Analytical Resources, Incorporated
Analytical Chemists and Consultants

RECEIVED
JUN - 7 2004
LANDAU ASSOCIATES, INC.

3 June 2004

Stacy Pischer
Landau Associates, Inc.
130 Second Avenue South
Edmonds, WA 98020-9129

RE: Project: POA Uplands / 529009.311
ARI Job No: GO34

Dear Stacy:

Please find enclosed a revised report for the semivolatiles analysis of sample **MW-102**, received on 4/22 for the project referenced above. Analytical Resources, Inc. (ARI) accepted six water samples on April 22, 2004 in good condition. There were no discrepancies between the COC and the sample containers' labels.

The samples were analyzed for VOAs, SIM-vinyl chloride, SVOAs, SIM-cPAHs, PCBs, Resin Acids, NWTPH-G, NWTPH-HCID, NWTPH-Dx with acid/silica gel cleanups, total and dissolved metals, tannins/lignins and dioxins/furans as requested. The standards for the NWTPH-Dx analyses were acid/silica cleaned as per the method. The test for dioxins/furans was sub-contracted to Pace Analytical Services in Minneapolis, MN. The test for tanning/lignins was sub-contracted to Aquatic Research in Seattle, WA. Data for these analyses was sent previously under a separate cover letter (GO34).

On June 2, it was brought to my attention that the guaiacols had not been reported from the 8270C semivolatiles analysis of sample **MW-102**. It was discovered that this was a reporting error. The sample had been analyzed for guaiacols. These analytes were added to the semivolatile report and the report was re-issued for this sample. These forms can simply replace the forms sent in the original data package.

I apologize for this error and inconvenience. A copy of this report and all associated raw data will remain on file with ARI. If you have any questions or require additional information, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Mary Lou Fox

Mary Lou Fox
Project Manager
206/695-6211
marylou@arilabs.com

Enclosures
cc: GO34
MLF/mdh

Analytical Resources, Incorporated
Analytical Chemists and Consultants

RECEIVED
JUN - 1 2004
LANDAU ASSOCIATES, INC.

/27 May 2004

Stacy Pischer
Landau Associates, Inc.
130 Second Avenue South
Edmonds, WA 98020-9129

RE: Project: POA Uplands / 529009.311
ARI Job No: GO34

Dear Stacy:

Please find enclosed the original chain of custody (COC) record and the analytical results for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted six water samples on April 22, 2004 in good condition. There were no discrepancies between the COC and the sample containers' labels.

The samples were analyzed for VOAs, SIM-vinyl chloride, SVOAs, SIM-cPAHs, PCBs, Resin Acids, NWTPH-G, NWTPH-HCID, NWTPH-Dx with acid/silica gel cleanups, total and dissolved metals, tannins/lignins and dioxins/furans as requested. The standards for the NWTPH-Dx analyses were acid/silica cleaned as per the method. The test for dioxins/furans was sub-contracted to Pace Analytical Services in Minneapolis, MN. The test for tanning/lignins was sub-contracted to Aquatic Research in Seattle, WA. Quality control analyses are included for your review.

As requested by the client, all samples were allowed to settle before aliquots were removed for sample extraction or preparation. As a result, no solvent rinses were performed on any of the bottles.

All samples were initially analyzed for VOAs on 5/3/04. No data were useable due to high levels of sulfur contamination. All samples were re-analyzed on 5/4/04 using 5 mL purge volumes in lieu of 20 mL purge volumes. The re-analyses proceeded without incident of note. The results for the re-analyses only have been submitted.

The sulfur interference in samples **MW-107**, **MW-106**, and **MW-105** in the SIM-vinyl chloride analysis resulted in elevated reporting limit with a "Y" qualifier for these samples.

The percent recovery for abietic acid was low (9.68%) following the initial analysis of the LCS associated with the resin acids analyses of these samples. The percent recovery for isopimaric acid was also somewhat low at 47.6%. The analyst analyzed the spiking solution used for the LCS and the levels of isopimaric and abietic acids were lower than expected at 56% and 29%, respectively. This indicates that the cause of the lower spike recoveries for these two compounds was the level of the spike rather than the extraction. Recoveries of the other spikes were good.

The PCB analyses of these samples were batched with those of the samples received on 4/21 for this project. The method blank and laboratory control sample are reported originally under ARI job number GO20. A copy of each is included here for your convenience.

The analyst who ran the PCB analyses noted that many of the samples showed interference in the analyses, resulting in elevated reporting limits with "Y" qualifiers for some Aroclors.

The percent recoveries for the surrogate, DCBP, were low following the initial analysis of the method blank and the LCS associated with the pesticides analyses of these samples. Since the percent recoveries for the remaining surrogate, TCMX, were within established QC limits, no corrective actions were taken.

It was noted after the initial NWTPH-G analyses that the pH measurements of samples **MW-119, MW-109, MW-107** and **MW-102** were all at approximately 4. All of the samples were analyzed within seven days of the collection date.

The metals analyses of these samples were batched with the metals analyses of the samples for this project received on 4/21. The method blank and laboratory control sample are reported originally with under ARI job number GO20. A copy of each is included here for your convenience. The dissolved arsenic analyses were digested due to interferences that were observed in the samples when analyzed without digestion.

Samples **MW-106** and **MW-105** showed interference in the total arsenic analyses, even with the digestion, that was not present in the digested dissolved analyses. This interference required a 10 times dilution for the total arsenic analyses, yielding non-detects at .01 mg/L. The dissolved analyses of these samples did not require dilution and showed detections below the total analyses reporting limits.

Sample **MW-102** showed a total arsenic level of .006 mg/l and a dissolved arsenic level of .015 mg/L. The raw data was checked and the samples had been analyzed multiple times due to the interferences. The results were consistent in al analyses. The cause for the discrepancy of a higher dissolved value than total value could not be determined.

No further analytical complications were noted. A copy of this report and all associated raw data will remain on file with ARI. If you have any questions or require additional information, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Mary Lou Fox

Mary Lou Fox
Project Manager
206/695-6211
marylou@arilabs.com

Enclosures
cc: GO34
MLF/mdh

☒ Seattle (Edmonds) (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (Lake Oswego) (503) 443-6010
☐ _____

6.0/4.5/4.5/4.0/6.0/6.0 (6)

G034

Landau Associates

Chain-of-Custody Record

Date 4/21/04
Page 1 of 1

Project Name POA Uplands Project No. 529009.3V
Project Location/Event Anacortes, WA
Sampler's Name Ken Reid
Project Contact Stacy Pischer
Send Results To " "

Turnaround Time
☒ Standard
☐ Accelerated
☐ _____

Testing Parameters

Sample I.D.	Date	Time	Matrix	No. of Containers	CPAH	PCB	Dioxin/Furan	NWTPH-Dx (acid silica gel cleanup) (a)	Metals Total & Dissolved	NWTPH-Gx	VOCs	Chloride	SVOCs	Pesticides	Conventionals (c)	Other Organics (b)
MW-119	4/21/04	0715	H_2O	12	X	X		X	X	X	X	X	X		X	X
MW-109	↓	0835	↓	14	X	X	X	X	X	X	X	X	X		X	X
MW-107	↓	1040	↓	16	X	X	X	X	X	X	X	X	X	X	X	X
MW-106	↓	1210	↓	16	X	X	X	X	X	X	X	X	X	X	X	X
MW-105	↓	1340	↓	16	X	X	X	X	X	X	X	X	X	X	X	X
MW-102	↓	1555	↓	14	X	X	X	X	X	X	X	X	X		X	X

Observations/Comments

(a) Metals include: antimony, arsenic, cadmium, copper, lead, mercury, nickel, thallium

(b) Other Organics include Resin acids, chlorinated guaiacols, guaiacol, nitrate, nitrite, ammonia, sulfate, sulfide, tannins & lignins, phenol.

(c) conventionals

Let samples settle prior to analysis.

Special Shipment/Handling or Storage Requirements: On-ice

Method of Shipment

Relinquished by	Received by	Relinquished by	Received by
Signature: [signature]	Signature: [signature]	Signature	Signature
Printed Name: Ken Reid	Printed Name: Eric Branson	Printed Name	Printed Name
Company: LAI	Company: ARI	Company	Company
Date 4/21/04 Time 7:30pm	Date 4/22/04 Time 1200	Date _____ Time _____	Date _____ Time _____

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

Rev 4/01

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANIC COMPOUND DATA REPORTING QUALIFIERS

U	Indicates the compound was undetected at the reported concentration. (Same as ND).
J	Indicates an estimated concentration when the value is less than the calculated reporting limit.
D	Indicates the surrogate/spike(s) was not detected, due to dilution of extract.
NR	Indicates the surrogate recovery cannot be reported due to matrix interference.
E	Indicates a value above the linear range of the detector. Sample dilution required.
S	Indicates no value reported due to saturation of the detector. Sample dilution required.
NA	Indicates compound not analyzed for.
M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match (GC/MS)
B	Indicates possible/probable blank contamination. Flagged when the analyte is detected in the blank as well as the sample.
Y	Indicates raised reporting limit due to background interference or to activity on the instrument. Compound is still not detected at or above the raised level.
C	Indicates a probable hit that cannot be confirmed due to matrix interference (GC).

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MB-050404**
 METHOD BLANK

Lab Sample ID: MB-050404
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/10/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT3/JA
Date Analyzed: 05/04/04 12:29

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	1.0	< 1.0 U
74-83-9	Bromomethane	1.0	< 1.0 U
75-00-3	Chloroethane	1.0	< 1.0 U
75-09-2	Methylene Chloride	2.0	< 2.0 U
67-64-1	Acetone	5.0	< 5.0 U
75-15-0	Carbon Disulfide	1.0	< 1.0 U
75-35-4	1,1-Dichloroethene	1.0	< 1.0 U
75-34-3	1,1-Dichloroethane	1.0	< 1.0 U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0 U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0 U
67-66-3	Chloroform	1.0	< 1.0 U
107-06-2	1,2-Dichloroethane	1.0	< 1.0 U
78-93-3	2-Butanone	5.0	< 5.0 U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0 U
56-23-5	Carbon Tetrachloride	1.0	< 1.0 U
108-05-4	Vinyl Acetate	5.0	< 5.0 U
75-27-4	Bromodichloromethane	1.0	< 1.0 U
78-87-5	1,2-Dichloropropane	1.0	< 1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0 U
79-01-6	Trichloroethene	1.0	< 1.0 U
124-48-1	Dibromochloromethane	1.0	< 1.0 U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0 U
71-43-2	Benzene	1.0	< 1.0 U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0 U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0 U
75-25-2	Bromoform	1.0	< 1.0 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0 U
591-78-6	2-Hexanone	5.0	< 5.0 U
127-18-4	Tetrachloroethene	1.0	< 1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
108-90-7	Chlorobenzene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
100-42-5	Styrene	1.0	< 1.0 U
75-69-4	Trichlorofluoromethane	1.0	< 1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	2.0	< 2.0 U
1330-20-7	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U
95-50-1	1,2-Dichlorobenzene	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
107-02-8	Acrolein	50	< 50 U
74-88-4	Methyl Iodide	1.0	< 1.0 U
74-96-4	Bromoethane	2.0	< 2.0 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	1.0	< 1.0 U
74-95-3	Dibromomethane	1.0	< 1.0 U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0 U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0 U
96-18-4	1,2,3-Trichloropropane	3.0	< 3.0 U

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MB-050404**
 METHOD BLANK

Lab Sample ID: MB-050404 QC Report No: GO34-Landau Associates
LIMS ID: 04-6254 Project: POA Uplands
Matrix: Water 529009.311
Date Analyzed: 05/04/04 12:29

CAS Number	Analyte	RL	Result
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0 U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0 U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	5.0	< 5.0 U
106-93-4	Ethylene Dibromide	1.0	< 1.0 U
74-97-5	Bromochloromethane	1.0	< 1.0 U
594-20-7	2,2-Dichloropropane	1.0	< 1.0 U
142-28-9	1,3-Dichloropropane	1.0	< 1.0 U
98-82-8	Isopropylbenzene	1.0	< 1.0 U
103-65-1	n-Propylbenzene	1.0	< 1.0 U
108-86-1	Bromobenzene	1.0	< 1.0 U
95-49-8	2-Chlorotoluene	1.0	< 1.0 U
106-43-4	4-Chlorotoluene	1.0	< 1.0 U
98-06-6	tert-Butylbenzene	1.0	< 1.0 U
135-98-8	sec-Butylbenzene	1.0	< 1.0 U
99-87-6	4-Isopropyltoluene	1.0	< 1.0 U
104-51-8	n-Butylbenzene	1.0	< 1.0 U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0 U
91-20-3	Naphthalene	5.0	< 5.0 U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	126%
d8-Toluene	118%
Bromofluorobenzene	115%
d4-1,2-Dichlorobenzene	125%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: Trip Blank**
Page 1 of 2 **SAMPLE**

Lab Sample ID: GO34M
LIMS ID: 04-6266
Matrix: Water
Data Release Authorized:
Reported: 05/10/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled:
Date Received: 04/22/04

Instrument/Analyst: NT3/JA
Date Analyzed: 05/04/04 12:56

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	1.0	< 1.0 U
74-83-9	Bromomethane	1.0	< 1.0 U
75-00-3	Chloroethane	1.0	< 1.0 U
75-09-2	Methylene Chloride	2.0	< 2.0 U
67-64-1	Acetone	5.0	< 5.0 U
75-15-0	Carbon Disulfide	1.0	< 1.0 U
75-35-4	1,1-Dichloroethene	1.0	< 1.0 U
75-34-3	1,1-Dichloroethane	1.0	< 1.0 U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0 U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0 U
67-66-3	Chloroform	1.0	< 1.0 U
107-06-2	1,2-Dichloroethane	1.0	< 1.0 U
78-93-3	2-Butanone	5.0	< 5.0 U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0 U
56-23-5	Carbon Tetrachloride	1.0	< 1.0 U
108-05-4	Vinyl Acetate	5.0	< 5.0 U
75-27-4	Bromodichloromethane	1.0	< 1.0 U
78-87-5	1,2-Dichloropropane	1.0	< 1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0 U
79-01-6	Trichloroethene	1.0	< 1.0 U
124-48-1	Dibromochloromethane	1.0	< 1.0 U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0 U
71-43-2	Benzene	1.0	< 1.0 U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0 U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0 U
75-25-2	Bromoform	1.0	< 1.0 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0 U
591-78-6	2-Hexanone	5.0	< 5.0 U
127-18-4	Tetrachloroethene	1.0	< 1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
108-90-7	Chlorobenzene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
100-42-5	Styrene	1.0	< 1.0 U
75-69-4	Trichlorofluoromethane	1.0	< 1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	2.0	< 2.0 U
1330-20-7	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U
95-50-1	1,2-Dichlorobenzene	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
107-02-8	Acrolein	50	< 50 U
74-88-4	Methyl Iodide	1.0	< 1.0 U
74-96-4	Bromoethane	2.0	< 2.0 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	1.0	< 1.0 U
74-95-3	Dibromomethane	1.0	< 1.0 U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0 U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0 U
96-18-4	1,2,3-Trichloropropane	3.0	< 3.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: Trip Blank**
Page 2 of 2 **SAMPLE**

Lab Sample ID: GO34M QC Report No: GO34-Landau Associates
LIMS ID: 04-6266 Project: POA Uplands
Matrix: Water 529009.311
Date Analyzed: 05/04/04 12:56

CAS Number	Analyte	RL	Result
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0 U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0 U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	5.0	< 5.0 U
106-93-4	Ethylene Dibromide	1.0	< 1.0 U
74-97-5	Bromochloromethane	1.0	< 1.0 U
594-20-7	2,2-Dichloropropane	1.0	< 1.0 U
142-28-9	1,3-Dichloropropane	1.0	< 1.0 U
98-82-8	Isopropylbenzene	1.0	< 1.0 U
103-65-1	n-Propylbenzene	1.0	< 1.0 U
108-86-1	Bromobenzene	1.0	< 1.0 U
95-49-8	2-Chlorotoluene	1.0	< 1.0 U
106-43-4	4-Chlorotoluene	1.0	< 1.0 U
98-06-6	tert-Butylbenzene	1.0	< 1.0 U
135-98-8	sec-Butylbenzene	1.0	< 1.0 U
99-87-6	4-Isopropyltoluene	1.0	< 1.0 U
104-51-8	n-Butylbenzene	1.0	< 1.0 U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0 U
91-20-3	Naphthalene	5.0	< 5.0 U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	126%
d8-Toluene	118%
Bromofluorobenzene	115%
d4-1,2-Dichlorobenzene	126%

ANALYTICAL RESOURCES INCORPORATED

WATER VOLATILE SYSTEM MONITORING COMPOUND SUMMARY

Matrix: Water 5 mL QC Report No: GO34

Lab ID	Client ID	DCE	TOL	BFB	DCB	TOT OUT
050404MB	Method Blank	126%	118%	115%	125%	0
GO34LCS	Lab Cntrl Sample	120%	119%	116%	118%	0
GO34LCSD	Lab Cntrl Sample Dp	119%	120%	115%	117%	0
GO34A	MW-119	128%	120%	115%	127%	0
GO34B	MW-109	128%	120%	116%	128%	0
GO34C	MW-107	128%	120%	117%	128%	0
GO34D	MW-106	130%	119%	116%	127%	0
GO34E	MW-105	130%	119%	118%	127%	0
GO34F	MW-102	127%	119%	116%	127%	0
GO34M	Trip Blank	126%	118%	115%	126%	0

SW8260B	LCS/MB LIMITS	QC LIMITS
(DCE) = 1,2-Dichloroethane-d4	(74-133)	(74-142)
(TOL) = Toluene-d8	(77-131)	(84-129)
(BFB) = Bromofluorobenzene	(79-127)	(77-122)
(DCB) = 1,2-Dichlorobenzene-d4	(84-132)	(85-135)

\# Column to be used to flag recovery values

* Values outside of required QC limits

D System Monitoring Compound diluted out

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: LCS-050404**
 LCS/LCSD

Lab Sample ID: LCS-050404 QC Report No: GO34-Landau Associates
LIMS ID: 04-6254 Project: POA Uplands
Matrix: Water 529009.311
Data Release Authorized: Date Sampled: NA
Reported: 05/10/04 Date Received: NA

Instrument/Analyst LCS: NT3/JA Sample Amount LCS: 5.00 mL
LCSD: NT3/JA LCSD: 5.00 mL
Date Analyzed LCS: 05/04/04 10:42 Purge Volume LCS: 5.0 mL
LCSD: 05/04/04 11:11 LCSD: 5.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	42.0	50.0	84.0%	43.8	50.0	87.6%	4.2%
Bromomethane	34.5	50.0	69.0%	37.0	50.0	74.0%	7.0%
Chloroethane	49.0	50.0	98.0%	50.4	50.0	101%	2.8%
Methylene Chloride	47.8	50.0	95.6%	49.0	50.0	98.0%	2.5%
Acetone	210	250	84.0%	215	250	86.0%	2.4%
Carbon Disulfide	43.6	50.0	87.2%	45.9	50.0	91.8%	5.1%
1,1-Dichloroethene	45.8	50.0	91.6%	48.3	50.0	96.6%	5.3%
1,1-Dichloroethane	48.0	50.0	96.0%	50.3	50.0	101%	4.7%
trans-1,2-Dichloroethene	46.6	50.0	93.2%	48.9	50.0	97.8%	4.8%
cis-1,2-Dichloroethene	48.8	50.0	97.6%	50.7	50.0	101%	3.8%
Chloroform	48.4	50.0	96.8%	50.8	50.0	102%	4.8%
1,2-Dichloroethane	47.9	50.0	95.8%	49.8	50.0	99.6%	3.9%
2-Butanone	216	250	86.4%	228	250	91.2%	5.4%
1,1,1-Trichloroethane	47.3	50.0	94.6%	49.1	50.0	98.2%	3.7%
Carbon Tetrachloride	47.8	50.0	95.6%	49.5	50.0	99.0%	3.5%
Vinyl Acetate	41.2	50.0	82.4%	44.4	50.0	88.8%	7.5%
Bromodichloromethane	48.1	50.0	96.2%	51.0	50.0	102%	5.9%
1,2-Dichloropropane	48.1	50.0	96.2%	50.4	50.0	101%	4.7%
cis-1,3-Dichloropropene	47.2	50.0	94.4%	49.3	50.0	98.6%	4.4%
Trichloroethene	48.4	50.0	96.8%	50.5	50.0	101%	4.2%
Dibromochloromethane	47.3	50.0	94.6%	49.0	50.0	98.0%	3.5%
1,1,2-Trichloroethane	48.0	50.0	96.0%	50.1	50.0	100%	4.3%
Benzene	48.0	50.0	96.0%	50.4	50.0	101%	4.9%
trans-1,3-Dichloropropene	47.7	50.0	95.4%	49.9	50.0	99.8%	4.5%
2-Chloroethylvinylether	38.3	50.0	76.6%	41.6	50.0	83.2%	8.3%
Bromoform	47.7	50.0	95.4%	49.3	50.0	98.6%	3.3%
4-Methyl-2-Pentanone (MIBK)	252	250	101%	267	250	107%	5.8%
2-Hexanone	240	250	96.0%	249	250	99.6%	3.7%
Tetrachloroethene	45.9	50.0	91.8%	46.6	50.0	93.2%	1.5%
1,1,2,2-Tetrachloroethane	47.6	50.0	95.2%	49.9	50.0	99.8%	4.7%
Toluene	49.9	50.0	99.8%	52.0	50.0	104%	4.1%
Chlorobenzene	47.1	50.0	94.2%	48.4	50.0	96.8%	2.7%
Ethylbenzene	49.9	50.0	99.8%	51.0	50.0	102%	2.2%
Styrene	51.1	50.0	102%	52.6	50.0	105%	2.9%
Trichlorofluoromethane	50.1	50.0	100%	50.2	50.0	100%	0.2%
1,1,2-Trichloro-1,2,2-trifl	49.2	50.0	98.4%	51.2	50.0	102%	4.0%
m,p-Xylene	99.6	100	99.6%	102	100	102%	2.4%
o-Xylene	49.6	50.0	99.2%	50.7	50.0	101%	2.2%
1,2-Dichlorobenzene	48.5	50.0	97.0%	49.9	50.0	99.8%	2.8%
1,3-Dichlorobenzene	48.1	50.0	96.2%	50.0	50.0	100%	3.9%
1,4-Dichlorobenzene	47.7	50.0	95.4%	48.7	50.0	97.4%	2.1%
Acrolein	184	250	73.6%	192	250	76.8%	4.3%
Methyl Iodide	36.8	50.0	73.6%	40.5	50.0	81.0%	9.6%
Bromoethane	44.4	50.0	88.8%	47.9	50.0	95.8%	7.6%
Acrylonitrile	41.1	50.0	82.2%	43.1	50.0	86.2%	4.8%
1,1-Dichloropropene	46.4	50.0	92.8%	48.8	50.0	97.6%	5.0%
Dibromomethane	47.9	50.0	95.8%	50.1	50.0	100%	4.5%
1,1,1,2-Tetrachloroethane	46.1	50.0	92.2%	47.4	50.0	94.8%	2.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: LCS-050404**
 LCS/LCSD

Lab Sample ID: LCS-050404 QC Report No: GO34-Landau Associates
LIMS ID: 04-6254 Project: POA Uplands
Matrix: Water 529009.311
Date Analyzed: 05/04/04 10:42 Purge Volume: 5.0 mL
LCSD: 05/04/04 11:11 LCSD: 5.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
1,2-Dibromo-3-chloropropane	42.4	50.0	84.8%	45.2	50.0	90.4%	6.4%
1,2,3-Trichloropropane	47.4	50.0	94.8%	48.9	50.0	97.8%	3.1%
trans-1,4-Dichloro-2-butene	48.3	50.0	96.6%	50.8	50.0	102%	5.0%
1,3,5-Trimethylbenzene	52.0	50.0	104%	53.4	50.0	107%	2.7%
1,2,4-Trimethylbenzene	52.0	50.0	104%	53.6	50.0	107%	3.0%
Hexachlorobutadiene	46.5	50.0	93.0%	45.8	50.0	91.6%	1.5%
Ethylene Dibromide	47.0	50.0	94.0%	49.5	50.0	99.0%	5.2%
Bromochloromethane	49.3	50.0	98.6%	51.8	50.0	104%	4.9%
2,2-Dichloropropane	45.7	50.0	91.4%	47.8	50.0	95.6%	4.5%
1,3-Dichloropropane	47.3	50.0	94.6%	50.0	50.0	100%	5.5%
Isopropylbenzene	50.7	50.0	101%	52.3	50.0	105%	3.1%
n-Propylbenzene	52.7	50.0	105%	53.8	50.0	108%	2.1%
Bromobenzene	48.2	50.0	96.4%	50.0	50.0	100%	3.7%
2-Chlorotoluene	49.4	50.0	98.8%	50.7	50.0	101%	2.6%
4-Chlorotoluene	49.9	50.0	99.8%	51.2	50.0	102%	2.6%
tert-Butylbenzene	50.4	50.0	101%	51.9	50.0	104%	2.9%
sec-Butylbenzene	50.5	50.0	101%	51.7	50.0	103%	2.3%
4-Isopropyltoluene	50.6	50.0	101%	51.8	50.0	104%	2.3%
n-Butylbenzene	52.1	50.0	104%	52.5	50.0	105%	0.8%
1,2,4-Trichlorobenzene	46.2	50.0	92.4%	47.8	50.0	95.6%	3.4%
Naphthalene	47.6	50.0	95.2%	49.9	50.0	99.8%	4.7%
1,2,3-Trichlorobenzene	47.6	50.0	95.2%	49.3	50.0	98.6%	3.5%

Results reported in µg/L
RPD calculated using sample concentrations per SW846.
LCS spike recovery is evaluated using only the nine regulated compounds noted in the ARI LQAP. The other LCS spike compound recoveries are advisory and used for analytical troubleshooting should any of the nine regulated compounds be out of control.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	120%	119%
d8-Toluene	119%	120%
Bromofluorobenzene	116%	115%
d4-1,2-Dichlorobenzene	118%	117%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-119**
Page 1 of 2 **SAMPLE**

Lab Sample ID: GO34A
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/10/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Instrument/Analyst: NT3/JA
Date Analyzed: 05/04/04 14:46

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	1.0	< 1.0 U
74-83-9	Bromomethane	1.0	< 1.0 U
75-00-3	Chloroethane	1.0	< 1.0 U
75-09-2	Methylene Chloride	2.0	< 2.0 U
67-64-1	Acetone	5.0	< 5.0 U
75-15-0	Carbon Disulfide	1.0	< 1.0 U
75-35-4	1,1-Dichloroethene	1.0	< 1.0 U
75-34-3	1,1-Dichloroethane	1.0	< 1.0 U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0 U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0 U
67-66-3	Chloroform	1.0	< 1.0 U
107-06-2	1,2-Dichloroethane	1.0	< 1.0 U
78-93-3	2-Butanone	5.0	< 5.0 U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0 U
56-23-5	Carbon Tetrachloride	1.0	< 1.0 U
108-05-4	Vinyl Acetate	5.0	< 5.0 U
75-27-4	Bromodichloromethane	1.0	< 1.0 U
78-87-5	1,2-Dichloropropane	1.0	< 1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0 U
79-01-6	Trichloroethene	1.0	< 1.0 U
124-48-1	Dibromochloromethane	1.0	< 1.0 U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0 U
71-43-2	Benzene	1.0	< 1.0 U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0 U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0 U
75-25-2	Bromoform	1.0	< 1.0 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0 U
591-78-6	2-Hexanone	5.0	< 5.0 U
127-18-4	Tetrachloroethene	1.0	< 1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
108-90-7	Chlorobenzene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
100-42-5	Styrene	1.0	< 1.0 U
75-69-4	Trichlorofluoromethane	1.0	< 1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	2.0	< 2.0 U
1330-20-7	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U
95-50-1	1,2-Dichlorobenzene	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
107-02-8	Acrolein	50	< 50 U
74-88-4	Methyl Iodide	1.0	< 1.0 U
74-96-4	Bromoethane	2.0	< 2.0 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	1.0	< 1.0 U
74-95-3	Dibromomethane	1.0	< 1.0 U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0 U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0 U
96-18-4	1,2,3-Trichloropropane	3.0	< 3.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-119**
 SAMPLE

Lab Sample ID: GO34A
LIMS ID: 04-6254
Matrix: Water
Date Analyzed: 05/04/04 14:46

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

CAS Number	Analyte	RL	Result
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0 U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0 U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	5.0	< 5.0 U
106-93-4	Ethylene Dibromide	1.0	< 1.0 U
74-97-5	Bromochloromethane	1.0	< 1.0 U
594-20-7	2,2-Dichloropropane	1.0	< 1.0 U
142-28-9	1,3-Dichloropropane	1.0	< 1.0 U
98-82-8	Isopropylbenzene	1.0	< 1.0 U
103-65-1	n-Propylbenzene	1.0	< 1.0 U
108-86-1	Bromobenzene	1.0	< 1.0 U
95-49-8	2-Chlorotoluene	1.0	< 1.0 U
106-43-4	4-Chlorotoluene	1.0	< 1.0 U
98-06-6	tert-Butylbenzene	1.0	< 1.0 U
135-98-8	sec-Butylbenzene	1.0	< 1.0 U
99-87-6	**4-Isopropyltoluene**	**1.0**	**20**
104-51-8	n-Butylbenzene	1.0	< 1.0 U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0 U
91-20-3	Naphthalene	5.0	< 5.0 U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	128%
d8-Toluene	120%
Bromofluorobenzene	115%
d4-1,2-Dichlorobenzene	127%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-109**
 SAMPLE

Lab Sample ID: GO34B
LIMS ID: 04-6255
Matrix: Water
Data Release Authorized:
Reported: 05/10/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Instrument/Analyst: NT3/JA
Date Analyzed: 05/04/04 15:37

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	1.0	< 1.0 U
74-83-9	Bromomethane	1.0	< 1.0 U
75-00-3	Chloroethane	1.0	< 1.0 U
75-09-2	Methylene Chloride	2.0	< 2.0 U
67-64-1	Acetone	5.0	< 5.0 U
75-15-0	Carbon Disulfide	1.0	< 1.0 U
75-35-4	1,1-Dichloroethene	1.0	< 1.0 U
75-34-3	1,1-Dichloroethane	1.0	< 1.0 U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0 U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0 U
67-66-3	Chloroform	1.0	< 1.0 U
107-06-2	1,2-Dichloroethane	1.0	< 1.0 U
78-93-3	2-Butanone	5.0	< 5.0 U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0 U
56-23-5	Carbon Tetrachloride	1.0	< 1.0 U
108-05-4	Vinyl Acetate	5.0	< 5.0 U
75-27-4	Bromodichloromethane	1.0	< 1.0 U
78-87-5	1,2-Dichloropropane	1.0	< 1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0 U
79-01-6	Trichloroethene	1.0	< 1.0 U
124-48-1	Dibromochloromethane	1.0	< 1.0 U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0 U
71-43-2	Benzene	1.0	< 1.0 U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0 U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0 U
75-25-2	Bromoform	1.0	< 1.0 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0 U
591-78-6	2-Hexanone	5.0	< 5.0 U
127-18-4	Tetrachloroethene	1.0	< 1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
108-90-7	Chlorobenzene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
100-42-5	Styrene	1.0	< 1.0 U
75-69-4	Trichlorofluoromethane	1.0	< 1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	2.0	< 2.0 U
1330-20-7	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U
95-50-1	1,2-Dichlorobenzene	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
107-02-8	Acrolein	50	< 50 U
74-88-4	Methyl Iodide	1.0	< 1.0 U
74-96-4	Bromoethane	2.0	< 2.0 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	1.0	< 1.0 U
74-95-3	Dibromomethane	1.0	< 1.0 U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0 U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0 U
96-18-4	1,2,3-Trichloropropane	3.0	< 3.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-109**
 SAMPLE

Lab Sample ID: GO34B
LIMS ID: 04-6255
Matrix: Water
Date Analyzed: 05/04/04 15:37

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

CAS Number	Analyte	RL	Result
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0 U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0 U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	5.0	< 5.0 U
106-93-4	Ethylene Dibromide	1.0	< 1.0 U
74-97-5	Bromochloromethane	1.0	< 1.0 U
594-20-7	2,2-Dichloropropane	1.0	< 1.0 U
142-28-9	1,3-Dichloropropane	1.0	< 1.0 U
98-82-8	Isopropylbenzene	1.0	< 1.0 U
103-65-1	n-Propylbenzene	1.0	< 1.0 U
108-86-1	Bromobenzene	1.0	< 1.0 U
95-49-8	2-Chlorotoluene	1.0	< 1.0 U
106-43-4	4-Chlorotoluene	1.0	< 1.0 U
98-06-6	tert-Butylbenzene	1.0	< 1.0 U
135-98-8	sec-Butylbenzene	1.0	< 1.0 U
99-87-6	**4-Isopropyltoluene**	**1.0**	**21**
104-51-8	n-Butylbenzene	1.0	< 1.0 U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0 U
91-20-3	Naphthalene	5.0	< 5.0 U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	128%
d8-Toluene	120%
Bromofluorobenzene	116%
d4-1,2-Dichlorobenzene	128%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-107**
Page 1 of 2 **SAMPLE**

Lab Sample ID: GO34C
LIMS ID: 04-6256
Matrix: Water
Data Release Authorized:
Reported: 05/10/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Instrument/Analyst: NT3/JA
Date Analyzed: 05/04/04 16:05

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	1.0	< 1.0 U
74-83-9	Bromomethane	1.0	< 1.0 U
75-00-3	Chloroethane	1.0	< 1.0 U
75-09-2	Methylene Chloride	2.0	< 2.0 U
67-64-1	Acetone	5.0	< 5.0 U
75-15-0	Carbon Disulfide	1.0	< 1.0 U
75-35-4	1,1-Dichloroethene	1.0	< 1.0 U
75-34-3	1,1-Dichloroethane	1.0	< 1.0 U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0 U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0 U
67-66-3	Chloroform	1.0	< 1.0 U
107-06-2	1,2-Dichloroethane	1.0	< 1.0 U
78-93-3	2-Butanone	5.0	< 5.0 U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0 U
56-23-5	Carbon Tetrachloride	1.0	< 1.0 U
108-05-4	Vinyl Acetate	5.0	< 5.0 U
75-27-4	Bromodichloromethane	1.0	< 1.0 U
78-87-5	1,2-Dichloropropane	1.0	< 1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0 U
79-01-6	Trichloroethene	1.0	< 1.0 U
124-48-1	Dibromochloromethane	1.0	< 1.0 U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0 U
71-43-2	Benzene	1.0	< 1.0 U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0 U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0 U
75-25-2	Bromoform	1.0	< 1.0 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0 U
591-78-6	2-Hexanone	5.0	< 5.0 U
127-18-4	Tetrachloroethene	1.0	< 1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
108-90-7	Chlorobenzene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
100-42-5	Styrene	1.0	< 1.0 U
75-69-4	Trichlorofluoromethane	1.0	< 1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	2.0	< 2.0 U
1330-20-7	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U
95-50-1	1,2-Dichlorobenzene	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
107-02-8	Acrolein	50	< 50 U
74-88-4	Methyl Iodide	1.0	< 1.0 U
74-96-4	Bromoethane	2.0	< 2.0 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	1.0	< 1.0 U
74-95-3	Dibromomethane	1.0	< 1.0 U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0 U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0 U
96-18-4	1,2,3-Trichloropropane	3.0	< 3.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-107**
 SAMPLE

Lab Sample ID: GO34C
LIMS ID: 04-6256
Matrix: Water
Date Analyzed: 05/04/04 16:05

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

CAS Number	Analyte	RL	Result
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0 U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0 U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	5.0	< 5.0 U
106-93-4	Ethylene Dibromide	1.0	< 1.0 U
74-97-5	Bromochloromethane	1.0	< 1.0 U
594-20-7	2,2-Dichloropropane	1.0	< 1.0 U
142-28-9	1,3-Dichloropropane	1.0	< 1.0 U
98-82-8	Isopropylbenzene	1.0	< 1.0 U
103-65-1	n-Propylbenzene	1.0	< 1.0 U
108-86-1	Bromobenzene	1.0	< 1.0 U
95-49-8	2-Chlorotoluene	1.0	< 1.0 U
106-43-4	4-Chlorotoluene	1.0	< 1.0 U
98-06-6	tert-Butylbenzene	1.0	< 1.0 U
135-98-8	sec-Butylbenzene	1.0	< 1.0 U
99-87-6	**4-Isopropyltoluene**	**1.0**	**7.6**
104-51-8	n-Butylbenzene	1.0	< 1.0 U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0 U
91-20-3	Naphthalene	5.0	< 5.0 U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	128%
d8-Toluene	120%
Bromofluorobenzene	117%
d4-1,2-Dichlorobenzene	128%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-106**
Page 1 of 2 **SAMPLE**

Lab Sample ID: GO34D
LIMS ID: 04-6257
Matrix: Water
Data Release Authorized:
Reported: 05/10/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Instrument/Analyst: NT3/JA
Date Analyzed: 05/04/04 16:32

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	1.0	< 1.0 U
74-83-9	Bromomethane	1.0	< 1.0 U
75-00-3	Chloroethane	1.0	< 1.0 U
75-09-2	Methylene Chloride	2.0	< 2.0 U
67-64-1	Acetone	5.0	< 5.0 U
75-15-0	Carbon Disulfide	1.0	< 1.0 U
75-35-4	1,1-Dichloroethene	1.0	< 1.0 U
75-34-3	1,1-Dichloroethane	1.0	< 1.0 U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0 U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0 U
67-66-3	Chloroform	1.0	< 1.0 U
107-06-2	1,2-Dichloroethane	1.0	< 1.0 U
78-93-3	2-Butanone	5.0	< 5.0 U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0 U
56-23-5	Carbon Tetrachloride	1.0	< 1.0 U
108-05-4	Vinyl Acetate	5.0	< 5.0 U
75-27-4	Bromodichloromethane	1.0	< 1.0 U
78-87-5	1,2-Dichloropropane	1.0	< 1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0 U
79-01-6	Trichloroethene	1.0	< 1.0 U
124-48-1	Dibromochloromethane	1.0	< 1.0 U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0 U
71-43-2	Benzene	1.0	< 1.0 U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0 U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0 U
75-25-2	Bromoform	1.0	< 1.0 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0 U
591-78-6	2-Hexanone	5.0	< 5.0 U
127-18-4	Tetrachloroethene	1.0	< 1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
108-90-7	Chlorobenzene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
100-42-5	Styrene	1.0	< 1.0 U
75-69-4	Trichlorofluoromethane	1.0	< 1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	2.0	< 2.0 U
1330-20-7	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U
95-50-1	1,2-Dichlorobenzene	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
107-02-8	Acrolein	50	< 50 U
74-88-4	Methyl Iodide	1.0	< 1.0 U
74-96-4	Bromoethane	2.0	< 2.0 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	1.0	< 1.0 U
74-95-3	Dibromomethane	1.0	< 1.0 U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0 U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0 U
96-18-4	1,2,3-Trichloropropane	3.0	< 3.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-106**
 SAMPLE

Lab Sample ID: GO34D
LIMS ID: 04-6257
Matrix: Water
Date Analyzed: 05/04/04 16:32

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

CAS Number	Analyte	RL	Result
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0 U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0 U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	5.0	< 5.0 U
106-93-4	Ethylene Dibromide	1.0	< 1.0 U
74-97-5	Bromochloromethane	1.0	< 1.0 U
594-20-7	2,2-Dichloropropane	1.0	< 1.0 U
142-28-9	1,3-Dichloropropane	1.0	< 1.0 U
98-82-8	Isopropylbenzene	1.0	< 1.0 U
103-65-1	n-Propylbenzene	1.0	< 1.0 U
108-86-1	Bromobenzene	1.0	< 1.0 U
95-49-8	2-Chlorotoluene	1.0	< 1.0 U
106-43-4	4-Chlorotoluene	1.0	< 1.0 U
98-06-6	tert-Butylbenzene	1.0	< 1.0 U
135-98-8	sec-Butylbenzene	1.0	< 1.0 U
99-87-6	4-Isopropyltoluene	1.0	< 1.0 U
104-51-8	n-Butylbenzene	1.0	< 1.0 U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0 U
91-20-3	Naphthalene	5.0	< 5.0 U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	130%
d8-Toluene	119%
Bromofluorobenzene	116%
d4-1,2-Dichlorobenzene	127%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-105**
Page 1 of 2 **SAMPLE**

Lab Sample ID: GO34E
LIMS ID: 04-6258
Matrix: Water
Data Release Authorized:
Reported: 05/10/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Instrument/Analyst: NT3/JA
Date Analyzed: 05/04/04 16:59

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	1.0	< 1.0 U
74-83-9	Bromomethane	1.0	< 1.0 U
75-00-3	Chloroethane	1.0	< 1.0 U
75-09-2	Methylene Chloride	2.0	< 2.0 U
67-64-1	Acetone	5.0	< 5.0 U
75-15-0	Carbon Disulfide	1.0	< 1.0 U
75-35-4	1,1-Dichloroethene	1.0	< 1.0 U
75-34-3	1,1-Dichloroethane	1.0	< 1.0 U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0 U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0 U
67-66-3	Chloroform	1.0	< 1.0 U
107-06-2	1,2-Dichloroethane	1.0	< 1.0 U
78-93-3	2-Butanone	5.0	< 5.0 U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0 U
56-23-5	Carbon Tetrachloride	1.0	< 1.0 U
108-05-4	Vinyl Acetate	5.0	< 5.0 U
75-27-4	Bromodichloromethane	1.0	< 1.0 U
78-87-5	1,2-Dichloropropane	1.0	< 1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0 U
79-01-6	Trichloroethene	1.0	< 1.0 U
124-48-1	Dibromochloromethane	1.0	< 1.0 U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0 U
71-43-2	Benzene	1.0	< 1.0 U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0 U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0 U
75-25-2	Bromoform	1.0	< 1.0 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0 U
591-78-6	2-Hexanone	5.0	< 5.0 U
127-18-4	Tetrachloroethene	1.0	< 1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
108-90-7	Chlorobenzene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
100-42-5	Styrene	1.0	< 1.0 U
75-69-4	Trichlorofluoromethane	1.0	< 1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	2.0	< 2.0 U
1330-20-7	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U
95-50-1	1,2-Dichlorobenzene	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
107-02-8	Acrolein	50	< 50 U
74-88-4	Methyl Iodide	1.0	< 1.0 U
74-96-4	Bromoethane	2.0	< 2.0 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	1.0	< 1.0 U
74-95-3	Dibromomethane	1.0	< 1.0 U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0 U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0 U
96-18-4	1,2,3-Trichloropropane	3.0	< 3.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-105**
 SAMPLE

Lab Sample ID: GO34E
LIMS ID: 04-6258
Matrix: Water
Date Analyzed: 05/04/04 16:59

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

CAS Number	Analyte	RL	Result
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0 U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0 U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	5.0	< 5.0 U
106-93-4	Ethylene Dibromide	1.0	< 1.0 U
74-97-5	Bromochloromethane	1.0	< 1.0 U
594-20-7	2,2-Dichloropropane	1.0	< 1.0 U
142-28-9	1,3-Dichloropropane	1.0	< 1.0 U
98-82-8	Isopropylbenzene	1.0	< 1.0 U
103-65-1	n-Propylbenzene	1.0	< 1.0 U
108-86-1	Bromobenzene	1.0	< 1.0 U
95-49-8	2-Chlorotoluene	1.0	< 1.0 U
106-43-4	4-Chlorotoluene	1.0	< 1.0 U
98-06-6	tert-Butylbenzene	1.0	< 1.0 U
135-98-8	sec-Butylbenzene	1.0	< 1.0 U
99-87-6	**4-Isopropyltoluene**	**1.0**	**1.5**
104-51-8	n-Butylbenzene	1.0	< 1.0 U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0 U
91-20-3	Naphthalene	5.0	< 5.0 U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	130%
d8-Toluene	119%
Bromofluorobenzene	118%
d4-1,2-Dichlorobenzene	127%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-102**
Page 1 of 2 **SAMPLE**

Lab Sample ID: GO34F
LIMS ID: 04-6259
Matrix: Water
Data Release Authorized:
Reported: 05/10/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Instrument/Analyst: NT3/JA
Date Analyzed: 05/04/04 17:27

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	1.0	< 1.0 U
74-83-9	Bromomethane	1.0	< 1.0 U
75-00-3	Chloroethane	1.0	< 1.0 U
75-09-2	Methylene Chloride	2.0	< 2.0 U
67-64-1	**Acetone**	**5.0**	**6.5**
75-15-0	Carbon Disulfide	1.0	< 1.0 U
75-35-4	1,1-Dichloroethene	1.0	< 1.0 U
75-34-3	1,1-Dichloroethane	1.0	< 1.0 U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0 U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0 U
67-66-3	Chloroform	1.0	< 1.0 U
107-06-2	1,2-Dichloroethane	1.0	< 1.0 U
78-93-3	2-Butanone	5.0	< 5.0 U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0 U
56-23-5	Carbon Tetrachloride	1.0	< 1.0 U
108-05-4	Vinyl Acetate	5.0	< 5.0 U
75-27-4	Bromodichloromethane	1.0	< 1.0 U
78-87-5	1,2-Dichloropropane	1.0	< 1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0 U
79-01-6	Trichloroethene	1.0	< 1.0 U
124-48-1	Dibromochloromethane	1.0	< 1.0 U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0 U
71-43-2	Benzene	1.0	< 1.0 U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0 U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0 U
75-25-2	Bromoform	1.0	< 1.0 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0 U
591-78-6	2-Hexanone	5.0	< 5.0 U
127-18-4	Tetrachloroethene	1.0	< 1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
108-90-7	Chlorobenzene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
100-42-5	Styrene	1.0	< 1.0 U
75-69-4	Trichlorofluoromethane	1.0	< 1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	2.0	< 2.0 U
1330-20-7	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U
95-50-1	1,2-Dichlorobenzene	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
107-02-8	Acrolein	50	< 50 U
74-88-4	Methyl Iodide	1.0	< 1.0 U
74-96-4	Bromoethane	2.0	< 2.0 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	1.0	< 1.0 U
74-95-3	Dibromomethane	1.0	< 1.0 U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0 U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0 U
96-18-4	1,2,3-Trichloropropane	3.0	< 3.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-102**
 SAMPLE

Lab Sample ID: GO34F
LIMS ID: 04-6259
Matrix: Water
Date Analyzed: 05/04/04 17:27

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

CAS Number	Analyte	RL	Result
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0 U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0 U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	5.0	< 5.0 U
106-93-4	Ethylene Dibromide	1.0	< 1.0 U
74-97-5	Bromochloromethane	1.0	< 1.0 U
594-20-7	2,2-Dichloropropane	1.0	< 1.0 U
142-28-9	1,3-Dichloropropane	1.0	< 1.0 U
98-82-8	Isopropylbenzene	1.0	< 1.0 U
103-65-1	n-Propylbenzene	1.0	< 1.0 U
108-86-1	Bromobenzene	1.0	< 1.0 U
95-49-8	2-Chlorotoluene	1.0	< 1.0 U
106-43-4	4-Chlorotoluene	1.0	< 1.0 U
98-06-6	tert-Butylbenzene	1.0	< 1.0 U
135-98-8	sec-Butylbenzene	1.0	< 1.0 U
99-87-6	4-Isopropyltoluene	1.0	< 1.0 U
104-51-8	n-Butylbenzene	1.0	< 1.0 U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0 U
91-20-3	Naphthalene	5.0	< 5.0 U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	127%
d8-Toluene	119%
Bromofluorobenzene	116%
d4-1,2-Dichlorobenzene	127%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: MB-042904**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-042904
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/06/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT5/JA
Date Analyzed: 04/29/04 10:46

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	< 0.020 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	110%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: Trip Blank**
Page 1 of 1 **SAMPLE**

Lab Sample ID: GO34M
LIMS ID: 04-6266
Matrix: Water
Data Release Authorized:
Reported: 05/06/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled:
Date Received: 04/22/04

Instrument/Analyst: NT5/JA
Date Analyzed: 04/29/04 16:26

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	< 0.020 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	101%

ANALYTICAL RESOURCES INCORPORATED

SW8260-SIM SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

Client ID	DCA	TOT OUT
MB-042904	110%	0
LCS-042904	90.2%	0
LCSD-042904	110%	0
MW-119	117%	0
MW-109	98.2%	0
MW-107	95.8%	0
MW-106	105%	0
MW-105	105%	0
MW-102	121%	0
Trip Blank	101%	0

	LCS/MB LIMITS	QC LIMITS
(DCA) = d4-1,2-Dichloroethane	(76-119)	(63-135)

Prep Method: SW5030
Log Number Range: 04-6254 to 04-6266

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: LCS-042904**
Page 1 of 1 **LCS/LCSD**

Lab Sample ID: LCS-042904 QC Report No: GO34-Landau Associates
LIMS ID: 04-6254 Project: POA Uplands
Matrix: Water 529009.311
Data Release Authorized: Date Sampled: NA
Reported: 05/06/04 Date Received: NA

Instrument/Analyst LCS: NT5/JA Sample Amount LCS: 10.0 mL
LCSD: NT5/JA LCSD: 10.0 mL
Date Analyzed LCS: 04/29/04 09:46 Purge Volume LCS: 10.0 mL
LCSD: 04/29/04 10:16 LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Vinyl Chloride	0.518	0.500	104%	0.438	0.500	87.6%	16.7%

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

SIM Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	90.2%	110%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: MW-119**
Page 1 of 1 **SAMPLE**

Lab Sample ID: GO34A
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/06/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Instrument/Analyst: NT5/JA
Date Analyzed: 04/29/04 16:56

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	< 0.020 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	117%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: MW-109**
SAMPLE
Page 1 of 1

Lab Sample ID: GO34B
LIMS ID: 04-6255
Matrix: Water
Data Release Authorized:
Reported: 05/06/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Instrument/Analyst: NT5/JA
Date Analyzed: 04/29/04 17:25

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	< 0.020 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: MW-107**
Page 1 of 1 **SAMPLE**

Lab Sample ID: GO34C
LIMS ID: 04-6256
Matrix: Water
Data Release Authorized:
Reported: 05/06/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Instrument/Analyst: NT5/JA
Date Analyzed: 04/29/04 17:54

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.10	< 0.10 Y

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	95.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: MW-106**
Page 1 of 1 **SAMPLE**

Lab Sample ID: GO34D
LIMS ID: 04-6257
Matrix: Water
Data Release Authorized:
Reported: 05/06/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Instrument/Analyst: NT5/JA
Date Analyzed: 04/29/04 18:23

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.10	< 0.10 Y

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: MW-105**
Page 1 of 1 **SAMPLE**

Lab Sample ID: GO34E
LIMS ID: 04-6258
Matrix: Water
Data Release Authorized:
Reported: 05/06/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Instrument/Analyst: NT5/JA
Date Analyzed: 04/29/04 18:52

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.10	< 0.10 Y

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: MW-102**
Page 1 of 1 **SAMPLE**

Lab Sample ID: GO34F
LIMS ID: 04-6259
Matrix: Water
Data Release Authorized:
Reported: 05/06/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Instrument/Analyst: NT5/JA
Date Analyzed: 04/29/04 19:22

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	< 0.020 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	121%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MB-042704
METHOD BLANK

Lab Sample ID: MB-042704
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: NA
Date Received: NA

Date Extracted: 04/27/04
Date Analyzed: 05/11/04 19:24
Instrument/Analyst: NT4/Van

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	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
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MB-042704
METHOD BLANK

Lab Sample ID: MB-042704
LIMS ID: 04-6254
Matrix: Water
Date Analyzed: 05/11/04 19:24

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	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
86-74-8	Carbazole	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
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	88.1%	2-Fluorobiphenyl	80.5%
d14-p-Terphenyl	91.6%	d4-1,2-Dichlorobenzene	65.1%
d5-Phenol	79.2%	2-Fluorophenol	76.2%
2,4,6-Tribromophenol	82.6%	d4-2-Chlorophenol	80.4%

ANALYTICAL RESOURCES INCORPORATED

SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT OUT
MB-042704	88.1%	80.5%	91.6%	65.1%	79.2%	76.2%	82.6%	80.4%	0
LCS-042704	87.7%	81.1%	93.3%	65.6%	79.9%	77.4%	90.3%	83.7%	0
MW-119	84.9%	78.5%	82.7%	62.2%	78.7%	73.2%	86.7%	80.5%	0
MW-109	82.3%	77.4%	83.6%	60.7%	78.3%	70.9%	85.8%	81.0%	0
MW-107	79.9%	73.4%	77.8%	53.6%	70.3%	62.5%	84.4%	70.2%	0
MW-106	82.9%	73.6%	81.7%	57.2%	73.9%	69.7%	83.7%	78.2%	0
MW-105	85.8%	80.1%	87.4%	61.2%	81.8%	76.0%	88.2%	80.5%	0
MW-102	81.9%	75.3%	74.4%	58.4%	75.9%	71.2%	82.0%	79.0%	0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(44-107)	(38-111)
(FBP) = 2-Fluorobiphenyl	(43-99)	(30-109)
(TPH) = d14-p-Terphenyl	(44-123)	(37-113)
(DCB) = d4-1,2-Dichlorobenzene	(36-88)	(35-88)
(PHL) = d5-Phenol	(47-101)	(42-98)
(2FP) = 2-Fluorophenol	(44-102)	(40-99)
(TBP) = 2,4,6-Tribromophenol	(38-116)	(27-136)
(2CP) = d4-2-Chlorophenol	(50-102)	(47-101)

Prep Method: SW3520C
Log Number Range: 04-6254 to 04-6259

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: LCS-042704
LAB CONTROL

Lab Sample ID: LCS-042704
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/11/04 20:00
Instrument/Analyst: NT4/Van
GPC Cleanup: NO

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

Analyte	Lab Control	Spike Added	Recovery
Phenol	29.5	37.5	78.7%
2-Chlorophenol	31.2	37.5	83.2%
1,4-Dichlorobenzene	15.8	25.0	63.2%
N-Nitroso-Di-N-Propylamine	17.6	25.0	70.4%
1,2,4-Trichlorobenzene	17.7	25.0	70.8%
4-Chloro-3-methylphenol	36.9	37.5	98.4%
Acenaphthene	21.4	25.0	85.6%
4-Nitrophenol	27.6	37.5	73.6%
2,4-Dinitrotoluene	22.1	25.0	88.4%
Pentachlorophenol	43.1	37.5	115%
Pyrene	23.1	25.0	92.4%
Guaiacol	33.8	37.5	90.1%
4,5-Dichloro-2-Methoxyphenol	34.4	37.5	91.7%
4,5,6-Trichloroguaiacol	35.7	37.5	95.2%
3,4,5-Trichloroguaiacol	43.4	37.5	116%
Tetrachloroguaiacol	79.6	75.0	106%

Semivolatile Surrogate Recovery

d5-Nitrobenzene	87.7%
2-Fluorobiphenyl	81.1%
d14-p-Terphenyl	93.3%
d4-1,2-Dichlorobenzene	65.6%
d5-Phenol	79.9%
2-Fluorophenol	77.4%
2,4,6-Tribromophenol	90.3%
d4-2-Chlorophenol	83.7%

Results reported in µg/L

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-119
SAMPLE

Lab Sample ID: GO34A
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/12/04 00:14
Instrument/Analyst: NT4/Van

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	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
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS **Sample ID: MW-119**
 SAMPLE

Lab Sample ID: GO34A
LIMS ID: 04-6254
Matrix: Water
Date Analyzed: 05/12/04 00:14

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	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
86-74-8	Carbazole	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
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	84.9%	2-Fluorobiphenyl	78.5%
d14-p-Terphenyl	82.7%	d4-1,2-Dichlorobenzene	62.2%
d5-Phenol	78.7%	2-Fluorophenol	73.2%
2,4,6-Tribromophenol	86.7%	d4-2-Chlorophenol	80.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-109
SAMPLE

Lab Sample ID: GO34B
LIMS ID: 04-6255
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/12/04 00:50
Instrument/Analyst: NT4/Van

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	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
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-109
SAMPLE

Lab Sample ID: GO34B
LIMS ID: 04-6255
Matrix: Water
Date Analyzed: 05/12/04 00:50

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	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
86-74-8	Carbazole	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
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	82.3%	2-Fluorobiphenyl	77.4%
d14-p-Terphenyl	83.6%	d4-1,2-Dichlorobenzene	60.7%
d5-Phenol	78.3%	2-Fluorophenol	70.9%
2,4,6-Tribromophenol	85.8%	d4-2-Chlorophenol	81.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-107
SAMPLE

Lab Sample ID: GO34C
LIMS ID: 04-6256
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/12/04 09:53
Instrument/Analyst: NT4/Van

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	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
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	**4-Methylphenol**	**1.0**	**15**
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-107
SAMPLE

Lab Sample ID: GO34C
LIMS ID: 04-6256
Matrix: Water
Date Analyzed: 05/12/04 09:53

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	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
86-74-8	Carbazole	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
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**1.0**	**5.0**
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	**Benzo(g,h,i)perylene**	**1.0**	**1.0**
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	79.9%	2-Fluorobiphenyl	73.4%
d14-p-Terphenyl	77.8%	d4-1,2-Dichlorobenzene	53.6%
d5-Phenol	70.3%	2-Fluorophenol	62.5%
2,4,6-Tribromophenol	84.4%	d4-2-Chlorophenol	70.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-106
SAMPLE

Lab Sample ID: GO34D
LIMS ID: 04-6257
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/12/04 10:30
Instrument/Analyst: NT4/Van

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	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
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS **Sample ID: MW-106**
 SAMPLE

Lab Sample ID: GO34D QC Report No: GO34-Landau Associates
LIMS ID: 04-6257 Project: POA Uplands
Matrix: Water 529009.311
Date Analyzed: 05/12/04 10:30

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	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
86-74-8	Carbazole	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
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	82.9%	2-Fluorobiphenyl	73.6%
d14-p-Terphenyl	81.7%	d4-1,2-Dichlorobenzene	57.2%
d5-Phenol	73.9%	2-Fluorophenol	69.7%
2,4,6-Tribromophenol	83.7%	d4-2-Chlorophenol	78.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-105
SAMPLE

Lab Sample ID: GO34E
LIMS ID: 04-6258
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/12/04 11:06
Instrument/Analyst: NT4/Van

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	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
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS **Sample ID: MW-105**
 SAMPLE

Lab Sample ID: GO34E
LIMS ID: 04-6258
Matrix: Water
Date Analyzed: 05/12/04 11:06

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	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
86-74-8	Carbazole	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
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**1.0**	**19**
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	85.8%	2-Fluorobiphenyl	80.1%
d14-p-Terphenyl	87.4%	d4-1,2-Dichlorobenzene	61.2%
d5-Phenol	81.8%	2-Fluorophenol	76.0%
2,4,6-Tribromophenol	88.2%	d4-2-Chlorophenol	80.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-102
SAMPLE

Lab Sample ID: GO34F
LIMS ID: 04-6259
Matrix: Water
Data Release Authorized:
Reported: 06/02/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/12/04 11:43
Instrument/Analyst: NT4/Van

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	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
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS **Sample ID: MW-102**
Page 2 of 2 **SAMPLE**

Lab Sample ID: GO34F QC Report No: GO34-Landau Associates
LIMS ID: 04-6259 Project: POA Uplands
Matrix: Water 529009.311
Date Analyzed: 05/12/04 11:43

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	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
86-74-8	Carbazole	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
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	81.9%	2-Fluorobiphenyl	75.3%
d14-p-Terphenyl	74.4%	d4-1,2-Dichlorobenzene	58.4%
d5-Phenol	75.9%	2-Fluorophenol	71.2%
2,4,6-Tribromophenol	82.0%	d4-2-Chlorophenol	79.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS
Page 1 of 1

Sample ID: MB-042704
METHOD BLANK

Lab Sample ID: MB-042704
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/18/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: NA
Date Received: NA

Date Extracted: 04/27/04
Date Analyzed: 05/14/04 16:00
Instrument/Analyst: NT2/Van

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

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	72.7%
d14-Dibenzo(a,h)anthracene	69.7%

ANALYTICAL RESOURCES INCORPORATED

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

Client ID	MNP	DBA	TOT OUT
MB-042704	72.7%	69.7%	0
LCS-042704	74.0%	87.3%	0
MW-119	68.7%	89.7%	0
MW-109	61.0%	67.0%	0
MW-107	69.0%	54.0%	0
MW-106	78.7%	69.0%	0
MW-105	87.0%	77.0%	0
MW-102	78.0%	57.0%	0

	LCS/MB LIMITS	QC LIMITS
(MNP) = d10-2-Methylnaphthalene	(48-107)	(34-120)
(DBA) = d14-Dibenzo(a,h)anthracene	(37-128)	(14-141)

Prep Method: SW3520C
Log Number Range: 04-6254 to 04-6259

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270C SIM GC/MS

Sample ID: LCS-042704
LAB CONTROL

Lab Sample ID: LCS-042704
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/18/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/14/04 16:30
Instrument/Analyst: NT2/Van

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

Analyte	Lab Control	Spike Added	Recovery
Chrysene	0.257	0.300	85.7%
Benzo(k)fluoranthene	0.210	0.300	70.0%

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	74.0%
d14-Dibenzo(a,h)anthracen	87.3%

Results reported in µg/L

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS
Page 1 of 1

Sample ID: MW-119
SAMPLE

Lab Sample ID: GO34A
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/18/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/17/04 17:37
Instrument/Analyst: NT2/Van

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

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	68.7%
d14-Dibenzo(a,h)anthracene	89.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS

Sample ID: MW-109
SAMPLE

Lab Sample ID: GO34B
LIMS ID: 04-6255
Matrix: Water
Data Release Authorized:
Reported: 05/18/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/17/04 17:59
Instrument/Analyst: NT2/Van

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

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	61.0%
d14-Dibenzo(a,h)anthracene	67.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS
Page 1 of 1

Sample ID: MW-107
SAMPLE

Lab Sample ID: GO34C
LIMS ID: 04-6256
Matrix: Water
Data Release Authorized:
Reported: 05/18/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/14/04 19:51
Instrument/Analyst: NT2/Van

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

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	69.0%
d14-Dibenzo(a,h)anthracene	54.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS
Page 1 of 1

Sample ID: MW-106
SAMPLE

Lab Sample ID: GO34D
LIMS ID: 04-6257
Matrix: Water
Data Release Authorized:
Reported: 05/18/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/14/04 20:14
Instrument/Analyst: NT2/Van

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

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	78.7%
d14-Dibenzo(a,h)anthracene	69.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS
Page 1 of 1

Sample ID: MW-105
SAMPLE

Lab Sample ID: GO34E
LIMS ID: 04-6258
Matrix: Water
Data Release Authorized:
Reported: 05/18/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/14/04 20:36
Instrument/Analyst: NT2/Van

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

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	87.0%
d14-Dibenzo(a,h)anthracene	77.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS
Page 1 of 1

Sample ID: MW-102
SAMPLE

Lab Sample ID: GO34F
LIMS ID: 04-6259
Matrix: Water
Data Release Authorized:
Reported: 05/18/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/14/04 20:58
Instrument/Analyst: NT2/Van

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

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	78.0%
d14-Dibenzo(a,h)anthracene	57.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS
Page 1 of 1

Sample No: Method Blank

Lab Sample ID: GO34MB
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/20/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: NA
Date Received: NA

Date extracted: 04/27/04
Date analyzed: 05/19/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	Isopimaric Acid	2.0 U
1945-53-5	Palustric Acid	2.0 U
1740-19-8	Dehydroabietic Acid	2.0 U
514-10-3	Abietic Acid	2.0 U
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 80.2%

ANALYTICAL RESOURCES INCORPORATED

WATER RESIN ACID SURROGATE SUMMARY

Matrix: Water

QC Report No: GO34
Project: POA Uplands
529009.311

LIMS ID	Lab ID	Client ID	OMPA #	TOT OUT
04-6254MB	042704MB	Method Blank	80.2%	0
04-6254SB	042704SB	Lab Control	84.1%	0
04-6254	GO34A	MW-119	55.0%	0
04-6255	GO34B	MW-109	82.0%	0
04-6256	GO34C	MW-107	87.6%	0
04-6257	GO34D	MW-106	81.2%	0
04-6258	GO34E	MW-105	89.8%	0
04-6259	GO34F	MW-102	82.8%	0

	QC LIMITS
(OMPA) = o-Methyl Podocarpic Acid	(30-150)

\# Column to be used to flag recovery values

* Values outside of required QC limits

D Surrogate Compound diluted out

FORM-II RESA

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS

Lab Sample ID: GO34SB
LIMS ID: 04-6254
Matrix: Water

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

Data Release Authorized:
Reported: 05/20/04

LABORATORY CONTROL SAMPLE CONSTITUENT	SPIKE VALUE	SPIKE ADDED	% RECOVERY
Pimaric Acid	43.0	50.0	86.0%
Isopimaric Acid	23.8	50.0	47.6%
Dehydroabietic Acid	41.7	50.0	83.4%
Abietic Acid	24.2	250	9.68%

Spike Blank Surrogate Recovery

O-Methyl Podocarpic Acid 84.1%

Values reported in ug/L

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS
Page 1 of 1

Sample No: MW-119

Lab Sample ID: GO34A
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/20/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date extracted: 04/27/04
Date analyzed: 05/19/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	**Isopimaric Acid**	**3.5**
1945-53-5	Palustric Acid	2.0 U
1740-19-8	**Dehydroabietic Acid**	**20**
514-10-3	**Abietic Acid**	**5.9**
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 55.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS
Page 1 of 1

Sample No: MW-109

Lab Sample ID: GO34B
LIMS ID: 04-6255
Matrix: Water
Data Release Authorized:
Reported: 05/20/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date extracted: 04/27/04
Date analyzed: 05/19/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	**Isopimaric Acid**	**5.4**
1945-53-5	Palustric Acid	2.0 U
1740-19-8	**Dehydroabietic Acid**	**33**
514-10-3	**Abietic Acid**	**6.7**
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 82.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS

Sample No: MW-107

Lab Sample ID: GO34C
LIMS ID: 04-6256
Matrix: Water
Data Release Authorized:
Reported: 05/20/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date extracted: 04/27/04
Date analyzed: 05/19/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	Isopimaric Acid	2.0 U
1945-53-5	Palustric Acid	2.0 U
1740-19-8	Dehydroabietic Acid	2.0 U
514-10-3	Abietic Acid	2.0 U
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 87.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS
Page 1 of 1

Sample No: MW-106

Lab Sample ID: GO34D
LIMS ID: 04-6257
Matrix: Water
Data Release Authorized:
Reported: 05/20/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date extracted: 04/27/04
Date analyzed: 05/19/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	Isopimaric Acid	2.0 U
1945-53-5	Palustric Acid	2.0 U
1740-19-8	Dehydroabietic Acid	2.0 U
514-10-3	Abietic Acid	2.0 U
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 81.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS
Page 1 of 1

Sample No: MW-105

Lab Sample ID: GO34E
LIMS ID: 04-6258
Matrix: Water
Data Release Authorized:
Reported: 05/20/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date extracted: 04/27/04
Date analyzed: 05/19/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	Isopimaric Acid	2.0 U
1945-53-5	Palustric Acid	2.0 U
1740-19-8	**Dehydroabietic Acid**	**9.0**
514-10-3	Abietic Acid	2.0 U
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 89.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS
Page 1 of 1

Sample No: MW-102

Lab Sample ID: GO34F
LIMS ID: 04-6259
Matrix: Water
Data Release Authorized:
Reported: 05/20/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date extracted: 04/27/04
Date analyzed: 05/19/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	Isopimaric Acid	2.0 U
1945-53-5	Palustric Acid	2.0 U
1740-19-8	Dehydroabietic Acid	2.0 U
514-10-3	Abietic Acid	2.0 U
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 82.8%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MB-042704
METHOD BLANK

Lab Sample ID: MB-042704
LIMS ID: 04-6158
Matrix: Water
Data Release Authorized:
Reported: 05/13/04

QC Report No: GO20-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: NA
Date Received: NA

Date Extracted: 04/27/04
Date Analyzed: 05/12/04 11:28
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.015	< 0.015 U
53469-21-9	Aroclor 1242	0.015	< 0.015 U
12672-29-6	Aroclor 1248	0.015	< 0.015 U
11097-69-1	Aroclor 1254	0.015	< 0.015 U
11096-82-5	Aroclor 1260	0.015	< 0.015 U
11104-28-2	Aroclor 1221	0.015	< 0.015 U
11141-16-5	Aroclor 1232	0.015	< 0.015 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	85.8%
Tetrachlorometaxylene	65.1%

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

Client ID	DCBP	TCMX	TOT OUT
MW-119	81.5%	59.4%	0
MW-109	77.5%	60.2%	0
MW-107	87.9%	68.8%	0
MW-106	71.0%	59.6%	0
MW-105	83.2%	68.0%	0
MW-102	74.9%	61.4%	0

	LCS/MB LIMITS	QC LIMITS
(DCBP) = Decachlorobiphenyl	(42-138)	(25-134)
(TCMX) = Tetrachlorometaxylene	(40-109)	(25-118)

Prep Method: SW3510C
Log Number Range: 04-6254 to 04-6259

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: LCS-042704
LAB CONTROL

Lab Sample ID: LCS-042704
LIMS ID: 04-6158
Matrix: Water
Data Release Authorized:
Reported: 05/13/04

QC Report No: GÓ20-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/20/04
Date Received: 04/21/04

Date Extracted: 04/27/04
Date Analyzed: 05/12/04 11:50
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

Analyte	Lab Control	Spike Added	Recovery
Aroclor 1016	0.680	1.00	68.0%
Aroclor 1260	0.755	1.00	75.5%

PCB Surrogate Recovery

Decachlorobiphenyl	80.9%
Tetrachlorometaxylene	64.9%

Results reported in µg/L

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MW-119
SAMPLE

Lab Sample ID: GO34A
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/13/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/12/04 13:19
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 900 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.017	< 0.017 U
53469-21-9	Aroclor 1242	0.017	< 0.017 U
12672-29-6	Aroclor 1248	0.017	< 0.017 U
11097-69-1	Aroclor 1254	0.017	< 0.017 U
11096-82-5	Aroclor 1260	0.017	< 0.017 U
11104-28-2	Aroclor 1221	0.056	< 0.056 Y
11141-16-5	Aroclor 1232	0.056	< 0.056 Y

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	81.5%
Tetrachlorometaxylene	59.4%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MW-109
SAMPLE

Lab Sample ID: GO34B
LIMS ID: 04-6255
Matrix: Water
Data Release Authorized:
Reported: 05/13/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/12/04 13:41
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 900 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.017	< 0.017 U
53469-21-9	Aroclor 1242	0.017	< 0.017 U
12672-29-6	Aroclor 1248	0.017	< 0.017 U
11097-69-1	Aroclor 1254	0.017	< 0.017 U
11096-82-5	Aroclor 1260	0.017	< 0.017 U
11104-28-2	Aroclor 1221	0.017	< 0.017 U
11141-16-5	Aroclor 1232	0.017	< 0.017 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	77.5%
Tetrachlorometaxylene	60.2%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MW-107
SAMPLE

Lab Sample ID: GO34C
LIMS ID: 04-6256
Matrix: Water
Data Release Authorized:
Reported: 05/13/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/12/04 14:03
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 950 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.016	< 0.016 U
53469-21-9	Aroclor 1242	0.016	< 0.016 U
12672-29-6	Aroclor 1248	0.016	< 0.016 U
11097-69-1	Aroclor 1254	0.016	< 0.016 U
11096-82-5	Aroclor 1260	0.016	< 0.016 U
11104-28-2	Aroclor 1221	0.016	< 0.016 U
11141-16-5	Aroclor 1232	0.026	< 0.026 Y

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	87.9%
Tetrachlorometaxylene	68.8%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MW-106
SAMPLE

Lab Sample ID: GO34D
LIMS ID: 04-6257
Matrix: Water
Data Release Authorized:
Reported: 05/13/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/12/04 14:25
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.030	< 0.030 Y
53469-21-9	Aroclor 1242	0.030	< 0.030 Y
12672-29-6	Aroclor 1248	0.030	< 0.030 Y
11097-69-1	Aroclor 1254	0.015	< 0.015 U
11096-82-5	Aroclor 1260	0.015	< 0.015 U
11104-28-2	Aroclor 1221	0.030	< 0.030 Y
11141-16-5	Aroclor 1232	0.030	< 0.030 Y

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	71.0%
Tetrachlorometaxylene	59.6%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MW-105
SAMPLE

Lab Sample ID: GO34E
LIMS ID: 04-6258
Matrix: Water
Data Release Authorized:
Reported: 05/13/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/12/04 14:47
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.020	< 0.020 Y
53469-21-9	Aroclor 1242	0.025	< 0.025 Y
12672-29-6	Aroclor 1248	0.025	< 0.025 Y
11097-69-1	Aroclor 1254	0.015	< 0.015 U
11096-82-5	Aroclor 1260	0.015	< 0.015 U
11104-28-2	Aroclor 1221	0.015	< 0.015 U
11141-16-5	Aroclor 1232	0.025	< 0.025 Y

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	83.2%
Tetrachlorometaxylene	68.0%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MW-102
SAMPLE

Lab Sample ID: GO34F
LIMS ID: 04-6259
Matrix: Water
Data Release Authorized:
Reported: 05/13/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/27/04
Date Analyzed: 05/12/04 15:09
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 950 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.053	< 0.053 Y
53469-21-9	Aroclor 1242	0.053	< 0.053 Y
12672-29-6	Aroclor 1248	0.026	< 0.026 Y
11097-69-1	Aroclor 1254	0.016	< 0.016 U
11096-82-5	Aroclor 1260	0.016	< 0.016 U
11104-28-2	Aroclor 1221	0.016	< 0.016 U
11141-16-5	Aroclor 1232	0.053	< 0.053 Y

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	74.9%
Tetrachlorometaxylene	61.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method 8081A **Sample ID: MB-042804**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-042804
LIMS ID: 04-6256
Matrix: Water
Data Release Authorized:
Reported: 05/06/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: NA
Date Received: NA

Date Extracted: 04/28/04
Date Analyzed: 05/05/04 16:09
Instrument/Analyst: ECD3/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
pH: NA
Florisil Cleanup: No
Silica Gel: No

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.050	< 0.050 U
319-85-7	beta-BHC	0.050	< 0.050 U
319-86-8	delta-BHC	0.050	< 0.050 U
58-89-9	gamma-BHC (Lindane)	0.050	< 0.050 U
76-44-8	Heptachlor	0.050	< 0.050 U
309-00-2	Aldrin	0.050	< 0.050 U
1024-57-3	Heptachlor Epoxide	0.050	< 0.050 U
959-98-8	Endosulfan I	0.050	< 0.050 U
60-57-1	Dieldrin	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.10	< 0.10 U
72-20-8	Endrin	0.10	< 0.10 U
33213-65-9	Endosulfan II	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.10	< 0.10 U
1031-07-8	Endosulfan Sulfate	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.10	< 0.10 U
72-43-5	Methoxychlor	0.50	< 0.50 U
53494-70-5	Endrin Ketone	0.10	< 0.10 U
7421-93-4	Endrin Aldehyde	0.10	< 0.10 U
5103-74-2	gamma Chlordane	0.050	< 0.050 U
5103-71-9	alpha Chlordane	0.050	< 0.050 U
8001-35-2	Toxaphene	5.0	< 5.0 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	49.5%
Tetrachlorometaxylene	63.5%

ANALYTICAL RESOURCES INCORPORATED

SW8081/PESTICIDE WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

Client ID	DCBP	TCMX	TOT OUT
MB-042804	49.5%*	63.5%	1
LCS-042804	50.8%*	63.2%	1
MW-107	54.2%	55.0%	0
MW-106	58.0%	52.0%	0
MW-105	61.5%	52.5%	0

	LCS/MB LIMITS	QC LIMITS
(DCBP) = Decachlorobiphenyl	(64-119)	(18-140)
(TCMX) = Tetrachlorometaxylene	(45-94)	(18-122)

Prep Method: SW3510C
Log Number Range: 04-6256 to 04-6258

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method 8081A
Page 1 of 1

Sample ID: LCS-042804
LAB CONTROL

Lab Sample ID: LCS-042804
LIMS ID: 04-6256
Matrix: Water
Data Release Authorized: MW
Reported: 05/06/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/28/04
Date Analyzed: 05/05/04 16:43
Instrument/Analyst: ECD3/YZ
GPC Cleanup: No
Florisil Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Sulfur Cleanup: Yes
Silica Gel: No

Analyte	Lab Control	Spike Added	Recovery
alpha-BHC	0.162	0.200	81.0%
beta-BHC	0.174	0.200	87.0%
delta-BHC	0.161	0.200	80.5%
gamma-BHC (Lindane)	0.160	0.200	80.0%
Heptachlor	0.157	0.200	78.5%
Aldrin	0.155	0.200	77.5%
Heptachlor Epoxide	0.168	0.200	84.0%
Endosulfan I	0.162	0.200	81.0%
Dieldrin	0.337	0.400	84.2%
4,4'-DDE	0.377	0.400	94.2%
Endrin	0.357	0.400	89.2%
Endosulfan II	0.348	0.400	87.0%
4,4'-DDD	0.377	0.400	94.2%
Endosulfan Sulfate	0.330	0.400	82.5%
4,4'-DDT	0.357	0.400	89.2%
Methoxychlor	1.89	2.00	94.5%
Endrin Ketone	0.332	0.400	83.0%
Endrin Aldehyde	0.139	0.400	34.8%
gamma Chlordane	0.167	0.200	83.5%
alpha Chlordane	0.166	0.200	83.0%

not detected in associated samples

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	50.8%
Tetrachlorometaxylene	63.2%

Results reported in µg/L (ppb)

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method 8081A **Sample ID: MW-107**
Page 1 of 1 **SAMPLE**

Lab Sample ID: GO34C
LIMS ID: 04-6256
Matrix: Water
Data Release Authorized: MW
Reported: 05/06/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/28/04
Date Analyzed: 05/05/04 17:17
Instrument/Analyst: ECD3/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
pH: 6.8
Florisil Cleanup: No
Silica Gel: No

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.050	< 0.050 U
319-85-7	beta-BHC	0.050	< 0.050 U
319-86-8	delta-BHC	0.050	< 0.050 U
58-89-9	gamma-BHC (Lindane)	0.050	< 0.050 U
76-44-8	Heptachlor	0.050	< 0.050 U
309-00-2	Aldrin	0.050	< 0.050 U
1024-57-3	Heptachlor Epoxide	0.050	< 0.050 U
959-98-8	Endosulfan I	0.050	< 0.050 U
60-57-1	Dieldrin	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.10	< 0.10 U
72-20-8	Endrin	0.10	< 0.10 U
33213-65-9	Endosulfan II	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.10	< 0.10 U
1031-07-8	Endosulfan Sulfate	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.10	< 0.10 U
72-43-5	Methoxychlor	0.50	< 0.50 U
53494-70-5	Endrin Ketone	0.10	< 0.10 U
7421-93-4	Endrin Aldehyde	0.10	< 0.10 U
5103-74-2	gamma Chlordane	0.050	< 0.050 U
5103-71-9	alpha Chlordane	0.050	< 0.050 U
8001-35-2	Toxaphene	5.0	< 5.0 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	54.2%
Tetrachlorometaxylene	55.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method 8081A **Sample ID: MW-106**
Page 1 of 1 **SAMPLE**

Lab Sample ID: GO34D
LIMS ID: 04-6257
Matrix: Water
Data Release Authorized: MW
Reported: 05/06/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/28/04
Date Analyzed: 05/05/04 17:51
Instrument/Analyst: ECD3/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
pH: 6.6
Florisil Cleanup: No
Silica Gel: No

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.050	< 0.050 U
319-85-7	beta-BHC	0.050	< 0.050 U
319-86-8	delta-BHC	0.050	< 0.050 U
58-89-9	gamma-BHC (Lindane)	0.050	< 0.050 U
76-44-8	Heptachlor	0.050	< 0.050 U
309-00-2	Aldrin	0.050	< 0.050 U
1024-57-3	Heptachlor Epoxide	0.050	< 0.050 U
959-98-8	Endosulfan I	0.050	< 0.050 U
60-57-1	Dieldrin	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.10	< 0.10 U
72-20-8	Endrin	0.10	< 0.10 U
33213-65-9	Endosulfan II	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.10	< 0.10 U
1031-07-8	Endosulfan Sulfate	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.10	< 0.10 U
72-43-5	Methoxychlor	0.50	< 0.50 U
53494-70-5	Endrin Ketone	0.10	< 0.10 U
7421-93-4	Endrin Aldehyde	0.10	< 0.10 U
5103-74-2	gamma Chlordane	0.050	< 0.050 U
5103-71-9	alpha Chlordane	0.050	< 0.050 U
8001-35-2	Toxaphene	5.0	< 5.0 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	58.0%
Tetrachlorometaxylene	52.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method 8081A **Sample ID: MW-105**
Page 1 of 1 **SAMPLE**

Lab Sample ID: GO34E
LIMS ID: 04-6258
Matrix: Water
Data Release Authorized:
Reported: 05/06/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/28/04
Date Analyzed: 05/05/04 18:26
Instrument/Analyst: ECD3/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
pH: 6.7
Florisil Cleanup: No
Silica Gel: No

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.050	< 0.050 U
319-85-7	beta-BHC	0.050	< 0.050 U
319-86-8	delta-BHC	0.050	< 0.050 U
58-89-9	gamma-BHC (Lindane)	0.050	< 0.050 U
76-44-8	Heptachlor	0.050	< 0.050 U
309-00-2	Aldrin	0.050	< 0.050 U
1024-57-3	Heptachlor Epoxide	0.050	< 0.050 U
959-98-8	Endosulfan I	0.050	< 0.050 U
60-57-1	Dieldrin	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.10	< 0.10 U
72-20-8	Endrin	0.10	< 0.10 U
33213-65-9	Endosulfan II	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.10	< 0.10 U
1031-07-8	Endosulfan Sulfate	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.10	< 0.10 U
72-43-5	Methoxychlor	0.50	< 0.50 U
53494-70-5	Endrin Ketone	0.10	< 0.10 U
7421-93-4	Endrin Aldehyde	0.10	< 0.10 U
5103-74-2	gamma Chlordane	0.050	< 0.050 U
5103-71-9	alpha Chlordane	0.050	< 0.050 U
8001-35-2	Toxaphene	5.0	< 5.0 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	61.5%
Tetrachlorometaxylene	52.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL GASOLINE RANGE HYDROCARBONS
NWTPHg Toluene to Naphthalene
Page 1 of 1
Matrix: Water

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

Data Release Authorized:
Reported: 05/06/04

ARI ID	Client ID	Analysis Date	Range	Result mg/L
MB-042604	Method Blank	04/26/04	Gasoline	0.25 U
04-6254			HC ID	---
			Trifluorotoluene	111%
			Bromobenzene	112%
GO34A	MW-119	04/26/04	Gasoline	0.25 U
04-6254			HC ID	---
			Trifluorotoluene	92.3%
			Bromobenzene	103%
GO34B	MW-109	04/26/04	Gasoline	0.25 U
04-6255			HC ID	---
			Trifluorotoluene	95.6%
			Bromobenzene	106%
GO34C	MW-107	04/26/04	Gasoline	0.25 U
04-6256			HC ID	---
			Trifluorotoluene	97.1%
			Bromobenzene	108%
GO34D	MW-106	04/26/04	Gasoline	0.25 U
04-6257			HC ID	---
			Trifluorotoluene	77.9%
			Bromobenzene	96.6%
GO34E	MW-105	04/26/04	Gasoline	0.25 U
04-6258			HC ID	---
			Trifluorotoluene	90.5%
			Bromobenzene	107%
GO34F	MW-102	04/26/04	Gasoline	0.25 U
04-6259			HC ID	---
			Trifluorotoluene	86.2%
			Bromobenzene	99.4%
GO34M	Trip Blank	04/26/04	Gasoline	0.25 U
04-6266			HC ID	---
			Trifluorotoluene	96.4%
			Bromobenzene	105%

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

ANALYTICAL RESOURCES INCORPORATED

WATER TPHg SYSTEM MONITORING COMPOUND SUMMARY

Matrix: Water

QC Report No: GO34

LIMS ID	Lab ID	Client ID	TFT	BB	TOT OUT
04-6254MB	042604MB	Method Blank	111%	112%	0
04-6254LC	042604LC	Lab Control	104%	111%	0
04-6254LCD	042604LCD	Lab Control Dup	106%	108%	0
04-6254	GO34A	MW-119	92.3%	103%	0
04-6255	GO34B	MW-109	95.6%	106%	0
04-6256	GO34C	MW-107	97.1%	108%	0
04-6257	GO34D	MW-106	77.9%	96.6%	0
04-6258	GO34E	MW-105	90.5%	107%	0
04-6259	GO34F	MW-102	86.2%	99.4%	0
04-6266	GO34M	Trip Blank	96.4%	105%	0

	MB/LCS QC LIMITS	SAMPLE QC LIMITS
(TFT) = Trifluorotoluene	(74-126)	(31-139)
(BB) = Bromobenzene	(75-121)	(38-141)

Limits Updated - 04/26/04

\# Column to be used to flag recovery values

* Values outside of required QC limits

D System Monitoring Compound diluted out

FORM-II TPHg

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHg - Toluene to Naphthalene **Sample ID: LCS-042604**
Page 1 of 1 **LCS/LCSD**

Lab Sample ID: LCS-042604 QC Report No: GO34-Landau Associates
LIMS ID: 04-6254 Project: POA Uplands
Matrix: Water 529009.311
Data Release Authorized: Date Sampled: NA
Reported: 05/06/04 Date Received: NA

Instrument/Analyst LCS: PID2/AAR Sample Amount LCS: 5.0 mL
LCSD: PID2/AAR LCSD: 5.0 mL
Date Analyzed LCS: 04/26/04 13:37
LCSD: 04/26/04 14:05

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Gasoline Range Hydrocarbons	2.49	2.50	99.6%	2.57	2.50	103%	3.2%

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

Gasoline Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	104%	106%
Bromobenzene	111%	108%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1
Matrix: Water

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

Data Release Authorized:
Reported: 05/13/04

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result mg/L
MB-042604	Method Blank	04/26/04	05/12/04	1.0	Diesel	< 0.25 U
04-6254					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	103%
GO34A	MW-119	04/26/04	05/12/04	1.0	Diesel	< 0.25 U
04-6254					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	95.1%
GO34B	MW-109	04/26/04	05/12/04	1.0	Diesel	< 0.25 U
04-6255					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	90.2%
GO34C	MW-107	04/26/04	05/12/04	1.0	Diesel	< 0.25 U
04-6256					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	83.1%
GO34D	MW-106	04/26/04	05/12/04	1.0	Diesel	< 0.25 U
04-6257					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	83.8%
GO34E	MW-105	04/26/04	05/12/04	1.0	Diesel	< 0.25 U
04-6258					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	94.0%
GO34F	MW-102	04/26/04	05/13/04	1.0	Diesel	< 0.25 U
04-6259					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	82.4%

Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.

ANALYTICAL RESOURCES INCORPORATED

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311

Client ID	O-TER	TOT OUT
MB-042604	103%	0
LCS-042604	106%	0
MW-119	95.1%	0
MW-109	90.2%	0
MW-107	83.1%	0
MW-106	83.8%	0
MW-105	94.0%	0
MW-102	82.4%	0

	LCS/MB LIMITS	QC LIMITS
(O-TER) = o-Terphenyl	(55-110)	(32-116)

Prep Method: SW3510C
Log Number Range: 04-6254 to 04-6259

ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

ARI Job: GO34
Matrix: Water Project: POA Uplands
Date Received: 04/22/04 529009.311

ARI ID	Client ID	Client Amt	Final Vol	Prep Date
04-6254-042604MB1	Method Blank	500 mL	1.00 mL	04/26/04
04-6254-042604LCS1	Lab Control	500 mL	1.00 mL	04/26/04
04-6254-GO34A	MW-119	500 mL	1.00 mL	04/26/04
04-6255-GO34B	MW-109	500 mL	1.00 mL	04/26/04
04-6256-GO34C	MW-107	500 mL	1.00 mL	04/26/04
04-6257-GO34D	MW-106	500 mL	1.00 mL	04/26/04
04-6258-GO34E	MW-105	500 mL	1.00 mL	04/26/04
04-6259-GO34F	MW-102	500 mL	1.00 mL	04/26/04

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned **Sample ID: LCS-042604**
Page 1 of 1 **LAB CONTROL**

Lab Sample ID: LCS-042604
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/13/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Date Extracted: 04/26/04
Date Analyzed: 05/12/04 19:29
Instrument/Analyst: FID/ESJ

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

Range	Lab Control	Spike Added	Recovery
Diesel	2.34	3.00	78.0%

TPHD Surrogate Recovery

o-Terphenyl	106%

Results reported in mg/L

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: GO20MB
LIMS ID: 04-6159
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO20-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	04/27/04	6010B	04/29/04	7440-36-0	Antimony	0.05	0.05	U
7060A	04/27/04	7060A	04/30/04	7440-38-2	Arsenic	0.001	0.001	U
3010A	04/27/04	6010B	04/29/04	7440-43-9	Cadmium	0.002	0.002	U
3010A	04/27/04	6010B	04/29/04	7440-50-8	Copper	0.002	0.002	U
3010A	04/27/04	6010B	04/29/04	7439-92-1	Lead	0.02	0.02	U
7470A	04/27/04	7470A	04/30/04	7439-97-6	Mercury	0.0001	0.0001	U
3010A	04/27/04	6010B	04/29/04	7440-02-0	Nickel	0.01	0.01	U
3010A	04/27/04	6010B	04/29/04	7440-28-0	Thallium	0.05	0.05	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: LAB CONTROL

Lab Sample ID: GO20LCS
LIMS ID: 04-6159
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO20-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	6010B	2.03	2.00	102%	
Arsenic	7060A	0.105	0.100	105%	
Cadmium	6010B	0.507	0.500	101%	
Copper	6010B	0.489	0.500	97.8%	
Lead	6010B	2.03	2.00	102%	
Mercury	7470A	0.0023	0.0020	115%	
Nickel	6010B	0.48	0.50	96.0%	
Thallium	6010B	2.01	2.00	100%	

Reported in mg/L

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

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW-119
SAMPLE

Lab Sample ID: GO34A
LIMS ID: 04-6254
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	04/27/04	6010B	04/29/04	7440-36-0	Antimony	0.05	0.05	U
7060A	04/27/04	7060A	04/30/04	**7440-38-2**	**Arsenic**	0.001	**0.001**	
3010A	04/27/04	6010B	04/29/04	7440-43-9	Cadmium	0.002	0.002	U
3010A	04/27/04	6010B	04/29/04	7440-50-8	Copper	0.002	0.002	U
3010A	04/27/04	6010B	04/29/04	7439-92-1	Lead	0.02	0.02	U
7470A	04/27/04	7470A	04/30/04	7439-97-6	Mercury	0.0001	0.0001	U
3010A	04/27/04	6010B	04/29/04	7440-02-0	Nickel	0.01	0.01	U
3010A	04/27/04	6010B	04/29/04	7440-28-0	Thallium	0.05	0.05	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: MW-109
SAMPLE

Lab Sample ID: GO34B
LIMS ID: 04-6255
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	04/27/04	6010B	04/30/04	7440-36-0	Antimony	0.05	0.05	U
7060A	04/27/04	7060A	04/30/04	**7440-38-2**	**Arsenic**	0.001	**0.001**	
3010A	04/27/04	6010B	04/30/04	7440-43-9	Cadmium	0.002	0.002	U
3010A	04/27/04	6010B	04/30/04	7440-50-8	Copper	0.002	0.002	U
3010A	04/27/04	6010B	04/30/04	7439-92-1	Lead	0.02	0.02	U
7470A	04/27/04	7470A	04/30/04	7439-97-6	Mercury	0.0001	0.0001	U
3010A	04/27/04	6010B	04/30/04	7440-02-0	Nickel	0.01	0.01	U
3010A	04/27/04	6010B	04/30/04	7440-28-0	Thallium	0.05	0.05	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW-107
SAMPLE

Lab Sample ID: GO34C
LIMS ID: 04-6256
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	04/27/04	6010B	04/30/04	7440-36-0	Antimony	0.05	0.05	U
7060A	04/27/04	7060A	05/03/04	**7440-38-2**	**Arsenic**	0.002	**0.005**	
3010A	04/27/04	6010B	04/30/04	7440-43-9	Cadmium	0.002	0.002	U
3010A	04/27/04	6010B	04/30/04	**7440-50-8**	**Copper**	0.002	**0.002**	
3010A	04/27/04	6010B	04/30/04	7439-92-1	Lead	0.02	0.02	U
7470A	04/27/04	7470A	04/30/04	7439-97-6	Mercury	0.0001	0.0001	U
3010A	04/27/04	6010B	04/30/04	7440-02-0	Nickel	0.01	0.01	U
3010A	04/27/04	6010B	04/30/04	7440-28-0	Thallium	0.05	0.05	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW-106
SAMPLE

Lab Sample ID: GO34D
LIMS ID: 04-6257
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	04/27/04	6010B	04/30/04	7440-36-0	Antimony	0.2	0.2	U
7060A	04/27/04	7060A	04/30/04	7440-38-2	Arsenic	0.01	0.01	U
3010A	04/27/04	6010B	04/30/04	7440-43-9	Cadmium	0.01	0.01	U
3010A	04/27/04	6010B	04/30/04	**7440-50-8**	**Copper**	0.01	**0.01**	
3010A	04/27/04	6010B	04/30/04	7439-92-1	Lead	0.1	0.1	U
7470A	04/27/04	7470A	04/30/04	7439-97-6	Mercury	0.0001	0.0001	U
3010A	04/27/04	6010B	04/30/04	7440-02-0	Nickel	0.05	0.05	U
3010A	04/27/04	6010B	04/30/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: MW-105
SAMPLE

Lab Sample ID: GO34E
LIMS ID: 04-6258
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	04/27/04	6010B	04/30/04	7440-36-0	Antimony	0.2	0.2	U
7060A	04/27/04	7060A	04/30/04	7440-38-2	Arsenic	0.01	0.01	U
3010A	04/27/04	6010B	04/30/04	7440-43-9	Cadmium	0.01	0.01	U
3010A	04/27/04	6010B	04/30/04	7440-50-8	Copper	0.01	0.01	U
3010A	04/27/04	6010B	04/30/04	7439-92-1	Lead	0.1	0.1	U
7470A	04/27/04	7470A	04/30/04	7439-97-6	Mercury	0.0001	0.0001	U
3010A	04/27/04	6010B	04/30/04	7440-02-0	Nickel	0.05	0.05	U
3010A	04/27/04	6010B	04/30/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW-102
SAMPLE

Lab Sample ID: GO34F
LIMS ID: 04-6259
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	04/27/04	6010B	04/30/04	7440-36-0	Antimony	0.05	0.05	U
7060A	04/27/04	7060A	04/30/04	**7440-38-2**	**Arsenic**	0.001	**0.006**	
3010A	04/27/04	6010B	04/30/04	7440-43-9	Cadmium	0.002	0.002	U
3010A	04/27/04	6010B	04/30/04	7440-50-8	Copper	0.002	0.002	U
3010A	04/27/04	6010B	04/30/04	7439-92-1	Lead	0.02	0.02	U
7470A	04/27/04	7470A	04/30/04	7439-97-6	Mercury	0.0001	0.0001	U
3010A	04/27/04	6010B	04/30/04	**7440-02-0**	**Nickel**	0.01	**0.02**	
3010A	04/27/04	6010B	04/30/04	7440-28-0	Thallium	0.05	0.05	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: GO20MB
LIMS ID: 04-6164
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO20-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	04/27/04	6010B	04/29/04	7440-36-0	Antimony	0.05	0.05	U
7060A	05/07/04	7060A	05/11/04	7440-38-2	Arsenic	0.001	0.001	U
6010B	04/27/04	6010B	04/29/04	7440-43-9	Cadmium	0.002	0.002	U
6010B	04/27/04	6010B	04/29/04	7440-50-8	Copper	0.002	0.002	U
6010B	04/27/04	6010B	04/29/04	7439-92-1	Lead	0.02	0.02	U
7470A	04/27/04	7470A	04/30/04	7439-97-6	Mercury	0.0001	0.0001	U
6010B	04/27/04	6010B	04/29/04	7440-02-0	Nickel	0.01	0.01	U
6010B	04/27/04	6010B	04/29/04	7440-28-0	Thallium	0.05	0.05	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: GO20LCS
LIMS ID: 04-6164
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO20-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	6010B	2.05	2.00	102%	
Arsenic	7060A	0.099	0.100	99.0%	
Cadmium	6010B	0.523	0.500	105%	
Copper	6010B	0.475	0.500	95.0%	
Lead	6010B	2.06	2.00	103%	
Mercury	7470A	0.0023	0.0020	115%	
Nickel	6010B	0.48	0.50	96.0%	
Thallium	6010B	2.04	2.00	102%	

Reported in mg/L

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

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-119
SAMPLE

Lab Sample ID: GO34G
LIMS ID: 04-6260
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	04/27/04	6010B	04/30/04	7440-36-0	Antimony	0.05	0.05	U
7060A	05/07/04	7060A	05/11/04	7440-38-2	Arsenic	0.001	0.001	U
6010B	04/27/04	6010B	04/30/04	7440-43-9	Cadmium	0.002	0.002	U
6010B	04/27/04	6010B	04/30/04	7440-50-8	Copper	0.002	0.002	U
6010B	04/27/04	6010B	04/30/04	7439-92-1	Lead	0.02	0.02	U
7470A	04/27/04	7470A	04/30/04	7439-97-6	Mercury	0.0001	0.0001	U
6010B	04/27/04	6010B	04/30/04	7440-02-0	Nickel	0.01	0.01	U
6010B	04/27/04	6010B	04/30/04	7440-28-0	Thallium	0.05	0.05	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-109
SAMPLE

Lab Sample ID: GO34H
LIMS ID: 04-6261
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	04/27/04	6010B	04/30/04	7440-36-0	Antimony	0.05	0.05	U
7060A	05/07/04	7060A	05/11/04	**7440-38-2**	**Arsenic**	0.001	**0.001**	
6010B	04/27/04	6010B	04/30/04	7440-43-9	Cadmium	0.002	0.002	U
6010B	04/27/04	6010B	04/30/04	7440-50-8	Copper	0.002	0.002	U
6010B	04/27/04	6010B	04/30/04	7439-92-1	Lead	0.02	0.02	U
7470A	04/27/04	7470A	04/30/04	7439-97-6	Mercury	0.0001	0.0001	U
6010B	04/27/04	6010B	04/30/04	7440-02-0	Nickel	0.01	0.01	U
6010B	04/27/04	6010B	04/30/04	7440-28-0	Thallium	0.05	0.05	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-107
SAMPLE

Lab Sample ID: GO34I
LIMS ID: 04-6262
Matrix: Water
Data Release Authorized: BC
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	04/27/04	6010B	04/30/04	7440-36-0	Antimony	0.05	0.05	U
7060A	05/07/04	7060A	05/11/04	**7440-38-2**	**Arsenic**	0.001	**0.002**	
6010B	04/27/04	6010B	04/30/04	7440-43-9	Cadmium	0.002	0.002	U
6010B	04/27/04	6010B	04/30/04	7440-50-8	Copper	0.002	0.002	U
6010B	04/27/04	6010B	04/30/04	7439-92-1	Lead	0.02	0.02	U
7470A	04/27/04	7470A	04/30/04	7439-97-6	Mercury	0.0001	0.0001	U
6010B	04/27/04	6010B	04/30/04	7440-02-0	Nickel	0.01	0.01	U
6010B	04/27/04	6010B	04/30/04	7440-28-0	Thallium	0.05	0.05	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: MW-106
SAMPLE

Lab Sample ID: GO34J
LIMS ID: 04-6263
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	04/27/04	6010B	04/29/04	7440-36-0	Antimony	0.2	0.2	U
7060A	05/07/04	7060A	05/11/04	**7440-38-2**	**Arsenic**	0.001	**0.002**	
6010B	04/27/04	6010B	04/29/04	7440-43-9	Cadmium	0.01	0.01	U
6010B	04/27/04	6010B	04/29/04	7440-50-8	Copper	0.01	0.01	U
6010B	04/27/04	6010B	04/29/04	7439-92-1	Lead	0.1	0.1	U
7470A	04/27/04	7470A	04/30/04	7439-97-6	Mercury	0.0001	0.0001	U
6010B	04/27/04	6010B	04/29/04	7440-02-0	Nickel	0.05	0.05	U
6010B	04/27/04	6010B	04/29/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-105
SAMPLE

Lab Sample ID: GO34K
LIMS ID: 04-6264
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	04/27/04	6010B	04/29/04	7440-36-0	Antimony	0.2	0.2	U
7060A	05/07/04	7060A	05/11/04	**7440-38-2**	**Arsenic**	0.001	**0.002**	
6010B	04/27/04	6010B	04/29/04	7440-43-9	Cadmium	0.01	0.01	U
6010B	04/27/04	6010B	04/29/04	7440-50-8	Copper	0.01	0.01	U
6010B	04/27/04	6010B	04/29/04	7439-92-1	Lead	0.1	0.1	U
7470A	04/27/04	7470A	04/30/04	7439-97-6	Mercury	0.0001	0.0001	U
6010B	04/27/04	6010B	04/29/04	7440-02-0	Nickel	0.05	0.05	U
6010B	04/27/04	6010B	04/29/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-102
SAMPLE

Lab Sample ID: GO34L
LIMS ID: 04-6265
Matrix: Water
Data Release Authorized:
Reported: 05/12/04

QC Report No: GO34-Landau Associates
Project: POA Uplands
529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	04/27/04	6010B	04/30/04	7440-36-0	Antimony	0.05	0.05	U
7060A	05/07/04	7060A	05/11/04	**7440-38-2**	**Arsenic**	0.001	**0.015**	
6010B	04/27/04	6010B	04/30/04	7440-43-9	Cadmium	0.002	0.002	U
6010B	04/27/04	6010B	04/30/04	7440-50-8	Copper	0.002	0.002	U
6010B	04/27/04	6010B	04/30/04	7439-92-1	Lead	0.02	0.02	U
7470A	04/27/04	7470A	04/30/04	7439-97-6	Mercury	0.0001	0.0001	U
6010B	04/27/04	6010B	04/30/04	**7440-02-0**	**Nickel**	0.01	**0.02**	
6010B	04/27/04	6010B	04/30/04	7440-28-0	Thallium	0.05	0.05	U

U-Analyte undetected at given RL
RL-Reporting Limit

METHOD BLANK RESULTS-CONVENTIONALS
GO34-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: [signature]
Reported: 05/10/04

Project: POA Uplands
Event: 529009.311
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Chloride	05/05/04	mg/L	< 1.0 U
N-Ammonia	05/04/04	mg-N/L	< 0.010 U
	05/07/04		< 0.010 U
N-Nitrite	04/22/04	mg-N/L	< 0.010 U
Nitrate + Nitrite (NO3+NO2)	04/22/04	mg-N/L	< 0.010 U
Sulfate	05/05/04	mg/L	< 2.0 U
Sulfide	04/28/04	mg/L	< 0.05 U
Phenol	04/30/04	mg/L	< 0.03 U

MS/MSD RESULTS-CONVENTIONALS
GO34-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: [signature]
Reported: 05/10/04

Project: POA Uplands
Event: 529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Analyte	ID Date	Units	Sample	Spike	Spike Added	Recovery
N-Ammonia	GO34A MW-119 05/04/04	mg-N/L	8.31	18.2	10.0	98.9%
Sulfide	GO34E MW-105 04/28/04	mg/L	17.5	22.8	7.04	75.3%

REPLICATE RESULTS-CONVENTIONALS
GO34-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 05/10/04

Project: POA Uplands
Event: 529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Analyte	ID Date	Units	Sample	Replicate	RPD
N-Ammonia	GO34A MW-119 05/04/04	mg-N/L	8.31	8.31	0.0%
Sulfide	GO34E MW-105 04/28/04	mg/L	17.5	17.5	0.0%

LAB CONTROL RESULTS-CONVENTIONALS
GO34-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: ajp
Reported: 05/10/04

Project: POA Uplands
Event: 529009.311
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	LCS	Spike Added	Recovery
Sulfide	04/28/04	mg/L	6.51	7.04	92.5%

STANDARD REFERENCE RESULTS-CONVENTIONALS
GO34-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: aw
Reported: 05/10/04

Project: POA Uplands
Event: 529009.311
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Chloride ERA #22013	05/05/04	mg/L	5.0	5.0	100.0%
N-Ammonia ERA #03043	05/04/04 05/07/04	mg-N/L	0.488 0.495	0.500 0.500	97.6% 99.0%
N-Nitrite ERA #17042	04/22/04	mg-N/L	0.509	0.500	101.8%
Nitrate + Nitrite (NO3+NO2) ERA #10062	04/22/04	mg-N/L	0.482	0.500	96.4%
Sulfate ERA #31073	05/05/04	mg/L	24.0	25.0	96.0%
Phenol ERA 05111.2	04/30/04	mg/L	0.99	1.00	99.0%

SAMPLE RESULTS-CONVENTIONALS
GO34-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 05/10/04

Project: POA Uplands
Event: 529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Client ID: MW-119
ARI ID: 04-6254 GO34A

Analyte	Date	Method	Units	RL	Sample
Chloride	05/05/04	EPA 325.2	mg/L	100	512
N-Ammonia	05/04/04	EPA 350.1M	mg-N/L	0.100	8.31
N-Nitrate	04/22/04	Calculated	mg-N/L	0.010	< 0.010 U
N-Nitrite	04/22/04	EPA 353.2	mg-N/L	0.010	< 0.010 U
Nitrate + Nitrite (NO3+NO2)	04/22/04	EPA 353.2	mg-N/L	0.010	< 0.010 U
Sulfate	05/05/04	EPA 375.2	mg/L	2.0	8.4
Sulfide	04/28/04	EPA 376.2	mg/L	0.50	< 0.50 U
Phenol	04/30/04	EPA 420.1	mg/L	0.03	< 0.03 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
GO34-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: ajp
Reported: 05/10/04

Project: POA Uplands
Event: 529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Client ID: MW-109
ARI ID: 04-6255 GO34B

Analyte	Date	Method	Units	RL	Sample
Chloride	05/05/04	EPA 325.2	mg/L	100	501
N-Ammonia	05/04/04	EPA 350.1M	mg-N/L	0.100	8.27
N-Nitrate	04/22/04	Calculated	mg-N/L	0.010	< 0.010 U
N-Nitrite	04/22/04	EPA 353.2	mg-N/L	0.010	< 0.010 U
Nitrate + Nitrite (NO3+NO2)	04/22/04	EPA 353.2	mg-N/L	0.010	< 0.010 U
Sulfate	05/05/04	EPA 375.2	mg/L	2.0	8.0
Sulfide	04/28/04	EPA 376.2	mg/L	0.50	< 0.50 U
Phenol	04/30/04	EPA 420.1	mg/L	0.03	< 0.03 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
GO34-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: amp
Reported: 05/10/04

Project: POA Uplands
Event: 529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Client ID: MW-107
ARI ID: 04-6256 GO34C

Analyte	Date	Method	Units	RL	Sample
Chloride	05/05/04	EPA 325.2	mg/L	2,000	4,250
N-Ammonia	05/07/04	EPA 350.1M	mg-N/L	0.020	0.837
N-Nitrate	04/22/04	Calculated	mg-N/L	0.010	< 0.010 U
N-Nitrite	04/22/04	EPA 353.2	mg-N/L	0.010	0.026
Nitrate + Nitrite (NO3+NO2)	04/22/04	EPA 353.2	mg-N/L	0.010	0.011
Sulfate	05/05/04	EPA 375.2	mg/L	40.0	494
Sulfide	04/28/04	EPA 376.2	mg/L	2.50	14.6
Phenol	04/30/04	EPA 420.1	mg/L	0.03	< 0.03 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
GO34-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: ark
Reported: 05/10/04

Project: POA Uplands
Event: 529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Client ID: MW-106
ARI ID: 04-6257 GO34D

Analyte	Date	Method	Units	RL	Sample
Chloride	05/05/04	EPA 325.2	mg/L	2,000	16,200
N-Ammonia	05/04/04	EPA 350.1M	mg-N/L	0.010	0.481
N-Nitrate	04/22/04	Calculated	mg-N/L	0.010	< 0.010 U
N-Nitrite	04/22/04	EPA 353.2	mg-N/L	0.010	< 0.010 U
Nitrate + Nitrite (NO3+NO2)	04/22/04	EPA 353.2	mg-N/L	0.010	< 0.010 U
Sulfate	05/05/04	EPA 375.2	mg/L	100	1,880
Sulfide	04/28/04	EPA 376.2	mg/L	0.25	1.56
Phenol	04/30/04	EPA 420.1	mg/L	0.03	< 0.03 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
GO34-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: 04P
Reported: 05/10/04

Project: POA Uplands
Event: 529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Client ID: MW-105
ARI ID: 04-6258 GO34E

Analyte	Date	Method	Units	RL	Sample
Chloride	05/05/04	EPA 325.2	mg/L	2,000	16,400
N-Ammonia	05/04/04	EPA 350.1M	mg-N/L	0.010	0.605
N-Nitrate	04/22/04	Calculated	mg-N/L	0.010	0.015
N-Nitrite	04/22/04	EPA 353.2	mg-N/L	0.010	< 0.010 U
Nitrate + Nitrite (NO3+NO2)	04/22/04	EPA 353.2	mg-N/L	0.010	0.015
Sulfate	05/05/04	EPA 375.2	mg/L	100	1,960
Sulfide	04/28/04	EPA 376.2	mg/L	1.00	17.5
Phenol	04/30/04	EPA 420.1	mg/L	0.03	< 0.03 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
GO34-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: QAP
Reported: 05/10/04

Project: POA Uplands
Event: 529009.311
Date Sampled: 04/21/04
Date Received: 04/22/04

Client ID: MW-102
ARI ID: 04-6259 GO34F

Analyte	Date	Method	Units	RL	Sample
Chloride	05/05/04	EPA 325.2	mg/L	500	1,920
N-Ammonia	05/07/04	EPA 350.1M	mg-N/L	0.200	12.2
N-Nitrate	04/22/04	Calculated	mg-N/L	0.010	< 0.010 U
N-Nitrite	04/22/04	EPA 353.2	mg-N/L	0.010	< 0.010 U
Nitrate + Nitrite (NO3+NO2)	04/22/04	EPA 353.2	mg-N/L	0.010	< 0.010 U
Sulfate	05/05/04	EPA 375.2	mg/L	10.0	125
Sulfide	04/28/04	EPA 376.2	mg/L	0.05	< 0.05 U
Phenol	04/30/04	EPA 420.1	mg/L	0.16	1.35

RL Analytical reporting limit
U Undetected at reported detection limit

AQUATIC RESEARCH INCORPORATED

LABORATORY & CONSULTING SERVICES

3927 AURORA AVENUE NORTH, SEATTLE, WA 98103

PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER:	**ARI096-52**	**PAGE 1**	
REPORT DATE:	**05/07/04**		
DATE SAMPLED:	**04/21/04**	**DATE RECEIVED:**	**04/23/04**

FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM ANALYTICAL RESOURCES / GO34

CASE NARRATIVE

Six water samples were received by the laboratory in good condition. The samples were analyzed according to the chain-of-custody. No difficulties were encountered in the preparation or analysis of these samples. Sample data follows while QA/QC data is contained on the subsequent page.

SAMPLE DATA

SAMPLE ID	LAB ID	TANNINS/LIGNINS (mg/l)
MW-119	04-6260-GO34G	5.52
MW-109	04-6261-GO34H	5.66
MW-107	04-6262-GO34I	5.66
MW-106	04-6263-GO34J	1.70
MW-105	04-6264-GO34K	0.969
MW-102	04-6265-GO34L	11.2

AQUATIC RESEARCH INCORPORATED

LABORATORY & CONSULTING SERVICES

3927 AURORA AVENUE NORTH, SEATTLE, WA 98103

PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER:	**ARI096-52**	**PAGE 2**	
REPORT DATE:	**05/07/04**		
DATE SAMPLED:	**04/21/04**	**DATE RECEIVED:**	**04/23/04**

FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM ANALYTICAL RESOURCES / GO34

QA/QC DATA

QC PARAMETER	TANNINS/LIGNINS (mg/l)
METHOD	SM18 5550B
DATE ANALYZED	08/11/03
DETECTION LIMIT	0.010
DUPLICATE	
SAMPLE ID	BATCH
ORIGINAL	5.22
DUPLICATE	5.30
RPD	1.46%
SPIKE SAMPLE	
SAMPLE ID	BATCH
ORIGINAL	5.22
SPIKED SAMPLE	6.27
SPIKE ADDED	1.00
% RECOVERY	104.73%
QC CHECK	
FOUND	0.935
TRUE	1.00
% RECOVERY	93.50%
BLANK	<0.010

RPD = RELATIVE PERCENT DIFFERENCE.
NA = NOT APPLICABLE OR NOT AVAILABLE.
NC = NOT CALCULABLE DUE TO ONE OR MORE VALUES BEING BELOW THE DETECTION LIMIT.
OR = RECOVERY NOT CALCULABLE DUE TO SPIKE SAMPLE OUT OF RANGE OR SPIKE TO LOW RELATIVE TO SAMPLE CONCENTRATION.

SUBMITTED BY:

Steven Lazoff
Laboratory Director

ARI096 SC

SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 04\22\04

ANALYTICAL RESOURCES INCORPORATED

ARI Project: GO34

Laboratory: Aquatic Research, Inc
Lab Contact: Steve Lazoff
Lab Address: 3927 Aurora Ave N.
Seattle, WA 98103
Phone: 206-632-2715
Fax: 206-632-2417

ARI Client: Landau Associates
Project ID: 529009.34
ARI PMgr: Mary Lou Fox
Phone: (206) 340-2866 Ext
Fax: (206) 695-6201

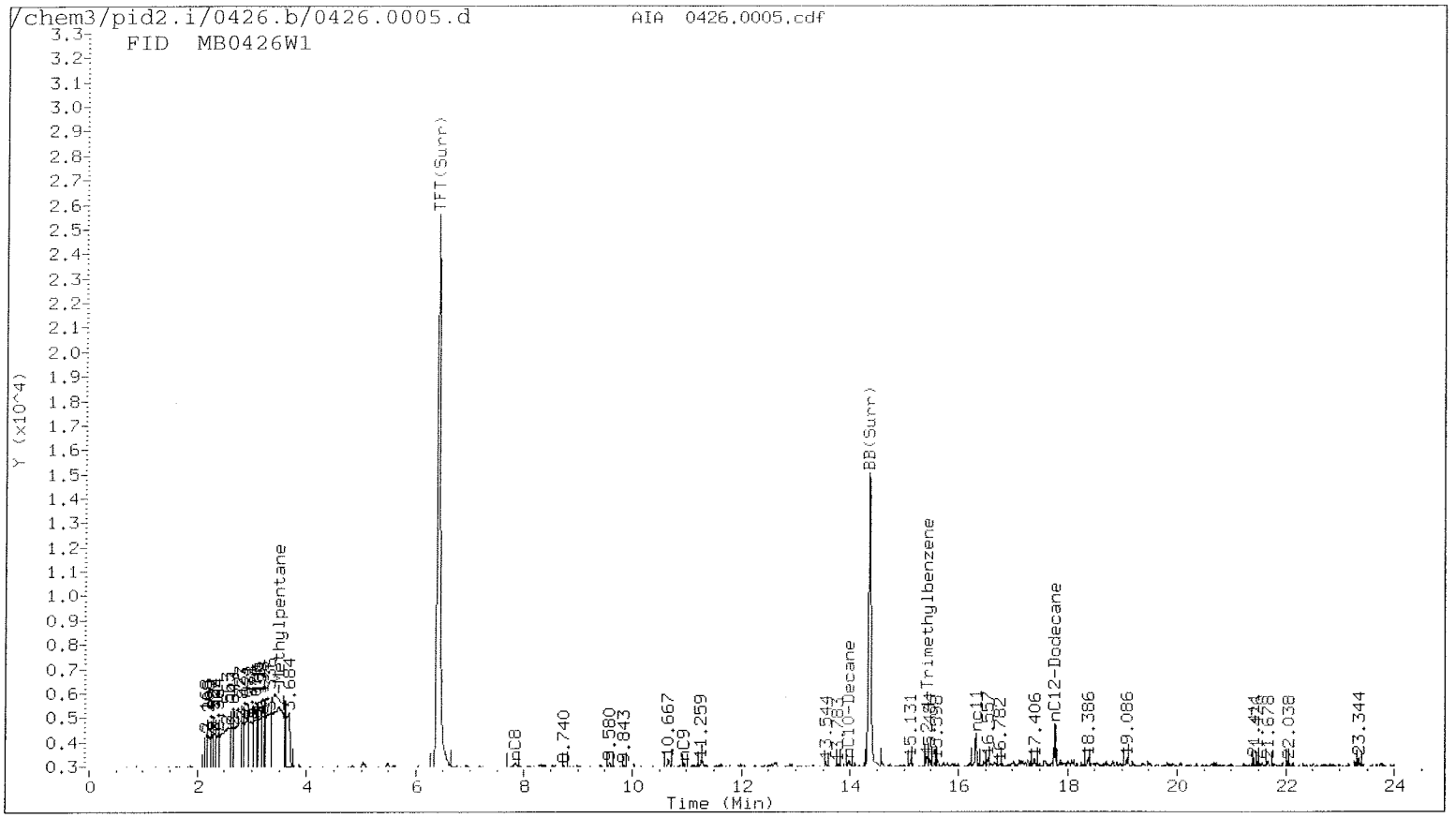
Analytical Protocol: In-house
Special Instructions:

Requested Turn Around: **05/06/04**
Fax Results (Y/N): **Yes**

Limits of Liability. *Subcontractor is expected to perform all requested services in accordance with appropriate methodology following Standard Operating Procedures that meet standards for the industry. The total liability of ARI, its officers, agents, employees, or sucessors, arising out of or in connection with the requested services, shall not exceed the negotiated amount for said services. The agreement by the Subcontractor to perform services requested by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.*

ARI Sample ID	Client Sample ID/ Add'l Sample ID	Sampled	Matrix	Bottles	Analyses
04-6260-GO34G	MW-119	4/21/04	Water	1	Tannins & Lignins
Special Instructions: /					
04-6261-GO34H	MW-109	4/21/04	Water	1	Tannins & Lignins
Special Instructions: /					
04-6262-GO34I	MW-107	4/21/04	Water	1	Tannins & Lignins
Special Instructions: /					
04-6263-GO34J	MW-106	4/21/04	Water	1	Tannins & Lignins
Special Instructions: /					
04-6264-GO34K	MW-105	4/21/04	Water	1	Tannins & Lignins
Special Instructions: /					
04-6265-GO34L	MW-102	4/21/04	Water	1	Tannins & Lignins
Special Instructions: /					

Carrier UPS	Airbill 1Z26950342857795	Date 4/22/04	
Relinquished by	Company ARI	Date 4/22/04	Time 1600
Received by	Company ARI	Date 4/23/04	Time 1600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BB(Surr)
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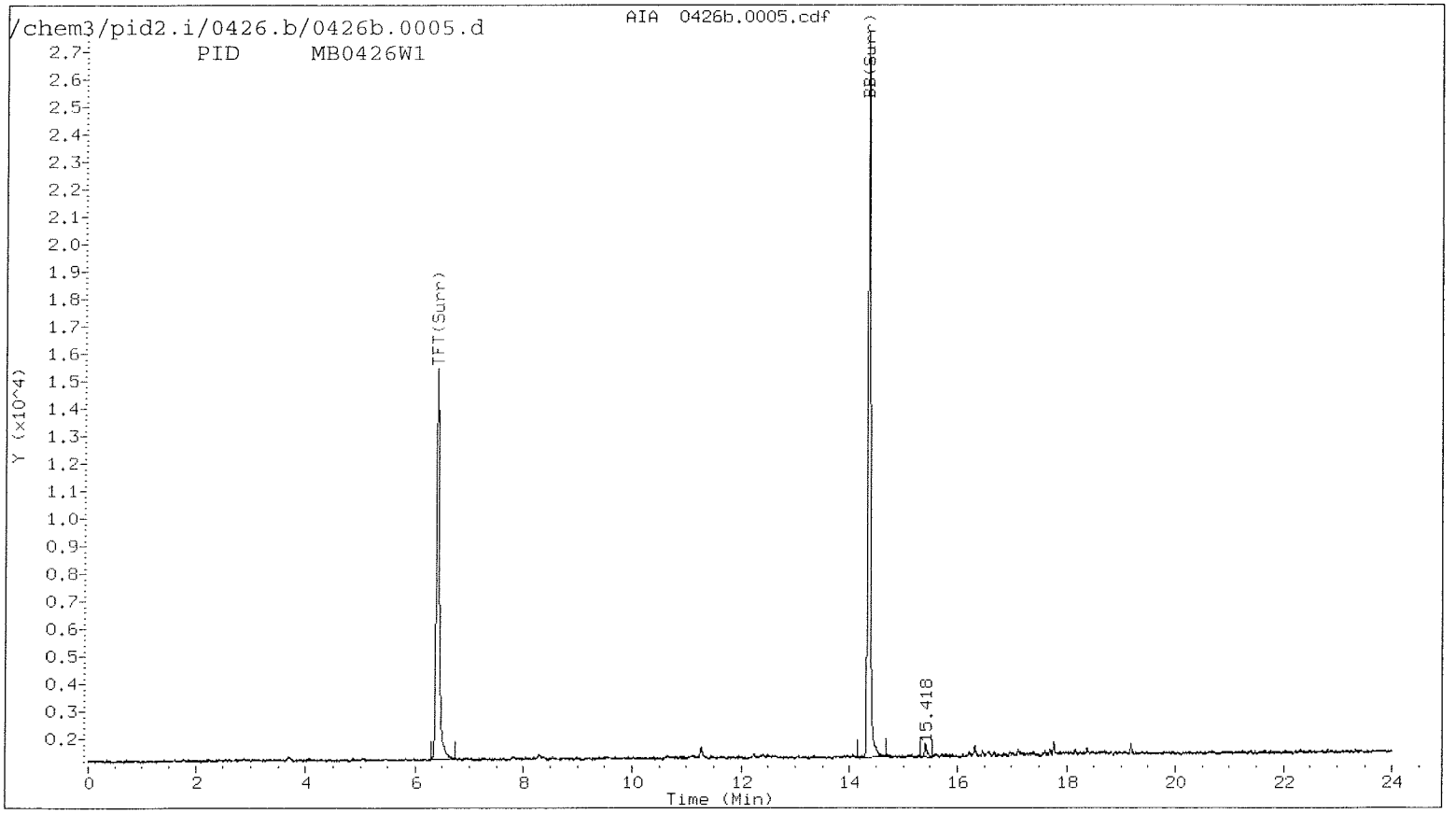
nC9
nC10-Decane
Trimethylbenzene
nC12-Dodecane
Y (x10^4)
Time (Min)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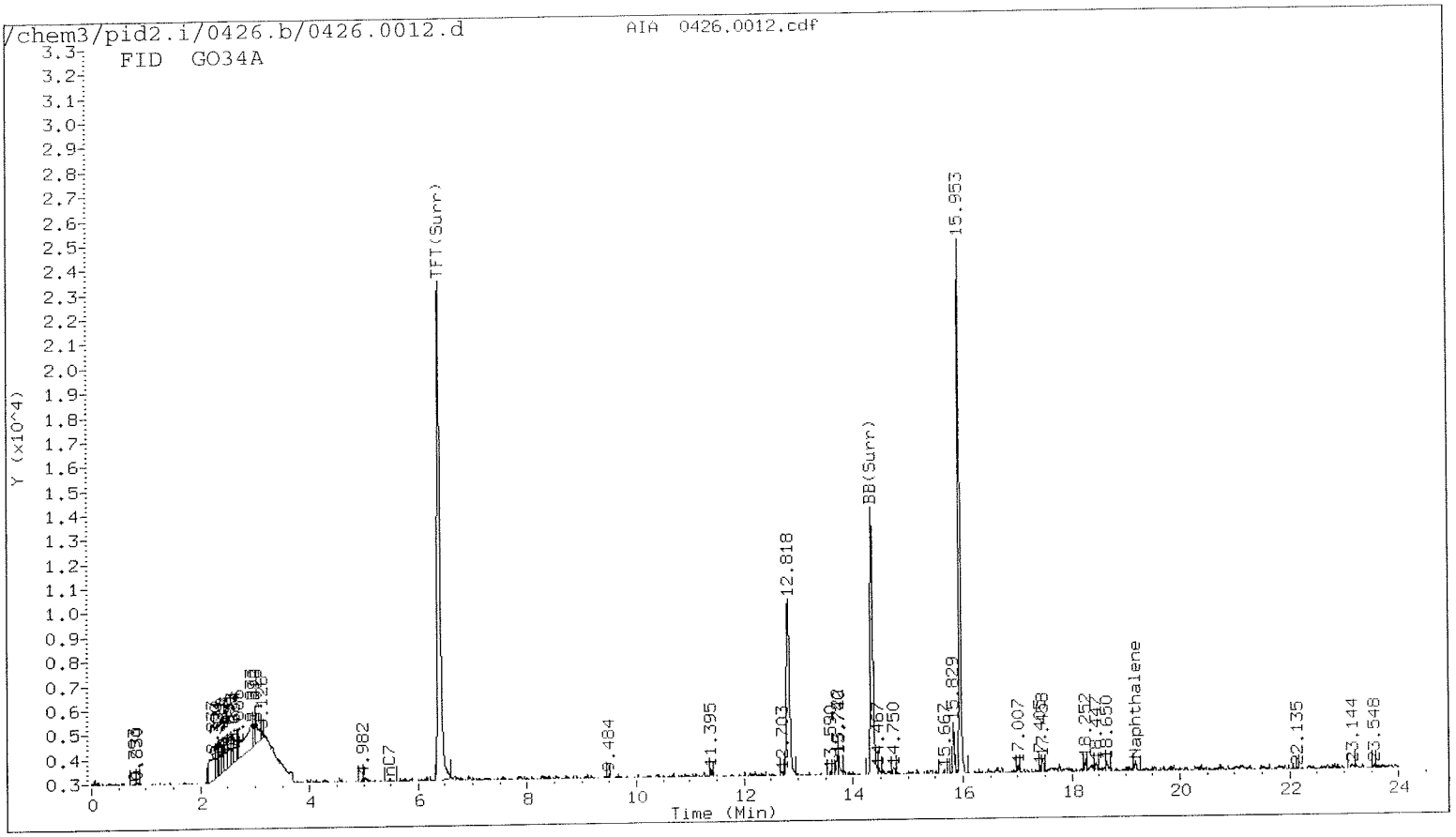
Time (Min)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FID GO34A
TFT(Surr)
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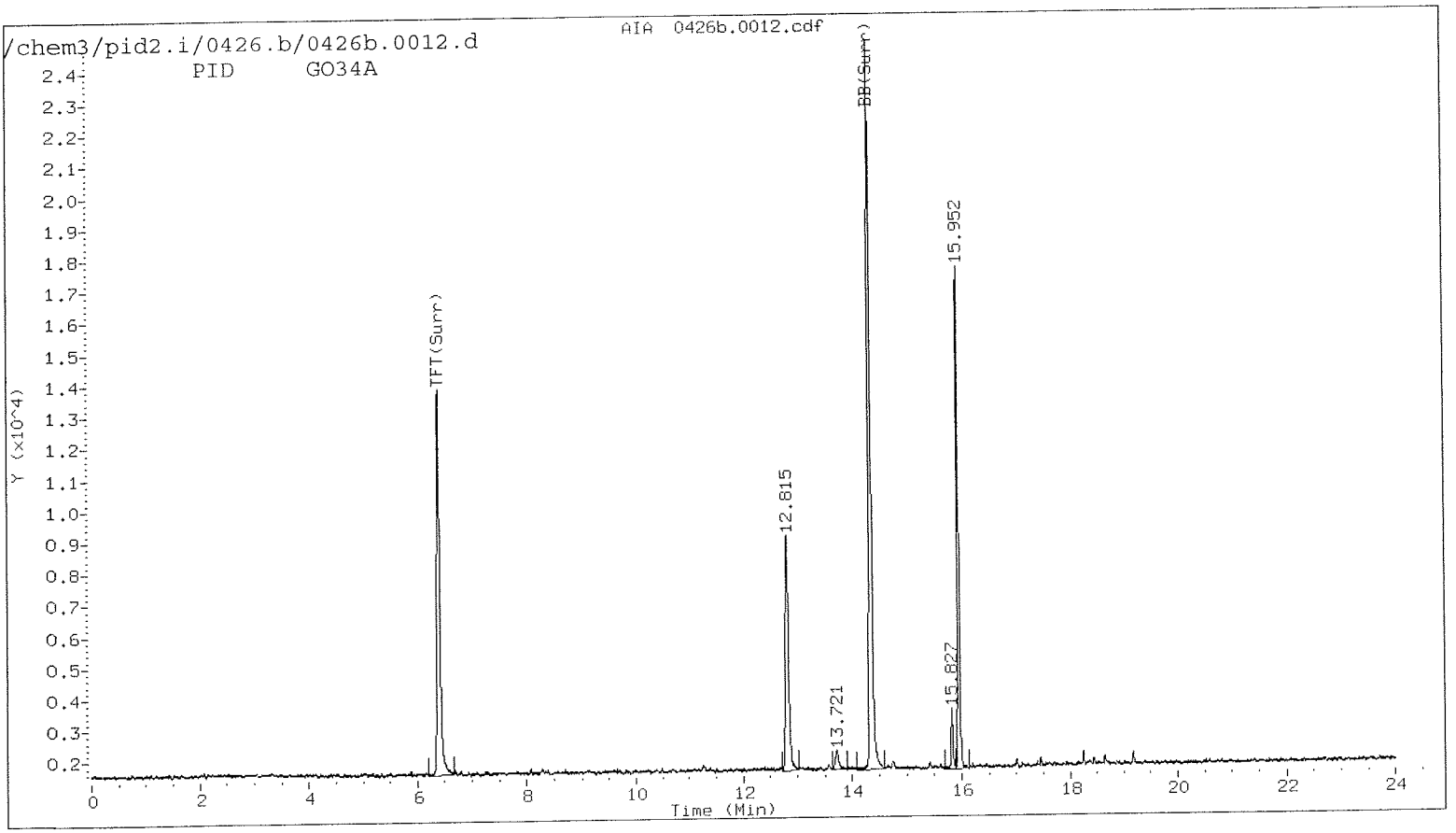
BB(Surr)
15.953
Naphthalene
Y (x10^4)
Time (Min)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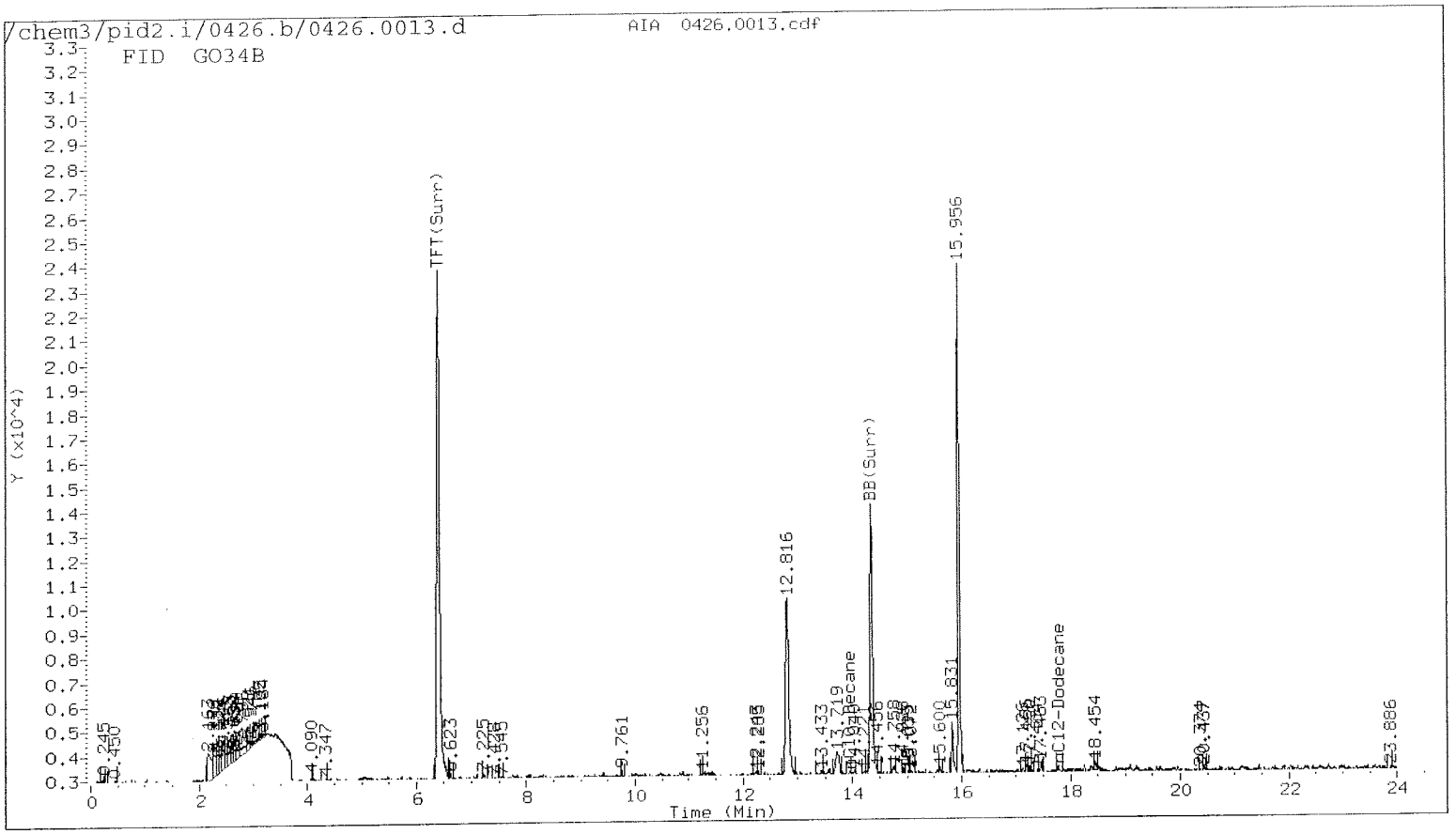
Y (x10^4)
Time (Min)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BB(Surr)
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nC12-Dodecane
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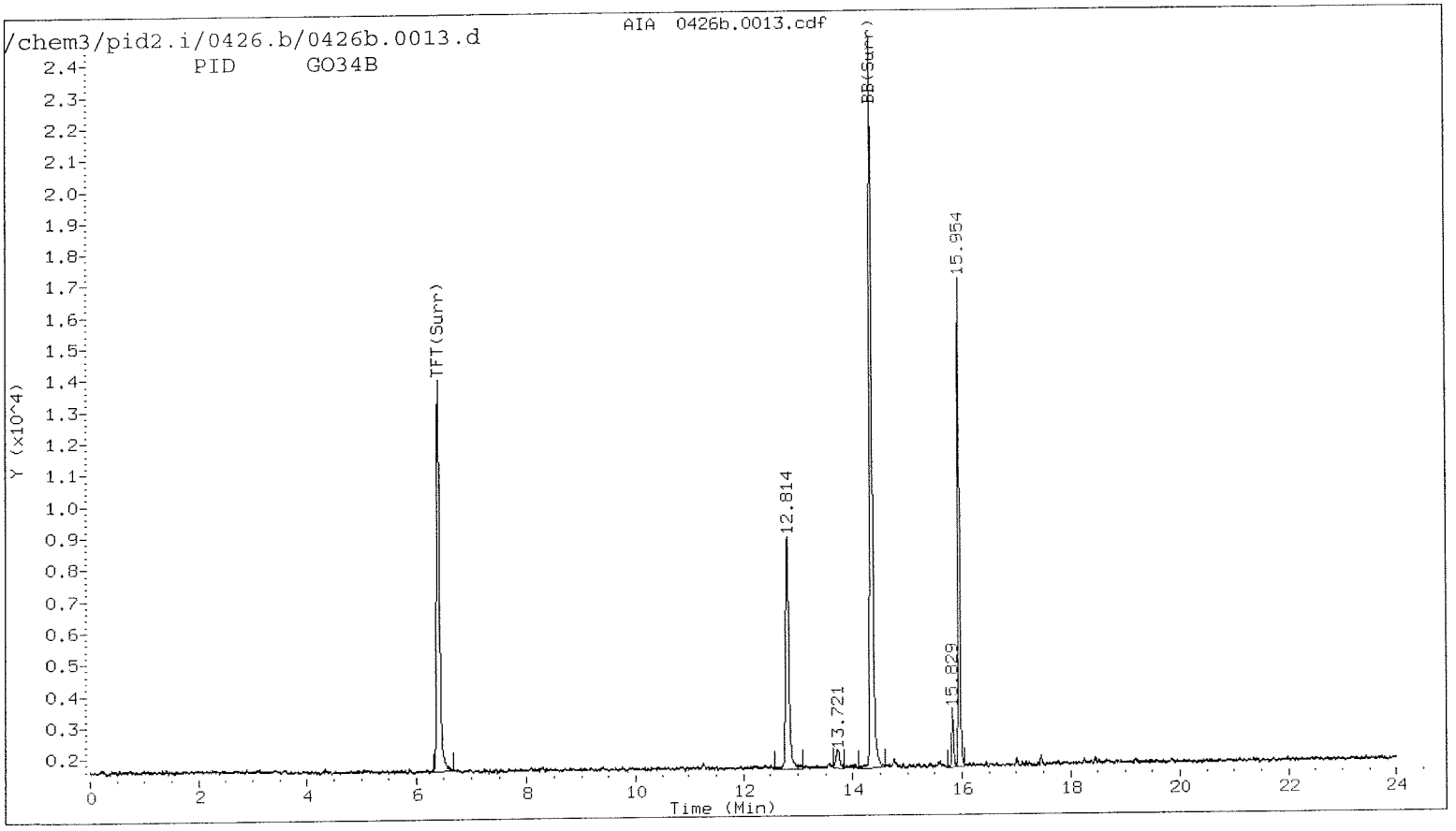
23.886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BB(Surr)
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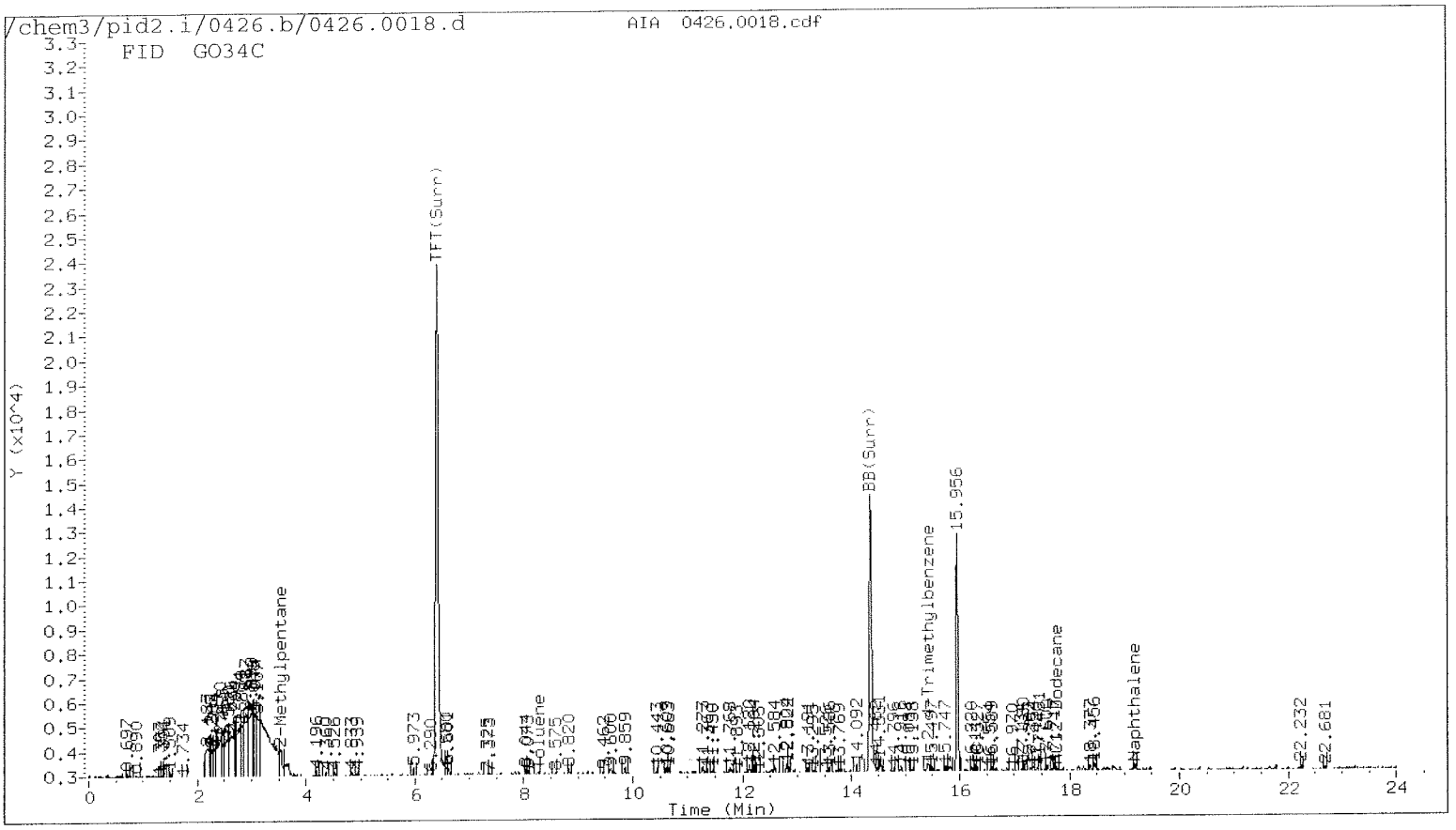
15.954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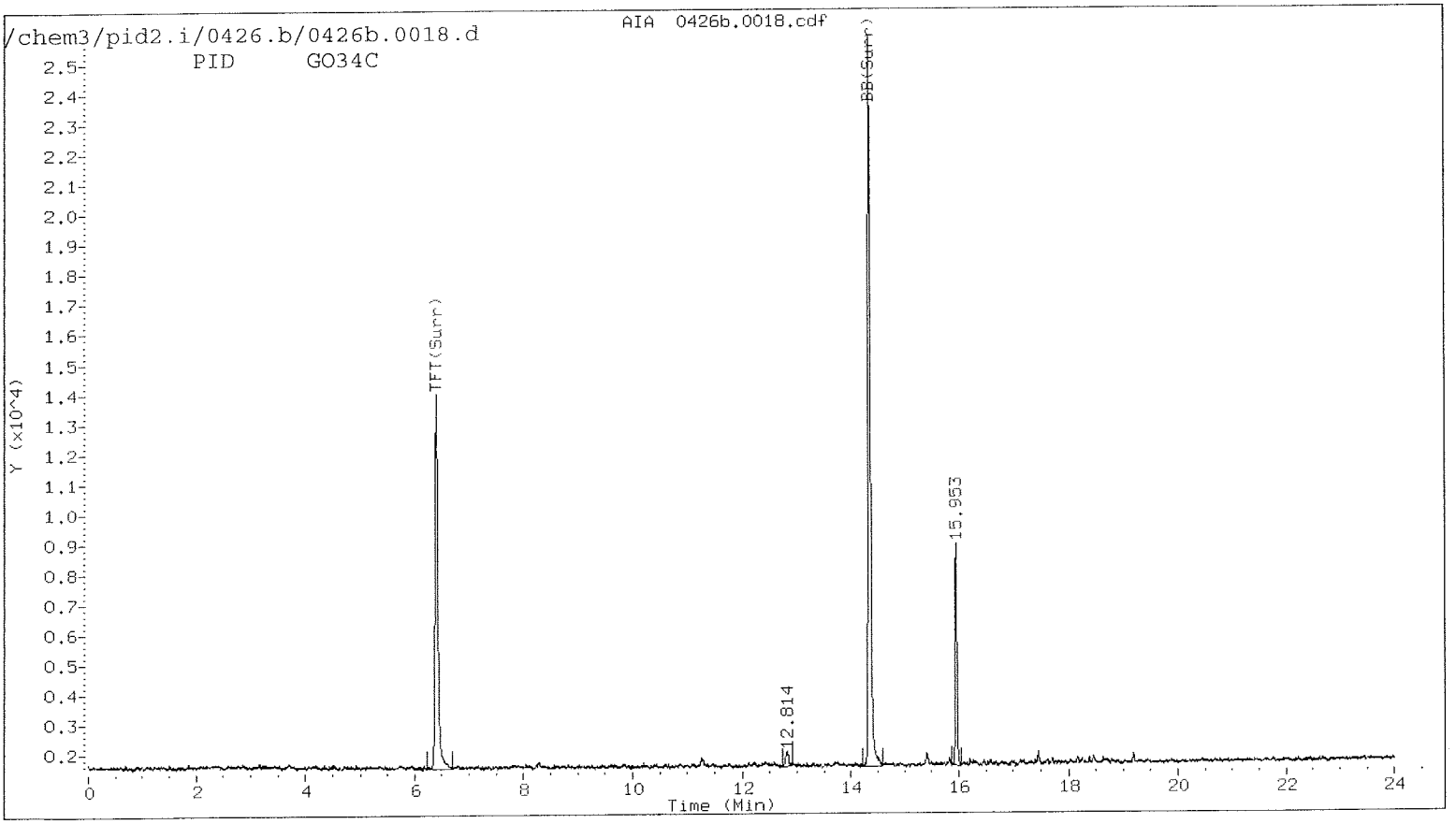
2-Methylpentane
Trimethylbenzene
Dodecane
Naphthalene
Y (x10^4)
Time (Min)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BB(Surr)
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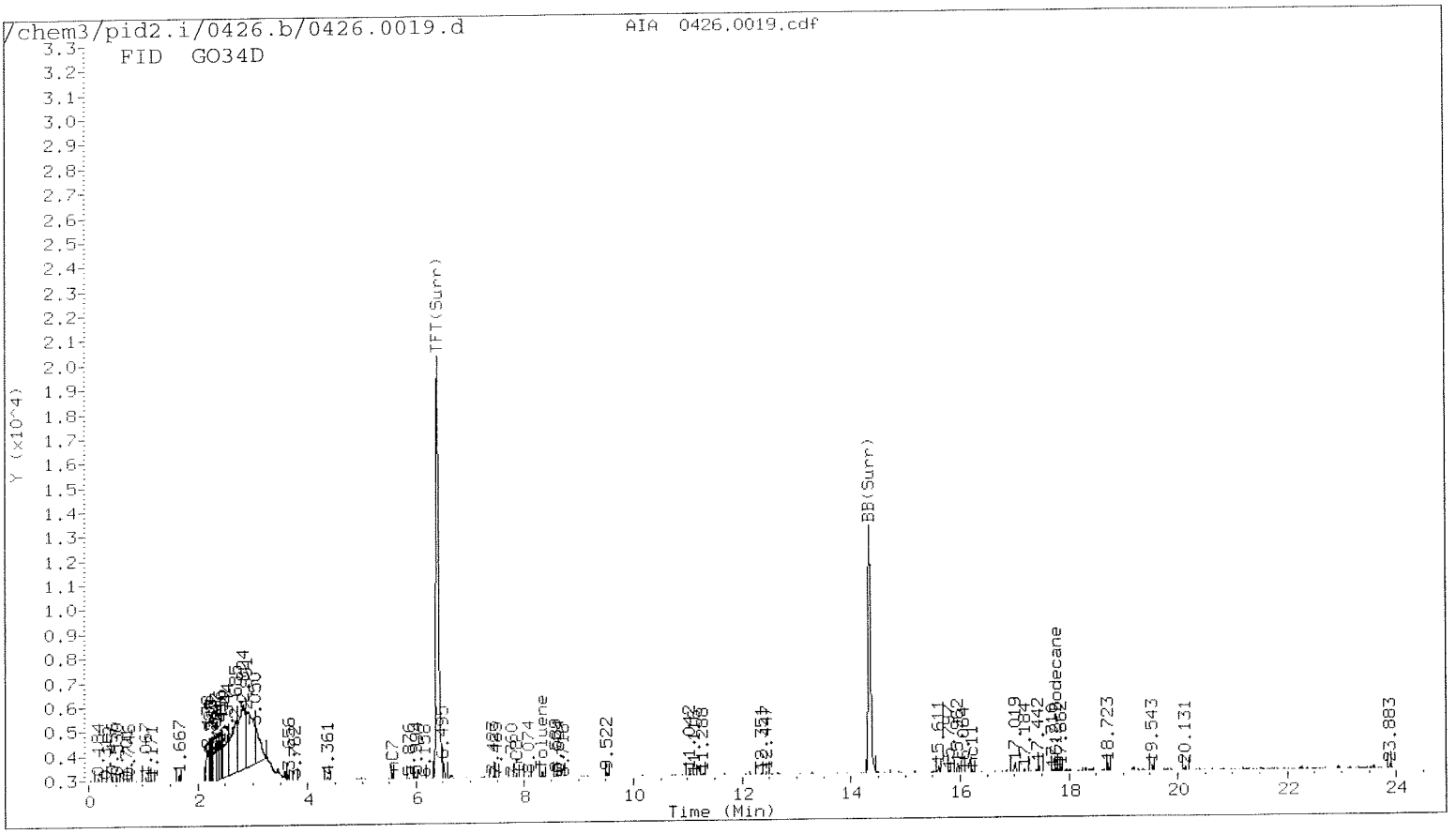
15.953
Y (x10^4)
Time (Min)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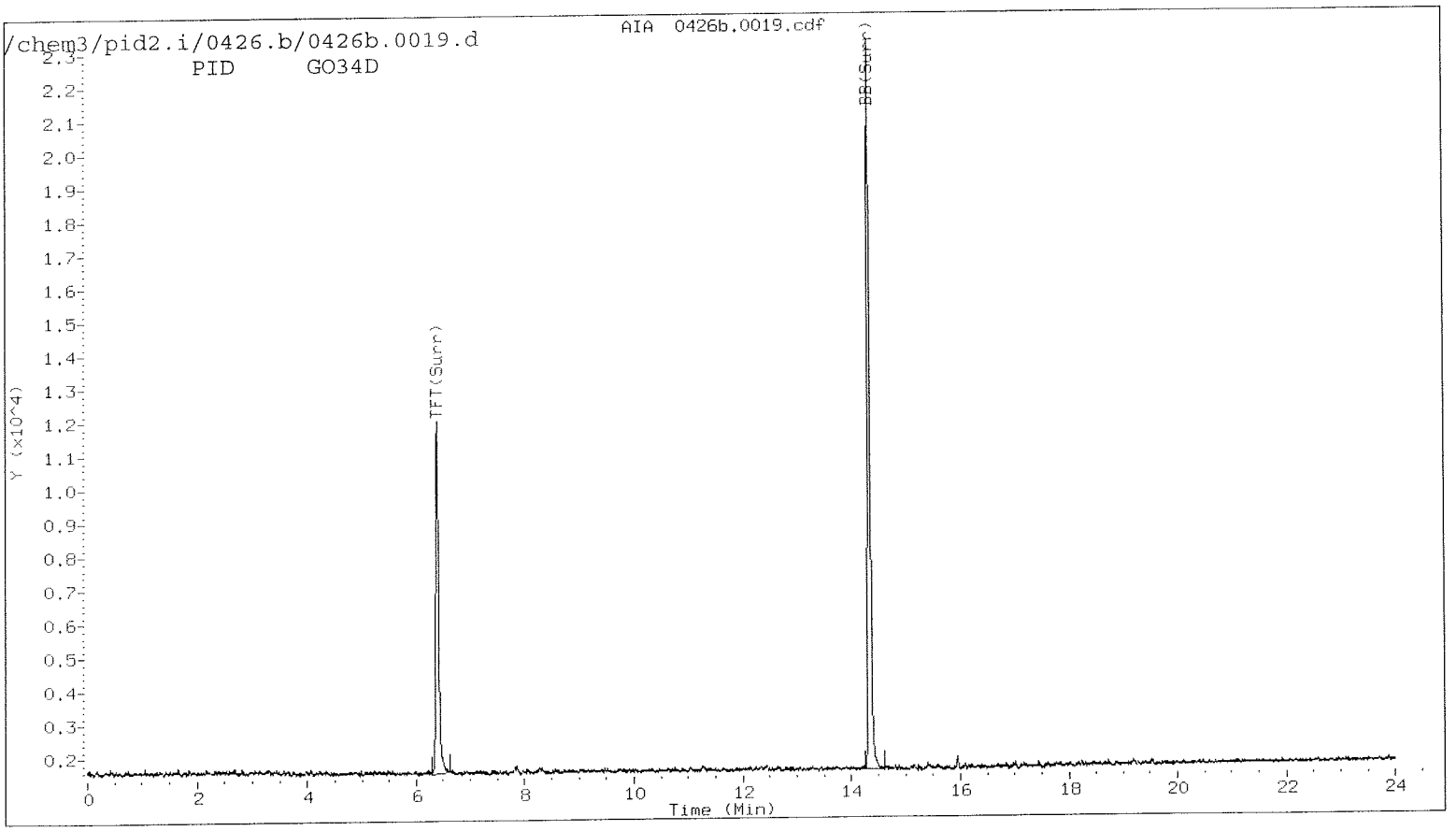
BB(Surr)
Dodecane
Toluene
nC7
Y (x10^4)
Time (Min)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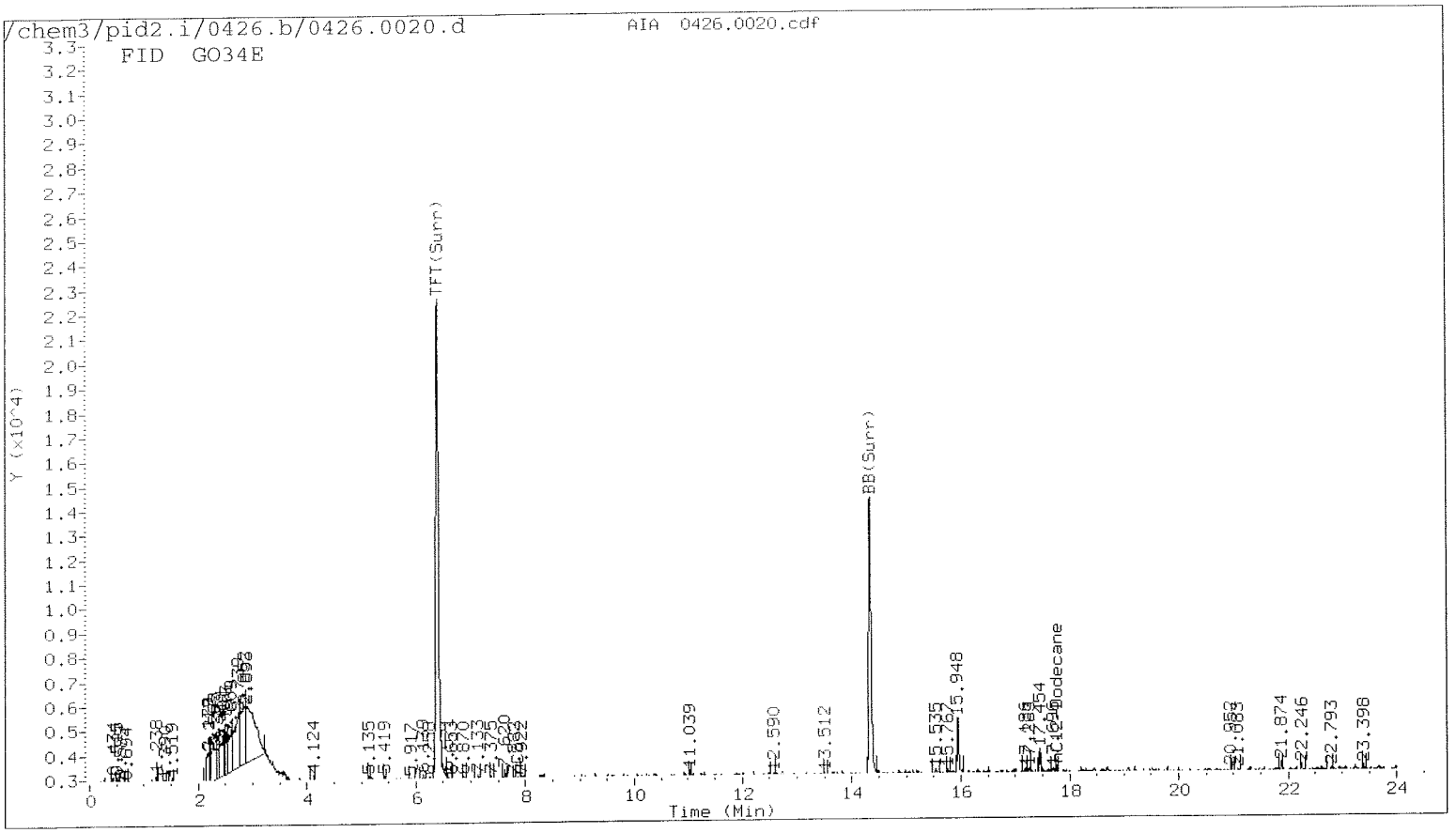
BB(Surr)
Y (x10^4)
Time (Min)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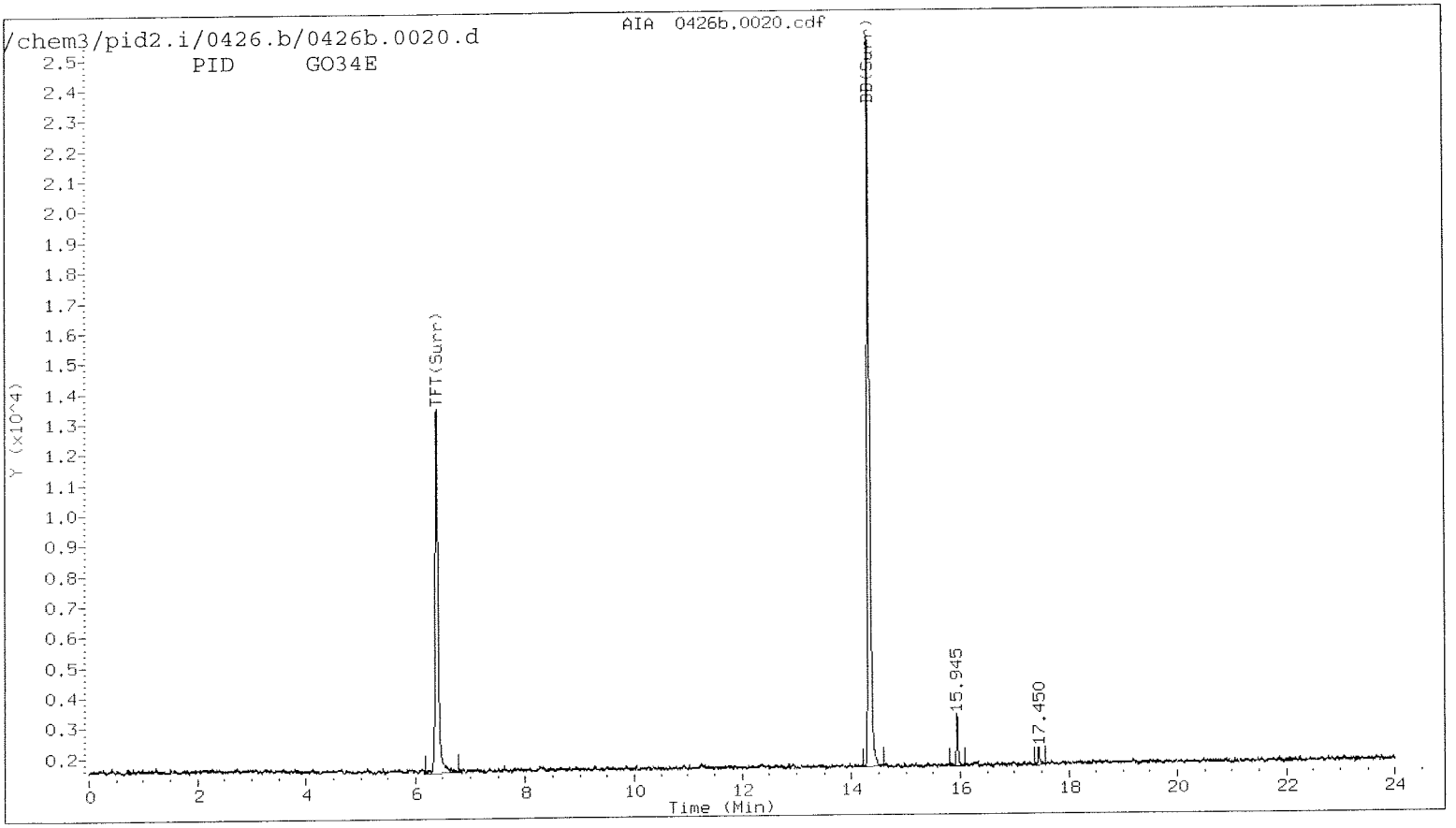
BB(Surr)
Dodecane
Y (x10^4)
Time (Min)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BB(Surr)
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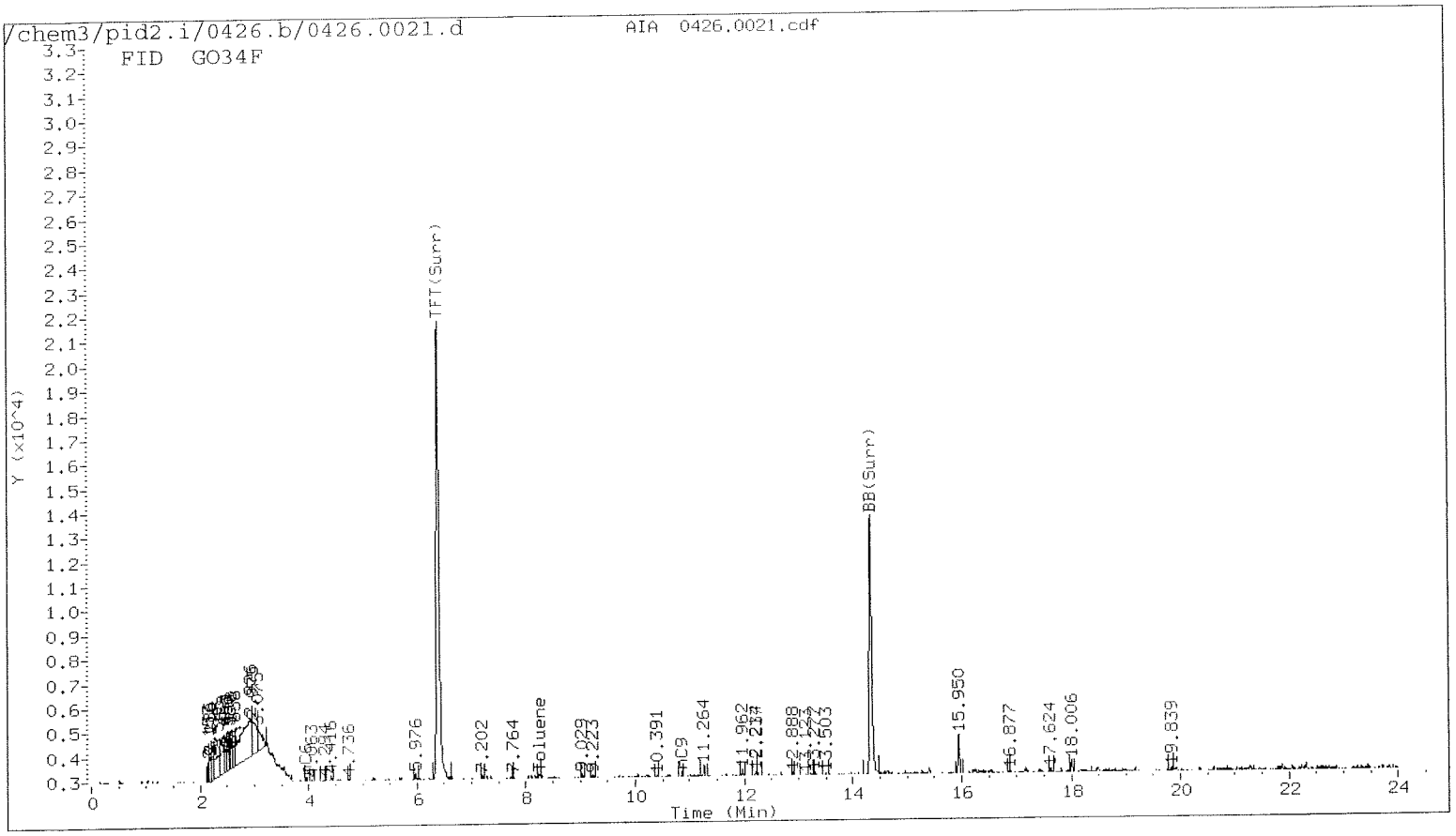
Y (x10^4)
Time (Min)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Y (x10^4)
Time (Min)
TFT(Surr)
BB(Surr)
Toluene
nC9
5.976
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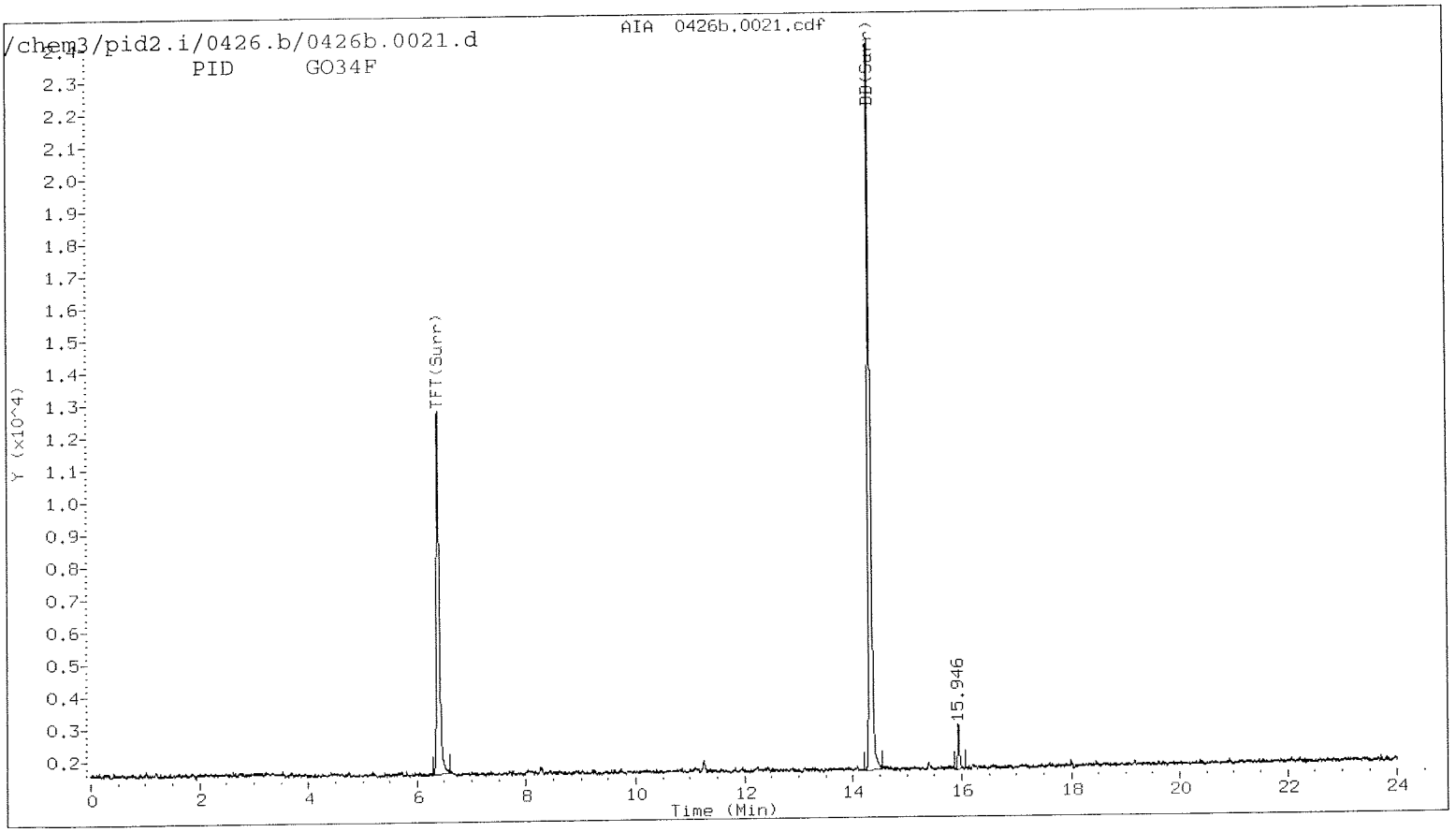
7.764
10.391
11.264
11.962
12.288
15.950
16.877
17.624
18.006
19.839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Time (Min)
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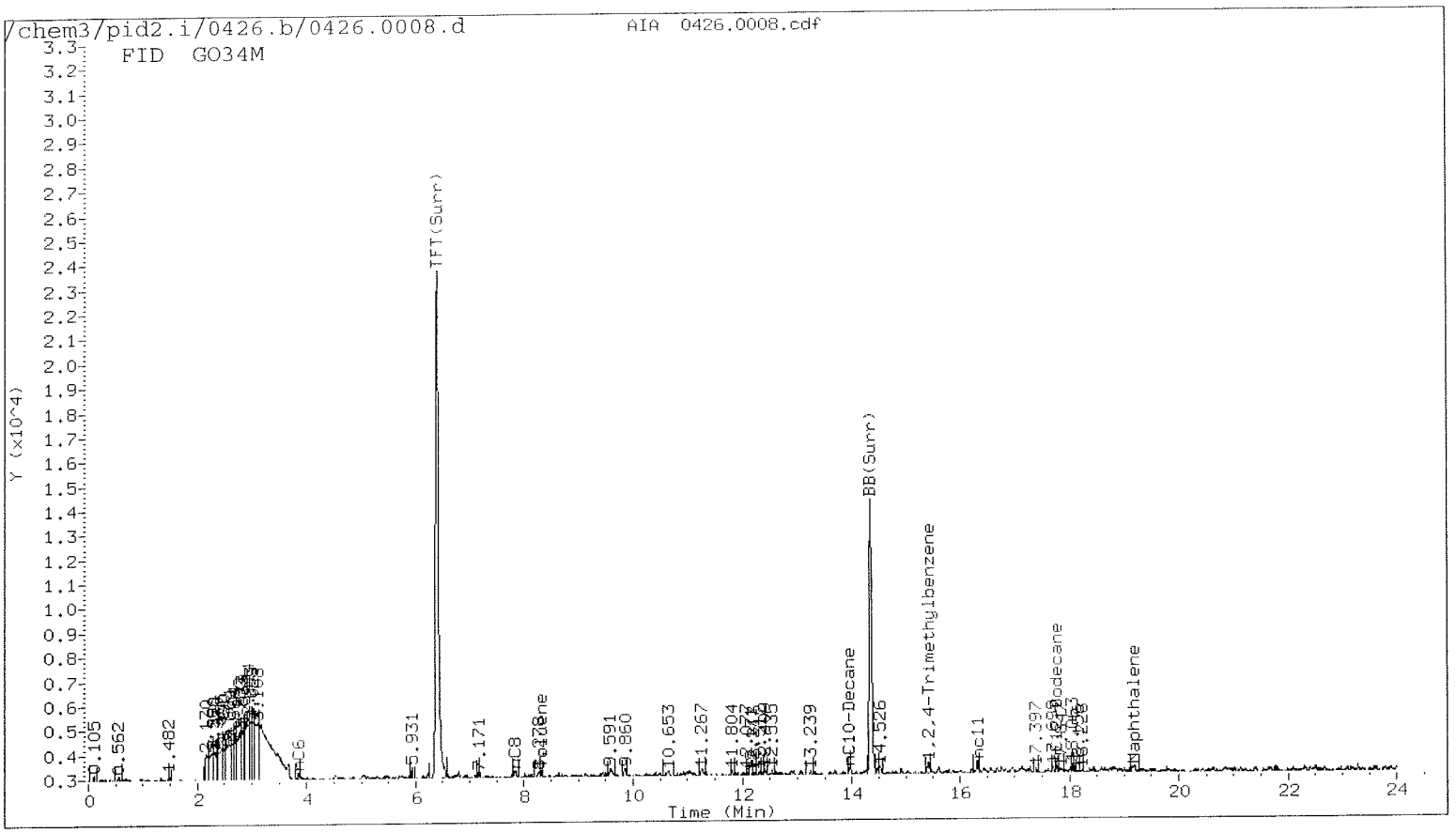
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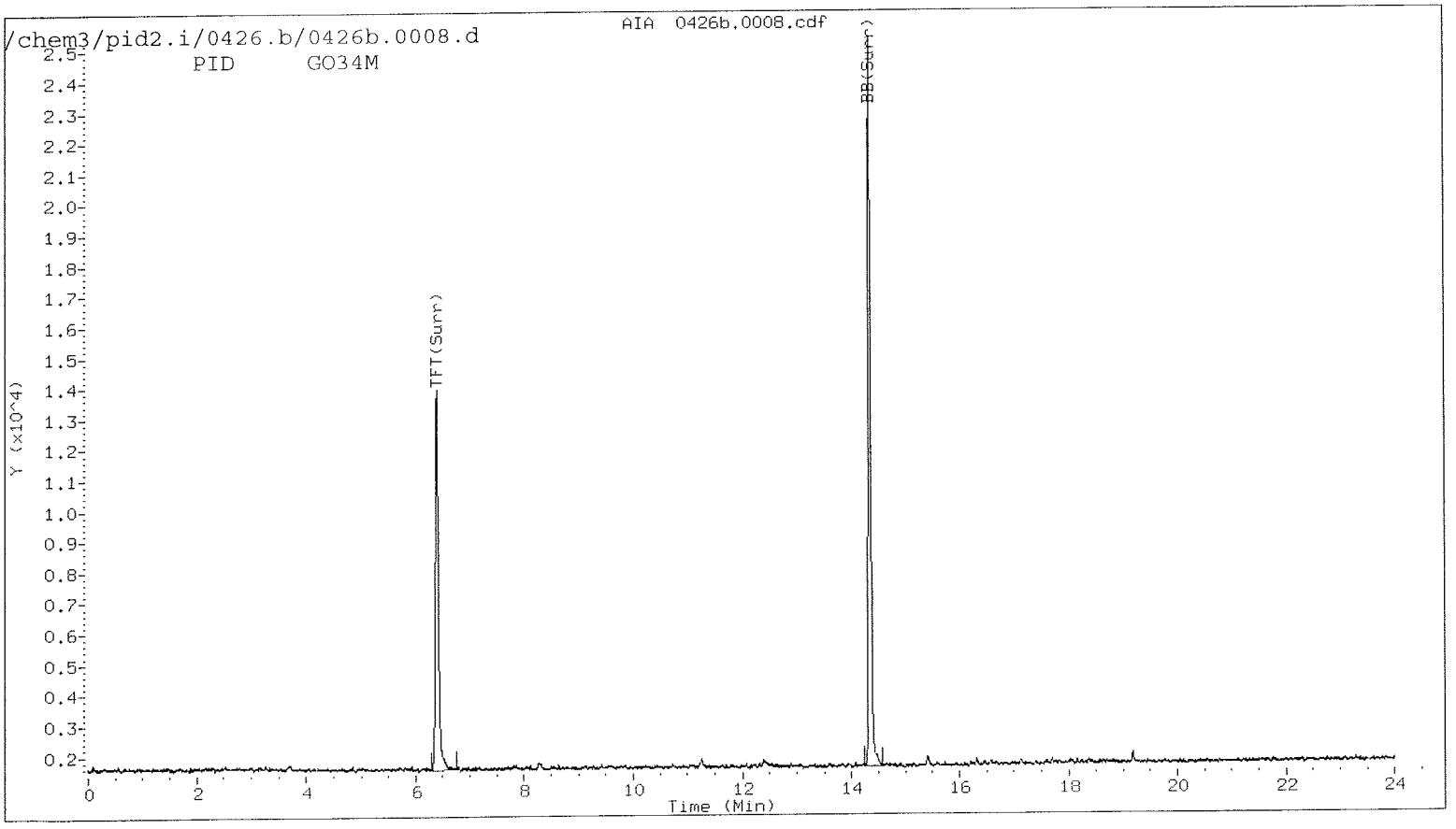
Y (x10^4)
Time (Min)
TFT(Surr)
BB(Surr)
C10-Decane
1,2,4-Trimethylbenzene
Naphthalene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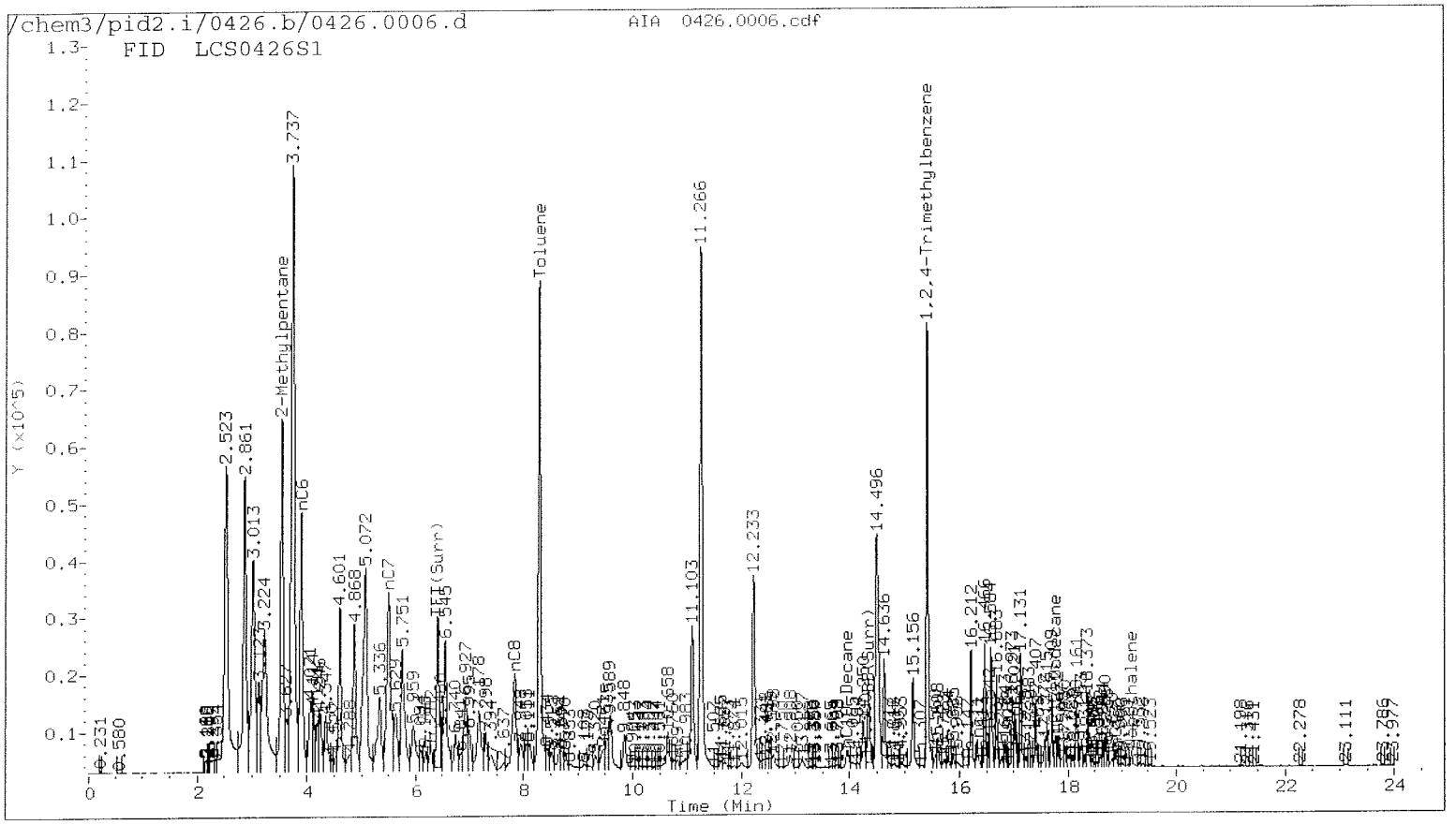
Y (x10^4)
Time (Min)
TFT(Surr)
BB(Surr)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Y (x10^5)
Time (Min)
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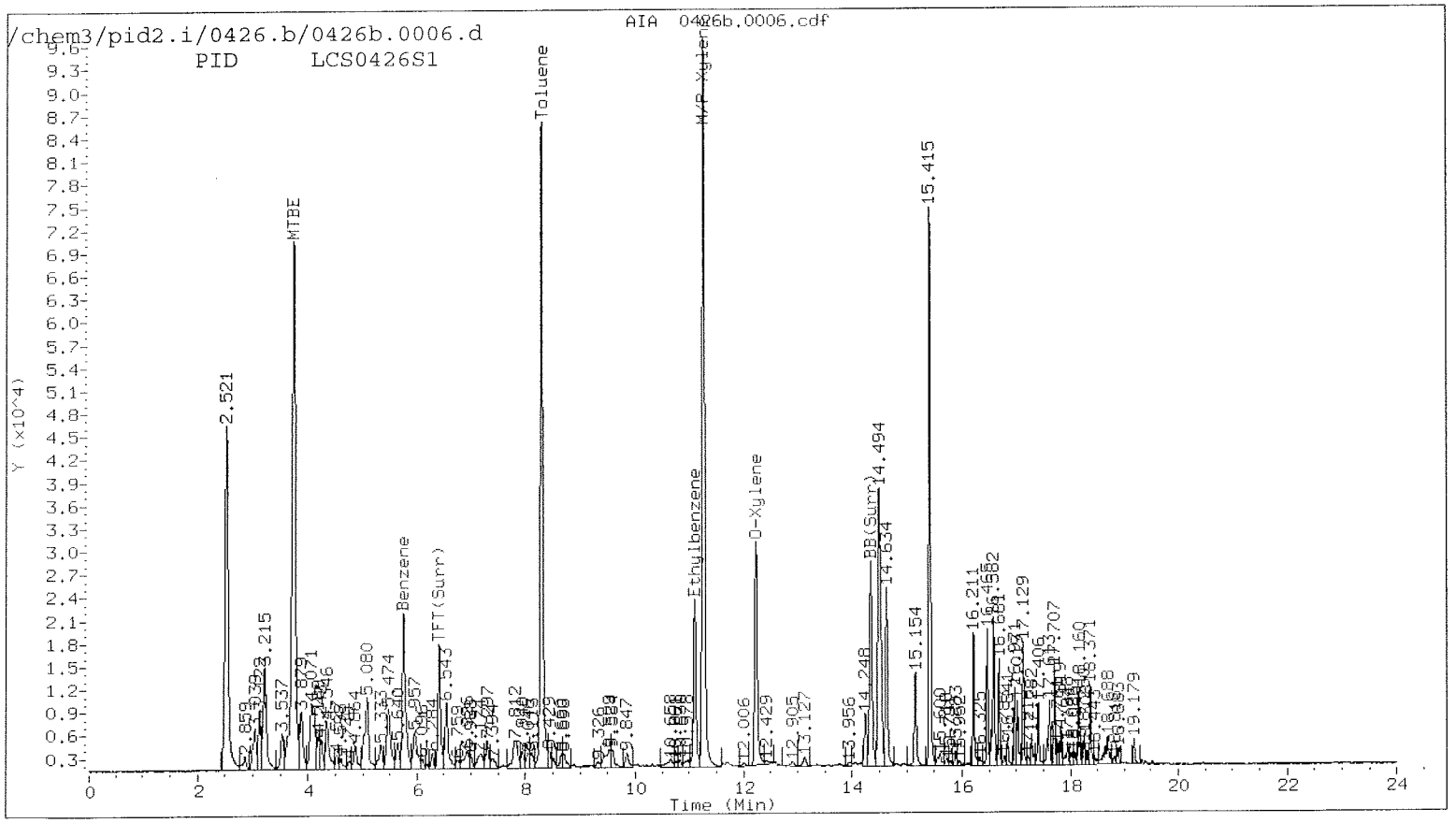
2.861
3.013
3.224
3.737
2-Methylpentane
nC6
4.601
4.868
5.072
nC7
5.751
IFI(Surr)
6.543
Toluene
nC8
11.103
11.266
12.233
14.496
1.2,4-Trimethylbenzene
Decane
14.636
15.156
16.212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Y (x10^4)
Time (Min)
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MTBE
3.215
Benzene
TFT(Surr)
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Toluene
M/P Xylene
Ethylbenzene
O-Xylene
BB(Surr)
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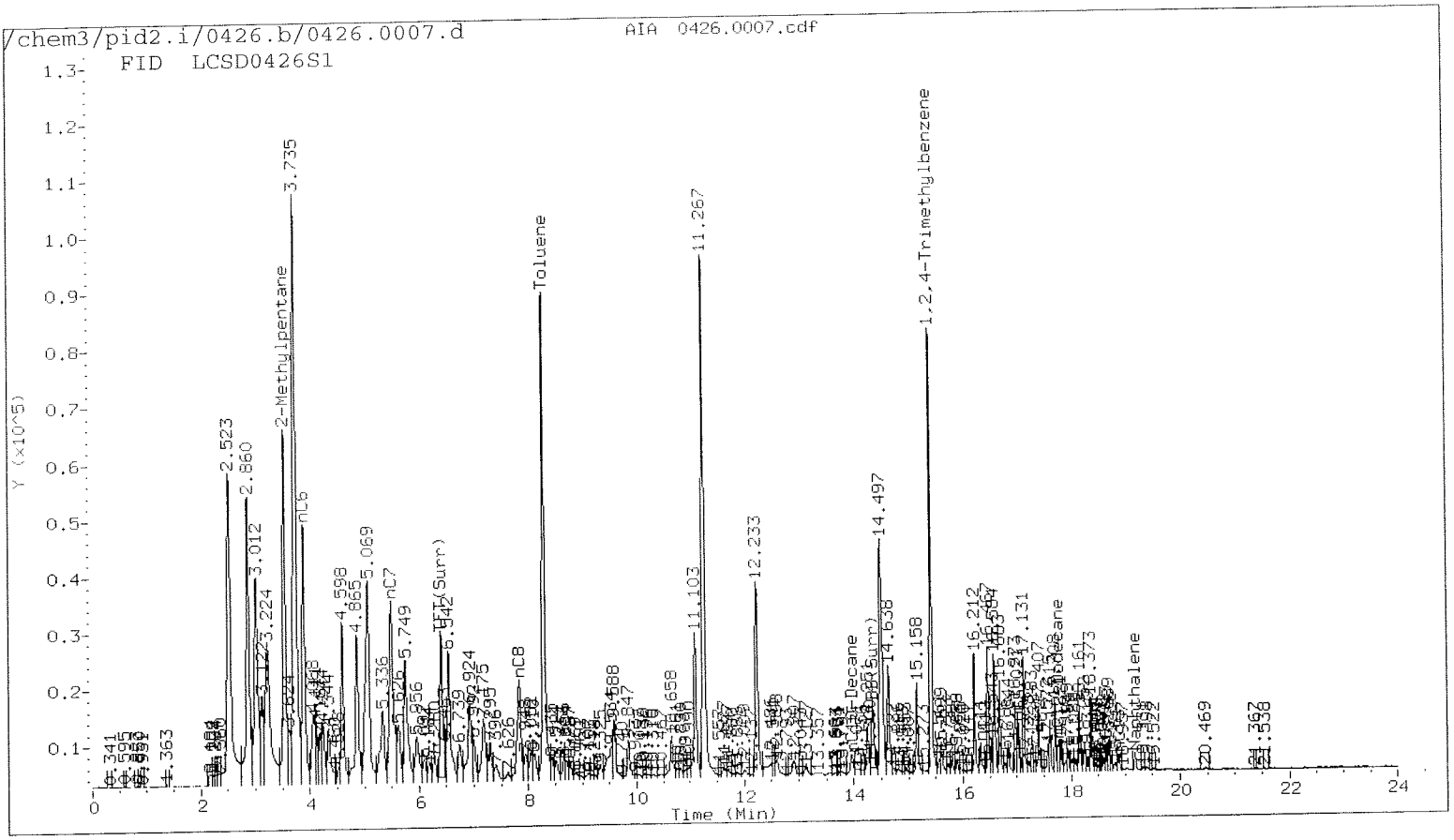
14.634
15.154
15.415
16.211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Y (x10^5)
Time (Min)
2.523
2.860
3.012
3.224
3.735
2-Methylpentane
nC6
4.588
4.865
5.069
nC7
5.336
5.626
5.749
6.142
TFT(Surr)
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Toluene
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12.233
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Decane
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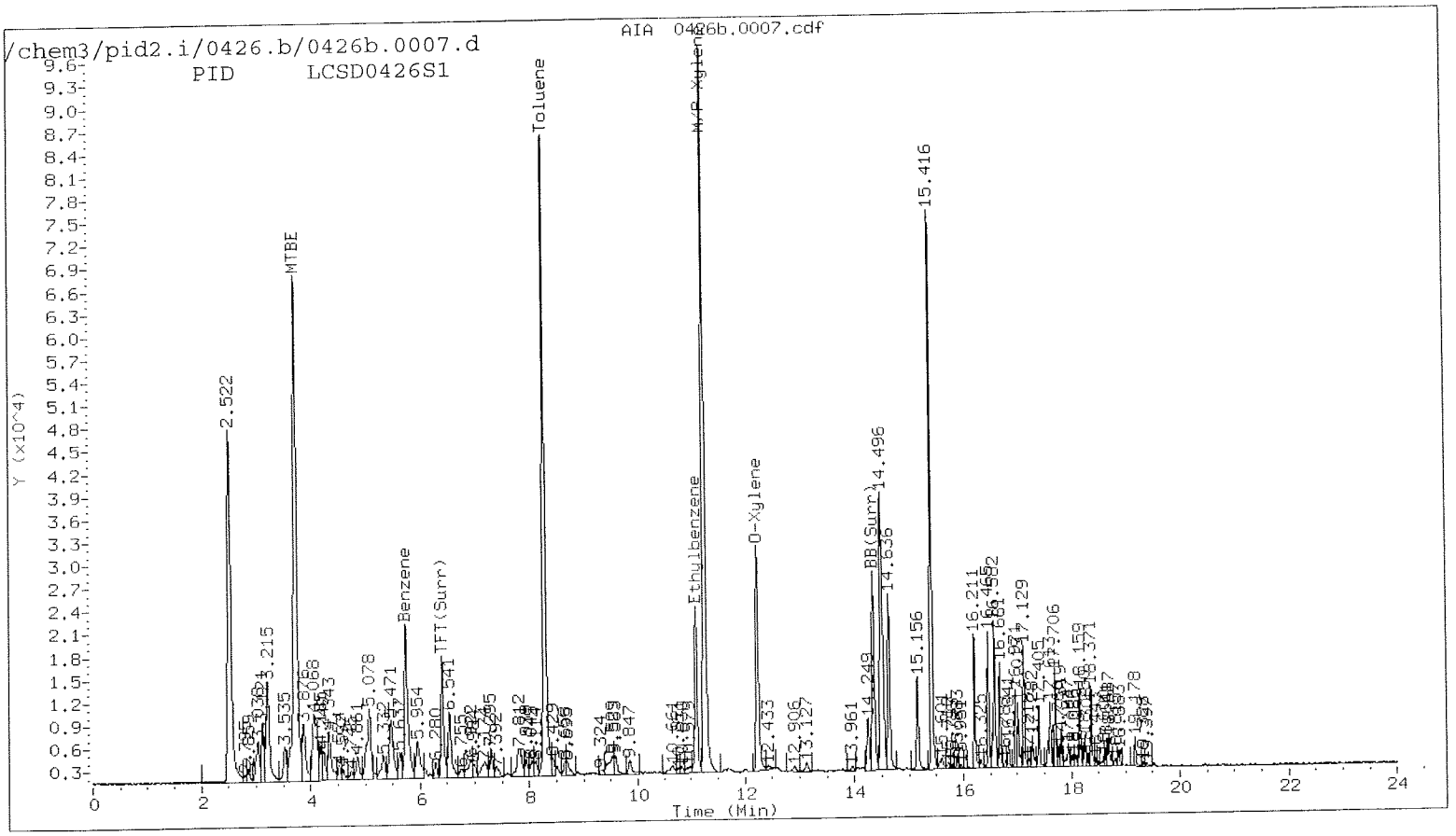
16.212
20.469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Y (x10^4)
Time (Min)
2.522
MTBE
3.215
3.535
Benzene
5.078
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6.280
6.541
TFT(Surr)
Toluene
M/P Xylene
Ethylbenzene
O-Xylene
BB(Surr)
14.496
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15.416
16.211

Analytical Resources Inc.
TPH Quantitation Report

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Instrument: fid4b.i
Operator: ESJ
Report Date: 05/13/2004
Macro: 26-APR-2004
Calibration Dates: Gas:08-MAY-2004 Diesel:12-MAY-2004 M.Oil:11-MAY-2004

ARI ID: GO34MBW1
Client ID: GO34MBW1
Injection: 12-MAY-2004 19:08

Dilution Factor: 1

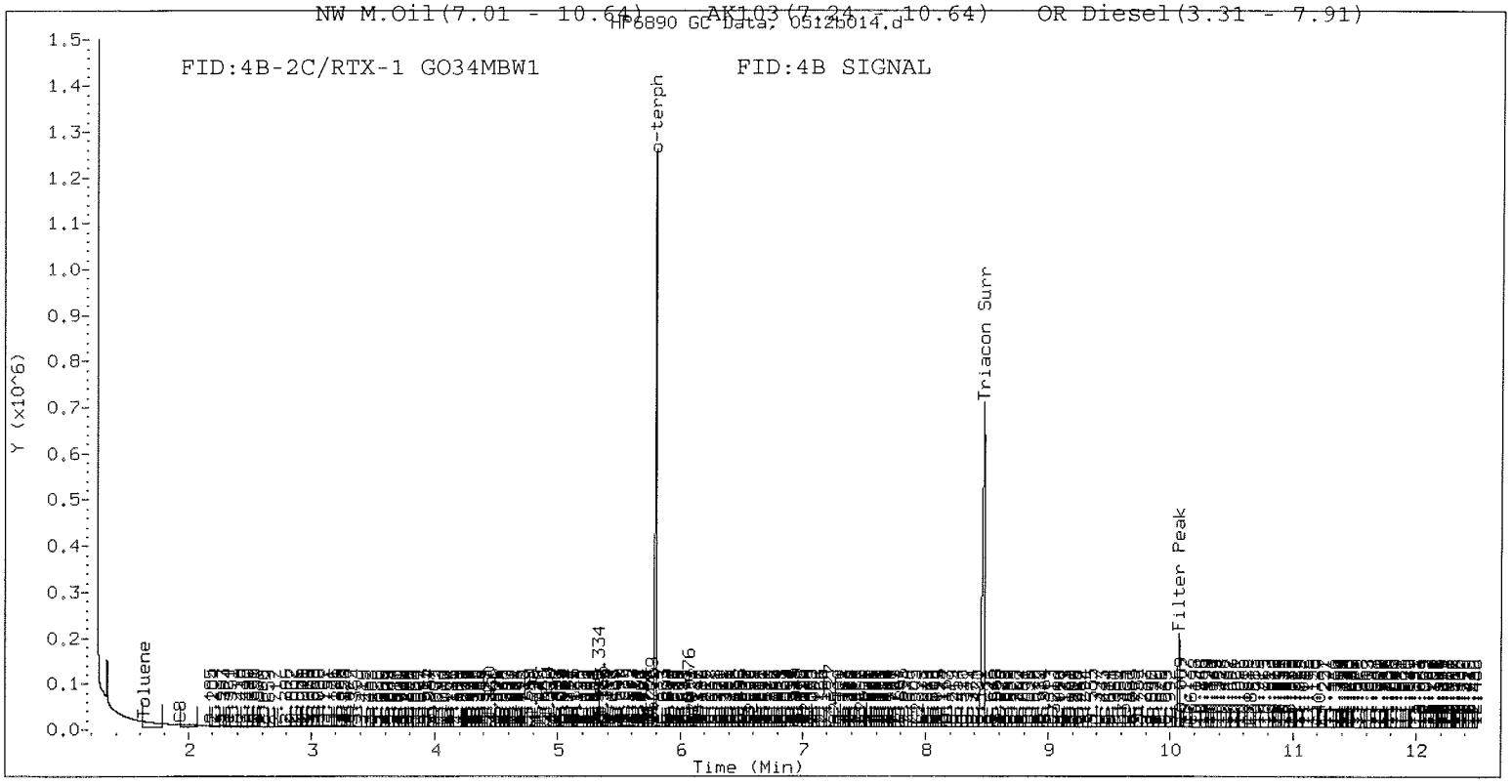
ajs 5/13/04

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.625	-0.055	14867	110865	GAS (Tol-C12)	322636	37
C8	1.934	-0.003	6499	49072	DIESEL (C12-C24)	279879	18
C10	3.302	-0.004	2636	4225	M.OIL (C24-C38)	105757	10*
C12	4.055	-0.008	1133	1607			
C14	4.620	-0.012	1052	792			
C16	5.139	-0.013	2712	1508			
C18	5.637	-0.012	1977	1272			
C20	6.112	-0.003	1845	1192			
C22	6.582	0.019	1518	1727			
C24	7.036	0.023	795	965			
C25	7.264	0.028	883	751			
C26	7.484	0.026	2537	2134			
C28	7.938	0.033	1447	1433			
C32	9.048	0.033	104	111			
C34	9.618	0.038	117	144			
Filter Peak	10.070	0.421	204511	207465			
C36	10.164	0.072	392.0	555	o-Terph Surrogate Rec = 103.2%		(808586)
C38	10.657	0.015	767.0	1891	Triacon Surrogate Rec = 113.7%		(859664)
C40	11.212	0.003	701	166			
o-terph	5.796	-0.040	1251094	808586			
Triacon Surr	8.471	-0.035	705161	859664			

* Indicates Filter Peak subtracted

Range Times: NW Diesel(4.062 - 7.013) AK102(3.31 - 7.24) Jet A(3.31 - 5.65)
NW M.Oil(7.01 - 10.64) AK103(7.24 - 10.64) OR Diesel(3.31 - 7.91)



Analytical Resources Inc.
TPH Quantitation Report

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Operator: ESJ
Report Date: 05/13/2004
Macro: 26-APR-2004
Calibration Dates: Gas:08-MAY-2004 Diesel:12-MAY-2004 M.Oil:11-MAY-2004

ARI ID: GO34A
Client ID: MW-119
Injection: 12-MAY-2004 21:13
Dilution Factor: 1

5/13/04

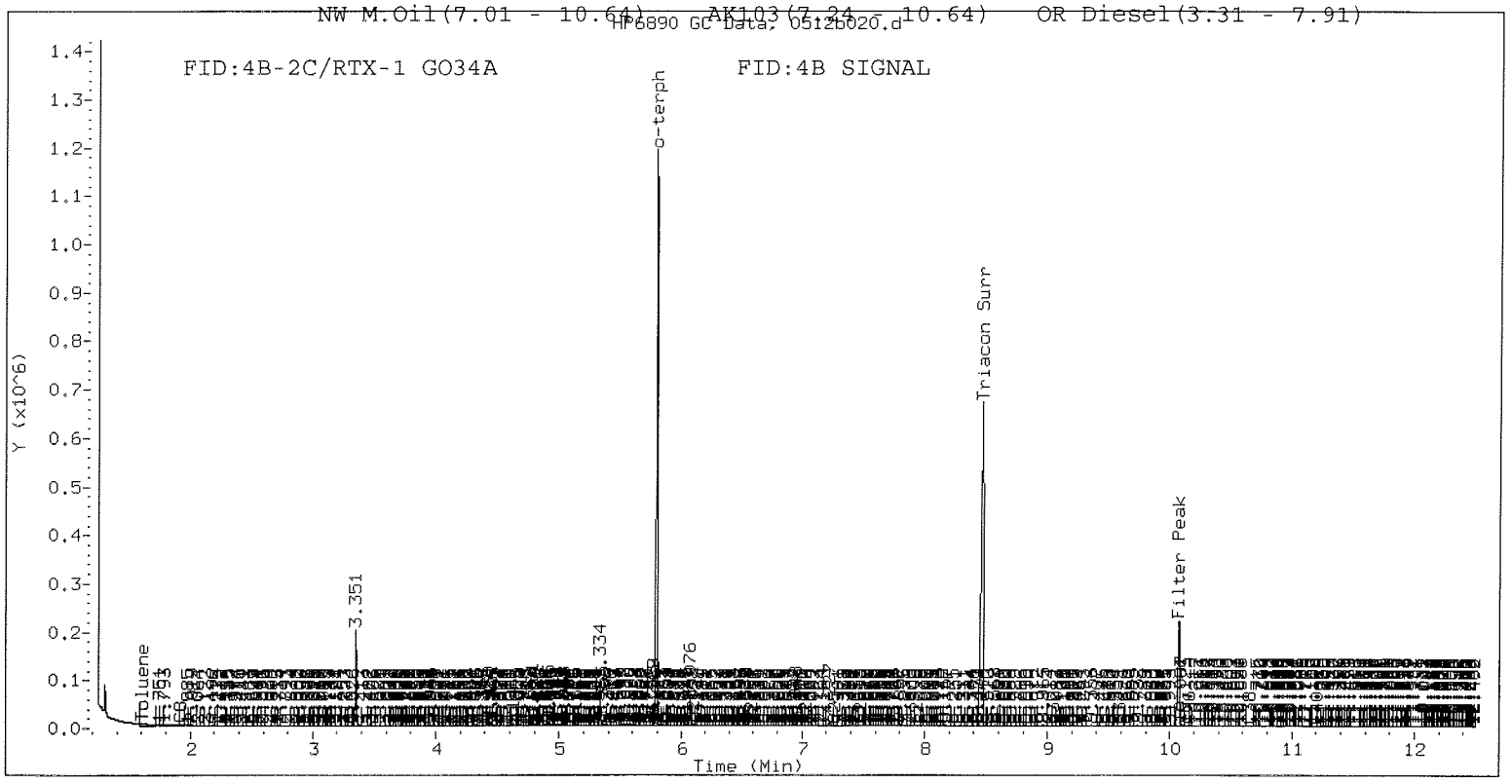
FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.608	-0.073	7028	39783	GAS (Tol-C12)	306371	36
C8	1.921	-0.016	2649	6903	DIESEL (C12-C24)	299901	20 LOL
C10	3.303	-0.004	1269	1684	M.OIL (C24-C38)	106486	10* V
C12	4.053	-0.010	753	528			
C14	4.627	-0.005	5184	3328			
C16	5.139	-0.014	2794	1736			
C18	5.638	-0.012	2023	1303			
C20	6.109	-0.006	4429	3311			
C22	6.583	0.019	1706	2665			
C24	7.036	0.023	813	1082			
C25	7.264	0.027	1162	954			
C26	7.484	0.025	2131	1940			
C28	7.940	0.034	873	1176			
C32	9.050	0.034	112	117			
C34	9.586	0.005	1564	1565			
Filter Peak	10.071	0.422	216854	221533			
C36	10.164	0.071	260.0	334	o-Terph Surrogate Rec = 95.2%		(745938)
C38	10.656	0.013	686.0	1793	Triacon Surrogate Rec = 104.2%		(788387)
C40	11.206	-0.004	445	800			
o-terph	5.796	-0.041	1186779	745938			
Triacon Surr	8.471	-0.036	666723	788387			

* Indicates Filter Peak subtracted

Range Times: NW Diesel(4.062 - 7.013) AK102(3.31 - 7.24) Jet A(3.31 - 5.65)
NW M.Oil(7.01 - 10.64) AK103(7.24 - 10.64) OR Diesel(3.31 - 7.91)

HP6890 GC Data: 0512b020.d



Analytical Resources Inc.
TPH Quantitation Report

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Instrument: fid4b.i Injection: 12-MAY-2004 21:34
Operator: ESJ
Report Date: 05/13/2004 Dilution Factor: 1
Macro: 26-APR-2004
Calibration Dates: Gas:08-MAY-2004 Diesel:12-MAY-2004 M.Oil:11-MAY-2004

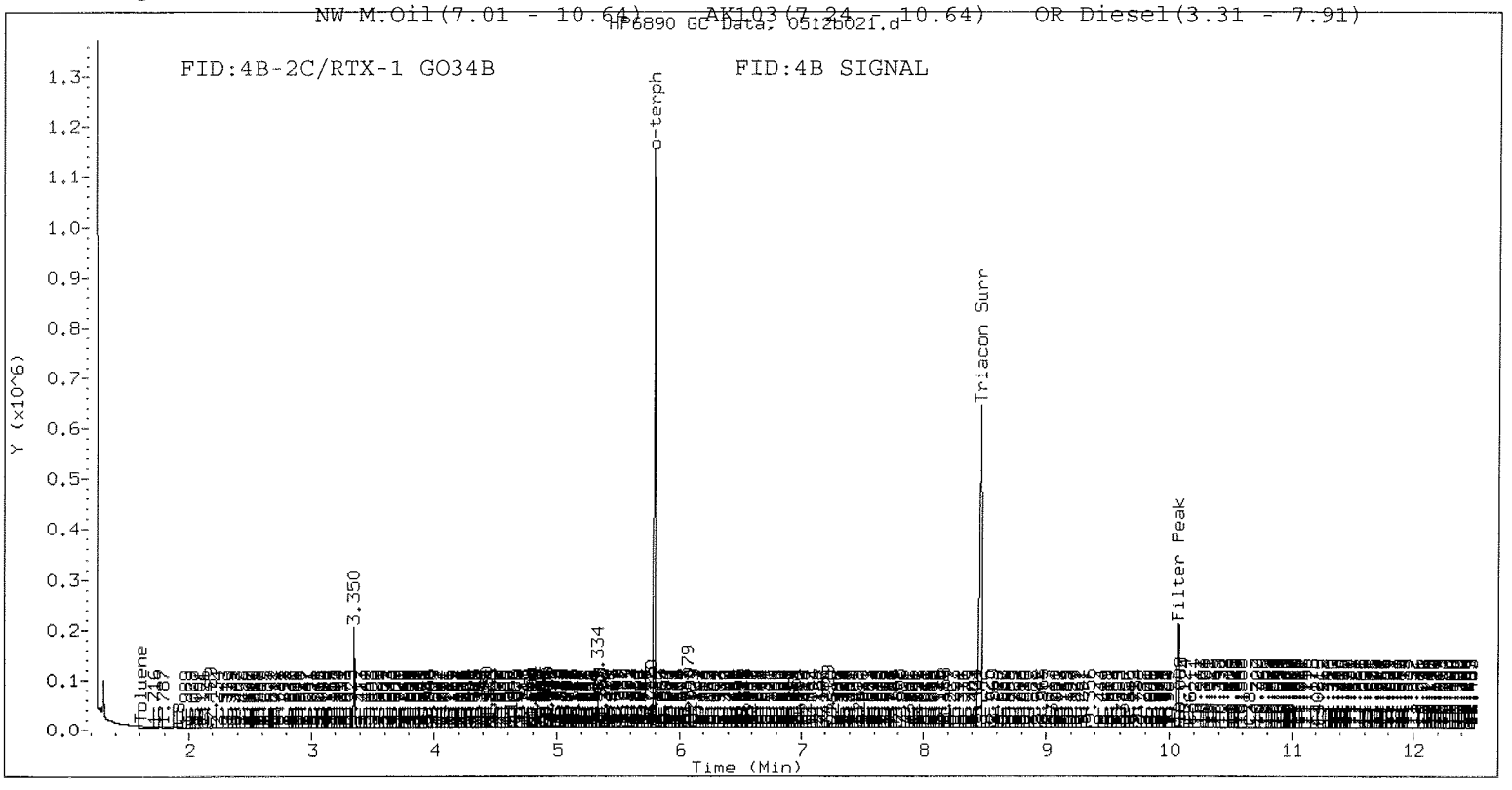
FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.604	-0.076	6540	31535	GAS (Tol-C12)	276884	32
C8	1.919	-0.018	2325	6678	DIESEL (C12-C24)	283124	19
C10	3.301	-0.005	1132	1527	M.OIL (C24-C38)	108025	10*
C12	4.054	-0.009	577	382			
C14	4.627	-0.005	5139	3220			
C16	5.139	-0.013	2632	1645			
C18	5.638	-0.012	1968	1244			
C20	6.111	-0.003	4160	3162			
C22	6.585	0.022	1655	1891			
C24	7.039	0.026	826	1089			
C25	7.267	0.030	904	787			
C26	7.486	0.028	2821	2280			
C28	7.925	0.019	201	72			
C32	9.050	0.035	119	120			
C34	9.618	0.037	61	60			
Filter Peak	10.071	0.422	205695	207672			
C36	10.166	0.074	244.0	447	o-Terph Surrogate Rec = 90.3%		(707262)
C38	10.656	0.014	605.0	1869	Triacon Surrogate Rec = 99.6%		(753109)
C40	11.213	0.003	412	194			
o-terph	5.795	-0.041	1143861	707262			
Triacon Surr	8.471	-0.035	640388	753109			

* Indicates Filter Peak subtracted

Range Times: NW Diesel(4.062 - 7.013) AK102(3.31 - 7.24) Jet A(3.31 - 5.65)
NW M.Oil(7.01 - 10.64) AK103(7.24 - 10.64) OR Diesel(3.31 - 7.91)

HP6890 GC Data: 0512b021.d



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4b.i/20040512.b/0512b022.d
Method: /chem3/fid4b.i/20040512.b/acidsiltphfid4b.m
Instrument: fid4b.i
Operator: ESJ
Report Date: 05/13/2004
Macro: 26-APR-2004
Calibration Dates: Gas:08-MAY-2004 Diesel:12-MAY-2004 M.Oil:11-MAY-2004

ARI ID: GO34C
Client ID: MW-107
Injection: 12-MAY-2004 21:55

Dilution Factor: 1

5/13/04

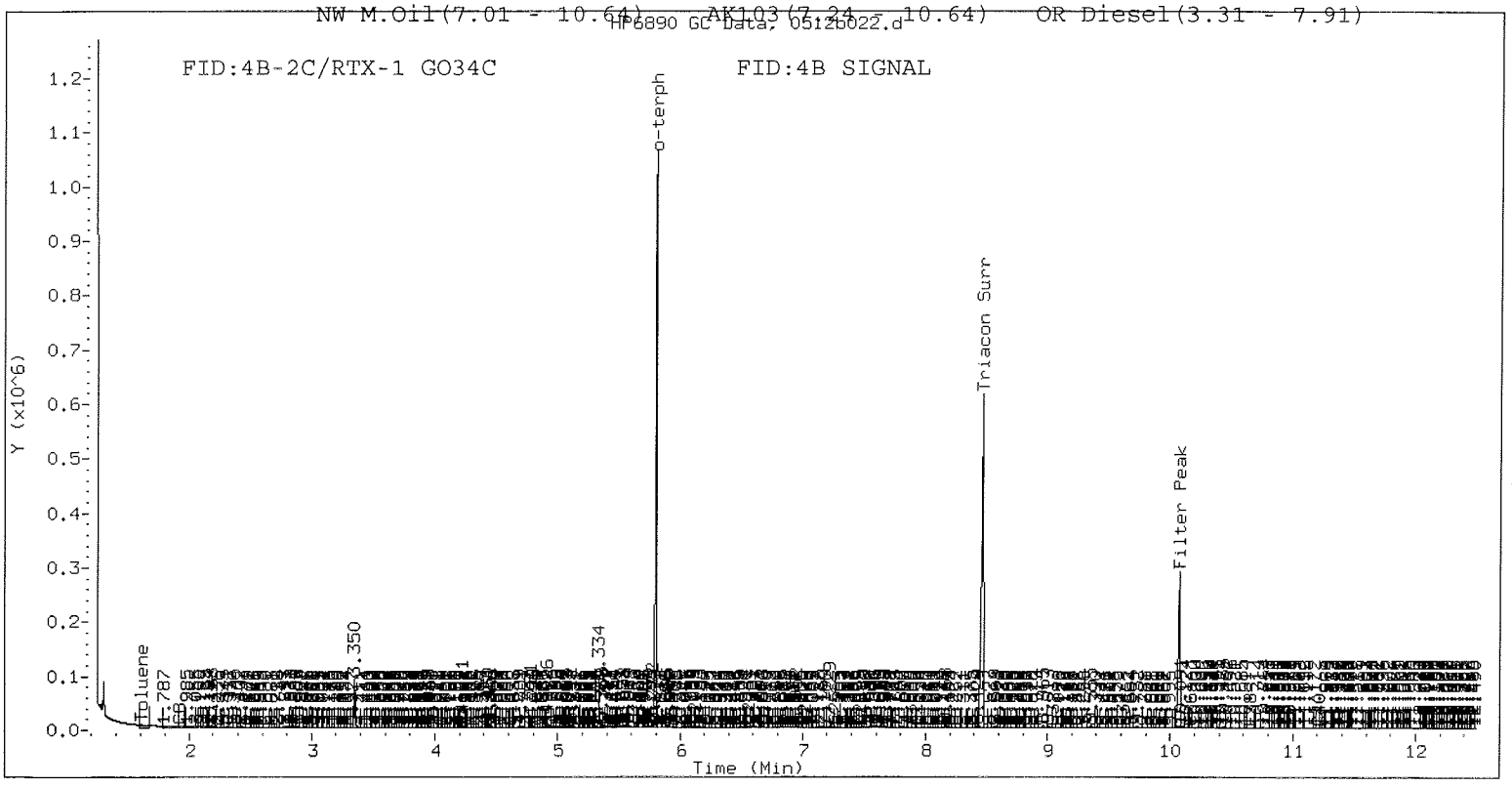
FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.603	-0.078	6857	25810	GAS (Tol-C12)	195709	23
C8	1.921	-0.016	2463	7093	DIESEL (C12-C24)	258366	17
C10	3.301	-0.005	1000	1220	M.OIL (C24-C38)	173434	17*
C12	4.055	-0.008	419	295			
C14	4.620	-0.012	634	401			
C16	5.140	-0.013	2751	1883			
C18	5.639	-0.011	1886	1204			
C20	6.124	0.009	3263	2216			
C22	6.565	0.002	2356	2397			
C24	7.020	0.007	1056	1085			
C25	7.267	0.031	2005	1843			
C26	7.472	0.014	890	616			
C28	7.926	0.020	733	426			
C32	9.050	0.035	317	491			
C34	9.620	0.039	256	396			
Filter Peak	10.077	0.427	285554	324447			
C36	10.166	0.074	518.0	718	o-Terph Surrogate Rec = 83.2%		(651689)
C38	10.655	0.013	828.0	2190	Triacon Surrogate Rec = 90.7%		(685727)
C40	11.220	0.011	483	615			
o-terph	5.797	-0.039	1059958	651689			
Triacon Surr	8.470	-0.037	613058	685727			

* Indicates Filter Peak subtracted

Range Times: NW Diesel(4.062 - 7.013) AK102(3.31 - 7.24) Jet A(3.31 - 5.65)
NW M.Oil(7.01 - 10.64) AK103(7.24 - 10.64) OR Diesel(3.31 - 7.91)

HP6890 GC Data: 0512b022.d



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4b.i/20040512.b/0512b027.d ARI ID: GO34D
Method: /chem3/fid4b.i/20040512.b/acidsiltphfid4b.m Client ID: MW-106
Instrument: fid4b.i Injection: 12-MAY-2004 23:37
Operator: ESJ
Report Date: 05/13/2004 Dilution Factor: 1
Macro: 26-APR-2004
Calibration Dates: Gas:08-MAY-2004 Diesel:12-MAY-2004 M.Oil:11-MAY-2004

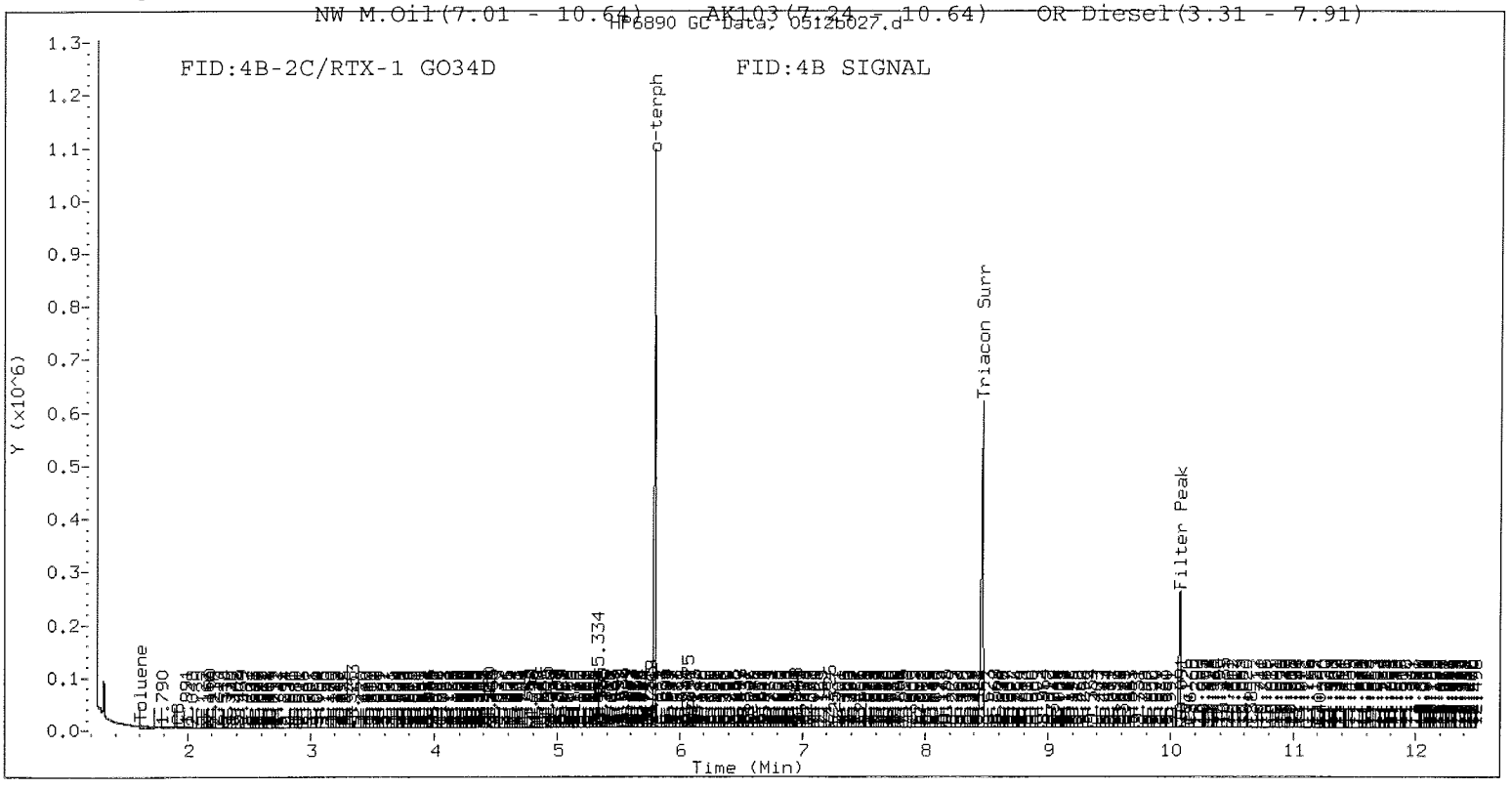
5/13/04

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.606	-0.074	6617	34925	GAS (Tol-C12)	148434	17
C8	1.920	-0.017	2384	8835	DIESEL (C12-C24)	225379	15 ug/L
C10	3.302	-0.004	1073	1529	M.OIL (C24-C38)	118318	11*
C12	4.055	-0.007	403	230			
C14	4.620	-0.012	551	270			
C16	5.139	-0.014	2024	1475			
C18	5.637	-0.013	1760	1114			
C20	6.111	-0.004	1752	1276			
C22	6.582	0.019	1645	1904			
C24	7.038	0.025	842	1132			
C25	7.263	0.027	1999	1495			
C26	7.484	0.026	1895	1890			
C28	7.939	0.033	871	1483			
C32	9.038	0.023	114	45			
C34	9.607	0.026	128	35			
Filter Peak	10.073	0.424	255864	275515			
C36	10.163	0.071	366.0	672	o-Terph Surrogate Rec = 83.7%		(656033)
C38	10.653	0.011	4006.0	5810	Triacon Surrogate Rec = 91.6%		(692894)
C40	11.217	0.007	472	561			
o-terph	5.794	-0.043	1087634	656033			
Triacon Surr	8.468	-0.038	616609	692894			

* Indicates Filter Peak subtracted

Range Times: NW Diesel(4.062 - 7.013) AK102(3.31 - 7.24) Jet A(3.31 - 5.65)
NW M.Oil(7.01 - 10.64) AK103(7.24 - 10.64) OR Diesel(3.31 - 7.91)



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4b.i/20040512.b/0512b028.d
Method: /chem3/fid4b.i/20040512.b/acidsiltphfid4b.m
Instrument: fid4b.i
Operator: ESJ
Report Date: 05/13/2004
Macro: 26-APR-2004
Calibration Dates: Gas:08-MAY-2004 Diesel:12-MAY-2004 M.Oil:11-MAY-2004

ARI ID: GO34E
Client ID: MW-105
Injection: 12-MAY-2004 23:57
Dilution Factor: 1

05/13/04

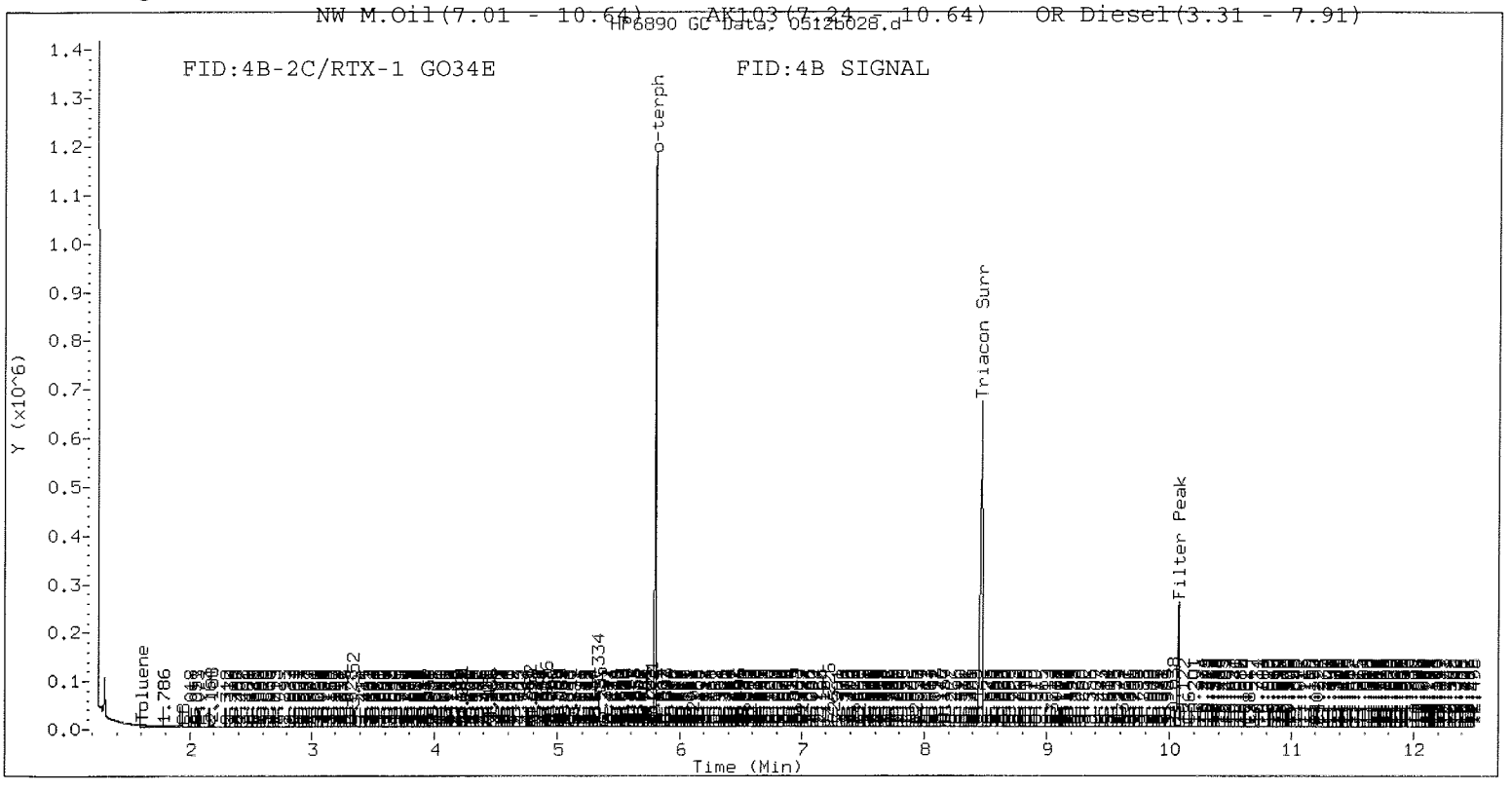
FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.603	-0.077	6807	52807	GAS (Tol-C12)	176426	20
C8	1.954	0.017	2378	6452	DIESEL (C12-C24)	214758	14
C10	3.302	-0.004	1131	1674	M.OIL (C24-C38)	98301	9*
C12	4.055	-0.007	406	284			
C14	4.621	-0.011	553	308			
C16	5.140	-0.013	2178	1526			
C18	5.639	-0.011	1477	931			
C20	6.120	0.006	3841	2547			
C22	6.585	0.021	1391	2205			
C24	7.015	0.002	610	597			
C25	7.264	0.027	3427	2113			
C26	7.485	0.026	1793	1689			
C28	7.940	0.034	369	456			
C32	9.050	0.035	100	87			
C34	9.614	0.033	82	53			
Filter Peak	10.074	0.425	254991	272733			
C36	10.163	0.071	302.0	435	o-Terph Surrogate Rec = 94.0%		(736209)
C38	10.654	0.011	939.0	2560	Triacon Surrogate Rec = 101.9%		(770977)
C40	11.214	0.004	450	339			
o-terph	5.797	-0.039	1182666	736209			
Triacon Surr	8.471	-0.036	670255	770977			

LOQ

* Indicates Filter Peak subtracted

Range Times: NW Diesel(4.062 - 7.013) AK102(3.31 - 7.24) Jet A(3.31 - 5.65)
NW M.Oil(7.01 - 10.64) AK103(7.24 - 10.64) OR Diesel(3.31 - 7.91)



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4b.i/20040512.b/0512b029.d
Method: /chem3/fid4b.i/20040512.b/acidsiltphfid4b.m
Instrument: fid4b.i
Operator: ESJ
Report Date: 05/13/2004
Macro: 26-APR-2004
Calibration Dates: Gas:08-MAY-2004 Diesel:12-MAY-2004 M.Oil:11-MAY-2004

ARI ID: GO34F
Client ID: MW-102
Injection: 13-MAY-2004 00:18
Dilution Factor: 1

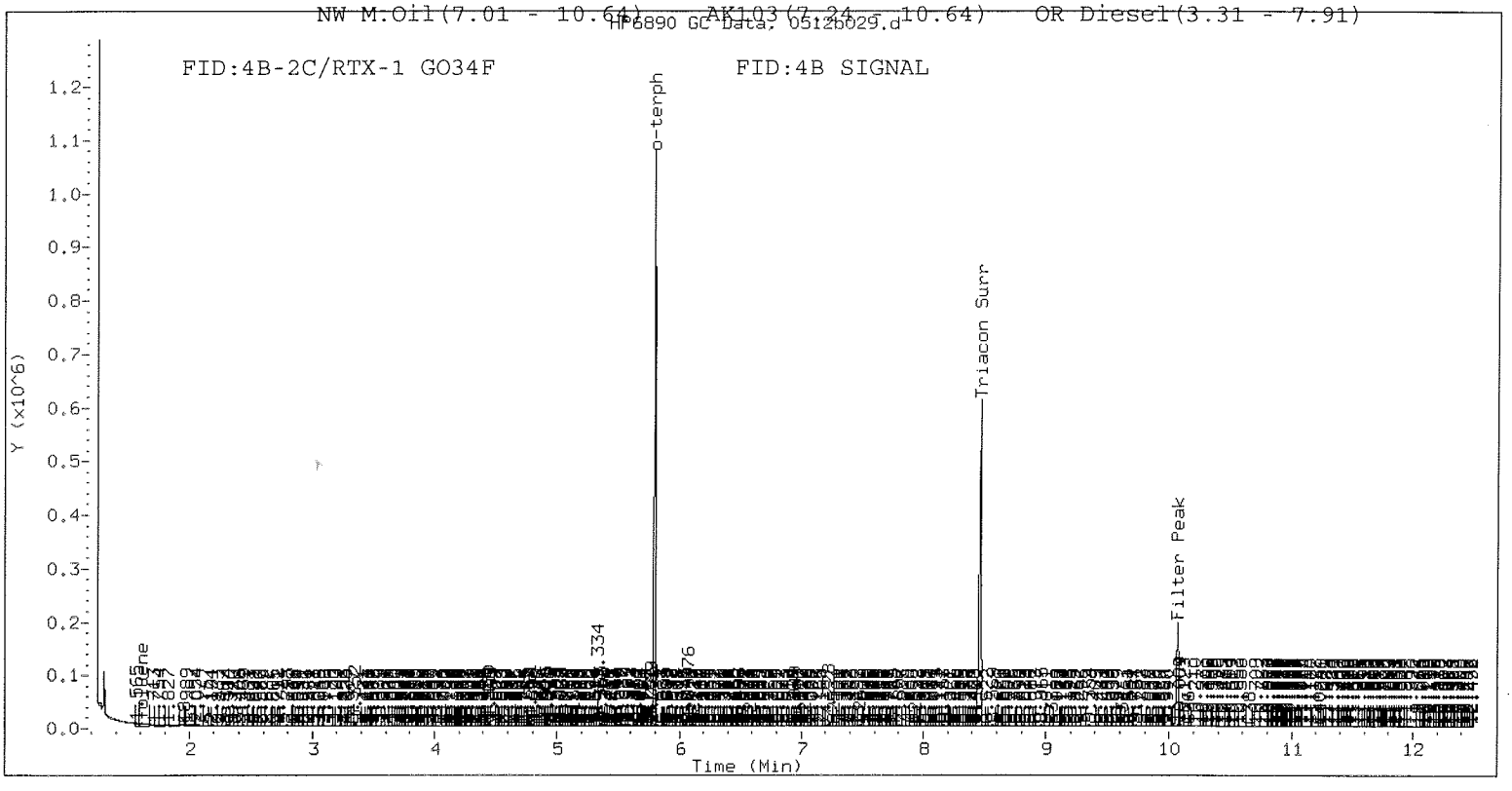
QV 5/13/04

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.605	-0.075	6782	24727	GAS (Tol-C12)	165103	19
C8	1.965	0.028	2184	1934	DIESEL (C12-C24)	218337	14
C10	3.301	-0.005	1120	1473	M.OIL (C24-C38)	93134	9*
C12	4.054	-0.008	543	358			
C14	4.620	-0.012	593	343			
C16	5.139	-0.014	2172	1117			
C18	5.636	-0.013	2333	1447			
C20	6.112	-0.002	1651	1119			
C22	6.582	0.018	1608	1950			
C24	7.037	0.024	732	961			
C25	7.264	0.028	653	621			
C26	7.485	0.026	2141	1933			
C28	7.939	0.033	519	459			
C32	9.048	0.033	96	98			
C34	9.617	0.036	48	54			
Filter Peak	10.069	0.419	192359	193611			
C36	10.164	0.071	233.0	278	o-Terph Surrogate Rec = 82.4%		(645738)
C38	10.653	0.011	831.0	1719	Triacon Surrogate Rec = 90.5%		(684590)
C40	11.223	0.013	445	372			
o-terph	5.795	-0.042	1074205	645738			
Triacon Surr	8.469	-0.038	610467	684590			

* Indicates Filter Peak subtracted

Range Times: NW Diesel(4.062 - 7.013) AK102(3.31 - 7.24) Jet A(3.31 - 5.65)
NW M.Oil(7.01 - 10.64) AK103(7.24 - 10.64) OR Diesel(3.31 - 7.91)



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4b.i/20040512.b/0512b015.d
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Instrument: fid4b.i
Operator: ESJ
Report Date: 05/13/2004
Macro: 26-APR-2004
Calibration Dates: Gas:08-MAY-2004 Diesel:12-MAY-2004 M.Oil:11-MAY-2004

ARI ID: GO34LCSW1
Client ID: GO34LCSW1
Injection: 12-MAY-2004 19:29
Dilution Factor: 1

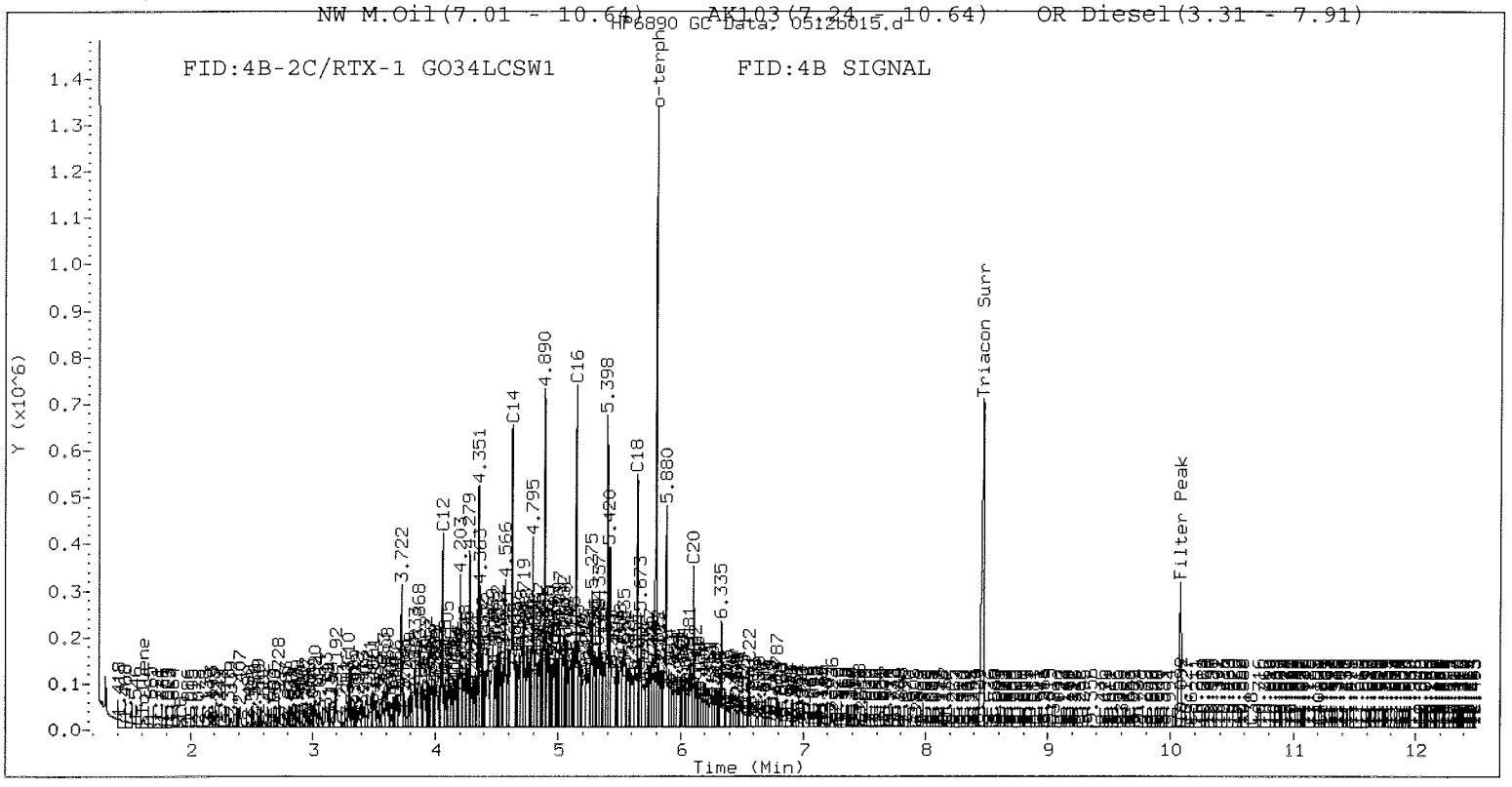
8/5/2004

FID:4B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.608	-0.073	21168	42723	GAS (Tol-C12)	3616382	420
C8	1.921	-0.016	15708	32878	DIESEL (C12-C24)	17754434	1172
C10	3.302	-0.004	131289	92761	M.OIL (C24-C38)	371273	36*
C12	4.057	-0.006	417206	287693			
C14	4.626	-0.006	649600	634932			
C16	5.147	-0.006	734309	476355			
C18	5.643	-0.006	543810	424769			
C20	6.109	-0.005	348753	223547			
C22	6.561	-0.002	137681	88239			
C24	7.012	-0.001	44779	42705			
C25	7.264	0.027	6725	6340			
C26	7.484	0.026	6316	8740			
C28	7.939	0.033	3208	4553			
C32	9.054	0.039	184	210			
C34	9.609	0.029	62	56			
Filter Peak	10.078	0.428	309816	350641			
C36	10.164	0.072	202.0	256	o-Terph Surrogate Rec = 105.7%		(827937)
C38	10.657	0.014	517.0	1507	Triacon Surrogate Rec = 112.8%		(852964)
C40	11.210	0.000	239	49			
o-terph	5.800	-0.037	1235530	827937			
Triacon Surr	8.473	-0.034	703314	852964			

* Indicates Filter Peak subtracted

Range Times: NW Diesel(4.062 - 7.013) AK102(3.31 - 7.24) Jet A(3.31 - 5.65)
NW M.Oil(7.01 - 10.64) AK103(7.24 - 10.64) OR Diesel(3.31 - 7.91)



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1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DETERMINATION OF PCDD/PCDF LEVELS

Prepared for:
Analytical Resources, Inc.
Attn: Mary Lou Fox
4611 South 134th Place, Suite 100
Tukwila, WA 98168

ACCREDITED IN ACCORDANCE WITH nelac

This report contains 16 pages.

The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Client Project Number: GO34

Client Purchase Order Number: NA

REPORT OF LABORATORY ANALYSIS

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Phone: 612.607.1700
Fax: 612.607.6444

REPORT OF: CHEMICAL ANALYSES

PROJECT: PCDD/PCDF ANALYSES

DATE: May 14, 2004

ISSUED TO: Analytical Resources, Inc.
Attn: Mary Lou Fox
4611 South 134th Place
Tukwila, WA 98168

REPORT NO: 04-1087865

INTRODUCTION

This report presents the results from the analyses performed on five samples submitted by a representative of Analytical Resources, Inc. The samples were analyzed for the presence or absence of polychlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs) using a modified version of USEPA Method 8290.

SAMPLE IDENTIFICATION

Client ID	Sample Type	Date Received	Pace ID
04-6255-GO34B	Water	04/22/04	105553382
04-6256-GO34C	Water	04/22/04	105553390
04-6257-GO34D	Water	04/22/04	105553416
04-6258-GO34E	Water	04/22/04	105553432
04-6259-GO34F	Water	04/22/04	105553440

RESULTS

The results are included in the following:

Appendix A – Chain of Custody Documentation
Appendix B – PCDD/PCDF Results

REPORT OF LABORATORY ANALYSIS

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REPORT OF: CHEMICAL ANALYSES

PROJECT: PCDD/PCDF ANALYSES **DATE:** May 14, 2004

 REPORT NO: 04-1087865

DISCUSSION

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 69-99%. All of the labeled standard recoveries obtained for this project were within the 40-135% target range for this method. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results, found at the beginning of Appendix B, show the blank to be free of PCDDs and PCDFs at the reporting limits. These results indicate that the sample processing steps did not significantly impact the field sample determinations.

Laboratory spike samples were also prepared with the sample batch using laboratory water that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 90-99%, with relative percent differences of 1.0-5.3%. These results indicate high degrees of accuracy and precision for these determinations.

REMARKS

The sample extracts will be retained for a period of 30 days from the date of this report and then discarded unless other arrangements are made. The raw mass spectral data will be archived for a period of not less than one year. Questions regarding the data contained in this report may be directed to the author at the number provided below.

Pace Analytical Services, Inc.

Scott C. Unze
Project Manager, HRMS
(612) 607-6383

REPORT OF LABORATORY ANALYSIS

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TABLE 1. 2,3,7,8-TCDD Equivalency Factors (TEFs) for the Polychlorinated Dibenzo-p-dioxins and Dibenzofurans

Number	Compound(s)	TEF
1	2,3,7,8-TCDD	1.00
2	1,2,3,7,8-PeCDD	0.50
3	1,2,3,6,7,8-HxCDD	0.1
4	1,2,3,7,8,9-HxCDD	0.1
5	1,2,3,4,7,8-HxCDD	0.1
6	1,2,3,4,6,7,8-HpCDD	0.01
7	OCDD	0.001
8	* Total - TCDD	0.0
9	* Total - PeCDD	0.0
10	* Total - HxCDD	0.0
11	* Total - HpCDD	0.0
12	2,3,7,8-TCDF	0.10
13	1,2,3,7,8-PeCDF	0.05
14	2,3,4,7,8-PeCDF	0.5
15	1,2,3,6,7,8-HxCDF	0.1
16	1,2,3,7,8,9-HxCDF	0.1
17	1,2,3,4,7,8-HxCDF	0.1
18	2,3,4,6,7,8-HxCDF	0.1
19	1,2,3,4,6,7,8-HpCDF	0.01
20	1,2,3,4,7,8,9-HpCDF	0.01
21	OCDF	0.001
22	* Total - TCDF	0.0
23	* Total - PeCDF	0.0
24	* Total - HxCDF	0.0
25	* Total - HpCDF	0.0

*Excluding the 2,3,7,8-substituted congeners.

Reference: 1989 ITEFs

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Appendix A

REPORT OF LABORATORY ANALYSIS

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SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 04\22\04

ANALYTICAL RESOURCES INCORPORATED

ARI Project: GO34

1087865

Laboratory: Pace Analytical, Inc.
Lab Contact: Scott Unze
Lab Address: 1700 Elm St.
Minneapolis, MN 55414
Phone: 612-607-1700
Fax:

ARI Client: Landau Associates
Project ID: 529009.34
ARI PMgr: Mary Lou Fox
Phone: (206) 340-2866 Ext
Fax: (206) 695-6201

Analytical Protocol: In-house
Special Instructions:

Requested Turn Around: ~~05/06/04~~ std
Fax Results (Y/N): **Yes**

Limits of Liability. *Subcontractor is expected to perform all requested services in accordance with appropriate methodology following Standard Operating Procedures that meet standards for the industry. The total liability of ARI, its officers, agents, employees, or sucessors, arising out of or in connection with the requested services, shall not exceed the negotiated amount for said services. The agreement by the Subcontractor to perform services requested by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.*

ARI Sample ID	Client Sample ID/ Add'l Sample ID	Sampled	Matrix	Bottles	Analyses
04-6255-GO34B	MW-109	4/21/04	Water	2	Dioxins/Furans
Special Instructions: Dioxins/Furans by 8290/				10855582	8290
04-6256-GO34C	MW-107	4/21/04	Water	2	Dioxins/Furans
Special Instructions: Dioxins/Furans by 8290/				390	8290
04-6257-GO34D	MW-106	4/21/04	Water	2	Dioxins/Furans
Special Instructions: Dioxins/Furans by 8290/				416	8290
04-6258-GO34E	MW-105	4/21/04	Water	2	Dioxins/Furans
Special Instructions: Dioxins/Furans by 8290/				432	8290
04-6259-GO34F	MW-102	4/21/04	Water	2	Dioxins/Furans
Special Instructions: Dioxins/Furans by 8290/				410	8290

before - octa isomers

Please allow samples to settle prior to extraction per Client's request & communications with Scott Unze. Client wants to avoid settled particulates.

Thanks

Carrier	UPS	Airbill	1Z83269513420060 11	Date	4/23/04 D
Relinquished by		Company	ARI	Date	4/22/04	Time	1525
Received by		Company	Pace	Date	4/23/04	Time	08:45

3.6°C

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Appendix B

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Blank Analysis Results

Client - Analytical Resources Inc.

Lab Sample ID	BLANK-4773	Matrix	Water
Filename	F40512C_03	Dilution	NA
Total Amount Extracted	945 mL	Extracted	05/09/2004
ICAL Date	05/11/2004	Analyzed	05/12/2004 21:00
CCal Filename(s)	F40512B_14 & F40512C_16	Injected By	BAL

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00210	2,3,7,8-TCDF-13C	2.00	86
Total TCDF	ND	-----	0.00210	2,3,7,8-TCDD-13C	2.00	86
				1,2,3,7,8-PeCDF-13C	2.00	81
2,3,7,8-TCDD	ND	-----	0.00210	2,3,4,7,8-PeCDF-13C	2.00	80
Total TCDD	ND	-----	0.00210	1,2,3,7,8-PeCDD-13C	2.00	82
				1,2,3,4,7,8-HxCDF-13C	2.00	88
1,2,3,7,8-PeCDF	ND	-----	0.01100	1,2,3,6,7,8-HxCDF-13C	2.00	95
2,3,4,7,8-PeCDF	ND	-----	0.01100	2,3,4,6,7,8-HxCDF-13C	2.00	92
Total PeCDF	ND	-----	0.01100	1,2,3,7,8,9-HxCDF-13C	2.00	88
				1,2,3,4,7,8-HxCDD-13C	2.00	101
1,2,3,7,8-PeCDD	ND	-----	0.01100	1,2,3,6,7,8-HxCDD-13C	2.00	91
Total PeCDD	ND	-----	0.01100	1,2,3,4,6,7,8-HpCDF-13C	2.00	93
				1,2,3,4,7,8,9-HpCDF-13C	2.00	89
1,2,3,4,7,8-HxCDF	ND	-----	0.01100	1,2,3,4,6,7,8-HpCDD-13C	2.00	92
1,2,3,6,7,8-HxCDF	ND	-----	0.01100	OCDD-13C	4.00	79
2,3,4,6,7,8-HxCDF	ND	-----	0.01100			
1,2,3,7,8,9-HxCDF	ND	-----	0.01100	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01100	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01100	2,3,7,8-TCDD-37Cl4	0.20	88
1,2,3,6,7,8-HxCDD	ND	-----	0.01100			
1,2,3,7,8,9-HxCDD	ND	-----	0.01100			
Total HxCDD	ND	-----	0.01100			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01100	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01100	Equivalence: 0.00 ng/L		
Total HpCDF	ND	-----	0.01100	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01100			
Total HpCDD	ND	-----	0.01100			
OCDF	ND	-----	0.02100			
OCDD	ND	-----	0.02100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
LRL = Lower Reporting Limit
J = Concentration detected is below the calibration range
P = Recovery outside of target range
A = Detection Limit based on signal-to-noise measurement

I = Interference
E = PCDE Interference
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
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Report No.....1087865

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Analysis Results

Client - Analytical Resources Inc.

Client's Sample ID	04-6255-G034B MW-109		
Lab Sample ID	105553382		
Filename	F40513B_08		
Injected By	SMT		
Total Amount Extracted	901 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/21/2004
ICAL Date	05/11/2004	Received	04/23/2004
CCal Filename(s)	F40513A_16 & F40513B_16	Extracted	05/09/2004
Method Blank ID	BLANK-4773	Analyzed	05/14/2004 04:20

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00220	2,3,7,8-TCDF-13C	2.00	79
Total TCDF	ND	-----	0.00220	2,3,7,8-TCDD-13C	2.00	81
				1,2,3,7,8-PeCDF-13C	2.00	71
2,3,7,8-TCDD	ND	-----	0.00220	2,3,4,7,8-PeCDF-13C	2.00	72
Total TCDD	ND	-----	0.00220	1,2,3,7,8-PeCDD-13C	2.00	75
				1,2,3,4,7,8-HxCDF-13C	2.00	84
1,2,3,7,8-PeCDF	ND	-----	0.01100	1,2,3,6,7,8-HxCDF-13C	2.00	81
2,3,4,7,8-PeCDF	ND	-----	0.01100	2,3,4,6,7,8-HxCDF-13C	2.00	84
Total PeCDF	ND	-----	0.01100	1,2,3,7,8,9-HxCDF-13C	2.00	74
				1,2,3,4,7,8-HxCDD-13C	2.00	92
1,2,3,7,8-PeCDD	ND	-----	0.01100	1,2,3,6,7,8-HxCDD-13C	2.00	85
Total PeCDD	ND	-----	0.01100	1,2,3,4,6,7,8-HpCDF-13C	2.00	84
				1,2,3,4,7,8,9-HpCDF-13C	2.00	72
1,2,3,4,7,8-HxCDF	ND	-----	0.01100	1,2,3,4,6,7,8-HpCDD-13C	2.00	81
1,2,3,6,7,8-HxCDF	ND	-----	0.01100	OCDD-13C	4.00	80
2,3,4,6,7,8-HxCDF	ND	-----	0.01100			
1,2,3,7,8,9-HxCDF	ND	-----	0.01100	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01100	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01100	2,3,7,8-TCDD-37Cl4	0.20	83
1,2,3,6,7,8-HxCDD	ND	-----	0.01100			
1,2,3,7,8,9-HxCDD	ND	-----	0.01100			
Total HxCDD	ND	-----	0.01100			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01100	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01100	Equivalence: 0.00 ng/L		
Total HpCDF	ND	-----	0.01100	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01100			
Total HpCDD	ND	-----	0.01100			
OCDF	ND	-----	0.02200			
OCDD	ND	-----	0.02200			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Analysis Results

Client - Analytical Resources Inc.

Client's Sample ID	04-6256-G034C MW-107		
Lab Sample ID	105553390		
Filename	F40513B_09		
Injected By	SMT		
Total Amount Extracted	941 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/21/2004
ICAL Date	05/11/2004	Received	04/23/2004
CCal Filename(s)	F40513A_16 & F40513B_16	Extracted	05/09/2004
Method Blank ID	BLANK-4773	Analyzed	05/14/2004 05:10

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00210	2,3,7,8-TCDF-13C	2.00	76
Total TCDF	ND	-----	0.00210	2,3,7,8-TCDD-13C	2.00	77
				1,2,3,7,8-PeCDF-13C	2.00	69
2,3,7,8-TCDD	ND	-----	0.00210	2,3,4,7,8-PeCDF-13C	2.00	73
Total TCDD	ND	-----	0.00210	1,2,3,7,8-PeCDD-13C	2.00	75
				1,2,3,4,7,8-HxCDF-13C	2.00	83
1,2,3,7,8-PeCDF	ND	-----	0.01100	1,2,3,6,7,8-HxCDF-13C	2.00	82
2,3,4,7,8-PeCDF	ND	-----	0.01100	2,3,4,6,7,8-HxCDF-13C	2.00	81
Total PeCDF	ND	-----	0.01100	1,2,3,7,8,9-HxCDF-13C	2.00	77
				1,2,3,4,7,8-HxCDD-13C	2.00	79
1,2,3,7,8-PeCDD	ND	-----	0.01100	1,2,3,6,7,8-HxCDD-13C	2.00	85
Total PeCDD	ND	-----	0.01100	1,2,3,4,6,7,8-HpCDF-13C	2.00	83
				1,2,3,4,7,8,9-HpCDF-13C	2.00	71
1,2,3,4,7,8-HxCDF	ND	-----	0.01100	1,2,3,4,6,7,8-HpCDD-13C	2.00	76
1,2,3,6,7,8-HxCDF	ND	-----	0.01100	OCDD-13C	4.00	75
2,3,4,6,7,8-HxCDF	ND	-----	0.01100			
1,2,3,7,8,9-HxCDF	ND	-----	0.01100	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01100	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01100	2,3,7,8-TCDD-37Cl4	0.20	74
1,2,3,6,7,8-HxCDD	ND	-----	0.01100			
1,2,3,7,8,9-HxCDD	ND	-----	0.01100			
Total HxCDD	ND	-----	0.01100			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01100	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01100	Equivalence: 0.00 ng/L		
Total HpCDF	ND	-----	0.01100	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01100			
Total HpCDD	ND	-----	0.01100			
OCDF	ND	-----	0.02100			
OCDD	ND	-----	0.02100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

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Method 8290 Analysis Results

Client - Analytical Resources Inc.

Client's Sample ID	04-6257-G034D MW-106		
Lab Sample ID	105553416		
Filename	F40513B_10		
Injected By	SMT		
Total Amount Extracted	966 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/21/2004
ICAL Date	05/11/2004	Received	04/23/2004
CCal Filename(s)	F40513A_16 & F40513B_16	Extracted	05/09/2004
Method Blank ID	BLANK-4773	Analyzed	05/14/2004 06:00

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00210	2,3,7,8-TCDF-13C	2.00	82
Total TCDF	ND	-----	0.00210	2,3,7,8-TCDD-13C	2.00	89
				1,2,3,7,8-PeCDF-13C	2.00	73
2,3,7,8-TCDD	ND	-----	0.00210	2,3,4,7,8-PeCDF-13C	2.00	74
Total TCDD	ND	-----	0.00210	1,2,3,7,8-PeCDD-13C	2.00	77
				1,2,3,4,7,8-HxCDF-13C	2.00	88
1,2,3,7,8-PeCDF	ND	-----	0.01000	1,2,3,6,7,8-HxCDF-13C	2.00	88
2,3,4,7,8-PeCDF	ND	-----	0.01000	2,3,4,6,7,8-HxCDF-13C	2.00	90
Total PeCDF	ND	-----	0.01000	1,2,3,7,8,9-HxCDF-13C	2.00	81
				1,2,3,4,7,8-HxCDD-13C	2.00	99
1,2,3,7,8-PeCDD	ND	-----	0.01000	1,2,3,6,7,8-HxCDD-13C	2.00	92
Total PeCDD	ND	-----	0.01000	1,2,3,4,6,7,8-HpCDF-13C	2.00	92
				1,2,3,4,7,8,9-HpCDF-13C	2.00	78
1,2,3,4,7,8-HxCDF	ND	-----	0.01000	1,2,3,4,6,7,8-HpCDD-13C	2.00	89
1,2,3,6,7,8-HxCDF	ND	-----	0.01000	OCDD-13C	4.00	85
2,3,4,6,7,8-HxCDF	ND	-----	0.01000			
1,2,3,7,8,9-HxCDF	ND	-----	0.01000	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01000	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01000	2,3,7,8-TCDD-37Cl4	0.20	85
1,2,3,6,7,8-HxCDD	ND	-----	0.01000			
1,2,3,7,8,9-HxCDD	ND	-----	0.01000			
Total HxCDD	ND	-----	0.01000			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000	Equivalence: 0.00 ng/L		
Total HpCDF	ND	-----	0.01000	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000			
Total HpCDD	ND	-----	0.01000			
OCDF	ND	-----	0.02100			
OCDD	ND	-----	0.02100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
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Minneapolis, MN 55414

Tel: 612-607-1700
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Method 8290 Analysis Results

Client - Analytical Resources Inc.

Client's Sample ID	04-6258-G034E MW-105		
Lab Sample ID	105553432		
Filename	F40513B_11		
Injected By	SMT		
Total Amount Extracted	954 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/21/2004
ICAL Date	05/11/2004	Received	04/23/2004
CCal Filename(s)	F40513A_16 & F40513B_16	Extracted	05/09/2004
Method Blank ID	BLANK-4773	Analyzed	05/14/2004 06:50

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00210	2,3,7,8-TCDF-13C	2.00	84
Total TCDF	ND	-----	0.00210	2,3,7,8-TCDD-13C	2.00	86
				1,2,3,7,8-PeCDF-13C	2.00	81
2,3,7,8-TCDD	ND	-----	0.00210	2,3,4,7,8-PeCDF-13C	2.00	81
Total TCDD	ND	-----	0.00210	1,2,3,7,8-PeCDD-13C	2.00	84
				1,2,3,4,7,8-HxCDF-13C	2.00	86
1,2,3,7,8-PeCDF	ND	-----	0.01000	1,2,3,6,7,8-HxCDF-13C	2.00	91
2,3,4,7,8-PeCDF	ND	-----	0.01000	2,3,4,6,7,8-HxCDF-13C	2.00	89
Total PeCDF	ND	-----	0.01000	1,2,3,7,8,9-HxCDF-13C	2.00	82
				1,2,3,4,7,8-HxCDD-13C	2.00	95
1,2,3,7,8-PeCDD	ND	-----	0.01000	1,2,3,6,7,8-HxCDD-13C	2.00	97
Total PeCDD	ND	-----	0.01000	1,2,3,4,6,7,8-HpCDF-13C	2.00	90
				1,2,3,4,7,8,9-HpCDF-13C	2.00	80
1,2,3,4,7,8-HxCDF	ND	-----	0.01000	1,2,3,4,6,7,8-HpCDD-13C	2.00	89
1,2,3,6,7,8-HxCDF	ND	-----	0.01000	OCDD-13C	4.00	90
2,3,4,6,7,8-HxCDF	ND	-----	0.01000			
1,2,3,7,8,9-HxCDF	ND	-----	0.01000	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01000	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01000	2,3,7,8-TCDD-37Cl4	0.20	85
1,2,3,6,7,8-HxCDD	ND	-----	0.01000			
1,2,3,7,8,9-HxCDD	ND	-----	0.01000			
Total HxCDD	ND	-----	0.01000			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000	Equivalence: 0.00 ng/L		
Total HpCDF	ND	-----	0.01000	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000			
Total HpCDD	ND	-----	0.01000			
OCDF	ND	-----	0.02100			
OCDD	ND	-----	0.02100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis

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S = Saturated signal
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Fax: 612- 607-6444

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Method 8290 Analysis Results

Client - Analytical Resources Inc.

Client's Sample ID	04-6259-G034F MW-102		
Lab Sample ID	105553440		
Filename	F40513B_12		
Injected By	SMT		
Total Amount Extracted	936 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/21/2004
ICAL Date	05/11/2004	Received	04/23/2004
CCal Filename(s)	F40513A_16 & F40513B_16	Extracted	05/09/2004
Method Blank ID	BLANK-4773	Analyzed	05/14/2004 07:40

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00210	2,3,7,8-TCDF-13C	2.00	78
Total TCDF	ND	-----	0.00210	2,3,7,8-TCDD-13C	2.00	80
				1,2,3,7,8-PeCDF-13C	2.00	71
2,3,7,8-TCDD	ND	-----	0.00210	2,3,4,7,8-PeCDF-13C	2.00	72
Total TCDD	ND	-----	0.00210	1,2,3,7,8-PeCDD-13C	2.00	79
				1,2,3,4,7,8-HxCDF-13C	2.00	84
1,2,3,7,8-PeCDF	ND	-----	0.01100	1,2,3,6,7,8-HxCDF-13C	2.00	86
2,3,4,7,8-PeCDF	ND	-----	0.01100	2,3,4,6,7,8-HxCDF-13C	2.00	85
Total PeCDF	ND	-----	0.01100	1,2,3,7,8,9-HxCDF-13C	2.00	74
				1,2,3,4,7,8-HxCDD-13C	2.00	94
1,2,3,7,8-PeCDD	ND	-----	0.01100	1,2,3,6,7,8-HxCDD-13C	2.00	93
Total PeCDD	ND	-----	0.01100	1,2,3,4,6,7,8-HpCDF-13C	2.00	87
				1,2,3,4,7,8,9-HpCDF-13C	2.00	72
1,2,3,4,7,8-HxCDF	ND	-----	0.01100	1,2,3,4,6,7,8-HpCDD-13C	2.00	81
1,2,3,6,7,8-HxCDF	ND	-----	0.01100	OCDD-13C	4.00	82
2,3,4,6,7,8-HxCDF	ND	-----	0.01100			
1,2,3,7,8,9-HxCDF	ND	-----	0.01100	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01100	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01100	2,3,7,8-TCDD-37Cl4	0.20	77
1,2,3,6,7,8-HxCDD	ND	-----	0.01100			
1,2,3,7,8,9-HxCDD	ND	-----	0.01100			
Total HxCDD	ND	-----	0.01100			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01100	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01100	Equivalence: 0.00 ng/L		
Total HpCDF	ND	-----	0.01100	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01100			
Total HpCDD	ND	-----	0.01100			
OCDF	ND	-----	0.02100			
OCDD	ND	-----	0.02100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1087865

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
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Pace Analytical™

Method 8290 Laboratory Control Spike Results

Client - Analytical Resources Inc.

Lab Sample ID	LCS-4774		
Filename	F40512B_12	Matrix	Water
Total Amount Extracted	943 mL	Dilution	NA
ICAL Date	05/11/2004	Extracted	05/09/2004
CCal Filename(s)	F40512B_03 & F40512B_14	Analyzed	05/12/2004 17:00
Method Blank ID	BLANK-4773	Injected By	BAL

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	99	2,3,7,8-TCDF-13C	2.00	93
				2,3,7,8-TCDD-13C	2.00	91
				1,2,3,7,8-PeCDF-13C	2.00	83
2,3,7,8-TCDD	0.20	0.19	96	2,3,4,7,8-PeCDF-13C	2.00	84
				1,2,3,7,8-PeCDD-13C	2.00	83
				1,2,3,4,7,8-HxCDF-13C	2.00	91
1,2,3,7,8-PeCDF	1.00	0.97	97	1,2,3,6,7,8-HxCDF-13C	2.00	98
2,3,4,7,8-PeCDF	1.00	0.98	98	2,3,4,6,7,8-HxCDF-13C	2.00	94
				1,2,3,7,8,9-HxCDF-13C	2.00	92
				1,2,3,4,7,8-HxCDD-13C	2.00	100
1,2,3,7,8-PeCDD	1.00	0.99	99	1,2,3,6,7,8-HxCDD-13C	2.00	98
				1,2,3,4,6,7,8-HpCDF-13C	2.00	95
				1,2,3,4,7,8,9-HpCDF-13C	2.00	90
1,2,3,4,7,8-HxCDF	1.00	0.98	98	1,2,3,4,6,7,8-HpCDD-13C	2.00	92
1,2,3,6,7,8-HxCDF	1.00	0.96	96	OCDD-13C	4.00	82
2,3,4,6,7,8-HxCDF	1.00	0.99	99			
1,2,3,7,8,9-HxCDF	1.00	0.96	96	1,2,3,4-TCDD-13C	2.00	NA
				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	0.94	94	2,3,7,8-TCDD-37Cl4	0.20	90
1,2,3,6,7,8-HxCDD	1.00	0.94	94			
1,2,3,7,8,9-HxCDD	1.00	0.92	92			
1,2,3,4,6,7,8-HpCDF	1.00	0.97	97			
1,2,3,4,7,8,9-HpCDF	1.00	0.96	96			
1,2,3,4,6,7,8-HpCDD	1.00	0.98	98			
OCDF	2.00	1.92	96			
OCDD	2.00	1.91	96			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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Minneapolis, MN 55414

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Fax: 612- 607-6444

Pace Analytical™

Method 8290 Laboratory Control Spike Results

Client - Analytical Resources Inc.

Lab Sample ID	LCSD-4718		
Filename	F40512B_13	Matrix	Water
Total Amount Extracted	945 mL	Dilution	NA
ICAL Date	05/11/2004	Extracted	05/09/2004
CCal Filename(s)	F40512B_03 & F40512B_14	Analyzed	05/12/2004 17:49
Method Blank ID	BLANK-4773	Injected By	BAL

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.19	96	2,3,7,8-TCDF-13C	2.00	83
				2,3,7,8-TCDD-13C	2.00	82
				1,2,3,7,8-PeCDF-13C	2.00	76
2,3,7,8-TCDD	0.20	0.19	93	2,3,4,7,8-PeCDF-13C	2.00	75
				1,2,3,7,8-PeCDD-13C	2.00	76
				1,2,3,4,7,8-HxCDF-13C	2.00	85
1,2,3,7,8-PeCDF	1.00	0.94	94	1,2,3,6,7,8-HxCDF-13C	2.00	88
2,3,4,7,8-PeCDF	1.00	0.96	96	2,3,4,6,7,8-HxCDF-13C	2.00	88
				1,2,3,7,8,9-HxCDF-13C	2.00	84
				1,2,3,4,7,8-HxCDD-13C	2.00	91
1,2,3,7,8-PeCDD	1.00	0.94	94	1,2,3,6,7,8-HxCDD-13C	2.00	89
				1,2,3,4,6,7,8-HpCDF-13C	2.00	87
				1,2,3,4,7,8,9-HpCDF-13C	2.00	83
1,2,3,4,7,8-HxCDF	1.00	0.94	94	1,2,3,4,6,7,8-HpCDD-13C	2.00	85
1,2,3,6,7,8-HxCDF	1.00	0.95	95	OCDD-13C	4.00	75
2,3,4,6,7,8-HxCDF	1.00	0.95	95			
1,2,3,7,8,9-HxCDF	1.00	0.94	94	1,2,3,4-TCDD-13C	2.00	NA
				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	0.93	93	2,3,7,8-TCDD-37Cl4	0.20	80
1,2,3,6,7,8-HxCDD	1.00	0.93	93			
1,2,3,7,8,9-HxCDD	1.00	0.90	90			
1,2,3,4,6,7,8-HpCDF	1.00	0.93	93			
1,2,3,4,7,8,9-HpCDF	1.00	0.91	91			
1,2,3,4,6,7,8-HpCDD	1.00	0.95	95			
OCDF	2.00	1.85	92			
OCDD	2.00	1.87	93			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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SPIKE RECOVERY RELATIVE PERCENT DIFFERENCE (RPD) RESULTS

Client..... Analytical Resources Inc.

SPIKE 1 ID.....LCS-4774
SPIKE 1 Filename..... F40512B_12
SPIKE 2 ID.....LCSD-4718
SPIKE 2 Filename..... F40512B_13

COMPOUND	SPIKE 1 REC,%	SPIKE 2 REC,%	RPD,%
2378-TCDF	99	96	3.1
2378-TCDD	96	93	3.2
12378-PeCDF	97	94	3.1
23478-PeCDF	98	96	2.1
12378-PeCDD	99	94	5.2
123478-HxCDF	98	94	4.2
123678-HxCDF	96	95	1.0
234678-HxCDF	99	95	4.1
123789-HxCDF	96	94	2.1
123478-HxCDD	94	93	1.1
123678-HxCDD	94	93	1.1
123789-HxCDD	92	90	2.2
1234678-HpCDF	97	93	4.2
1234789-HpCDF	96	91	5.3
1234678-HpCDD	98	95	3.1
OCDF	96	92	4.3
OCDD	96	93	3.2

REC = Percent Recovered
RPD = The difference between the two values divided by the average.
NA = Not Applicable

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