182	1.025	mg/L	0.0036	0.36%
Ti 334.903†	102462.0	4.861	mg/L	0.0623	9.721	mg/L	0.1246	1.28%
Tl 190.801†	-17.0	0.00939	mg/L	0.001428	0.01878	mg/L	0.002856	15.21%
V 292.402†	56185.5	0.2736	mg/L	0.00369	0.5471	mg/L	0.00738	1.35%
Zn 206.200†	2307.0	0.8179	mg/L	0.01182	1.636	mg/L	0.0236	1.45%

Sequence No.: 45
Sample ID: TX57 O SWC

Autosampler Location: 335
Date Collected: 11/29/2011 1:50:42 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 O SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TX57 O SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2813489.3	101.7	%	0.40				0.39%
ScR 361.383	370644.6	103.2	%	1.40				1.35%
Ag 328.068†	6032.0	0.02222	mg/L	0.000351	0.04444	mg/L	0.000702	1.58%
Al 308.215†	97729.5	97.09	mg/L	0.672	194.2	mg/L	1.34	0.69%
As 188.979†	163.3	0.09086	mg/L	0.002150	0.1817	mg/L	0.00430	2.37%
B 249.677†	245.1	0.06407	mg/L	0.001715	0.1281	mg/L	0.00343	2.68%
Ba 233.527†	1990.7	0.4093	mg/L	0.00239	0.8186	mg/L	0.00479	0.58%
Be 313.042†	833.8	0.00161	mg/L	0.000032	0.00323	mg/L	0.000064	1.98%
Ca 317.933†	423704.2	48.18	mg/L	0.173	96.35	mg/L	0.346	0.36%
Cd 228.802†	409.4	0.01099	mg/L	0.000138	0.02199	mg/L	0.000275	1.25%
Co 228.616†	2450.4	0.04492	mg/L	0.000188	0.08984	mg/L	0.000376	0.42%
Cr 267.716†	1324.0	0.2496	mg/L	0.00188	0.4992	mg/L	0.00377	0.75%
Cu 324.752†	126646.0	0.5092	mg/L	0.00412	1.018	mg/L	0.0082	0.81%
Fe 273.955†	148160.7	181.4	mg/L	1.27	362.8	mg/L	2.54	0.70%
K 766.490†	23658.9	10.91	mg/L	0.115	21.83	mg/L	0.229	1.05%
Mg 279.077†	29222.5	35.88	mg/L	0.317	71.75	mg/L	0.634	0.88%
Mn 257.610†	40493.0	1.277	mg/L	0.0084	2.555	mg/L	0.0168	0.66%
Mo 202.031†	610.3	0.02524	mg/L	0.000333	0.05048	mg/L	0.000666	1.32%
Na 589.592†	672233.5	43.38	mg/L	0.246	86.76	mg/L	0.491	0.57%
Na 330.237†	943.5	45.58	mg/L	0.394	91.15	mg/L	0.788	0.86%
Ni 231.604†	398.7	0.1456	mg/L	0.00212	0.2911	mg/L	0.00424	1.46%
Pb 220.353†	11531.9	1.004	mg/L	0.0059	2.009	mg/L	0.0117	0.58%
Sb 206.836†	242.7	-0.00104	mg/L	0.001991	-0.00208	mg/L	0.003981	191.76%
Se 196.026†	-55.7	0.00763	mg/L	0.001888	0.01526	mg/L	0.003777	24.75%
Si 288.158†	1648.5	1.375	mg/L	0.0145	2.750	mg/L	0.0290	1.06%
Sn 189.927†	118.0	0.02139	mg/L	0.000453	0.04278	mg/L	0.000906	2.12%
Sr 421.552†	366676.1	0.4395	mg/L	0.00280	0.8789	mg/L	0.00560	0.64%
Ti 334.903†	112607.8	5.352	mg/L	0.0436	10.70	mg/L	0.087	0.81%
Tl 190.801†	-35.5	0.00850	mg/L	0.003660	0.01701	mg/L	0.007319	43.04%
V 292.402†	69176.6	0.3345	mg/L	0.00322	0.6691	mg/L	0.00643	0.96%
Zn 206.200†	4282.5	1.530	mg/L	0.0155	3.060	mg/L	0.0310	1.01%

Sequence No.: 46
Sample ID: TY35 MBSPK TWC

Autosampler Location: 336
Date Collected: 11/29/2011 1:54:56 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY35 MBSPK TWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TY35 MBSPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2858273.0	103.3	%	0.81				0.79%
ScR 361.383	366372.6	102.0	%	0.89				0.87%
Ag 328.068†	137129.0	0.5162	mg/L	0.00687	0.5162	mg/L	0.00687	1.33%
Al 308.215†	2069.2	2.047	mg/L	0.0192	2.047	mg/L	0.0192	0.94%
As 188.979†	5117.4	1.994	mg/L	0.0156	1.994	mg/L	0.0156	0.78%
B 249.677†	9.2	0.00140	mg/L	0.000296	0.00140	mg/L	0.000296	21.19%
Ba 233.527†	9636.8	2.026	mg/L	0.0142	2.026	mg/L	0.0142	0.70%
Be 313.042†	235640.9	0.4853	mg/L	0.00511	0.4853	mg/L	0.00511	1.05%
Ca 317.933†	86812.8	9.870	mg/L	0.0424	9.870	mg/L	0.0424	0.43%
Cd 228.802†	18669.1	0.5018	mg/L	0.00699	0.5018	mg/L	0.00699	1.39%
Co 228.616†	21927.2	0.4890	mg/L	0.00505	0.4890	mg/L	0.00505	1.03%
Cr 267.716†	2696.7	0.4993	mg/L	0.00269	0.4993	mg/L	0.00269	0.54%
Cu 324.752†	126386.3	0.4993	mg/L	0.00584	0.4993	mg/L	0.00584	1.17%
Fe 273.955†	1717.2	2.099	mg/L	0.0117	2.099	mg/L	0.0117	0.56%
K 766.490†	22677.6	10.46	mg/L	0.059	10.46	mg/L	0.059	0.57%
Mg 279.077†	8414.6	10.36	mg/L	0.076	10.36	mg/L	0.076	0.74%
Mn 257.610†	15244.5	0.4812	mg/L	0.00445	0.4812	mg/L	0.00445	0.93%
Mo 202.031†	33.4	0.00120	mg/L	0.000114	0.00120	mg/L	0.000114	9.51%
Na 589.592†	150265.9	9.697	mg/L	0.0884	9.697	mg/L	0.0884	0.91%
Na 330.237†	225.4	10.54	mg/L	0.195	10.54	mg/L	0.195	1.85%
Ni 231.604†	1361.9	0.4971	mg/L	0.00215	0.4971	mg/L	0.00215	0.43%
Pb 220.353†	23390.9	2.018	mg/L	0.0246	2.018	mg/L	0.0246	1.22%
Sb 206.836†	-0.5	-0.00458	mg/L	0.001742	-0.00458	mg/L	0.001742	38.01%
Se 196.026†	3478.1	1.998	mg/L	0.0185	1.998	mg/L	0.0185	0.93%
Si 288.158†	-1.4	0.00065	mg/L	0.000895	0.00065	mg/L	0.000895	137.99%
Sn 189.927†	-6.1	-0.00102	mg/L	0.000466	-0.00102	mg/L	0.000466	45.51%
Sr 421.552†	416660.1	0.4994	mg/L	0.00419	0.4994	mg/L	0.00419	0.84%
Ti 334.903†	33.4	0.00112	mg/L	0.000170	0.00112	mg/L	0.000170	15.14%
Tl 190.801†	5299.6	2.003	mg/L	0.0153	2.003	mg/L	0.0153	0.76%
V 292.402†	98020.6	0.4976	mg/L	0.00580	0.4976	mg/L	0.00580	1.16%
Zn 206.200†	1359.5	0.4861	mg/L	0.00342	0.4861	mg/L	0.00342	0.70%

Sequence No.: 47
Sample ID: CV 5

Autosampler Location: 7
Date Collected: 11/29/2011 1:58:54 PM
Data Type: Original

Dilution: 1X

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	2809928.9	101.5	%	0.34				0.34%
ScR 361.383	360894.2	100.5	%	0.46				0.46%
Ag 328.068†	279192.8	1.051	mg/L	0.0120	1.051	mg/L	0.0120	1.14%
Al 308.215†	2076.7	2.029	mg/L	0.0154	2.029	mg/L	0.0154	0.76%
As 188.979†	5072.0	1.979	mg/L	0.0126	1.979	mg/L	0.0126	0.64%
B 249.677†	3816.9	0.9979	mg/L	0.00982	0.9979	mg/L	0.00982	0.98%
Ba 233.527†	4856.2	1.021	mg/L	0.0129	1.021	mg/L	0.0129	1.27%
Be 313.042†	490712.7	1.011	mg/L	0.0086	1.011	mg/L	0.0086	0.85%
Ca 317.933†	18592.4	2.113	mg/L	0.0242	2.113	mg/L	0.0242	1.15%
Cd 228.802†	38656.0	1.050	mg/L	0.0089	1.050	mg/L	0.0089	0.85%
Co 228.616†	44539.1	0.9921	mg/L	0.01012	0.9921	mg/L	0.01012	1.02%
Cr 267.716†	5554.8	1.029	mg/L	0.0126	1.029	mg/L	0.0126	1.23%
Cu 324.752†	259879.6	1.026	mg/L	0.0120	1.026	mg/L	0.0120	1.17%
Fe 273.955†	1712.5	2.090	mg/L	0.0278	2.090	mg/L	0.0278	1.33%
K 766.490†	45769.9	21.11	mg/L	0.079	21.11	mg/L	0.079	0.37%
Mg 279.077†	1667.9	2.060	mg/L	0.0256	2.060	mg/L	0.0256	1.24%
Mn 257.610†	32241.5	1.017	mg/L	0.0124	1.017	mg/L	0.0124	1.22%
Mo 202.031†	23924.2	1.028	mg/L	0.0066	1.028	mg/L	0.0066	0.64%
Na 589.592†	777458.5	50.17	mg/L	0.311	50.17	mg/L	0.311	0.62%
Na 330.237†	1119.1	53.02	mg/L	0.558	53.02	mg/L	0.558	1.05%
Ni 231.604†	2806.2	1.026	mg/L	0.0137	1.026	mg/L	0.0137	1.34%
Pb 220.353†	23879.2	2.061	mg/L	0.0147	2.061	mg/L	0.0147	0.71%
Sb 206.836†	9342.7	2.107	mg/L	0.0149	2.107	mg/L	0.0149	0.71%
Se 196.026†	3506.5	2.015	mg/L	0.0158	2.015	mg/L	0.0158	0.78%
Si 288.158†	2510.0	2.100	mg/L	0.0288	2.100	mg/L	0.0288	1.37%
Sn 189.927†	6214.1	1.040	mg/L	0.0062	1.040	mg/L	0.0062	0.60%
Sr 421.552†	855334.9	1.025	mg/L	0.0040	1.025	mg/L	0.0040	0.39%
Ti 334.903†	21063.4	1.000	mg/L	0.0040	1.000	mg/L	0.0040	0.40%
Tl 190.801†	5287.7	2.000	mg/L	0.0140	2.000	mg/L	0.0140	0.70%
V 292.402†	196546.7	0.9982	mg/L	0.01465	0.9982	mg/L	0.01465	1.47%
Zn 206.200†	2847.6	1.018	mg/L	0.0145	1.018	mg/L	0.0145	1.43%

Sequence No.: 48
Sample ID: CB 5
Dilution: 1X

Autosampler Location: 1
Date Collected: 11/29/2011 2:02:55 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	215.0 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	2849436.9	103.0	%	1.13				1.10%
ScR 361.383	368916.1	102.7	%	0.71				0.69%
Ag 328.068†	20.6	0.00008	mg/L	0.000074	0.00008	mg/L	0.000074	96.03%
Al 308.215†	19.4	0.01924	mg/L	0.003514	0.01924	mg/L	0.003514	18.27%
As 188.979†	2.3	0.00089	mg/L	0.001678	0.00089	mg/L	0.001678	188.72%
B 249.677†	13.5	0.00352	mg/L	0.002342	0.00352	mg/L	0.002342	66.50%
Ba 233.527†	0.0	0.00000	mg/L	0.000296	0.00000	mg/L	0.000296	>999.9%
Be 313.042†	29.9	0.00006	mg/L	0.000043	0.00006	mg/L	0.000043	69.61%
Ca 317.933†	43.3	0.00492	mg/L	0.001754	0.00492	mg/L	0.001754	35.61%
Cd 228.802†	-2.4	-0.00007	mg/L	0.000111	-0.00007	mg/L	0.000111	157.27%
Co 228.616†	-1.6	-0.00004	mg/L	0.000062	-0.00004	mg/L	0.000062	169.72%
Cr 267.716†	2.9	0.00055	mg/L	0.000710	0.00055	mg/L	0.000710	129.91%
Cu 324.752†	53.9	0.00021	mg/L	0.000073	0.00021	mg/L	0.000073	34.25%
Fe 273.955†	5.9	0.00723	mg/L	0.003518	0.00723	mg/L	0.003518	48.63%
K 766.490†	46.4	0.02142	mg/L	0.007611	0.02142	mg/L	0.007611	35.53%
Mg 279.077†	3.8	0.00465	mg/L	0.005063	0.00465	mg/L	0.005063	108.99%
Mn 257.610†	4.6	0.00014	mg/L	0.000067	0.00014	mg/L	0.000067	46.14%
Mo 202.031†	0.5	0.00002	mg/L	0.000436	0.00002	mg/L	0.000436	>999.9%
Na 589.592†	48.8	0.00315	mg/L	0.003639	0.00315	mg/L	0.003639	115.48%
Na 330.237†	2.4	0.1153	mg/L	0.24177	0.1153	mg/L	0.24177	209.75%
Ni 231.604†	-0.5	-0.00017	mg/L	0.000840	-0.00017	mg/L	0.000840	482.02%
Pb 220.353†	8.7	0.00075	mg/L	0.000409	0.00075	mg/L	0.000409	54.45%
Sb 206.836†	-16.3	-0.00367	mg/L	0.000225	-0.00367	mg/L	0.000225	6.12%
Se 196.026†	1.9	0.00112	mg/L	0.004638	0.00112	mg/L	0.004638	415.01%
Si 288.158†	8.3	0.00693	mg/L	0.003646	0.00693	mg/L	0.003646	52.61%
Sn 189.927†	5.5	0.00092	mg/L	0.000569	0.00092	mg/L	0.000569	61.74%
Sr 421.552†	101.1	0.00012	mg/L	0.000067	0.00012	mg/L	0.000067	55.45%
Ti 334.903†	-3.5	-0.00017	mg/L	0.001075	-0.00017	mg/L	0.001075	646.20%
Tl 190.801†	5.0	0.00191	mg/L	0.002492	0.00191	mg/L	0.002492	130.53%
V 292.402†	14.7	0.00008	mg/L	0.000113	0.00008	mg/L	0.000113	149.55%
Zn 206.200†	-0.8	-0.00029	mg/L	0.000859	-0.00029	mg/L	0.000859	294.20%

Sequence No.: 49
Sample ID: TY35 MB TWC

Autosampler Location: 337
Date Collected: 11/29/2011 2:07:08 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY35 MB TWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TY35 MB TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2834836.3	102.4	%	0.10				0.10%
ScR 361.383	368447.3	102.6	%	0.82				0.80%
Ag 328.068†	42.9	0.00016	mg/L	0.000130	0.00016	mg/L	0.000130	80.33%
Al 308.215†	15.4	0.01534	mg/L	0.006151	0.01534	mg/L	0.006151	40.09%
As 188.979†	-2.1	-0.00082	mg/L	0.001258	-0.00082	mg/L	0.001258	153.61%
B 249.677†	11.9	0.00311	mg/L	0.001581	0.00311	mg/L	0.001581	50.77%
Ba 233.527†	-1.8	-0.00038	mg/L	0.000126	-0.00038	mg/L	0.000126	32.80%
Be 313.042†	19.5	0.00004	mg/L	0.000028	0.00004	mg/L	0.000028	69.41%
Ca 317.933†	79.0	0.00898	mg/L	0.001035	0.00898	mg/L	0.001035	11.52%
Cd 228.802†	-3.6	-0.00009	mg/L	0.000041	-0.00009	mg/L	0.000041	43.89%
Co 228.616†	3.3	0.00007	mg/L	0.000142	0.00007	mg/L	0.000142	192.72%
Cr 267.716†	3.4	0.00062	mg/L	0.000979	0.00062	mg/L	0.000979	156.90%
Cu 324.752†	28.9	0.00011	mg/L	0.000113	0.00011	mg/L	0.000113	98.78%
Fe 273.955†	6.0	0.00740	mg/L	0.000454	0.00740	mg/L	0.000454	6.13%
K 766.490†	79.8	0.03681	mg/L	0.014671	0.03681	mg/L	0.014671	39.85%
Mg 279.077†	1.3	0.00164	mg/L	0.013110	0.00164	mg/L	0.013110	801.29%
Mn 257.610†	4.7	0.00015	mg/L	0.000107	0.00015	mg/L	0.000107	72.85%
Mo 202.031†	-1.4	-0.00006	mg/L	0.000217	-0.00006	mg/L	0.000217	354.35%
Na 589.592†	-10.8	-0.00070	mg/L	0.003524	-0.00070	mg/L	0.003524	505.05%
Na 330.237†	-4.1	-0.1942	mg/L	0.04359	-0.1942	mg/L	0.04359	22.45%
Ni 231.604†	1.3	0.00048	mg/L	0.002336	0.00048	mg/L	0.002336	487.41%
Pb 220.353†	1.6	0.00015	mg/L	0.000174	0.00015	mg/L	0.000174	119.82%
Sb 206.836†	-11.0	-0.00247	mg/L	0.000951	-0.00247	mg/L	0.000951	38.56%
Se 196.026†	3.6	0.00209	mg/L	0.004026	0.00209	mg/L	0.004026	192.34%
Si 288.158†	2.3	0.00191	mg/L	0.000287	0.00191	mg/L	0.000287	15.04%
Sn 189.927†	6.2	0.00104	mg/L	0.000450	0.00104	mg/L	0.000450	43.36%
Sr 421.552†	45.5	0.00005	mg/L	0.000035	0.00005	mg/L	0.000035	64.11%
Ti 334.903†	5.9	0.00028	mg/L	0.001716	0.00028	mg/L	0.001716	610.49%
Tl 190.801†	2.2	0.00085	mg/L	0.000444	0.00085	mg/L	0.000444	52.28%
V 292.402†	-7.9	-0.00004	mg/L	0.000148	-0.00004	mg/L	0.000148	384.40%
Zn 206.200†	4.2	0.00151	mg/L	0.000554	0.00151	mg/L	0.000554	36.74%

Sequence No.: 50
Sample ID: TY35 B TWC

Autosampler Location: 338
Date Collected: 11/29/2011 2:11:22 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY35 B TWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TY35 B TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2869126.0	103.7	%	0.59				0.57%
ScR 361.383	371675.6	103.5	%	0.68				0.66%
Ag 328.068†	42.1	0.00015	mg/L	0.000052	0.00015	mg/L	0.000052	33.98%
Al 308.215†	257.3	0.2556	mg/L	0.00139	0.2556	mg/L	0.00139	0.54%
As 188.979†	-0.9	-0.00031	mg/L	0.000866	-0.00031	mg/L	0.000866	276.43%
B 249.677†	26.7	0.00698	mg/L	0.001731	0.00698	mg/L	0.001731	24.80%
Ba 233.527†	33.1	0.00687	mg/L	0.000264	0.00687	mg/L	0.000264	3.84%
Be 313.042†	1.5	0.00000	mg/L	0.000012	0.00000	mg/L	0.000012	451.96%
Ca 317.933†	4183.9	0.4757	mg/L	0.00861	0.4757	mg/L	0.00861	1.81%
Cd 228.802†	-2.9	-0.00007	mg/L	0.000064	-0.00007	mg/L	0.000064	88.29%
Co 228.616†	12.3	0.00025	mg/L	0.000053	0.00025	mg/L	0.000053	20.68%
Cr 267.716†	35.1	0.00656	mg/L	0.000958	0.00656	mg/L	0.000958	14.61%
Cu 324.752†	2521.6	0.01007	mg/L	0.000184	0.01007	mg/L	0.000184	1.83%
Fe 273.955†	1583.2	1.938	mg/L	0.0120	1.938	mg/L	0.0120	0.62%
K 766.490†	232.7	0.1073	mg/L	0.01351	0.1073	mg/L	0.01351	12.59%
Mg 279.077†	170.4	0.2087	mg/L	0.00256	0.2087	mg/L	0.00256	1.23%
Mn 257.610†	286.4	0.00904	mg/L	0.000080	0.00904	mg/L	0.000080	0.89%
Mo 202.031†	15.6	0.00066	mg/L	0.000256	0.00066	mg/L	0.000256	38.64%
Na 589.592†	21160.0	1.366	mg/L	0.0008	1.366	mg/L	0.0008	0.06%
Na 330.237†	41.6	1.905	mg/L	0.3931	1.905	mg/L	0.3931	20.63%
Ni 231.604†	18.2	0.00664	mg/L	0.001069	0.00664	mg/L	0.001069	16.09%
Pb 220.353†	31.6	0.00267	mg/L	0.000495	0.00267	mg/L	0.000495	18.55%
Sb 206.836†	-14.7	-0.00368	mg/L	0.000282	-0.00368	mg/L	0.000282	7.65%
Se 196.026†	-1.2	-0.00043	mg/L	0.003473	-0.00043	mg/L	0.003473	801.83%
Si 288.158†	466.3	0.3890	mg/L	0.00271	0.3890	mg/L	0.00271	0.70%
Sn 189.927†	6.8	0.00114	mg/L	0.000082	0.00114	mg/L	0.000082	7.24%
Sr 421.552†	4271.4	0.00512	mg/L	0.000052	0.00512	mg/L	0.000052	1.02%
Ti 334.903†	211.0	0.01001	mg/L	0.000346	0.01001	mg/L	0.000346	3.46%
Tl 190.801†	-2.5	-0.00070	mg/L	0.000385	-0.00070	mg/L	0.000385	54.61%
V 292.402†	168.2	0.00073	mg/L	0.000137	0.00073	mg/L	0.000137	18.78%
Zn 206.200†	636.5	0.2276	mg/L	0.00121	0.2276	mg/L	0.00121	0.53%

Sequence No.: 51
Sample ID: TY01 G DMN

Autosampler Location: 339
Date Collected: 11/29/2011 2:15:34 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY01 G DMN

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TY01 G DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2837704.0	102.5	%	0.06				0.05%
ScR 361.383	365998.3	101.9	%	0.47				0.46%
Ag 328.068†	477.2	0.00017	mg/L	0.000182	0.00017	mg/L	0.000182	109.17%
Al 308.215†	6.4	0.00621	mg/L	0.003337	0.00621	mg/L	0.003337	53.73%
As 188.979†	32.6	0.00763	mg/L	0.002080	0.00763	mg/L	0.002080	27.27%
B 249.677†	45.0	0.01178	mg/L	0.000870	0.01178	mg/L	0.000870	7.39%
Ba 233.527†	427.1	0.09098	mg/L	0.000570	0.09098	mg/L	0.000570	0.63%
Be 313.042†	-6.0	-0.00001	mg/L	0.000037	-0.00001	mg/L	0.000037	279.36%
Ca 317.933†	1323949.7	150.5	mg/L	0.97	150.5	mg/L	0.97	0.64%
Cd 228.802†	-11.5	-0.00038	mg/L	0.000070	-0.00038	mg/L	0.000070	18.54%
Co 228.616†	43.8	0.00095	mg/L	0.000079	0.00095	mg/L	0.000079	8.25%
Cr 267.716†	32.8	-0.00069	mg/L	0.000310	-0.00069	mg/L	0.000310	44.84%
Cu 324.752†	438.4	0.00129	mg/L	0.000135	0.00129	mg/L	0.000135	10.49%
Fe 273.955†	6.0	0.00731	mg/L	0.000936	0.00731	mg/L	0.000936	12.80%
K 766.490†	25141.8	11.60	mg/L	0.015	11.60	mg/L	0.015	0.13%
Mg 279.077†	62496.2	76.94	mg/L	0.533	76.94	mg/L	0.533	0.69%
Mn 257.610†	160.5	0.00474	mg/L	0.000124	0.00474	mg/L	0.000124	2.60%
Mo 202.031†	135.6	0.00314	mg/L	0.000392	0.00314	mg/L	0.000392	12.50%
Na 589.592†	587648.3	37.92	mg/L	0.150	37.92	mg/L	0.150	0.39%
Na 330.237†	845.8	40.13	mg/L	0.430	40.13	mg/L	0.430	1.07%
Ni 231.604†	15.1	0.00551	mg/L	0.000627	0.00551	mg/L	0.000627	11.39%
Pb 220.353†	-55.7	-0.00479	mg/L	0.000410	-0.00479	mg/L	0.000410	8.56%
Sb 206.836†	-16.3	-0.00375	mg/L	0.001822	-0.00375	mg/L	0.001822	48.59%
Se 196.026†	46.5	0.02106	mg/L	0.003418	0.02106	mg/L	0.003418	16.23%
Si 288.158†	27232.9	22.72	mg/L	0.139	22.72	mg/L	0.139	0.61%
Sn 189.927†	-20.7	-0.00346	mg/L	0.000105	-0.00346	mg/L	0.000105	3.04%
Sr 421.552†	659349.6	0.7902	mg/L	0.00051	0.7902	mg/L	0.00051	0.06%
Ti 334.903†	144.6	0.00104	mg/L	0.000348	0.00104	mg/L	0.000348	33.49%
Tl 190.801†	30.6	0.01159	mg/L	0.002560	0.01159	mg/L	0.002560	22.09%
V 292.402†	609.5	0.00311	mg/L	0.000025	0.00311	mg/L	0.000025	0.81%
Zn 206.200†	6.3	-0.00165	mg/L	0.000468	-0.00165	mg/L	0.000468	28.33%

Sequence No.: 52
Sample ID: TY01 H DMN

Dilution: 1X

Autosampler Location: 340
Date Collected: 11/29/2011 2:19:47 PM
Data Type: Original

Nebulizer Parameters: TY01 H DMN

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TY01 H DMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2858818.4	103.3	%	0.53				0.52%
ScR 361.383	370122.8	103.0	%	0.81				0.79%
Ag 328.068†	362.1	0.00032	mg/L	0.000255	0.00032	mg/L	0.000255	79.41%
Al 308.215†	11.0	0.01080	mg/L	0.006414	0.01080	mg/L	0.006414	59.41%
As 188.979†	27.3	0.00738	mg/L	0.001757	0.00738	mg/L	0.001757	23.79%
B 249.677†	70.1	0.01835	mg/L	0.001509	0.01835	mg/L	0.001509	8.23%
Ba 233.527†	364.5	0.07738	mg/L	0.001694	0.07738	mg/L	0.001694	2.19%
Be 313.042†	29.1	0.00006	mg/L	0.000017	0.00006	mg/L	0.000017	29.16%
Ca 317.933†	846183.9	96.21	mg/L	0.440	96.21	mg/L	0.440	0.46%
Cd 228.802†	-8.3	-0.00028	mg/L	0.000213	-0.00028	mg/L	0.000213	75.09%
Co 228.616†	39.8	0.00087	mg/L	0.000103	0.00087	mg/L	0.000103	11.76%
Cr 267.716†	23.4	-0.00032	mg/L	0.000275	-0.00032	mg/L	0.000275	86.97%
Cu 324.752†	376.1	0.00116	mg/L	0.000095	0.00116	mg/L	0.000095	8.19%
Fe 273.955†	3.2	0.00394	mg/L	0.001334	0.00394	mg/L	0.001334	33.85%
K 766.490†	18729.1	8.639	mg/L	0.0157	8.639	mg/L	0.0157	0.18%
Mg 279.077†	46304.9	57.01	mg/L	0.640	57.01	mg/L	0.640	1.12%
Mn 257.610†	35.0	0.00087	mg/L	0.000093	0.00087	mg/L	0.000093	10.66%
Mo 202.031†	113.7	0.00308	mg/L	0.000108	0.00308	mg/L	0.000108	3.49%
Na 589.592†	388757.8	25.09	mg/L	0.133	25.09	mg/L	0.133	0.53%
Na 330.237†	563.7	26.75	mg/L	0.453	26.75	mg/L	0.453	1.69%
Ni 231.604†	3.7	0.00136	mg/L	0.001283	0.00136	mg/L	0.001283	94.43%
Pb 220.353†	-62.2	-0.00535	mg/L	0.000291	-0.00535	mg/L	0.000291	5.45%
Sb 206.836†	-19.3	-0.00444	mg/L	0.000876	-0.00444	mg/L	0.000876	19.71%
Se 196.026†	47.6	0.02312	mg/L	0.001650	0.02312	mg/L	0.001650	7.14%
Si 288.158†	28948.5	24.15	mg/L	0.215	24.15	mg/L	0.215	0.89%
Sn 189.927†	-26.7	-0.00447	mg/L	0.000433	-0.00447	mg/L	0.000433	9.69%
Sr 421.552†	397602.7	0.4765	mg/L	0.00076	0.4765	mg/L	0.00076	0.16%
Ti 334.903†	90.2	0.00056	mg/L	0.000639	0.00056	mg/L	0.000639	114.36%
Tl 190.801†	24.0	0.00909	mg/L	0.000592	0.00909	mg/L	0.000592	6.50%
V 292.402†	351.7	0.00180	mg/L	0.000042	0.00180	mg/L	0.000042	2.32%
Zn 206.200†	0.0	-0.00248	mg/L	0.000910	-0.00248	mg/L	0.000910	36.75%

Sequence No.: 53
Sample ID: TY01 I DMN

Autosampler Location: 341
Date Collected: 11/29/2011 2:24:00 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY01 I DMN

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

DLL

Mean Data: TY01 I DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2832807.2	102.4	%	0.38				0.37%
ScR 361.383	366825.3	102.1	%	0.81				0.80%
Ag 328.068†	537.9	0.00034	mg/L	0.000300	0.00034	mg/L	0.000300	89.04%
Al 308.215†	12.3	0.01209	mg/L	0.005432	0.01209	mg/L	0.005432	44.92%
As 188.979†	31.7	0.00709	mg/L	0.001494	0.00709	mg/L	0.001494	21.06%
B 249.677†	48.8	0.01277	mg/L	0.000552	0.01277	mg/L	0.000552	4.32%
Ba 233.527†	514.0	0.1093	mg/L	0.00078	0.1093	mg/L	0.00078	0.71%
Be 313.042†	-7.4	-0.00002	mg/L	0.000039	-0.00002	mg/L	0.000039	234.93%
Ca 317.933†	1369809.0	155.7	mg/L	1.60	155.7	mg/L	1.60	1.03%
Cd 228.802†	-11.0	-0.00036	mg/L	0.000111	-0.00036	mg/L	0.000111	30.50%
Co 228.616†	42.4	0.00092	mg/L	0.000164	0.00092	mg/L	0.000164	17.81%
Cr 267.716†	30.8	-0.00173	mg/L	0.001023	-0.00173	mg/L	0.001023	59.18%
Cu 324.752†	408.7	0.00109	mg/L	0.000114	0.00109	mg/L	0.000114	10.42%
Fe 273.955†	0.1	0.00005	mg/L	0.002333	0.00005	mg/L	0.002333	>999.9%
K 766.490†	28240.5	13.03	mg/L	0.101	13.03	mg/L	0.101	0.78%
Mg 279.077†	73405.3	90.38	mg/L	0.798	90.38	mg/L	0.798	0.88%
Mn 257.610†	392.9	0.01202	mg/L	0.000055	0.01202	mg/L	0.000055	0.46%
Mo 202.031†	136.9	0.00299	mg/L	0.000172	0.00299	mg/L	0.000172	5.77%
Na 589.592†	651955.4	42.07	mg/L	0.186	42.07	mg/L	0.186	0.44%
Na 330.237†	934.0	44.32	mg/L	0.212	44.32	mg/L	0.212	0.48%
Ni 231.604†	8.0	0.00292	mg/L	0.003005	0.00292	mg/L	0.003005	102.78%
Pb 220.353†	-70.7	-0.00609	mg/L	0.000652	-0.00609	mg/L	0.000652	10.71%
Sb 206.836†	-20.5	-0.00470	mg/L	0.000324	-0.00470	mg/L	0.000324	6.90%
Se 196.026†	46.3	0.01993	mg/L	0.003841	0.01993	mg/L	0.003841	19.27%
Si 288.158†	27265.2	22.74	mg/L	0.144	22.74	mg/L	0.144	0.63%
Sn 189.927†	-25.7	-0.00429	mg/L	0.000223	-0.00429	mg/L	0.000223	5.19%
Sr 421.552†	644495.1	0.7724	mg/L	0.00511	0.7724	mg/L	0.00511	0.66%
Ti 334.903†	144.7	0.00084	mg/L	0.001366	0.00084	mg/L	0.001366	162.02%
Tl 190.801†	36.8	0.01393	mg/L	0.001722	0.01393	mg/L	0.001722	12.36%
V 292.402†	749.6	0.00382	mg/L	0.000079	0.00382	mg/L	0.000079	2.06%
Zn 206.200†	4.6	-0.00239	mg/L	0.001118	-0.00239	mg/L	0.001118	46.75%

Sequence No.: 54
Sample ID: TY01 J DMN

Autosampler Location: 342
Date Collected: 11/29/2011 2:28:13 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY01 J DMN

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TY01 J DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2883814.7	104.2	%	1.18				1.13%
ScR 361.383	371858.5	103.5	%	1.21				1.17%
Ag 328.068†	513.6	0.00018	mg/L	0.000035	0.00018	mg/L	0.000035	19.57%
Al 308.215†	5.3	0.00516	mg/L	0.001018	0.00516	mg/L	0.001018	19.74%
As 188.979†	30.5	0.00648	mg/L	0.001738	0.00648	mg/L	0.001738	26.80%
B 249.677†	38.1	0.00996	mg/L	0.001590	0.00996	mg/L	0.001590	15.96%
Ba 233.527†	412.9	0.08805	mg/L	0.000084	0.08805	mg/L	0.000084	0.09%
Be 313.042†	-43.1	-0.00009	mg/L	0.000013	-0.00009	mg/L	0.000013	14.63%
Ca 317.933†	1403173.9	159.5	mg/L	1.84	159.5	mg/L	1.84	1.15%
Cd 228.802†	-15.0	-0.00047	mg/L	0.000183	-0.00047	mg/L	0.000183	38.70%
Co 228.616†	50.9	0.00112	mg/L	0.000137	0.00112	mg/L	0.000137	12.31%
Cr 267.716†	25.7	-0.00258	mg/L	0.001233	-0.00258	mg/L	0.001233	47.82%
Cu 324.752†	297.1	0.00068	mg/L	0.000109	0.00068	mg/L	0.000109	16.02%
Fe 273.955†	3.5	0.00425	mg/L	0.001678	0.00425	mg/L	0.001678	39.49%
K 766.490†	26972.1	12.44	mg/L	0.048	12.44	mg/L	0.048	0.38%
Mg 279.077†	69722.8	85.84	mg/L	0.517	85.84	mg/L	0.517	0.60%
Mn 257.610†	3636.4	0.1143	mg/L	0.00086	0.1143	mg/L	0.00086	0.75%
Mo 202.031†	129.0	0.00265	mg/L	0.000082	0.00265	mg/L	0.000082	3.09%
Na 589.592†	633692.5	40.90	mg/L	0.312	40.90	mg/L	0.312	0.76%
Na 330.237†	919.8	43.64	mg/L	0.257	43.64	mg/L	0.257	0.59%
Ni 231.604†	11.5	0.00418	mg/L	0.002159	0.00418	mg/L	0.002159	51.64%
Pb 220.353†	-54.3	-0.00467	mg/L	0.000310	-0.00467	mg/L	0.000310	6.64%
Sb 206.836†	-32.3	-0.00736	mg/L	0.000706	-0.00736	mg/L	0.000706	9.59%
Se 196.026†	48.2	0.02140	mg/L	0.004671	0.02140	mg/L	0.004671	21.83%
Si 288.158†	27031.7	22.55	mg/L	0.090	22.55	mg/L	0.090	0.40%
Sn 189.927†	-29.8	-0.00498	mg/L	0.000395	-0.00498	mg/L	0.000395	7.93%
Sr 421.552†	670721.9	0.8038	mg/L	0.00776	0.8038	mg/L	0.00776	0.97%
Ti 334.903†	130.4	0.00001	mg/L	0.000449	0.00001	mg/L	0.000449	>999.9%
Tl 190.801†	30.4	0.01165	mg/L	0.001970	0.01165	mg/L	0.001970	16.91%
V 292.402†	446.1	0.00229	mg/L	0.000075	0.00229	mg/L	0.000075	3.29%
Zn 206.200†	6.8	-0.00170	mg/L	0.000265	-0.00170	mg/L	0.000265	15.54%

TEST BASIL

Sequence No.: 55
Sample ID: TY01 FDUP DMN

Autosampler Location: 343
Date Collected: 11/29/2011 2:32:26 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY01 FDUP DMN

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: TY01 FDUP DMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2869383.2	103.7	%	0.93				0.90%
ScR 361.383	369066.9	102.7	%	1.42				1.38%
Ag 328.068†	191.3	0.00017	mg/L	0.000206	0.00017	mg/L	0.000206	118.39%
Al 308.215†	13.4	0.01316	mg/L	0.004519	0.01316	mg/L	0.004519	34.33%
As 188.979†	13.9	0.00370	mg/L	0.001737	0.00370	mg/L	0.001737	46.97%
B 249.677†	177.2	0.04636	mg/L	0.001391	0.04636	mg/L	0.001391	3.00%
Ba 233.527†	307.5	0.06505	mg/L	0.001155	0.06505	mg/L	0.001155	1.78%
Be 313.042†	17.1	0.00003	mg/L	0.000049	0.00003	mg/L	0.000049	142.18%
Ca 317.933†	442993.9	50.37	mg/L	0.106	50.37	mg/L	0.106	0.21%
Cd 228.802†	-11.3	-0.00033	mg/L	0.000087	-0.00033	mg/L	0.000087	25.97%
Co 228.616†	364.2	0.00812	mg/L	0.000042	0.00812	mg/L	0.000042	0.52%
Cr 267.716†	17.1	0.00069	mg/L	0.000615	0.00069	mg/L	0.000615	89.61%
Cu 324.752†	382.1	0.00133	mg/L	0.000142	0.00133	mg/L	0.000142	10.69%
Fe 273.955†	3.8	0.00458	mg/L	0.001873	0.00458	mg/L	0.001873	40.92%
K 766.490†	13580.7	6.265	mg/L	0.0683	6.265	mg/L	0.0683	1.09%
Mg 279.077†	25181.5	31.00	mg/L	0.355	31.00	mg/L	0.355	1.14%
Mn 257.610†	161.6	0.00497	mg/L	0.000159	0.00497	mg/L	0.000159	3.21%
Mo 202.031†	103.3	0.00348	mg/L	0.000235	0.00348	mg/L	0.000235	6.76%
Na 589.592†	580781.6	37.48	mg/L	0.198	37.48	mg/L	0.198	0.53%
Na 330.237†	831.1	39.43	mg/L	0.769	39.43	mg/L	0.769	1.95%
Ni 231.604†	20.7	0.00756	mg/L	0.002490	0.00756	mg/L	0.002490	32.93%
Pb 220.353†	-54.2	-0.00467	mg/L	0.000616	-0.00467	mg/L	0.000616	13.20%
Sb 206.836†	-34.1	-0.00774	mg/L	0.000573	-0.00774	mg/L	0.000573	7.40%
Se 196.026†	31.2	0.01564	mg/L	0.001036	0.01564	mg/L	0.001036	6.62%
Si 288.158†	22373.7	18.66	mg/L	0.199	18.66	mg/L	0.199	1.06%
Sn 189.927†	-17.8	-0.00298	mg/L	0.000271	-0.00298	mg/L	0.000271	9.09%
Sr 421.552†	235098.2	0.2818	mg/L	0.00157	0.2818	mg/L	0.00157	0.56%
Ti 334.903†	38.6	-0.00012	mg/L	0.000298	-0.00012	mg/L	0.000298	252.74%
Tl 190.801†	22.6	0.00854	mg/L	0.000801	0.00854	mg/L	0.000801	9.37%
V 292.402†	548.1	0.00279	mg/L	0.000161	0.00279	mg/L	0.000161	5.78%
Zn 206.200†	-1.3	-0.00178	mg/L	0.000819	-0.00178	mg/L	0.000819	45.93%

Sequence No.: 56
Sample ID: TY01 F DMN

Autosampler Location: 344
Date Collected: 11/29/2011 2:36:39 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY01 F DMN

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: TY01 F DMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2911035.1	105.2	%	0.62				0.59%
ScR 361.383	372036.2	103.6	%	1.54				1.49%
Ag 328.068†	182.1	0.00014	mg/L	0.000116	0.00014	mg/L	0.000116	83.85%
Al 308.215†	9.3	0.00912	mg/L	0.011454	0.00912	mg/L	0.011454	125.66%
As 188.979†	18.6	0.00553	mg/L	0.001778	0.00553	mg/L	0.001778	32.17%
B 249.677†	173.9	0.04550	mg/L	0.001109	0.04550	mg/L	0.001109	2.44%
Ba 233.527†	311.7	0.06593	mg/L	0.001414	0.06593	mg/L	0.001414	2.14%
Be 313.042†	13.8	0.00003	mg/L	0.000036	0.00003	mg/L	0.000036	131.42%
Ca 317.933†	443588.8	50.44	mg/L	0.311	50.44	mg/L	0.311	0.62%
Cd 228.802†	-10.6	-0.00032	mg/L	0.000079	-0.00032	mg/L	0.000079	24.36%
Co 228.616†	371.2	0.00827	mg/L	0.000156	0.00827	mg/L	0.000156	1.89%
Cr 267.716†	17.0	0.00066	mg/L	0.000552	0.00066	mg/L	0.000552	82.98%
Cu 324.752†	371.2	0.00129	mg/L	0.000062	0.00129	mg/L	0.000062	4.82%
Fe 273.955†	3.4	0.00417	mg/L	0.001533	0.00417	mg/L	0.001533	36.80%
K 766.490†	13814.6	6.372	mg/L	0.0935	6.372	mg/L	0.0935	1.47%
Mg 279.077†	25164.2	30.98	mg/L	0.599	30.98	mg/L	0.599	1.93%
Mn 257.610†	162.4	0.00499	mg/L	0.000068	0.00499	mg/L	0.000068	1.36%
Mo 202.031†	95.0	0.00312	mg/L	0.000313	0.00312	mg/L	0.000313	10.00%
Na 589.592†	589970.9	38.07	mg/L	0.279	38.07	mg/L	0.279	0.73%
Na 330.237†	844.6	40.07	mg/L	0.923	40.07	mg/L	0.923	2.30%
Ni 231.604†	22.9	0.00837	mg/L	0.001241	0.00837	mg/L	0.001241	14.82%
Pb 220.353†	-45.9	-0.00395	mg/L	0.001141	-0.00395	mg/L	0.001141	28.88%
Sb 206.836†	-33.5	-0.00760	mg/L	0.000142	-0.00760	mg/L	0.000142	1.86%
Se 196.026†	27.5	0.01352	mg/L	0.001506	0.01352	mg/L	0.001506	11.14%
Si 288.158†	22456.8	18.73	mg/L	0.344	18.73	mg/L	0.344	1.83%
Sn 189.927†	-15.8	-0.00264	mg/L	0.000654	-0.00264	mg/L	0.000654	24.80%
Sr 421.552†	237866.3	0.2851	mg/L	0.00232	0.2851	mg/L	0.00232	0.81%
Ti 334.903†	50.6	0.00045	mg/L	0.000609	0.00045	mg/L	0.000609	135.89%
Tl 190.801†	20.5	0.00777	mg/L	0.001519	0.00777	mg/L	0.001519	19.56%
V 292.402†	526.3	0.00268	mg/L	0.000046	0.00268	mg/L	0.000046	1.73%
Zn 206.200†	0.8	-0.00103	mg/L	0.000935	-0.00103	mg/L	0.000935	90.46%

Sequence No.: 57
Sample ID: TY01 FSPK DMN

Autosampler Location: 345
Date Collected: 11/29/2011 2:40:52 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY01 FSPK DMN

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

DLL

Mean Data: TY01 FSPK DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2869053.4	103.7	%	0.42				0.40%
ScR 361.383	369812.1	103.0	%	1.05				1.02%
Ag 328.068†	101717.3	0.3823	mg/L	0.02329	0.3823	mg/L	0.02329	6.09%
Al 308.215†	2130.4	2.108	mg/L	0.0133	2.108	mg/L	0.0133	0.63%
As 188.979†	5500.2	2.141	mg/L	0.0184	2.141	mg/L	0.0184	0.86%
B 249.677†	172.3	0.04403	mg/L	0.001779	0.04403	mg/L	0.001779	4.04%
Ba 233.527†	10014.1	2.106	mg/L	0.0206	2.106	mg/L	0.0206	0.98%
Be 313.042†	246019.4	0.5067	mg/L	0.00640	0.5067	mg/L	0.00640	1.26%
Ca 317.933†	528208.8	60.06	mg/L	0.212	60.06	mg/L	0.212	0.35%
Cd 228.802†	20309.4	0.5460	mg/L	0.00609	0.5460	mg/L	0.00609	1.12%
Co 228.616†	23141.6	0.5161	mg/L	0.00543	0.5161	mg/L	0.00543	1.05%
Cr 267.716†	2780.9	0.5125	mg/L	0.00416	0.5125	mg/L	0.00416	0.81%
Cu 324.752†	126117.9	0.4980	mg/L	0.00461	0.4980	mg/L	0.00461	0.93%
Fe 273.955†	1722.4	2.105	mg/L	0.0174	2.105	mg/L	0.0174	0.82%
K 766.490†	36510.5	16.84	mg/L	0.078	16.84	mg/L	0.078	0.46%
Mg 279.077†	32701.5	40.26	mg/L	0.416	40.26	mg/L	0.416	1.03%
Mn 257.610†	15458.3	0.4878	mg/L	0.00460	0.4878	mg/L	0.00460	0.94%
Mo 202.031†	113.1	0.00368	mg/L	0.000125	0.00368	mg/L	0.000125	3.40%
Na 589.592†	735181.0	47.44	mg/L	0.251	47.44	mg/L	0.251	0.53%
Na 330.237†	1075.4	50.86	mg/L	0.452	50.86	mg/L	0.452	0.89%
Ni 231.604†	1366.0	0.5002	mg/L	0.00441	0.5002	mg/L	0.00441	0.88%
Pb 220.353†	23929.6	2.065	mg/L	0.0161	2.065	mg/L	0.0161	0.78%
Sb 206.836†	9160.0	2.056	mg/L	0.0061	2.056	mg/L	0.0061	0.29%
Se 196.026†	4060.0	2.330	mg/L	0.0198	2.330	mg/L	0.0198	0.85%
Si 288.158†	21935.7	18.30	mg/L	0.153	18.30	mg/L	0.153	0.84%
Sn 189.927†	-36.0	-0.00481	mg/L	0.000324	-0.00481	mg/L	0.000324	6.73%
Sr 421.552†	662184.8	0.7936	mg/L	0.00407	0.7936	mg/L	0.00407	0.51%
Ti 334.903†	57.2	0.00031	mg/L	0.000236	0.00031	mg/L	0.000236	77.41%
Tl 190.801†	5379.3	2.033	mg/L	0.0166	2.033	mg/L	0.0166	0.82%
V 292.402†	97974.8	0.4975	mg/L	0.00300	0.4975	mg/L	0.00300	0.60%
Zn 206.200†	1405.9	0.5014	mg/L	0.00579	0.5014	mg/L	0.00579	1.15%

Sequence No.: 58
Sample ID: TY01 MB2SPK DMN

Autosampler Location: 346
Date Collected: 11/29/2011 2:45:06 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY01 MB2SPK DMN

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: TY01 MB2SPK DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2901982.1	104.9	%	0.35				0.33%
ScR 361.383	378536.4	105.4	%	0.65				0.62%
Ag 328.068†	121570.8	0.4576	mg/L	0.01416	0.4576	mg/L	0.01416	3.09%
Al 308.215†	2099.3	2.077	mg/L	0.0240	2.077	mg/L	0.0240	1.16%
As 188.979†	5409.6	2.108	mg/L	0.0114	2.108	mg/L	0.0114	0.54%
B 249.677†	17.0	0.00341	mg/L	0.001570	0.00341	mg/L	0.001570	46.05%
Ba 233.527†	9664.4	2.032	mg/L	0.0211	2.032	mg/L	0.0211	1.04%
Be 313.042†	239311.9	0.4929	mg/L	0.00274	0.4929	mg/L	0.00274	0.56%
Ca 317.933†	87963.0	10.00	mg/L	0.034	10.00	mg/L	0.034	0.34%
Cd 228.802†	19856.1	0.5338	mg/L	0.00549	0.5338	mg/L	0.00549	1.03%
Co 228.616†	22714.5	0.5066	mg/L	0.00427	0.5066	mg/L	0.00427	0.84%
Cr 267.716†	2763.7	0.5117	mg/L	0.00376	0.5117	mg/L	0.00376	0.73%
Cu 324.752†	125549.1	0.4960	mg/L	0.00519	0.4960	mg/L	0.00519	1.05%
Fe 273.955†	1714.1	2.095	mg/L	0.0186	2.095	mg/L	0.0186	0.89%
K 766.490†	22891.1	10.56	mg/L	0.029	10.56	mg/L	0.029	0.28%
Mg 279.077†	8588.7	10.57	mg/L	0.105	10.57	mg/L	0.105	1.00%
Mn 257.610†	15198.0	0.4797	mg/L	0.00214	0.4797	mg/L	0.00214	0.45%
Mo 202.031†	18.0	0.00054	mg/L	0.000360	0.00054	mg/L	0.000360	67.12%
Na 589.592†	151987.4	9.808	mg/L	0.0679	9.808	mg/L	0.0679	0.69%
Na 330.237†	225.7	10.55	mg/L	0.134	10.55	mg/L	0.134	1.27%
Ni 231.604†	1369.1	0.5013	mg/L	0.00466	0.5013	mg/L	0.00466	0.93%
Pb 220.353†	23875.4	2.060	mg/L	0.0207	2.060	mg/L	0.0207	1.01%
Sb 206.836†	9135.4	2.050	mg/L	0.0213	2.050	mg/L	0.0213	1.04%
Se 196.026†	3982.7	2.288	mg/L	0.0076	2.288	mg/L	0.0076	0.33%
Si 288.158†	6.3	0.00712	mg/L	0.008258	0.00712	mg/L	0.008258	115.99%
Sn 189.927†	-14.3	-0.00118	mg/L	0.000500	-0.00118	mg/L	0.000500	42.23%
Sr 421.552†	420165.9	0.5036	mg/L	0.00251	0.5036	mg/L	0.00251	0.50%
Ti 334.903†	7.5	-0.00011	mg/L	0.000370	-0.00011	mg/L	0.000370	322.45%
Tl 190.801†	5402.2	2.042	mg/L	0.0076	2.042	mg/L	0.0076	0.37%
V 292.402†	100467.7	0.5100	mg/L	0.00524	0.5100	mg/L	0.00524	1.03%
Zn 206.200†	1423.2	0.5089	mg/L	0.00351	0.5089	mg/L	0.00351	0.69%

Sequence No.: 59
Sample ID: CV 6
Dilution: 1X

Autosampler Location: 7
Date Collected: 11/29/2011 2:49:04 PM
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	2855393.7	103.2	%	0.28				0.27%
ScR 361.383	362907.2	~~101.0~~	~~%~~	0.17				0.16%
Ag 328.068†	301010.5	1.133	mg/L	0.0165	1.133	mg/L	0.0165	1.45%
Al 308.215†	2059.4	2.012	mg/L	0.0060	2.012	mg/L	0.0060	0.30%
As 188.979†	4998.7	1.951	mg/L	0.0132	1.951	mg/L	0.0132	0.68%
B 249.677†	3786.2	0.9899	mg/L	0.00365	0.9899	mg/L	0.00365	0.37%
Ba 233.527†	4757.1	0.9998	mg/L	0.00345	0.9998	mg/L	0.00345	0.34%
Be 313.042†	478065.8	0.9846	mg/L	0.00673	0.9846	mg/L	0.00673	0.68%
Ca 317.933†	18450.5	2.097	mg/L	0.0092	2.097	mg/L	0.0092	0.44%
Cd 228.802†	38220.9	1.039	mg/L	0.0051	1.039	mg/L	0.0051	0.49%
Co 228.616†	44126.8	0.9829	mg/L	0.00402	0.9829	mg/L	0.00402	0.41%
Cr 267.716†	5497.8	1.019	mg/L	0.0056	1.019	mg/L	0.0056	0.55%
Cu 324.752†	258359.6	1.020	mg/L	0.0021	1.020	mg/L	0.0021	0.21%
Fe 273.955†	1680.1	2.050	mg/L	0.0081	2.050	mg/L	0.0081	0.39%
K 766.490†	45450.3	20.97	mg/L	0.178	20.97	mg/L	0.178	0.85%
Mg 279.077†	1644.6	2.031	mg/L	0.0180	2.031	mg/L	0.0180	0.88%
Mn 257.610†	31541.8	0.9952	mg/L	0.00446	0.9952	mg/L	0.00446	0.45%
Mo 202.031†	23523.5	1.011	mg/L	0.0065	1.011	mg/L	0.0065	0.64%
Na 589.592†	760717.7	49.09	mg/L	0.287	49.09	mg/L	0.287	0.58%
Na 330.237†	1111.4	52.65	mg/L	0.205	52.65	mg/L	0.205	0.39%
Ni 231.604†	2745.3	1.004	mg/L	0.0038	1.004	mg/L	0.0038	0.38%
Pb 220.353†	23524.5	2.030	mg/L	0.0139	2.030	mg/L	0.0139	0.68%
Sb 206.836†	9239.8	2.084	mg/L	0.0138	2.084	mg/L	0.0138	0.66%
Se 196.026†	3442.9	1.978	mg/L	0.0152	1.978	mg/L	0.0152	0.77%
Si 288.158†	2487.6	2.081	mg/L	0.0067	2.081	mg/L	0.0067	0.32%
Sn 189.927†	6098.9	1.021	mg/L	0.0080	1.021	mg/L	0.0080	0.78%
Sr 421.552†	841645.7	1.009	mg/L	0.0058	1.009	mg/L	0.0058	0.58%
Ti 334.903†	20612.8	0.9787	mg/L	0.00553	0.9787	mg/L	0.00553	0.57%
Tl 190.801†	5179.9	1.959	mg/L	0.0124	1.959	mg/L	0.0124	0.63%
V 292.402†	195494.3	0.9928	mg/L	0.00166	0.9928	mg/L	0.00166	0.17%
Zn 206.200†	2804.5	1.003	mg/L	0.0017	1.003	mg/L	0.0017	0.17%

Sequence No.: 60
Sample ID: CB

Dilution: 1X 4

Autosampler Location: 1
Date Collected: 11/29/2011 2:53:04 PM
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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2891787.3	104.5	%	0.41				0.39%
ScR 361.383	376989.4	105.0	%	0.29				0.28%
Ag 328.068†	107.8	0.00041	mg/L	0.000231	0.00041	mg/L	0.000231	57.03%
Al 308.215†	19.5	0.01933	mg/L	0.004147	0.01933	mg/L	0.004147	21.45%
As 188.979†	0.1	0.00006	mg/L	0.000561	0.00006	mg/L	0.000561	943.08%
B 249.677†	13.8	0.00361	mg/L	0.002635	0.00361	mg/L	0.002635	73.02%
Ba 233.527†	-0.1	-0.00002	mg/L	0.000739	-0.00002	mg/L	0.000739	>999.9%
Be 313.042†	34.2	0.00007	mg/L	0.000015	0.00007	mg/L	0.000015	21.96%
Ca 317.933†	46.3	0.00526	mg/L	0.001175	0.00526	mg/L	0.001175	22.34%
Cd 228.802†	-0.3	-0.00001	mg/L	0.000038	-0.00001	mg/L	0.000038	481.84%
Co 228.616†	-0.9	-0.00002	mg/L	0.000075	-0.00002	mg/L	0.000075	357.77%
Cr 267.716†	1.1	0.00020	mg/L	0.001232	0.00020	mg/L	0.001232	619.08%
Cu 324.752†	91.6	0.00036	mg/L	0.000047	0.00036	mg/L	0.000047	13.09%
Fe 273.955†	3.3	0.00407	mg/L	0.001912	0.00407	mg/L	0.001912	46.94%
K 766.490†	82.2	0.03790	mg/L	0.004979	0.03790	mg/L	0.004979	13.14%
Mg 279.077†	-1.6	-0.00195	mg/L	0.004146	-0.00195	mg/L	0.004146	213.01%
Mn 257.610†	3.4	0.00011	mg/L	0.000041	0.00011	mg/L	0.000041	38.35%
Mo 202.031†	-1.9	-0.00008	mg/L	0.000105	-0.00008	mg/L	0.000105	127.22%
Na 589.592†	140.2	0.00905	mg/L	0.002234	0.00905	mg/L	0.002234	24.69%
Na 330.237†	3.5	0.1643	mg/L	0.45406	0.1643	mg/L	0.45406	276.35%
Ni 231.604†	3.3	0.00119	mg/L	0.001258	0.00119	mg/L	0.001258	106.11%
Pb 220.353†	4.1	0.00036	mg/L	0.000657	0.00036	mg/L	0.000657	183.26%
Sb 206.836†	-12.0	-0.00271	mg/L	0.000847	-0.00271	mg/L	0.000847	31.30%
Se 196.026†	2.8	0.00164	mg/L	0.001447	0.00164	mg/L	0.001447	88.49%
Si 288.158†	12.4	0.01031	mg/L	0.001565	0.01031	mg/L	0.001565	15.18%
Sn 189.927†	5.0	0.00084	mg/L	0.000660	0.00084	mg/L	0.000660	78.71%
Sr 421.552†	95.3	0.00011	mg/L	0.000021	0.00011	mg/L	0.000021	18.72%
Ti 334.903†	11.0	0.00052	mg/L	0.001178	0.00052	mg/L	0.001178	225.97%
Tl 190.801†	3.0	0.00115	mg/L	0.001007	0.00115	mg/L	0.001007	87.84%
V 292.402†	-2.3	-0.00001	mg/L	0.000054	-0.00001	mg/L	0.000054	466.86%
Zn 206.200†	-0.8	-0.00030	mg/L	0.000539	-0.00030	mg/L	0.000539	180.94%

User canceled analysis.

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Analysis Begun

Start Time: 11/29/2011 2:57:14 PM **Plasma On Time: 11/29/2011 9:20:23 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\1129.sif
Batch ID:
Results Data Set: I2111129
Results Library: C:\pe\metals\Results\Results.mdb

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Sequence No.: 59 **Autosampler Location: 7**
Sample ID: CV **Date Collected: 11/29/2011 2:57:15 PM**
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	Std.Dev.	RSD
ScA 357.253	2826994.7	102.2	%	0.19				0.18%
ScR 361.383	362668.1	101.0	%	0.71				0.70%
Ag 328.068†	274039.3	1.032	mg/L	0.0047	1.032	mg/L	0.0047	0.46%
Al 308.215†	2050.2	2.003	mg/L	0.0102	2.003	mg/L	0.0102	0.51%
As 188.979†	4980.0	1.943	mg/L	0.0046	1.943	mg/L	0.0046	0.24%
B 249.677†	3751.6	0.9808	mg/L	0.00243	0.9808	mg/L	0.00243	0.25%
Ba 233.527†	4714.0	0.9907	mg/L	0.00638	0.9907	mg/L	0.00638	0.64%
Be 313.042†	472082.4	0.9723	mg/L	0.01356	0.9723	mg/L	0.01356	1.39%
Ca 317.933†	18294.7	2.080	mg/L	0.0141	2.080	mg/L	0.0141	0.68%
Cd 228.802†	38429.0	1.044	mg/L	0.0044	1.044	mg/L	0.0044	0.43%
Co 228.616†	44221.9	0.9851	mg/L	0.00437	0.9851	mg/L	0.00437	0.44%
Cr 267.716†	5430.8	1.006	mg/L	0.0058	1.006	mg/L	0.0058	0.57%
Cu 324.752†	258900.9	1.022	mg/L	0.0048	1.022	mg/L	0.0048	0.46%
Fe 273.955†	1664.8	2.032	mg/L	0.0105	2.032	mg/L	0.0105	0.52%
K 766.490†	45467.0	20.97	mg/L	0.375	20.97	mg/L	0.375	1.79%
Mg 279.077†	1628.7	2.012	mg/L	0.0083	2.012	mg/L	0.0083	0.41%
Mn 257.610†	31204.6	0.9846	mg/L	0.00680	0.9846	mg/L	0.00680	0.69%
Mo 202.031†	23499.1	1.010	mg/L	0.0013	1.010	mg/L	0.0013	0.13%
Na 589.592†	752210.5	48.54	mg/L	0.658	48.54	mg/L	0.658	1.36%
Na 330.237†	1103.0	52.25	mg/L	0.338	52.25	mg/L	0.338	0.65%
Ni 231.604†	2716.5	0.9932	mg/L	0.00793	0.9932	mg/L	0.00793	0.80%
Pb 220.353†	23463.1	2.025	mg/L	0.0023	2.025	mg/L	0.0023	0.12%
Sb 206.836†	9219.4	2.080	mg/L	0.0053	2.080	mg/L	0.0053	0.26%
Se 196.026†	3431.8	1.972	mg/L	0.0047	1.972	mg/L	0.0047	0.24%
Si 288.158†	2459.6	2.058	mg/L	0.0142	2.058	mg/L	0.0142	0.69%
Sn 189.927†	6074.0	1.017	mg/L	0.0012	1.017	mg/L	0.0012	0.12%
Sr 421.552†	834855.2	1.001	mg/L	0.0147	1.001	mg/L	0.0147	1.47%
Ti 334.903†	20386.6	0.9680	mg/L	0.01287	0.9680	mg/L	0.01287	1.33%
Tl 190.801†	5165.9	1.954	mg/L	0.0023	1.954	mg/L	0.0023	0.12%
V 292.402†	195942.6	0.9950	mg/L	0.00338	0.9950	mg/L	0.00338	0.34%
Zn 206.200†	2777.2	0.9931	mg/L	0.00641	0.9931	mg/L	0.00641	0.65%

Sequence No.: 60
Sample ID: CB -1
Dilution: 1X

Autosampler Location: 1
Date Collected: 11/29/2011 3:01:16 PM
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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2817440.1	101.8	%	0.40				0.39%
ScR 361.383	368496.5	102.6	%	0.78				0.77%
Ag 328.068†	72.3	0.00027	mg/L	0.000188	0.00027	mg/L	0.000188	68.87%
Al 308.215†	11.7	0.01167	mg/L	0.002068	0.01167	mg/L	0.002068	17.73%
As 188.979†	-0.0	-0.00001	mg/L	0.001513	-0.00001	mg/L	0.001513	>999.9%
B 249.677†	16.4	0.00429	mg/L	0.001217	0.00429	mg/L	0.001217	28.38%
Ba 233.527†	-0.2	-0.00003	mg/L	0.000862	-0.00003	mg/L	0.000862	>999.9%
Be 313.042†	50.2	0.00010	mg/L	0.000013	0.00010	mg/L	0.000013	12.67%
Ca 317.933†	12.8	0.00146	mg/L	0.000968	0.00146	mg/L	0.000968	66.39%
Cd 228.802†	2.0	0.00006	mg/L	0.000121	0.00006	mg/L	0.000121	219.60%
Co 228.616†	-0.3	-0.00001	mg/L	0.000174	-0.00001	mg/L	0.000174	>999.9%
Cr 267.716†	-1.9	-0.00036	mg/L	0.000184	-0.00036	mg/L	0.000184	51.07%
Cu 324.752†	84.5	0.00033	mg/L	0.000178	0.00033	mg/L	0.000178	53.40%
Fe 273.955†	5.2	0.00636	mg/L	0.001828	0.00636	mg/L	0.001828	28.74%
K 766.490†	46.6	0.02149	mg/L	0.008885	0.02149	mg/L	0.008885	41.34%
Mg 279.077†	5.1	0.00625	mg/L	0.005829	0.00625	mg/L	0.005829	93.23%
Mn 257.610†	6.1	0.00019	mg/L	0.000120	0.00019	mg/L	0.000120	63.00%
Mo 202.031†	0.1	0.00001	mg/L	0.000099	0.00001	mg/L	0.000099	>999.9%
Na 589.592†	118.5	0.00765	mg/L	0.003442	0.00765	mg/L	0.003442	45.02%
Na 330.237†	-0.6	-0.02875	mg/L	0.167857	-0.02875	mg/L	0.167857	583.91%
Ni 231.604†	1.6	0.00059	mg/L	0.000458	0.00059	mg/L	0.000458	78.02%
Pb 220.353†	1.4	0.00012	mg/L	0.000248	0.00012	mg/L	0.000248	208.31%
Sb 206.836†	-8.2	-0.00182	mg/L	0.001196	-0.00182	mg/L	0.001196	65.56%
Se 196.026†	-1.3	-0.00072	mg/L	0.001939	-0.00072	mg/L	0.001939	268.84%
Si 288.158†	6.4	0.00536	mg/L	0.004967	0.00536	mg/L	0.004967	92.71%
Sn 189.927†	6.0	0.00100	mg/L	0.000190	0.00100	mg/L	0.000190	18.97%
Sr 421.552†	93.7	0.00011	mg/L	0.000023	0.00011	mg/L	0.000023	20.50%
Ti 334.903†	2.2	0.00011	mg/L	0.000818	0.00011	mg/L	0.000818	772.08%
Tl 190.801†	6.4	0.00243	mg/L	0.000680	0.00243	mg/L	0.000680	27.99%
V 292.402†	20.1	0.00010	mg/L	0.000180	0.00010	mg/L	0.000180	180.32%
Zn 206.200†	-1.7	-0.00059	mg/L	0.000390	-0.00059	mg/L	0.000390	66.14%

Sequence No.: 61
Sample ID: TY32 MB TWC

Autosampler Location: 347
Date Collected: 11/29/2011 3:05:29 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY32 MB TWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TY32 MB TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	Sample RSD
ScA 357.253	2868579.1	103.7	%	0.41				0.40%
ScR 361.383	369339.4	102.8	%	1.21				1.18%
Ag 328.068†	43.1	0.00016	mg/L	0.000089	0.00016	mg/L	0.000089	54.97%
Al 308.215†	15.5	0.01540	mg/L	0.007401	0.01540	mg/L	0.007401	48.06%
As 188.979†	-1.4	-0.00054	mg/L	0.002949	-0.00054	mg/L	0.002949	545.28%
B 249.677†	9.0	0.00236	mg/L	0.001486	0.00236	mg/L	0.001486	62.99%
Ba 233.527†	-0.9	-0.00018	mg/L	0.000295	-0.00018	mg/L	0.000295	160.92%
Be 313.042†	8.2	0.00002	mg/L	0.000022	0.00002	mg/L	0.000022	130.77%
Ca 317.933†	52.4	0.00596	mg/L	0.000274	0.00596	mg/L	0.000274	4.59%
Cd 228.802†	-7.7	-0.00021	mg/L	0.000133	-0.00021	mg/L	0.000133	63.79%
Co 228.616†	0.5	0.00001	mg/L	0.000181	0.00001	mg/L	0.000181	>999.9%
Cr 267.716†	-1.0	-0.00018	mg/L	0.000841	-0.00018	mg/L	0.000841	471.14%
Cu 324.752†	89.1	0.00035	mg/L	0.000114	0.00035	mg/L	0.000114	32.33%
Fe 273.955†	3.5	0.00424	mg/L	0.001436	0.00424	mg/L	0.001436	33.87%
K 766.490†	63.3	0.02922	mg/L	0.003947	0.02922	mg/L	0.003947	13.51%
Mg 279.077†	0.5	0.00065	mg/L	0.007983	0.00065	mg/L	0.007983	>999.9%
Mn 257.610†	0.1	0.00000	mg/L	0.000102	0.00000	mg/L	0.000102	>999.9%
Mo 202.031†	-6.9	-0.00030	mg/L	0.000095	-0.00030	mg/L	0.000095	31.89%
Na 589.592†	38.4	0.00248	mg/L	0.002911	0.00248	mg/L	0.002911	117.37%
Na 330.237†	15.5	0.7366	mg/L	0.43319	0.7366	mg/L	0.43319	58.81%
Ni 231.604†	0.0	0.00001	mg/L	0.001527	0.00001	mg/L	0.001527	>999.9%
Pb 220.353†	-0.7	-0.00005	mg/L	0.000778	-0.00005	mg/L	0.000778	>999.9%
Sb 206.836†	-14.3	-0.00321	mg/L	0.000984	-0.00321	mg/L	0.000984	30.63%
Se 196.026†	6.3	0.00363	mg/L	0.000899	0.00363	mg/L	0.000899	24.75%
Si 288.158†	-0.1	-0.00009	mg/L	0.000897	-0.00009	mg/L	0.000897	>999.9%
Sn 189.927†	4.3	0.00071	mg/L	0.000299	0.00071	mg/L	0.000299	42.07%
Sr 421.552†	45.3	0.00005	mg/L	0.000027	0.00005	mg/L	0.000027	49.74%
Ti 334.903†	-11.3	-0.00054	mg/L	0.000625	-0.00054	mg/L	0.000625	116.56%
Tl 190.801†	1.1	0.00041	mg/L	0.001564	0.00041	mg/L	0.001564	385.73%
V 292.402†	-2.5	-0.00001	mg/L	0.000078	-0.00001	mg/L	0.000078	564.02%
Zn 206.200†	3.5	0.00127	mg/L	0.000861	0.00127	mg/L	0.000861	67.97%

Sequence No.: 62
Sample ID: TY35 C TWC

Autosampler Location: 348
Date Collected: 11/29/2011 3:09:43 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY35 C TWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TY35 C TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2845728.1	102.8	%	0.58				0.57%
ScR 361.383	368298.9	102.5	%	0.39				0.38%
Ag 328.068†	55.7	0.00020	mg/L	0.000192	0.00020	mg/L	0.000192	94.65%
Al 308.215†	57.8	0.05743	mg/L	0.005050	0.05743	mg/L	0.005050	8.79%
As 188.979†	-0.4	-0.00018	mg/L	0.001678	-0.00018	mg/L	0.001678	945.39%
B 249.677†	32.0	0.00836	mg/L	0.001302	0.00836	mg/L	0.001302	15.57%
Ba 233.527†	26.5	0.00557	mg/L	0.000141	0.00557	mg/L	0.000141	2.53%
Be 313.042†	21.7	0.00004	mg/L	0.000047	0.00004	mg/L	0.000047	106.29%
Ca 317.933†	4997.5	0.5682	mg/L	0.00413	0.5682	mg/L	0.00413	0.73%
Cd 228.802†	3.8	0.00010	mg/L	0.000092	0.00010	mg/L	0.000092	87.57%
Co 228.616†	2.4	0.00005	mg/L	0.000151	0.00005	mg/L	0.000151	283.17%
Cr 267.716†	7.6	0.00139	mg/L	0.000918	0.00139	mg/L	0.000918	66.22%
Cu 324.752†	991.4	0.00392	mg/L	0.000071	0.00392	mg/L	0.000071	1.81%
Fe 273.955†	69.9	0.08552	mg/L	0.002146	0.08552	mg/L	0.002146	2.51%
K 766.490†	390.5	0.1802	mg/L	0.00394	0.1802	mg/L	0.00394	2.19%
Mg 279.077†	127.9	0.1574	mg/L	0.00598	0.1574	mg/L	0.00598	3.80%
Mn 257.610†	133.8	0.00422	mg/L	0.000116	0.00422	mg/L	0.000116	2.75%
Mo 202.031†	-1.8	-0.00009	mg/L	0.000040	-0.00009	mg/L	0.000040	45.99%
Na 589.592†	20732.9	1.338	mg/L	0.0050	1.338	mg/L	0.0050	0.38%
Na 330.237†	33.3	1.453	mg/L	0.3633	1.453	mg/L	0.3633	24.99%
Ni 231.604†	1.8	0.00065	mg/L	0.000236	0.00065	mg/L	0.000236	36.39%
Pb 220.353†	9.8	0.00085	mg/L	0.000491	0.00085	mg/L	0.000491	57.58%
Sb 206.836†	-9.1	-0.00210	mg/L	0.001401	-0.00210	mg/L	0.001401	66.77%
Se 196.026†	6.1	0.00353	mg/L	0.001605	0.00353	mg/L	0.001605	45.46%
Si 288.158†	110.4	0.09212	mg/L	0.002299	0.09212	mg/L	0.002299	2.50%
Sn 189.927†	1.0	0.00017	mg/L	0.000333	0.00017	mg/L	0.000333	197.56%
Sr 421.552†	5232.7	0.00627	mg/L	0.000115	0.00627	mg/L	0.000115	1.84%
Ti 334.903†	3.4	0.00014	mg/L	0.001011	0.00014	mg/L	0.001011	714.49%
Tl 190.801†	1.9	0.00075	mg/L	0.000482	0.00075	mg/L	0.000482	64.48%
V 292.402†	31.1	0.00016	mg/L	0.000044	0.00016	mg/L	0.000044	28.19%
Zn 206.200†	1124.7	0.4021	mg/L	0.00195	0.4021	mg/L	0.00195	0.48%

Sequence No.: 63
Sample ID: TY35 D TWC

Autosampler Location: 349
Date Collected: 11/29/2011 3:13:55 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY35 D TWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TY35 D TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2901862.3	104.9	%	0.81				0.77%
ScR 361.383	372345.7	103.7	%	0.44				0.43%
Ag 328.068†	79.5	0.00028	mg/L	0.000221	0.00028	mg/L	0.000221	78.68%
Al 308.215†	85.0	0.08442	mg/L	0.004906	0.08442	mg/L	0.004906	5.81%
As 188.979†	-1.7	-0.00070	mg/L	0.002409	-0.00070	mg/L	0.002409	342.20%
B 249.677†	87.3	0.02286	mg/L	0.002019	0.02286	mg/L	0.002019	8.83%
Ba 233.527†	26.0	0.00546	mg/L	0.001062	0.00546	mg/L	0.001062	19.44%
Be 313.042†	2.4	0.00000	mg/L	0.000017	0.00000	mg/L	0.000017	361.55%
Ca 317.933†	12892.1	1.466	mg/L	0.0127	1.466	mg/L	0.0127	0.87%
Cd 228.802†	3.6	0.00010	mg/L	0.000114	0.00010	mg/L	0.000114	108.92%
Co 228.616†	13.8	0.00030	mg/L	0.000088	0.00030	mg/L	0.000088	29.06%
Cr 267.716†	8.0	0.00145	mg/L	0.000453	0.00145	mg/L	0.000453	31.30%
Cu 324.752†	2319.9	0.00917	mg/L	0.000273	0.00917	mg/L	0.000273	2.98%
Fe 273.955†	158.5	0.1940	mg/L	0.00255	0.1940	mg/L	0.00255	1.31%
K 766.490†	1091.9	0.5037	mg/L	0.01030	0.5037	mg/L	0.01030	2.04%
Mg 279.077†	163.0	0.2006	mg/L	0.00452	0.2006	mg/L	0.00452	2.25%
Mn 257.610†	343.3	0.01083	mg/L	0.000120	0.01083	mg/L	0.000120	1.11%
Mo 202.031†	3.1	0.00011	mg/L	0.000220	0.00011	mg/L	0.000220	192.50%
Na 589.592†	22394.5	1.445	mg/L	0.0109	1.445	mg/L	0.0109	0.75%
Na 330.237†	40.5	1.698	mg/L	0.1559	1.698	mg/L	0.1559	9.19%
Ni 231.604†	6.5	0.00237	mg/L	0.001030	0.00237	mg/L	0.001030	43.45%
Pb 220.353†	6.0	0.00052	mg/L	0.000311	0.00052	mg/L	0.000311	60.29%
Sb 206.836†	-19.5	-0.00444	mg/L	0.000839	-0.00444	mg/L	0.000839	18.88%
Se 196.026†	1.8	0.00104	mg/L	0.001219	0.00104	mg/L	0.001219	117.75%
Si 288.158†	217.9	0.1818	mg/L	0.00221	0.1818	mg/L	0.00221	1.22%
Sn 189.927†	3.5	0.00059	mg/L	0.000605	0.00059	mg/L	0.000605	103.32%
Sr 421.552†	6862.1	0.00822	mg/L	0.000055	0.00822	mg/L	0.000055	0.67%
Ti 334.903†	34.3	0.00157	mg/L	0.000778	0.00157	mg/L	0.000778	49.52%
Tl 190.801†	2.9	0.00113	mg/L	0.001208	0.00113	mg/L	0.001208	107.09%
V 292.402†	104.0	0.00052	mg/L	0.000105	0.00052	mg/L	0.000105	20.18%
Zn 206.200†	1979.9	0.7079	mg/L	0.00941	0.7079	mg/L	0.00941	1.33%

Sequence No.: 64
Sample ID: TY35 ADUP TWC

Autosampler Location: 350
Date Collected: 11/29/2011 3:18:07 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY35 ADUP TWC

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: TY35 ADUP TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2884729.4	104.2	%	0.77				0.74%
ScR 361.383	368532.0	102.6	%	0.22				0.22%
Ag 328.068†	69.0	0.00026	mg/L	0.000230	0.00026	mg/L	0.000230	89.67%
Al 308.215†	32.6	0.03236	mg/L	0.003561	0.03236	mg/L	0.003561	11.01%
As 188.979†	1.6	0.00060	mg/L	0.000980	0.00060	mg/L	0.000980	162.72%
B 249.677†	14.5	0.00379	mg/L	0.000773	0.00379	mg/L	0.000773	20.39%
Ba 233.527†	22.0	0.00463	mg/L	0.000494	0.00463	mg/L	0.000494	10.68%
Be 313.042†	14.3	0.00003	mg/L	0.000013	0.00003	mg/L	0.000013	43.46%
Ca 317.933†	2476.0	0.2815	mg/L	0.00388	0.2815	mg/L	0.00388	1.38%
Cd 228.802†	6.2	0.00017	mg/L	0.000028	0.00017	mg/L	0.000028	16.41%
Co 228.616†	-0.4	-0.00001	mg/L	0.000060	-0.00001	mg/L	0.000060	527.71%
Cr 267.716†	6.0	0.00110	mg/L	0.000715	0.00110	mg/L	0.000715	65.22%
Cu 324.752†	440.9	0.00174	mg/L	0.000113	0.00174	mg/L	0.000113	6.47%
Fe 273.955†	28.2	0.03457	mg/L	0.003273	0.03457	mg/L	0.003273	9.47%
K 766.490†	125.9	0.05806	mg/L	0.010477	0.05806	mg/L	0.010477	18.04%
Mg 279.077†	144.6	0.1780	mg/L	0.00337	0.1780	mg/L	0.00337	1.89%
Mn 257.610†	73.1	0.00231	mg/L	0.000134	0.00231	mg/L	0.000134	5.81%
Mo 202.031†	-7.8	-0.00034	mg/L	0.000192	-0.00034	mg/L	0.000192	56.58%
Na 589.592†	27178.4	1.754	mg/L	0.0037	1.754	mg/L	0.0037	0.21%
Na 330.237†	52.9	2.202	mg/L	0.4025	2.202	mg/L	0.4025	18.28%
Ni 231.604†	2.1	0.00077	mg/L	0.000830	0.00077	mg/L	0.000830	108.32%
Pb 220.353†	4.9	0.00043	mg/L	0.000282	0.00043	mg/L	0.000282	65.92%
Sb 206.836†	-14.6	-0.00331	mg/L	0.000183	-0.00331	mg/L	0.000183	5.53%
Se 196.026†	6.0	0.00345	mg/L	0.001052	0.00345	mg/L	0.001052	30.49%
Si 288.158†	56.8	0.04738	mg/L	0.000763	0.04738	mg/L	0.000763	1.61%
Sn 189.927†	5.8	0.00097	mg/L	0.000733	0.00097	mg/L	0.000733	75.68%
Sr 421.552†	5727.6	0.00686	mg/L	0.000070	0.00686	mg/L	0.000070	1.02%
Ti 334.903†	8.6	0.00040	mg/L	0.000361	0.00040	mg/L	0.000361	90.87%
Tl 190.801†	3.8	0.00143	mg/L	0.000794	0.00143	mg/L	0.000794	55.37%
V 292.402†	27.7	0.00014	mg/L	0.000041	0.00014	mg/L	0.000041	29.06%
Zn 206.200†	2685.2	0.9601	mg/L	0.00133	0.9601	mg/L	0.00133	0.14%

Sequence No.: 65
Sample ID: TY35 A TWC

Autosampler Location: 351
Date Collected: 11/29/2011 3:22:19 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY35 A TWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TY35 A TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2851244.1	103.0	%	0.30				0.29%
ScR 361.383	371698.4	103.5	%	0.18				0.17%
Ag 328.068†	19.2	0.00007	mg/L	0.000093	0.00007	mg/L	0.000093	135.56%
Al 308.215†	35.4	0.03519	mg/L	0.001588	0.03519	mg/L	0.001588	4.51%
As 188.979†	-0.1	-0.00006	mg/L	0.001491	-0.00006	mg/L	0.001491	>999.9%
B 249.677†	12.3	0.00323	mg/L	0.000315	0.00323	mg/L	0.000315	9.75%
Ba 233.527†	26.2	0.00551	mg/L	0.000595	0.00551	mg/L	0.000595	10.80%
Be 313.042†	-4.4	-0.00001	mg/L	0.000015	-0.00001	mg/L	0.000015	167.41%
Ca 317.933†	2516.0	0.2861	mg/L	0.00109	0.2861	mg/L	0.00109	0.38%
Cd 228.802†	4.8	0.00013	mg/L	0.000072	0.00013	mg/L	0.000072	54.71%
Co 228.616†	0.2	0.00000	mg/L	0.000063	0.00000	mg/L	0.000063	>999.9%
Cr 267.716†	1.7	0.00031	mg/L	0.000490	0.00031	mg/L	0.000490	158.20%
Cu 324.752†	426.8	0.00169	mg/L	0.000081	0.00169	mg/L	0.000081	4.83%
Fe 273.955†	28.1	0.03438	mg/L	0.002891	0.03438	mg/L	0.002891	8.41%
K 766.490†	153.8	0.07096	mg/L	0.023949	0.07096	mg/L	0.023949	33.75%
Mg 279.077†	141.8	0.1745	mg/L	0.00525	0.1745	mg/L	0.00525	3.01%
Mn 257.610†	77.4	0.00244	mg/L	0.000096	0.00244	mg/L	0.000096	3.96%
Mo 202.031†	-2.8	-0.00012	mg/L	0.000196	-0.00012	mg/L	0.000196	158.26%
Na 589.592†	27164.5	1.753	mg/L	0.0061	1.753	mg/L	0.0061	0.35%
Na 330.237†	49.5	2.046	mg/L	0.0659	2.046	mg/L	0.0659	3.22%
Ni 231.604†	1.7	0.00061	mg/L	0.000352	0.00061	mg/L	0.000352	57.79%
Pb 220.353†	2.9	0.00025	mg/L	0.000785	0.00025	mg/L	0.000785	309.66%
Sb 206.836†	-12.2	-0.00277	mg/L	0.000124	-0.00277	mg/L	0.000124	4.47%
Se 196.026†	0.8	0.00049	mg/L	0.001172	0.00049	mg/L	0.001172	241.53%
Si 288.158†	46.9	0.03915	mg/L	0.000500	0.03915	mg/L	0.000500	1.28%
Sn 189.927†	0.5	0.00009	mg/L	0.000317	0.00009	mg/L	0.000317	357.40%
Sr 421.552†	5770.3	0.00692	mg/L	0.000035	0.00692	mg/L	0.000035	0.50%
Ti 334.903†	17.9	0.00084	mg/L	0.000405	0.00084	mg/L	0.000405	48.23%
Tl 190.801†	2.3	0.00087	mg/L	0.000957	0.00087	mg/L	0.000957	110.53%
V 292.402†	28.2	0.00014	mg/L	0.000060	0.00014	mg/L	0.000060	42.80%
Zn 206.200†	2652.3	0.9484	mg/L	0.00319	0.9484	mg/L	0.00319	0.34%

TXST 01527

Sequence No.: 66
Sample ID: TY35 ASPK TWC

Autosampler Location: 352
Date Collected: 11/29/2011 3:26:31 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY35 ASPK TWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TY35 ASPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2825121.8	102.1	%	0.22				0.21%
ScR 361.383	362581.0	100.9	%	1.06				1.05%
Ag 328.068†	136000.8	0.5119	mg/L	0.00461	0.5119	mg/L	0.00461	0.90%
Al 308.215†	2095.9	2.074	mg/L	0.0102	2.074	mg/L	0.0102	0.49%
As 188.979†	5103.8	1.989	mg/L	0.0095	1.989	mg/L	0.0095	0.48%
B 249.677†	21.2	0.00452	mg/L	0.000864	0.00452	mg/L	0.000864	19.14%
Ba 233.527†	9619.3	2.023	mg/L	0.0093	2.023	mg/L	0.0093	0.46%
Be 313.042†	233011.0	0.4799	mg/L	0.00169	0.4799	mg/L	0.00169	0.35%
Ca 317.933†	89587.0	10.19	mg/L	0.033	10.19	mg/L	0.033	0.32%
Cd 228.802†	18866.5	0.5072	mg/L	0.00328	0.5072	mg/L	0.00328	0.65%
Co 228.616†	22153.0	0.4941	mg/L	0.00444	0.4941	mg/L	0.00444	0.90%
Cr 267.716†	2703.4	0.5005	mg/L	0.00175	0.5005	mg/L	0.00175	0.35%
Cu 324.752†	129119.9	0.5101	mg/L	0.00372	0.5101	mg/L	0.00372	0.73%
Fe 273.955†	1709.1	2.089	mg/L	0.0067	2.089	mg/L	0.0067	0.32%
K 766.490†	22864.7	10.55	mg/L	0.077	10.55	mg/L	0.077	0.73%
Mg 279.077†	8572.3	10.55	mg/L	0.057	10.55	mg/L	0.057	0.54%
Mn 257.610†	15097.3	0.4765	mg/L	0.00114	0.4765	mg/L	0.00114	0.24%
Mo 202.031†	25.4	0.00085	mg/L	0.000027	0.00085	mg/L	0.000027	3.12%
Na 589.592†	176871.1	11.41	mg/L	0.013	11.41	mg/L	0.013	0.12%
Na 330.237†	277.0	12.69	mg/L	0.187	12.69	mg/L	0.187	1.47%
Ni 231.604†	1345.7	0.4912	mg/L	0.00277	0.4912	mg/L	0.00277	0.56%
Pb 220.353†	23358.1	2.016	mg/L	0.0154	2.016	mg/L	0.0154	0.77%
Sb 206.836†	12.1	-0.00174	mg/L	0.000247	-0.00174	mg/L	0.000247	14.16%
Se 196.026†	3443.3	1.978	mg/L	0.0080	1.978	mg/L	0.0080	0.40%
Si 288.158†	42.8	0.03748	mg/L	0.002658	0.03748	mg/L	0.002658	7.09%
Sn 189.927†	-6.9	-0.00116	mg/L	0.000190	-0.00116	mg/L	0.000190	16.37%
Sr 421.552†	422598.3	0.5065	mg/L	0.00132	0.5065	mg/L	0.00132	0.26%
Ti 334.903†	27.4	0.00083	mg/L	0.000644	0.00083	mg/L	0.000644	77.88%
Tl 190.801†	5277.3	1.995	mg/L	0.0073	1.995	mg/L	0.0073	0.37%
V 292.402†	99436.8	0.5048	mg/L	0.00306	0.5048	mg/L	0.00306	0.61%
Zn 206.200†	3956.5	1.415	mg/L	0.0058	1.415	mg/L	0.0058	0.41%

Sequence No.: 67
Sample ID: TY32 ADUP TWC

Autosampler Location: 353
Date Collected: 11/29/2011 3:30:29 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY32 ADUP TWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TY32 ADUP TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2903142.3	104.9	%	0.41				0.39%
ScR 361.383	376687.2	104.9	%	0.74				0.70%
Ag 328.068†	54.0	0.00017	mg/L	0.000109	0.00017	mg/L	0.000109	62.29%
Al 308.215†	626.2	0.6220	mg/L	0.00269	0.6220	mg/L	0.00269	0.43%
As 188.979†	3.3	0.00135	mg/L	0.000584	0.00135	mg/L	0.000584	43.22%
B 249.677†	40.0	0.01047	mg/L	0.000465	0.01047	mg/L	0.000465	4.45%
Ba 233.527†	62.1	0.01303	mg/L	0.000388	0.01303	mg/L	0.000388	2.98%
Be 313.042†	15.9	0.00003	mg/L	0.000007	0.00003	mg/L	0.000007	22.25%
Ca 317.933†	20922.7	2.379	mg/L	0.0252	2.379	mg/L	0.0252	1.06%
Cd 228.802†	-2.7	-0.00008	mg/L	0.000154	-0.00008	mg/L	0.000154	197.90%
Co 228.616†	21.9	0.00044	mg/L	0.000070	0.00044	mg/L	0.000070	15.97%
Cr 267.716†	11.4	0.00207	mg/L	0.000281	0.00207	mg/L	0.000281	13.55%
Cu 324.752†	3208.3	0.01270	mg/L	0.000267	0.01270	mg/L	0.000267	2.10%
Fe 273.955†	593.6	0.7268	mg/L	0.00185	0.7268	mg/L	0.00185	0.25%
K 766.490†	1701.5	0.7849	mg/L	0.01546	0.7849	mg/L	0.01546	1.97%
Mg 279.077†	359.0	0.4416	mg/L	0.00487	0.4416	mg/L	0.00487	1.10%
Mn 257.610†	562.3	0.01773	mg/L	0.000212	0.01773	mg/L	0.000212	1.19%
Mo 202.031†	16.5	0.00068	mg/L	0.000172	0.00068	mg/L	0.000172	25.49%
Na 589.592†	15773.5	1.018	mg/L	0.0065	1.018	mg/L	0.0065	0.63%
Na 330.237†	34.9	1.643	mg/L	0.5473	1.643	mg/L	0.5473	33.30%
Ni 231.604†	8.3	0.00303	mg/L	0.000907	0.00303	mg/L	0.000907	29.87%
Pb 220.353†	65.1	0.00569	mg/L	0.000361	0.00569	mg/L	0.000361	6.34%
Sb 206.836†	-19.6	-0.00473	mg/L	0.000384	-0.00473	mg/L	0.000384	8.11%
Se 196.026†	4.6	0.00283	mg/L	0.000129	0.00283	mg/L	0.000129	4.56%
Si 288.158†	1601.2	1.336	mg/L	0.0014	1.336	mg/L	0.0014	0.10%
Sn 189.927†	4.4	0.00074	mg/L	0.000215	0.00074	mg/L	0.000215	29.06%
Sr 421.552†	9488.7	0.01137	mg/L	0.000055	0.01137	mg/L	0.000055	0.48%
Ti 334.903†	525.0	0.02486	mg/L	0.001228	0.02486	mg/L	0.001228	4.94%
Tl 190.801†	8.4	0.00329	mg/L	0.001228	0.00329	mg/L	0.001228	37.27%
V 292.402†	418.8	0.00206	mg/L	0.000065	0.00206	mg/L	0.000065	3.17%
Zn 206.200†	161.0	0.05750	mg/L	0.000300	0.05750	mg/L	0.000300	0.52%

TX57:31529

Sequence No.: 68
Sample ID: TY32 A TWC

Autosampler Location: 354
Date Collected: 11/29/2011 3:34:41 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY32 A TWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TY32 A TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2833935.3	102.4	%	0.86				0.84%
ScR 361.383	370259.0	103.1	%	0.31				0.30%
Ag 328.068†	82.5	0.00028	mg/L	0.000181	0.00028	mg/L	0.000181	64.32%
Al 308.215†	630.2	0.6260	mg/L	0.00507	0.6260	mg/L	0.00507	0.81%
As 188.979†	3.1	0.00126	mg/L	0.001502	0.00126	mg/L	0.001502	119.40%
B 249.677†	48.2	0.01262	mg/L	0.000577	0.01262	mg/L	0.000577	4.57%
Ba 233.527†	58.1	0.01220	mg/L	0.000201	0.01220	mg/L	0.000201	1.65%
Be 313.042†	5.3	0.00001	mg/L	0.000007	0.00001	mg/L	0.000007	70.21%
Ca 317.933†	21262.8	2.418	mg/L	0.0148	2.418	mg/L	0.0148	0.61%
Cd 228.802†	5.6	0.00015	mg/L	0.000123	0.00015	mg/L	0.000123	83.29%
Co 228.616†	20.7	0.00041	mg/L	0.000153	0.00041	mg/L	0.000153	37.09%
Cr 267.716†	7.2	0.00129	mg/L	0.002101	0.00129	mg/L	0.002101	162.21%
Cu 324.752†	3362.9	0.01331	mg/L	0.000298	0.01331	mg/L	0.000298	2.24%
Fe 273.955†	610.2	0.7471	mg/L	0.00726	0.7471	mg/L	0.00726	0.97%
K 766.490†	1708.3	0.7880	mg/L	0.00643	0.7880	mg/L	0.00643	0.82%
Mg 279.077†	362.5	0.4458	mg/L	0.00309	0.4458	mg/L	0.00309	0.69%
Mn 257.610†	569.9	0.01797	mg/L	0.000100	0.01797	mg/L	0.000100	0.55%
Mo 202.031†	18.7	0.00077	mg/L	0.000109	0.00077	mg/L	0.000109	14.21%
Na 589.592†	17708.7	1.143	mg/L	0.0034	1.143	mg/L	0.0034	0.29%
Na 330.237†	28.7	1.351	mg/L	0.0722	1.351	mg/L	0.0722	5.34%
Ni 231.604†	5.3	0.00192	mg/L	0.001113	0.00192	mg/L	0.001113	58.03%
Pb 220.353†	53.5	0.00469	mg/L	0.000932	0.00469	mg/L	0.000932	19.88%
Sb 206.836†	-12.9	-0.00320	mg/L	0.001029	-0.00320	mg/L	0.001029	32.17%
Se 196.026†	5.1	0.00313	mg/L	0.002434	0.00313	mg/L	0.002434	77.73%
Si 288.158†	1627.8	1.358	mg/L	0.0115	1.358	mg/L	0.0115	0.85%
Sn 189.927†	4.0	0.00068	mg/L	0.000028	0.00068	mg/L	0.000028	4.14%
Sr 421.552†	9580.2	0.01148	mg/L	0.000044	0.01148	mg/L	0.000044	0.39%
Ti 334.903†	538.8	0.02552	mg/L	0.000450	0.02552	mg/L	0.000450	1.76%
Tl 190.801†	-1.0	-0.00028	mg/L	0.000540	-0.00028	mg/L	0.000540	192.79%
V 292.402†	405.0	0.00199	mg/L	0.000076	0.00199	mg/L	0.000076	3.81%
Zn 206.200†	163.7	0.05848	mg/L	0.000734	0.05848	mg/L	0.000734	1.25%

Sequence No.: 69
Sample ID: TY32 ASPK TWC

Autosampler Location: 355
Date Collected: 11/29/2011 3:38:53 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY32 ASPK TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: TY32 ASPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2858538.3	103.3	%	0.58				0.56%
ScR 361.383	369653.5	102.9	%	0.78				0.76%
Ag 328.068†	135860.3	0.5114	mg/L	0.00655	0.5114	mg/L	0.00655	1.28%
Al 308.215†	2674.5	2.648	mg/L	0.0093	2.648	mg/L	0.0093	0.35%
As 188.979†	5095.0	1.985	mg/L	0.0229	1.985	mg/L	0.0229	1.15%
B 249.677†	45.1	0.01078	mg/L	0.000728	0.01078	mg/L	0.000728	6.75%
Ba 233.527†	9639.7	2.027	mg/L	0.0068	2.027	mg/L	0.0068	0.34%
Be 313.042†	233039.7	0.4800	mg/L	0.00591	0.4800	mg/L	0.00591	1.23%
Ca 317.933†	107494.2	12.22	mg/L	0.070	12.22	mg/L	0.070	0.58%
Cd 228.802†	18725.2	0.5034	mg/L	0.00343	0.5034	mg/L	0.00343	0.68%
Co 228.616†	22079.7	0.4924	mg/L	0.00496	0.4924	mg/L	0.00496	1.01%
Cr 267.716†	2707.0	0.5011	mg/L	0.00172	0.5011	mg/L	0.00172	0.34%
Cu 324.752†	131571.4	0.5198	mg/L	0.00500	0.5198	mg/L	0.00500	0.96%
Fe 273.955†	2289.3	2.799	mg/L	0.0116	2.799	mg/L	0.0116	0.41%
K 766.490†	24343.8	11.23	mg/L	0.074	11.23	mg/L	0.074	0.66%
Mg 279.077†	8791.6	10.82	mg/L	0.019	10.82	mg/L	0.019	0.18%
Mn 257.610†	15503.7	0.4894	mg/L	0.00439	0.4894	mg/L	0.00439	0.90%
Mo 202.031†	48.0	0.00180	mg/L	0.000217	0.00180	mg/L	0.000217	12.07%
Na 589.592†	164548.6	10.62	mg/L	0.078	10.62	mg/L	0.078	0.74%
Na 330.237†	256.7	12.01	mg/L	0.097	12.01	mg/L	0.097	0.81%
Ni 231.604†	1346.7	0.4916	mg/L	0.00327	0.4916	mg/L	0.00327	0.66%
Pb 220.353†	23315.6	2.012	mg/L	0.0206	2.012	mg/L	0.0206	1.02%
Sb 206.836†	11.1	-0.00227	mg/L	0.000945	-0.00227	mg/L	0.000945	41.70%
Se 196.026†	3434.4	1.973	mg/L	0.0164	1.973	mg/L	0.0164	0.83%
Si 288.158†	1598.0	1.335	mg/L	0.0069	1.335	mg/L	0.0069	0.52%
Sn 189.927†	-5.5	-0.00091	mg/L	0.000383	-0.00091	mg/L	0.000383	41.94%
Sr 421.552†	426068.6	0.5106	mg/L	0.00384	0.5106	mg/L	0.00384	0.75%
Ti 334.903†	552.3	0.02570	mg/L	0.000189	0.02570	mg/L	0.000189	0.73%
Tl 190.801†	5250.1	1.985	mg/L	0.0207	1.985	mg/L	0.0207	1.04%
V 292.402†	99462.8	0.5049	mg/L	0.00378	0.5049	mg/L	0.00378	0.75%
Zn 206.200†	1519.1	0.5431	mg/L	0.00230	0.5431	mg/L	0.00230	0.42%

Sequence No.: 70
Sample ID: TY32 MBSPK TWC

Autosampler Location: 356
Date Collected: 11/29/2011 3:42:51 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY32 MBSPK TWC

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: TY32 MBSPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2867198.8	103.6	%	0.59				0.57%
ScR 361.383	366850.5	102.1	%	0.50				0.49%
Ag 328.068†	136312.1	0.5131	mg/L	0.00200	0.5131	mg/L	0.00200	0.39%
Al 308.215†	2070.3	2.048	mg/L	0.0329	2.048	mg/L	0.0329	1.60%
As 188.979†	5129.6	1.999	mg/L	0.0119	1.999	mg/L	0.0119	0.60%
B 249.677†	10.0	0.00160	mg/L	0.000465	0.00160	mg/L	0.000465	29.12%
Ba 233.527†	9535.0	2.005	mg/L	0.0321	2.005	mg/L	0.0321	1.60%
Be 313.042†	233499.4	0.4809	mg/L	0.00474	0.4809	mg/L	0.00474	0.98%
Ca 317.933†	87218.9	9.917	mg/L	0.0851	9.917	mg/L	0.0851	0.86%
Cd 228.802†	18712.9	0.5030	mg/L	0.00140	0.5030	mg/L	0.00140	0.28%
Co 228.616†	22076.4	0.4924	mg/L	0.00236	0.4924	mg/L	0.00236	0.48%
Cr 267.716†	2690.7	0.4982	mg/L	0.00830	0.4982	mg/L	0.00830	1.67%
Cu 324.752†	128741.7	0.5086	mg/L	0.00336	0.5086	mg/L	0.00336	0.66%
Fe 273.955†	1686.6	2.061	mg/L	0.0286	2.061	mg/L	0.0286	1.39%
K 766.490†	22740.9	10.49	mg/L	0.087	10.49	mg/L	0.087	0.83%
Mg 279.077†	8384.9	10.32	mg/L	0.160	10.32	mg/L	0.160	1.55%
Mn 257.610†	14963.6	0.4723	mg/L	0.00531	0.4723	mg/L	0.00531	1.13%
Mo 202.031†	23.0	0.00075	mg/L	0.000152	0.00075	mg/L	0.000152	20.22%
Na 589.592†	148862.9	9.607	mg/L	0.0880	9.607	mg/L	0.0880	0.92%
Na 330.237†	227.7	10.65	mg/L	0.096	10.65	mg/L	0.096	0.91%
Ni 231.604†	1333.1	0.4866	mg/L	0.00658	0.4866	mg/L	0.00658	1.35%
Pb 220.353†	23301.4	2.011	mg/L	0.0099	2.011	mg/L	0.0099	0.49%
Sb 206.836†	1.9	-0.00400	mg/L	0.001062	-0.00400	mg/L	0.001062	26.52%
Se 196.026†	3457.3	1.986	mg/L	0.0098	1.986	mg/L	0.0098	0.49%
Si 288.158†	-0.8	0.00111	mg/L	0.001274	0.00111	mg/L	0.001274	115.04%
Sn 189.927†	-8.2	-0.00137	mg/L	0.000501	-0.00137	mg/L	0.000501	36.52%
Sr 421.552†	417490.2	0.5004	mg/L	0.00459	0.5004	mg/L	0.00459	0.92%
Ti 334.903†	6.8	-0.00014	mg/L	0.000369	-0.00014	mg/L	0.000369	261.25%
Tl 190.801†	5297.6	2.002	mg/L	0.0127	2.002	mg/L	0.0127	0.64%
V 292.402†	99438.5	0.5048	mg/L	0.00286	0.5048	mg/L	0.00286	0.57%
Zn 206.200†	1349.6	0.4826	mg/L	0.00680	0.4826	mg/L	0.00680	1.41%

Sequence No.: 71
Sample ID: CV 9
Dilution: 1X

Autosampler Location: 7
Date Collected: 11/29/2011 3:46:49 PM
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	2884054.3	104.2	%	0.85				0.81%
ScR 361.383	373059.3	103.9	%	0.55				0.53%
Ag 328.068†	269333.0	1.014	mg/L	0.0135	1.014	mg/L	0.0135	1.34%
Al 308.215†	2014.7	1.968	mg/L	0.0188	1.968	mg/L	0.0188	0.96%
As 188.979†	4958.6	1.935	mg/L	0.0186	1.935	mg/L	0.0186	0.96%
B 249.677†	3690.5	0.9648	mg/L	0.00844	0.9648	mg/L	0.00844	0.88%
Ba 233.527†	4647.2	0.9767	mg/L	0.00660	0.9767	mg/L	0.00660	0.68%
Be 313.042†	469512.0	0.9670	mg/L	0.00537	0.9670	mg/L	0.00537	0.56%
Ca 317.933†	17941.7	2.039	mg/L	0.0174	2.039	mg/L	0.0174	0.85%
Cd 228.802†	37818.9	1.028	mg/L	0.0132	1.028	mg/L	0.0132	1.28%
Co 228.616†	43668.5	0.9727	mg/L	0.01281	0.9727	mg/L	0.01281	1.32%
Cr 267.716†	5346.4	0.9908	mg/L	0.00833	0.9908	mg/L	0.00833	0.84%
Cu 324.752†	255201.5	1.008	mg/L	0.0104	1.008	mg/L	0.0104	1.04%
Fe 273.955†	1638.4	1.999	mg/L	0.0159	1.999	mg/L	0.0159	0.80%
K 766.490†	45181.6	20.84	mg/L	0.060	20.84	mg/L	0.060	0.29%
Mg 279.077†	1604.0	1.981	mg/L	0.0188	1.981	mg/L	0.0188	0.95%
Mn 257.610†	30753.1	0.9703	mg/L	0.00777	0.9703	mg/L	0.00777	0.80%
Mo 202.031†	23288.4	1.001	mg/L	0.0075	1.001	mg/L	0.0075	0.75%
Na 589.592†	750402.2	48.43	mg/L	0.233	48.43	mg/L	0.233	0.48%
Na 330.237†	1086.0	51.45	mg/L	0.298	51.45	mg/L	0.298	0.58%
Ni 231.604†	2680.9	0.9802	mg/L	0.00531	0.9802	mg/L	0.00531	0.54%
Pb 220.353†	23272.3	2.009	mg/L	0.0146	2.009	mg/L	0.0146	0.73%
Sb 206.836†	9136.3	2.061	mg/L	0.0161	2.061	mg/L	0.0161	0.78%
Se 196.026†	3406.9	1.958	mg/L	0.0087	1.958	mg/L	0.0087	0.44%
Si 288.158†	2423.7	2.028	mg/L	0.0060	2.028	mg/L	0.0060	0.29%
Sn 189.927†	6033.3	1.010	mg/L	0.0071	1.010	mg/L	0.0071	0.71%
Sr 421.552†	831944.7	0.9971	mg/L	0.00360	0.9971	mg/L	0.00360	0.36%
Ti 334.903†	20323.6	0.9650	mg/L	0.00440	0.9650	mg/L	0.00440	0.46%
Tl 190.801†	5128.2	1.939	mg/L	0.0100	1.939	mg/L	0.0100	0.52%
V 292.402†	193358.1	0.9819	mg/L	0.00917	0.9819	mg/L	0.00917	0.93%
Zn 206.200†	2732.2	0.9770	mg/L	0.00790	0.9770	mg/L	0.00790	0.81%

Sequence No.: 72
Sample ID: CB 8
Dilution: 1X

Autosampler Location: 1
Date Collected: 11/29/2011 3:50:49 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	215.0 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	2906628.3	105.0	%	0.95				0.91%
ScR 361.383	373864.7	104.1	%	0.37				0.35%
Ag 328.068†	66.3	0.00025	mg/L	0.000080	0.00025	mg/L	0.000080	31.87%
Al 308.215†	19.1	0.01897	mg/L	0.007050	0.01897	mg/L	0.007050	37.17%
As 188.979†	1.6	0.00063	mg/L	0.001268	0.00063	mg/L	0.001268	201.38%
B 249.677†	15.7	0.00412	mg/L	0.000992	0.00412	mg/L	0.000992	24.06%
Ba 233.527†	-1.4	-0.00030	mg/L	0.000471	-0.00030	mg/L	0.000471	155.52%
Be 313.042†	11.0	0.00002	mg/L	0.000024	0.00002	mg/L	0.000024	105.45%
Ca 317.933†	-4.6	-0.00052	mg/L	0.002557	-0.00052	mg/L	0.002557	493.63%
Cd 228.802†	-3.9	-0.00011	mg/L	0.000122	-0.00011	mg/L	0.000122	111.50%
Co 228.616†	-3.6	-0.00008	mg/L	0.000141	-0.00008	mg/L	0.000141	177.32%
Cr 267.716†	1.2	0.00023	mg/L	0.000341	0.00023	mg/L	0.000341	148.27%
Cu 324.752†	54.7	0.00022	mg/L	0.000122	0.00022	mg/L	0.000122	56.10%
Fe 273.955†	4.3	0.00532	mg/L	0.002759	0.00532	mg/L	0.002759	51.88%
K 766.490†	59.2	0.02731	mg/L	0.009840	0.02731	mg/L	0.009840	36.03%
Mg 279.077†	-2.0	-0.00249	mg/L	0.006946	-0.00249	mg/L	0.006946	279.05%
Mn 257.610†	1.6	0.00005	mg/L	0.000110	0.00005	mg/L	0.000110	225.41%
Mo 202.031†	-5.8	-0.00025	mg/L	0.000235	-0.00025	mg/L	0.000235	94.02%
Na 589.592†	46.5	0.00300	mg/L	0.004332	0.00300	mg/L	0.004332	144.33%
Na 330.237†	11.6	0.5489	mg/L	0.34992	0.5489	mg/L	0.34992	63.75%
Ni 231.604†	1.7	0.00061	mg/L	0.000549	0.00061	mg/L	0.000549	90.60%
Pb 220.353†	1.9	0.00017	mg/L	0.000676	0.00017	mg/L	0.000676	394.44%
Sb 206.836†	-20.6	-0.00464	mg/L	0.000629	-0.00464	mg/L	0.000629	13.55%
Se 196.026†	8.9	0.00511	mg/L	0.003594	0.00511	mg/L	0.003594	70.38%
Si 288.158†	3.9	0.00325	mg/L	0.001405	0.00325	mg/L	0.001405	43.18%
Sn 189.927†	3.0	0.00050	mg/L	0.000364	0.00050	mg/L	0.000364	73.05%
Sr 421.552†	59.3	0.00007	mg/L	0.000035	0.00007	mg/L	0.000035	49.54%
Ti 334.903†	-12.3	-0.00058	mg/L	0.001042	-0.00058	mg/L	0.001042	178.34%
Tl 190.801†	5.8	0.00220	mg/L	0.001691	0.00220	mg/L	0.001691	76.92%
V 292.402†	28.3	0.00014	mg/L	0.000057	0.00014	mg/L	0.000057	39.63%
Zn 206.200†	-1.6	-0.00058	mg/L	0.001171	-0.00058	mg/L	0.001171	201.83%

TX57:81534

Sequence No.: 73
Sample ID: NEW HNO3

Autosampler Location: 357
Date Collected: 11/29/2011 3:55:02 PM
Data Type: Original

Dilution: 10X

I-7248

Nebulizer Parameters: NEW HNO3

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: NEW HNO3

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2845262.5	102.8	%	0.33				0.32%
ScR 361.383	365106.4	101.6	%	1.56				1.54%
Ag 328.068†	86.0	0.00032	mg/L	0.000153	0.00324	mg/L	0.001534	47.38%
Al 308.215†	13.4	0.01326	mg/L	0.005225	0.1326	mg/L	0.05225	39.39%
As 188.979†	-6.7	-0.00262	mg/L	0.000390	-0.02624	mg/L	0.003901	14.87%
B 249.677†	7.0	0.00182	mg/L	0.000121	0.01821	mg/L	0.001209	6.64%
Ba 233.527†	-1.5	-0.00032	mg/L	0.000454	-0.00324	mg/L	0.004542	140.05%
Be 313.042†	0.9	0.00000	mg/L	0.000025	0.00002	mg/L	0.000250	>999.9%
Ca 317.933†	99.4	0.01130	mg/L	0.001203	0.1130	mg/L	0.01203	10.65%
Cd 228.802†	-10.1	-0.00026	mg/L	0.000032	-0.00263	mg/L	0.000317	12.06%
Co 228.616†	-20.9	-0.00047	mg/L	0.000118	-0.00466	mg/L	0.001183	25.36%
Cr 267.716†	3.2	0.00059	mg/L	0.000809	0.00590	mg/L	0.008093	137.08%
Cu 324.752†	101.6	0.00040	mg/L	0.000048	0.00401	mg/L	0.000477	11.87%
Fe 273.955†	7.1	0.00870	mg/L	0.001420	0.08702	mg/L	0.014201	16.32%
K 766.490†	62.9	0.02902	mg/L	0.014089	0.2902	mg/L	0.14089	48.55%
Mg 279.077†	-6.3	-0.00771	mg/L	0.006755	-0.07705	mg/L	0.067550	87.67%
Mn 257.610†	3.1	0.00010	mg/L	0.000037	0.00099	mg/L	0.000367	37.16%
Mo 202.031†	6.6	0.00028	mg/L	0.000086	0.00285	mg/L	0.000862	30.28%
Na 589.592†	142.0	0.00917	mg/L	0.004165	0.09166	mg/L	0.041654	45.44%
Na 330.237†	10.0	0.4723	mg/L	0.32430	4.723	mg/L	3.2430	68.66%
Ni 231.604†	0.5	0.00019	mg/L	0.000146	0.00187	mg/L	0.001457	77.94%
Pb 220.353†	-10.2	-0.00087	mg/L	0.000530	-0.00873	mg/L	0.005299	60.73%
Sb 206.836†	-9.2	-0.00208	mg/L	0.001106	-0.02078	mg/L	0.011057	53.21%
Se 196.026†	-4.8	-0.00277	mg/L	0.001567	-0.02774	mg/L	0.015672	56.49%
Si 288.158†	20.4	0.01703	mg/L	0.006074	0.1703	mg/L	0.06074	35.66%
Sn 189.927†	3.5	0.00058	mg/L	0.000670	0.00585	mg/L	0.006699	114.55%
Sr 421.552†	50.1	0.00006	mg/L	0.000044	0.00060	mg/L	0.000438	72.98%
Ti 334.903†	-2.0	-0.00010	mg/L	0.000836	-0.00098	mg/L	0.008364	851.38%
Tl 190.801†	-1.8	-0.00069	mg/L	0.001257	-0.00693	mg/L	0.012567	181.42%
V 292.402†	-21.3	-0.00011	mg/L	0.000070	-0.00106	mg/L	0.000704	66.62%
Zn 206.200†	1.9	0.00067	mg/L	0.000706	0.00673	mg/L	0.007057	104.85%

TX57 01535

Sequence No.: 74
Sample ID: TZ17 MB1 SWC

Autosampler Location: 358
Date Collected: 11/29/2011 3:59:15 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TZ17 MB1 SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TZ17 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2911910.6	105.2	%	0.70				0.66%
ScR 361.383	379680.5	105.7	%	1.15				1.09%
Ag 328.068†	32.5	0.00012	mg/L	0.000142	0.00024	mg/L	0.000285	116.52%
Al 308.215†	17.6	0.01746	mg/L	0.005008	0.03493	mg/L	0.010015	28.67%
As 188.979†	3.2	0.00124	mg/L	0.001194	0.00248	mg/L	0.002389	96.32%
B 249.677†	7.8	0.00205	mg/L	0.001547	0.00410	mg/L	0.003093	75.42%
Ba 233.527†	-1.6	-0.00034	mg/L	0.000260	-0.00067	mg/L	0.000519	77.26%
Be 313.042†	-5.5	-0.00001	mg/L	0.000016	-0.00002	mg/L	0.000032	140.97%
Ca 317.933†	52.4	0.00596	mg/L	0.000360	0.01192	mg/L	0.000720	6.04%
Cd 228.802†	-4.4	-0.00013	mg/L	0.000125	-0.00025	mg/L	0.000249	98.09%
Co 228.616†	2.2	0.00005	mg/L	0.000125	0.00010	mg/L	0.000249	259.69%
Cr 267.716†	1.6	0.00029	mg/L	0.000436	0.00058	mg/L	0.000871	149.73%
Cu 324.752†	55.0	0.00022	mg/L	0.000039	0.00044	mg/L	0.000078	17.87%
Fe 273.955†	4.4	0.00544	mg/L	0.000762	0.01088	mg/L	0.001524	14.00%
K 766.490†	96.6	0.04458	mg/L	0.015672	0.08916	mg/L	0.031343	35.15%
Mg 279.077†	-2.5	-0.00305	mg/L	0.006171	-0.00610	mg/L	0.012342	202.31%
Mn 257.610†	12.0	0.00038	mg/L	0.000048	0.00076	mg/L	0.000096	12.62%
Mo 202.031†	-9.7	-0.00042	mg/L	0.000359	-0.00083	mg/L	0.000718	86.12%
Na 589.592†	19.8	0.00128	mg/L	0.001334	0.00256	mg/L	0.002668	104.25%
Na 330.237†	0.3	0.01467	mg/L	0.416682	0.02934	mg/L	0.833364	>999.9%
Ni 231.604†	2.6	0.00095	mg/L	0.000909	0.00190	mg/L	0.001818	95.54%
Pb 220.353†	5.8	0.00051	mg/L	0.000636	0.00101	mg/L	0.001272	125.67%
Sb 206.836†	-28.9	-0.00651	mg/L	0.000592	-0.01303	mg/L	0.001183	9.08%
Se 196.026†	2.7	0.00154	mg/L	0.003180	0.00308	mg/L	0.006361	206.84%
Si 288.158†	4.1	0.00341	mg/L	0.001058	0.00681	mg/L	0.002116	31.06%
Sn 189.927†	4.2	0.00071	mg/L	0.000179	0.00141	mg/L	0.000359	25.38%
Sr 421.552†	117.5	0.00014	mg/L	0.000010	0.00028	mg/L	0.000019	6.90%
Ti 334.903†	3.8	0.00018	mg/L	0.000743	0.00037	mg/L	0.001486	407.14%
Tl 190.801†	6.2	0.00233	mg/L	0.000730	0.00466	mg/L	0.001461	31.35%
V 292.402†	1.7	0.00001	mg/L	0.000165	0.00002	mg/L	0.000331	>999.9%
Zn 206.200†	3.4	0.00122	mg/L	0.000677	0.00244	mg/L	0.001353	55.53%

Sequence No.: 75
Sample ID: TY01 B TWC

Autosampler Location: 359
Date Collected: 11/29/2011 4:03:27 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: TY01 B TWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TY01 B TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2818920.2	101.9	%	0.63				0.62%
ScR 361.383	367359.8	102.3	%	0.30				0.29%
Ag 328.068†	543.7	0.00041	mg/L	0.000080	0.00041	mg/L	0.000080	19.44%
Al 308.215†	506.3	0.5028	mg/L	0.00818	0.5028	mg/L	0.00818	1.63%
As 188.979†	21.3	0.00341	mg/L	0.000372	0.00341	mg/L	0.000372	10.93%
B 249.677†	37.8	0.00991	mg/L	0.000882	0.00991	mg/L	0.000882	8.90%
Ba 233.527†	447.1	0.09514	mg/L	0.000287	0.09514	mg/L	0.000287	0.30%
Be 313.042†	-24.7	-0.00005	mg/L	0.000024	-0.00005	mg/L	0.000024	45.20%
Ca 317.933†	1327114.3	150.9	mg/L	0.46	150.9	mg/L	0.46	0.30%
Cd 228.802†	-9.4	-0.00029	mg/L	0.000089	-0.00029	mg/L	0.000089	30.36%
Co 228.616†	52.9	0.00108	mg/L	0.000122	0.00108	mg/L	0.000122	11.31%
Cr 267.716†	106.3	0.01295	mg/L	0.001414	0.01295	mg/L	0.001414	10.92%
Cu 324.752†	760.9	0.00260	mg/L	0.000094	0.00260	mg/L	0.000094	3.60%
Fe 273.955†	742.3	0.9088	mg/L	0.00285	0.9088	mg/L	0.00285	0.31%
K 766.490†	25999.9	11.99	mg/L	0.049	11.99	mg/L	0.049	0.41%
Mg 279.077†	62629.2	77.11	mg/L	0.132	77.11	mg/L	0.132	0.17%
Mn 257.610†	712.1	0.02214	mg/L	0.000167	0.02214	mg/L	0.000167	0.76%
Mo 202.031†	154.3	0.00394	mg/L	0.000263	0.00394	mg/L	0.000263	6.68%
Na 589.592†	590823.1	38.13	mg/L	0.071	38.13	mg/L	0.071	0.19%
Na 330.237†	855.8	40.62	mg/L	0.234	40.62	mg/L	0.234	0.58%
Ni 231.604†	29.6	0.01081	mg/L	0.001754	0.01081	mg/L	0.001754	16.22%
Pb 220.353†	-72.1	-0.00612	mg/L	0.000327	-0.00612	mg/L	0.000327	5.35%
Sb 206.836†	-11.4	-0.00309	mg/L	0.000840	-0.00309	mg/L	0.000840	27.14%
Se 196.026†	39.6	0.01727	mg/L	0.001177	0.01727	mg/L	0.001177	6.82%
Si 288.158†	24355.0	20.32	mg/L	0.027	20.32	mg/L	0.027	0.13%
Sn 189.927†	-40.4	-0.00675	mg/L	0.000777	-0.00675	mg/L	0.000777	11.52%
Sr 421.552†	663596.4	0.7953	mg/L	0.00250	0.7953	mg/L	0.00250	0.31%
Ti 334.903†	1028.8	0.04306	mg/L	0.000717	0.04306	mg/L	0.000717	1.67%
Tl 190.801†	20.0	0.00768	mg/L	0.000225	0.00768	mg/L	0.000225	2.93%
V 292.402†	996.9	0.00503	mg/L	0.000074	0.00503	mg/L	0.000074	1.48%
Zn 206.200†	25.0	0.00506	mg/L	0.001755	0.00506	mg/L	0.001755	34.71%

TXET 0153T

Sequence No.: 76
Sample ID: TX57 K SWC

Autosampler Location: 360
Date Collected: 11/29/2011 4:07:41 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 K SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TX57 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2852020.7	103.1	%	0.70				0.68%
ScR 361.383	373941.8	104.1	%	0.12				0.12%
Ag 328.068†	461.5	-0.00002	mg/L	0.000114	-0.00004	mg/L	0.000229	617.08%
Al 308.215†	96909.3	96.27	mg/L	0.098	192.5	mg/L	0.20	0.10%
As 188.979†	69.7	0.05678	mg/L	0.000751	0.1136	mg/L	0.00150	1.32%
B 249.677†	52.3	0.01355	mg/L	0.000844	0.02710	mg/L	0.001689	6.23%
Ba 233.527†	2744.3	0.5708	mg/L	0.00268	1.142	mg/L	0.0054	0.47%
Be 313.042†	809.3	0.00155	mg/L	0.000007	0.00309	mg/L	0.000014	0.46%
Ca 317.933†	1107973.0	126.0	mg/L	0.58	252.0	mg/L	1.16	0.46%
Cd 228.802†	107.3	0.00291	mg/L	0.000100	0.00583	mg/L	0.000199	3.42%
Co 228.616†	3302.1	0.06226	mg/L	0.000280	0.1245	mg/L	0.00056	0.45%
Cr 267.716†	847.7	0.1577	mg/L	0.00087	0.3154	mg/L	0.00174	0.55%
Cu 324.752†	71079.2	0.2869	mg/L	0.00155	0.5737	mg/L	0.00311	0.54%
Fe 273.955†	110285.3	135.0	mg/L	0.33	270.0	mg/L	0.65	0.24%
K 766.490†	16176.7	7.462	mg/L	0.0097	14.92	mg/L	0.019	0.13%
Mg 279.077†	27530.6	33.82	mg/L	0.075	67.64	mg/L	0.151	0.22%
Mn 257.610†	103549.0	3.266	mg/L	0.0150	6.531	mg/L	0.0300	0.46%
Mo 202.031†	192.4	0.00635	mg/L	0.000198	0.01269	mg/L	0.000395	3.11%
Na 589.592†	175789.7	11.34	mg/L	0.007	22.69	mg/L	0.015	0.07%
Na 330.237†	231.1	12.19	mg/L	0.116	24.37	mg/L	0.231	0.95%
Ni 231.604†	460.4	0.1681	mg/L	0.00048	0.3362	mg/L	0.00097	0.29%
Pb 220.353†	3440.7	0.3089	mg/L	0.00291	0.6178	mg/L	0.00582	0.94%
Sb 206.836†	188.6	-0.00567	mg/L	0.001561	-0.01134	mg/L	0.003123	27.55%
Se 196.026†	-46.1	0.00739	mg/L	0.004288	0.01477	mg/L	0.008575	58.04%
Si 288.158†	1438.7	1.200	mg/L	0.0023	2.400	mg/L	0.0045	0.19%
Sn 189.927†	15.0	0.00443	mg/L	0.000597	0.00887	mg/L	0.001194	13.46%
Sr 421.552†	562259.3	0.6739	mg/L	0.00297	1.348	mg/L	0.0059	0.44%
Ti 334.903†	131600.8	6.252	mg/L	0.0238	12.50	mg/L	0.048	0.38%
Tl 190.801†	-22.6	0.01081	mg/L	0.002827	0.02162	mg/L	0.005655	26.16%
V 292.402†	80733.1	0.3958	mg/L	0.00329	0.7915	mg/L	0.00659	0.83%
Zn 206.200†	2593.1	0.9240	mg/L	0.00364	1.848	mg/L	0.0073	0.39%

Sequence No.: 77
Sample ID: TX57 L SWC

Autosampler Location: 361
Date Collected: 11/29/2011 4:11:55 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TX57 L SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TX57 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2845657.3	102.8	%	0.70				0.68%
ScR 361.383	369355.6	102.8	%	0.93				0.90%
Ag 328.068†	753.6	0.00114	mg/L	0.000078	0.00229	mg/L	0.000155	6.78%
Al 308.215†	84411.7	83.85	mg/L	0.237	167.7	mg/L	0.47	0.28%
As 188.979†	160.4	0.08660	mg/L	0.002101	0.1732	mg/L	0.00420	2.43%
B 249.677†	89.2	0.02322	mg/L	0.000263	0.04644	mg/L	0.000526	1.13%
Ba 233.527†	2253.5	0.4672	mg/L	0.00179	0.9345	mg/L	0.00358	0.38%
Be 313.042†	787.5	0.00146	mg/L	0.000028	0.00292	mg/L	0.000056	1.90%
Ca 317.933†	1270342.2	144.4	mg/L	0.86	288.9	mg/L	1.72	0.60%
Cd 228.802†	139.5	0.00391	mg/L	0.000098	0.00783	mg/L	0.000197	2.51%
Co 228.616†	3119.9	0.05977	mg/L	0.000636	0.1195	mg/L	0.00127	1.06%
Cr 267.716†	1049.5	0.1945	mg/L	0.00059	0.3890	mg/L	0.00118	0.30%
Cu 324.752†	73530.8	0.2971	mg/L	0.00047	0.5942	mg/L	0.00094	0.16%
Fe 273.955†	115783.4	141.8	mg/L	0.71	283.5	mg/L	1.41	0.50%
K 766.490†	16623.2	7.668	mg/L	0.0520	15.34	mg/L	0.104	0.68%
Mg 279.077†	35744.0	43.93	mg/L	0.196	87.86	mg/L	0.392	0.45%
Mn 257.610†	68504.7	2.161	mg/L	0.0094	4.321	mg/L	0.0188	0.43%
Mo 202.031†	380.8	0.01411	mg/L	0.000437	0.02821	mg/L	0.000873	3.09%
Na 589.592†	154632.3	9.979	mg/L	0.0290	19.96	mg/L	0.058	0.29%
Na 330.237†	206.1	10.76	mg/L	0.206	21.53	mg/L	0.413	1.92%
Ni 231.604†	1590.0	0.5805	mg/L	0.00264	1.161	mg/L	0.0053	0.45%
Pb 220.353†	4330.2	0.3828	mg/L	0.00256	0.7657	mg/L	0.00511	0.67%
Sb 206.836†	216.5	0.00410	mg/L	0.001755	0.00819	mg/L	0.003510	42.84%
Se 196.026†	-42.1	0.00724	mg/L	0.002824	0.01448	mg/L	0.005649	39.01%
Si 288.158†	1931.1	1.611	mg/L	0.0196	3.222	mg/L	0.0392	1.22%
Sn 189.927†	16.9	0.00449	mg/L	0.001064	0.00897	mg/L	0.002129	23.72%
Sr 421.552†	322391.8	0.3864	mg/L	0.00134	0.7728	mg/L	0.00267	0.35%
Ti 334.903†	112785.0	5.356	mg/L	0.0217	10.71	mg/L	0.043	0.41%
Tl 190.801†	-25.9	0.00860	mg/L	0.001216	0.01721	mg/L	0.002432	14.13%
V 292.402†	106826.7	0.5278	mg/L	0.00201	1.056	mg/L	0.0040	0.38%
Zn 206.200†	2770.3	0.9869	mg/L	0.00613	1.974	mg/L	0.0123	0.62%

Sequence No.: 78
Sample ID: TZ17 B SWC

Autosampler Location: 362
Date Collected: 11/29/2011 4:15:56 PM
Data Type: Original

Dilution: 5X

Nebulizer Parameters: TZ17 B SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TZ17 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2761695.2	99.79	%	0.425				0.43%
ScR 361.383	359537.2	100.1	%	0.30				0.30%
Ag 328.068†	3423.7	0.00893	mg/L	0.000123	0.04467	mg/L	0.000615	1.38%
Al 308.215†	33453.5	33.23	mg/L	0.172	166.2	mg/L	0.86	0.52%
As 188.979†	26404.9	10.29	mg/L	0.044	51.43	mg/L	0.218	0.42%
B 249.677†	405.0	0.1059	mg/L	0.00099	0.5293	mg/L	0.00496	0.94%
Ba 233.527†	1646.8	0.3438	mg/L	0.00152	1.719	mg/L	0.0076	0.44%
Be 313.042†	991.5	0.00199	mg/L	0.000006	0.00996	mg/L	0.000032	0.32%
Ca 317.933†	3145227.8	357.6	mg/L	0.29	1788	mg/L	1.5	0.08%
Cd 228.802†	3497.8	0.04203	mg/L	0.000266	0.2102	mg/L	0.00133	0.63%
Co 228.616†	6016.2	0.1318	mg/L	0.00047	0.6590	mg/L	0.00236	0.36%
Cr 267.716†	857.8	0.1525	mg/L	0.00029	0.7627	mg/L	0.00143	0.19%
Cu 324.752†	612899.4	2.425	mg/L	0.0015	12.13	mg/L	0.008	0.06%
Fe 273.955†	81361.7	99.61	mg/L	0.786	498.1	mg/L	3.93	0.79%
K 766.490†	9974.0	4.601	mg/L	0.0390	23.00	mg/L	0.195	0.85%
Mg 279.077†	30546.6	37.55	mg/L	0.348	187.8	mg/L	1.74	0.93%
Mn 257.610†	20622.7	0.6520	mg/L	0.00596	3.260	mg/L	0.0298	0.91%
Mo 202.031†	3745.6	0.1561	mg/L	0.00110	0.7806	mg/L	0.00550	0.71%
Na 589.592†	78230.3	5.049	mg/L	0.0372	25.24	mg/L	0.186	0.74%
Na 330.237†	184.5	6.566	mg/L	0.2142	32.83	mg/L	1.071	3.26%
Ni 231.604†	278.8	0.1040	mg/L	0.00109	0.5200	mg/L	0.00543	1.04%
Pb 220.353†	80766.4	6.965	mg/L	0.0420	34.83	mg/L	0.210	0.60%
Sb 206.836†	12886.6	2.881	mg/L	0.0102	14.40	mg/L	0.051	0.36%
Se 196.026†	7.3	0.02049	mg/L	0.005810	0.1025	mg/L	0.02905	28.36%
Si 288.158†	418.2	0.3496	mg/L	0.01110	1.748	mg/L	0.0555	3.17%
Sn 189.927†	3211.3	0.5390	mg/L	0.00400	2.695	mg/L	0.0200	0.74%
Sr 421.552†	357381.4	0.4283	mg/L	0.00056	2.142	mg/L	0.0028	0.13%
Ti 334.903†	28374.1	1.335	mg/L	0.0106	6.675	mg/L	0.0530	0.79%
Tl 190.801†	19.6	0.01952	mg/L	0.001243	0.09759	mg/L	0.006214	6.37%
V 292.402†	33678.7	0.1631	mg/L	0.00072	0.8153	mg/L	0.00358	0.44%
Zn 206.200†	22108.3	7.897	mg/L	0.0826	39.48	mg/L	0.413	1.05%

TX57-0150

Sequence No.: 79
Sample ID: TZ17 ADUP SWC

Autosampler Location: 363
Date Collected: 11/29/2011 4:20:11 PM
Data Type: Original

Dilution: 5X

Nebulizer Parameters: TZ17 ADUP SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TZ17 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2708306.8	97.86	%	0.536				0.55%
ScR 361.383	349962.8	97.43	%	0.525				0.54%
Ag 328.068†	1430.1	0.00068	mg/L	0.000033	0.00338	mg/L	0.000164	4.84%
Al 308.215†	34368.0	34.14	mg/L	0.132	170.7	mg/L	0.66	0.39%
As 188.979†	8021.7	3.120	mg/L	0.0159	15.60	mg/L	0.079	0.51%
B 249.677†	460.7	0.1205	mg/L	0.00018	0.6027	mg/L	0.00090	0.15%
Ba 233.527†	1376.1	0.2904	mg/L	0.00214	1.452	mg/L	0.0107	0.74%
Be 313.042†	893.4	0.00178	mg/L	0.000041	0.00891	mg/L	0.000206	2.31%
Ca 317.933†	3800797.2	432.2	mg/L	1.41	2161	mg/L	7.0	0.33%
Cd 228.802†	876.0	0.00771	mg/L	0.000219	0.03854	mg/L	0.001097	2.85%
Co 228.616†	1651.5	0.03414	mg/L	0.000097	0.1707	mg/L	0.00049	0.28%
Cr 267.716†	328.4	0.05032	mg/L	0.000235	0.2516	mg/L	0.00117	0.47%
Cu 324.752†	93643.8	0.3717	mg/L	0.00172	1.858	mg/L	0.0086	0.46%
Fe 273.955†	34926.8	42.76	mg/L	0.291	213.8	mg/L	1.45	0.68%
K 766.490†	8417.5	3.883	mg/L	0.0384	19.41	mg/L	0.192	0.99%
Mg 279.077†	33005.6	40.61	mg/L	0.264	203.1	mg/L	1.32	0.65%
Mn 257.610†	19119.7	0.6032	mg/L	0.00602	3.016	mg/L	0.0301	1.00%
Mo 202.031†	722.4	0.02526	mg/L	0.000505	0.1263	mg/L	0.00252	2.00%
Na 589.592†	58285.3	3.761	mg/L	0.0303	18.81	mg/L	0.152	0.81%
Na 330.237†	111.4	5.162	mg/L	0.0704	25.81	mg/L	0.352	1.36%
Ni 231.604†	287.8	0.1053	mg/L	0.00224	0.5267	mg/L	0.01119	2.12%
Pb 220.353†	22509.5	1.946	mg/L	0.0084	9.729	mg/L	0.0422	0.43%
Sb 206.836†	1738.6	0.3752	mg/L	0.00398	1.876	mg/L	0.0199	1.06%
Se 196.026†	3.2	0.01113	mg/L	0.005354	0.05564	mg/L	0.026769	48.11%
Si 288.158†	397.0	0.3314	mg/L	0.01400	1.657	mg/L	0.0700	4.23%
Sn 189.927†	501.9	0.08458	mg/L	0.001077	0.4229	mg/L	0.00539	1.27%
Sr 421.552†	352803.0	0.4228	mg/L	0.00147	2.114	mg/L	0.0073	0.35%
Ti 334.903†	30955.9	1.455	mg/L	0.0133	7.275	mg/L	0.0663	0.91%
Tl 190.801†	9.3	0.00896	mg/L	0.001954	0.04480	mg/L	0.009769	21.80%
V 292.402†	38566.3	0.1914	mg/L	0.00014	0.9569	mg/L	0.00069	0.07%
Zn 206.200†	4244.4	1.507	mg/L	0.0114	7.533	mg/L	0.0568	0.75%

Sequence No.: 80
Sample ID: TZ17 A SWC

Autosampler Location: 364
Date Collected: 11/29/2011 4:24:26 PM
Data Type: Original

Dilution: 5X

Nebulizer Parameters: TZ17 A SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: TZ17 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2744768.0	99.18	%	0.158				0.16%
ScR 361.383	354139.3	98.59	%	0.403				0.41%
Ag 328.068†	1522.6	0.00107	mg/L	0.000094	0.00534	mg/L	0.000472	8.85%
Al 308.215†	35868.4	35.63	mg/L	0.393	178.2	mg/L	1.97	1.10%
As 188.979†	8493.8	3.304	mg/L	0.0191	16.52	mg/L	0.096	0.58%
B 249.677†	509.4	0.1333	mg/L	0.00295	0.6664	mg/L	0.01474	2.21%
Ba 233.527†	1471.2	0.3105	mg/L	0.00157	1.553	mg/L	0.0079	0.51%
Be 313.042†	952.5	0.00190	mg/L	0.000027	0.00951	mg/L	0.000136	1.43%
Ca 317.933†	3763712.7	427.9	mg/L	1.16	2140	mg/L	5.8	0.27%
Cd 228.802†	954.8	0.00890	mg/L	0.000198	0.04451	mg/L	0.000990	2.22%
Co 228.616†	1453.3	0.02961	mg/L	0.000199	0.1481	mg/L	0.00099	0.67%
Cr 267.716†	335.8	0.05155	mg/L	0.001859	0.2578	mg/L	0.00929	3.61%
Cu 324.752†	124123.2	0.4918	mg/L	0.00190	2.459	mg/L	0.0095	0.39%
Fe 273.955†	31749.9	38.87	mg/L	0.575	194.4	mg/L	2.88	1.48%
K 766.490†	8989.2	4.147	mg/L	0.0530	20.73	mg/L	0.265	1.28%
Mg 279.077†	34827.0	42.86	mg/L	0.590	214.3	mg/L	2.95	1.38%
Mn 257.610†	20054.4	0.6326	mg/L	0.01011	3.163	mg/L	0.0505	1.60%
Mo 202.031†	750.8	0.02651	mg/L	0.000457	0.1326	mg/L	0.00228	1.72%
Na 589.592†	59071.4	3.812	mg/L	0.0399	19.06	mg/L	0.200	1.05%
Na 330.237†	120.2	5.558	mg/L	0.2700	27.79	mg/L	1.350	4.86%
Ni 231.604†	286.5	0.1049	mg/L	0.00090	0.5245	mg/L	0.00452	0.86%
Pb 220.353†	20458.6	1.769	mg/L	0.0092	8.846	mg/L	0.0462	0.52%
Sb 206.836†	1829.1	0.3956	mg/L	0.00163	1.978	mg/L	0.0082	0.41%
Se 196.026†	3.0	0.01067	mg/L	0.005638	0.05337	mg/L	0.028189	52.82%
Si 288.158†	383.2	0.3198	mg/L	0.00810	1.599	mg/L	0.0405	2.53%
Sn 189.927†	583.5	0.09825	mg/L	0.002336	0.4913	mg/L	0.01168	2.38%
Sr 421.552†	343372.9	0.4115	mg/L	0.00084	2.058	mg/L	0.0042	0.20%
Ti 334.903†	32169.8	1.513	mg/L	0.0254	7.564	mg/L	0.1271	1.68%
Tl 190.801†	7.6	0.00793	mg/L	0.001220	0.03963	mg/L	0.006099	15.39%
V 292.402†	39971.1	0.1987	mg/L	0.00098	0.9937	mg/L	0.00490	0.49%
Zn 206.200†	4532.2	1.610	mg/L	0.0135	8.048	mg/L	0.0677	0.84%

TX57.01542

Sequence No.: 81
Sample ID: TZ17 ASPK SWC

Autosampler Location: 365
Date Collected: 11/29/2011 4:28:41 PM
Data Type: Original

Dilution: 5X

Nebulizer Parameters: TZ17 ASPK SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: TZ17 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2733644.9	98.78	%	0.708				0.72%
ScR 361.383	363221.9	101.1	%	0.52				0.51%
Ag 328.068†	54657.1	0.2014	mg/L	0.00189	1.007	mg/L	0.0094	0.94%
Al 308.215†	33667.5	33.44	mg/L	0.237	167.2	mg/L	1.19	0.71%
As 188.979†	12676.9	4.935	mg/L	0.0295	24.67	mg/L	0.147	0.60%
B 249.677†	414.0	0.1079	mg/L	0.00060	0.5397	mg/L	0.00302	0.56%
Ba 233.527†	4846.8	1.019	mg/L	0.0042	5.097	mg/L	0.0212	0.42%
Be 313.042†	90541.4	0.1864	mg/L	0.00164	0.9321	mg/L	0.00822	0.88%
Ca 317.933†	3482100.8	395.9	mg/L	2.91	1980	mg/L	14.5	0.73%
Cd 228.802†	8695.4	0.2127	mg/L	0.00152	1.064	mg/L	0.0076	0.72%
Co 228.616†	9847.6	0.2170	mg/L	0.00152	1.085	mg/L	0.0076	0.70%
Cr 267.716†	1353.9	0.2416	mg/L	0.00220	1.208	mg/L	0.0110	0.91%
Cu 324.752†	184319.0	0.7303	mg/L	0.00802	3.652	mg/L	0.0401	1.10%
Fe 273.955†	42427.2	51.94	mg/L	0.443	259.7	mg/L	2.21	0.85%
K 766.490†	16825.5	7.761	mg/L	0.0151	38.81	mg/L	0.076	0.20%
Mg 279.077†	32644.1	40.16	mg/L	0.213	200.8	mg/L	1.07	0.53%
Mn 257.610†	32595.1	1.028	mg/L	0.0049	5.142	mg/L	0.0245	0.48%
Mo 202.031†	739.3	0.02644	mg/L	0.000478	0.1322	mg/L	0.00239	1.81%
Na 589.592†	110568.3	7.135	mg/L	0.0476	35.68	mg/L	0.238	0.67%
Na 330.237†	188.4	8.710	mg/L	0.1080	43.55	mg/L	0.540	1.24%
Ni 231.604†	768.9	0.2810	mg/L	0.00153	1.405	mg/L	0.0076	0.54%
Pb 220.353†	28785.0	2.486	mg/L	0.0128	12.43	mg/L	0.064	0.52%
Sb 206.836†	1779.7	0.3824	mg/L	0.00228	1.912	mg/L	0.0114	0.60%
Se 196.026†	1347.1	0.7842	mg/L	0.00854	3.921	mg/L	0.0427	1.09%
Si 288.158†	400.6	0.3351	mg/L	0.00988	1.675	mg/L	0.0494	2.95%
Sn 189.927†	604.5	0.1017	mg/L	0.00091	0.5086	mg/L	0.00455	0.89%
Sr 421.552†	483134.6	0.5790	mg/L	0.00361	2.895	mg/L	0.0181	0.62%
Ti 334.903†	29759.2	1.399	mg/L	0.0098	6.997	mg/L	0.0489	0.70%
Tl 190.801†	1974.0	0.7529	mg/L	0.00449	3.765	mg/L	0.0225	0.60%
V 292.402†	74033.9	0.3709	mg/L	0.00483	1.855	mg/L	0.0241	1.30%
Zn 206.200†	5026.1	1.787	mg/L	0.0110	8.936	mg/L	0.0550	0.62%

Sequence No.: 82
Sample ID: TZ17 MB1SPK SWC

Autosampler Location: 366
Date Collected: 11/29/2011 4:32:56 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: TZ17 MB1SPK SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: TZ17 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2839510.1	102.6	%	0.48				0.47%
ScR 361.383	371127.8	103.3	%	0.93				0.90%
Ag 328.068†	134747.4	0.5072	mg/L	0.00190	1.014	mg/L	0.0038	0.37%
Al 308.215†	2035.2	2.013	mg/L	0.0290	4.027	mg/L	0.0579	1.44%
As 188.979†	5073.2	1.977	mg/L	0.0126	3.953	mg/L	0.0252	0.64%
B 249.677†	14.3	0.00275	mg/L	0.000465	0.00549	mg/L	0.000930	16.93%
Ba 233.527†	9412.1	1.979	mg/L	0.0214	3.958	mg/L	0.0428	1.08%
Be 313.042†	227133.7	0.4678	mg/L	0.01242	0.9356	mg/L	0.02484	2.66%
Ca 317.933†	85484.9	9.719	mg/L	0.2143	19.44	mg/L	0.429	2.21%
Cd 228.802†	18584.1	0.4995	mg/L	0.00395	0.9991	mg/L	0.00789	0.79%
Co 228.616†	21818.8	0.4866	mg/L	0.00364	0.9733	mg/L	0.00728	0.75%
Cr 267.716†	2651.1	0.4908	mg/L	0.00482	0.9817	mg/L	0.00964	0.98%
Cu 324.752†	126259.5	0.4988	mg/L	0.00303	0.9975	mg/L	0.00605	0.61%
Fe 273.955†	1669.2	2.040	mg/L	0.0233	4.081	mg/L	0.0465	1.14%
K 766.490†	22281.6	10.28	mg/L	0.228	20.56	mg/L	0.456	2.22%
Mg 279.077†	8286.1	10.20	mg/L	0.112	20.40	mg/L	0.224	1.10%
Mn 257.610†	14634.0	0.4619	mg/L	0.01095	0.9239	mg/L	0.02189	2.37%
Mo 202.031†	30.9	0.00110	mg/L	0.000177	0.00220	mg/L	0.000355	16.16%
Na 589.592†	145246.6	9.373	mg/L	0.1978	18.75	mg/L	0.396	2.11%
Na 330.237†	227.5	10.64	mg/L	0.001	21.29	mg/L	0.003	0.01%
Ni 231.604†	1317.3	0.4809	mg/L	0.00532	0.9617	mg/L	0.01063	1.11%
Pb 220.353†	23042.3	1.988	mg/L	0.0118	3.977	mg/L	0.0237	0.59%
Sb 206.836†	9.2	-0.00231	mg/L	0.000643	-0.00462	mg/L	0.001286	27.81%
Se 196.026†	3433.1	1.972	mg/L	0.0059	3.944	mg/L	0.0117	0.30%
Si 288.158†	0.3	0.00203	mg/L	0.002429	0.00405	mg/L	0.004857	119.92%
Sn 189.927†	-7.9	-0.00133	mg/L	0.000486	-0.00265	mg/L	0.000973	36.66%
Sr 421.552†	405690.8	0.4862	mg/L	0.01091	0.9724	mg/L	0.02182	2.24%
Ti 334.903†	12.8	0.00015	mg/L	0.000311	0.00030	mg/L	0.000623	205.96%
Tl 190.801†	5200.1	1.966	mg/L	0.0087	3.931	mg/L	0.0175	0.44%
V 292.402†	97708.0	0.4960	mg/L	0.00362	0.9920	mg/L	0.00723	0.73%
Zn 206.200†	1337.6	0.4782	mg/L	0.00627	0.9565	mg/L	0.01255	1.31%

TX57-0154

Sequence No.: 83
Sample ID: CV 9

Dilution: 1X

Autosampler Location: 7
Date Collected: 11/29/2011 4:36:54 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	215.0 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	2852808.4	103.1	%	0.43				0.41%
ScR 361.383	361220.9	100.6	%	1.20				1.19%
Ag 328.068†	271931.6	1.024	mg/L	0.0106	1.024	mg/L	0.0106	1.04%
Al 308.215†	2069.4	2.022	mg/L	0.0172	2.022	mg/L	0.0172	0.85%
As 188.979†	4990.9	1.948	mg/L	0.0114	1.948	mg/L	0.0114	0.59%
B 249.677†	3779.0	0.9880	mg/L	0.00794	0.9880	mg/L	0.00794	0.80%
Ba 233.527†	4764.6	1.001	mg/L	0.0106	1.001	mg/L	0.0106	1.06%
Be 313.042†	480904.8	0.9905	mg/L	0.00277	0.9905	mg/L	0.00277	0.28%
Ca 317.933†	18574.1	2.111	mg/L	0.0231	2.111	mg/L	0.0231	1.09%
Cd 228.802†	37845.7	1.028	mg/L	0.0135	1.028	mg/L	0.0135	1.32%
Co 228.616†	43541.7	0.9698	mg/L	0.01245	0.9698	mg/L	0.01245	1.28%
Cr 267.716†	5483.7	1.016	mg/L	0.0105	1.016	mg/L	0.0105	1.04%
Cu 324.752†	255099.5	1.007	mg/L	0.0154	1.007	mg/L	0.0154	1.53%
Fe 273.955†	1682.5	2.053	mg/L	0.0210	2.053	mg/L	0.0210	1.02%
K 766.490†	45736.0	21.10	mg/L	0.124	21.10	mg/L	0.124	0.59%
Mg 279.077†	1644.6	2.031	mg/L	0.0097	2.031	mg/L	0.0097	0.48%
Mn 257.610†	31575.8	0.9963	mg/L	0.01089	0.9963	mg/L	0.01089	1.09%
Mo 202.031†	23461.4	1.008	mg/L	0.0053	1.008	mg/L	0.0053	0.52%
Na 589.592†	765477.1	49.40	mg/L	0.136	49.40	mg/L	0.136	0.28%
Na 330.237†	1113.1	52.73	mg/L	0.549	52.73	mg/L	0.549	1.04%
Ni 231.604†	2752.2	1.006	mg/L	0.0091	1.006	mg/L	0.0091	0.90%
Pb 220.353†	23519.2	2.030	mg/L	0.0111	2.030	mg/L	0.0111	0.55%
Sb 206.836†	9215.2	2.078	mg/L	0.0125	2.078	mg/L	0.0125	0.60%
Se 196.026†	3423.8	1.967	mg/L	0.0127	1.967	mg/L	0.0127	0.64%
Si 288.158†	2491.4	2.085	mg/L	0.0110	2.085	mg/L	0.0110	0.53%
Sn 189.927†	6093.9	1.020	mg/L	0.0053	1.020	mg/L	0.0053	0.52%
Sr 421.552†	845768.9	1.014	mg/L	0.0034	1.014	mg/L	0.0034	0.33%
Ti 334.903†	20738.2	0.9847	mg/L	0.00135	0.9847	mg/L	0.00135	0.14%
Tl 190.801†	5165.9	1.954	mg/L	0.0081	1.954	mg/L	0.0081	0.41%
V 292.402†	192817.4	0.9793	mg/L	0.01630	0.9793	mg/L	0.01630	1.66%
Zn 206.200†	2801.1	1.002	mg/L	0.0110	1.002	mg/L	0.0110	1.10%

TXST 01515

Sequence No.: 84
Sample ID: CB 9
Dilution: 1X

Autosampler Location: 1
Date Collected: 11/29/2011 4:40:55 PM
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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2871524.4	103.8	%	0.52				0.50%
ScR 361.383	371894.9	103.5	%	0.86				0.83%
Ag 328.068†	36.7	0.00014	mg/L	0.000019	0.00014	mg/L	0.000019	14.05%
Al 308.215†	10.6	0.01055	mg/L	0.003554	0.01055	mg/L	0.003554	33.68%
As 188.979†	2.6	0.00101	mg/L	0.000590	0.00101	mg/L	0.000590	58.72%
B 249.677†	10.6	0.00278	mg/L	0.001160	0.00278	mg/L	0.001160	41.67%
Ba 233.527†	2.5	0.00052	mg/L	0.000858	0.00052	mg/L	0.000858	163.91%
Be 313.042†	24.3	0.00005	mg/L	0.000012	0.00005	mg/L	0.000012	24.42%
Ca 317.933†	130.8	0.01487	mg/L	0.000961	0.01487	mg/L	0.000961	6.46%
Cd 228.802†	-2.8	-0.00008	mg/L	0.000138	-0.00008	mg/L	0.000138	167.45%
Co 228.616†	-1.9	-0.00004	mg/L	0.000117	-0.00004	mg/L	0.000117	279.27%
Cr 267.716†	2.4	0.00044	mg/L	0.000390	0.00044	mg/L	0.000390	89.59%
Cu 324.752†	47.4	0.00019	mg/L	0.000100	0.00019	mg/L	0.000100	53.08%
Fe 273.955†	6.1	0.00743	mg/L	0.001425	0.00743	mg/L	0.001425	19.18%
K 766.490†	61.5	0.02839	mg/L	0.007427	0.02839	mg/L	0.007427	26.16%
Mg 279.077†	1.2	0.00142	mg/L	0.007873	0.00142	mg/L	0.007873	552.83%
Mn 257.610†	2.1	0.00007	mg/L	0.000123	0.00007	mg/L	0.000123	186.06%
Mo 202.031†	-5.8	-0.00025	mg/L	0.000089	-0.00025	mg/L	0.000089	36.06%
Na 589.592†	61.1	0.00394	mg/L	0.004860	0.00394	mg/L	0.004860	123.22%
Na 330.237†	-4.2	-0.2007	mg/L	0.55537	-0.2007	mg/L	0.55537	276.67%
Ni 231.604†	0.6	0.00021	mg/L	0.001015	0.00021	mg/L	0.001015	488.47%
Pb 220.353†	11.7	0.00102	mg/L	0.000183	0.00102	mg/L	0.000183	18.07%
Sb 206.836†	-15.8	-0.00355	mg/L	0.001620	-0.00355	mg/L	0.001620	45.62%
Se 196.026†	7.7	0.00442	mg/L	0.005599	0.00442	mg/L	0.005599	126.69%
Si 288.158†	9.5	0.00794	mg/L	0.004387	0.00794	mg/L	0.004387	55.25%
Sn 189.927†	4.3	0.00072	mg/L	0.000479	0.00072	mg/L	0.000479	66.19%
Sr 421.552†	111.3	0.00013	mg/L	0.000022	0.00013	mg/L	0.000022	16.36%
Ti 334.903†	-11.5	-0.00055	mg/L	0.001448	-0.00055	mg/L	0.001448	265.57%
Tl 190.801†	1.3	0.00050	mg/L	0.001320	0.00050	mg/L	0.001320	262.31%
V 292.402†	-0.5	0.00000	mg/L	0.000188	0.00000	mg/L	0.000188	>999.9%
Zn 206.200†	-3.6	-0.00129	mg/L	0.000447	-0.00129	mg/L	0.000447	34.77%

end package

TXST 01546

Mercury Analysis Log

Analyst: DM
Instrument: CETAC

Date: 11-23-11
Page: 1 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	TWM	1X		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			7.76	BQ in CLP %R=97 ✓
ICB			-0.04	✓
CCV1			4.16	%R=104 ✓
CCB1			-0.01	✓
CRA			0.09	✓
TY16 MB2	LEM		0.00	✓
" G			0.00	
" GDUP			0.01	No RPD: Undetected ✓
" GSPK			1.02	%R=102 ✓
" H				
" I				
TX92 MB2			0.00	✓
" A+			0.00	
" A+DUP			0.00	No RPD: Undetected ✓
CCV2	TWM		4.26	%R=107 ✓
CCB2	TWM		-0.01	✓
TX92 A+SPK	LEM		1.05	%R=105 ✓
TX26 MB	TWM		-0.01	✓
" MBSPK			2.15	%R=108 ✓
" A			-0.00	
" ADUP			0.00	No RPD: Undetected ✓
" ASPK			1.05	%R=105 ✓
" B				

Chemical/Reagent ID:
10% $SnCl_2$: MP2213

14% NH_2OH/NaCl: MP2180

Standard ID:
Standard: 2894-14

ICV/CCV: 53.20

TXET-01547

Mercury Analysis Log

Analyst: DM **Date:** 11-23-11

Instrument: CETAC **Page:** 2 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
TX26 C	TWM	1X		Prep 40X DIL.
TX13 MB			0.00	✓
" MBSPK			2.14	%R=107 ✓
CCV3			4.19	%R=105 ✓
CCB3			-0.01	✓
TX13 A			0.00	
" ADUP			0.00	NO RPD: Undetected ✓
" ASPK			1.05	%R=105 ✓
" B				Prep 40X DIL.
TX58 MB			-0.00	✓
" MBSPK			2.08	%R=104 ✓
" A			0.01	
" ADUP			0.02	NO RPD: Undetected ✓
" ASPK			1.06	%R=106 ✓
" B				
CCV4			4.16	%R=104 ✓
CCB4			-0.01	✓
TX58 C				
" D				
" E				
" F				
TXQP MB1			0.00	✓
" MB1SPK			2.07	%R=104 ✓
" A			-0.01	
" ADUP			0.00	NO RPD: Undetected ✓
" ASPK			1.03	%R=103 ✓
" B				
CCV5			4.21	%R=105 ✓
CCB5			-0.01	✓
TX57 MB2	↓	↓	-0.00	✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2213 **14% NH_2OH/NaCl:** MP2180

Standard ID:

Standard: 2894-14 **ICV/CCV:** 53-20

TX57 02342

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-23-11

Page: 3 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
TX57 MB2EPK	TWM	1X	2.05	%R=103 ✓
" P			-0.01	
" PDUP			-0.00	No RPD: Undetected ✓
" PSPK			1.02	%R=102 ✓
" Q				✓
TX83 MB			0.00	✓
" MB3PK			2.08	%R=104 ✓
" A			-0.01	
" ADUP			0.00	No RPD: Undetected ✓
CCV6			4.20	%R=105 ✓
CCB6			-0.01	✓
TX83 ADPK			1.04	%R=104 ✓
TY56 MB2			-0.01	✓
" MB2PK			2.07	%R=104 ✓
" B			-0.00	
" BDUP			0.00	No RPD: Undetected ✓
" BSPK			1.08	%R=108 ✓
CCV7			4.18	%R=105 ✓
CCB7			-0.01	END CLP ✓
		11-23-11 DM		

11-23-11

Chemical/Reagent ID:

10% $SnCl_2$: MP2213

14% NH_2OH/NaCl: MP2160

Standard ID:

Standard: 2894-14

ICV/CCV: 53-29

TX57:01545

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA) **Analysis Date:** 11-23-11

	Analyst 11.23 DM	Peer 11.23.11	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	✓	✓	
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	—	—	
Carry-over	—	—	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
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	—	—	

TXST.01558

CETAC Hg Analysis Report - 11112300.DB - Wednesday, November 23, 2011, 12:52:07 PM

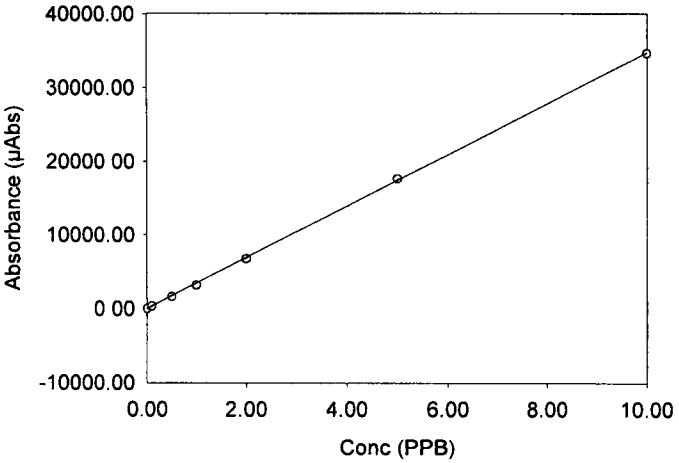
Analyst
Date Started Wednesday, November 23, 2011, 10:38:06
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	23-Nov-2011, 10:38	10.00	0.81	34900.00	1.00	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	23-Nov-2011, 10:41	0.00	27.00	-12.90	1.00	
Standard #1	23-Nov-2011, 10:43	0.10	0.46	349.00	1.00	
Standard #2	23-Nov-2011, 10:44	0.50	1.68	1610.00	1.00	
Standard #3	23-Nov-2011, 10:46	1.00	0.86	3210.00	1.00	
Standard #4	23-Nov-2011, 10:47	2.00	1.28	6780.00	1.00	
Standard #5	23-Nov-2011, 10:49	5.00	0.62	17600.00	1.00	
Standard #6	23-Nov-2011, 10:51	10.00	0.54	34700.00	1.00	

Calibration Data



Int.	0.000
Slope	3479.634
Correlation	0.99991

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	23-Nov-2011, 10:55	7.76	3.22	27000.00	1.00	
ICB	23-Nov-2011, 10:57	-0.04	0.68	-147.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2011, 10:58	4 16	1.29	14500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2011, 11:00	-0.01	24.50	-49.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	23-Nov-2011, 11:02	0.09	2.45	327.00	1.00	
TY16 MB2 LEM	23-Nov-2011, 11:03	0.00	44.50	9.19	1.00	
TY16 G LEM	23-Nov-2011, 11:05	0.00	14.40	12.30	1.00	
TY16 GDUP LEM	23-Nov-2011, 11:06	0.01	11.70	20.20	1.00	
TY16 GSPK LEM	23-Nov-2011, 11:08	1.02	1.43	3570.00	1.00	
TY16 H LEM	23-Nov-2011, 11:10	0.00	23.90	7.69	1.00	
TY16 I LEM	23-Nov-2011, 11:11	0.01	6.81	23.70	1.00	
TX92 MB2 LEM	23-Nov-2011, 11:13	0.00	18.70	9.62	1.00	
TX92 At LEM	23-Nov-2011, 11:14	0.00	22.60	4.60	1.00	
TX92 AtDUP LEM	23-Nov-2011, 11:16	0.00	32.30	7.57	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2011, 11:18	4.26	0.46	14800.00	1.00	

Analyst
Date Started Wednesday, November 23, 2011, 11:19:53
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2011, 11:19	-0.01	5.62	-43.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
TX92 AtSPK LEM	23-Nov-2011, 11:21	1.05	0.87	3640.00	1.00	
TX26 MB TWM	23-Nov-2011, 11:23	-0.01	25.20	-18.50	1.00	
TX26 MBSPK TWM	23-Nov-2011, 11:24	2.15	0.70	7470.00	1.00	
TX26 A TWM	23-Nov-2011, 11:26	-0.00	264.00	-1.39	1.00	
TX26 ADUP TWM	23-Nov-2011, 11:27	0.00	17.10	13.10	1.00	
TX26 ASPK TWM	23-Nov-2011, 11:29	1.05	0.44	3670.00	1.00	
TX26 B TWM	23-Nov-2011, 11:31	-0.00	21.30	-7.61	1.00	
TX26 C TWM	23-Nov-2011, 11:32	0.00	33.00	12.90	1.00	Prep 40X Dil
TX13 MB TWM	23-Nov-2011, 11:34	0.00	21.10	6.32	1.00	
TX13 MBSPK TWM	23-Nov-2011, 11:35	2.14	1.00	7450.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2011, 11:37	4.19	0.59	14600.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2011, 11:39	-0.01	2.17	-39.50	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
TX13 A TWM	23-Nov-2011, 11:40	0.00	14.90	12.90	1.00	
TX13 ADUP TWM	23-Nov-2011, 11:42	0.00	3.25	16.90	1.00	
TX13 ASPK TWM	23-Nov-2011, 11:44	1.05	0.33	3650.00	1.00	
TX13 B TWM	23-Nov-2011, 11:45	-0.00	42.20	-6.03	1.00	Prep 40X Dil
TX58 MB TWM	23-Nov-2011, 11:47	-0.00	40.70	-2.08	1.00	
TX58 MBSPK TWM	23-Nov-2011, 11:49	2.08	1.46	7250.00	1.00	
TX58 A TWM	23-Nov-2011, 11:50	0.01	7.42	30.10	1.00	
TX58 ADUP TWM	23-Nov-2011, 11:52	0.02	4.53	61.50	1 00	
TX58 ASPK TWM	23-Nov-2011, 11:53	1.06	1.20	3690.00	1.00	
TX58 B TWM	23-Nov-2011, 11:55	-0.00	412.00	-1.17	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2011, 11:57	4.16	1.57	14500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2011, 11:58	-0.01	6.64	-43.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
TX58 C TWM	23-Nov-2011, 12:00	0.00	24.00	7.91	1.00	
TX58 D TWM	23-Nov-2011, 12:02	0.00	7.21	16.60	1.00	
TX58 E TWM	23-Nov-2011, 12:03	0.00	9.77	14.20	1.00	
TX58 F TWM	23-Nov-2011, 12:05	0.01	19.80	18.80	1.00	
TX90 MB1 TWM	23-Nov-2011, 12:07	0.00	19.40	8.20	1.00	
TX90 MB1SPK TWM	23-Nov-2011, 12:08	2.07	0.76	7190.00	1.00	
TX90 A TWM	23-Nov-2011, 12:10	-0.01	10.30	-22.40	1.00	
TX90 ADUP TWM	23-Nov-2011, 12:11	0.00	18.90	12.70	1.00	
TX90 ASPK TWM	23-Nov-2011, 12:13	1.03	1.10	3600.00	1.00	
TX90 B TWM	23-Nov-2011, 12:15	0.01	6.03	28.60	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2011, 12:16	4.21	0.57	14700.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2011, 12:18	-0.01	3.02	-38.90	1.00	

Analyst
Date Started Wednesday, November 23, 2011, 12:20:15
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
TX57 MB2 TWM	23-Nov-2011, 12:20	-0.00	38.80	-5.51	1.00	
TX57 MB2SPK TWM	23-Nov-2011, 12:21	2.05	1.33	7120.00	1.00	
TX57 P TWM	23-Nov-2011, 12:23	-0.01	6.62	-39.50	1.00	
TX57 PDUP TWM	23-Nov-2011, 12:25	-0.00	15.80	-3.39	1.00	
TX57 PSPK TWM	23-Nov-2011, 12:26	1.02	0.79	3550.00	1.00	
TX57 Q TWM	23-Nov-2011, 12:28	-0.00	4.96	-13.40	1.00	
TX83 MB TWM	23-Nov-2011, 12:29	0.00	77.70	1.64	1.00	
TX83 MBSPK TWM	23-Nov-2011, 12:31	2.08	0.76	7220.00	1.00	
TX83 A TWM	23-Nov-2011, 12:33	-0.01	4.92	-19.60	1.00	
TX83 ADUP TWM	23-Nov-2011, 12:34	0.00	34.20	7.66	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2011, 12:36	4.20	0.61	14600.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2011, 12:37	-0.01	3.06	-46.50	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
TX83 ASPK TWM	23-Nov-2011, 12:39	1.04	0.64	3630.00	1.00	
TY56 MB2 TWM	23-Nov-2011, 12:41	-0.01	3.22	-18.00	1.00	
TY56 MB2SPK TWM	23-Nov-2011, 12:42	2.07	0.80	7210.00	1.00	
TY56 B TWM	23-Nov-2011, 12:44	-0.00	14.50	-9.01	1.00	
TY56 BDUP TWM	23-Nov-2011, 12:46	0.00	15.70	11.60	1.00	
TY56 BSPK TWM	23-Nov-2011, 12:47	1.08	0.65	3740.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2011, 12:49	4.18	0.45	14500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2011, 12:50	-0.01	1.05	-47.10	1.00	

END CLP

11.23.11

Mercury Standard Prep Log

Prep Code: TNM Digested 20 mL Instrument: CETAC

Analyst: DM Date: 11-21-11

Bath Temp: 95°C Start Time: 1035 End Time: 1235

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	-	0.00	100.0	0.0	1
STD1	2894-14	0.01		0.1	1
STD2		0.05		0.5	1
STD3		0.10		1.0	1
STD4		0.20		2.0	1
STD5		0.50		5.0	1
STD6		1.00		10.0	1
CRA		0.01		0.1	1
ICB/CCB	-	0.00		0.0	1
ICV/LCS	5320	0.16		8.0	1
CCV		0.08	100.0	4.0	1

Chemical/Reagent ID:

HNO_3: I7125 H_2SO_4: I7184 HCl: -

5% $K_2S_2O_8$: MP2205 5% $KMnO_4$: MP2206

Prep Code: _____ Instrument: _____

Analyst: _____ Date: _____

Bath Temp: _____ Start Time: _____ End Time: _____

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0		0.00			
STD1					
STD2		0.05			
STD3		0.10			
STD4		0.20			
STD5		0.50			
STD6		1.00			
CRA					
ICB/CCB		0.00			
ICV/LCS					
CCV					

Chemical/Reagent ID:

HNO_3: _____ H_2SO_4: _____ HCl: _____

5% $K_2S_2O_8$: _____ 5% $KMnO_4$: _____

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TwM Matrix: water
Analyst: MJ Date: 11.23.11
Bath Temp: 95°C Start Time: 0855 End Time: 1055

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
TX57P	2	✓	20.0	20.0	11.27 1	Y	
" PDUP	2	✓			1		
" PSPK	2	✓			1		
" Q	2	✓			1		
" MB2	—	✓			1		
" MB2SPK	—	✓			1	Y	
TX83A	7	✓			11.29 1	N	
" ADUP	7	✓			1		
" ASPK	7	✓			1		
" MB	—	✓			1		
" MBSPK	—	✓			1		
TY56B	1	✓			11.27 1		
" BDUP	1	✓			1		
" BSPK	1	✓			1		
" MB2	—	✓			1		
" MB2SPK	—	✓	20.0	20.0	1	N	

11.23.11 KC

Chemical/Reagent ID:

HNO_3: I7125 H_2SO_4: I7184 HCl: —

5% $K_2S_2O_8$: MP2205 5% $KMnO_4$: MP2206 Digest Tube Lot: 110718I

TX57 DIGEST

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-29-11

Page: 1 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	SMM	1X		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			8.45	Begin CLP %R=106 ✓
ICB			-0.04	✓
CCV1			4.19	%R=105 ✓
CCB1			-0.02	✓
CRA			0.11	✓
TZ04 MB1			-0.00	✓
" MB1SPK			2.17	%R=109 ✓
" G			0.50	
" GDUP			0.27	Diff>0.1 X
" GSPK			1.33	%R=83 ✓
" H				
" I				
TY67 MB1			0.01	✓
" MB1SPK			2.16	%R=108 ✓
CCV2			4.17	%R=104 ✓
CCB2			-0.02	✓
TY67 A			0.06	
" ADUP			0.13	✓
" ASPK			1.20	%R=120 ✓
TX70 MB1			-0.01	✓
" MB1SPK			2.15	%R=108 ✓
" A			0.88	
" ADUP	↓	↓	0.90	RPD=2.24 ✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2216

14% NH_2OH/NaCl: MP2211

Standard ID:

Standard: 25950

ICV/CCV: 53-20

TX57:01556

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-29-11

Page: 2 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
TX70 AFSPK	5mm	1X	2.00	%R=112 ✓
" B				
" C				
CCV3			4.21	%R=105 ✓
CCB3			-0.02	✓
TX70 D				
" E				
" F				
TX57 MB1			-0.01	✓
" MB1SPK			1.98	%R=99 ✓
" A				
" B				
" C				
" D			1.12	
" DDUP			1.18	RPD=5.21 ✓
CCV4			4.12	%R=103 ✓
CCB4			-0.02	✓
TX57 DSPK			2.18	%R=106 ✓
" E				
" F				
" G				
" H				
" I				
" J				
" K				
" L				
" M				
CCV5			4.23	%R=106 ✓
CCB5			-0.01	✓
TX57 N	↓	↓		

Chemical/Reagent ID:

10% $SnCl_2$: MP2216

14% NH_2OH/NaCl: MP2211

Standard ID:

Standard: 2895-9

ICV/CCV: 5820

TXST 01557

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-29-11

Page: 3 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments	
TX57 O	5mm	1X			
CCVC			4.11	%R=103	✓
CCB6			-0.02		✓
CCV7			4.09	%R=102	✓
CCB7			-0.01		✓
TZ04 G			0.50		
" GDUP			0.27	Diff > 0.1	x
" GSPK			1.82	%R=82	✓
CCV8			4.25	%R=106	✓
CCB8			-0.02	END CLP	✓
TX02 MB			-0.00		✓
" MBSPK			2.14	%R=107	✓
" A			0.35		
" ADUP			0.52	Diff > 0.1	x
" ASPK			1.43	%R=108	✓
" B					
" C					
" D					
" E					
" F					
CCV			4.16	%R=104	✓
CCB			-0.01		✓
TX02 G					
" H					
" I					
" J					
" K					
TW89 MB			-0.01		✓
" MBSPK			2.17	%R=109	✓
" A			0.46		

Chemical/Reagent ID:

10% $SnCl_2$: MP221C

14% NH_2OH/NaCl: MP2211

Standard ID:

Standard: 2805-9

ICV/CCV: 55-20

TX57 01556

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 11-29-11

	Analyst 11-29 DM	Peer BLO 11.29	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	✓	✓	
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	—	—	
Carry-over	—	—	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	SEE RUN LOG
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	✓	✓	SEE CAFS

TXST : 01553

CETAC Hg Analysis Report - 11112900.DB - Tuesday, November 29, 2011, 12:48:30 PM

Analyst
Date Started Tuesday, November 29, 2011, 08:20 32
Worksheet ARI 10ppb CALIB
Comment

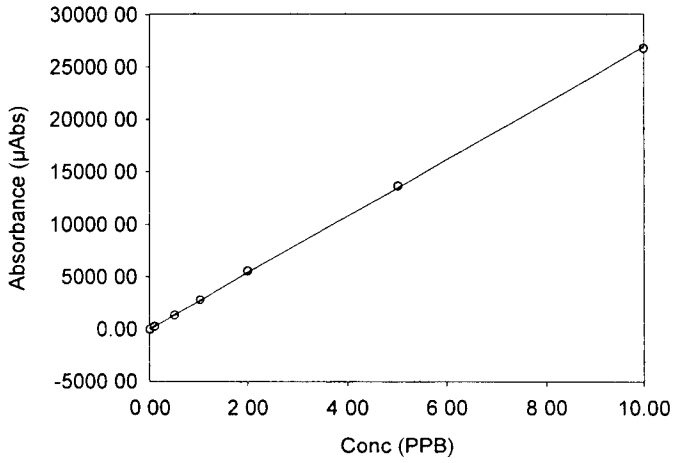
JBW 11,29

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	29-Nov-2011, 08 20	10.00	0.80	26600 00	1 00	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	29-Nov-2011, 08 23	0 00	16.70	-21 00	1.00	
Standard #1	29-Nov-2011, 08:24	0 10	1.35	290 00	1.00	
Standard #2	29-Nov-2011, 08.26	0.50	1.47	1360 00	1.00	
Standard #3	29-Nov-2011, 08.28	1 00	0.98	2790 00	1 00	
Standard #4	29-Nov-2011, 08:29	2 00	0 26	5550 00	1 00	
Standard #5	29-Nov-2011, 08.31	5.00	0.91	13700 00	1 00	
Standard #6	29-Nov-2011, 08:33	10 00	0.28	26800.00	1 00	

Calibration Data



Int	0 000
Slope	2691.820
Correlation	0 99991

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	29-Nov-2011, 08:37	8.45	1.02	22800 00	1 00	
ICB	29-Nov-2011, 08:38	-0.04	2 56	-108 00	1.00	

BEGIN CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	29-Nov-2011, 08:40	4 19	1 17	11300.00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	29-Nov-2011, 08:42	-0.02	5 67	-56.30	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	29-Nov-2011, 08:43	0.11	0.87	283.00	1 00	
TZ04 MB1 SMM	29-Nov-2011, 08:45	-0.00	19.10	-13.30	1 00	
TZ04 MB1SPK SMM	29-Nov-2011, 08:47	2 17	1.01	5830.00	1.00	
TZ04 G SMM	29-Nov-2011, 08:48	0.50	0.73	1340.00	1 00	
TZ04 GDUP SMM	29-Nov-2011, 08:50	0.27	1.64	730 00	1 00	D:A70.1
TZ04 GSPK SMM	29-Nov-2011, 08 51	1 33	0.51	3580 00	1 00	
TZ04 H SMM	29-Nov-2011, 08:53	0 06	1.66	170 00	1.00	
TZ04 I SMM	29-Nov-2011, 08:55	0.21	1.47	568.00	1.00	
TY67 MB1 SMM	29-Nov-2011, 08 56	0.01	11 00	19 90	1.00	
TY67 MB1SPK SMM	29-Nov-2011, 08.58	2.16	0.70	5830 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	29-Nov-2011, 08.59	4.17	1 04	11200 00	1 00	

Analyst
Date Started Tuesday, November 29, 2011, 09:01.39
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	29-Nov-2011, 09:01	-0.02	5.03	-60.20	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
TY67 A SMM	29-Nov-2011, 09 03	0.06	1 33	161 00	1 00	
TY67 ADUP SMM	29-Nov-2011, 09.04	0.13	1 19	353 00	1.00	
TY67 ASPK SMM	29-Nov-2011, 09 06	1 20	1 20	3230.00	1.00	
TX70 MB1 SMM	29-Nov-2011, 09:08	-0.01	18 50	-18.80	1 00	
TX70 MB1SPK SMM	29-Nov-2011, 09:09	2.15	0.30	5780.00	1.00	
TX70 A SMM	29-Nov-2011, 09:11	0 88	1.17	2360.00	1 00	
TX70 ADUP SMM	29-Nov-2011, 09.12	0 90	0 61	2420 00	1 00	
TX70 ASPK SMM	29-Nov-2011, 09:14	2 00	0.46	5370.00	1 00	
TX70 B SMM	29-Nov-2011, 09 16	1.47	1 41	3950.00	1.00	
TX70 C SMM	29-Nov-2011, 09:17	2 25	0.66	6060 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	29-Nov-2011, 09:19	4.21	0 54	11300 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	29-Nov-2011, 09 21	-0.02	0.68	-61.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
TX70 D SMM	29-Nov-2011, 09:22	2 60	1 10	6990 00	1 00	
TX70 E SMM	29-Nov-2011, 09:24	1 42	0.82	3820 00	1 00	
TX70 F SMM	29-Nov-2011, 09:25	5 64	0.47	15200 00	1.00	
TX57 MB1 SMM	29-Nov-2011, 09:27	-0.01	6 49	-29.50	1.00	
TX57 MB1SPK SMM	29-Nov-2011, 09.29	1.98	0.97	5340 00	1 00	
TX57 A SMM	29-Nov-2011, 09:30	0 17	0.34	447.00	1 00	
TX57 B SMM	29-Nov-2011, 09 32	0.17	2 40	467.00	1 00	
TX57 C SMM	29-Nov-2011, 09 34	0 24	1 03	645.00	1.00	
TX57 D SMM	29-Nov-2011, 09:35	1.12	0 46	3020 00	1.00	
TX57 DDUP SMM	29-Nov-2011, 09:37	1 18	0 39	3180 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	29-Nov-2011, 09:38	4.12	1 15	11100 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	29-Nov-2011, 09.40	-0 02	6.62	-47.20	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
TX57 DSPK SMM	29-Nov-2011, 09 42	2 18	1 19	5870 00	1.00	
TX57 E SMM	29-Nov-2011, 09:43	0.21	0 46	563 00	1 00	
TX57 F SMM	29-Nov-2011, 09:45	0.12	1 73	321.00	1 00	
TX57 G SMM	29-Nov-2011, 09.47	0.10	0.98	264.00	1 00	
TX57 H SMM	29-Nov-2011, 09:48	0.87	0.65	2330 00	1.00	
TX57 I SMM	29-Nov-2011, 09.50	0.49	0.57	1310 00	1 00	
TX57 J SMM	29-Nov-2011, 09 51	0.31	1.51	841 00	1 00	
TX57 K SMM	29-Nov-2011, 09.53	0 28	1.41	745 00	1.00	
TX57 L SMM	29-Nov-2011, 09:55	0.19	0 81	519.00	1.00	
TX57 M SMM	29-Nov-2011, 09:56	0 45	0 60	1210 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	29-Nov-2011, 09:58	4.23	0.95	11400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	29-Nov-2011, 10.00	-0 01	6 46	-35.90	1 00	

CETAC Hg Analysis Report - 11112900.DB - Tuesday, November 29, 2011, 12:48:31 PM

Analyst
Date Started Tuesday, November 29, 2011, 10 01 48
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
TX57 N SMM	29-Nov-2011, 10 01	0 56	1 49	1510 00	1 00	
TX57 O SMM	29-Nov-2011, 10:03	1.55	0 43	4170 00	1 00	
Sample ID	**Analysis Time**	**Conc (PPB)**	**%RSD**	**Avg. µAbs**	**Dilution**	**Flags**
QC Standard	29-Nov-2011, 10:05	4 11	0.64	11100.00	1.00	
Sample ID	**Analysis Time**	**Conc (PPB)**	**%RSD**	**Avg. µAbs**	**Dilution**	**Flags**
QC Blank	29-Nov-2011, 10.06	-0 02	0 99	-55 20	1.00	
Sample ID	**Analysis Time**	**Conc (PPB)**	**%RSD**	**Avg. µAbs**	**Dilution**	**Flags**
QC Standard	29-Nov-2011, 10 18	4 09	1 25	11000 00	1 00	
Sample ID	**Analysis Time**	**Conc (PPB)**	**%RSD**	**Avg. µAbs**	**Dilution**	**Flags**
QC Blank	29-Nov-2011, 10:19	-0.01	16.60	-22.70	1.00	
Sample ID	**Analysis Time**	**Conc (PPB)**	**%RSD**	**Avg. µAbs**	**Dilution**	**Flags**
TZ04 G SMM	29-Nov-2011, 10:21	0 50	0 32	1360 00	1 00	
TZ04 GDUP SMM	29-Nov-2011, 10.22	0.27	1.47	714.00	1.00	- Diff > 0.1
TZ04 GSPK SMM	29-Nov-2011, 10.24	1.32	0.65	3570 00	1 00	
Sample ID	**Analysis Time**	**Conc (PPB)**	**%RSD**	**Avg. µAbs**	**Dilution**	**Flags**
QC Standard	29-Nov-2011, 10 26	4 25	0.59	11400 00	1 00	
Sample ID	**Analysis Time**	**Conc (PPB)**	**%RSD**	**Avg. µAbs**	**Dilution**	**Flags**
QC Blank	29-Nov-2011, 10:27	-0 02	4 38	-51.30	1.00	END CLP
Sample ID	**Analysis Time**	**Conc (PPB)**	**%RSD**	**Avg. µAbs**	**Dilution**	**Flags**
TX02 MB SMM	29-Nov-2011, 10:29	-0.00	36.20	-6.63	1.00	
TX02 MBSPK SMM	29-Nov-2011, 10:31	2 14	0.57	5750 00	1 00	
TX02 A SMM	29-Nov-2011, 10 33	0 35	0 11	938 00	1 00	
TX02 ADUP SMM	29-Nov-2011, 10.34	0 52	1 32	1410 00	1 00	- Diff > 0.1
TX02 ASPK SMM	29-Nov-2011, 10.36	1.43	1.45	3840 00	1.00	
TX02 B SMM	29-Nov-2011, 10:37	0 04	0.74	114.00	1.00	
TX02 C SMM	29-Nov-2011, 10:39	0 04	1.21	113 00	1 00	
TX02 D SMM	29-Nov-2011, 10:41	0 10	2.20	260 00	1.00	
TX02 E SMM	29-Nov-2011, 10 42	0.15	1.14	405.00	1.00	
TX02 F SMM	29-Nov-2011, 10:44	0 08	1.67	218.00	1 00	
Sample ID	**Analysis Time**	**Conc (PPB)**	**%RSD**	**Avg. µAbs**	**Dilution**	**Flags**
QC Standard	29-Nov-2011, 10 45	4.16	1.20	11200 00	1.00	
Sample ID	**Analysis Time**	**Conc (PPB)**	**%RSD**	**Avg. µAbs**	**Dilution**	**Flags**
QC Blank	29-Nov-2011, 10.47	-0 01	10.40	-35.70	1.00	
Sample ID	**Analysis Time**	**Conc (PPB)**	**%RSD**	**Avg. µAbs**	**Dilution**	**Flags**
TX02 G SMM	29-Nov-2011, 10:49	0.07	0 99	192 00	1 00	
TX02 H SMM	29-Nov-2011, 10.50	0.07	3.48	179.00	1 00	
TX02 I SMM	29-Nov-2011, 10 52	0 11	1.20	291 00	1.00	
TX02 J SMM	29-Nov-2011, 10:54	0 03	3 33	90 30	1.00	
TX02 K SMM	29-Nov-2011, 10 55	1.07	0 59	2880 00	1.00	
TW89 MB SMM	29-Nov-2011, 10.57	-0.01	30.00	-15 60	1.00	
TW89 MBSPK SMM	29-Nov-2011, 10.58	2 17	1.28	5850 00	1.00	
TW89 A SMM	29-Nov-2011, 11:00	0.66	0.83	1770.00	1.00	
TW89 ADUP SMM	29-Nov-2011, 11 02	0 62	1.45	1680 00	1 00	
TW89 ASPK SMM	29-Nov-2011, 11.03	1.47	0.79	3970.00	1 00	

11/29/11

Mercury Standard Prep Log

Prep Code: 5mm Instrument: CETAC

Analyst: DM Date: 11-26-11

Bath Temp: 95°C Start Time: 0720 End Time: 0750

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	–	0.00	50.0	0.0	3
STD1	2895-9	0.01	↓	0.1	2
STD2	↓	0.05	↓	0.5	2
STD3	↓	0.10	↓	1.0	2
STD4	↓	0.20	↓	2.0	2
STD5	↓	0.50	↓	5.0	2
STD6	↓	1.00	↓	10.0	2
CRA	↓	0.01	↓	0.1	1
ICB/CCB	–	0.00	↓	0.0	3
ICV/LCS	5320	0.08	↓	8.0	2
CCV	↓	0.04	50.0	4.0	3

Chemical/Reagent ID:

HNO_3: I7126 H_2SO_4: I7184 HCl: –

5% $K_2S_2O_8$: MP2205 5% $KMnO_4$: MP2226

Prep Code: _____ Instrument: _____

Analyst: _____ Date: _____

Bath Temp: _____ Start Time: _____ End Time: _____

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0		0.00			
STD1					
STD2		0.05			
STD3		0.10			
STD4		0.20			
STD5		0.50			
STD6		1.00			
CRA					
ICB/CCB		0.00			
ICV/LCS					
CCV					

Chemical/Reagent ID:

HNO_3: _____ H_2SO_4: _____ HCl: _____

5% $K_2S_2O_8$: _____ 5% $KMnO_4$: _____

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM
Analyst: KM
Bath Temp: 95°C
Start Time: 1400
Matrix: Soil
Date: 11/28/11
End Time: 1430

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
TX57 A	2	—	0.269	50.0	11/29 1	Y	
" B	2	—	0.271		1		
" C	2	—	0.260		1		
" D	2	—	0.238		1		
" DDUP	2	—	0.239		1		
" DSPK	2	—	0.234		1		
" E	2	—	0.221		1		
" F	2	—	0.238		1		
" G	2	—	0.258		1		
" H	2	—	0.276		1		
" I	2	—	0.232		1		
" J	2	—	0.241		1		
" K	2	—	0.229		1		
" L	2	—	0.215		1		
" M	2	—	0.234		1		
" N	2	—	0.273		1		
" O	2	—	0.264		1		
" MBI	—	—	—		1		
" MBISPK	—	—	—	50 0	1		
				KM	11/28/11		

Chemical/Reagent ID:

HNO_3: I7125
H_2SO_4: I7184
HCl: —
5% $K_2S_2O_8$: MP2205
5% $KMnO_4$: MP2206
Digest Tube Lot: 1107181

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: TX57

TOC, Aqueous Data Summary (Apollo 9000) DATE: 11/18/2011

EPA 9060 A, SM 5310 B-00 ANALYST: UW

Analysis Mode: **NPOC** *Instrument:* ***Apollo 9000***

Detection Limits (mgC/L)

MRL = 1.5 **upper blank =** 1.5 **lower blank =** -1.5

Calibration Data

Stock ID: ARI 00120-10 | factor (m): 1.516E+05 | r^2: 0.99996

Curve Date: 10/26/2011 | intercept (b_{cal}): 10070 | sys blk (b_{sys}) 21111

Curve ID: 102611X 0-50ppm

LCS, Verification Standard and Inorganic Sparge Check

	Organic Carbon			Inorganic carbon		
Source:	**ERA 0523-11-05**			**ARI # 0104-9**		
Conc:	5,000	*mg/L*		1,000	*mg/L*	
dilution:	1.00	*mL to*	mg C/ L	5.00	*mL to*	mg C/ L
Volume:	250	*mL =*	**20.0**	250	*mL =*	**20**

Sample Data

SAMPLE ID	Dilution Factor	Carbon (mg C/L) *enter Form as TC, TIC, NPOC*						Notes: *will flag if RSD >5%*
		Form	# reps	mean	stdev	Measured	Report as	
ICV	1	NPOC	3	19.8667	0.12	19.87	19.9	*99.50%*
ICB	1	NPOC	3	0.4978	0.07	0.50	<1.5	*OK !*
1.5 ppm	1	NPOC	3	1.6270	0.04	1.63	1.63	108.47%
IC Sparge Check	1	NPOC	3	21.3389	0.09	21.34	21.3	*106.50%*
TX57 P1	1	NPOC	3	0.5574	0.08	0.56	<1.5	
TX57 P1 dup	1	NPOC	3	0.3978	0.05	0.40	<1.5	
TX57 P1 ms	1	NPOC	3	19.9955	0.15	20.00	20	*99.98%*
Spike at	0.200	*mL of*	2,000	*ppm Std to*	20.00	*mL =*	20.0	*mg/L*
TX57 Q1	1	NPOC	3	0.5628	0.04	0.56	<1.5	
TX83 A4	1	NPOC	3	10.8679	0.04	10.87	10.9	
TX83 A4 dup	1	NPOC	3	11.5222	0.48	11.52	11.5	*RPD =5.4%*
TX83 A4 ms	1	NPOC	3	31.1861	0.54	31.19	31.2	*101.59%*
Spike at	0.200	*mL of*	2,000	*ppm Std to*	20.00	*mL =*	20.0	*mg/L*
CCV	1	NPOC	3	20.7811	0.16	20.78	20.8	*104.00%*
CCB	1	NPOC	3	0.6808	0.11	0.68	<1.5	*OK !*

Detailed Analysis Report Print Date/Time: 2011/11/18 14:50:45

Sample ID: ICV/CCV
Method: TOC 0 to 50 ppm
Cal. Curve: 102611X 0-50 ppm
Operator ID: UW
Mode: TOC
Filename: 11180941
Timestamp: 2011/11/18 10:06
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20.0076	10.0038	1526535	14.485	15.484	209
2	19.8049	9.9025	1511173	14.385	15.381	204
3	19.7876	9.8938	1509857	14.181	15.178	205

<<<Statistics>>> Mean: 19.8667 Std Dev: 0.1223 RSD: 0.62

Sample ID: ICB / CCB
Method: TOC 0 to 50 ppm
Cal. Curve: 102611X 0-50 ppm
Operator ID: UW
Mode: TOC
Filename: 11180941
Timestamp: 2011/11/18 10:28
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.5812	0.2906	54118	13.136	14.133	112
2	0.4590	0.2295	44859	12.985	13.250	120
3	0.4532	0.2266	44418	12.821	13.090	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 0.4978 Std Dev: 0.0723 RSD: 14.52

Sample ID: 1.5 ppm
Method: TOC 0 to 50 ppm
Cal. Curve: 102611X 0-50 ppm
Operator ID: UW
Mode: TOC
Filename: 11180941
Timestamp: 2011/11/18 10:51
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.6706	0.8353	136695	12.371	13.367	132
2	1.6010	0.8005	131414	12.343	13.341	130
3	1.6094	0.8047	132051	12.240	13.240	130

<<<Statistics>>> Mean: 1.6270 Std Dev: 0.0380 RSD: 2.34

Sample ID: CHECK
Method: TOC 0 to 50 ppm
Cal. Curve: 102611X 0-50 ppm
Operator ID: UW
Mode: TOC
Filename: 11180941
Timestamp: 2011/11/18 11:17
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21.2415	10.6208	1620058	11.857	12.855	204
2	21.3455	10.6728	1627944	11.898	12.897	200
3	21.4298	10.7149	1634331	11.771	12.770	203

<<<Statistics>>> Mean: 21.3389 Std Dev: 0.0943 RSD: 0.44

Sample ID: TX57 P1
Method: TOC 0 to 50 ppm
Cal. Curve: 102611X 0-50 ppm
Operator ID: UW
Mode: TOC
Filename: 11180941
Timestamp: 2011/11/18 11:38
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.5087	0.2544	38560	11.222	12.215	107
2	0.5120	0.2560	38807	11.158	11.408	120
3	0.6516	0.3258	49385	10.997	11.373	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 0.5574 Std Dev: 0.0816 RSD: 14.63

Sample ID: TX57 P1 DUP
Method: TOC 0 to 50 ppm
Cal. Curve: 102611X O-50 ppm
Operator ID: UW

Mode: TOC
Filename: 11180941
Timestamp: 2011/11/18 12:00
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.3427	0.1714	25978	10.801	10.845	120
2	0.4368	0.2184	33104	10.709	10.899	120
3	0.4140	0.2070	31380	10.660	10.850	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 0.3978 Std Dev: 0.0491 RSD: 12.34

Sample ID: TX57 P1 MS
Method: TOC 0 to 50 ppm
Cal. Curve: 102611X O-50 ppm
Operator ID: UW

Mode: TOC
Filename: 11180941
Timestamp: 2011/11/18 12:26
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20.1597	10.0798	1527992	10.542	11.538	201
2	19.8639	9.9319	1505571	10.670	11.669	197
3	19.9629	9.9814	1513074	10.596	11.596	197

<<<Statistics>>> Mean: 19.9955 Std Dev: 0.1506 RSD: 0.75

Sample ID: TX57 Q1
Method: TOC 0 to 50 ppm
Cal. Curve: 102611X O-50 ppm
Operator ID: UW

Mode: TOC
Filename: 11180941
Timestamp: 2011/11/18 12:48
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.5395	0.2697	40890	10.157	11.154	107
2	0.6131	0.3066	46473	10.215	10.513	120
3	0.5359	0.2680	40621	10.080	10.365	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 0.5628 Std Dev: 0.0436 RSD: 7.74

Sample ID: TX83 A4
Method: TOC 0 to 50 ppm
Cal. Curve: 102611X O-50 ppm
Operator ID: UW

Mode: TOC
Filename: 11180941
Timestamp: 2011/11/18 13:12
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.8870	5.4435	825178	9.997	10.995	166
2	10.8223	5.4112	820271	10.009	11.005	164
3	10.8943	5.4471	825726	9.973	10.973	165

<<<Statistics>>> Mean: 10.8679 Std Dev: 0.0396 RSD: 0.36

Sample ID: TX83 A4 DUP
Method: TOC 0 to 50 ppm
Cal. Curve: 102611X O-50 ppm
Operator ID: UW

Mode: TOC
Filename: 11180941
Timestamp: 2011/11/18 13:36
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11.2739	5.6369	854498	9.766	10.764	168
2	11.2156	5.6078	850078	9.791	10.789	167
3	12.0770	6.0385	915372	9.749	10.748	172

<<<Statistics>>> Mean: 11.5222 Std Dev: 0.4814 RSD: 4.18

TX57 - 01552

Sample ID: TX83 A4 MS
Method: TOC 0 to 50 ppm
Cal. Curve: 102611X 0-50 ppm
Operator ID: UW

Mode: TOC
Filename: 11180941
Timestamp: 2011/11/18 14:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29.8368	14.9184	2261461	9.759	10.757	201
2	29.9184	14.9592	2267652	9.912	10.908	198
3	30.8032	15.4016	2334713	9.797	10.796	198

<<<Statistics>>> Mean: 30.1861 Std Dev: 0.5360 RSD: 1.78

Sample ID: ICB / CCB CCV 11-18-11
Method: TOC 0 to 50 ppm
Cal. Curve: 102611X 0-50 ppm
Operator ID: UW

Mode: TOC
Filename: 11180941
Timestamp: 2011/11/18 14:28
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20.9605	10.4803	1598761	9.658	10.654	207
2	20.6662	10.3331	1576453	9.703	10.698	205
3	20.7166	10.3583	1580271	9.656	10.650	206

Last Message: Out of Calibration
<<<Statistics>>> Mean: 20.7811 Std Dev: 0.1574 RSD: 0.76

Sample ID: ICB / CCB
Method: TOC 0 to 50 ppm
Cal. Curve: 102611X 0-50 ppm
Operator ID: UW

Mode: TOC
Filename: 11180941
Timestamp: 2011/11/18 14:50
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.8055	0.4028	71126	9.388	10.386	117
2	0.6223	0.3112	57240	9.390	10.389	115
3	0.6146	0.3073	56656	9.396	10.393	115

<<<Statistics>>> Mean: 0.6808 Std Dev: 0.1081 RSD: 15.87

TXST:01555

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET DATE: 11/17/11 1630

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))* ANALYST: SM (B)

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace:

Batch drying time			*TS (%) calculated as:*	*TVS (mg/kg dry wt) calculated as:*
record times as mm/dd/yy hh:mm			*Final dry wt (g) = (Dry Wt - Tare Wt)*	*Final ash wt (g) = (min ash wt - tare wt)*
11/17/2011 17:43	date/time in oven	SM	*TS = (Final Dry Wt)/ (grams Sample-Tare)*	*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
11/18/2011 12:05	date/time out	SM		*if ash wt > dry wt, "Chk for Err"*
elapsed hrs =	18.4			*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	11/17/11 1658	11/17/11 1630	11/18/11 1329										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
	record weights to 4 places	*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			1.1045	1.1043			0.00							
TX57 A1		9.8650	1.1183	7.7186			6.60	75.5%						
TX57 B1		8.3959	1.1050	6.5404			5.44	74.6%						
TX57 C1		8.9310	1.0981	6.8016			5.70	72.8%						
TX57 D1		8.8853	1.0918	6.8633			5.77	74.1%						
TX57 D1 dup		8.1232	1.0936	6.6946			5.60	79.7%						
							RPD =	7.31%				RPD =	NA	
TX57 D1 trp		8.8241	1.0859	6.9228			5.84	75.4%						
							RSD =	3.84%				RSD =	NA	
TX57 E1		8.9302	1.1124	7.7309			6.62	84.7%						
TX57 F1		9.8160	1.0936	7.6039			6.51	74.6%						
TX57 G1		6.0917	1.0663	5.6385			4.57	91.0%						
TX57 H1		7.8738	1.0965	7.2920			6.20	91.4%						
TX57 I1		9.4743	1.0924	8.8565			7.76	92.6%						
TX57 J1		8.1655	1.0894	7.6000			6.51	92.0%						
TX57 K1		6.5380	1.0778	5.8675			4.79	87.7%						
TX57 L1		8.4542	1.0971	7.1269			6.03	82.0%						
TX57 M1		9.3010	1.0863	8.3267			7.24	88.1%						
TX57 N1		8.2936	1.0857	6.1121			5.03	69.7%						
TX57 O1		7.3709	1.0716	3.6464			2.57	40.9%						

[redacted] Resources, Incorporated
[redacted]ytical Chemists and Consultants

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

Analyst: [signature] Date: 11-17-11 1630 Oven ID: 012 Balance ID: 1123230597

Time in Oven: 1743 11-17-11 Time Out of Oven: 11-18-11 1205 Elapsed Time (> 12 Hrs): 18.4

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID		CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02		
Date & Time:		11-17-11 1638	11-17-11 1630	11-18-11 1324								
Cal Weight (10.0000):		10.0000	10.0000	10.0000								
Sample ID	~~Dish #~~ Sample	~~Sample~~ Dish#	Tare	Dry Weight 104°C			Dry Weight	Ash Weight 550°C				
				1	2	3	grams	1	2	3		
BLANK			1.1045	1.1043								
TX 57 A1	9.8650	1	1.1183	7.7186								
B1	8.3459	2	1.1050	6.5404								
C1	8.4310	3	1.0981	6.8016								
D1	8.8853	4	1.0918	6.8633								
D1dup	8.1232	5	1.0936	6.6946								
D1trip	8.8241	6	1.0859	6.9228								
E1	8.9302	7	1.1124	7.7309								
F1	9.8160	8	1.0936	7.6039								
G1	6.0917	9	1.0663	5.6385								
H1	7.8738	10	1.0965	7.2920								
I1	9.4743	11	1.0924	8.8565								
J1	8.1655	12	1.0894	7.6000								
K1	6.5380	13	1.0778	5.8675								
L1	8.4542	14	1.0971	7.1269								
M1	9.3010	15	1.0863	8.3267								
N1	8.2936	16	1.0857	6.1121								
O1	7.3709	17	1.0716	3.6464								

6053F

Revision 002
12/28/09

LW
11-28-11

TOC Solids Prep Log

DATE: 11/17/2011
ANALYST: SM / KE 15:45

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			13.2023		13.2022	-0.1 mg	
TX54 A2		-	13.1451	17.2141	15.5922	60.14%	
TX54 B2		-	13.2553	18.7677	16.5310	59.42%	
TX54 C2		-	13.1502	19.4077	17.3568	67.22%	
TX54 D2		-	13.1792	17.6917	16.4352	72.16%	
TX54 D2 dup		-	13.2882	19.4281	17.5976	70.19%	RPD = 2.77%
TX54 D2 trip		-	13.2392	17.6678	16.3731	70.77%	RSD = 1.42%
TX54 E2		-	13.1458	17.0283	15.1001	50.34%	
TX54 F2		-	13.1196	18.3488	15.9443	54.02%	
TX74 A1		+-	13.2133	17.9985	15.6065	50.01%	
TX74 A1 dup		+-	13.1374	17.0008	15.0598	49.76%	RPD = 0.51%
TX74 A1 trip		+-	13.2345	17.1058	15.0233	46.21%	RSD = 4.37%
TX57 A1		+-	13.1754	19.0733	17.9711	81.31%	
TX57 B1		+-	13.1227	18.8908	18.0302	85.08%	
TX57 C1		-	13.2942	17.5906	16.4874	74.32%	
TX57 D1		++++-	13.2250	19.1197	18.3024	86.14%	
TX57 D1 dup		++++-	13.0927	18.5191	17.6881	84.69%	RPD = 1 70%
TX57 D1 trip		++++-	13.1556	20.6712	19.7238	87.39%	RSD = 1.57%
TX57 E1		+-	13.2140	19.0995	18.7638	94.30%	
TX57 F1		-	13.2957	18.9975	17.7061	77.35%	
TX57 G1		-	13.1384	18.1487	17.7886	92.81%	
TX57 H1		+++-	13.1588	22.1508	21.5011	92.77%	
TX57 I 1		+++-	13.3092	19.8315	18.5809	80.83%	
TX57 J 1		+-	13.2876	20.5530	20.1079	93.87%	
TX57 K1		+-	13.1530	20.8103	20.8001	99.87%	
TX57 L1		+++-	13.2068	20.3627	19.6620	90.21%	
TX57 M1		+-	13.2661	19.1587	18.6353	91.12%	
Blank			13.3121		13.3119	-0.2 mg	
TX57 N1		++-	13.1480	18.9670	17.0881	67.71%	
TX57 O1		-	13.1151	16.1051	14.4596	44.97%	

① SM 11-17-11

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 SM/(4) Date 11-17-11 1515

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank 1			13.2023	~~17.2147~~ ①	13.2022		
TX54 A2		–	13.1451	~~18.7677~~ ①	17.2141	15.5922	smooth, wet, mucky
B2		–	13.2553	~~19.4077~~ ①	18.7677	16.5310	↓
C2		–	13.1502	19.4077	17.3568		↓
D2		–	13.1792	17.6917	16.4352		wet, sandy
D2dup		–	13.2882	19.4281	17.5976		↓
D2trip		–	13.2392	17.6678	16.3731		↓
E2		–	13.1458	17.0283	15.1001		wet, silt
F2		–	13.1196	18.3488	15.9443		↓
TX74 A1		+–	13.2133	17.9985	15.6065		wet, black, watery pine needles?
A1dup		+–	13 13.74	17.0008	15.0598		↓
A1trip		+–	13.2345	17.1058	15.0233		↓
TX57 A1		+–	13.1754	19.0736	17.9711		reddish water on top of sand large rock
B1		+–	13.1227	18.8908	18.0302		wet, sandy
C1		--	13.2942	17.5906	16.4874		wet silt
D1		+++–	13.2250	19.1197	18.3024		black, gassy odor, mucky
D1dup		+++–	13.0927	18.5791	17.6881		↓
D1trip		+++–	13.1556	20.6712	19.7238		↓
E1		+–	13.2140	19.0995	~~15.1004~~ ①	18.7638	rocks + silt,
F1		–	13.2957	18.9975	17.7061		silty sand
G1		–	13.1384	18.1487	17.1782		moist sand
H1		+++–	13.1588	22.1508	21.5011		black, rocks + silt
I1		++–	13.3092	19.8315	18.5809		moist rocks + silt
J1		+–	13.2876	20.5530	20.1079		moist sand/silt
K1		++	13.1530	20.8103	~~20.8001~~ ①	20.8001	↓
L1		+++–	13.2068	20.3627	19.6620		↓
M1		+–	13.2661	19.1587	18.6353		↓
Blank 2		–	13.3121	~~18.9670~~ ①	13.3119		~~wet gravel/sand, black~~ ①
TX57 N1		++–	13.1480	18.9670	17.0881		wet gravel/sand, black
O1		–	13.1151	16.1057	14.4596		black, wet silt

TX57 .01577

TOC, Solids Data Analysis

DATE: 12/2/2011

ANALYST: KE 11:04

Instrument: Apollo 2

Mode: NPOC *Inlet:* Boat

Spike Std = 2,500 *ppm C*

Calibration Data

Cal Curve ID: 11/8/2011 *Conc:* 5,000 *ppm*

Calibration Curve Standard: 00119 - 5 *Curve Date:* 11/08/11

CalFact: 2.339E+05 *intercept:* 153817 *r2 :* 0.99957

Curve Range (ppm) 200 *to* 2,500

Curve Range (µgC): 8 *to* 100 *40 µL injections of designated standard*

Verification Standard

Source: *ERA# 0513 - 10 - 06* *Conc:* 5,000 *ppm*

dilution : 10 *mL to* 50 1,000 *ppm*

Standard Reference Material

Source: *NIST 8704* *Conc:* 33,510 *ppm*

Source: *NIST 1941B* *Conc:* 29,900 *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition
37.9	29.7	23.2				30.3	24.3%	*OK*

Sample Data

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

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	*comments*
ICV				1.00		40.0	1021	1,021	*102.10%*
Blank				1.00		40.0	-3.16	-3	*Blank OK*
NIST 1941B				1.00		1.8	30868	30,868	*103.24%*
SIlica Blanks 1				1.00		42.9	37.89	38	*Low Scale*
SIlica Blanks 2				1.00		42.7	29.74	30	*Low Scale*
SIlica Blanks 3				1.00		43.3	23.22	23	*Low Scale*
TV72 A1	10.7	106.2	89.92%	9.93		1.9	21410	212,229	*Range OK!*
TV72 A1 dup	10.8	106.3	89.84%	9.84		1.8	22900	225,128	*RPD=5.9%*
TV72 B1	10.2	101.9	89.99%	9.99		1.5	17081	170,370	*Range OK!*
TV72 B1 dup	10.2	101.6	89.96%	9.96		1.7	18626	185,258	*RPD=8.4%*
TX57 A1				1.00		1.7	16126	16,126	*Range OK!*
TX57 B1				1.00		1.5	12556	12,556	*Range OK!*
CCV				1.00		40.0	993	993	*99.30%*
Blank				1.00		40.0	-14.45	-14	*Blank OK*
~~TX57 D1~~			-	~~1.00~~		~~1.1~~	~~23548~~	~~23,548~~	~~*Range OK!*~~

TXST 0157

Sample Data

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

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
TX57 D1				1.00		1.0	18083	18,083	*Range OK!*
TX57 D1 dup				1.00		1.0	16889	16,889	*RPD=6.8%*
TX57 D1 trp				1.00		1.0	17947	17,947	*RSD=3.7%*
TX57 D1 ms				1.00	10	0.8	59048	59,048	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.8*	*mg samp=*	*31,250*	*ppm*		*131%*	
~~TX57 D1 ms~~			-	~~1.00~~	~~10~~	~~0.8~~	~~60587~~	~~60,587~~	~~*Range OK!*~~
~~*Spike =*~~	~~*0.025*~~	~~*mg C to*~~	~~*0.8*~~	~~*mg samp=*~~	~~*31,250*~~	~~*ppm*~~		~~*136%*~~	
TX57 C1				1.00		1.3	9330	9,330	*Range OK!*
TX57 E1				1.00		1.4	23623	23,623	*Range OK!*
TX57 F1				1.00		1.4	15128	15,128	*Range OK!*
TX57 G1				1.00		3.0	3580	3,580	*Range OK!*
~~CCV~~			-	~~1.00~~		~~40.0~~	~~1266~~	~~1,266~~	~~*126.60%*~~
~~CCV~~			-	~~1.00~~		~~40.0~~	~~1112~~	~~1,112~~	~~*111.20%*~~
CCV				1.00		40.0	1051	1,051	*105.10%*
Blank				1.00		40.0	-5.73	-6	*Blank OK*
TX57 H1				1.00		0.8	25790	25,790	*Range OK!*
TX57 I 1				1.00		1.0	38892	38,892	*Range OK!*
TX57 J 1				1.00		0.9	31856	31,856	*Range OK!*
TX57 K1				1.00		0.9	11555	11,555	*Range OK!*
TX57 L1				1.00		1.5	10703	10,703	*Range OK!*
TX57 M1				1.00		1.1	8013	8,013	*Range OK!*
TX57 N1				1.00		1.3	17567	17,567	*Range OK!*
TX57 O1				1.00		1.1	44174	44,174	*Range OK!*
NIST 1941B				1.00		2.0	34132	34,132	*114.15%*
CCV				1.00		40.0	1068	1,068	*106.80%*
Blank				1.00		40.0	-14.21	-14	*Blank OK*

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(i) 12-2-11 (w)

TOC Solids Sample Run Log
Apollo 9000

Page 1 of 2

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler
Standards:	Source	Conc (ppm)	
Calibration:	ARI – 00119-5	5000	
Verification:	ERA – 1513-10-06	5000 to 1000 for CVS	11:04
SRM:	NBS – 1941b or 8704	29900	

Sample Sequence:

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
ICV			40			
ICB			40			
NBS 1941 B			1.8			
SB 1			42.9			
2			42.7			
3			43.3			
TU72 A'	10.7	106.2	1.9			
DP A'	10.8	106.3	1.8			
B'	10.2	101.9	1.5			
DP B'	10.2	101.6	1.7			
TX57 A'			1.7			
B'			1.5			
CCV			40			
CCB			40			
TX57 D'			1.1			Rerun wg # make-up
D'			1.0			
DP D'			1.0			
DP D'			1.0			
MS D'			0.8	2500	10	
MS D'			0.8	2500	10	
C'			1.3			
E'			0 1.4			
F'			0 1.4			
G'			30			
CCV			40/40/40			← Need to bag Boat Blank refresh ICV
CCB			40			
TX57 H'			0.8			
I'			1.0			
J'			0.9			
K'			0.9			
L'			1.5			
M'			1.1			

TX57 : 01576

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(I) 12-2-11 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler
Standards:	Source	Conc (ppm)	
Calibration:	ARI – 00119-5	5000	
Verification:	ERA – 1513-10-06	5000 to 1000 for CVS	11.04
SRM:	NBS – 1941b or 8704	29700	

Sample Sequence:

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
TXS7 01			1.3			
↓ 01			1.1			
NBS 1941 B			2.0			
CCV			40			
CCB			40			

2-2-11 (A)

TXS7 - 01577

12-2-11 (4)

Detailed Analysis Report Print Date/Time: 2011/12/02 17:43:32

Sample ID: CVS BOAT 1000 | Mode: TOC
Method: Boat Sampler | Filename: 12021006
Cal. Curve: BOAT CAL 11811 | Timestamp: 2011/12/02 10:10
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1021.2382	40.8495	9709061	42.875	43.872	178

Sample ID: ICB BOAT | Mode: TOC
Method: Boat Sampler | Filename: 12021014
Cal. Curve: BOAT CAL 11811 | Timestamp: 2011/12/02 10:16
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-3.1623	-0.1265	124229	43.221	44.219	50

Sample ID: NBS 1941B | Mode: TOC
Method: Boat Sampler | Filename: 12021023
Cal. Curve: BOAT CAL 11811 | Timestamp: 2011/12/02 10:28
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30867.5801	55.5616	13150419	42.912	43.904	221

Sample ID: Silica Blank 1 | Mode: TOC
Method: Boat Sampler | Filename: 12021046
Cal. Curve: BOAT CAL 11811 | Timestamp: 2011/12/02 10:48
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	37.8931	1.6256	380252	43.014	44.009	67

Sample ID: Silica Blank 2 | Mode: TOC
Method: Boat Sampler | Filename: 12021059
Cal. Curve: BOAT CAL 11811 | Timestamp: 2011/12/02 11:03
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29.7355	1.2697	297001	43.423	44.417	62

Sample ID: Silica Blank 3 | Mode: TOC
Method: Boat Sampler | Filename: 12021118
Cal. Curve: BOAT CAL 11811 | Timestamp: 2011/12/02 11:20
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	23.2233	1.0056	235216	44.024	45.017	59

Sample ID: SV72 A1 | Mode: TOC
Method: Boat Sampler | Filename: 12021127
Cal. Curve: BOAT CAL 11811 | Timestamp: 2011/12/02 11:31
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21410.0059	40.6790	9515358	43.852	44.852	173

Sample ID: SV72 A1 DP
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021140
Timestamp: 2011/12/02 11:44
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	22899.9453	41.2199	9641879	43.690	44.689	171

Sample ID: SV72 B1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021147
Timestamp: 2011/12/02 11:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17080.7480	25.6211	5993118	43.258	44.255	149

Sample ID: SV72 B1 DP
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021154
Timestamp: 2011/12/02 11:57
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18626.4473	31.6650	7406853	42.924	43.921	157

Sample ID: SX57 A1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021208
Timestamp: 2011/12/02 12:15
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16126.4590	27.4150	6412726	42.146	43.139	214

Sample ID: SX57 ~~A1~~ B1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021220
Timestamp: 2011/12/02 12:23
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12555.5898	18.8334	4405377	42.022	43.017	134

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021227
Timestamp: 2011/12/02 12:33
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	993.2259	39.7290	9446963	41.708	42.707	160

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021239
Timestamp: 2011/12/02 12:42
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-14.4484	-0.5779	18631	40.976	41.079	120

Last Message: Low Sample Detected

Sample ID: TX57 D1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021309
Timestamp: 2011/12/02 13:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	23547.7715	25.9025	6058948	40.634	41.632	191

Sample ID: TX57 D1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021326
Timestamp: 2011/12/02 13:30
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18082.9102	18.0829	4229832	40.669	41.662	179

Sample ID: TX57 D1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021333
Timestamp: 2011/12/02 13:39
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16888.5645	16.8886	3950458	40.809	41.808	172

Sample ID: TX57 D1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021344
Timestamp: 2011/12/02 13:48
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17947.4180	17.9474	4198138	40.811	41.809	167

Sample ID: TX57 D1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021351
Timestamp: 2011/12/02 13:56
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	59048.3633	47.2387	11049754	41.008	42.007	174

Sample ID: TX57 D1 MS
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021443
Timestamp: 2011/12/02 14:47
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	60586.8008	48.4694	11337642	40.373	41.370	184

Sample ID: TX57 C1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021455
Timestamp: 2011/12/02 14:58
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9330.2197	12.1293	2837200	40.129	41.123	123

Sample ID: TX57 E1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021505
Timestamp: 2011/12/02 15:09
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	23622.9570	33.0721	7736010	40.400	41.399	162

F1

Sample ID: TX57 ~~E1~~
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021512
Timestamp: 2011/12/02 15:16
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15127.8506	21.1790	4954045	40.090	41.090	153

Sample ID: TX57 G1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021517
Timestamp: 2011/12/02 15:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3580.1191	10.7404	2512311	40.236	41.232	155

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021523
Timestamp: 2011/12/02 15:27
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1265.5724	50.6229	11995181	40.190	41.189	209

Last Message: Out of Calibration

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021530
Timestamp: 2011/12/02 15:33
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1111.7574	44.4703	10556007	40.211	41.205	150

Last Message: Out of Calibration

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021537
Timestamp: 2011/12/02 15:40
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1050.5612	42.0224	9983423	40.172	41.171	135

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA

Mode: TOC
Filename: 12021543
Timestamp: 2011/12/02 15:45
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning	Ending	Integration

				Baseline	Baseline	Time
1	-5.7277	-0.2291	100226	39.951	40.945	58

Sample ID: TX57 H1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA
Mode: TOC
Filename: 12021548
Timestamp: 2011/12/02 15:52
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	25790.2891	20.6322	4826151	39.917	40.913	195

Sample ID: TX57 I 1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA
Mode: TOC
Filename: 12021556
Timestamp: 2011/12/02 16:00
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	38892.1992	38.8922	9097399	39.956	40.953	226

Sample ID: TX57 J1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA
Mode: TOC
Filename: 12021615
Timestamp: 2011/12/02 16:20
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31856.2129	28.6706	6706430	40.862	41.861	196

Sample ID: TX57 K1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA
Mode: TOC
Filename: 12021623
Timestamp: 2011/12/02 16:27
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11555.4658	10.3999	2432678	41.807	42.806	175

Sample ID: TX57 L1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA
Mode: TOC
Filename: 12021629
Timestamp: 2011/12/02 16:35
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10703.2822	16.0549	3755459	42.269	43.267	187

Sample ID: TX57 M1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA
Mode: TOC
Filename: 12021649
Timestamp: 2011/12/02 16:55
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8013.2749	8.8146	2061852	44.624	45.624	154

Sample ID: TX57 N1
Method: Boat Sampler
Cal. Curve: BOAT CAL 11811
Operator ID: TRINA
Mode: TOC
Filename: 12021658
Timestamp: 2011/12/02 17:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

1	17567.2402	22.8374	5341972	45.182	46.180	182

Sample ID: TX57 01 Mode: TOC
Method: Boat Sampler Filename: 12021705
Cal. Curve: BOAT CAL 11811 Timestamp: 2011/12/02 17:09
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	44173.6133	48.5910	11366071	45.195	46.190	183

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 12021712
Cal. Curve: BOAT CAL 11811 Timestamp: 2011/12/02 17:19
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	34131.9375	68.2639	16121639	44.998	45.990	207

Sample ID: CVS BOAT 1000 Mode: TOC
Method: Boat Sampler Filename: 12021726
Cal. Curve: BOAT CAL 11811 Timestamp: 2011/12/02 17:34
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1067.7931	42.7117	10144654	43.724	44.719	161

Sample ID: ICB BOAT Mode: TOC
Method: Boat Sampler Filename: 12021738
Cal. Curve: BOAT CAL 11811 Timestamp: 2011/12/02 17:41
Operator ID: TRINA Sample Type: Cal. Verification

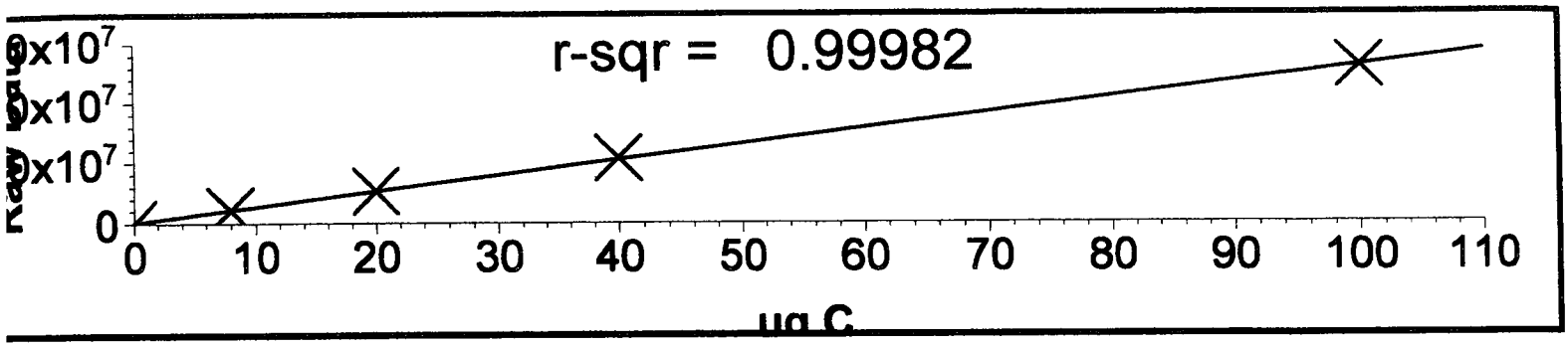
Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-14.2081	-0.5683	20879	42.802	42.796	120

Last Message: Low Sample Detected

Calibration Report Print Date/Time: 2011/10/07 17:50:02

Cal. Curve ID: 01072011 BOAT CAL
Created: 2011/10/07 17:36
Calibration Factor (m): 2.598e+05
Y Intercept (b): 103612
r-squared: 0.99982

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI WATER	35064	0.000	-0.264	Low Sample De	2011/10/07 12:13
200 PPM	2125021	8.000	7.780		2011/10/07 12:46
500 PPM	5263280	20.000	19.859		2011/10/07 13:02
1000 PPM	10747335	40.000	40.966		2011/10/07 14:55
2500 PPM	25997266	100.000	99.660	Over-range	2011/10/07 17:12


r-sqr = 0.99982
x10^7
x10^7
x10^7
0
0
10
20
30
40
50
60
70
80
90
100
110
ug C

Detailed Analysis Report Print Date/Time: 2011/10/07 17:51:54

Sample ID: DI WATER
Method: Boat Sampler
Cal. Curve: 01072011 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 10071156
Timestamp: 2011/10/07 11:58
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			601721	39.692	110.379	31

Last Message: Canceled

Sample ID: DI WATER
Method: Boat Sampler
Cal. Curve: 01072011 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 10071202
Timestamp: 2011/10/07 12:13
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			28229	39.256	40.151	120
2			52661	39.299	39.275	120
3			24303	39.252	39.227	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 35064 Std Dev: 15365 RSD: 43.82

Sample ID: 200 PPM
Method: Boat Sampler
Cal. Curve: 01072011 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 10071218
Timestamp: 2011/10/07 12:31
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2820925	39.381	40.372	252
2			2159361	39.353	40.351	144
3			2250763	39.811	40.809	100

<<<Statistics>>> Mean: 2410350 Std Dev: 358494 RSD: 14.87

Sample ID: 200 PPM
Method: Boat Sampler
Cal. Curve: 01072011 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 10071233
Timestamp: 2011/10/07 12:46
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1887566	39.737	40.729	98
2			2180494	39.817	40.815	108
3			2307004	39.735	40.735	100

<<<Statistics>>> Mean: 2125021 Std Dev: 215151 RSD: 10.12

Sample ID: 500 PPM
Method: Boat Sampler
Cal. Curve: 01072011 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 10071247
Timestamp: 2011/10/07 13:02
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5292432	40.074	41.071	150
2			5210094	40.255	41.252	162
3			5287315	40.538	41.537	142

<<<Statistics>>> Mean: 5263280 Std Dev: 46132 RSD: 0.88

Sample ID: 1000 PPM
Mode: TOC

Method: Boat Sampler
Cal. Curve: 01072011 BOAT CAL
Operator ID: TRINA
Filename: 10071304
Timestamp: 2011/10/07 13:23
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			9378884	41.250	42.246	242
2			11218912	42.611	43.608	206
3			19557052	43.897	44.896	229

<<<Statistics>>> Mean: 13384949 Std Dev: 5423796 RSD: 40.52

Sample ID: 1000 PPM
Method: Boat Sampler
Cal. Curve: 01072011 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 10071440
Timestamp: 2011/10/07 14:55
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			10738223	50.225	51.224	187
2			11176722	50.718	51.718	176
3			10327060	50.710	51.709	183

<<<Statistics>>> Mean: 10747335 Std Dev: 424904 RSD: 3.95

Sample ID: 2500 PPM
Method: Boat Sampler
Cal. Curve: 01072011 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 10071526
Timestamp: 2011/10/07 15:45
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			28479432	47.827	48.822	236
2			30176568	47.463	48.462	247
3			27833428	47.401	48.399	235

Last Message: Over-range
<<<Statistics>>> Mean: 28829808 Std Dev: 1210227 RSD: 4.20

Sample ID: 2500 PPM
Method: Boat Sampler
Cal. Curve: 01072011 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 10071645
Timestamp: 2011/10/07 16:50
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			24268012	48.923	49.921	294

Sample ID: 2500 PPM
Method: Boat Sampler
Cal. Curve: 01072011 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 10071706
Timestamp: 2011/10/07 17:12
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			25997264	49.605	50.603	288

Last Message: Over-range

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 01072011 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 10071746
Timestamp: 2011/10/07 17:49
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1069.0568	42.7623	11214143	52.485	53.476	147

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:

ARI Job No.: TX57

Unacceptable Blank: ☐

Date of Event: 12-2-11

Unacceptable Duplicate: ☐

Client ID: Integral Consulting Inc.

Unacceptable Spike: ☑

Method/Element: TOC (Soil)

Unacceptable Reference: ☐

Prep Code:

Details of Problem/Recommended Corrective Action:

High Spike 131 %

Samples Affected: D

Corrective Action Taken: Rerun Sample Same Result 136 %
Possible Matrix Interference

Analyst Initials: @

Supervisor:

Date: 12-2-11

Date:

5049F

Revision 007
6/11/10

TX57 : 01585