

Final

**Phase II Environmental Site Assessment
Former City of Yakima Municipal Landfill
Yakima, Washington**

Prepared for

Leelynn, Inc., & Wiley Mt., Inc.
C/O Velikanje Halverson, PC
Attorneys at Law
405 East Lincoln
PO Box 22550
Yakima, Washington 98907

Prepared by

Parametrix
411 108th Avenue NE, Suite 1800
Bellevue, WA 98004-5571
425-458-6200
www.parametrix.com



Analytical Resources, Incorporated
Analytical Chemists and Consultants

21 February 2008

Annika Deutsch
Parametrix, Inc.
411 108th Avenue NE
Suite 1800
Bellevue, WA 98004-5571

RE: Project: Yakima Resources (YR)
ARI Job No. MI25

Dear Annika:

Please find enclosed the original Chain of Custody (COC) record and the final results for the samples from the project referenced above. Analytical Resources, Inc. received seven water samples and one trip blank on February 8, 2008. The samples were received intact and there were no discrepancies in the paperwork. The samples were analyzed for VOAs, SIM-vinyl chloride (per Kurt Easthouse), BETX/NWTPH-G, SVOAs, PCBs, NWTPH-Dx, total and dissolved metals and conventional parameters as requested. The results for total and dissolved iron and manganese were added per Kurt Easthouse.

The percent recoveries for select compounds were low following the SVOA analysis of the LCSD associated with these samples. It was suspected that this was due to the failure to add base booster to the LCSD. Since the percent recoveries for all compounds were acceptable for the LCS and the corresponding MS/MSD, no corrective actions were taken.

There were no further analytical complications noted.

As always, a copy of these reports and all raw data will remain on file at ARI. If you have questions, or require further information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.


Mark D. Harris
Project Manager
206-695-6210
<markh@arilabs.com>

Enclosures

cc: File MI25

MDH/mdh

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: MJ25
 Turn-around Requested: STANDARD
 ARI Client Company: Parametrix (425)450-6200
 Phone:
 Client Contact: Annika Deutche
 Client Project Name: Yakima Resources (YR)
 Client Project #: R. Simmons

Page: 1 of 1
 Date: 2/6/08
 No. of Coolers: 5
 Ice Present? Y
 Cooler Temps: 1.2-2.9



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

Sample ID	Date	Time	Matrix	No. Containers
MW-1	2/5/08	1515	water	17
MW-8	2/6/08	0925		
MW-7	↓	1210		
MW-7B	↓			
MW-10	↓	1540		
MW-6	2/7/08	0905		
MW-5	↓	1030		
trip blank	2/5/08	1515		5

Analysis Requested					Notes/Comments							
Volatiles	PH-G/BTEX	SVCCs (ABN)	PCBs	TPH-Dx	PH, SO ₄ , NO ₃	Air	Ammonia/	TDS	RORA Metals	RORA Metals	RORA Metals	Notes/Comments
3	2	2	2	2	1	1	1	1	1	1	1	dissolved metals field filtered
												w/ 0.45 um cart- ister filter
												Extra vol. collected at MW-10 for MS/MSD

Comments/Special Instructions:
 Relinquished by: (Signature) Ren Simmons
 Printed Name: Ren Simmons
 Company: Parametrix
 Date & Time: 2/6/08, 0935
 Received by: (Signature) Max P. Aulis
 Printed Name: Max P. Aulis
 Company: ARI
 Date & Time: 2/8/08, 0935

Relinquished by: (Signature) YOD. Gae
 Printed Name: YOD. Gae
 Company:
 Date & Time:
 Received by: (Signature)
 Printed Name:
 Company:
 Date & Time:

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is later, unless alternate retention period has been established by written agreement of contract.

ARI Data Reporting Qualifiers

Effective 11/22/04

Inorganic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but \geq the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 1 RL instead of the normal 20% RPD

Organic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- NR Spiked compound recovery is not reported due to chromatographic interference
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte
- NA The flagged analyte was not analyzed for
- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte reporting limit is raised due to a positive chromatographic interference. The compound is not detected above the raised limit but may be present at or below the limit
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by $\geq 40\%$ RPD with no obvious chromatographic interference

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260

Sample ID: MB-021208

Page 1 of 2

METHOD BLANK

Lab Sample ID: MB-021208

QC Report No: MI25-Parametrix, Inc.

LIMS ID: 08-2488

Project: Yakima Resources (YR)

Matrix: Water

Data Release Authorized:

Date Sampled: NA

Reported: 02/14/08

Date Received: NA

Instrument/Analyst: NT3/AAR

Sample Amount: 5.00 mL

Date Analyzed: 02/12/08 10:30

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	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
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
108-38-3	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
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	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	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 2 of 2

Sample ID: MB-021208
METHOD BLANK

Lab Sample ID: MB-021208

QC Report No: MI25-Parametrix, Inc.

LIMS ID: 08-2488

Project: Yakima Resources (YR)

Matrix: Water

Date Analyzed: 02/12/08 10:30

CAS Number	Analyte	RL	Result	Q
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Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%
d8-Toluene	101%
Bromofluorobenzene	98.4%
d4-1,2-Dichlorobenzene	100%

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: **MJ25**
 Turn-around Requested: **Standard**
 ARI Client Company: **Parametrix (425) 450-6200**
 Phone:
 Client Contact: **Annika Deutche**
 Client Project Name: **Yakima Resources (YR)**
 Client Project #: **R. Simmons**

Page: **1** of **1**
 Date: **2/10/08**
 No. of Coolers: **5**
 Ice Present? **Y**
 Cooler Temps: **1.2-2.9**

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

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested							Notes/Comments		
					Volatiles	PH-G/BTEX	SVOCs (ARND)	PCBs	PH-DX	PH SO ₄ , NO ₃	AK		Ammonia/TOC	
MW-1	2/5/08	1515	water	17	3	2	2	2	2	1	1	1	1	dissolved metals
MW-8	2/6/08	0925												Field Filtered
MW-7	↓	1210												w/ 0.45um cart
MW-10	↓	1540												ister filter
MW-6	2/7/08	0905												Extra vol. collected
MW-5	↓	1030												at MW-10 for
trip blanks	2/5/08	1515		5										MS/MSD

Comments/Special Instructions

Relinquished by: (Signature) **Ren Simmons**
 Printed Name: **Ren Simmons**
 Company: **Parametrix**
 Date & Time: **2/8/08, 0935**

Received by: (Signature) **Mark D. Angus**
 Printed Name: **Mark D. Angus**
 Company: **ARI**
 Date & Time: **2/8/08, 0935**

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or signed agreement between ARI and the Client.

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ARI Data Reporting Qualifiers

Effective 11/22/04

Inorganic Data

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- B Reported value is less than the CRDL but \geq the Reporting Limit
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- L Analyte concentration is ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 1 RL instead of the normal 20% RPD

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- NS The flagged analyte was not spiked into the sample
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- Y The analyte reporting limit is raised due to a positive chromatographic interference. The compound is not detected above the raised limit but may be present at or below the limit
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by $\geq 40\%$ RPD with no obvious chromatographic interference

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 1 of 2

Sample ID: MB-021208
METHOD BLANK

Lab Sample ID: MB-021208
LIMS ID: 08-2488
Matrix: Water
Data Release Authorized:
Reported: 02/14/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT3/AAR
Date Analyzed: 02/12/08 10:30

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	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
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
108-38-3	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
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	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	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U



Lab Sample ID: M125B
 LIMS ID: 08-2486
 Matrix: Water
 QC Report No: M125-Parametrix, Inc.
 Project: Yakima Resources (YR)

Date Sampled: 02/06/08
 Date Received: 02/08/08

Instrument/Analyst: NT3/AAR
 Sample Amount: 5.00 mL
 Purge Volume: 5.0 mL

Date Analyzed: 02/12/08 13:46

CAS Number Analyte RT Result Q

74-87-3	Chloromethane	1.0	<	1.0	U
74-83-9	Bromomethane	1.0	<	1.0	U
75-01-4	Vinyl Chloride	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	<	2.4	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
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
108-38-3	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
106-46-7	1,4-Dichlorobenzene	1.0	<	1.0	U
74-88-4	Methyl Iodide	1.0	<	1.0	U
107-13-1	Acrylonitrile	5.0	<	5.0	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	2.0	<	2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	<	5.0	U
106-93-4	Ethylene Dibromide	1.0	<	1.0	U
74-97-5	Bromochloromethane	1.0	<	1.0	U

105%	d4-1,2-Dichloroethane
101%	d8-Toluene
98.4%	Bromofluorobenzene
100%	d4-1,2-Dichlorobenzene

Volatiles Surrogate Recovery

Reported in µg/L (ppb)

Result	RT	Analyte	CAS Number
--------	----	---------	------------

Lab Sample ID: MB-021208
 LIMS ID: 08-2488
 Matrix: Water
 Date Analyzed: 02/12/08 10:30
 GC Report No: M125-Parametrix, Inc.
 Project: Yaktima Resources (YR)

ORGANICS ANALYSIS DATA SHEET
 Volatiles by purge & Trap GC/MS-Method SW8260
 Sample ID: MB-021208
 METHOD BLANK



ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 2 of 2

Sample ID: MW-8
SAMPLE

Lab Sample ID: MI25B

QC Report No: MI25-Parametrix, Inc.

LIMS ID: 08-2486

Project: Yakima Resources (YR)

Matrix: Water

Date Analyzed: 02/12/08 13:46

CAS Number	Analyte	RL	Result	Q
------------	---------	----	--------	---

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

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	107%
d8-Toluene	101%
Bromofluorobenzene	97.4%
d4-1,2-Dichlorobenzene	103%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 1 of 2

Sample ID: MW-7
SAMPLE

Lab Sample ID: MI25C
LIMS ID: 08-2487
Matrix: Water

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Data Release Authorized:
Reported: 02/14/08

Date Sampled: 02/06/08
Date Received: 02/08/08

Instrument/Analyst: NT3/AAR
Date Analyzed: 02/12/08 14:11

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	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
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
108-38-3	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
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	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	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 2 of 2

Sample ID: MW-7
SAMPLE

Lab Sample ID: MI25C
LIMS ID: 08-2487
Matrix: Water
Date Analyzed: 02/12/08 14:11

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

CAS Number	Analyte	RL	Result	Q
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Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%
d8-Toluene	101%
Bromofluorobenzene	99.0%
d4-1,2-Dichlorobenzene	101%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 1 of 2

Sample ID: MW-7D
SAMPLE

Lab Sample ID: MI25D

LIMS ID: 08-2488

Matrix: Water

Data Release Authorized:

Reported: 02/14/08

QC Report No: MI25-Parametrix, Inc.

Project: Yakima Resources (YR)

Date Sampled: 02/06/08

Date Received: 02/08/08

Instrument/Analyst: NT3/AAR

Date Analyzed: 02/12/08 14:35

Sample Amount: 5.00 mL

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	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
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
108-38-3	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
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	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	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 2 of 2

Sample ID: MW-7D
SAMPLE

Lab Sample ID: MI25D
LIMS ID: 08-2488
Matrix: Water
Date Analyzed: 02/12/08 14:35

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

CAS Number	Analyte	RL	Result	Q
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Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	106%
d8-Toluene	100%
Bromofluorobenzene	98.9%
d4-1,2-Dichlorobenzene	101%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 1 of 2

Sample ID: TRIP BLANK
SAMPLE

Lab Sample ID: MI25H
LIMS ID: 08-2492
Matrix: Water
Data Release Authorized:
Reported: 02/14/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Date Sampled: 02/05/08
Date Received: 02/08/08

Instrument/Analyst: NT3/AAR
Date Analyzed: 02/12/08 10:55

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	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
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
108-38-3	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
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	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	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 2 of 2

Sample ID: TRIP BLANK
SAMPLE

Lab Sample ID: MI25H
LIMS ID: 08-2492
Matrix: Water
Date Analyzed: 02/12/08 10:55

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

CAS Number	Analyte	RL	Result	Q
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Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%
d8-Toluene	100%
Bromofluorobenzene	99.0%
d4-1,2-Dichlorobenzene	101%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 1 of 2

Sample ID: LCS-021208
LAB CONTROL SAMPLE

Lab Sample ID: LCS-021208
LIMS ID: 08-2488
Matrix: Water
Data Release Authorized:
Reported: 02/14/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT3/AAR
LCSD: NT3/AAR
Date Analyzed LCS: 02/12/08 09:11
LCSD: 02/12/08 09:36

Sample Amount LCS: 5.00 mL
LCSD: 5.00 mL
Purge Volume LCS: 5.0 mL
LCSD: 5.0 mL

Analyte	LCS			LCSD			RPD
	LCS	Spike Added-LCS	Recovery	LCSD	Spike Added-LCSD	Recovery	
Chloromethane	43.8	50.0	87.6%	43.9	50.0	87.8%	0.2%
Bromomethane	46.2	50.0	92.4%	50.0	50.0	100%	7.9%
Vinyl Chloride	51.7	50.0	103%	52.6	50.0	105%	1.7%
Chloroethane	50.8	50.0	102%	50.8	50.0	102%	0.0%
Methylene Chloride	51.2	50.0	102%	53.5	50.0	107%	4.4%
Acetone	268	250	107%	275	250	110%	2.6%
Carbon Disulfide	52.0	50.0	104%	54.2	50.0	108%	4.1%
1,1-Dichloroethene	50.5	50.0	101%	52.5	50.0	105%	3.9%
1,1-Dichloroethane	53.4	50.0	107%	55.9	50.0	112%	4.6%
trans-1,2-Dichloroethene	51.4	50.0	103%	53.7	50.0	107%	4.4%
cis-1,2-Dichloroethene	52.3	50.0	105%	55.2	50.0	110%	5.4%
Chloroform	50.8	50.0	102%	53.7	50.0	107%	5.6%
1,2-Dichloroethane	51.1	50.0	102%	53.3	50.0	107%	4.2%
2-Butanone	285	250	114%	295	250	118%	3.4%
1,1,1-Trichloroethane	52.1	50.0	104%	55.1	50.0	110%	5.6%
Carbon Tetrachloride	46.9	50.0	93.8%	49.6	50.0	99.2%	5.6%
Vinyl Acetate	56.9	50.0	114%	60.2	50.0	120%	5.6%
Bromodichloromethane	49.4	50.0	98.8%	52.1	50.0	104%	5.3%
1,2-Dichloropropane	52.8	50.0	106%	56.1	50.0	112%	6.1%
cis-1,3-Dichloropropene	54.8	50.0	110%	58.2	50.0	116%	6.0%
Trichloroethene	51.2	50.0	102%	53.4	50.0	107%	4.2%
Dibromochloromethane	49.4	50.0	98.8%	51.9	50.0	104%	4.9%
1,1,2-Trichloroethane	50.0	50.0	100%	52.2	50.0	104%	4.3%
Benzene	51.7	50.0	103%	54.2	50.0	108%	4.7%
trans-1,3-Dichloropropene	53.4	50.0	107%	57.8	50.0	116%	7.9%
Bromoform	46.7	50.0	93.4%	48.8	50.0	97.6%	4.4%
4-Methyl-2-Pentanone (MIBK)	288	250	115%	300	250	120%	4.1%
2-Hexanone	283	250	113%	298	250	119%	5.2%
Tetrachloroethene	48.2	50.0	96.4%	50.3	50.0	101%	4.3%
1,1,2,2-Tetrachloroethane	52.3	50.0	105%	55.1	50.0	110%	5.2%
Toluene	50.2	50.0	100%	53.0	50.0	106%	5.4%
Chlorobenzene	50.0	50.0	100%	52.4	50.0	105%	4.7%
Ethylbenzene	52.2	50.0	104%	55.0	50.0	110%	5.2%
Styrene	54.0	50.0	108%	57.3	50.0	115%	5.9%
Trichlorofluoromethane	34.5	50.0	69.0%	36.6	50.0	73.2%	5.9%
m,p-Xylene	104	100	104%	110	100	110%	5.6%
o-Xylene	52.8	50.0	106%	55.8	50.0	112%	5.5%
1,2-Dichlorobenzene	49.8	50.0	99.6%	52.7	50.0	105%	5.7%
1,4-Dichlorobenzene	49.8	50.0	99.6%	52.3	50.0	105%	4.9%
Methyl Iodide	44.2	50.0	88.4%	48.4	50.0	96.8%	9.1%
Acrylonitrile	59.8	50.0	120%	62.6	50.0	125%	4.6%
Dibromomethane	49.6	50.0	99.2%	52.5	50.0	105%	5.7%
1,1,1,2-Tetrachloroethane	49.6	50.0	99.2%	52.1	50.0	104%	4.9%
1,2-Dibromo-3-chloropropane	57.6	50.0	115%	59.3	50.0	119%	2.9%
1,2,3-Trichloropropane	51.5	50.0	103%	54.0	50.0	108%	4.7%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 2 of 2

Sample ID: LCS-021208
LAB CONTROL SAMPLE

Lab Sample ID: LCS-021208
LIMS ID: 08-2488
Matrix: Water

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
trans-1,4-Dichloro-2-butene	54.6	50.0	109%	57.4	50.0	115%	5.0%
Ethylene Dibromide	51.3	50.0	103%	53.6	50.0	107%	4.4%
Bromochloromethane	51.5	50.0	103%	54.4	50.0	109%	5.5%

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

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	105%	105%
d8-Toluene	101%	101%
Bromofluorobenzene	101%	101%
d4-1,2-Dichlorobenzene	102%	101%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260 SIM Sample ID: MB-021908
Page 1 of 1 METHOD BLANK

Lab Sample ID: MB-021908
LIMS ID: 08-2486
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 02/19/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT7/JZ
Date Analyzed: 02/19/08 13:30

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

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

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

Volatile Surrogate Recovery

d4-1,2-Dichloroethane 97.5%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260 SIM Sample ID: MW-8
Page 1 of 1 SAMPLE

Lab Sample ID: MI25B

QC Report No: MI25-Parametrix, Inc.

LIMS ID: 08-2486

Project: Yakima Resources (YR)

Matrix: Water

Data Release Authorized: *[Signature]*

Date Sampled: 02/06/08

Reported: 02/19/08

Date Received: 02/08/08

Instrument/Analyst: NT7/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/19/08 14:20

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.020	0.034	

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

Volatile Surrogate Recovery

d4-1,2-Dichloroethane 99.0%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260 SIM Sample ID: MW-7
Page 1 of 1 SAMPLE

Lab Sample ID: MI25C

QC Report No: MI25-Parametrix, Inc.

LIMS ID: 08-2487

Project: Yakima Resources (YR)

Matrix: Water

Data Release Authorized: *[Signature]*

Date Sampled: 02/06/08

Reported: 02/19/08

Date Received: 02/08/08

Instrument/Analyst: NT7/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/19/08 14:45

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.020	0.060	

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

Volatile Surrogate Recovery

d4-1,2-Dichloroethane 101%

ORGANICS ANALYSIS DATA SHEET


Volatiles by Purge & Trap GC/MS-Method SW8260 SIM Sample ID: MW-7D
Page 1 of 1 SAMPLE

Lab Sample ID: MI25D

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

LIMS ID: 08-2488

Matrix: Water

Data Release Authorized: 

Date Sampled: 02/06/08

Reported: 02/19/08

Date Received: 02/08/08

Instrument/Analyst: NT7/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/19/08 15:10

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.020	0.063	


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

Volatile Surrogate Recovery

d4-1,2-Dichloroethane 105%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260 SIM Sample ID: LCS-021908
Page 1 of 1 LAB CONTROL SAMPLE

Lab Sample ID: LCS-021908
LIMS ID: 08-2486
Matrix: Water
Data Release Authorized: 
Reported: 02/19/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT7/JZ
LCS: NT7/JZ
Date Analyzed LCS: 02/19/08 12:28
LCS: 02/19/08 12:56

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

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCS	LCS Recovery	RPD
Vinyl Chloride	1.22	1.00	122%	1.13	1.00	113%	7.7%	

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

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCS
d4-1,2-Dichloroethane	95.2%	94.9%

ORGANICS ANALYSIS DATA SHEET
 BETX by Method SW8021BMod
 TPHG by Method NWTPHG
 Page 1 of 1

Sample ID: MB-021208
 METHOD BLANK

Lab Sample ID: MB-021208
 LIMS ID: 08-2485
 Matrix: Water
 Data Release Authorized:
 Reported: 02/13/08

QC Report No: MI25-Parametrix, Inc.
 Project: Yakima Resources (YR)
 Event: NA
 Date Sampled: NA
 Date Received: NA

Date Analyzed: 02/12/08 11:48
 Instrument/Analyst: PID2/PKC

Purge Volume: 5.0 mL
 Dilution Factor: 1.00

CAS Number	Analyte	RL	Result	GAS ID
71-43-2	Benzene	1.0	< 1.0 U	
108-88-3	Toluene	1.0	< 1.0 U	
100-41-4	Ethylbenzene	1.0	< 1.0 U	
	m,p-Xylene	1.0	< 1.0 U	
95-47-6	o-Xylene	1.0	< 1.0 U	
	Gasoline Range Hydrocarbons	0.25	< 0.25 U	---

BETX Surrogate Recovery

Trifluorotoluene	92.7%
Bromobenzene	98.1%

Gasoline Surrogate Recovery

Trifluorotoluene	95.2%
Bromobenzene	95.8%

BETX values reported in $\mu\text{g/L}$ (ppb)
 Gasoline values reported in mg/L (ppm)

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

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

ORGANICS ANALYSIS DATA SHEET
 BETX by Method SW8021BMod
 TPHG by Method NWTPHG
 Page 1 of 1

Sample ID: MW-8
 SAMPLE

Lab Sample ID: MI25B
 LIMS ID: 08-2486
 Matrix: Water
 Data Release Authorized:
 Reported: 02/13/08

QC Report No: MI25-Parametrix, Inc.
 Project: Yakima Resources (YR)
 Event: NA
 Date Sampled: 02/06/08
 Date Received: 02/08/08

Date Analyzed: 02/12/08 15:26
 Instrument/Analyst: PID2/PKC

Purge Volume: 5.0 mL
 Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
71-43-2	Benzene	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U

Gasoline Range Hydrocarbons 0.25 < 0.25 U GAS ID ---

BETX Surrogate Recovery

Trifluorotoluene	95.6%
Bromobenzene	96.5%

Gasoline Surrogate Recovery


Trifluorotoluene	98.6%
Bromobenzene	97.1%

BETX values reported in µg/L (ppb)
 Gasoline values reported in mg/L (ppm)

GAS: Indicates the presence of gasoline or weathered gasoline.
 GRO: Positive result that does not match an identifiable gasoline pattern.
 Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: TRIP BLANK
SAMPLE

Lab Sample ID: MI25H
LIMS ID: 08-2492
Matrix: Water
Data Release Authorized: 
Reported: 02/13/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)
Event: NA
Date Sampled: 02/05/08
Date Received: 02/08/08

Date Analyzed: 02/12/08 13:01
Instrument/Analyst: PID2/PKC

Purge Volume: 5.0 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
71-43-2	Benzene	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U

Gasoline Range Hydrocarbons	0.25	< 0.25 U	GAS ID ---
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BETX Surrogate Recovery

Trifluorotoluene	100%
Bromobenzene	98.6%

Gasoline Surrogate Recovery

Trifluorotoluene	102%
Bromobenzene	96.2%


BETX values reported in $\mu\text{g/L}$ (ppb)
Gasoline values reported in mg/L (ppm)

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

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

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: LCS-021208
LAB CONTROL SAMPLE

Lab Sample ID: LCS-021208
LIMS ID: 08-2485
Matrix: Water
Data Release Authorized: 
Reported: 02/13/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)
Event: NA
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 02/12/08 10:50
LCSD: 02/12/08 11:19
Instrument/Analyst LCS: PID2/PKC
LCSD: PID2/PKC

Purge Volume: 5.0 mL
Dilution Factor LCS: 1.0
LCSD: 1.0

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Gasoline Range Hydrocarbons	1.08	1.00	108%	1.00	1.00	100%	7.7%

Reported in mg/L (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	100%	98.4%
Bromobenzene	99.1%	98.2%

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
Page 1 of 1

Sample ID: LCS-021208
LAB CONTROL SAMPLE

Lab Sample ID: LCS-021208
LIMS ID: 08-2485
Matrix: Water
Data Release Authorized:
Reported: 02/13/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)
Event: NA
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 02/12/08 10:50
LCSD: 02/12/08 11:19
Instrument/Analyst LCS: PID2/PKC
LCSD: PID2/PKC

Purge Volume: 5.0 mL

Dilution Factor LCS: 1.0
LCSD: 1.0

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Benzene	6.66	7.00	95.1%	6.45	7.00	92.1%	3.2%
Toluene	68.3	62.0	110%	65.2	62.0	105%	4.6%
Ethylbenzene	10.3	11.9	86.6%	9.69	11.9	81.4%	6.1%
m,p-Xylene	43.3	44.6	97.1%	41.3	44.6	92.6%	4.7%
o-Xylene	15.3	15.8	96.8%	14.7	15.8	93.0%	4.0%

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

RPD calculated using sample concentrations per SW846.

BETX Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	98.8%	97.4%
Bromobenzene	104%	101%

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 1 of 2

Sample ID: MB-021108
METHOD BLANK

Lab Sample ID: MB-021108
LIMS ID: 08-2485
Matrix: Water
Data Release Authorized:
Reported: 02/15/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)
NA
Date Sampled: NA
Date Received: NA


Date Extracted: 02/11/08
Date Analyzed: 02/13/08 10:15
Instrument/Analyst: NT6/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 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	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 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	1.0	< 1.0 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	5.0	< 5.0 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	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 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	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 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

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: MW-7
SAMPLE

Lab Sample ID: MI25C
LIMS ID: 08-2487
Matrix: Water
Data Release Authorized: 
Reported: 02/13/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)
Event: NA
Date Sampled: 02/06/08
Date Received: 02/08/08

Date Analyzed: 02/12/08 17:23
Instrument/Analyst: PID2/PKC

Purge Volume: 5.0 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
71-43-2	Benzene	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U

	0.25	< 0.25 U	GAS ID ---
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BETX Surrogate Recovery

Trifluorotoluene	94.1%
Bromobenzene	94.1%

Gasoline Surrogate Recovery

Trifluorotoluene	94.6%
Bromobenzene	95.6%


BETX values reported in µg/L (ppb)
Gasoline values reported in mg/L (ppm)

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

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

ORGANICS ANALYSIS DATA SHEET
 BETX by Method SW8021BMod
 TPHG by Method NWTPHG
 Page 1 of 1

Sample ID: MW-7D
 SAMPLE

Lab Sample ID: MI25D
 LIMS ID: 08-2488
 Matrix: Water
 Data Release Authorized: 
 Reported: 02/13/08

QC Report No: MI25-Parametrix, Inc.
 Project: Yakima Resources (YR)
 Event: NA
 Date Sampled: 02/06/08
 Date Received: 02/08/08

Date Analyzed: 02/12/08 17:52
 Instrument/Analyst: PID2/PKC

Purge Volume: 5.0 mL
 Dilution Factor: 1.00

CAS Number	Analyte	RL	Result	GAS ID
71-43-2	Benzene	1.0	< 1.0 U	
108-88-3	Toluene	1.0	< 1.0 U	
100-41-4	Ethylbenzene	1.0	< 1.0 U	
	m,p-Xylene	1.0	< 1.0 U	
95-47-6	o-Xylene	1.0	< 1.0 U	
	Gasoline Range Hydrocarbons	0.25	< 0.25 U	---
BETX Surrogate Recovery				
	Trifluorotoluene	96.5%		
	Bromobenzene	97.2%		
Gasoline Surrogate Recovery				
	Trifluorotoluene	96.7%		
	Bromobenzene	97.4%		

BETX values reported in $\mu\text{g/L}$ (ppb)
 Gasoline values reported in mg/L (ppm)

GAS: Indicates the presence of gasoline or weathered gasoline.
 GRO: Positive result that does not match an identifiable gasoline pattern.
 Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 2 of 2

Sample ID: MB-021108
METHOD BLANK

Lab Sample ID: MB-021108
LIMS ID: 08-2485
Matrix: Water
Date Analyzed: 02/13/08 10:15

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)
NA

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	10	< 10 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
56-55-3	Benzo (a) anthracene	1.0	< 1.0 U
117-81-7	bis (2-Ethylhexyl) phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo (b) fluoranthene	1.0	< 1.0 U
207-08-9	Benzo (k) fluoranthene	1.0	< 1.0 U
50-32-8	Benzo (a) pyrene	1.0	< 1.0 U
193-39-5	Indeno (1,2,3-cd) pyrene	1.0	< 1.0 U
53-70-3	Dibenz (a,h) anthracene	1.0	< 1.0 U
191-24-2	Benzo (g,h,i) perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	81.6%	2-Fluorobiphenyl	80.4%
d14-p-Terphenyl	92.0%	d4-1,2-Dichlorobenzene	70.8%
d5-Phenol	81.9%	2-Fluorophenol	77.6%
2,4,6-Tribromophenol	78.4%	d4-2-Chlorophenol	84.0%

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 1 of 2

Sample ID: MW-8
SAMPLE

Lab Sample ID: MI25B
LIMS ID: 08-2486
Matrix: Water
Data Release Authorized:
Reported: 02/15/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)
NA
Date Sampled: 02/06/08
Date Received: 02/08/08

Date Extracted: 02/11/08
Date Analyzed: 02/13/08 14:56
Instrument/Analyst: NT6/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 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	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 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	1.0	< 1.0 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	5.0	< 5.0 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	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 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	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 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

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 2 of 2

Sample ID: MW-8
SAMPLE

Lab Sample ID: MI25B
LIMS ID: 08-2486
Matrix: Water
Date Analyzed: 02/13/08 14:56

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)
NA

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	10	< 10 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
56-55-3	Benzo (a) anthracene	1.0	< 1.0 U
117-81-7	bis (2-Ethylhexyl) phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo (b) fluoranthene	1.0	< 1.0 U
207-08-9	Benzo (k) fluoranthene	1.0	< 1.0 U
50-32-8	Benzo (a) pyrene	1.0	< 1.0 U
193-39-5	Indeno (1,2,3-cd) pyrene	1.0	< 1.0 U
53-70-3	Dibenz (a,h) anthracene	1.0	< 1.0 U
191-24-2	Benzo (g,h,i) perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

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

Semivolatile Surrogate Recovery

d5-Nitrobenzene	72.0%	2-Fluorobiphenyl	74.0%
d14-p-Terphenyl	74.0%	d4-1,2-Dichlorobenzene	69.2%
d5-Phenol	72.0%	2-Fluorophenol	70.7%
2,4,6-Tribromophenol	80.0%	d4-2-Chlorophenol	75.2%

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 1 of 2

Sample ID: MW-7
SAMPLE

Lab Sample ID: MI25C
LIMS ID: 08-2487
Matrix: Water
Data Release Authorized:
Reported: 02/15/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)
NA
Date Sampled: 02/06/08
Date Received: 02/08/08

Date Extracted: 02/11/08
Date Analyzed: 02/13/08 15:31
Instrument/Analyst: NT6/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 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	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 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	1.0	< 1.0 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	5.0	< 5.0 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	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 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	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 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

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 2 of 2

Sample ID: MW-7
SAMPLE

Lab Sample ID: MI25C
LIMS ID: 08-2487
Matrix: Water
Date Analyzed: 02/13/08 15:31

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)
NA

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	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	1.6
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
56-55-3	Benzo (a) anthracene	1.0	< 1.0 U
117-81-7	bis (2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo (b) fluoranthene	1.0	< 1.0 U
207-08-9	Benzo (k) fluoranthene	1.0	< 1.0 U
50-32-8	Benzo (a) pyrene	1.0	< 1.0 U
193-39-5	Indeno (1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz (a, h) anthracene	1.0	< 1.0 U
191-24-2	Benzo (g, h, i) perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

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

Semivolatile Surrogate Recovery

d5-Nitrobenzene	70.8%	2-Fluorobiphenyl	72.8%
d14-p-Terphenyl	77.2%	d4-1,2-Dichlorobenzene	65.2%
d5-Phenol	71.2%	2-Fluorophenol	67.7%
2,4,6-Tribromophenol	77.6%	d4-2-Chlorophenol	73.6%

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 1 of 2Sample ID: MW-7D
SAMPLELab Sample ID: MI25D
LIMS ID: 08-2488
Matrix: Water
Data Release Authorized:
Reported: 02/15/08QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)
NA
Date Sampled: 02/06/08
Date Received: 02/08/08Date Extracted: 02/11/08
Date Analyzed: 02/13/08 16:06
Instrument/Analyst: NT6/LJRSample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 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	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 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	1.0	< 1.0 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	5.0	< 5.0 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	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 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	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 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

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 2 of 2

Sample ID: MW-7D
SAMPLE

Lab Sample ID: MI25D
LIMS ID: 08-2488
Matrix: Water
Date Analyzed: 02/13/08 16:06

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)
NA

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	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	1.5
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
56-55-3	Benzo (a) anthracene	1.0	< 1.0 U
117-81-7	bis (2-Ethylhexyl) phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo (b) fluoranthene	1.0	< 1.0 U
207-08-9	Benzo (k) fluoranthene	1.0	< 1.0 U
50-32-8	Benzo (a) pyrene	1.0	< 1.0 U
193-39-5	Indeno (1,2,3-cd) pyrene	1.0	< 1.0 U
53-70-3	Dibenz (a,h) anthracene	1.0	< 1.0 U
191-24-2	Benzo (g,h,i) perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	70.4%	2-Fluorobiphenyl	72.4%
d14-p-Terphenyl	76.0%	d4-1,2-Dichlorobenzene	63.2%
d5-Phenol	70.1%	2-Fluorophenol	67.5%
2,4,6-Tribromophenol	77.1%	d4-2-Chlorophenol	72.3%

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 1 of 2

Sample ID: LCS-021108
LCS/LCSD



Lab Sample ID: LCS-021108
LIMS ID: 08-2485
Matrix: Water
Data Release Authorized:
Reported: 02/15/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Date Sampled: 02/05/08
Date Received: 02/08/08

Date Extracted LCS/LCSD: 02/11/08

Sample Amount LCS: 500 mL
LCSD: 500 mL

Date Analyzed LCS: 02/13/08 10:50
LCSD: 02/13/08 11:25

Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL

Instrument/Analyst LCS: NT6/LJR
LCSD: NT6/LJR

Dilution Factor LCS: 1.00
LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	17.9	25.0	71.6%	19.0	25.0	76.0%	6.0%
Bis-(2-Chloroethyl) Ether	19.4	25.0	77.6%	21.2	25.0	84.8%	8.9%
2-Chlorophenol	19.7	25.0	78.8%	21.6	25.0	86.4%	9.2%
1,3-Dichlorobenzene	14.2	25.0	56.8%	14.6	25.0	58.4%	2.8%
1,4-Dichlorobenzene	14.2	25.0	56.8%	14.9	25.0	59.6%	4.8%
Benzyl Alcohol	34.2	50.0	68.4%	36.9	50.0	73.8%	7.6%
1,2-Dichlorobenzene	14.8	25.0	59.2%	15.5	25.0	62.0%	4.6%
2-Methylphenol	19.1	25.0	76.4%	21.0	25.0	84.0%	9.5%
2,2'-Oxybis(1-Chloropropane)	18.1	25.0	72.4%	19.9	25.0	79.6%	9.5%
4-Methylphenol	38.5	50.0	77.0%	41.9	50.0	83.8%	8.5%
N-Nitroso-Di-N-Propylamine	18.9	25.0	75.6%	20.8	25.0	83.2%	9.6%
Hexachloroethane	13.2	25.0	52.8%	13.3	25.0	53.2%	0.8%
Nitrobenzene	18.7	25.0	74.8%	20.7	25.0	82.8%	10.2%
Isophorone	21.4	25.0	85.6%	23.5	25.0	94.0%	9.4%
2-Nitrophenol	19.3	25.0	77.2%	21.2	25.0	84.8%	9.4%
2,4-Dimethylphenol	11.0	25.0	44.0%	13.7	25.0	54.8%	21.9%
Benzoic Acid	52.2	75.0	69.6%	56.5	75.0	75.3%	7.9%
bis(2-Chloroethoxy) Methane	19.6	25.0	78.4%	21.2	25.0	84.8%	7.8%
2,4-Dichlorophenol	18.9	25.0	75.6%	21.2	25.0	84.8%	11.5%
1,2,4-Trichlorobenzene	14.8	25.0	59.2%	15.8	25.0	63.2%	6.5%
Naphthalene	17.1	25.0	68.4%	18.8	25.0	75.2%	9.5%
4-Chloroaniline	44.9	60.0	74.8%	< 5.0	60.0	NA%	NA
Hexachlorobutadiene	13.2	25.0	52.8%	13.8	25.0	55.2%	4.4%
4-Chloro-3-methylphenol	20.4	25.0	81.6%	22.2	25.0	88.8%	8.5%
2-Methylnaphthalene	18.1	25.0	72.4%	19.7	25.0	78.8%	8.5%
Hexachlorocyclopentadiene	26.4	75.0	35.2%	32.0	75.0	42.7%	19.2%
2,4,6-Trichlorophenol	21.0	25.0	84.0%	22.9	25.0	91.6%	8.7%
2,4,5-Trichlorophenol	20.2	25.0	80.8%	21.8	25.0	87.2%	7.6%
2-Chloronaphthalene	18.2	25.0	72.8%	19.6	25.0	78.4%	7.4%
2-Nitroaniline	20.3	25.0	81.2%	21.4	25.0	85.6%	5.3%
Dimethylphthalate	21.2	25.0	84.8%	22.6	25.0	90.4%	6.4%
Acenaphthylene	20.2	25.0	80.8%	21.6	25.0	86.4%	6.7%
3-Nitroaniline	57.0	64.0	89.1%	21.9	64.0	34.2%	89.0%
Acenaphthene	19.4	25.0	77.6%	20.9	25.0	83.6%	7.4%
2,4-Dinitrophenol	62.9	75.0	83.9%	66.8	75.0	89.1%	6.0%
4-Nitrophenol	22.8	25.0	91.2%	23.6	25.0	94.4%	3.4%
Dibenzofuran	20.0	25.0	80.0%	21.5	25.0	86.0%	7.2%
2,6-Dinitrotoluene	21.0	25.0	84.0%	22.2	25.0	88.8%	5.6%
2,4-Dinitrotoluene	21.6	25.0	86.4%	22.8	25.0	91.2%	5.4%
Diethylphthalate	22.3	25.0	89.2%	23.6	25.0	94.4%	5.7%
4-Chlorophenyl-phenylether	20.7	25.0	82.8%	22.2	25.0	88.8%	7.0%
Fluorene	20.9	25.0	83.6%	22.0	25.0	88.0%	5.1%
4-Nitroaniline	21.5	25.0	86.0%	16.2	25.0	64.8%	28.1%
4,6-Dinitro-2-Methylphenol	58.2	75.0	77.6%	65.1	75.0	86.8%	11.2%
N-Nitrosodiphenylamine	23.9	25.0	95.6%	25.3	25.0	101%	5.7%

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 2 of 2

Sample ID: LCS-021108
LCS/LCSD

Lab Sample ID: LCS-021108
LIMS ID: 08-2485
Matrix: Water
Date Analyzed: 02/13/08 10:50

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	19.4	25.0	77.6%	21.4	25.0	85.6%	9.8%
Hexachlorobenzene	18.8	25.0	75.2%	20.8	25.0	83.2%	10.1%
Pentachlorophenol	20.1	25.0	80.4%	22.2	25.0	88.8%	9.9%
Phenanthrene	19.4	25.0	77.6%	21.4	25.0	85.6%	9.8%
Carbazole	20.9	25.0	83.6%	22.8	25.0	91.2%	8.7%
Anthracene	19.3	25.0	77.2%	21.5	25.0	86.0%	10.8%
Di-n-Butylphthalate	22.6	25.0	90.4%	24.4	25.0	97.6%	7.7%
Fluoranthene	21.2	25.0	84.8%	23.0	25.0	92.0%	8.1%
Pyrene	20.6	25.0	82.4%	21.8	25.0	87.2%	5.7%
Butylbenzylphthalate	21.8	25.0	87.2%	22.9	25.0	91.6%	4.9%
3,3'-Dichlorobenzidine	45.0	64.0	70.3%	6.1	64.0	9.5%	152%
Benzo(a)anthracene	19.4	25.0	77.6%	21.4	25.0	85.6%	9.8%
bis(2-Ethylhexyl)phthalate	22.5	25.0	90.0%	23.8	25.0	95.2%	5.6%
Chrysene	20.1	25.0	80.4%	21.4	25.0	85.6%	6.3%
Di-n-Octyl phthalate	20.2	25.0	80.8%	22.1	25.0	88.4%	9.0%
Benzo(b)fluoranthene	21.3	25.0	85.2%	22.9	25.0	91.6%	7.2%
Benzo(k)fluoranthene	19.4	25.0	77.6%	21.6	25.0	86.4%	10.7%
Benzo(a)pyrene	20.4	25.0	81.6%	22.3	25.0	89.2%	8.9%
Indeno(1,2,3-cd)pyrene	17.7	25.0	70.8%	19.1	25.0	76.4%	7.6%
Dibenz(a,h)anthracene	17.9	25.0	71.6%	19.5	25.0	78.0%	8.6%
Benzo(g,h,i)perylene	16.9	25.0	67.6%	18.1	25.0	72.4%	6.9%
1-Methylnaphthalene	18.6	25.0	74.4%	20.3	25.0	81.2%	8.7%

Semivolatile Surrogate Recovery

	LCS	LCSD
d5-Nitrobenzene	78.0%	84.8%
2-Fluorobiphenyl	78.8%	82.8%
d14-p-Terphenyl	85.2%	88.4%
d4-1,2-Dichlorobenzene	70.4%	76.0%
d5-Phenol	80.0%	85.1%
2-Fluorophenol	76.8%	83.5%
2,4,6-Tribromophenol	84.3%	86.7%
d4-2-Chlorophenol	81.9%	87.2%

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

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

Sample ID: MB-021108
METHOD BLANK

Lab Sample ID: MB-021108
LIMS ID: 08-2489
Matrix: Water
Data Release Authorized:
Reported: 02/18/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Date Sampled: NA
Date Received: NA

Date Extracted: 02/11/08
Date Analyzed: 02/14/08 13:45
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: No

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

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

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

PCB Surrogate Recovery

Decachlorobiphenyl	85.5%
Tetrachlorometaxylene	88.0%

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

Sample ID: MW-8
SAMPLE

Lab Sample ID: MI25B
LIMS ID: 08-2486
Matrix: Water
Data Release Authorized:
Reported: 02/18/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Date Sampled: 02/06/08
Date Received: 02/08/08

Date Extracted: 02/11/08
Date Analyzed: 02/14/08 14:36
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

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

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

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

PCB Surrogate Recovery

Decachlorobiphenyl	85.5%
Tetrachlorometaxylene	70.0%

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

Sample ID: MW-7
SAMPLE

Lab Sample ID: MI25C
LIMS ID: 08-2487
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 02/18/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Date Sampled: 02/06/08
Date Received: 02/08/08

Date Extracted: 02/11/08
Date Analyzed: 02/14/08 14:53
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

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

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

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

PCB Surrogate Recovery

Decachlorobiphenyl	79.2%
Tetrachlorometaxylene	69.8%

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

Sample ID: MW-7D
SAMPLE

Lab Sample ID: MI25D
LIMS ID: 08-2488
Matrix: Water
Data Release Authorized:
Reported: 02/18/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Date Sampled: 02/06/08
Date Received: 02/08/08

Date Extracted: 02/11/08
Date Analyzed: 02/14/08 15:11
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

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

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

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

PCB Surrogate Recovery

Decachlorobiphenyl	81.8%
Tetrachlorometaxylene	68.2%

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

Sample ID: LCS-021108
LAB CONTROL

Lab Sample ID: LCS-021108
LIMS ID: 08-2489
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 02/18/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Date Sampled: NA
Date Received: NA

Date Extracted: 02/11/08
Date Analyzed: 02/14/08 14:02
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: No

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

Analyte	Lab Control	Spike Added	Recovery
Aroclor 1016	4.38	5.00	87.6%
Aroclor 1260	4.93	5.00	98.6%

PCB Surrogate Recovery

Decachlorobiphenyl	88.0%
Tetrachlorometaxylene	94.5%

Results reported in $\mu\text{g/L}$

REPLICATE RESULTS-CONVENTIONALS
 MI25-Parametrix, Inc.



Matrix: Water
 Data Release Authorized: *[Signature]*
 Reported: 02/21/08

Project: Yakima Resources (YR)
 Event: NA
 Date Sampled: 02/05/08
 Date Received: 02/08/08

Analyte	Method	Date	Units	Sample	Replicate(s)	RPD/RSD
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

ARI ID: MI25B Client ID: MW-8


Total Dissolved Solids	EPA 160.1	02/11/08	mg/L	333	339	[REDACTED]
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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

pH is evaluated as the Absolute Difference between the values rather than Relative Percent Difference

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID
Page 1 of 1

Sample ID: LCS-021108
LAB CONTROL

Lab Sample ID: LCS-021108
LIMS ID: 08-2489
Matrix: Water
Data Release Authorized: 
Reported: 02/14/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)
Date Sampled: NA
Date Received: NA

Date Extracted: 02/11/08
Date Analyzed: 02/12/08 12:00
Instrument/Analyst: FID3A/MS

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

Range	Lab Control	Spike Added	Recovery
Diesel	2.73	3.00	91.0%


TPHD Surrogate Recovery

o-Terphenyl	93.1%
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Results reported in mg/L

METHOD BLANK RESULTS-CONVENTIONALS
MI25-Parametrix, Inc.



Matrix: Water
Data Release Authorized: 
Reported: 02/21/08

Project: Yakima Resources (YR)
Event: NA
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	Blank
Total Dissolved Solids	EPA 160.1	02/11/08	mg/L	< 5.0 U
Chloride	EPA 325.2	02/12/08	mg/L	< 1.0 U
N-Ammonia	EPA 350.1M	02/15/08	mg-N/L	< 0.010 U
N-Nitrite	EPA 353.2	02/08/08	mg-N/L	< 0.010 U
Nitrate + Nitrite	EPA 353.2	02/08/08	mg-N/L	< 0.010 U
Sulfate	EPA 375.2	02/20/08	mg/L	< 2.0 U
Total Organic Carbon	EPA 415.1	02/11/08	mg/L	< 1.50 U

SAMPLE RESULTS-CONVENTIONALS
MI25-Parametrix, Inc.



Matrix: Water
Data Release Authorized
Reported: 02/21/08

Project: Yakima Resources (YR)
Event: NA
Date Sampled: 02/06/08
Date Received: 02/08/08

Client ID: MW-8
ARI ID: 08-2486 MI25B

Analyte	Date Batch	Method	Units	RL	Sample
pH	02/08/08 020808#1	EPA 150.1	std units	0.01	6.76
Alkalinity	02/12/08 021208#2	SM 2320	mg/L CaCO3	1.0	306
Carbonate	02/12/08	SM 2320	mg/L CaCO3	1.0	< 1.0 U
Bicarbonate	02/12/08	SM 2320	mg/L CaCO3	1.0	306
Hydroxide	02/12/08	SM 2320	mg/L CaCO3	1.0	< 1.0 U
Total Dissolved Solids	02/11/08 021108#1	EPA 160.1	mg/L	10.0	333
Chloride	02/12/08 021208#2	EPA 325.2	mg/L	5.0	32.8
N-Ammonia	02/15/08 021508#1	EPA 350.1M	mg-N/L	0.250	21.2
N-Nitrate	02/08/08	Calculated	mg-N/L	0.010	0.196
N-Nitrite	02/08/08 020808#1	EPA 353.2	mg-N/L	0.010	0.019
Nitrate + Nitrite	02/08/08 020808#1	EPA 353.2	mg-N/L	0.010	0.215
Sulfate	02/20/08 022008#1	EPA 375.2	mg/L	2.0	5.6
Total Organic Carbon	02/11/08 021108#1	EPA 415.1	mg/L	1.50	8.77

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
MI25-Parametrix, Inc.



Matrix: Water
Data Release Authorized:
Reported: 02/21/08

Project: Yakima Resources (YR)
Event: NA
Date Sampled: 02/06/08
Date Received: 02/08/08

Client ID: MW-7
ARI ID: 08-2487 MI25C

Analyte	Date Batch	Method	Units	RL	Sample
pH	02/08/08 020808#1	EPA 150.1	std units	0.01	6.49
Alkalinity	02/12/08 021208#2	SM 2320	mg/L CaCO3	1.0	274
Carbonate	02/12/08	SM 2320	mg/L CaCO3	1.0	< 1.0 U
Bicarbonate	02/12/08	SM 2320	mg/L CaCO3	1.0	274
Hydroxide	02/12/08	SM 2320	mg/L CaCO3	1.0	< 1.0 U
Total Dissolved Solids	02/11/08 021108#1	EPA 160.1	mg/L	10.0	336
Chloride	02/12/08 021208#2	EPA 325.2	mg/L	5.0	19.4
N-Ammonia	02/15/08 021508#1	EPA 350.1M	mg-N/L	0.100	6.35
N-Nitrate	02/08/08	Calculated	mg-N/L	0.050	< 0.050 U
N-Nitrite	02/08/08 020808#1	EPA 353.2	mg-N/L	0.050	< 0.050 U
Nitrate + Nitrite	02/08/08 020808#1	EPA 353.2	mg-N/L	0.050	< 0.050 U
Sulfate	02/20/08 022008#1	EPA 375.2	mg/L	2.0	5.5
Total Organic Carbon	02/11/08 021108#1	EPA 415.1	mg/L	1.50	6.51

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
MI25-Parametrix, Inc.



Matrix: Water
Data Release Authorized:
Reported: 02/21/08

Project: Yakima Resources (YR)
Event: NA
Date Sampled: 02/06/08
Date Received: 02/08/08

Client ID: MW-7D
ARI ID: 08-2488 MI25D

Analyte	Date Batch	Method	Units	RL	Sample
pH	02/08/08 020808#1	EPA 150.1	std units	0.01	6.50
Alkalinity	02/12/08 021208#2	SM 2320	mg/L CaCO3	1.0	274
Carbonate	02/12/08	SM 2320	mg/L CaCO3	1.0	< 1.0 U
Bicarbonate	02/12/08	SM 2320	mg/L CaCO3	1.0	274
Hydroxide	02/12/08	SM 2320	mg/L CaCO3	1.0	< 1.0 U
Total Dissolved Solids	02/11/08 021108#1	EPA 160.1	mg/L	10.0	318
Chloride	02/12/08 021208#2	EPA 325.2	mg/L	5.0	19.0
N-Ammonia	02/15/08 021508#1	EPA 350.1M	mg-N/L	0.100	6.18
N-Nitrate	02/08/08	Calculated	mg-N/L	0.050	< 0.050 U
N-Nitrite	02/08/08 020808#1	EPA 353.2	mg-N/L	0.050	< 0.050 U
Nitrate + Nitrite	02/08/08 020808#1	EPA 353.2	mg-N/L	0.050	< 0.050 U
Sulfate	02/20/08 022008#1	EPA 375.2	mg/L	2.0	5.5
Total Organic Carbon	02/11/08 021108#1	EPA 415.1	mg/L	1.50	6.47

RL Analytical reporting limit
U Undetected at reported detection limit

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID
Page 1 of 1
Matrix: Water

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Date Received: 02/08/08

Data Release Authorized:
Reported: 02/14/08

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
MI25B 08-2486	MW-8 HC ID: ---	02/11/08	02/12/08 FID3A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 92.4%
MI25C 08-2487	MW-7 HC ID: ---	02/11/08	02/12/08 FID3A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 99.3%
MI25D 08-2488	MW-7D HC ID: ---	02/11/08	02/12/08 FID3A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 77.8%
MB-021108 08-2489	Method Blank HC ID: ---	02/11/08	02/12/08 FID3A	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.25 0.50	< 0.25 U < 0.50 U 85.8%
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Reported in mg/L (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

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

LAB CONTROL RESULTS-CONVENTIONALS
MI25-Parametrix, Inc.



Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 02/21/08


Project: Yakima Resources (YR)
Event: NA
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	LCS	Spike Added	Recovery
pH	EPA 150.1	02/08/08	std units	7.01	7.00	0.01
Total Dissolved Solids	EPA 160.1	02/11/08	mg/L	521	500	104.2%

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

STANDARD REFERENCE RESULTS-CONVENTIONALS
MI25-Parametrix, Inc.



Matrix: Water
Data Release Authorized: 
Reported: 02/21/08

Project: Yakima Resources (YR)
Event: NA
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Method	Date	Units	SRM	True Value	Recovery
Alkalinity ERA #P114506	SM 2320	02/12/08	mg/L CaCO3	40.7	42.3	96.2%
Chloride ERA #38084	EPA 325.2	02/12/08	mg/L	4.9	5.0	98.0%
N-Ammonia ERA #15125	EPA 350.1M	02/15/08	mg-N/L	0.459	0.500	91.8%
N-Nitrite ERA #23034	EPA 353.2	02/08/08	mg-N/L	0.498	0.500	99.6%
Nitrate + Nitrite ERA #20034	EPA 353.2	02/08/08	mg-N/L	0.506	0.500	101.2%
Sulfate ERA #37065	EPA 375.2	02/20/08	mg/L	27.2	25.0	108.8%
Total Organic Carbon SPEX #1-8JGB	EPA 415.1	02/11/08	mg/L	19.9	20.0	99.5%

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: MI25MB

LIMS ID: 08-2490

Matrix: Water

Data Release Authorized: 

Reported: 02/20/08

QC Report No: MI25-Parametrix, Inc.

Project: Yakima Resources (YR)

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	02/14/08	6010B	02/18/08	7440-38-2	Arsenic	0.05	0.05	U
3010A	02/14/08	6010B	02/18/08	7440-39-3	Barium	0.003	0.003	U
3010A	02/14/08	6010B	02/18/08	7440-43-9	Cadmium	0.002	0.002	U
3010A	02/14/08	6010B	02/18/08	7440-70-2	Calcium	0.05	0.05	U
3010A	02/14/08	6010B	02/18/08	7440-47-3	Chromium	0.005	0.005	U
3010A	02/14/08	6010B	02/18/08	7439-89-6	Iron	0.05	0.05	U
3010A	02/14/08	6010B	02/18/08	7439-92-1	Lead	0.02	0.02	U
3010A	02/14/08	6010B	02/18/08	7439-96-5	Manganese	0.001	0.001	U
7470A	02/14/08	7470A	02/15/08	7439-97-6	Mercury	0.0001	0.0001	U
3010A	02/14/08	6010B	02/18/08	7440-09-7	Potassium	0.5	0.5	U
3010A	02/14/08	6010B	02/18/08	7782-49-2	Selenium	0.05	0.05	U
3010A	02/14/08	6010B	02/18/08	7440-22-4	Silver	0.003	0.003	U
3010A	02/14/08	6010B	02/18/08	7440-23-5	Sodium	0.5	0.5	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS
Page 1 of 1

Sample ID: MW-8
SAMPLE

Lab Sample ID: MI25B
LIMS ID: 08-2486
Matrix: Water
Data Release Authorized
Reported: 02/20/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Date Sampled: 02/06/08
Date Received: 02/08/08


Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	02/14/08	6010B	02/18/08	7440-38-2	Arsenic	0.05	0.05	U
3010A	02/14/08	6010B	02/18/08	7440-39-3	Barium	0.003	0.068	
3010A	02/14/08	6010B	02/18/08	7440-43-9	Cadmium	0.002	0.002	U
3010A	02/14/08	6010B	02/18/08	7440-70-2	Calcium	0.05	37.2	
3010A	02/14/08	6010B	02/18/08	7440-47-3	Chromium	0.005	0.005	U
3010A	02/14/08	6010B	02/18/08	7439-89-6	Iron	0.05	11.5	
3010A	02/14/08	6010B	02/18/08	7439-92-1	Lead	0.02	0.02	U
3010A	02/14/08	6010B	02/18/08	7439-96-5	Manganese	0.001	2.24	
7470A	02/14/08	7470A	02/15/08	7439-97-6	Mercury	0.0001	0.0001	U
3010A	02/14/08	6010B	02/18/08	7440-09-7	Potassium	0.5	29.0	
3010A	02/14/08	6010B	02/18/08	7782-49-2	Selenium	0.05	0.05	U
3010A	02/14/08	6010B	02/18/08	7440-22-4	Silver	0.003	0.003	U
3010A	02/14/08	6010B	02/18/08	7440-23-5	Sodium	0.5	32.5	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS
Page 1 of 1

Sample ID: MW-7
SAMPLE

Lab Sample ID: MI25C
LIMS ID: 08-2487
Matrix: Water
Data Release Authorized: 
Reported: 02/20/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)


Date Sampled: 02/06/08
Date Received: 02/08/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	02/14/08	6010B	02/18/08	7440-38-2	Arsenic	0.05	0.05	U
3010A	02/14/08	6010B	02/18/08	7440-39-3	Barium	0.003	0.062	
3010A	02/14/08	6010B	02/18/08	7440-43-9	Cadmium	0.002	0.002	U
3010A	02/14/08	6010B	02/18/08	7440-70-2	Calcium	0.05	43.3	
3010A	02/14/08	6010B	02/18/08	7440-47-3	Chromium	0.005	0.005	U
3010A	02/14/08	6010B	02/18/08	7439-89-6	Iron	0.05	33.6	
3010A	02/14/08	6010B	02/18/08	7439-92-1	Lead	0.02	0.02	U
3010A	02/14/08	6010B	02/18/08	7439-96-5	Manganese	0.001	2.26	
7470A	02/14/08	7470A	02/15/08	7439-97-6	Mercury	0.0001	0.0001	U
3010A	02/14/08	6010B	02/18/08	7440-09-7	Potassium	0.5	10.3	
3010A	02/14/08	6010B	02/18/08	7782-49-2	Selenium	0.05	0.05	U
3010A	02/14/08	6010B	02/18/08	7440-22-4	Silver	0.003	0.003	U
3010A	02/14/08	6010B	02/18/08	7440-23-5	Sodium	0.5	20.5	

U-Analyte undetected at given RL
RL-Reporting Limit

STANDARD REFERENCE RESULTS-CONVENTIONALS
MI25-Parametrix, Inc.



Matrix: Water
Data Release Authorized: 
Reported: 02/21/08

Project: Yakima Resources (YR)
Event: NA
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Method	Date	Units	SRM	True Value	Recovery
Alkalinity ERA #P114506	SM 2320	02/12/08	mg/L CaCO3	40.7	42.3	96.2%
Chloride ERA #38084	EPA 325.2	02/12/08	mg/L	4.9	5.0	98.0%
N-Ammonia ERA #15125	EPA 350.1M	02/15/08	mg-N/L	0.459	0.500	91.8%
N-Nitrite ERA #23034	EPA 353.2	02/08/08	mg-N/L	0.498	0.500	99.6%
Nitrate + Nitrite ERA #20034	EPA 353.2	02/08/08	mg-N/L	0.506	0.500	101.2%
Sulfate ERA #37065	EPA 375.2	02/20/08	mg/L	27.2	25.0	108.8%
Total Organic Carbon SPEX #1-8JGB	EPA 415.1	02/11/08	mg/L	19.9	20.0	99.5%

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: MI25MB

LIMS ID: 08-2490

Matrix: Water

Data Release Authorized: 

Reported: 02/20/08

QC Report No: MI25-Parametrix, Inc.

Project: Yakima Resources (YR)

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	02/14/08	6010B	02/18/08	7440-38-2	Arsenic	0.05	0.05	U
3010A	02/14/08	6010B	02/18/08	7440-39-3	Barium	0.003	0.003	U
3010A	02/14/08	6010B	02/18/08	7440-43-9	Cadmium	0.002	0.002	U
3010A	02/14/08	6010B	02/18/08	7440-70-2	Calcium	0.05	0.05	U
3010A	02/14/08	6010B	02/18/08	7440-47-3	Chromium	0.005	0.005	U
3010A	02/14/08	6010B	02/18/08	7439-89-6	Iron	0.05	0.05	U
3010A	02/14/08	6010B	02/18/08	7439-92-1	Lead	0.02	0.02	U
3010A	02/14/08	6010B	02/18/08	7439-96-5	Manganese	0.001	0.001	U
7470A	02/14/08	7470A	02/15/08	7439-97-6	Mercury	0.0001	0.0001	U
3010A	02/14/08	6010B	02/18/08	7440-09-7	Potassium	0.5	0.5	U
3010A	02/14/08	6010B	02/18/08	7782-49-2	Selenium	0.05	0.05	U
3010A	02/14/08	6010B	02/18/08	7440-22-4	Silver	0.003	0.003	U
3010A	02/14/08	6010B	02/18/08	7440-23-5	Sodium	0.5	0.5	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS
Page 1 of 1

Sample ID: MW-7D
SAMPLE


Lab Sample ID: MI25D

QC Report No: MI25-Parametrix, Inc.

LIMS ID: 08-2488

Project: Yakima Resources (YR)

Matrix: Water

Data Release Authorized 

Date Sampled: 02/06/08

Reported: 02/20/08

Date Received: 02/08/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	02/14/08	6010B	02/18/08	7440-38-2	Arsenic	0.05	0.05	U
3010A	02/14/08	6010B	02/18/08	7440-39-3	Barium	0.003	0.064	
3010A	02/14/08	6010B	02/18/08	7440-43-9	Cadmium	0.002	0.002	U
3010A	02/14/08	6010B	02/18/08	7440-70-2	Calcium	0.05	45.5	
3010A	02/14/08	6010B	02/18/08	7440-47-3	Chromium	0.005	0.005	U
3010A	02/14/08	6010B	02/18/08	7439-89-6	Iron	0.05	35.1	
3010A	02/14/08	6010B	02/18/08	7439-92-1	Lead	0.02	0.02	U
3010A	02/14/08	6010B	02/18/08	7439-96-5	Manganese	0.001	2.36	
7470A	02/14/08	7470A	02/15/08	7439-97-6	Mercury	0.0001	0.0001	U
3010A	02/14/08	6010B	02/18/08	7440-09-7	Potassium	0.5	10.7	
3010A	02/14/08	6010B	02/18/08	7782-49-2	Selenium	0.05	0.05	U
3010A	02/14/08	6010B	02/18/08	7440-22-4	Silver	0.003	0.003	U
3010A	02/14/08	6010B	02/18/08	7440-23-5	Sodium	0.5	21.2	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: MI25LCS

LIMS ID: 08-2490

Matrix: Water

Data Release Authorized: 

Reported: 02/20/08

QC Report No: MI25-Parametrix, Inc.

Project: Yakima Resources (YR)

Date Sampled: NA

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	1.89	2.00	94.5%	
Barium	6010B	1.85	2.00	92.5%	
Cadmium	6010B	0.479	0.500	95.8%	
Calcium	6010B	9.93	10.0	99.3%	
Chromium	6010B	0.466	0.500	93.2%	
Iron	6010B	2.01	2.00	100%	
Lead	6010B	1.94	2.00	97.0%	
Manganese	6010B	0.463	0.500	92.6%	
Mercury	7470A	0.0020	0.0020	100%	
Potassium	6010B	10.3	10.0	103%	
Selenium	6010B	1.96	2.00	98.0%	
Silver	6010B	0.492	0.500	98.4%	
Sodium	6010B	9.8	10.0	98.0%	


Reported in mg/L

N-Control limit not met

Control Limits: 80-120%

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: MI25MB
LIMS ID: 08-2498
Matrix: Water
Data Release Authorized: 
Reported: 02/20/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)


Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	02/14/08	6010B	02/18/08	7440-38-2	Arsenic	0.05	0.05	U
6010B	02/14/08	6010B	02/18/08	7440-39-3	Barium	0.003	0.003	U
6010B	02/14/08	6010B	02/18/08	7440-43-9	Cadmium	0.002	0.002	U
6010B	02/14/08	6010B	02/18/08	7440-70-2	Calcium	0.05	0.05	U
6010B	02/14/08	6010B	02/18/08	7440-47-3	Chromium	0.005	0.005	U
6010B	02/14/08	6010B	02/18/08	7439-89-6	Iron	0.05	0.05	U
6010B	02/14/08	6010B	02/18/08	7439-92-1	Lead	0.02	0.02	U
6010B	02/14/08	6010B	02/18/08	7439-96-5	Manganese	0.001	0.001	U
7470A	02/14/08	7470A	02/15/08	7439-97-6	Mercury	0.0001	0.0001	U
6010B	02/14/08	6010B	02/18/08	7440-09-7	Potassium	0.5	0.5	U
6010B	02/14/08	6010B	02/18/08	7782-49-2	Selenium	0.05	0.05	U
6010B	02/14/08	6010B	02/18/08	7440-22-4	Silver	0.003	0.003	U
6010B	02/14/08	6010B	02/18/08	7440-23-5	Sodium	0.5	0.5	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: MW-8
SAMPLE

Lab Sample ID: MI25J
LIMS ID: 08-2494
Matrix: Water
Data Release Authorized 
Reported: 02/20/08


QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)
Date Sampled: 02/06/08
Date Received: 02/08/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	02/14/08	6010B	02/18/08	7440-38-2	Arsenic	0.05	0.05	U
6010B	02/14/08	6010B	02/18/08	7440-39-3	Barium	0.003	0.072	
6010B	02/14/08	6010B	02/18/08	7440-43-9	Cadmium	0.002	0.002	U
6010B	02/14/08	6010B	02/18/08	7440-70-2	Calcium	0.05	39.1	
6010B	02/14/08	6010B	02/18/08	7440-47-3	Chromium	0.005	0.005	U
6010B	02/14/08	6010B	02/18/08	7439-89-6	Iron	0.05	12.2	
6010B	02/14/08	6010B	02/18/08	7439-92-1	Lead	0.02	0.02	U
6010B	02/14/08	6010B	02/18/08	7439-96-5	Manganese	0.001	2.34	
7470A	02/14/08	7470A	02/15/08	7439-97-6	Mercury	0.0001	0.0001	U
6010B	02/14/08	6010B	02/18/08	7440-09-7	Potassium	0.5	29.9	
6010B	02/14/08	6010B	02/18/08	7782-49-2	Selenium	0.05	0.05	U
6010B	02/14/08	6010B	02/18/08	7440-22-4	Silver	0.003	0.003	U
6010B	02/14/08	6010B	02/18/08	7440-23-5	Sodium	0.5	33.8	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: MW-7
SAMPLE

Lab Sample ID: MI25K
LIMS ID: 08-2495
Matrix: Water
Data Release Authorized: 
Reported: 02/20/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)


Date Sampled: 02/06/08
Date Received: 02/08/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	02/14/08	6010B	02/18/08	7440-38-2	Arsenic	0.05	0.05	U
6010B	02/14/08	6010B	02/18/08	7440-39-3	Barium	0.003	0.069	
6010B	02/14/08	6010B	02/18/08	7440-43-9	Cadmium	0.002	0.002	U
6010B	02/14/08	6010B	02/18/08	7440-70-2	Calcium	0.05	48.1	
6010B	02/14/08	6010B	02/18/08	7440-47-3	Chromium	0.005	0.005	U
6010B	02/14/08	6010B	02/18/08	7439-89-6	Iron	0.05	37.5	
6010B	02/14/08	6010B	02/18/08	7439-92-1	Lead	0.02	0.02	U
6010B	02/14/08	6010B	02/18/08	7439-96-5	Manganese	0.001	2.52	
7470A	02/14/08	7470A	02/15/08	7439-97-6	Mercury	0.0001	0.0001	U
6010B	02/14/08	6010B	02/18/08	7440-09-7	Potassium	0.5	11.4	
6010B	02/14/08	6010B	02/18/08	7782-49-2	Selenium	0.05	0.05	U
6010B	02/14/08	6010B	02/18/08	7440-22-4	Silver	0.003	0.003	U
6010B	02/14/08	6010B	02/18/08	7440-23-5	Sodium	0.5	22.9	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: MW-7D
SAMPLE

Lab Sample ID: MI25L
LIMS ID: 08-2496
Matrix: Water
Data Release Authorized: 
Reported: 02/20/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)


Date Sampled: 02/06/08
Date Received: 02/08/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	02/14/08	6010B	02/18/08	7440-38-2	Arsenic	0.05	0.05	U
6010B	02/14/08	6010B	02/18/08	7440-39-3	Barium	0.003	0.071	
6010B	02/14/08	6010B	02/18/08	7440-43-9	Cadmium	0.002	0.002	U
6010B	02/14/08	6010B	02/18/08	7440-70-2	Calcium	0.05	48.5	
6010B	02/14/08	6010B	02/18/08	7440-47-3	Chromium	0.005	0.005	U
6010B	02/14/08	6010B	02/18/08	7439-89-6	Iron	0.05	37.7	
6010B	02/14/08	6010B	02/18/08	7439-92-1	Lead	0.02	0.02	U
6010B	02/14/08	6010B	02/18/08	7439-96-5	Manganese	0.001	2.53	
7470A	02/14/08	7470A	02/15/08	7439-97-6	Mercury	0.0001	0.0001	U
6010B	02/14/08	6010B	02/18/08	7440-09-7	Potassium	0.5	11.3	
6010B	02/14/08	6010B	02/18/08	7782-49-2	Selenium	0.05	0.05	U
6010B	02/14/08	6010B	02/18/08	7440-22-4	Silver	0.003	0.003	U
6010B	02/14/08	6010B	02/18/08	7440-23-5	Sodium	0.5	22.9	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: MI25LCS
LIMS ID: 08-2498
Matrix: Water
Data Release Authorized: 
Reported: 02/20/08

QC Report No: MI25-Parametrix, Inc.
Project: Yakima Resources (YR)

Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	2.12	2.00	106%	
Barium	6010B	2.08	2.00	104%	
Cadmium	6010B	0.551	0.500	110%	
Calcium	6010B	11.1	10.0	111%	
Chromium	6010B	0.528	0.500	106%	
Iron	6010B	2.22	2.00	111%	
Lead	6010B	2.17	2.00	108%	
Manganese	6010B	0.520	0.500	104%	
Mercury	7470A	0.0022	0.0020	110%	
Potassium	6010B	11.7	10.0	117%	
Selenium	6010B	2.39	2.00	120%	
Silver	6010B	0.543	0.500	109%	
Sodium	6010B	11.0	10.0	110%	

Reported in mg/L

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



Analytical Resources, Incorporated
Analytical Chemists and Consultants

9 April 2008

Kurt Easthouse
Parametrix, Inc.
411 108th Avenue NE
Suite 1800
Bellevue, WA 98004-5571

RE: Project: Yakima Resources
ARI Job No. MP07

Dear Kurt:

Please find enclosed the original Chain of Custody (COC) record and the final results for the samples from the project referenced above. Analytical Resources, Inc. received one water sample and one trip blank on March 26, 2008. The samples were received intact and there were no discrepancies in the paperwork. The samples were analyzed for VOAs, BETX/NWTPH-G, SVOAs, PCBs, NWTPH-Dx, total and dissolved metals and conventional parameters as requested.

There were no analytical complications noted.

As always, a copy of these reports and all raw data will remain on file at ARI. If you have questions, or require further information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.


Mark D. Harris
Project Manager
206-695-6210
<markh@arilabs.com>

Enclosures

cc: File MP07

MDH/mdh

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: MP07
 Turn-around Requested: standard
 ARI Client Company: PARAMETRIX Phone: 425-458-6200
 Client Contact: KURT EASTHOUSE
 Client Project Name: YAKIMA RESOURCES
 Client Project #: SSS-5753-001 Samplers: RS SE

Sample ID	Date	Time	Matrix	No. Containers
MW-9A	3/25/08	0945	water	17
trip blank	3/25/08			1

Page: 1 of 1
 Date: 3/25/08 Ice Present? Y
 No. of Coolers: 1 Cooler Temps: 206

Analysis Requested		Notes/Comments
VOC	<input checked="" type="checkbox"/>	
TPH-GX w/BTEX	<input checked="" type="checkbox"/>	
SVOCs	<input checked="" type="checkbox"/>	
TPH-DX	<input checked="" type="checkbox"/>	
PCBs	<input checked="" type="checkbox"/>	
Alkalinity	<input checked="" type="checkbox"/>	
Chloride/Nitrate/pH	<input checked="" type="checkbox"/>	
TDS	<input checked="" type="checkbox"/>	
Amm/TOC	<input checked="" type="checkbox"/>	
Diss. Metals	<input checked="" type="checkbox"/>	
Cd, Cr, Ni, Pb, Se, V, Hg, Mn, Cu, Fe, Zn, Ag, Ba, Bi, Br, Co, K, Li, Mg, Ti, Mo, Ni, Th, U	<input checked="" type="checkbox"/>	
Total Metals	<input checked="" type="checkbox"/>	
		diss. metals filtered
		in field w/ 0.5µm
		canister filter

Comments/Special Instructions

Relinquished by: Renold R. Simmons (Signature) Received by: [Signature] (Signature)
 Printed Name: Ron Simmons Printed Name: [Name]
 Company: Parametrix Company: [Company]
 Date & Time: 3/25/08, 1223 Date & Time: 3/26/08 0900

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



Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

ARI Data Reporting Qualifiers

Effective 11/22/04

Inorganic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but \geq the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 1 RL instead of the normal 20% RPD

Organic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- NR Spiked compound recovery is not reported due to chromatographic interference
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte
- NA The flagged analyte was not analyzed for
- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte reporting limit is raised due to a positive chromatographic interference. The compound is not detected above the raised limit but may be present at or below the limit
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by $\geq 40\%$ RPD with no obvious chromatographic interference


ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 1 of 2Sample ID: MB-032708
METHOD BLANK

Lab Sample ID: MB-032708

LIMS ID: 08-6153

Matrix: Water

Data Release Authorized: 

Reported: 03/28/08

QC Report No: MP07-Parametrix, Inc.

Project: Yakima Resources

555-5753-001

Date Sampled: NA

Date Received: NA

Instrument/Analyst: NT3/AAR
Date Analyzed: 03/27/08 10:59

Sample Amount: 5.00 mL

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	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
108-38-3	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
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	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	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260

Page 2 of 2

Sample ID: MB-032708

METHOD BLANK

Lab Sample ID: MB-032708

LIMS ID: 08-6153

Matrix: Water

Date Analyzed: 03/27/08 10:59

QC Report No: MP07-Parametrix, Inc.

Project: Yakima Resources

555-5753-001

CAS Number	Analyte	RL	Result	Q
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Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	110%
d8-Toluene	102%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	102%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 1 of 2Sample ID: MW-9A
SAMPLE

Lab Sample ID: MP07A

LIMS ID: 08-6153

Matrix: Water

Data Release Authorized: *AS*

Reported: 03/28/08

QC Report No: MP07-Parametrix, Inc.

Project: Yakima Resources

555-5753-001

Date Sampled: 03/25/08

Date Received: 03/26/08

Instrument/Analyst: NT3/AAR

Date Analyzed: 03/27/08 16:13

Sample Amount: 5.00 mL

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	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	3.3	
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
108-38-3	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
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	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	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260

Sample ID: MW-9A

Page 2 of 2

SAMPLE

Lab Sample ID: MP07A

QC Report No: MP07-Parametrix, Inc.

LIMS ID: 08-6153

Project: Yakima Resources

Matrix: Water

555-5753-001

Date Analyzed: 03/27/08 16:13

CAS Number	Analyte	RL	Result	Q
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Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	112%
d8-Toluene	101%
Bromofluorobenzene	100%
d4-1,2-Dichlorobenzene	102%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 1 of 2

Sample ID: TRIP BLANK
SAMPLE

Lab Sample ID: MP07C
LIMS ID: 08-6155
Matrix: Water
Data Release Authorized:
Reported: 03/28/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001
Date Sampled: 03/25/08
Date Received: 03/26/08

Instrument/Analyst: NT3/AAR
Date Analyzed: 03/27/08 11:54

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	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
108-38-3	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
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	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	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 2 of 2

Sample ID: TRIP BLANK
SAMPLE

Lab Sample ID: MP07C
LIMS ID: 08-6155
Matrix: Water
Date Analyzed: 03/27/08 11:54

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001

CAS Number	Analyte	RL	Result	Q
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Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	112%
d8-Toluene	101%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	103%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 1 of 2

Sample ID: LCS-032708
LAB CONTROL SAMPLE

Lab Sample ID: LCS-032708
LIMS ID: 08-6153
Matrix: Water
Data Release Authorized:
Reported: 03/28/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT3/AAR
LCSD: NT3/AAR
Date Analyzed LCS: 03/27/08 10:00
LCSD: 03/27/08 10:24

Sample Amount LCS: 5.00 mL
LCSD: 5.00 mL
Purge Volume LCS: 5.0 mL
LCSD: 5.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	52.4	50.0	105%	51.2	50.0	102%	2.3%
Bromomethane	43.2	50.0	86.4%	43.9	50.0	87.8%	1.6%
Vinyl Chloride	53.8	50.0	108%	53.1	50.0	106%	1.3%
Chloroethane	58.1	50.0	116%	58.6	50.0	117%	0.9%
Methylene Chloride	52.9	50.0	106%	53.7	50.0	107%	1.5%
Acetone	270	250	108%	284	250	114%	5.1%
Carbon Disulfide	56.7	50.0	113%	57.0	50.0	114%	0.5%
1,1-Dichloroethene	53.3	50.0	107%	56.9	50.0	114%	6.5%
1,1-Dichloroethane	57.9	50.0	116%	58.2	50.0	116%	0.5%
trans-1,2-Dichloroethene	55.2	50.0	110%	55.8	50.0	112%	1.1%
cis-1,2-Dichloroethene	55.0	50.0	110%	56.0	50.0	112%	1.8%
Chloroform	58.0	50.0	116%	58.3	50.0	117%	0.5%
1,2-Dichloroethane	56.6	50.0	113%	57.8	50.0	116%	2.1%
2-Butanone	266	250	106%	280	250	112%	5.1%
1,1,1-Trichloroethane	58.7	50.0	117%	59.6	50.0	119%	1.5%
Carbon Tetrachloride	55.5	50.0	111%	56.7	50.0	113%	2.1%
Vinyl Acetate	61.6	50.0	123%	63.3	50.0	127%	2.7%
Bromodichloromethane	56.6	50.0	113%	57.5	50.0	115%	1.6%
1,2-Dichloropropane	56.4	50.0	113%	57.1	50.0	114%	1.2%
cis-1,3-Dichloropropene	60.0	50.0	120%	61.1	50.0	122%	1.8%
Trichloroethene	56.3	50.0	113%	56.9	50.0	114%	1.1%
Dibromochloromethane	49.3	50.0	98.6%	50.4	50.0	101%	2.2%
1,1,2-Trichloroethane	53.6	50.0	107%	54.8	50.0	110%	2.2%
Benzene	55.1	50.0	110%	56.0	50.0	112%	1.6%
trans-1,3-Dichloropropene	62.8	50.0	126%	63.7	50.0	127%	1.4%
2-Chloroethylvinylether	58.5	50.0	117%	59.6	50.0	119%	1.9%
Bromoform	44.5	50.0	89.0%	45.4	50.0	90.8%	2.0%
4-Methyl-2-Pentanone (MIBK)	280	250	112%	293	250	117%	4.5%
2-Hexanone	292	250	117%	308	250	123%	5.3%
Tetrachloroethene	54.0	50.0	108%	54.3	50.0	109%	0.6%
1,1,2,2-Tetrachloroethane	54.5	50.0	109%	56.2	50.0	112%	3.1%
Toluene	54.7	50.0	109%	55.5	50.0	111%	1.5%
Chlorobenzene	54.8	50.0	110%	55.3	50.0	111%	0.9%
Ethylbenzene	56.3	50.0	113%	57.2	50.0	114%	1.6%
Styrene	58.5	50.0	117%	60.0	50.0	120%	2.5%
Trichlorofluoromethane	49.3	50.0	98.6%	46.2	50.0	92.4%	6.5%
m,p-Xylene	113	100	113%	114	100	114%	0.9%
o-Xylene	57.1	50.0	114%	57.9	50.0	116%	1.4%
1,2-Dichlorobenzene	54.7	50.0	109%	55.5	50.0	111%	1.5%
1,4-Dichlorobenzene	54.4	50.0	109%	55.2	50.0	110%	1.5%
Methyl Iodide	54.4	50.0	109%	55.1	50.0	110%	1.3%
Acrylonitrile	55.4	50.0	111%	58.2	50.0	116%	4.9%
Dibromomethane	54.1	50.0	108%	55.4	50.0	111%	2.4%
1,1,1,2-Tetrachloroethane	56.0	50.0	112%	57.3	50.0	115%	2.3%
1,2-Dibromo-3-chloropropane	51.7	50.0	103%	54.7	50.0	109%	5.6%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260
Page 2 of 2

Sample ID: LCS-032708
LAB CONTROL SAMPLE

Lab Sample ID: LCS-032708
LIMS ID: 08-6153
Matrix: Water

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
1,2,3-Trichloropropane	55.1	50.0	110%	56.3	50.0	113%	2.2%
trans-1,4-Dichloro-2-butene	59.4	50.0	119%	61.4	50.0	123%	3.3%
Ethylene Dibromide	55.5	50.0	111%	56.6	50.0	113%	2.0%

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

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	110%	110%
d8-Toluene	102%	102%
Bromofluorobenzene	103%	103%
d4-1,2-Dichlorobenzene	102%	102%

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: MB-033108
METHOD BLANK

Lab Sample ID: MB-033108
LIMS ID: 08-6153
Matrix: Water
Data Release Authorized:
Reported: 04/02/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
Event: 555-5753-001
Date Sampled: NA
Date Received: NA

Date Analyzed: 03/31/08 09:11
Instrument/Analyst: PID3/PKC

Purge Volume: 5.0 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
71-43-2	Benzene	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U

	RL	Result	GAS ID
Gasoline Range Hydrocarbons	0.25	< 0.25 U	---

BETX Surrogate Recovery

Trifluorotoluene	83.2%
Bromobenzene	87.5%

Gasoline Surrogate Recovery

Trifluorotoluene	82.6%
Bromobenzene	89.0%


BETX values reported in $\mu\text{g/L}$ (ppb)
Gasoline values reported in mg/L (ppm)

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

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

ORGANICS ANALYSIS DATA SHEET
 BETX by Method SW8021BMod
 TPHG by Method NWTPHG
 Page 1 of 1

Sample ID: MW-9A
 SAMPLE

Lab Sample ID: MP07A
 LIMS ID: 08-6153
 Matrix: Water
 Data Release Authorized: 
 Reported: 04/02/08

QC Report No: MP07-Parametrix, Inc.
 Project: Yakima Resources
 Event: 555-5753-001
 Date Sampled: 03/25/08
 Date Received: 03/26/08

Date Analyzed: 03/31/08 12:33
 Instrument/Analyst: PID3/PKC

Purge Volume: 5.0 mL
 Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
71-43-2	Benzene	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U

Gasoline Range Hydrocarbons 0.25 < 0.25 U GAS ID ---

BETX Surrogate Recovery

Trifluorotoluene	107%
Bromobenzene	106%

Gasoline Surrogate Recovery

Trifluorotoluene	106%
Bromobenzene	108%

BETX values reported in µg/L (ppb)
 Gasoline values reported in mg/L (ppm)

GAS: Indicates the presence of gasoline or weathered gasoline.
 GRO: Positive result that does not match an identifiable gasoline pattern.
 Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: TRIP BLANK
SAMPLE

Lab Sample ID: MP07C
LIMS ID: 08-6155
Matrix: Water
Data Release Authorized:
Reported: 04/02/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
Event: 555-5753-001
Date Sampled: 03/25/08
Date Received: 03/26/08

Date Analyzed: 03/31/08 10:55
Instrument/Analyst: PID3/PKC

Purge Volume: 5.0 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
71-43-2	Benzene	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U

	RL	Result	GAS ID
Gasoline Range Hydrocarbons	0.25	< 0.25 U	---

BETX Surrogate Recovery

Trifluorotoluene	107%
Bromobenzene	105%

Gasoline Surrogate Recovery

Trifluorotoluene	106%
Bromobenzene	106%

BETX values reported in $\mu\text{g/L}$ (ppb)
Gasoline values reported in mg/L (ppm)

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

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

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: LCS-033108
LAB CONTROL SAMPLE

Lab Sample ID: LCS-033108
LIMS ID: 08-6153
Matrix: Water
Data Release Authorized: *AB*
Reported: 04/02/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
Event: 555-5753-001
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 03/31/08 08:22
LCSD: 03/31/08 08:46
Instrument/Analyst LCS: PID3/PKC
LCSD: PID3/PKC

Purge Volume: 5.0 mL

Dilution Factor LCS: 1.0
LCSD: 1.0

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Gasoline Range Hydrocarbons	1.05	1.00	105%	1.07	1.00	107%	1.9%

Reported in mg/L (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	89.0%	96.1%
Bromobenzene	93.3%	99.0%

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
Page 1 of 1

Sample ID: LCS-033108
LAB CONTROL SAMPLE

Lab Sample ID: LCS-033108
LIMS ID: 08-6153
Matrix: Water
Data Release Authorized:
Reported: 04/02/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
Event: 555-5753-001
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 03/31/08 08:22
LCSD: 03/31/08 08:46
Instrument/Analyst LCS: PID3/PKC
LCSD: PID3/PKC

Purge Volume: 5.0 mL
Dilution Factor LCS: 1.0
LCSD: 1.0

Analyte	LCS		LCS		LCSD		RPD
	Concentration	Spike Added	Recovery	Concentration	Spike Added	Recovery	
Benzene	6.83	7.00	97.6%	6.65	7.00	95.0%	2.7%
Toluene	58.2	62.0	93.9%	57.2	62.0	92.3%	1.7%
Ethylbenzene	11.1	11.9	93.3%	11.1	11.9	93.3%	0.0%
m,p-Xylene	42.1	44.6	94.4%	41.6	44.6	93.3%	1.2%
o-Xylene	15.3	15.8	96.8%	15.2	15.8	96.2%	0.7%

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

RPD calculated using sample concentrations per SW846.

BETX Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	89.5%	96.5%
Bromobenzene	92.1%	98.2%

PC
4/2/08

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20080331-2.b/0331a006.d
Data file 2: /chem3/pid3.i/20080331-1.b/0331a006.d
Method: /chem3/pid3.i/20080331-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 17-OCT-2007
BETX Ical Date: 17-OCT-2007

ARI ID: MB0331S1
Client ID: MB033108S1
Injection Date: 31-MAR-2008 09:11
Matrix: WATER
Dilution Factor: 1.000

=====

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
6.936	-0.001	5797	77112	82.6	TFT (Surr)
13.626	-0.002	3008	35839	89.0	BB (Surr)

PETROLEUM HYDROCARBONS (FID)

Range	Total Area*	Amount
WAGas (Tol-C12)	5326	0.006
8015B (2MP-TMB)	2073	0.001
AKGas (nC6-nC10)	1052	0.001
NWGas (Tol-Nap)	6811	0.008

* Surrogate areas are subtracted from Total Area

=====

PID Surrogates

RT	Shift	Response	%Rec	Compound
6.934	0.003	23228	83.2	TFT (Surr)
13.624	0.001	41607	87.5	BB (Surr)

AROMATICICS (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20080331-2.b/0331a006.d

Date: 31-MAR-2008 09:14

Client ID:

Sample Info: HB0331S1

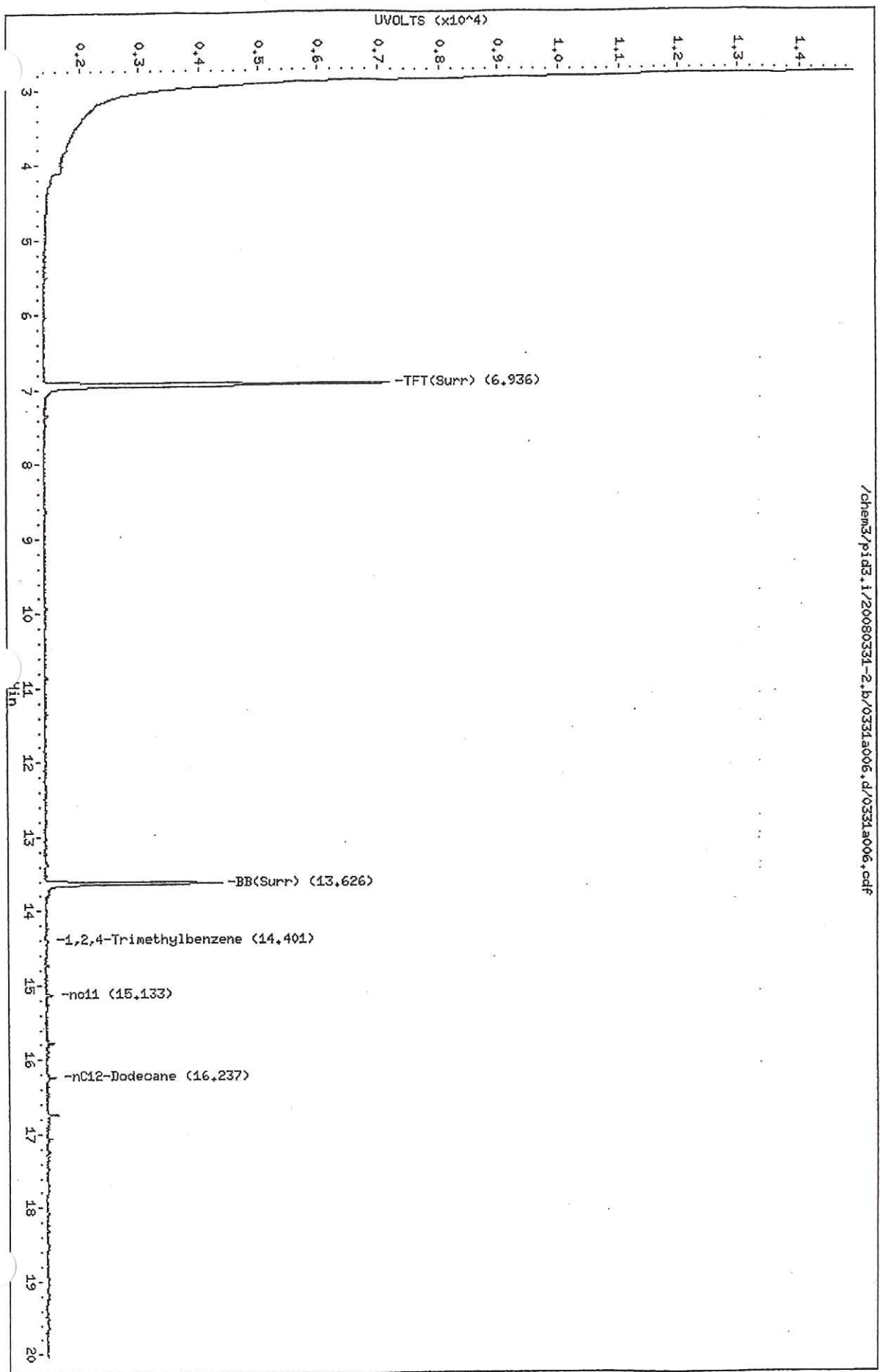
Column phase: RTX 502-2 FID

Instrument: pid3.i

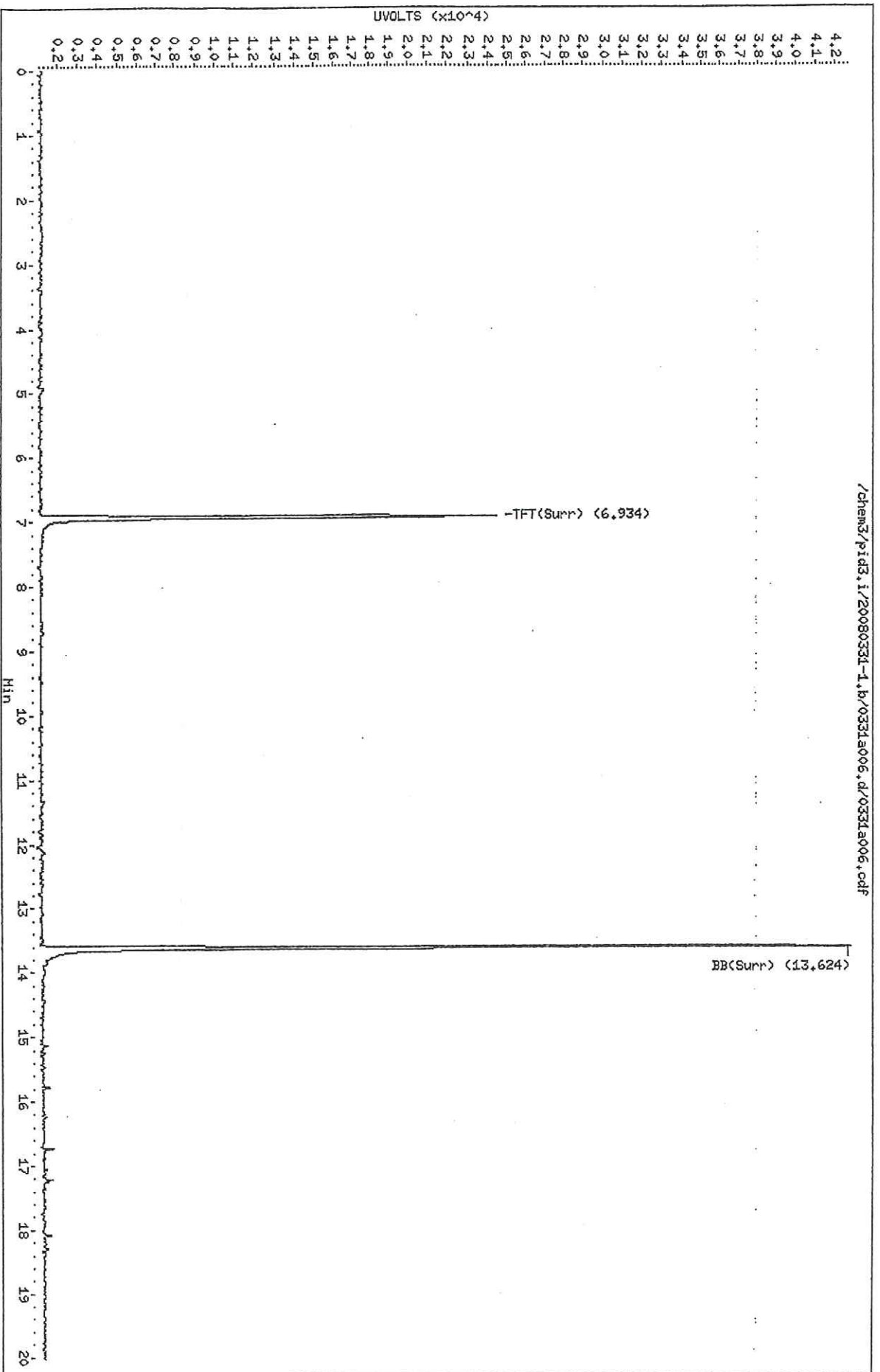
Operator: PC

Column diameter: 0.18

/chem3/pid3.i/20080331-2.b/0331a006.d/0331a006.cdf



Data File: /chem3/pid3.i/20080331-1.b/0331a006.d
Date: 31-MAR-2008 09:11
Client ID: HB033108S1
Sample Info: HB0331S1
Instrument: pid3.i
Operator: PC
Column diameter: 0.18
Column phase: RTX 502-2 PID



PC
4/2/08

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20080331-2.b/0331a004.d
Data file 2: /chem3/pid3.i/20080331-1.b/0331a004.d
Method: /chem3/pid3.i/20080331-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 17-OCT-2007
BETX Ical Date: 17-OCT-2007

ARI ID: LCS0331S1
Client ID: LCS033708S1
Injection Date: 31-MAR-2008 08:22
Matrix: WATER
Dilution Factor: 1.000

=====

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
6.935	-0.001	6243	87958	89.0	TFT (Surr)
13.627	-0.002	3154	36932	93.3	BB (Surr)

PETROLEUM HYDROCARBONS (FID)

Range	Total Area*	Amount
WAGas (Tol-C12)	875503	1.049
8015B (2MP-TMB)	1803780	1.028
AKGas (nC6-nC10)	1275196	1.041
NWGas (Tol-Nap)	919705	1.053

* Surrogate areas are subtracted from Total Area

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PID Surrogates

RT	Shift	Response	%Rec	Compound
6.934	0.002	24980	89.5	TFT (Surr)
13.625	0.002	43796	92.1	BB (Surr)

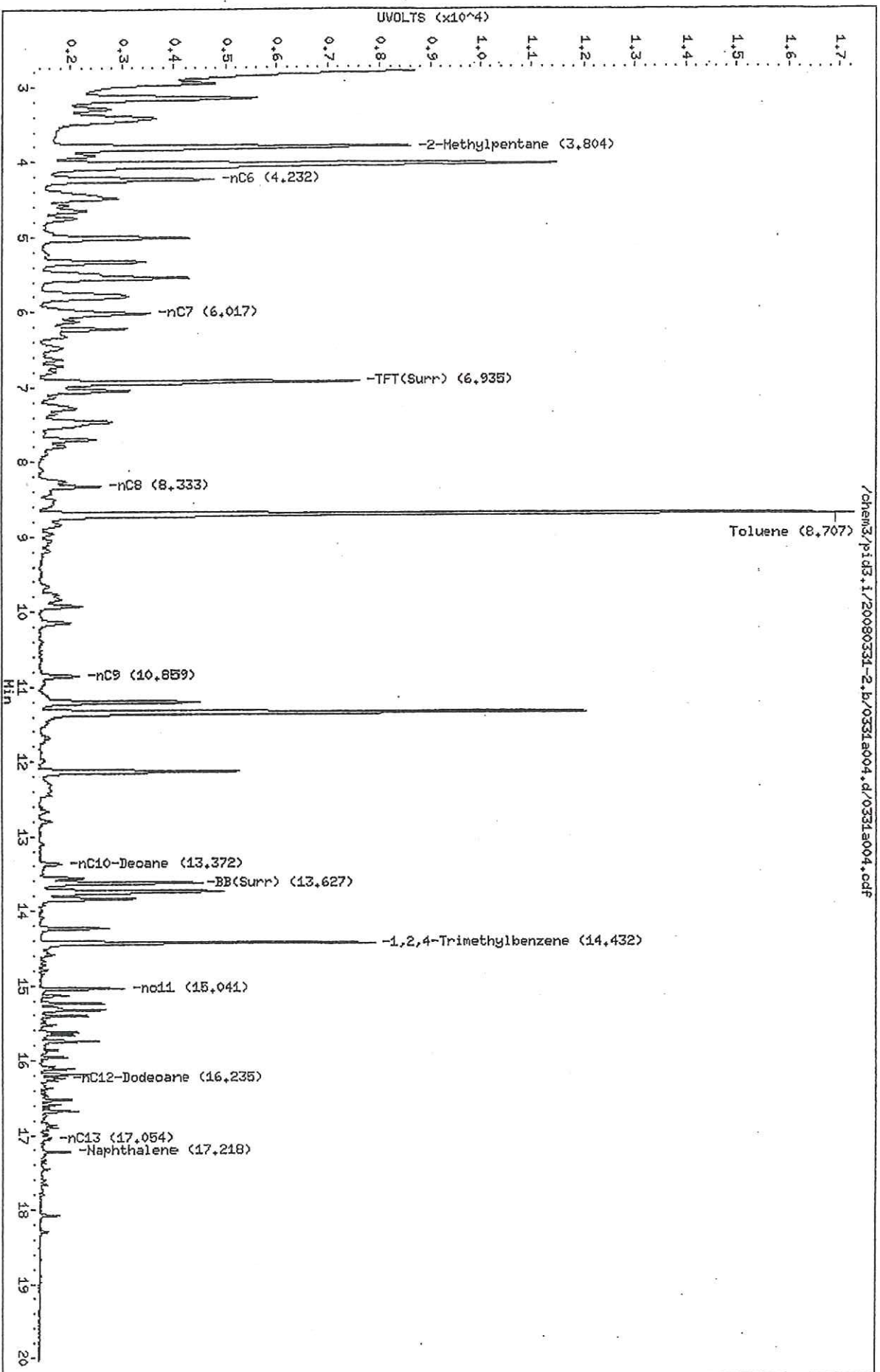
AROMATICS (PID)

RT	Shift	Response	Amount	Compound
6.221	0.003	11812	6.83	Benzene
8.705	0.003	103986	58.15	Toluene
11.206	0.002	17996	11.11	Ethylbenzene
11.344	0.004	74093	42.09	M/P-Xylene
12.132	0.002	22818	15.28	O-Xylene
4.039	0.004	40561	84.87	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20080331-2.b/0331a004.d
Date: 31-MAR-2008 08:22
Client ID:
Sample Info: LCS0331S1
Column phase: RTX 502-2 FID

Instrument: pid3.i
Operator: PC
Column diameter: 0.18

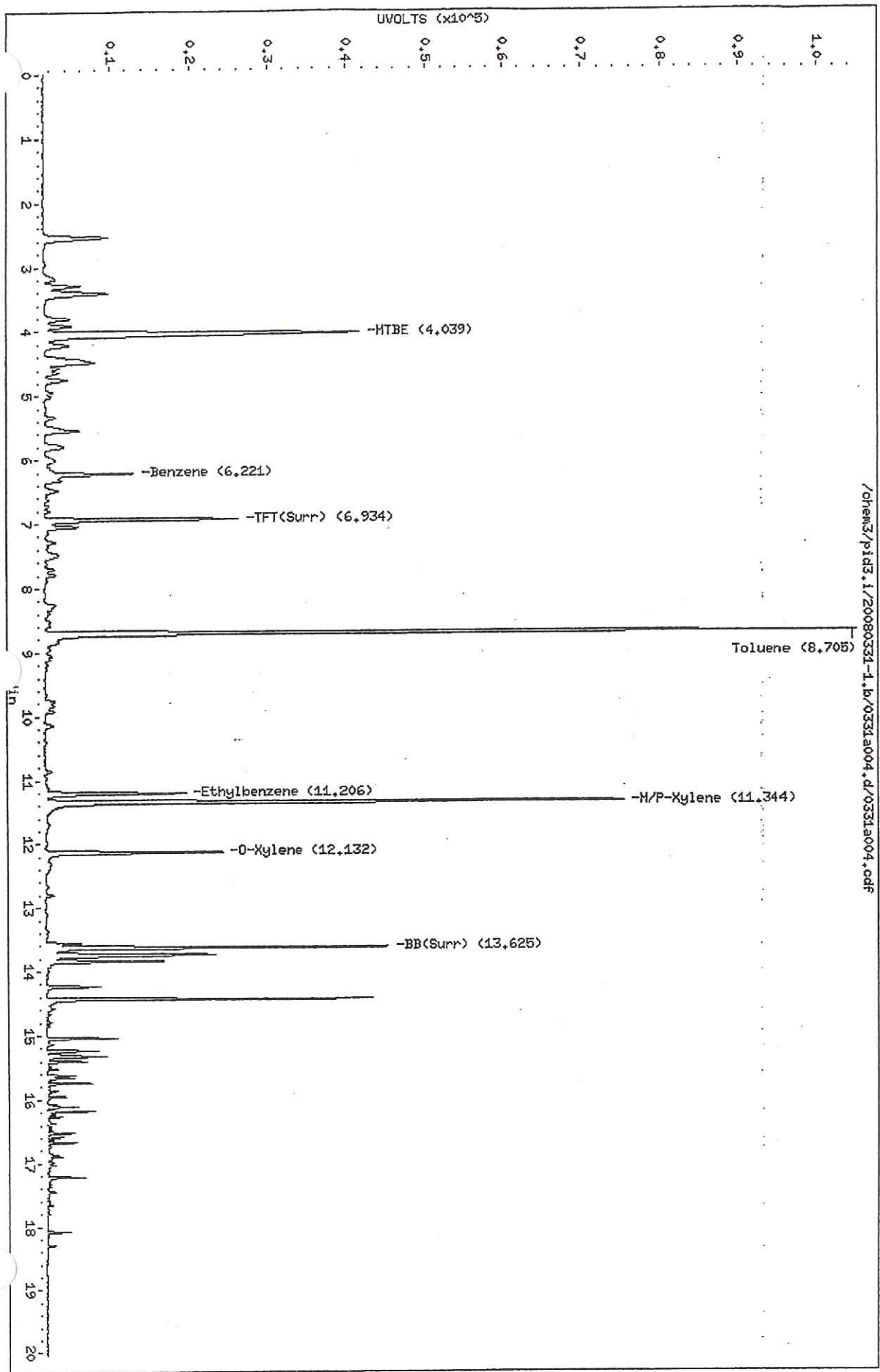


Data File: /chem3/pid3.1/20080331-1.b/0331a004.d
Date : 31-MAR-2008 08:22
Client ID: LCS03370831
Sample Info: LCS0331S1

Column phase: RTX 502-2 PID

Operator: PC
Column diameter: 0.18

/chem3/pid3.1/20080331-1.b/0331a004.d/0331a004.cdf



pc
4/2/08

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20080331-2.b/0331a005.d
Data file 2: /chem3/pid3.i/20080331-1.b/0331a005.d
Method: /chem3/pid3.i/20080331-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 17-OCT-2007
BETX Ical Date: 17-OCT-2007

ARI ID: LCSD0331S1
Client ID: LCSD033108S1
Injection Date: 31-MAR-2008 08:46
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
6.936	0.000	6745	96026	96.1	TFT(Surr)
13.626	-0.002	3348	39389	99.0	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range	Total Area*	Amount
WAGas (Tol-C12)	887667	1.063
8015B (2MP-TMB)	1863274	1.062
AKGas (nC6-nC10)	1317824	1.075
NWGas (Tol-Nap)	931975	1.067

* Surrogate areas are subtracted from Total Area

PID Surrogates

RT	Shift	Response	%Rec	Compound
6.935	0.003	26955	96.5	TFT(Surr)
13.625	0.002	46688	98.2	BB(Surr)

AROMATICS (PID)

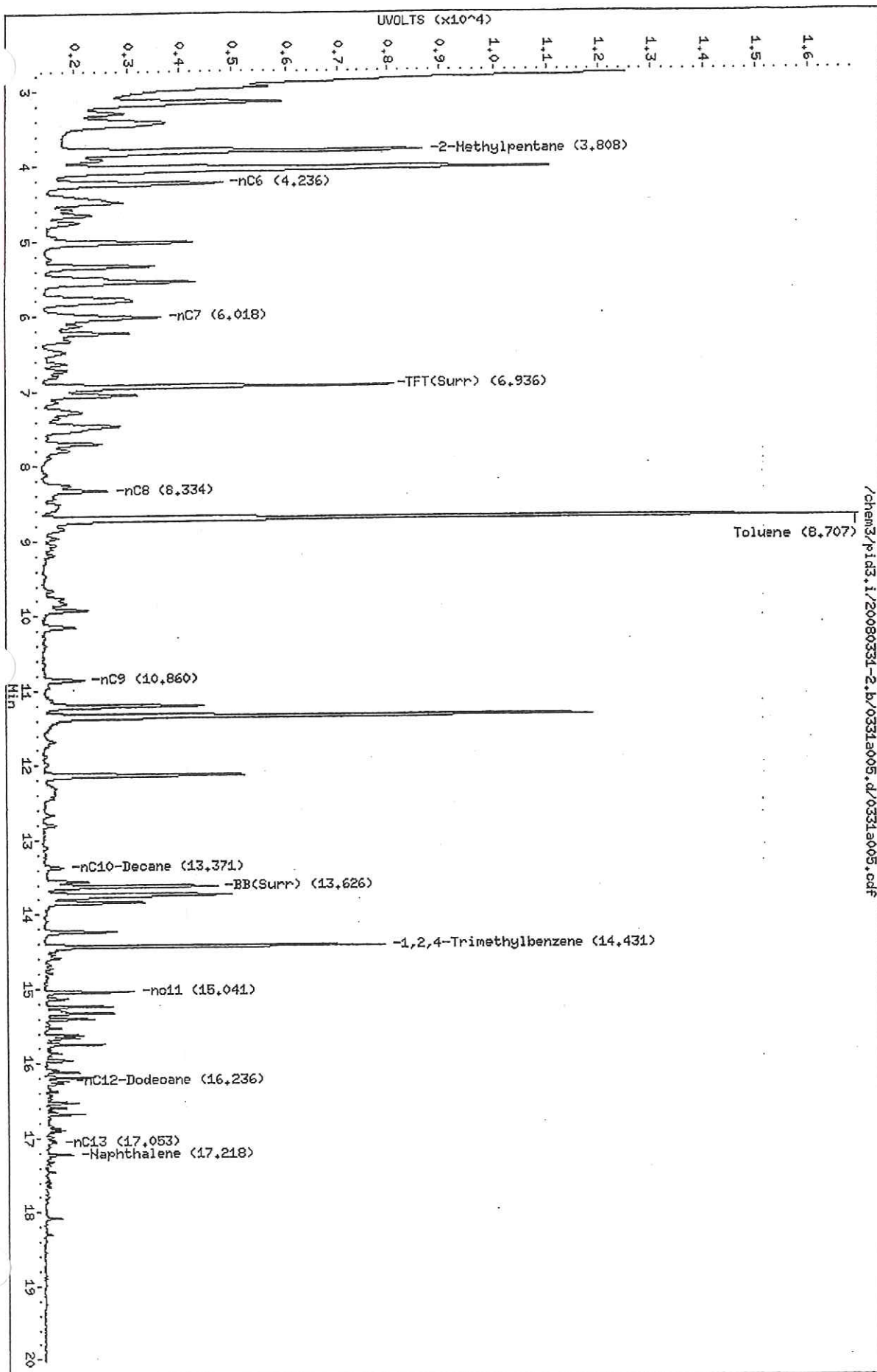
RT	Shift	Response	Amount	Compound
6.223	0.005	11495	6.65	Benzene
8.706	0.003	102369	57.25	Toluene
11.206	0.003	17965	11.09	Ethylbenzene
11.345	0.004	73284	41.63	M/P-Xylene
12.132	0.002	22640	15.16	O-Xylene
4.043	0.008	37635	78.75	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20080331-2.1b/0331a005.d
Date: 31-MAR-2008 08:46
Client ID:
Sample Info: LCSU0331S4

Column phase: RTX 502-2 FID

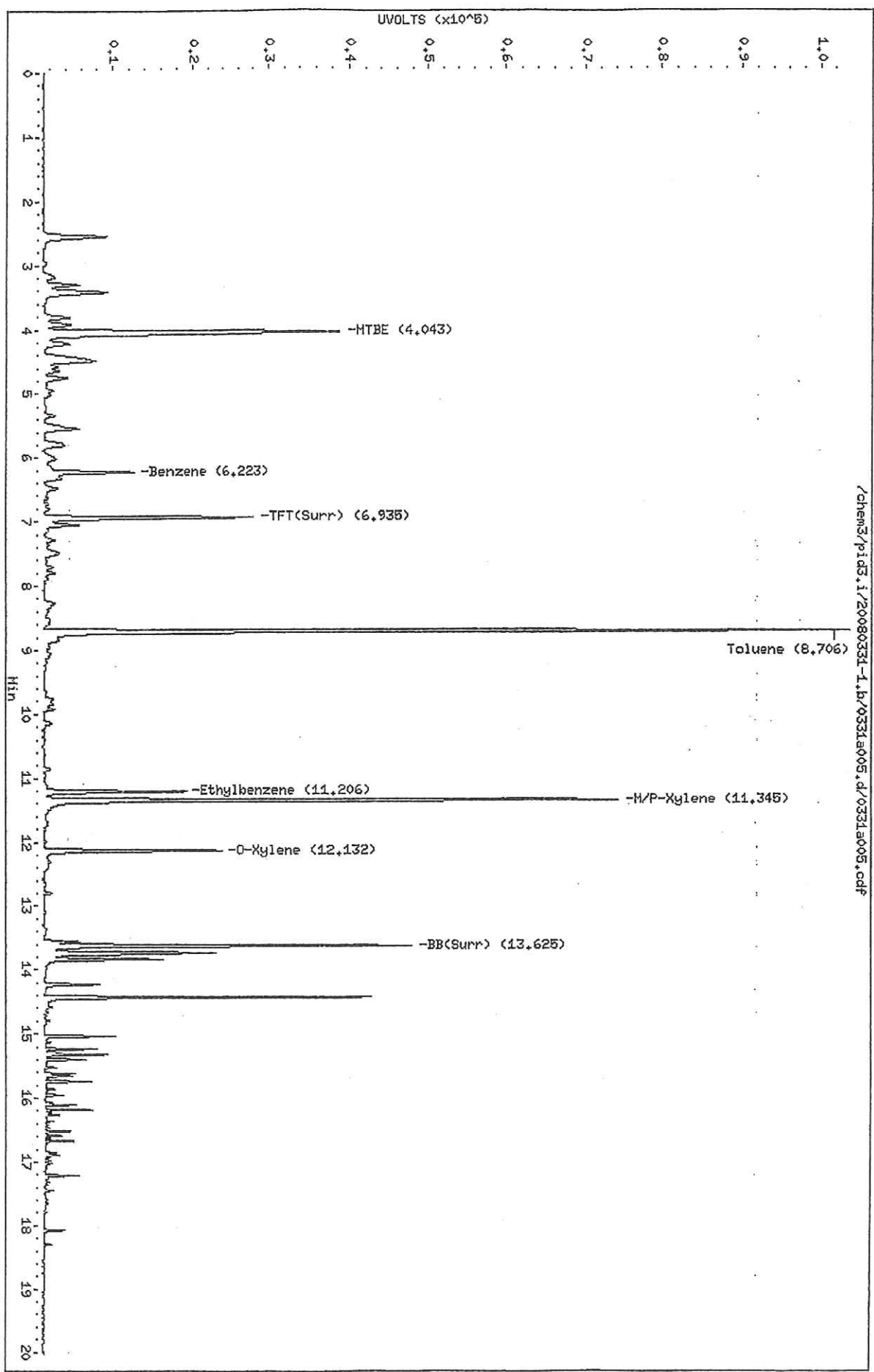
Instrument: pid3.i
Operator: PC
Column diameter: 0.18



Data File: /chem3/pid3.1/20080331-1.b/0331a005.d
Date: 31-MAR-2008 08:46
Client ID: LCSD033108S1
Sample Info: LCSD0331S1

Column Phase: RTX 502-2 PID

Instrument: pid3.1
Operator: PC
Column diameter: 0.18



AC
4/2/08

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20080331-2.b/0331a011.d
Data file 2: /chem3/pid3.i/20080331-1.b/0331a011.d
Method: /chem3/pid3.i/20080331-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 17-OCT-2007
BETX Ical Date: 17-OCT-2007

ARI ID: MP07A
Client ID: MW-9A
Injection Date: 31-MAR-2008 12:33
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
6.934	-0.003	7470	98187	106.5	TFT (Surr)
13.627	-0.001	3644	43653	107.8	BB (Surr)

PETROLEUM HYDROCARBONS (FID)

Range	Total Area*	Amount
WAGas (Tol-C12)	119381	0.143
8015B (2MP-TMB)	46895	0.027
AKGas (nC6-nC10)	22737	0.019
NWGas (Tol-Nap)	157276	0.180 <i>CPV</i>

* Surrogate areas are subtracted from Total Area

PID Surrogates

RT	Shift	Response	%Rec	Compound
6.933	0.001	29765	106.6	TFT (Surr)
13.626	0.003	50624	106.5	BB (Surr)

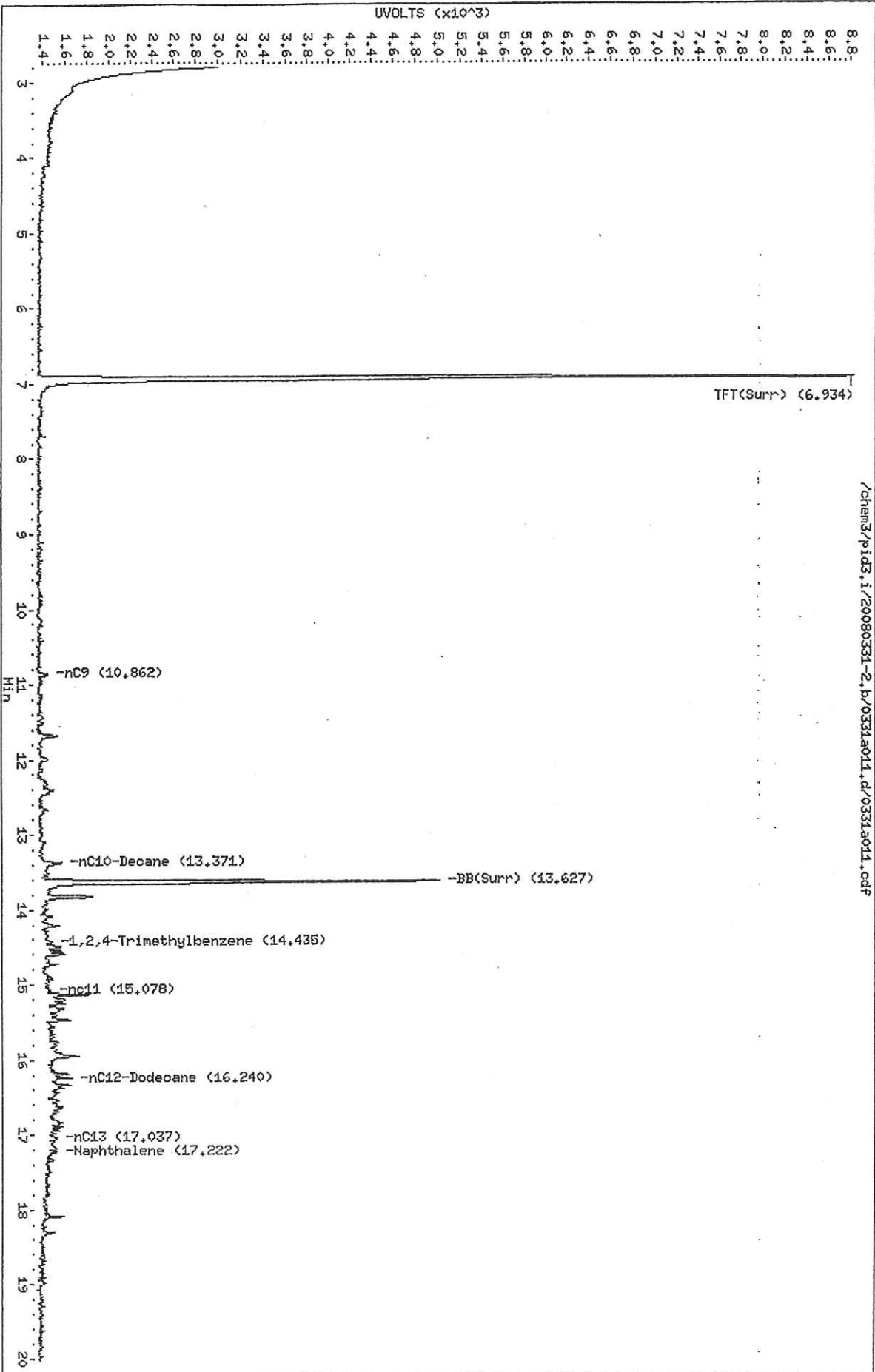
AROMATICS (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20080331-2.b/0331a011.d
Date: 31-MAR-2008 12:33
Client ID: MW-99
Sample Info: HP07A
Column phase: RTX 502-2 FID

Instrument: pid3.i
Operator: PC
Column diameter: 0.18



Data File: /chem3/pid3.i/20080331-1.b/0331a011.d

Date: 31-MAR-2008 12:33

Client ID: MM-9A

Sample Info: HP07A

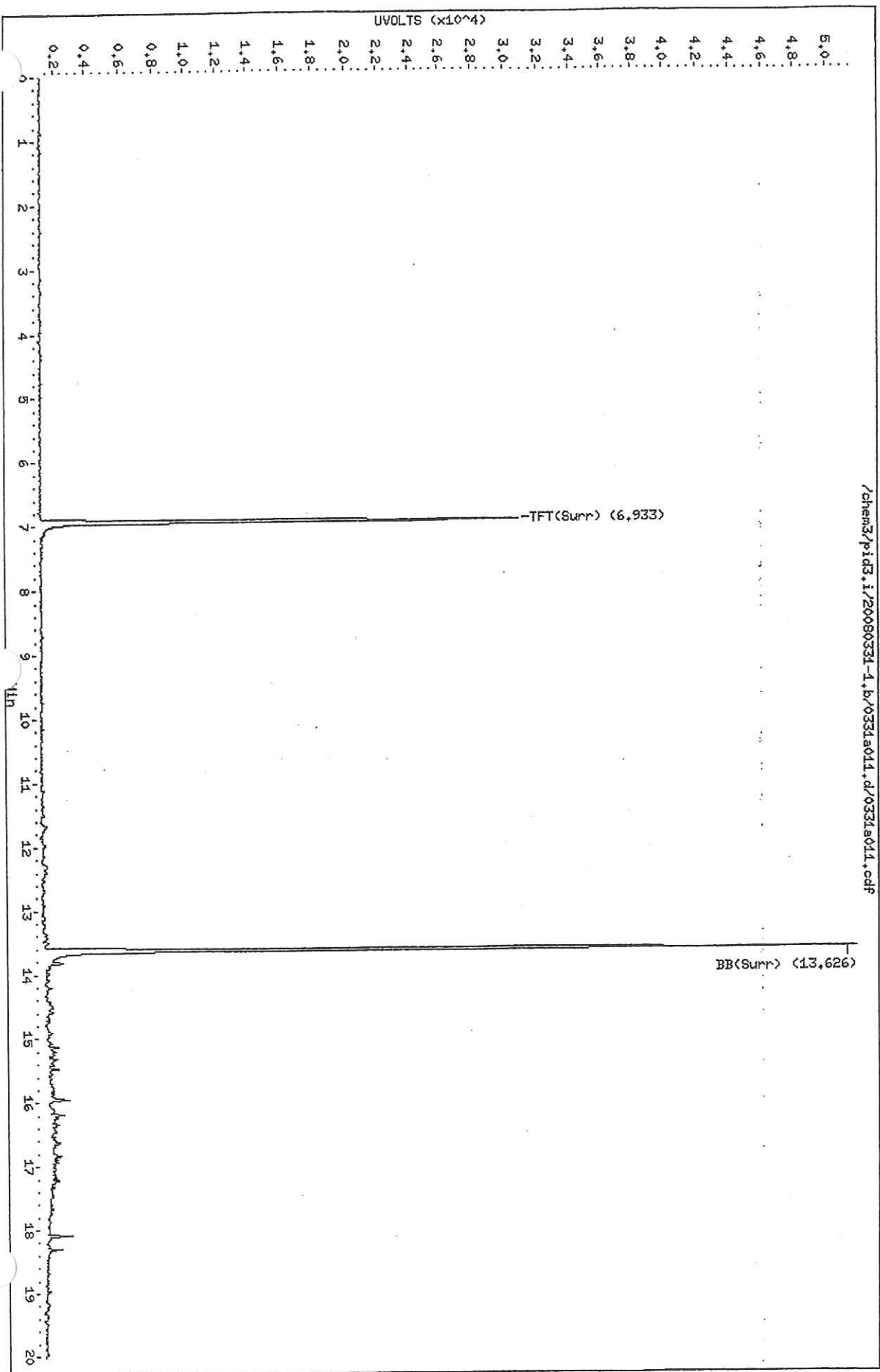
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: PC

Column diameter: 0.18

/chem3/pid3.i/20080331-1.b/0331a011.d/0331a011.cdf



Analytical Resources Inc.
 BETX/Gas Quantitation Report

PL
 4/2/08

Data file 1: /chem3/pid3.i/20080331-2.b/0331a007.d ARI ID: MP07C
 Data file 2: /chem3/pid3.i/20080331-1.b/0331a007.d Client ID: TRIP BLANK
 Method: /chem3/pid3.i/20080331-1.b/PIDB.m Injection Date: 31-MAR-2008 10:55
 Instrument: pid3.i Matrix: WATER
 Gas Ical Date: 17-OCT-2007 Dilution Factor: 1.000
 BETX Ical Date: 17-OCT-2007

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
6.945	0.009	7420	97297	105.8	TFT (Surr)
13.637	0.009	3579	41879	105.9	BB (Surr)

PETROLEUM HYDROCARBONS (FID)

Range	Total Area*	Amount
WAGas (Tol-C12)	8462	0.010
8015B (2MP-TMB)	2208	0.001
AKGas (nC6-nC10)	0	0.000
NWGas (Tol-Nap)	11660	0.013

* Surrogate areas are subtracted from Total Area

PID Surrogates

RT	Shift	Response	%Rec	Compound
6.944	0.013	29853	106.9	TFT (Surr)
13.635	0.013	49892	104.9	BB (Surr)

AROMATICS (PID)

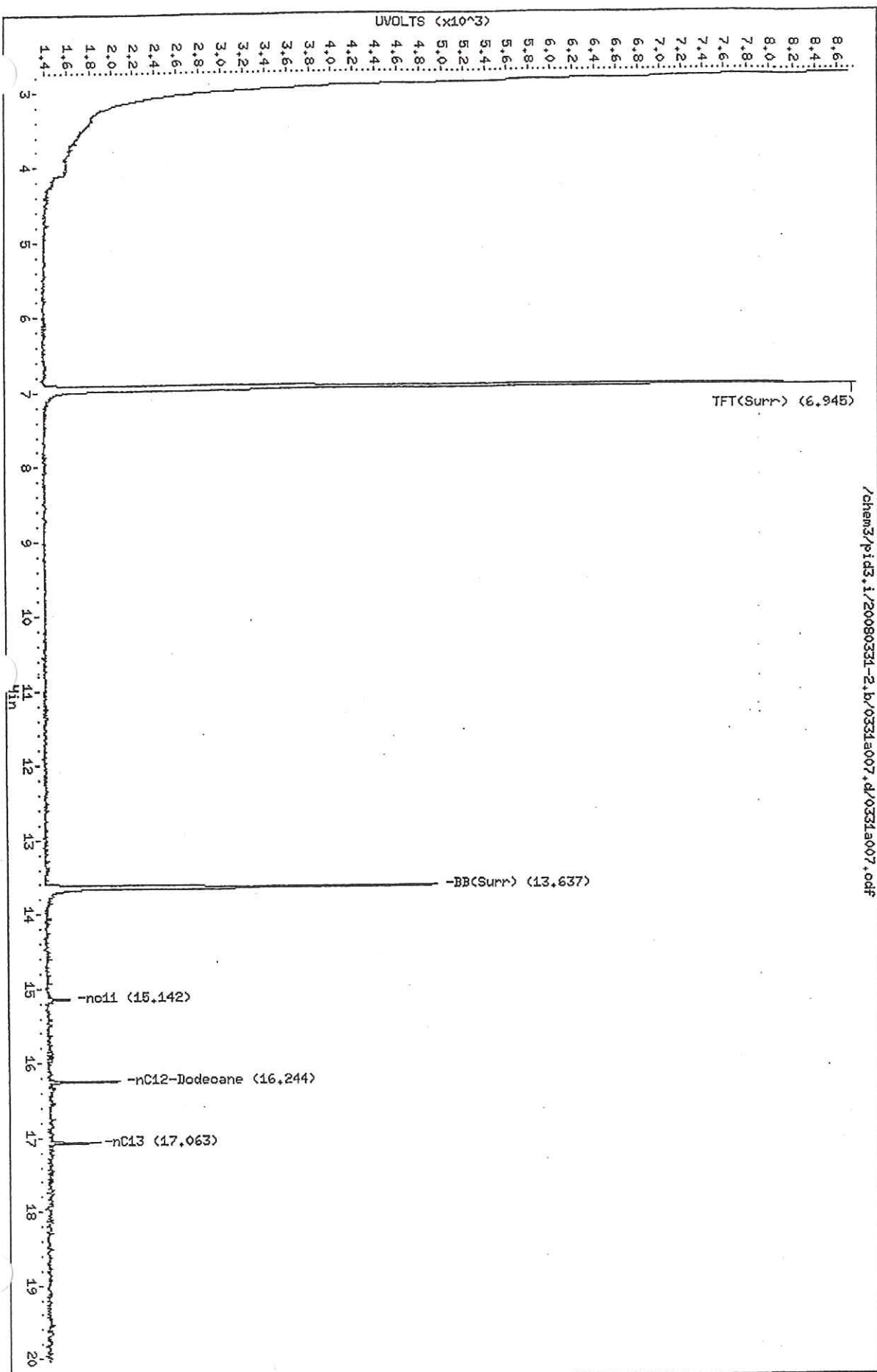
RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
 N Indicates peak peak was manually integrated

Data File: /chem3/pid3.1/20080331-2.b/0331a007.d
Date: 31-MAR-2008 10:55
Client ID: TRIP BLANK
Sample Info: HP07C

Column phase: RTX 502-2 FID

Instrument: pid3.1
Operator: PC
Column diameter: 0.18



Data File: /chem3/pid3.i/20080331-1.b/0331a007.d

Date: 31-Mar-2008 10:55

Client ID: TRIP BLANK

Sample Info: HP07C

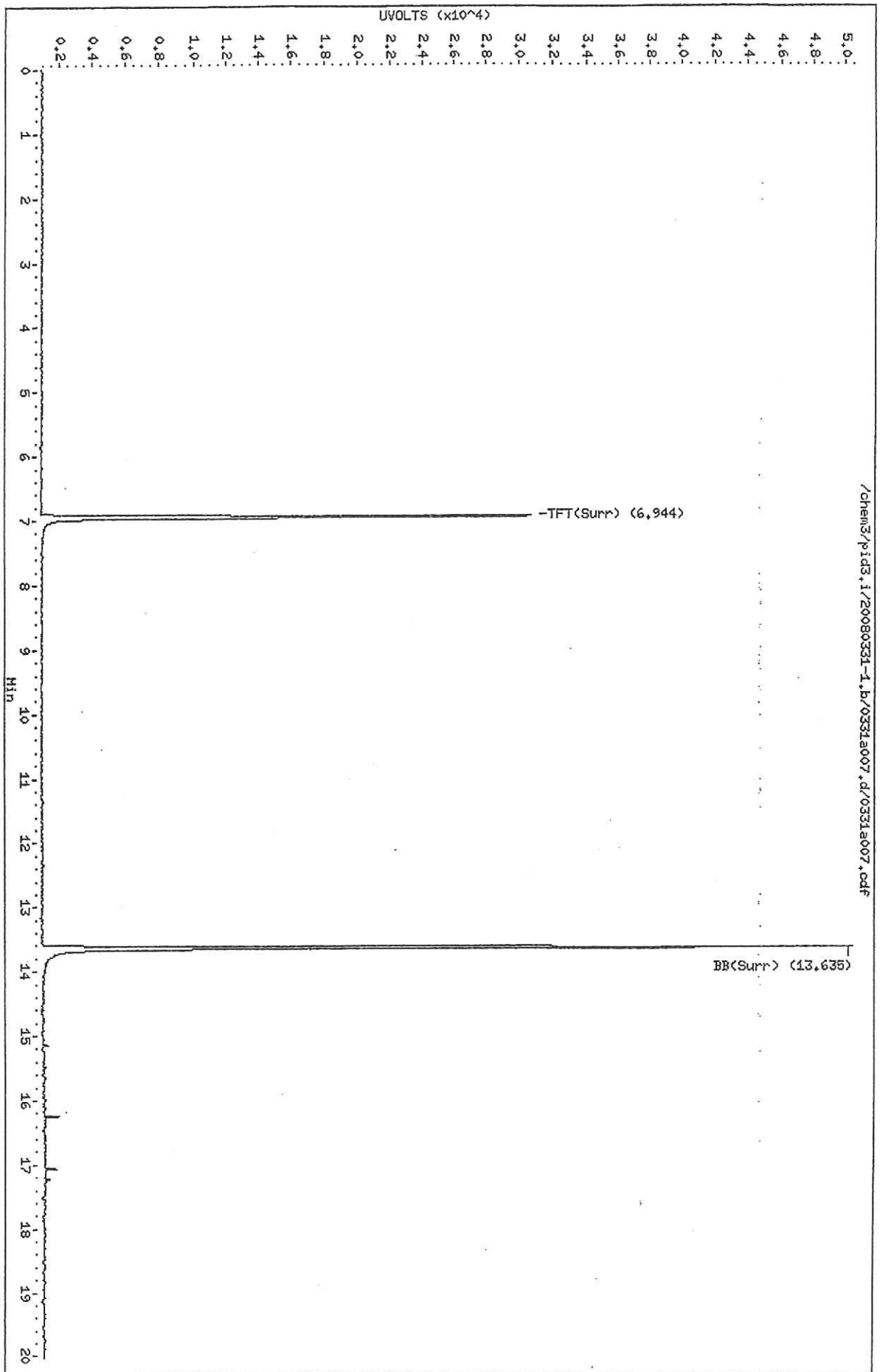
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: PC

Column diameter: 0.18

/chem3/pid3.i/20080331-1.b/0331a007.d/0331a007.pdf



ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 1 of 2

Sample ID: MB-033108
METHOD BLANK

Lab Sample ID: MB-033108
LIMS ID: 08-6153
Matrix: Water
Data Release Authorized: *AB*
Reported: 04/04/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001
Date Sampled: NA
Date Received: NA

Date Extracted: 03/31/08
Date Analyzed: 04/03/08 14:25
Instrument/Analyst: NT6/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 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	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 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	1.0	< 1.0 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	5.0	< 5.0 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	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 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	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 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

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 2 of 2

Sample ID: MB-033108
METHOD BLANK

Lab Sample ID: MB-033108
LIMS ID: 08-6153
Matrix: Water
Date Analyzed: 04/03/08 14:25

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001

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	10	< 10 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
56-55-3	Benzo (a) anthracene	1.0	< 1.0 U
117-81-7	bis (2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo (b) fluoranthene	1.0	< 1.0 U
207-08-9	Benzo (k) fluoranthene	1.0	< 1.0 U
50-32-8	Benzo (a) pyrene	1.0	< 1.0 U
193-39-5	Indeno (1,2,3-cd) pyrene	1.0	< 1.0 U
53-70-3	Dibenz (a, h) anthracene	1.0	< 1.0 U
191-24-2	Benzo (g, h, i) perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

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

Semivolatile Surrogate Recovery

d5-Nitrobenzene	76.0%	2-Fluorobiphenyl	76.8%
d14-p-Terphenyl	81.6%	d4-1,2-Dichlorobenzene	66.4%
d5-Phenol	67.7%	2-Fluorophenol	72.5%
2,4,6-Tribromophenol	88.0%	d4-2-Chlorophenol	76.5%

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 1 of 2

Sample ID: MW-9A
SAMPLE

Lab Sample ID: MP07A
LIMS ID: 08-6153
Matrix: Water
Data Release Authorized:
Reported: 04/04/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001
Date Sampled: 03/25/08
Date Received: 03/26/08

Date Extracted: 03/31/08
Date Analyzed: 04/03/08 22:47
Instrument/Analyst: NT6/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 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	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 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	1.0	< 1.0 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	5.0	< 5.0 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	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 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	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 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

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 2 of 2

Sample ID: MW-9A
SAMPLE

Lab Sample ID: MP07A
LIMS ID: 08-6153
Matrix: Water
Date Analyzed: 04/03/08 22:47

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001

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	10	< 10 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
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	1.5
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	74.8%	2-Fluorobiphenyl	72.0%
d14-p-Terphenyl	70.0%	d4-1,2-Dichlorobenzene	65.6%
d5-Phenol	65.3%	2-Fluorophenol	71.2%
2,4,6-Tribromophenol	92.5%	d4-2-Chlorophenol	73.6%

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 1 of 2

Sample ID: LCS-033108
LAB CONTROL

Lab Sample ID: LCS-033108
LIMS ID: 08-6153
Matrix: Water
Data Release Authorized:
Reported: 04/04/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001
Date Sampled: 03/25/08
Date Received: 03/26/08

Date Extracted: 03/31/08
Date Analyzed: 04/03/08 15:48
Instrument/Analyst: NT6/LJR
GPC Cleanup: NO

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

Analyte	Lab Control	Spike Added	Recovery
Phenol	20.6	25.0	82.4%
Bis-(2-Chloroethyl) Ether	20.4	25.0	81.6%
2-Chlorophenol	20.6	25.0	82.4%
1,3-Dichlorobenzene	14.3	25.0	57.2%
1,4-Dichlorobenzene	14.2	25.0	56.8%
Benzyl Alcohol	37.6	50.0	75.2%
1,2-Dichlorobenzene	14.7	25.0	58.8%
2-Methylphenol	21.0	25.0	84.0%
2,2'-Oxybis(1-Chloropropane)	23.8	25.0	95.2%
4-Methylphenol	40.5	50.0	81.0%
N-Nitroso-Di-N-Propylamine	22.1	25.0	88.4%
Hexachloroethane	11.9	25.0	47.6%
Nitrobenzene	20.9	25.0	83.6%
Isophorone	24.9	25.0	99.6%
2-Nitrophenol	20.4	25.0	81.6%
2,4-Dimethylphenol	12.7	25.0	50.8%
Benzoic Acid	69.6	75.0	92.8%
bis(2-Chloroethoxy) Methane	20.8	25.0	83.2%
2,4-Dichlorophenol	19.8	25.0	79.2%
1,2,4-Trichlorobenzene	15.0	25.0	60.0%
Naphthalene	17.9	25.0	71.6%
4-Chloroaniline	53.6	60.0	89.3%
Hexachlorobutadiene	14.5	25.0	58.0%
4-Chloro-3-methylphenol	22.0	25.0	88.0%
2-Methylnaphthalene	18.3	25.0	73.2%
Hexachlorocyclopentadiene	23.0	75.0	30.7%
2,4,6-Trichlorophenol	21.7	25.0	86.8%
2,4,5-Trichlorophenol	21.7	25.0	86.8%
2-Chloronaphthalene	18.0	25.0	72.0%
2-Nitroaniline	20.9	25.0	83.6%
Dimethylphthalate	22.1	25.0	88.4%
Acenaphthylene	19.1	25.0	76.4%
3-Nitroaniline	63.3	64.0	98.9%
Acenaphthene	19.6	25.0	78.4%
2,4-Dinitrophenol	97.1	75.0	129%
4-Nitrophenol	15.3	25.0	61.2%
Dibenzofuran	20.8	25.0	83.2%

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 2 of 2

Sample ID: LCS-033108
LAB CONTROL

Lab Sample ID: LCS-033108
LIMS ID: 08-6153
Matrix: Water
Date Analyzed: 04/03/08 15:48

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001

Analyte	Lab Control	Spike Added	Recovery
2,6-Dinitrotoluene	20.8	25.0	83.2%
2,4-Dinitrotoluene	24.1	25.0	96.4%
Diethylphthalate	21.0	25.0	84.0%
4-Chlorophenyl-phenylether	22.6	25.0	90.4%
Fluorene	20.3	25.0	81.2%
4-Nitroaniline	23.0	25.0	92.0%
4,6-Dinitro-2-Methylphenol	68.9	75.0	91.9%
N-Nitrosodiphenylamine	24.8	25.0	99.2%
4-Bromophenyl-phenylether	22.1	25.0	88.4%
Hexachlorobenzene	21.7	25.0	86.8%
Pentachlorophenol	24.1	25.0	96.4%
Phenanthrene	19.5	25.0	78.0%
Carbazole	20.9	25.0	83.6%
Anthracene	19.0	25.0	76.0%
Di-n-Butylphthalate	19.7	25.0	78.8%
Fluoranthene	22.3	25.0	89.2%
Pyrene	18.3	25.0	73.2%
Butylbenzylphthalate	16.3	25.0	65.2%
3,3'-Dichlorobenzidine	39.7	64.0	62.0%
Benzo(a)anthracene	18.7	25.0	74.8%
bis(2-Ethylhexyl)phthalate	28.3	25.0	113%
Chrysene	20.7	25.0	82.8%
Di-n-Octyl phthalate	24.4	25.0	97.6%
Benzo(b)fluoranthene	19.5	25.0	78.0%
Benzo(k)fluoranthene	18.5	25.0	74.0%
Benzo(a)pyrene	16.2	25.0	64.8%
Indeno(1,2,3-cd)pyrene	16.7	25.0	66.8%
Dibenz(a,h)anthracene	15.9	25.0	63.6%
Benzo(g,h,i)perylene	18.7	25.0	74.8%
1-Methylnaphthalene	19.4	25.0	77.6%

Semivolatile Surrogate Recovery

d5-Nitrobenzene	76.4%
2-Fluorobiphenyl	75.2%
d14-p-Terphenyl	76.8%
d4-1,2-Dichlorobenzene	64.8%
d5-Phenol	73.1%
2-Fluorophenol	74.9%
2,4,6-Tribromophenol	96.0%
d4-2-Chlorophenol	76.0%

Results reported in µg/L

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

Sample ID: MB-032708
METHOD BLANK

Lab Sample ID: MB-032708
LIMS ID: 08-6153
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 04/04/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001
Date Sampled: NA
Date Received: NA

Date Extracted: 03/27/08
Date Analyzed: 04/01/08 16:46
Instrument/Analyst: ECD5/AAR
GPC Cleanup: No
Sulfur Cleanup: No

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

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

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

PCB Surrogate Recovery

Decachlorobiphenyl	59.2%
Tetrachlorometaxylene	77.8%

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

Sample ID: MW-9A
SAMPLE

Lab Sample ID: MP07A
LIMS ID: 08-6153
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 04/04/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001
Date Sampled: 03/25/08
Date Received: 03/26/08

Date Extracted: 03/27/08
Date Analyzed: 04/01/08 17:54
Instrument/Analyst: ECD5/AAR
GPC Cleanup: No
Sulfur Cleanup: No

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

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

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

PCB Surrogate Recovery

Decachlorobiphenyl	65.5%
Tetrachlorometaxylene	77.2%

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

Sample ID: LCS-032708
LAB CONTROL

Lab Sample ID: LCS-032708
LIMS ID: 08-6153
Matrix: Water
Data Release Authorized:
Reported: 04/04/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001
Date Sampled: NA
Date Received: NA

Date Extracted: 03/27/08
Date Analyzed: 04/01/08 17:03
Instrument/Analyst: ECD5/AAR
GPC Cleanup: No
Sulfur Cleanup: No

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

Analyte	Lab Control	Spike Added	Recovery
Aroclor 1016	3.97	5.00	79.4%
Aroclor 1260	3.82	5.00	76.4%

PCB Surrogate Recovery

Decachlorobiphenyl	53.8%
Tetrachlorometaxylene	76.8%

Results reported in $\mu\text{g/L}$

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID
Page 1 of 1
Matrix: Water

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001
Date Received: 03/26/08

Data Release Authorized: *AB*
Reported: 04/03/08

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-032708	Method Blank	03/27/08	04/01/08	1.00	Diesel	0.25	< 0.25 U
08-6153	HC ID: ---		FID3A	1.0	Motor Oil	0.50	< 0.50 U
					o-Terphenyl		98.7%
MP07A	MW-9A	03/27/08	04/01/08	1.00	Diesel	0.25	< 0.25 U
08-6153	HC ID: ---		FID3A	1.0	Motor Oil	0.50	< 0.50 U
					o-Terphenyl		97.8%

Reported in mg/L (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

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

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID
Page 1 of 1

Sample ID: LCS-032708
LCS/LCSD

Lab Sample ID: LCS-032708
LIMS ID: 08-6153
Matrix: Water
Data Release Authorized:
Reported: 04/03/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 03/27/08

Sample Amount LCS: 500 mL
LCSD: 500 mL

Date Analyzed LCS: 04/01/08 21:21
LCSD: 04/01/08 21:36

Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL

Instrument/Analyst LCS: FID3A/MS
LCSD: FID3A/MS

Dilution Factor LCS: 1.00
LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.44	3.00	81.3%	2.50	3.00	83.3%	2.4%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	96.0%	100%

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

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20080401.b/0401a027.d
Method: /chem3/fid3a.i/20080401.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 04/03/2008
Macro: FID:3A040108

ARI ID: MO70MBW1
Client ID:
Injection: 01-APR-2008 21:06
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.808	0.002	8186	10573	GAS (Tol-C12)	202790	11
C8	1.933	0.001	2902	3499	DIESEL (C12-C24)	116511	9
C10	2.521	0.001	2665	2150	M.OIL (C24-C38)	644676	64
C12	3.006	0.001	1045	539	AK-102 (C10-C25)	166506	11
C14	3.420	0.001	866	1297	AK-103 (C25-C36)	492487	55
C16	3.780	-0.004	865	835	OR.DIES (C10-C28)	274340	17
C18	4.178	-0.002	368	164	OR.MOIL (C28-C40)	695452	79
C20	4.599	0.001	974	460	JET-A (C10-C18)	89932	6
C22	4.948	-0.006	715	168			
C24	5.251	0.001	3120	2955	MSPRIT (Tol-C12)	202790	13
C25	5.381	0.001	3302	2439			
C26	5.503	0.002	3533	1915			
C28	5.717	-0.003	7006	3628			
C32	6.162	-0.001	8434	11142			
C34	6.433	-0.002	6564	3101			
Filter Peak	7.048	-0.002	4877	1165	JP-4 (Tol-C14)	225632	20
C36	6.783	0.001	5203	1245	CREOSOT (C8-C22)	250746	43
C38	7.229	-0.004	4734	1599			
C40	7.848	-0.001	4551	3262	BUNKERC (C10-C38)	803964	101

Range Times: NW Diesel (3.055 - 5.299) NW Gas (1.756 - 3.055) NW M.Oil (5.299 - 7.283)
AK102 (2.470 - 5.330) AK103 (5.330 - 6.831) Jet A (2.470 - 4.230)

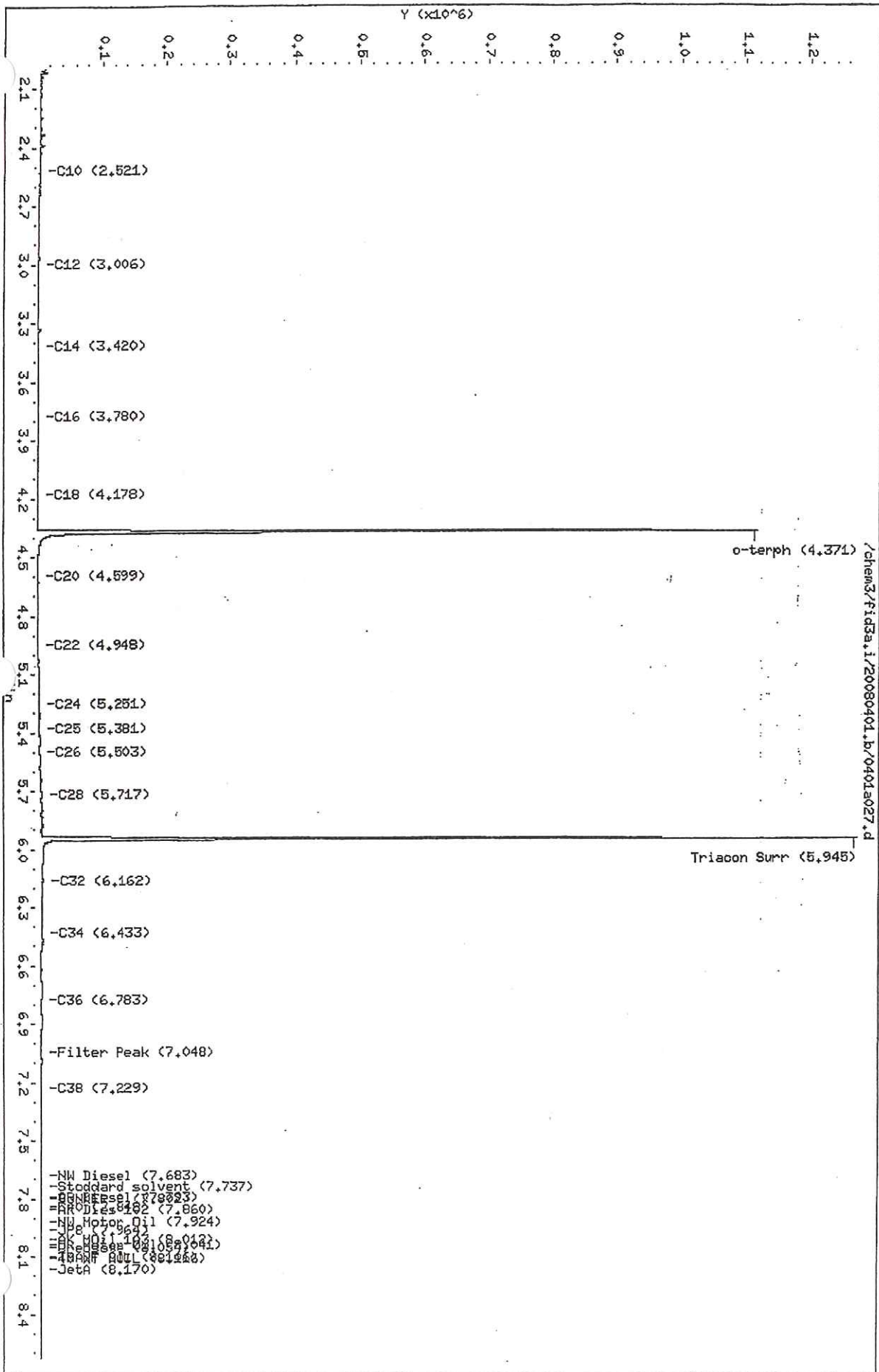
Surrogate	Area	Amount	%Rec
o-Terphenyl	676113	44.4	98.6
Triacotane	695099	45.7	101.5

9m2 4/3/08

Analyte	RF	Curve Date
o-Terph Surr	15232.3	29-MAR-2008
Triacon Surr	15216.4	19-MAR-2008
Gas	18005.5	18-MAR-2008
Diesel	12483.8	29-MAR-2008
Motor Oil	10095.2	19-MAR-2008
AK102	15149.0	29-MAR-2008
AK103	8992.8	01-APR-2008
JP4	11362.0	05-FEB-2007
JetA	14224.8	03-NOV-2007
Min Spirit	15825.3	15-APR-2005
OR Diesel	16151.0	
OR M.Oil	8838.0	
Bunker C	7951.9	01-APR-2008
Creosote	5841.7	26-MAR-2008

Data File: /chem3/fid3a.i/20080401.b/0401a027.d
 Date: 01-APR-2008 21:06
 Client ID:
 Sample Info: M070HBM4
 Column phase: RTX-1

Instrument: fid3a.i
 Operator: JR
 Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20080401.b/0401a028.d
Method: /chem3/fid3a.i/20080401.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 04/03/2008
Macro: FID:3A040108

ARI ID: MO70LCSW1
Client ID:
Injection: 01-APR-2008 21:21
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.810	0.004	24457	17519	GAS (Tol-C12)	2893852	161
C8	1.933	0.002	19863	13402	DIESEL (C12-C24)	15214977	1219
C10	2.521	0.000	260769	111617	M.OIL (C24-C38)	722624	72
C12	3.006	0.001	530629	208803	AK-102 (C10-C25)	17581751	1161
C14	3.419	-0.001	676159	341422	AK-103 (C25-C36)	582896	65
C16	3.785	0.001	722234	392131	OR.DIES (C10-C28)	17894917	1108
C18	4.183	0.003	475728	312451	OR.MOIL (C28-C40)	505963	57
C20	4.599	0.001	365087	264466	JET-A (C10-C18)	12918102	908
C22	4.954	0.000	152723	121521			
C24	5.251	0.001	65428	63468	MSPIRIT (Tol-C12)	2893852	183
C25	5.382	0.002	39773	43506			
C26	5.506	0.005	22471	26650			
C28	5.716	-0.004	6601	1177			
C32	6.160	-0.003	5024	1198			
C34	6.437	0.002	4641	4004			
Filter Peak	7.051	0.001	4058	1369	JP-4 (Tol-C14)	6418301	565
C36	6.781	0.000	4289	1112	CREOSOT (C8-C22)	17505022	2997
C38	7.228	-0.005	3939	2506			
C40	7.851	0.002	4021	1361	BUNKERC (C10-C38)	18266234	2297

Range Times: NW Diesel (3.055 - 5.299) NW Gas (1.756 - 3.055) NW M.Oil (5.299 - 7.283)
AK102 (2.470 - 5.330) AK103 (5.330 - 6.831) Jet A (2.470 - 4.230)

Surrogate	Area	Amount	%Rec
o-Terphenyl	658106	43.2	96.0
Triacontane	644084	42.3	94.1

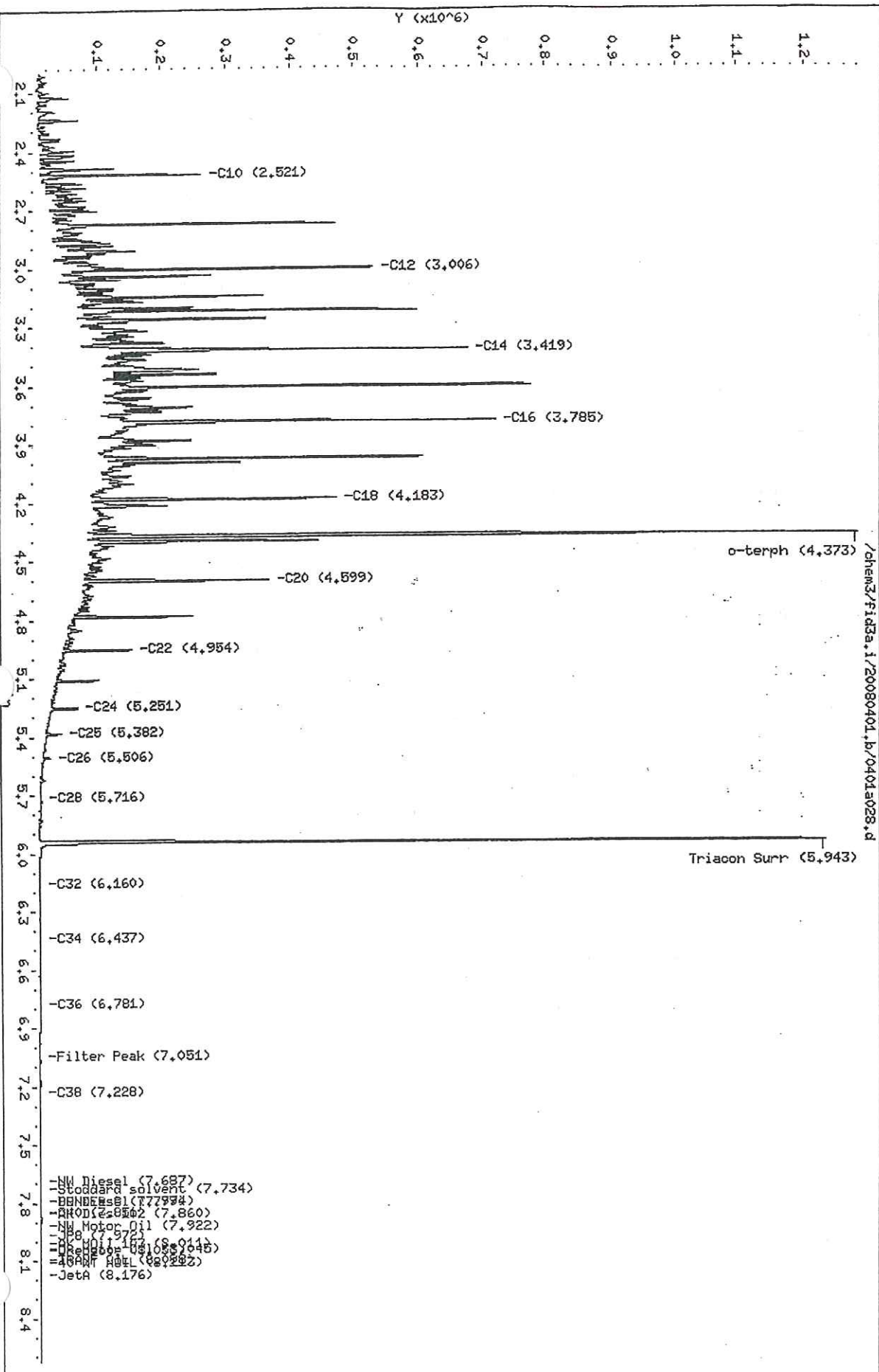
mo. 4/3/08

Analyte	RF	Curve Date
o-Terph Surr	15232.3	29-MAR-2008
Triacon Surr	15216.4	19-MAR-2008
Gas	18005.5	18-MAR-2008
Diesel	12483.8	29-MAR-2008
Motor Oil	10095.2	19-MAR-2008
AK102	15149.0	29-MAR-2008
AK103	8992.8	01-APR-2008
JP4	11362.0	05-FEB-2007
JetA	14224.8	03-NOV-2007
Min Spirit	15825.3	15-APR-2005
OR Diesel	16151.0	
OR M.Oil	8838.0	
Bunker C	7951.9	01-APR-2008
Creosote	5841.7	26-MAR-2008

Data File: /chems/fid3a.i/20080401.b/0401a028.d
 Date : 01-APR-2008 21:21
 Client ID:
 Sample Info: HD70LCSM1

Column phase: RTX-1

Instrument: fid3a.i
 Operator: JR
 Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20080401.b/0401a029.d
Method: /chem3/fid3a.i/20080401.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 04/03/2008
Macro: FID:3A040108

ARI ID: MO70LCSDW1
Client ID:
Injection: 01-APR-2008 21:36
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.808	0.003	25732	18739	GAS (Tol-C12)	2994223	166
C8	1.933	0.002	20173	13118	DIESEL (C12-C24)	15598558	1250
C10	2.520	0.000	269284	112656	M.OIL (C24-C38)	690860	68
C12	3.005	0.001	540317	211644	AK-102 (C10-C25)	18063855	1192
C14	3.419	-0.001	658969	345828	AK-103 (C25-C36)	564214	63
C16	3.784	0.000	743904	399521	OR.DIES (C10-C28)	18367659	1137
C18	4.182	0.002	447705	354501	OR.MOIL (C28-C40)	466846	53
C20	4.598	0.000	365830	254757	JET-A (C10-C18)	13250617	932
C22	4.953	-0.001	150754	121688			
C24	5.253	0.004	66929	52147	MSPIRIT (Tol-C12)	2994223	189
C25	5.387	0.007	39273	45178			
C26	5.495	-0.005	11706	7579			
C28	5.713	-0.006	7237	8863			
C32	6.165	0.002	4738	3003			
C34	6.441	0.006	4183	2083			
Filter Peak	7.045	-0.004	3751	2314	JP-4 (Tol-C14)	6526346	574
C36	6.786	0.005	3777	2338	CREOSOT (C8-C22)	17944621	3072
C38	7.235	0.002	3754	2095			
C40	7.844	-0.005	3665	2555	BUNKERC (C10-C38)	18712957	2353

Range Times: NW Diesel(3.055 - 5.299) NW Gas(1.756 - 3.055) NW M.Oil(5.299 - 7.283)
AK102(2.470 - 5.330) AK103(5.330 - 6.831) Jet A(2.470 - 4.230)

Surrogate	Area	Amount	%Rec
o-Terphenyl	686142	45.0	100.1
Triacontane	662869	43.6	96.8

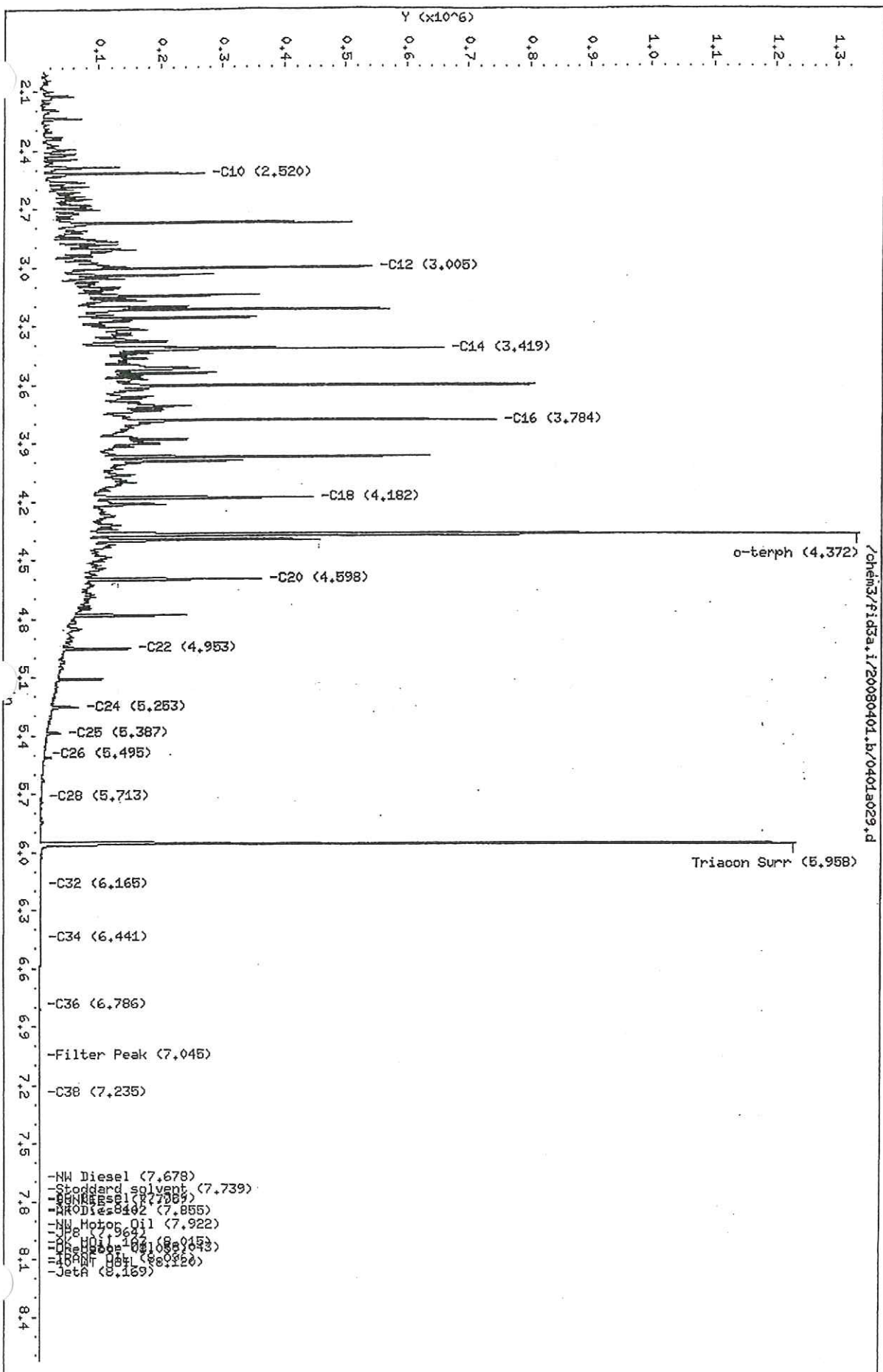
mo. 4/3/08

Analyte	RF	Curve Date
o-Terph Surr	15232.3	29-MAR-2008
Triacon Surr	15216.4	19-MAR-2008
Gas	18005.5	18-MAR-2008
Diesel	12483.8	29-MAR-2008
Motor Oil	10095.2	19-MAR-2008
AK102	15149.0	29-MAR-2008
AK103	8992.8	01-APR-2008
JP4	11362.0	05-FEB-2007
JetA	14224.8	03-NOV-2007
Min Spirit	15825.3	15-APR-2005
OR Diesel	16151.0	
OR M.Oil	8838.0	
Bunker C	7951.9	01-APR-2008
Creosote	5841.7	26-MAR-2008

Data File: /chem3/fid3a.i/20080401.b/0401a029.d
Date: 01-APR-2008 21:36
Client ID:
Sample Info: MOTOLOCSM1

Column phase: RTX-1

Instrument: fid3a.i
Operator: JR
Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20080401.b/0401a032.d
Method: /chem3/fid3a.i/20080401.b/ftphfid3a.m
Instrument: fid3a.i
Operator: JR
Report Date: 04/03/2008
Macro: FID:3A040108

ARI ID: MP07A
Client ID:
Injection: 01-APR-2008 22:22
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.807	0.002	12575	11254	GAS (Tol-C12)	233153	13
C8	1.919	-0.012	11716	11185	DIESEL (C12-C24)	160481	13
C10	2.520	0.000	2657	2305	M.OIL (C24-C38)	443935	44
C12	3.003	-0.002	1536	825	AK-102 (C10-C25)	223873	15
C14	3.419	0.000	1200	1016	AK-103 (C25-C36)	338655	38
C16	3.779	-0.005	1558	1292	OR.DIES (C10-C28)	309459	19
C18	4.184	0.004	693	95	OR.MOIL (C28-C40)	477766	54
C20	4.594	-0.003	1211	335	JET-A (C10-C18)	136497	10
C22	4.953	-0.001	1444	340			
C24	5.254	0.005	2255	2109	MSPRIT (Tol-C12)	233153	15
C25	5.378	-0.001	2469	734			
C26	5.498	-0.002	2704	429			
C28	5.723	0.004	4181	1999			
C32	6.162	-0.001	5220	4719			
C34	6.426	-0.009	4511	3135			
Filter Peak	7.052	0.003	3798	2496	JP-4 (Tol-C14)	264659	23
C36	6.774	-0.007	4000	2469	CREOSOT (C8-C22)	321644	55
C38	7.235	0.002	3739	1266			
C40	7.852	0.004	3579	1993	BUNKERC (C10-C38)	664102	84

Range Times: NW Diesel (3.055 - 5.299) NW Gas (1.756 - 3.055) NW M.Oil (5.299 - 7.283)
AK102 (2.470 - 5.330) AK103 (5.330 - 6.831) Jet A (2.470 - 4.230)

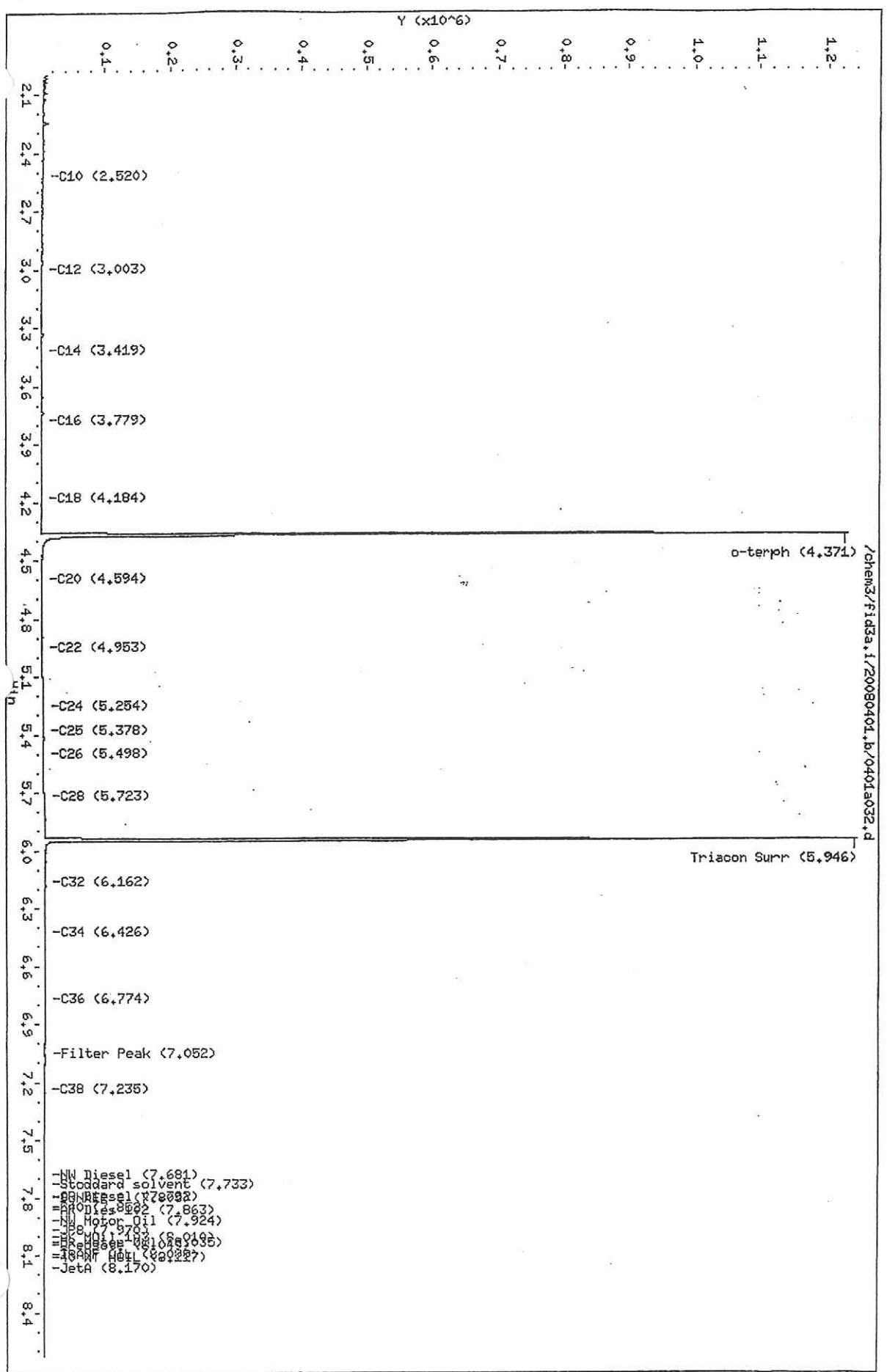
Surrogate	Area	Amount	%Rec
o-Terphenyl	669623	44.0	97.7
Triacontane	665969	43.8	97.3

m2 4/3/08

Analyte	RF	Curve Date
o-Terph Surr	15232.3	29-MAR-2008
Triacon Surr	15216.4	19-MAR-2008
Gas	18005.5	18-MAR-2008
Diesel	12483.8	29-MAR-2008
Motor Oil	10095.2	19-MAR-2008
AK102	15149.0	29-MAR-2008
AK103	8992.8	01-APR-2008
JP4	11362.0	05-FEB-2007
JetA	14224.8	03-NOV-2007
Min Spirit	15825.3	15-APR-2005
OR Diesel	16151.0	
OR M.Oil	8838.0	
Bunker C	7951.9	01-APR-2008
Creosote	5841.7	26-MAR-2008


Data File: /chem3/fid3a.1/20080401.b/0401a032.d
 Date: 01-APR-2008 22:22
 Client ID:
 Sample Info: HP07A
 Column phase: RTX-1

Instrument: fid3a.1
 Operator: JR
 Column diameter: 0.25



METHOD BLANK RESULTS-CONVENTIONALS
MP07-Parametrix, Inc.




Matrix: Water
Data Release Authorized: 
Reported: 04/08/08

Project: Yakima Resources
Event: 555-5753-001
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	Blank
Total Dissolved Solids	EPA 160.1	03/26/08	mg/L	< 5.0 U
Chloride	EPA 325.2	03/31/08	mg/L	< 1.0 U
N-Ammonia	EPA 350.1M	03/28/08	mg-N/L	< 0.010 U
N-Nitrite	EPA 353.2	03/26/08	mg-N/L	< 0.010 U
Nitrate + Nitrite	EPA 353.2	03/26/08	mg-N/L	< 0.010 U
Sulfate	EPA 375.2	04/02/08	mg/L	< 2.0 U
Total Organic Carbon	EPA 415.1	03/31/08	mg/L	< 1.50 U

SAMPLE RESULTS-CONVENTIONALS
MP07-Parametrix, Inc.



Matrix: Water
Data Release Authorized: 
Reported: 04/08/08

Project: Yakima Resources
Event: 555-5753-001
Date Sampled: 03/25/08
Date Received: 03/26/08

Client ID: MW-9A
ARI ID: 08-6153 MP07A

Analyte	Date Batch	Method	Units	RL	Sample
pH	03/26/08 032608#2	EPA 150.1	std units	0.01	6.77
Alkalinity	04/03/08 040308#2	SM 2320	mg/L CaCO3	1.0	127
Total Dissolved Solids	03/26/08 032608#1	EPA 160.1	mg/L	5.0	210
Chloride	03/31/08 033108#1	EPA 325.2	mg/L	5.0	15.6
N-Ammonia	03/28/08 032808#1	EPA 350.1M	mg-N/L	0.010	0.038
N-Nitrate	03/26/08	Calculated	mg-N/L	0.020	1.41
N-Nitrite	03/26/08 032608#2	EPA 353.2	mg-N/L	0.010	0.223
Nitrate + Nitrite	03/26/08 032608#2	EPA 353.2	mg-N/L	0.020	1.63
Sulfate	04/02/08 040208#2	EPA 375.2	mg/L	10.0	17.9
Total Organic Carbon	03/31/08 033108#1	EPA 415.1	mg/L	1.50	< 1.50 U

RL Analytical reporting limit
U Undetected at reported detection limit

REPLICATE RESULTS-CONVENTIONALS
MP07-Parametrix, Inc.



Matrix: Water
Data Release Authorized
Reported: 04/08/08

A handwritten signature in black ink, appearing to be 'JG' or similar, written over the 'Data Release Authorized' text.

Project: Yakima Resources
Event: 555-5753-001
Date Sampled: 03/25/08
Date Received: 03/26/08

Analyte	Method	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: MP07A Client ID: MW-9A						
pH	EPA 150.1	03/26/08	std units	6.77	6.77	0.00
Alkalinity	SM 2320	04/03/08	mg/L CaCO3	127	125	1.6%
N-Ammonia	EPA 350.1M	03/28/08	mg-N/L	0.038	0.040	5.1%
Total Organic Carbon	EPA 415.1	03/31/08	mg/L	< 1.50	< 1.50	NA

pH is evaluated as the Absolute Difference between the values rather than Relative Percent Difference

MS/MSD RESULTS-CONVENTIONALS
MP07-Parametrix, Inc.




Matrix: Water
Data Release Authorized
Reported: 04/08/08

Project: Yakima Resources
Event: 555-5753-001
Date Sampled: 03/25/08
Date Received: 03/26/08

Analyte	Method	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: MP07A Client ID: MW-9A							
N-Ammonia	EPA 350.1M	03/28/08	mg-N/L	0.038	0.534	0.500	99.2%
Total Organic Carbon	EPA 415.1	03/31/08	mg/L	< 1.50	22.4	20.0	112.0%

LAB CONTROL RESULTS-CONVENTIONALS
MP07-Parametrix, Inc.



Matrix: Water
Data Release Authorized: 
Reported: 04/08/08


Project: Yakima Resources
Event: 555-5753-001
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	LCS	Spike Added	Recovery
pH	EPA 150.1	03/26/08	std units	6.99	7.00	0.01
Total Dissolved Solids	EPA 160.1	03/26/08	mg/L	476	500	95.2%

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

STANDARD REFERENCE RESULTS-CONVENTIONALS
MP07-Parametrix, Inc.




Matrix: Water
Data Release Authorized: 
Reported: 04/08/08

Project: Yakima Resources
Event: 555-5753-001
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Method	Date	Units	SRM	True Value	Recovery
Alkalinity ERA #P114506	SM 2320	04/03/08	mg/L CaCO3	28.1	27.7	101.4%
Chloride ERA #38084	EPA 325.2	03/31/08	mg/L	5.0	5.0	100.0%
N-Ammonia ERA #15125	EPA 350.1M	03/28/08	mg-N/L	0.466	0.500	93.2%
N-Nitrite ERA #23034	EPA 353.2	03/26/08	mg-N/L	0.530	0.500	106.0%
Nitrate + Nitrite ERA #20034	EPA 353.2	03/26/08	mg-N/L	0.527	0.500	105.4%
Sulfate ERA #37065	EPA 375.2	04/02/08	mg/L	26.8	25.0	107.2%
Total Organic Carbon SPEX #1-8JGB	EPA 415.1	03/31/08	mg/L	19.9	20.0	99.5%

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: MP07MB
LIMS ID: 08-6153
Matrix: Water
Data Release Authorized: 
Reported: 04/09/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	03/29/08	6010B	04/01/08	7440-38-2	Arsenic	0.05	0.05	U
3010A	03/29/08	6010B	04/01/08	7440-39-3	Barium	0.003	0.003	U
3010A	03/29/08	6010B	04/01/08	7440-43-9	Cadmium	0.002	0.002	U
3010A	03/29/08	6010B	04/01/08	7440-70-2	Calcium	0.05	0.05	U
3010A	03/29/08	6010B	04/01/08	7440-47-3	Chromium	0.005	0.005	U
3010A	03/29/08	6010B	04/01/08	7439-89-6	Iron	0.05	0.05	U
3010A	03/29/08	6010B	04/01/08	7439-92-1	Lead	0.02	0.02	U
3010A	03/29/08	6010B	04/01/08	7439-96-5	Manganese	0.001	0.001	U
7470A	03/29/08	7470A	04/08/08	7439-97-6	Mercury	0.0001	0.0001	U
3010A	03/29/08	6010B	04/01/08	7440-09-7	Potassium	0.5	0.5	U
3010A	03/29/08	6010B	04/01/08	7782-49-2	Selenium	0.05	0.05	U
3010A	03/29/08	6010B	04/01/08	7440-22-4	Silver	0.003	0.003	U
3010A	03/29/08	6010B	04/01/08	7440-23-5	Sodium	0.5	0.5	U

U-Analyte undetected at given RL
RL-Reporting Limit



INORGANICS ANALYSIS DATA SHEET
 TOTAL METALS
 Page 1 of 1

Sample ID: MW-9A
 SAMPLE

Lab Sample ID: MP07A
 LIMS ID: 08-6153
 Matrix: Water
 Data Release Authorized
 Reported: 04/09/08


QC Report No: MP07-Parametrix, Inc.
 Project: Yakima Resources
 555-5753-001
 Date Sampled: 03/25/08
 Date Received: 03/26/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	03/29/08	6010B	04/01/08	7440-38-2	Arsenic	0.05	0.05	U
3010A	03/29/08	6010B	04/01/08	7440-39-3	Barium	0.003	0.404	
3010A	03/29/08	6010B	04/01/08	7440-43-9	Cadmium	0.002	0.002	U
3010A	03/29/08	6010B	04/01/08	7440-70-2	Calcium	0.05	51.5	
3010A	03/29/08	6010B	04/01/08	7440-47-3	Chromium	0.005	0.278	
3010A	03/29/08	6010B	04/01/08	7439-89-6	Iron	0.05	96.8	
3010A	03/29/08	6010B	04/01/08	7439-92-1	Lead	0.02	0.02	U
3010A	03/29/08	6010B	04/01/08	7439-96-5	Manganese	0.001	3.24	
7470A	03/29/08	7470A	04/08/08	7439-97-6	Mercury	0.0001	0.0002	
3010A	03/29/08	6010B	04/01/08	7440-09-7	Potassium	0.5	10.3	
3010A	03/29/08	6010B	04/01/08	7782-49-2	Selenium	0.05	0.05	U
3010A	03/29/08	6010B	04/01/08	7440-22-4	Silver	0.003	0.003	U
3010A	03/29/08	6010B	04/01/08	7440-23-5	Sodium	0.5	21.1	

U-Analyte undetected at given RL
 RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: MW-9A
SAMPLE

Lab Sample ID: MP07B
LIMS ID: 08-6154
Matrix: Water
Data Release Authorized: 
Reported: 04/09/08


QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001
Date Sampled: 03/25/08
Date Received: 03/26/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	03/29/08	6010B	04/01/08	7440-38-2	Arsenic	0.05	0.05	U
3010A	03/29/08	6010B	04/01/08	7440-39-3	Barium	0.003	0.013	
3010A	03/29/08	6010B	04/01/08	7440-43-9	Cadmium	0.002	0.002	U
3010A	03/29/08	6010B	04/01/08	7440-70-2	Calcium	0.05	29.4	
3010A	03/29/08	6010B	04/01/08	7440-47-3	Chromium	0.005	0.005	U
3010A	03/29/08	6010B	04/01/08	7439-89-6	Iron	0.05	0.27	
3010A	03/29/08	6010B	04/01/08	7439-92-1	Lead	0.02	0.02	U
3010A	03/29/08	6010B	04/01/08	7439-96-5	Manganese	0.001	0.872	
7470A	03/29/08	7470A	04/08/08	7439-97-6	Mercury	0.0001	0.0001	U
3010A	03/29/08	6010B	04/01/08	7440-09-7	Potassium	0.5	4.4	
3010A	03/29/08	6010B	04/01/08	7782-49-2	Selenium	0.05	0.05	U
3010A	03/29/08	6010B	04/01/08	7440-22-4	Silver	0.003	0.003	U
3010A	03/29/08	6010B	04/01/08	7440-23-5	Sodium	0.5	15.7	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: MP07LCS
LIMS ID: 08-6153
Matrix: Water
Data Release Authorized: 
Reported: 04/09/08

QC Report No: MP07-Parametrix, Inc.
Project: Yakima Resources
555-5753-001
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	2.08	2.00	104%	
Barium	6010B	1.96	2.00	98.0%	
Cadmium	6010B	0.510	0.500	102%	
Calcium	6010B	10.5	10.0	105%	
Chromium	6010B	0.500	0.500	100%	
Iron	6010B	2.17	2.00	108%	
Lead	6010B	2.09	2.00	104%	
Manganese	6010B	0.495	0.500	99.0%	
Mercury	7470A	0.0021	0.0020	105%	
Potassium	6010B	11.1	10.0	111%	
Selenium	6010B	2.09	2.00	104%	
Silver	6010B	0.490	0.500	98.0%	
Sodium	6010B	11.2	10.0	112%	

Reported in mg/L

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



Analytical Resources, Incorporated
Analytical Chemists and Consultants

14 August 2008

Annika Deutsch
Parametrix, Inc.
411 108th Avenue NE
Suite 1800
Bellevue, WA 98004-5571

RE: Project: Yakima Resources
ARI Job No. NK40

Dear Annika:

Please find enclosed the original Chain of Custody (COC) record and the final results for the samples from the project referenced above. Analytical Resources, Inc. received four water samples and one trip blank on August 13, 2008. The samples were analyzed for SIM vinyl chloride as requested.

There were no analytical complications noted.

As always, a copy of these reports and all raw data will remain on file at ARI. If you have questions, or require further information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Mark D. Harris
Mark D. Harris
Project Manager
206-695-6210
<markh@arilabs.com>


Enclosures

cc: File NK40

MDH/mdh

Chain of Custody Record & Laboratory Analysis Request

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



Page: _____ of _____
Date: _____
Ice Present? <input checked="" type="checkbox"/>
Cooler Temps: <u>4.4</u>
No. of Coolers: <u>1</u>

ARI Assigned Number: <u>NK60</u>	Turn-around Requested: _____
ARI Client Company: <u>Parametrix</u>	Phone: <u>(754) 458-6200</u>
Client Contact: <u>Annikka Deutch</u>	

Client Project Name: <u>Yokima Resources</u>
Client Project #: <u>555 5753001</u>
Samplers: <u>M. Willoughby</u>

Sample ID	Date	Time	Matrix	No. Containers
MW-7	8-13-08	0951	Water	3
MW-8		1104	↓	↓
MW-9A		1104	↓	↓
### MW-9A		↓	↓	↓

Comments/Special Instructions	Analysis Requested		Notes/Comments	
	Relinquished by: (Signature)	Printed Name:	Received by: (Signature)	Printed Name:
	<u>[Signature]</u>	<u>Mark Willoughby</u>	<u>[Signature]</u>	
	<u>Mark Willoughby</u>	<u>Parametrix</u>	<u>[Signature]</u>	
	<u>8-13-08 / 1550</u>		<u>[Signature]</u>	
	<u>8-13-08 / 1550</u>		<u>[Signature]</u>	

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

ARI Data Reporting Qualifiers

Effective 11/22/04

Inorganic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but \geq the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 1 RL instead of the normal 20% RPD

Organic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- NR Spiked compound recovery is not reported due to chromatographic interference
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte
- NA The flagged analyte was not analyzed for
- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte reporting limit is raised due to a positive chromatographic interference. The compound is not detected above the raised limit but may be present at or below the limit
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by $\geq 40\%$ RPD with no obvious chromatographic interference

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260 SIM Sample ID: MB-081308
Page 1 of 1 METHOD BLANK

Lab Sample ID: MB-081308
LIMS ID: 08-20418
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 08/14/08

QC Report No: NK40-Parametrix, Inc.
Project: YAKIMA RESOURCES
555 5753 001
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT7/JZ
Date Analyzed: 08/13/08 19:51

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

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

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

Volatile Surrogate Recovery

d4-1,2-Dichloroethane 106%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260 SIM Sample ID: MW-7
Page 1 of 1 **SAMPLE**

Lab Sample ID: NK40A QC Report No: NK40-Parametrix, Inc.
LIMS ID: 08-20418 Project: YAKIMA RESOURCES
Matrix: Water 555 5753 001
Data Release Authorized: Date Sampled: 08/13/08
Reported: 08/14/08 Date Received: 08/13/08

Instrument/Analyst: NT7/JZ Sample Amount: 10.0 mL
Date Analyzed: 08/13/08 21:31 Purge Volume: 10.0 mL

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

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

Volatile Surrogate Recovery

d4-1,2-Dichloroethane 112%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260 SIM Sample ID: MW-8
Page 1 of 1 SAMPLE

Lab Sample ID: NK40B

QC Report No: NK40-Parametrix, Inc.

LIMS ID: 08-20419

Project: YAKIMA RESOURCES

Matrix: Water

555 5753 001

Data Release Authorized:

Date Sampled: 08/13/08

Reported: 08/14/08

Date Received: 08/13/08

Instrument/Analyst: NT7/JZ

Sample Amount: 10.0 mL

Date Analyzed: 08/13/08 21:55

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.020	0.027	

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

Volatile Surrogate Recovery

d4-1,2-Dichloroethane 105%



ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260 SIM Sample ID: MW-8A
Page 1 of 1 SAMPLE

Lab Sample ID: NK40C QC Report No: NK40-Parametrix, Inc.
LIMS ID: 08-20420 Project: YAKIMA RESOURCES
Matrix: Water 555 5753 001
Data Release Authorized: *B* Date Sampled: 08/13/08
Reported: 08/14/08 Date Received: 08/13/08

Instrument/Analyst: NT7/JZ Sample Amount: 10.0 mL
Date Analyzed: 08/13/08 22:20 Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.020	0.028	

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

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	106%
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ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260 SIM Sample ID: MW-9A
Page 1 of 1 **SAMPLE**

Lab Sample ID: NK40D

QC Report No: NK40-Parametrix, Inc.

LIMS ID: 08-20421

Project: YAKIMA RESOURCES

Matrix: Water

555 5753 001

Data Release Authorized: *[Signature]*

Date Sampled: 08/13/08

Reported: 08/14/08

Date Received: 08/13/08

Instrument/Analyst: NT7/JZ

Sample Amount: 10.0 mL

Date Analyzed: 08/13/08 22:45

Purge Volume: 10.0 mL

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

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

Volatile Surrogate Recovery

d4-1,2-Dichloroethane 108%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260 SIM Sample ID: TRIP BLANK
Page 1 of 1 SAMPLE

Lab Sample ID: NK40E

LIMS ID: 08-20422

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 08/14/08

QC Report No: NK40-Parametrix, Inc.

Project: YAKIMA RESOURCES

555 5753 001

Date Sampled: 08/13/08

Date Received: 08/13/08

Instrument/Analyst: NT7/JZ

Date Analyzed: 08/13/08 20:16

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

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

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

Volatile Surrogate Recovery

d4-1,2-Dichloroethane 114%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260 SIM Sample ID: LCS-081308
Page 1 of 1 LAB CONTROL SAMPLE

Lab Sample ID: LCS-081308
LIMS ID: 08-20418
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 08/14/08

QC Report No: NK40-Parametrix, Inc.
Project: YAKIMA RESOURCES
555 5753 001
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT7/JZ
LCSD: NT7/JZ
Date Analyzed LCS: 08/13/08 19:00
LCSD: 08/13/08 19:25

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

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Vinyl Chloride	0.870	1.00	87.0%	0.950	1.00	95.0%	8.8%

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

RPD calculated using sample concentrations per SW846.


Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	107%	106%

Parametrix, Inc.

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 **BORING/WELL NUMBER** TP-7
PROJECT NAME Former Boise Cascade Mill Site **DATE COMPLETED** February 26, 2008
LOCATION Yakima, WA **TOTAL DEPTH OF BORING** 4.0
COORDINATES _____ **INITIAL WATER LEVEL** ∇
DRILLING METHOD Backhoe **STATIC WATER LEVEL** ∇
SAMPLING METHOD _____ **LOGGED BY** Deutsch/Saul
GROUND ELEVATION _____ **TOP OF CASING ELEVATION** _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
					5			WOOD DEBRIS AND SILTY SAND fill, dark reddish brown, fine- to medium-coarse sand, dry, loose SILTY GRAVELLY SAND (SW) fill, very dark gray, fine to coarse sub-rounded gravel, fine- to coarse-grained sand, moist, dense @ 3 feet: Hit a 2" water line, no sheen on water Bottom of Test Pit @ 4 feet	5	
					10				10	
					15				15	
					20				20	
					25				25	
					30				30	
					35				35	

BWC YAKIMA RESOURCES LOGS.GPJ 6/5/08

APPENDIX E

Methane Calibration Record

APPENDIX F

Summary of Groundwater Data

Table F-1. Former Boise Cascade Mill Site 2008 Groundwater and Surface Water Data

PARAMETERS	Units	Analytical Method	Groundwater Regulatory Standards				MW-7	MW-7D	MW-8	MW-8D****	MW-9A	TRIP BLANK	TRIP BLANK	TRIP BLANK
			MCL	MTCA A	MTCA B carcin.	non-carc.	02/06/08	02/06/08	02/06/08	8/13/2008	03/25/08	02/05/08	03/25/08	08/13/08
4-Chloroaniline	µg/L	SW8270D				32	5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
Hexachlorobutadiene	µg/L	SW8270D			0.56	1.6	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
4-Chloro-3-methylphenol	µg/L	SW8270D					5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
2-Methylnaphthalene	µg/L	SW8270D					1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Hexachlorocyclopentadiene	µg/L	SW8270D	50			48	5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
2,4,6-Trichlorophenol	µg/L	SW8270D			4		5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
2,4,5-Trichlorophenol	µg/L	SW8270D				800	5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
2-Chloronaphthalene	µg/L	SW8270D					1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
2-Nitroaniline	µg/L	SW8270D					5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
Dimethylphthalate	µg/L	SW8270D				16000	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Acenaphthylene	µg/L	SW8270D					1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
3-Nitroaniline	µg/L	SW8270D					5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
Acenaphthene	µg/L	SW8270D				960	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
2,4-Dinitrophenol	µg/L	SW8270D				32	10 U	10 U	10 U	--	10 U	--	--	--
4-Nitrophenol	µg/L	SW8270D					5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
Dibenzofuran	µg/L	SW8270D				32	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
2,6-Dinitrotoluene	µg/L	SW8270D				16	5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
2,4-Dinitrotoluene	µg/L	SW8270D				32	5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
Diethylphthalate	µg/L	SW8270D				13000	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
4-Chlorophenyl-phenylether	µg/L	SW8270D					1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Fluorene	µg/L	SW8270D				640	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
4-Nitroaniline	µg/L	SW8270D					5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
4,6-Dinitro-2-Methylphenol	µg/L	SW8270D					10 U	10 U	10 U	--	10 U	--	--	--
N-Nitrosodiphenylamine	µg/L	SW8270D			29000		1.6	1.5	1.0 U	--	1.0 U	--	--	--
4-Bromophenyl-phenylether	µg/L	SW8270D					1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Hexachlorobenzene	µg/L	SW8270D	1		0.055	13	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Pentachlorophenol	µg/L	SW8270D	1		0.73	480	5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
Phenanthrene	µg/L	SW8270D					1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Carbazole	µg/L	SW8270D			4.4		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Anthracene	µg/L	SW8270D				4800	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Di-n-Butylphthalate	µg/L	SW8270D					1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Fluoranthene	µg/L	SW8270D				640	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Pyrene	µg/L	SW8270D				480	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Butylbenzylphthalate	µg/L	SW8270D				3200	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
3,3'-Dichlorobenzidine	µg/L	SW8270D			0.19		5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
Benzo(a)anthracene	µg/L	SW8270D			0.012		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
bis(2-Ethylhexyl)phthalate	µg/L	SW8270D	6		6.3	320	1.0 U	1.0 U	1.0 U	--	1.5	--	--	--
Chrysene	µg/L	SW8270D			0.012		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Di-n-Octyl phthalate	µg/L	SW8270D				320	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Benzo(b)fluoranthene	µg/L	SW8270D			0.012		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Benzo(k)fluoranthene	µg/L	SW8270D			0.012		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Benzo(a)pyrene	µg/L	SW8270D	0.2	0.1	0.012		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	SW8270D			0.012		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Dibenz(a,h)anthracene	µg/L	SW8270D				32	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Benzo(g,h,i)perylene	µg/L	SW8270D					1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
1-Methylnaphthalene	µg/L	SW8270D					1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--

NOTES: J = Approximate Value
 ** = Secondary MCL
 *** = Chromium Standards based on Chromium VI
 *TH = Primary MCL for the sum of all trihalomethanes
 *XY = Primary MCL for the sum of all xylenes
 Bold = For volatiles and semivolatiles only, marks a detection
 = Exceeds one or more MTCA and/or MCL standards
 * = Second set of vinyl chloride data sampled 8/13/08.
 **** = Lab data and COC identify MW-8 field duplicate as MW-8A.

Table F-1. Former Boise Cascade Mill Site 2008 Groundwater and Surface Water Data

PARAMETERS	Units	Analytical Method	Groundwater Regulatory Standards				MW-7 02/06/08	MW-7D 02/06/08	MW-8 02/06/08	MW-8D**** 8/13/2008	MW-9A 03/25/08	TRIP BLANK 02/05/08	TRIP BLANK 03/25/08	TRIP BLANK 08/13/08
			MCL	MTCA A	MTCA B carcin.	non-carc.								
1,2-Dichloroethane	µg/L	SW8260	5	5	0.481	160	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
2-Butanone	µg/L	SW8260				7200	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	--	
1,1,1-Trichloroethane	µg/L	SW8260	200	200		5.6	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Carbon Tetrachloride	µg/L	SW8260	5		0.337	8000	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Vinyl Acetate	µg/L	SW8260				160	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	--	
Bromodichloromethane	µg/L	SW8260	100	*TH	0.706		1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,2-Dichloropropane	µg/L	SW8260			0.643		1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
cis-1,3-Dichloropropene	µg/L	SW8260			0.24	240	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Trichloroethene	µg/L	SW8260	5	5	0.11	2.4	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Dibromochloromethane	µg/L	SW8260			0.521	160	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,1,2-Trichloroethane	µg/L	SW8260	5		0.768	32	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Benzene	µg/L	SW8260	5	5	0.795	32	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
trans-1,3-Dichloropropene	µg/L	SW8260			0.24	240	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
2-Chloroethylvinylether	µg/L	SW8260					--	--	--	5.0 U	--	5.0 U	--	
Bromoform	µg/L	SW8260	100	*TH	5.54	160	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
4-Methyl-2-Pentanone (MIBK)	µg/L	SW8260					5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	--	
2-Hexanone	µg/L	SW8260					5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	--	
Tetrachloroethene	µg/L	SW8260	5	5	0.081	80	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,1,2,2-Tetrachloroethane	µg/L	SW8260			0.219		1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Toluene	µg/L	SW8260	1000	1000		640	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Chlorobenzene	µg/L	SW8260				160	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Ethylbenzene	µg/L	SW8260	700	700		800	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Styrene	µg/L	SW8260	100		1.46	1600	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Trichlorofluoromethane	µg/L	SW8260				2400	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
m,p-Xylene	µg/L	SW8260	10000	*XY	1000	*XY	1600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
o-Xylene	µg/L	SW8260	10000	*XY	1000	*XY	1600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,2-Dichlorobenzene	µg/L	SW8260				720	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,4-Dichlorobenzene	µg/L	SW8260			1.8		1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Methyl Iodide	µg/L	SW8260				8	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	--	
Acrylonitrile	µg/L	SW8260			0.081		1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Dibromomethane	µg/L	SW8260				240	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,1,1,2-Tetrachloroethane	µg/L	SW8260			1.7		5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	--	
1,2-Dibromo-3-chloropropane	µg/L	SW8260			0.031		2.0 U	2.0 U	2.0 U	--	2.0 U	2.0 U	--	
1,2,3-Trichloropropane	µg/L	SW8260			0.0063	48	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	--	
trans-1,4-Dichloro-2-butene	µg/L	SW8260					1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Ethylene Dibromide	µg/L	SW8260	0.05	0.01	0.000515		1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Bromochloromethane	µg/L	SW8260				24	0.060	0.063	0.034	--	--	--	--	
Vinyl Chloride	µg/L	SW8260 SIM	2	0.2	0.0292	24	0.020	--	0.027	0.028	0.020	--	0.020	U
Vinyl Chloride*	µg/L	SW8260 SIM	2	0.2	0.0292	24								
POLYCHLORINATED BIPHENYLS														
Aroclor 1016	µg/L	SW8082	0.5	0.1	0.044		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Aroclor 1242	µg/L	SW8082	0.5	0.1	0.044		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Aroclor 1248	µg/L	SW8082	0.5	0.1	0.044		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Aroclor 1254	µg/L	SW8082	0.5	0.1	0.044		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Aroclor 1260	µg/L	SW8082	0.5	0.1	0.044		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Aroclor 1221	µg/L	SW8082	0.5	0.1	0.044		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Aroclor 1232	µg/L	SW8082	0.5	0.1	0.044		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
SEMIVOLATILE ORGANICS														
Phenol	µg/L	SW8270D				4800	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Bis-(2-Chloroethyl) Ether	µg/L	SW8270D			0.04		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
2-Chlorophenol	µg/L	SW8270D				40	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
1,3-Dichlorobenzene	µg/L	SW8270D					1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
1,4-Dichlorobenzene	µg/L	SW8270D	75		1.8		1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Benzyl Alcohol	µg/L	SW8270D				2400	5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
1,2-Dichlorobenzene	µg/L	SW8270D	600			720	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
2-Methylphenol	µg/L	SW8270D					1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
2,2'-Oxybis(1-Chloropropane)	µg/L	SW8270D					1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
4-Methylphenol	µg/L	SW8270D					1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
N-Nitroso-Di-N-Propylamine	µg/L	SW8270D					5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
Hexachloroethane	µg/L	SW8270D			3.1	8	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Nitrobenzene	µg/L	SW8270D				4	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Isophorone	µg/L	SW8270D			46	1600	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
2-Nitrophenol	µg/L	SW8270D					5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
2,4-Dimethylphenol	µg/L	SW8270D				160	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Benzoic Acid	µg/L	SW8270D				64000	10 U	10 U	10 U	--	10 U	--	--	--
bis(2-Chloroethoxy) Methane	µg/L	SW8270D					1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
2,4-Dichlorophenol	µg/L	SW8270D				24	5.0 U	5.0 U	5.0 U	--	5.0 U	--	--	--
1,2,4-Trichlorobenzene	µg/L	SW8270D				80	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--
Naphthalene	µg/L	SW8270D		160		160	1.0 U	1.0 U	1.0 U	--	1.0 U	--	--	--

Table F-1. Former Boise Cascade Mill Site 2008 Groundwater and Surface Water Data

PARAMETERS	Units	Analytical Method	Groundwater Regulatory Standards				MW-7 02/06/08	MW-7D 02/06/08	MW-8 02/06/08	MW-8D**** 8/13/2008	MW-9A 03/25/08	TRIP BLANK 02/05/08	TRIP BLANK 03/25/08	TRIP BLANK 08/13/08
			MCL	MTCA A	MTCA B carcin.	non-carc.								
FIELD DATA														
Conductivity	µmhos/cm		700	**										
pH (units)	std units		6.5-8.5	**										
Temperature (C)	Celsius					15.77	--	15.23	--	14.70	--	--	--	--
Dissolved Oxygen (mg/L)	mg/L					0.9	--	3.61	--	3.12	--	--	--	--
TOTAL PETROLEUM HYDROCARBONS														
Diesel Range Hydrocarbons	mg/L	NWTPH-Dx			0.5	0.25	U	0.25	U	0.25	U	--	--	--
Motor Oil	mg/L	NWTPH-Dx			0.5	0.50	U	0.50	U	0.50	U	--	--	--
Gasoline Range Hydrocarbons	mg/L	NWTPH-Gx			1	0.25	U	0.25	U	0.25	U	0.25	U	0.25
Benzene	µg/L	SW8021BMod	5		5	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Toluene	µg/L	SW8021BMod	1000		1000	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Ethylbenzene	µg/L	SW8021BMod	700		700	1.0	U	1.0	U	1.0	U	1.0	U	1.0
m,p-Xylene	µg/L	SW8021BMod	10000	*XY	1000	*XY		1600		1.0	U	1.0	U	1.0
o-Xylene	µg/L	SW8021BMod	10000	*XY	1000	*XY		1600		1.0	U	1.0	U	1.0
CONVENTIONALS														
pH	std units	EPA 150.1	6.5-8.5	**		6.49		6.50		6.76		--	--	--
Alkalinity	mg/L CaCO3	SM 2320				274		274		306		--	--	--
Carbonate	mg/L CaCO3	SM 2320				1.0	U	1.0	U	1.0	U	--	--	--
Bicarbonate	mg/L CaCO3	SM 2320				274		274		306		--	--	--
Total Dissolved Solids	mg/L	EPA 160.1	500	**		336		318		333		--	--	--
Hydroxide	mg/L CaCO3	SM 2320				1.0	U	1.0	U	1.0	U	--	--	--
Chloride	mg/L	EPA 325.2	250	**		19.4		19.0		32.8		--	--	--
N-Ammonia	mg-N/L	EPA 350.1M				6.35		6.18		21.2		--	--	--
N-Nitrate	mg-N/L	Calculated	10			0.050	U	0.050	U	0.196		--	--	--
N-Nitrite	mg-N/L	EPA 353.2	1			0.050	U	0.050	U	0.019		--	--	--
Nitrate + Nitrite	mg-N/L	EPA 353.2				0.050	U	0.050	U	0.215		--	--	--
Sulfate	mg/L	EPA 375.2	250	**		5.5		5.5		5.6		--	--	--
Total Organic Carbon	mg/L	EPA 415.1				6.51		6.47		8.77		--	--	--
TOTAL METALS														
Arsenic	mg/L	SW6010B-Total	0.01		0.005	0.000058	0.0048	0.05	U	0.05	U	--	--	--
Barium	mg/L	SW6010B-Total	2				3.2	0.062	U	0.064	U	0.068	--	0.404
Cadmium	mg/L	SW6010B-Total	0.005		0.005		0.008	0.002	U	0.002	U	0.002	U	0.002
Calcium	mg/L	SW6010B-Total					43.3	45.5		37.2		--	--	51.5
Chromium	mg/L	SW6010B-Total	0.1	***	0.05		0.048	0.005	U	0.005	U	0.005	U	0.278
Iron	mg/L	SW6010B-Total	0.3	**			33.6	35.1		11.5		--	--	96.8
Lead	mg/L	SW6010B-Total	0.015		0.015		0.02	0.02	U	0.02	U	--	--	0.02
Manganese	mg/L	SW6010B-Total	0.05	**			2.2	2.26		2.24		--	--	3.24
Mercury	mg/L	SW7470A-Total	0.002		0.002	0.0048	0.0001	0.0001	U	0.0001	U	0.0001	U	0.0002
Potassium	mg/L	SW6010B-Total					10.3	10.7		29.0		--	--	10.3
Selenium	mg/L	SW6010B-Total	0.05				0.05	0.05	U	0.05	U	--	--	0.05
Silver	mg/L	SW6010B-Total					0.003	0.003	U	0.003	U	--	--	0.003
Sodium	mg/L	SW6010B-Total					20.5	21.2		32.5		--	--	21.1
DISSOLVED METALS														
Arsenic	mg/L	SW6010B-Diss	0.01		0.005	0.000058	0.0048	0.05	U	0.05	U	--	--	0.05
Barium	mg/L	SW6010B-Diss	2				3.2	0.069	U	0.071	U	0.072	--	0.013
Cadmium	mg/L	SW6010B-Diss	0.005		0.005		0.008	0.002	U	0.002	U	0.002	U	0.002
Calcium	mg/L	SW6010B-Diss					48.1	48.5		39.1		--	--	29.4
Chromium	mg/L	SW6010B-Diss	0.1	***	0.05		0.048	0.005	U	0.005	U	0.005	U	0.005
Iron	mg/L	SW6010B-Diss	0.3	**			37.5	37.7		12.2		--	--	0.27
Lead	mg/L	SW6010B-Diss	0.015		0.015		0.02	0.02	U	0.02	U	--	--	0.02
Manganese	mg/L	SW6010B-Diss	0.05	**			2.2	2.52		2.53		--	--	0.872
Mercury	mg/L	SW7470A-Diss	0.002		0.002	0.0048	0.0001	0.0001	U	0.0001	U	0.0001	U	0.0001
Potassium	mg/L	SW6010B-Diss					11.4	11.3		29.9		--	--	4.4
Selenium	mg/L	SW6010B-Diss	0.05				0.05	0.05	U	0.05	U	--	--	0.05
Silver	mg/L	SW6010B-Diss					0.003	0.003	U	0.003	U	--	--	0.003
Sodium	mg/L	SW6010B-Diss					22.9	22.9		33.8		--	--	15.7
VOLATILE ORGANICS														
Chloromethane	µg/L	SW8260			3.37		1.0	1.0	U	1.0	U	1.0	U	1.0
Bromomethane	µg/L	SW8260					11.2	1.0	U	1.0	U	1.0	U	1.0
Vinyl Chloride	µg/L	SW8260	2		0.2	0.0292	24	1.0	U	1.0	U	1.0	U	1.0
Chloroethane	µg/L	SW8260					1.0	1.0	U	1.0	U	1.0	U	1.0
Methylene Chloride	µg/L	SW8260			5		2.0	2.0	U	2.0	U	2.0	U	2.0
Acetone	µg/L	SW8260					800	5.0	U	5.0	U	5.0	U	5.0
Carbon Disulfide	µg/L	SW8260					800	1.0	U	1.0	U	1.0	U	1.0
1,1-Dichloroethene	µg/L	SW8260	7				400	1.0	U	1.0	U	1.0	U	1.0
1,1-Dichloroethane	µg/L	SW8260					800	1.0	U	1.0	U	1.0	U	1.0
trans-1,2-Dichloroethene	µg/L	SW8260					160	1.0	U	1.0	U	1.0	U	1.0
cis-1,2-Dichloroethene	µg/L	SW8260					80	1.0	U	1.0	U	1.0	U	1.0
Chloroform	µg/L	SW8260	100	*TH	7.17		80	1.0	U	1.0	U	1.0	U	1.0

APPENDIX G

Laboratory Data and Chain-of-Custody

Parametrix, Inc.

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 **BORING/WELL NUMBER** GP-1
PROJECT NAME Former Boise Cascade Mill Site **DATE COMPLETED** February 25, 2008
LOCATION Yakima, WA **TOTAL DEPTH OF BORING** 15.0
COORDINATES _____ **INITIAL WATER LEVEL** ∇
DRILLING METHOD Backhoe **STATIC WATER LEVEL** ∇
SAMPLING METHOD _____ **LOGGED BY** Deutsch/Saul
GROUND ELEVATION _____ **TOP OF CASING ELEVATION** _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
								WOOD DEBRIS fill, grayish brown, bark with silt, dry, loose		
					5			SILTY SAND (SM) with cobbles and wood debris fill, dark gray, fine- to medium-grained sand, moist (capillary saturation), medium dense	5	
								SANDY SILT (ML) fill, dark gray, medium plasticity, fine-grained micaceous sand, wet, medium stiff		
								WOOD DEBRIS fill, red, possible pond settle out, pinches out to the north		
					10	GP		SILTY SAND COBBLES (GP), dark gray, fine- to medium-grained sand, trace fine subrounded gravel, moist, dense	10	
					15			Bottom of boring @ 15 feet Boring converted to 3/4" gas probe	15	
					20				20	
					25				25	
					30				30	
					35				35	

BMC YAKIMA RESOURCES LOGS.GPJ 6/5/08

Parametrix, Inc.




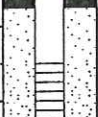
BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 BORING/WELL NUMBER GP-2
 PROJECT NAME Former Boise Cascade Mill Site DATE COMPLETED February 26, 2008
 LOCATION Yakima, WA TOTAL DEPTH OF BORING 9.0
 COORDINATES _____ INITIAL WATER LEVEL ∇ 9.0
 DRILLING METHOD Backhoe STATIC WATER LEVEL ∇ 8.5
 SAMPLING METHOD _____ LOGGED BY Deutsch/Saul
 GROUND ELEVATION _____ TOP OF CASING ELEVATION _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
					0			SILTY GRAVELLY SAND (SW) fill, very dark gray, fine- to coarse-grained sand, damp, medium dense		
					5			GRAVELLY SAND (SW) fill, very dark gray, fine- to coarse-grained sand, fine to coarse subrounded gravel to subrounded cobbles, moist, medium dense @ 3 feet: Hit Cable Line @ 4.5 feet: Concrete debris and brick		
					10			@ 8.5 feet: Wet Bottom of boring @ 9 feet Boring converted to 3/4" gas probe		
					15					
					20					
					25					
					30					
					35					

BMC YAKIMA RESOURCES LOGS.GPJ 6/5/08

PROJECT NUMBER 555-5753-001 **BORING/WELL NUMBER** GP-3
PROJECT NAME Former Boise Cascade Mill Site **DATE COMPLETED** March 3, 2008
LOCATION Yakima, WA **TOTAL DEPTH OF BORING** 15.0
COORDINATES _____ **INITIAL WATER LEVEL** ▽ 12.0
DRILLING METHOD Sonic **STATIC WATER LEVEL** ▽
SAMPLING METHOD _____ **LOGGED BY** Deutsch/Saul
GROUND ELEVATION _____ **TOP OF CASING ELEVATION** _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
								ASPHALT		
						GW		SILTY SANDY GRAVEL (GW), dark gray, 40% fine to coarse gravel, 35% fine- to coarse-grained sand, 25% silt, damp, dense		
					5	SM		SILTY SAND (SM), dark gray, fine- to coarse-grained sand, moist, dense	5	
			GRAB G GP-3-12							
					15			Bottom of boring @ 15 feet Boring converted to 3/4" gas probe	15	
					20				20	
					25				25	
					30				30	
					35				35	

BORING/WELL CONSTRUCTION LOG


PROJECT NUMBER 555-5753-001 **BORING/WELL NUMBER** MW-9A
PROJECT NAME Former Boise Cascade Mill Site **DATE COMPLETED** March 4, 2008
LOCATION Yakima, WA **TOTAL DEPTH OF BORING** 30.0
COORDINATES _____ **INITIAL WATER LEVEL** ▽ 18.0
DRILLING METHOD Sonic **STATIC WATER LEVEL** ▽
SAMPLING METHOD _____ **LOGGED BY** Deutsch/Saul
GROUND ELEVATION _____ **TOP OF CASING ELEVATION** _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
					5	GP		ASPHALT SILTY SANDY GRAVEL (GP), grayish brown, subrounded fine to coarse gravels fine- to coarse-grained sand, damp, medium dense	5	
					10				10	
					15			@ 13 feet: Becomes moist	15	
					20			@ 17 feet: Becomes saturated	20	
					25				25	
					30			@ 28 feet: Becomes wet	30	
					35			Bottom of Boring @ 30 feet Converted into 1" monitoring well	35	

BWC YAKIMA RESOURCES LOGS.GPJ 6/5/08


BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 BORING/WELL NUMBER TP-1A
 PROJECT NAME Former Boise Cascade Mill Site DATE COMPLETED February 25, 2008
 LOCATION Yakima, WA TOTAL DEPTH OF BORING 3.5
 COORDINATES _____ INITIAL WATER LEVEL ▽
 DRILLING METHOD Backhoe STATIC WATER LEVEL ▽
 SAMPLING METHOD _____ LOGGED BY Deutsch/Saul
 GROUND ELEVATION _____ TOP OF CASING ELEVATION _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
					0			LOG DECK fill, wood debris with gravel, black, fine gravel, wet to saturated, loose @ 1 foot: Fabric		
					5			LANDFILL COVER fill, gravelly silt, black, fine to coarse gravel, moist, frozen LANDFILL DEBRIS fill, glass, cardboard, plastic with coarse black gravel Bottom of Test Pit @ 3.5 feet	5	
					10				10	
					15				15	
					20				20	
					25				25	
					30				30	
					35				35	

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 **BORING/WELL NUMBER** TP-1B
PROJECT NAME Former Boise Cascade Mill Site **DATE COMPLETED** February 25, 2008
LOCATION Yakima, WA **TOTAL DEPTH OF BORING** 3.5
COORDINATES _____ **INITIAL WATER LEVEL** ▽
DRILLING METHOD Backhoe **STATIC WATER LEVEL** ▽
SAMPLING METHOD _____ **LOGGED BY** Deutsch/Saul
GROUND ELEVATION _____ **TOP OF CASING ELEVATION** _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
					5			LOG DECK fill, wood debris with gravel, black, fine gravel, wet to saturated, loose LANDFILL COVER fill, gravelly silt, black, fine to coarse gravel, moist, frozen	5	
					5			LANDFILL DEBRIS fill, glass, cardboard, plastic with coarse black gravel Bottom of Test Pit @ 3.5 feet	5	
					10				10	
					15				15	
					20				20	
					25				25	
					30				30	
					35				35	

Parametrix, Inc.

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 **BORING/WELL NUMBER** TP-1C
PROJECT NAME Former Boise Cascade Mill Site **DATE COMPLETED** February 25, 2008
LOCATION Yakima, WA **TOTAL DEPTH OF BORING** 8.5
COORDINATES _____ **INITIAL WATER LEVEL** ∇
DRILLING METHOD Backhoe **STATIC WATER LEVEL** ∇
SAMPLING METHOD _____ **LOGGED BY** Deutsch/Saul
GROUND ELEVATION _____ **TOP OF CASING ELEVATION** _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
					0			LOG DECK fill, wood debris with gravel, black, fine gravel, wet to saturated, loose		
					5			LANDFILL COVER fill, gravels to cobbles with silty sandy matrix, black, fine to coarse gravel, moist, frozen		
					5			LANDFILL MIXED WITH COVER MATERIAL fill, gravelly silt, black, fine to coarse gravel to cobbles, moist, frozen		
					10			LANDFILL DEBRIS fill, glass, cardboard, metals cans with coarse black gravel, decomposition odor		
					10			Bottom of Test Pit @ 8.5 feet		
					15					
					20					
					25					
					30					
					35					

BMC YAKIMA RESOURCES LOGS.GPJ 6/5/08

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 BORING/WELL NUMBER TP-1D
 PROJECT NAME Former Boise Cascade Mill Site DATE COMPLETED February 25, 2008
 LOCATION Yakima, WA TOTAL DEPTH OF BORING 6.0
 COORDINATES _____ INITIAL WATER LEVEL ▽
 DRILLING METHOD Backhoe STATIC WATER LEVEL ▽
 SAMPLING METHOD _____ LOGGED BY Deutsch/Saul
 GROUND ELEVATION _____ TOP OF CASING ELEVATION _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
							X	LOG DECK fill, wood debris with gravel, black, fine gravel, wet to saturated, loose		
							X	LANDFILL COVER fill, silty sandy gravel, black, fine to coarse gravel, moist, frozen		
							X	LANDFILL DEBRIS fill, glass, cardboard, metals cans		
					5	ML		SANDY SILT (ML), dark gray, fine-grained sand, trace coarse gravel, damp, very stiff	5	
								Bottom of Test Pit @ 6 feet		
					10				10	
					15				15	
					20				20	
					25				25	
					30				30	
					35				35	

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BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 **BORING/WELL NUMBER** TP-1E
PROJECT NAME Former Boise Cascade Mill Site **DATE COMPLETED** February 25, 2008
LOCATION Yakima, WA **TOTAL DEPTH OF BORING** 12.0
COORDINATES _____ **INITIAL WATER LEVEL** ∇
DRILLING METHOD Backhoe **STATIC WATER LEVEL** ∇
SAMPLING METHOD _____ **LOGGED BY** Deutsch/Saul
GROUND ELEVATION _____ **TOP OF CASING ELEVATION** _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
					0			LOG DECK fill, wood debris with gravel, black, fine gravel, wet to saturated, loose	0	
					5			SILTY SAND (ML) fill, dark gray, 80% fine- to medium-grained sand, trace fine gravel, damp, medium stiff, trace of organics, slight odor @ 3.5 feet: 2" of Landfill Debris, plastic bags	5	
					10			STEEL RAILROAD TIES AND LUMBER fill	10	
					12			SANDY SILT (ML), dark gray, 40 % fine-grained sand, wet to saturated, medium stiff, trace of organics @ 12 feet: Capillary fringe, trace of water and buried log Bottom of Test Pit @ 12 feet	12	
					15				15	
					20				20	
					25				25	
					30				30	
					35				35	

Parametrix, Inc.

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 BORING/WELL NUMBER TP-2
 PROJECT NAME Former Boise Cascade Mill Site DATE COMPLETED February 25, 2008
 LOCATION Yakima, WA TOTAL DEPTH OF BORING 13.0
 COORDINATES _____ INITIAL WATER LEVEL ∇
 DRILLING METHOD Backhoe STATIC WATER LEVEL ∇
 SAMPLING METHOD _____ LOGGED BY Deutsch/Saul
 GROUND ELEVATION _____ TOP OF CASING ELEVATION _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
					5			LOG DECK fill, wood debris with gravel, black, fine gravel, wet to saturated, loose	5	
								SILTY GRAVEL (GM) fill, dark gray, 20% fine gravel, moist, stiff		
								COBBLES WITH SILTY SAND (GP) fill, dark gray, 80% fine- to medium-grained sand, damp, loose, trace of red bricks		
					10	GP		@ 7 feet: Lumber Debris, plywood 2x4s GRAVEL TO COBBLES WITH SILTY SAND (GP), dark gray, 40% coarse gravel to 40% cobbles, 20% silty medium-grained sand	10	
					15			Bottom of Test Pit @ 13 feet	15	
					20				20	
					25				25	
					30				30	
					35				35	

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BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 BORING/WELL NUMBER TP-3A
 PROJECT NAME Former Boise Cascade Mill Site DATE COMPLETED February 25, 2008
 LOCATION Yakima, WA TOTAL DEPTH OF BORING 11.0
 COORDINATES _____ INITIAL WATER LEVEL ∇ 11.0
 DRILLING METHOD Backhoe STATIC WATER LEVEL ∇ _____
 SAMPLING METHOD _____ LOGGED BY Deutsch/Saul
 GROUND ELEVATION _____ TOP OF CASING ELEVATION _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
								WOOD DEBRIS fill, dark reddish brown, dry, loose GRAVELLY SAND (SP) fill, gray, fine- to medium-grained sand, dry, loose, t-shirt		
					5	ML		SANDY SILT (ML), very dark gray, 40% fine-grained sand, moist, loose, medium stiff, some gravel	5	
					10			SANDY COBBLES, dark gray, fine- to coarse-grained sand, moist to wet, loose	10	
								Bottom of Test Pit @ 11 feet ∇		
					15				15	
					20				20	
					25				25	
					30				30	
					35				35	

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BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 BORING/WELL NUMBER TP-3B
 PROJECT NAME Former Boise Cascade Mill Site DATE COMPLETED February 25, 2008
 LOCATION Yakima, WA TOTAL DEPTH OF BORING 10.5
 COORDINATES _____ INITIAL WATER LEVEL ▽
 DRILLING METHOD Backhoe STATIC WATER LEVEL ▽
 SAMPLING METHOD _____ LOGGED BY Deutsch/Saul
 GROUND ELEVATION _____ TOP OF CASING ELEVATION _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
					0			WOOD DEBRIS fill, dark reddish brown, dry, loose		
								SANDY SILT (ML) fill, very dark gray, 40% fine-grained sand, moist, loose, medium stiff, some gravel		
								LOG DECK DEBRIS WITH GRAVEL fill, dark brown, 35% coarse gravel, dry, loose to medium dense		
					5			SILTY SANDY GRAVEL (GP) fill, very dark gray, 60% coarse gravel, 40% fine- to coarse-grained sand, moist, dense, trace of cobbles, lots of concrete debris with log debris	5	
					10			LANDFILL DEBRIS fill, glass, cardboard, plastic with coarse black gravel	10	
								Bottom of Test Pit @ 10.5 feet		
					15				15	
					20				20	
					25				25	
					30				30	
					35				35	

PROJECT NUMBER 555-5753-001 **BORING/WELL NUMBER** TP-4A
PROJECT NAME Former Boise Cascade Mill Site **DATE COMPLETED** February 25, 2008
LOCATION Yakima, WA **TOTAL DEPTH OF BORING** 10.5
COORDINATES _____ **INITIAL WATER LEVEL** ∇
DRILLING METHOD Backhoe **STATIC WATER LEVEL** ∇
SAMPLING METHOD _____ **LOGGED BY** Deutsch/Saul
GROUND ELEVATION _____ **TOP OF CASING ELEVATION** _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
					5		X	WOOD DEBRIS fill, dark reddish brown, dry, loose SILTY SAND (SM) with wood debris fill, dark brown, fine- to medium-grained sand, damp, medium dense	5	
					10		X	SILTY SAND (SM) with landfill debris fill, dark gray, moist, medium dense, slight burnt look, landfill debris not continuous	10	
					10.5			Bottom of Test Pit @ 10.5 feet	10.5	
					15				15	
					20				20	
					25				25	
					30				30	
					35				35	

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 **BORING/WELL NUMBER** TP-4B
PROJECT NAME Former Boise Cascade Mill Site **DATE COMPLETED** February 25, 2008
LOCATION Yakima, WA **TOTAL DEPTH OF BORING** 7.5
COORDINATES _____ **INITIAL WATER LEVEL** ∇
DRILLING METHOD Backhoe **STATIC WATER LEVEL** ∇
SAMPLING METHOD _____ **LOGGED BY** Deutsch/Saul
GROUND ELEVATION _____ **TOP OF CASING ELEVATION** _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
					5		X	WOOD DEBRIS fill, dark reddish brown, dry, loose SILTY SAND (SM) with wood debris fill, dark brown, fine-to medium-grained sand, damp, medium dense	5	
							X	SILTY SAND (SM) with landfill debris fill, dark gray, moist, medium dense, slight burnt look, landfill debris not continuous		
					10			Bottom of Test Pit @ 7.5 feet	10	
					15				15	
					20				20	
					25				25	
					30				30	
					35				35	

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BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 BORING/WELL NUMBER TP-5A
 PROJECT NAME Former Boise Cascade Mill Site DATE COMPLETED February 25, 2008
 LOCATION Yakima, WA TOTAL DEPTH OF BORING 13.5
 COORDINATES _____ INITIAL WATER LEVEL ∇
 DRILLING METHOD Backhoe STATIC WATER LEVEL ∇
 SAMPLING METHOD _____ LOGGED BY Deutsch/Saul
 GROUND ELEVATION _____ TOP OF CASING ELEVATION _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
							X	WOOD DEBRIS fill, dark reddish brown, dry, loose		
					5		X	WOOD DEBRIS fill, 12" logs with bark and pieces of wood	5	
					10		X		10	
					15	GP	X	@ 13 feet: Log pond bottom SILTY SANDY COBBLES (GP), very dark gray, 40% fine-to coarse-grained sand, moist, dense Bottom of Test Pit @ 13.5 feet	15	
					20		X		20	
					25		X		25	
					30		X		30	
					35		X		35	

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BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 BORING/WELL NUMBER TP-5B
 PROJECT NAME Former Boise Cascade Mill Site DATE COMPLETED February 26, 2008
 LOCATION Yakima, WA TOTAL DEPTH OF BORING 16.5
 COORDINATES _____ INITIAL WATER LEVEL ▽
 DRILLING METHOD Backhoe STATIC WATER LEVEL ▽
 SAMPLING METHOD _____ LOGGED BY Deutsch/Saul
 GROUND ELEVATION _____ TOP OF CASING ELEVATION _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
					5			WOOD DEBRIS WITH GRAVEL fill, dark reddish brown, dry, loose	5	
					10			SILTY SANDY COBBLES (GP) fill, very dark gray, 40% fine- to coarse-grained sand, angular cobbles, moist, dense	10	
					15			WOOD DEBRIS fill, 12" logs with bark and pieces of wood	15	
					20			Bottom of Test Pit @ 16.5 feet	20	
					25				25	
					30				30	
					35				35	

BWC_YAKIMA_RESOURCES_LOGS.GPJ 6/5/08

Parametrix, Inc.

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 BORING/WELL NUMBER TP-5C
 PROJECT NAME Former Boise Cascade Mill Site DATE COMPLETED February 26, 2008
 LOCATION Yakima, WA TOTAL DEPTH OF BORING 9.0
 COORDINATES _____ INITIAL WATER LEVEL ∇
 DRILLING METHOD Backhoe STATIC WATER LEVEL ∇
 SAMPLING METHOD _____ LOGGED BY Deutsch/Saul
 GROUND ELEVATION _____ TOP OF CASING ELEVATION _____

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
					5		X	WOOD DEBRIS WITH GRAVEL fill, dark reddish brown, dry, loose	5	
							X	SANDY GRAVELLY SILT (ML) fill, blue-gray, fine- to coarse-grained sand, with cobbles, moist, dense		
					10		X	LANDFILL DEBRIS fill, glass bottles, paper Bottom of Test Pit @ 8 feet	10	
					15				15	
					20				20	
					25				25	
					30				30	
					35				35	

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 555-5753-001 **BORING/WELL NUMBER** TP-6
PROJECT NAME Former Boise Cascade Mill Site **DATE COMPLETED** February 26, 2008
LOCATION Yakima, WA **TOTAL DEPTH OF BORING** 8.5
COORDINATES _____ **INITIAL WATER LEVEL** ∇
DRILLING METHOD Backhoe **STATIC WATER LEVEL** ∇
SAMPLING METHOD _____ **LOGGED BY** Deutsch/Saul
GROUND ELEVATION _____ **TOP OF CASING ELEVATION** _____

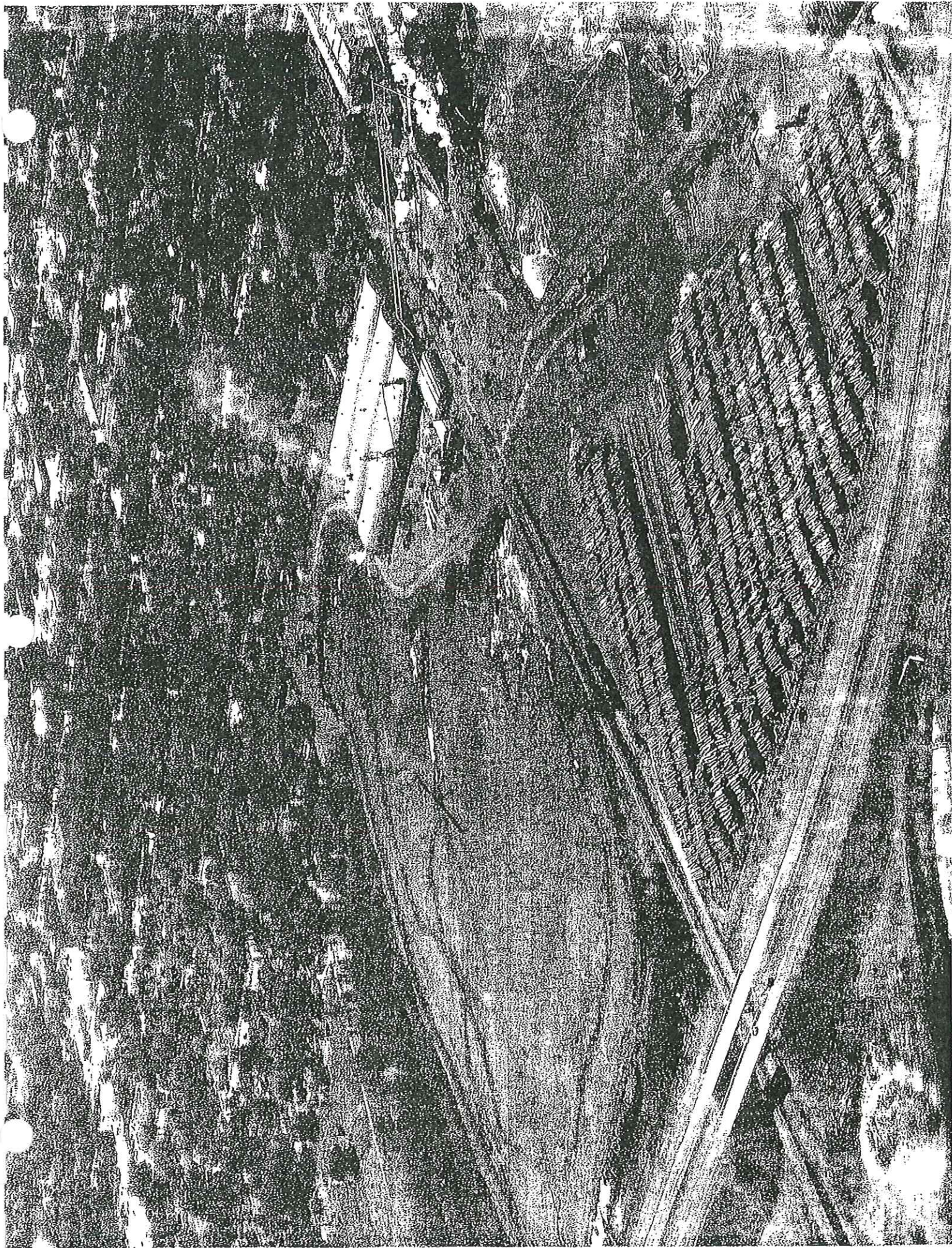
PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft.)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	DEPTH (ft.)	WELL DIAGRAM
					0			GRAVELLY SANDY SILT (ML) fill, dark gray, fine- to coarse-grained sand, moist, medium stiff		
					1			Rubber tubing and cobbles		
					2			WOOD DEBRIS WITH SANDY SILT fill, reddish brown, fine- to medium-grained sand		
					5			CONCRETE WASTE fill	5	
					8			LANDFILL DEBRIS fill, tire, paper, bottles, plastic, bicycle tires		
					10			Bottom of Test Pit @ 8.5 feet	10	
					15				15	
					20				20	
					25				25	
					30				30	
					35				35	

Historical Water Level Data

Well ID	Date Measured	Casing Elevation (feet MSL)	Depth to Groundwater (feet)	Groundwater Elevation (feet MSL)
MW-1	10/16/98	1065.95	4.20	1061.75
	2/5/08		5.20	1060.75
MW-3	10/16/98	1068.70	11.88	1056.82
	N/A		N/A	N/A
MW-4	10/16/98	1069.77	11.23	1058.54
	N/A		N/A	N/A
MW-5	10/16/98	1054.18	8.64	1045.54
	2/7/08		9.25	1044.93
MW-6	10/16/98	1056.25	13.34	1042.91
	2/7/08		15.47	1040.78
MW-7	10/16/98	1045.67	8.45	1037.22
	2/6/08		10.89	1034.78
MW-8	10/16/98	1048.15	6.19	1041.96
	2/6/08		10.70	1037.45
MW-9	10/16/98	1064.03	11.46	1052.57
	2/6/08		17.03	1047
MW-9A	N/A	N/A	N/A	N/A
	3/25/08		16.85	N/A
MW-10	10/16/98	1066.63	11.21	1055.42
	2/6/08		12.29	1054.34

APPENDIX B

Historical Photograph



APPENDIX C

Historical Water Level Data

Historical Water Level Data

Well ID	Date Measured	Casing Elevation (feet MSL)	Depth to Groundwater (feet)	Groundwater Elevation (feet MSL)
MW-1	10/16/98	1065.95	4.20	1061.75
	2/5/08		5.20	1060.75
MW-3	10/16/98	1068.70	11.88	1056.82
	N/A		N/A	N/A
MW-4	10/16/98	1069.77	11.23	1058.54
	N/A		N/A	N/A
MW-5	10/16/98	1054.18	8.64	1045.54
	2/7/08		9.25	1044.93
MW-6	10/16/98	1056.25	13.34	1042.91
	2/7/08		15.47	1040.78
MW-7	10/16/98	1045.67	8.45	1037.22
	2/6/08		10.89	1034.78
MW-8	10/16/98	1048.15	6.19	1041.96
	2/6/08		10.70	1037.45
MW-9	10/16/98	1064.03	11.46	1052.57
	2/6/08		17.03	1047
MW-9A	N/A	N/A	N/A	N/A
	3/25/08		16.85	N/A
MW-10	10/16/98	1066.63	11.21	1055.42
	2/6/08		12.29	1054.34

APPENDIX D
Exploratory Boring Logs

1. FIELD INVESTIGATION

1.1 GEOPHYSICAL STUDY

A geophysical survey will be completed using a magnetometer and ground penetrating radar (GPR). The objective of this survey will be to identify and map the location of existing subsurface features, USTs, product lines, and utilities. The results of the geophysical survey will be used to determine locations of subsurface obstructions and clear areas for test pits and drilling. The GPR will be used in Area A to attempt to define the boundary of the former municipal landfill.

1.2 FIELD SAMPLING

Field sampling will include groundwater monitoring and a methane survey. The proposed locations of these samples and the purpose of each are presented in Figures 3 through 6.

1.2.1 Groundwater Monitoring and Methods

The purpose of the monitoring of groundwater on the Site is to evaluate potential contamination from activities related to the Site's history and to determine if measured concentrations exceed Washington State's Model Toxics Control Act (MTCA) cleanup levels. Groundwater monitoring will be conducted at the nine present monitoring wells on the Site (MW-1 and MW-3 through MW-10).

The parameters for testing groundwater are listed below:

- Total petroleum hydrocarbons (gasoline and diesel range),
- Volatile organic compounds (VOCs),
- Semi-volatile organic compounds (SVOCs),
- Dissolved metals,
- Total metals,
- Alkalinity,
- Chloride,
- Sulfate,
- Ammonia,
- Nitrate,
- Total organic carbon,
- Total dissolved solids,
- PCBs, and
- Extra volume for additional testing.

Field parameters collected during groundwater sampling will include temperature, pH, turbidity, ORP, conductivity, and dissolved oxygen.

1.2.2 Methane Survey

A methane survey will be conducted to determine the migration of methane from the former municipal landfill, and to evaluate the potential presence of methane in the vicinity of the wood waste landfill. In addition to surveying within buildings and existing groundwater wells, soil gas levels will be also measured using either manual or power-driven mechanical methods, whichever is more feasible in the field. A 3/8-inch-diameter hole will be driven into the ground using manual (i.e., slam bar) or power-driven mechanical methods.

If manual methods are considered feasible, the following will occur:

- Soil gas can be measured at specific depths by controlled penetration or the use of a longer bar or bar attachments.
- A 1/4-inch outer-diameter stainless-steel probe is inserted into the hole, which is then sealed around the top of the probe using clean modeling clay.
- The gas contained in the interstitial spaces of the soil is pulled through the probe using an air pump.
- The gas is measured with a four-gas multimeter.

If a power-driven mechanical device (such as a power hammer) is the more feasible way to ascertain the methane levels on the Site, the following will occur:

- With the use of a drill rig, a 1/4-inch outer-diameter stainless-steel probe is inserted into the hole, which is then sealed around the top of the probe using clean modeling clay.
- The gas contained in the interstitial spaces of the soil is pulled through the probe using an air pump.
- The gas is measured with a four-gas multimeter.

1.2.3 Decontamination Procedures for Groundwater Sampling Equipment

All instruments and reusable tools used to collect groundwater samples will be decontaminated prior to sampling and between each sample in order to minimize cross contamination between samples. The decontamination procedure is outlined below:

- Scrub with non-phosphate detergent.
- Rinse with deionized water.
- Rinse with 0.1N HNO₃ or HCL.
- Rinse with deionized water.
- Rinse with n-propyl alcohol.
- Rinse thoroughly with deionized water before each use.

The decontamination rinse water will be collected and stored on Site in sealed containers.

1.3 SAMPLE MANAGEMENT AND TESTING

Samples will be stored in coolers at 4°C and delivered via Parametrix personnel or commercial carrier under chain-of-custody procedures to the analytical laboratory. Sample chain-of-custody will begin when the sample is collected and will be maintained until final disposal of the sample. Chain-of-custody procedures will be used to maintain and document sample possession. The principal documents are:

- Sample labels
- Field sampling records
- Chain-of-custody forms

Each sample container will be identified with printed labels and a unique and appropriate sample number. Sample labels will include the following information:

- Project identification
- Sample identification
- Analysis request
- Date and time of collection
- Initials of collector

All sampling locations will be recorded in the field notebook. Indelible ink will be used to prepare labels, chain-of-custody forms, and field notes.

1.4 DATA REPORTING

Verbal recommendations regarding the analytical results will be provided within 1 working day of the receipt of sample results from the analytical laboratory. A data report will be provided within 30 days of the receipt of final sample results from the laboratory.

2. QUALITY ASSURANCE PROJECT PLAN

This QAPP establishes the quality assurance (QA) objectives for the Site assessment and characterization investigation. It also establishes the QA organization and procedures to meet the project objectives. This QAPP also presents the procedures for sample handling, sample chain-of-custody, instrument/equipment performance criteria, analytical methods for sample analysis, internal quality control, audits, corrective actions, and data assessment.

The QA procedures described in this section are developed to ensure the project-specified Data Quality Objectives (DQOs) are met and that data generated are representative of the actual conditions found at the Site. The goal of the QA plan is to ensure a reasonable degree of confidence in data generated. QA plans do this through the establishment of a rigorous system of quality and performance checks on data collection, analysis, and reporting activities. In addition, QA plans strengthen the quality of data by requiring appropriate and timely corrective action to document and ensure compliance with established performance and quality criteria.

2.1 PROJECT OBJECTIVES

The following are the objectives of the sampling program as outlined in Section 2:

- Conduct an assessment of Site characteristics and evaluate potential contamination of the Site.
- Conduct a geophysical survey using a magnetometer and GPR to determine locations of test pits and drilling, as well as attempt to define the boundary of the former municipal landfill.
- Conduct a round of groundwater monitoring at the nine monitoring wells (MW-1, MW-3 through MW-10) present throughout the Site.

- Excavate test pits and collect soil samples for classification only identified by the Site visits and file reviews as potentially contaminated. Also, excavate additional test pits to define the perimeter of refuse.
- Drill borings and collect soil samples for classification only in areas where test pits are not feasible. Based on the results of the groundwater monitoring and methane survey, some borings may be converted to additional monitoring wells or gas probes.
- Conduct a methane survey.
- Summarize the sampling results in a Site assessment report and provide recommendations for remediation, as appropriate.

2.2 PROGRAM QUALITY ASSURANCE ORGANIZATION AND RESPONSIBILITY

Specific program QA responsibilities are described in Table 2-1.

Table 2-1. Quality Assurance Responsibilities

Personnel	Responsibilities
Kurt Easthouse Project Manager Parametrix	Oversee technical team performance to ensure successful accomplishment of the technical and QA project objectives; review QA needs and approve QA corrective action when necessary.
Lara Linde Project Field Coordinator Parametrix	Ensure that all field sampling and handling procedures are followed and documented and field QA objectives are met; will coordinate and participate in the field sampling activities.
Lara Linde Project QA Officer Parametrix	Direct implementation of QAPP. Provide technical QA assistance, evaluate laboratory data, and perform QA/QC.
Laboratory QA Officer	Ensure that all laboratory QA objectives are met and data deliverables from the laboratory are correctly documented and reported.

2.2.1 Precision

Precision measures the mutual agreement among individual measurements of the same property, usually under prescribed similar conditions. Quality assurance/quality control (QA/QC) sample types that measure precision include field duplicates, matrix spike duplicates (MSDs), and matrix duplicates. The estimate of precision of duplicate measurements is expressed as a relative percent difference (RPD), which is calculated as:

$$RPD = \frac{D_1 - D_2}{(D_1 + D_2) \div 2} \times 100$$

Where: D_1 = First sample value
 D_2 = Second sample value

The RPDs will be routinely calculated and compared with DQOs. All RPDs should be within the limits defined in the United States Environmental Protection Agency (EPA) SW-8260B, SOM01.1, NWTPH-Dx, NWTPH-Gx, or 5035 Methods.

2.2.2 Accuracy

Accuracy is assessed using the results of standard reference material, linear check samples, and matrix spike (MS) analyses. It is normally expressed as a percent recovery, which is calculated as:

$$\text{Percent Recovery} = \frac{(\text{Total Analyte Found} - \text{Analyte Originally Present}) \times 100}{\text{Analyte Added}}$$

The percent recovery will be routinely calculated and checked against DQOs. Percent recoveries should be within the limits defined in the EPA SW-8260B, SOM01.1, NWT PH-Dx, NWT PH-Gx, or 5035 Methods.

2.2.3 Bias

Bias is the systematic or persistent distortion of a measurement process that causes errors in one direction. Bias will be assessed with field and/or laboratory matrix spike samples, similar to the method described for accuracy. Bias measurements are usually carried out with a minimum frequency of 1 in 20, or one per batch of samples analyzed, under the same sampling episode.

2.2.4 Sensitivity

Sensitivity expresses the capability of a method or instrument for meeting prescribed measurement reporting limits. Sensitivity will be assessed by comparing data reporting limits with current regulatory criteria for VOCs and total petroleum hydrocarbons (TPH) in groundwater.

2.2.5 Representativeness

Sample locations and sampling procedures will be chosen to maximize representativeness. A qualitative assessment (based on professional experience and judgment) will be made of sample data representativeness based on a review of sampling records and a QA audit of field activities.

2.2.6 Completeness

The amount of valid data produced will be compared with the total analyses performed to assess the percent of completeness. Completeness will be routinely calculated and compared with the DQOs. The completeness goal for this project is 95 percent.

2.2.7 Comparability

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. Sample data will be comparable with other measurement data for similar samples and sample conditions. Comparability of the data will be maintained by using consistent methods and units. The specific analysis parameters, reporting units, applicable methods for analysis, and method detection limits are listed in this QAPP. Actual reporting limits will depend on the sample matrix (necessary dilutions, etc.) and will be reported as defined for the specific samples.

2.3 SAMPLING PROCEDURES AND HANDLING

2.3.1 Sample Collection and Analyses

Groundwater samples will be collected at the Site. Selection of sampling locations and objectives is discussed in Sections 1 and 2. Procedures for field sample location, collection of samples, and types of laboratory analyses to be performed are presented in Section 2. A summary of QC samples is shown in Table 2-2. A summary of specifications for containers, holding times, preservation, and handling for aqueous samples is shown in Table 2-3.

Table 2-2. Guidelines for Minimum QA/QC Samples for Field Sampling and Laboratory Analysis^a

	Blind Field Duplicate	Field Rinsate Blank	Method Blank	LCS ^b	Matrix Spike
Solid	1 in 20 ^c	1 in 20	1 in 20	1 in 20	1 in 20
Aqueous	1 in 20 ^c	1 in 20	1 in 20	1 in 20	1 in 20

a = EPA 1988

b = LCS = Laboratory Control Sample

c = All frequencies of 1 in 20 indicate 1 per batch, when the batch is less than 20.

Table 2-3. Groundwater Sample Containers, Preparation, Preservatives, and Holding Times

Analyses	Method	Sample Container	Preservation and Handling	Holding Times
Gasoline Range Organics with BTEX	NWTPH-Gx	3-40 mL vials	Cool 4 °C; HCL to pH < 2	14 days
Diesel and Heavier Range Organics	NWTPH-Dx	3-40 mL vials	Cool 4 °C	14 days
Volatile Organic Compounds	8260B	40 mL vial	Cool 4 °C	14 days if preserved; 7 days if unpreserved
Semi-volatile Organic Compounds	8270B	2-500 mL amber	Cool 4 °C	14 days; ext 40 days
Dissolved Metals	6010	2-500 mL glass	HNO ₃ to pH < 2	6 months
Total Metals	6010	2-500 mL glass	HNO ₃ to pH < 2	6 months
Alkalinity	2320	500 mL HDPE	Cool 4 °C	14 days
Chloride	325.2	500 mL HDPE	Cool 4 °C	28 days
Sulfate	375.2	500 mL HDPE	Cool 4 °C	28 days
Ammonia	350.1M	500 mL HDPE	Cool 4 °C	28 days
Nitrate	300.0	1 L HDPE	Cool 4 °C	48 hours
Total Organic Carbon	415.1	250 mL amber	Cool 4 °C	28 days
Total Dissolved Solids	160.1	250 mL HDPE	Cool 4 °C	7 days
PCBs	8082	1 L amber	Cool 4 °C; Na ₂ S ₂ O ₃	7 days; ext 40 days

ext = extract ASAP = as soon as possible

HDPE = High Density Polyethylene

2.3.2 Documentation

Sample documents will be carefully prepared so that sample identification and chain-of-custody can be maintained and sample disposition controlled. Sample identification documents are summarized in Table 3-5 and will include:

- Field notebook
- Sample labels
- Chain-of-custody records

Table 2-4. Sampling and Sample Handling Records

Records	Use	Responsibility/Requirements
Field Notebook	Records significant events, observations, and appropriate measurements.	Maintained by field sampler/geologist; all entries must be factual, detailed, objective; entries must be signed and dated.
Sample Label	Accompanies sample; contains specific sample identification information	Completed and attached to sample container by sampler.
Chain-of-Custody Record	Documents chain-of-custody (responsibility/accountability) for sample handling	Documented by sample number. Original accompanies sample. A copy is retained by Quality Assurance Officer (QAO).

Project sampling and sample handling will be documented through the use of a field notebook. A field notebook must be maintained to provide daily records of significant events, observations, and appropriate measurements collected during field investigations. All entries are to be made in waterproof ink, signed, and dated. Corrections will be made according to the procedures given at the end of this section.

Field notebooks are intended to provide sufficient data and observations to enable participants to reconstruct events that occurred during projects and to refresh the memory of the field personnel if called upon to give testimony during legal proceedings. The field notebook entries should be factual, detailed, and objective. All field notes will be retained by the program field coordinator and secured in a safe place.

As with any data logbooks, no pages are to be removed, destroyed, or thrown away. If a correction is to be made, these will be made by drawing a single line through the original entry (so that the original entry can still be read) and writing the corrected entry alongside. The correction will be initialed and dated. Most corrected errors will require a footnote explaining the correction.

If an error is made on a document assigned to one person, that individual may make corrections simply by crossing out the error and entering the correct information. The erroneous information should not be obliterated. Any error discovered in a document should be corrected by the person who made the entry.

2.4 SAMPLE CUSTODY

2.4.1 Custody Procedures

This section describes sample custody and chain-of-custody procedures to be used for this project. These procedures ensure the quality and integrity of the samples are maintained during their collection, transportation, storage, and analysis.

2.4.1.1 Chain-of-Custody Procedures

The chain-of-custody procedures used for this program provide an accurate written or computerized record that can be used to trace the possession of each sample from the time each is collected until completion of all required analyses. A sample is in custody if it is in any of the following places:

- Someone's physical possession
- Someone's view
- A secured container
- A designated secure area

2.4.1.2 Field Custody Procedures

The following field custody procedures will be followed:

- As few people as possible will handle the samples.
- The sample collector will be responsible for the care and custody of the samples collected until the samples are transferred or dispatched properly.
- The sample collector will record sample data on the sample collection form.

- The field coordinator will determine whether proper custody procedures were followed during the field work and will decide if additional samples are required.

2.4.1.3 Laboratory Custody Procedures

A designated sample custodian will accept custody of the shipped samples and verify that the information on the sample labels matches the chain-of-custody records. Pertinent information on shipment, pickup, courier, and condition of the samples is entered in the "Remarks" section of the chain-of-custody form. The custodian then enters the sample identification number data into a bound logbook of the chain-of-custody forms, which is arranged by project code and station number.

The laboratory custodian uses the sample identification number or assigns a unique laboratory number to each sample, transfers the samples to the proper analyst, or stores them in the appropriate secure area. Sample control and custody at the laboratory through sample disposal will be conducted in accordance with standard laboratory procedures that maintain the sample integrity and security.

2.4.2 Transfer of Custody and Shipment

When samples are transferred, the person relinquishing the samples will sign the chain-of-custody record and record the data and time of transfer. The sample collector will sign the form in the first signature space.

Program documentation of sample custody will be verified by the QAO during regular review of the data package.

The following transfer of custody and shipment procedures will be followed:

- The coolers in which samples are packed must be accompanied by a chain-of-custody record. When transferring samples, the individuals relinquishing and receiving them must sign, date, and note the time on the chain-of-custody record to document the sample custody transfer.
- Shipping containers will be sealed with custody seals for shipment to the laboratory. The method of shipment, name of courier, and other pertinent information will be entered in the "Remarks" section of the chain-of-custody record and traffic report.
- All shipments will be accompanied by the chain-of-custody record identifying their contents. The original record will accompany the shipment. The other copies will be distributed as appropriate to the QAO and program manager.

2.4.3 Sample Identification

Each sample will be labeled and sealed immediately after collection. The labels will be filled out using waterproof ink and will be firmly affixed to the sample containers and protected with clear, water-resistant tape.

The following information will be indicated on each sample label:

- Name of sampler
- Date, time, and location of collection
- Sample number
- Analysis required
- Preservative, if any

2.4.4 Sample Packaging and Shipping

The samples will be transported and handled in a manner that not only protects the integrity of the sample, but also prevents any detrimental effects due to the possible hazardous nature of the samples. Regulations for packaging, marking, labeling, and shipping hazardous materials are issued and enforced by the Washington State Department of Transportation (WSDOT) in the 49 Code of Federal Regulations (CFR) 172 through 177. Samples will be packed in plastic bubble wrap, placed on ice in a sealed cooler, and shipped via a commercial carrier to the analytical laboratory.

2.5 CALIBRATION PROCEDURES AND FREQUENCY

2.5.1 Laboratory Instruments

All instruments and equipment used during analysis will be operated, calibrated, and maintained according to manufacturer's guidelines and recommendations, and in accordance with procedures in the EPA method cited. Properly trained personnel will operate, calibrate, and maintain laboratory instruments. Calibration blanks and check standards will be analyzed daily for each parameter to verify instrument performance and calibration before beginning sample analysis.

All calibration procedures will meet or exceed EPA SW-846 protocols as described in the SW-846 regulations for all metals analyses. Any variations from these procedures must be approved by the QAO before beginning sample analysis.

After the instruments are calibrated and standardized within acceptable limits, precision and accuracy will be evaluated by analyzing a QC check sample for each analysis performed that day. Acceptable performance of the QC check sample verifies the instrument performance on a daily basis. Analysis of a QC check standard demonstrates good laboratory practices. QC check samples containing all analytes of interest will be either purchased commercially or prepared from pure standard materials independently from calibration standards. The QC check samples will be analyzed and evaluated according to the EPA method criteria.

Instrument performance check standards and calibration blank results will be recorded in a laboratory instrument log book, which will also contain evaluation parameters, benchmark criteria, and maintenance information. If the instrument log book does not provide maintenance information, a separate maintenance log book must be maintained for the instrument.

2.5.2 Field Instruments

Field instruments to be used during the performance of sampling activities will be calibrated in accordance with the manufacturer's guidelines.

2.6 ANALYTICAL PROCEDURES

QC checks and decision criteria for determining if an analysis is within quality control requirements will follow the QC procedures and guidelines listed in SW-846.

Analytical methods and method reporting limits (MRLs) for the planned analyses are summarized in Tables 3-6 and 3-7. The MRL is higher than the practical quantitation limit (PQL) defined by Ecology (1995) as the concentration that can be reliably measured within specified limits during routine laboratory operating conditions using Ecology-approved methods. On Tables 3-6 and 3-7, general MRLs for groundwater are compared with the MTCA regulatory standards (Ecology 2001a and b). Those regulatory standards that are less

than the MRL or PQL are indicated. Alternative methods to obtain lower PQLs will be solicited during the laboratory section process, and project documents will be updated accordingly.

Where appropriate, based on anticipated data uses and with recognition of validation requirements, these procedures may be modified to incorporate techniques familiar to the project laboratory. The laboratory will notify the project QAO of any proposed procedural changes and document these changes in the cover letter with the data reports.

Because of the potential sample heterogeneity, matrix interferences may make achievement of the desired detection limits and associated quality control criteria impossible. In such instances, the laboratory must report to the QAO the reason for noncompliance with QC criteria or elevated detection limits.

2.7 DATA REDUCTION, VALIDATION, AND REPORTING

All analyses performed for this project must reference QC results to enable reviewers to validate (or determine the quality of) the data. Sample analysis data, when reported by the laboratory, will include QC results but not the backup documentation. The project QAO is responsible for conducting checks for internal consistency, transmittal errors, laboratory protocols, and for complete adherence to the QC elements specified in the QAPP.

A verification level validation will be performed on all field documentation and analytical data reports. The data validation process will be used to verify the data quality. The SAP will be used as the primary document guiding the data validation effort. When this is not possible, method-specific QA requirements (typically listed in the SOP for the analytical methods) and professional judgment will be used to guide the data validation effort.

The following QC elements will be reviewed, as appropriate:

- Analytical holding times
- Preparation of blank contamination
- Standard precision
- Analytical accuracy (blank and matrix spike recoveries and laboratory control sample recoveries)
- Analytical precision (comparison of replicate sample results, expressed as relative percent differences)

Each data package will be assessed to determine whether the required documentation is of known and verifiable quality. This includes the following items:

- Field chain-of-custody record (to ensure that it is present, complete, and signed)
- Certified analytical report
- QA/QC sample results

2.8 INTERNAL QUALITY CONTROL

QC checks will consist of measurements performed in the field and laboratory. The analytical methods referenced in Section 3.7 specify routine methods required to evaluate data precision and accuracy, and whether the data are within the QC limits. Field and intra-laboratory methods are described below.

The following QC samples will be evaluated to verify accuracy and precision of laboratory results for this project. The frequency of QC sample evaluation is also indicated by sample type, but may be adjusted when the final sampling schedule is determined. The frequencies of QC sample evaluation described here should be considered a minimum and will be adjusted accordingly.

2.8.1 Field Rinsate Blank

One field rinsate blank will be analyzed.

Field rinsate blanks will consist of deionized water poured over and/or through the sampling equipment after decontamination. Surfaces and materials exposed during actual sampling will be rinsed to evaluate the effectiveness of the sampling equipment decontamination procedures and the potential for field cross-contamination.

2.8.2 Blind Field Duplicate

One blind field duplicate sample will be analyzed to verify the precision of laboratory and/or sampling methodology. The blind field duplicate will consist of split samples from a larger, homogenized sample. The samples will be coded so the laboratory cannot discern which samples are field duplicates.

2.8.3 Laboratory Method Blank

A minimum of one laboratory method blank will be analyzed per 20 samples or one per sampling event (whichever is greater) to assess possible laboratory contamination. Laboratory method blanks will contain all reagents and undergo all procedural steps used for analysis.

2.8.4 Laboratory Control Sample

A minimum of one laboratory control sample (LCS) will be analyzed per 20 samples or one per sampling event (whichever is greater) to verify the precision of laboratory equipment. The LCS will be a concentration within the calibration range. LCS analysis will follow EPA LCS guidelines established in SW-846.

2.8.5 Laboratory Matrix Spike

A minimum of one laboratory MS will be analyzed per 20 samples or one per sampling event (whichever is greater) to monitor recoveries and ensure that extraction and concentration levels are at acceptable levels. The laboratory MS will follow the MS guidelines specified in SW-846.

2.8.6 Laboratory Matrix Duplicate

A minimum of one laboratory matrix duplicate will be analyzed per 20 samples or one per sampling event (whichever is greater) to provide information on the precision of chemical analysis. The laboratory duplicate will follow EPA duplicate guidelines specified in SW-846.

2.9 PREVENTATIVE MAINTENANCE

2.9.1 Field Instruments

Field instruments and maintenance procedures will be in accordance with the manufacturer's guidelines.

2.9.2 Laboratory Instruments

The analytical laboratory manager is ultimately responsible for the care of the laboratory instruments. The manager may delegate the responsibility to the senior supervising chemist or technician qualified to perform routine maintenance after demonstrating that personnel are trained in maintenance procedures for the laboratory section (wet chemistry, metals, and organics). Training of laboratory personnel on the routine care of laboratory equipment should be provided, at a minimum, during the initial installation of the equipment and, for new analysts, before initial use of the equipment.

Maintenance and other appropriate details should be documented in daily maintenance log books. The individual performing the maintenance procedures will date and sign each entry. At a minimum, the preventative maintenance schedules contained in the EPA methods and in the equipment manufacturer's instructions will be followed.

2.10 SPECIFIC ROUTINE PROCEDURES USED TO ASSESS DATA

Analytical data will be reviewed to ensure that the QA/QC objectives for precision, accuracy, and completeness are met. These reviews will identify the occurrence of deficiencies in time to take corrective action. This section describes routine procedures for assessing project data.

2.10.1 Assessment of Data Precision

Precision measures the mutual agreement among individual measurements of the same property, usually under prescribed similar conditions. Field duplicate samples will be used to measure precision. The estimate of precision of duplicate measurements is expressed as an RPD, which is calculated as follows:

$$RPD = \frac{D_1 - D_2}{(D_1 + D_2) \div 2} \times 100$$

Where: D1 = First sample value
D2 = Second sample value

The RPDs between the primary sample and the duplicate sample will be calculated and compared with QA objectives.

2.10.2 Assessment of Accuracy

Accuracy is assessed using the results of standard reference material, continuing calibration, and matrix spike analyses. It is routinely expressed as a percent recovery. The percent recovery will be routinely calculated and checked against QA objectives.

2.10.3 Assessment of Completeness

The amount of valid data produced will be compared with the total analyses performed to assess the percent of completeness. Completeness will be calculated and compared with the DQOs.

2.10.4 Assessment of Representativeness

Sample locations and sampling procedures will have been chosen to maximize representativeness. A qualitative assessment (based on professional experience and judgment) will be made of sample data representativeness based on a review of sampling records and QA audit of field activities.

2.11 CORRECTIVE ACTIONS

Corrections actions may be needed for two categories of nonconformance:

- Deviations from the methods or QA requirements established in the SAP/QAPP
- Equipment or analytical malfunctions

During field operations and sampling procedures, the project field coordinator will be responsible for taking and reporting required corrective action. A description of any such action taken will be entered in the field notebook. If field conditions are such that conformance with the SAP/QAPP is not possible, the QAO will be consulted immediately. Any corrective action or field condition resulting in a major revision of the SAP/QAPP will be communicated to the project manager for review and concurrence. This communication will be made before changes in the field activities whenever possible.

During laboratory analysis, the laboratory QAO will be responsible for taking required corrective actions in response to equipment malfunctions. If an analysis does not meet data quality goals outlined in the QAPP, corrective action will follow the guidelines in SW-846. This includes, at a minimum, the following considerations:

- Calibration check compounds must be within the performance criteria specified in SW-846 or corrective action must be taken before sample analysis begins.
- Before processing any samples, the analyst should demonstrate by analysis of a reagent blank that interferences from the analytical system, glassware, and reagents are within acceptable limits. Each time a set of samples is extracted or there is a change in reagents, a reagent water blank should be processed as a safeguard against chronic laboratory contamination. The blank samples should be carried through all stages of the sample preparation and measurement steps.
- Spike analysis must be within the contract required recovery limits or corrective action must be taken and documented.

If analytical conditions do not conform with this QAPP, the QAO will be notified as soon as possible so that any additional corrective actions can be taken.

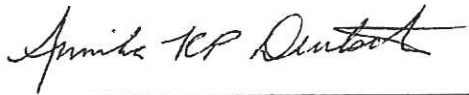
Corrective Action Reports will be provided by the analytical laboratory to document response to any reported nonconformance. These reports may be generated from internal or external audits or from informal reviews of project activities. Corrective Action Reports will be reviewed for appropriateness of recommendations and actions by the QAO for QA matters, and the project manager for matters of technical approach.

2.12 QUALITY ASSURANCE REPORTS TO MANAGEMENT

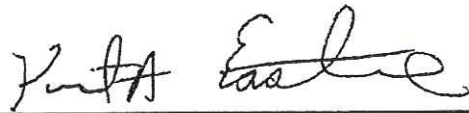
A QC summary report from the analytical laboratory will accompany all data files. This QC report will summarize all relevant data quality information. The QAO will be responsible for data quality assessments and associated QA reports.

CERTIFICATION

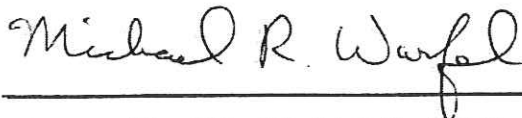
The technical material and data contained in this document were prepared under the supervision and direction of the undersigned, whose seal, as a licensed hydrogeologist licensed to practice as such, is affixed below.



Prepared by: Annika R.P. Deutsch



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ACRONYMS

ARI	Analytical Resources, Inc.
AST	aboveground storage tank
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CH ₄	methane
CLARC	Cleanup Levels and Risk Calculation
CO ₂	carbon dioxide
COPCs	contaminants of preliminary concern
CSM	conceptual site model
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
GPR	ground penetrating radar
MCL	Maximum Contaminant Level
mill site	former Boise Cascade Sawmill and Plywood Mill Facility
MTCA	Model Toxic Control Act
O ₂	oxygen
PAHs	polyaromatic hydrocarbons
PCB	polychlorinated biphenyl
PCLs	preliminary cleanup levels
ppm	parts per million
psi	pounds per square inch
QAPP	Quality Assurance Project Plan
SA	Site Assessment
SAP	Sampling and Analysis Plan
SIM	selective ion monitoring
SLR	SLR International Corporation
Subject Property	former City of Yakima Municipal Landfill
SVOCs	semivolatile organic compounds
TPH	total petroleum hydrocarbons
USCS	Unified Soil Classification System
VOCs	volatile organic compounds
WAC	Washington Administrative Code
YCHD	Yakima County Health District

1. INTRODUCTION

1.1 PURPOSE

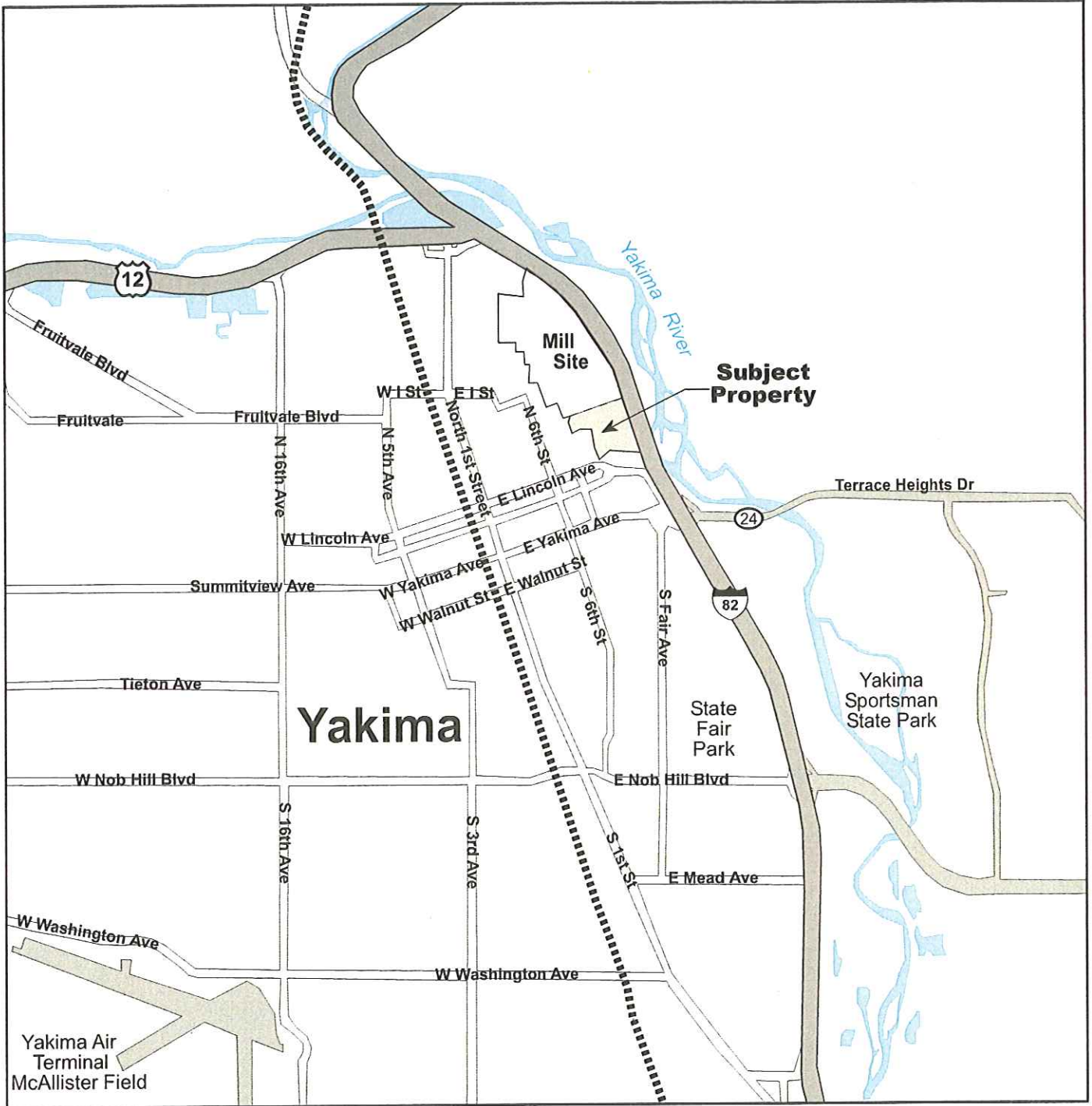
The purpose of this assessment was to evaluate subsurface conditions at a former City of Yakima Municipal Landfill (Subject Property) in Yakima, Washington. The Subject Property is located on the former Boise Cascade Sawmill and Plywood Mill Facility (mill site) at 805 North 7th Street in Yakima, Washington (Figure 1-1). The Subject Property in this report refers only to the area of the former City of Yakima Municipal Landfill, and does not include structures or operations of the mill site. The Subject Property is currently owned by Boise Cascade and leased by Leelynn, Inc. and Wiley Mt., Inc. (ownership of mill site). There is also an indemnity agreement between Boise Cascade and the City of Yakima concerning the Subject Property.

1.2 SCOPE OF WORK DEVELOPMENT

Parametrix developed a proposal for the Phase II Environmental Site Assessment of the mill site in October 2007. One of the tasks in the proposal was to conduct an investigation and assessment of the Subject Property. The City of Yakima employed a consultant (Farallon Consulting) to prepare a scope of work on how they would evaluate environmental conditions with the Subject Property. Parametrix met with Farallon on October 10, 2007, to go over the different approaches and a course of action. Parametrix revised its proposal and generated an amended version on November 14, 2007. A summary of the scope of work for the Subject Property is presented below:

- Conduct a geophysical survey using a magnetometer and ground penetrating radar (GPR) to estimate the boundary of the former municipal landfill and to clear test pit and drilling locations for buried utilities.
- Excavate test pits and drill soil borings to determine location of refuse.
- Based on GPR and test pit and soil boring results, install gas probes outside the landfill boundary to monitor for methane.
- Collect depth to water measurements from MW-1, MW-3, and MW-4 through MW-10 to determine direction of groundwater flow.
- Sample three of the wells that are upgradient and downgradient of the Subject Property for contamination (MW-7, MW-8, MW-9).
- Evaluate the need for additional wells.
- Collect soil samples from test pits and soil borings for logging purposes. Also collect soil samples for chemical analysis, if necessary. Soil samples would only be tested for chemical analysis if the boundary of refuse lies beneath two of the mill structures (the plywood plant and barker area).
- Assess the presence of methane at the Subject Property and mill site.
- Validate data and evaluate data usability.
- Identify contaminants of preliminary concern (COPCs) that exceed Model Toxics Control Act (MTCA) cleanup standards.

Parametrix prepared a detailed Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) in December 2007, for the mill site and Subject Property. The SAP/QAPP was prepared in conformance with ASTM Phase II Environmental Site Assessment Process



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No Scale

Figure 1-1
Site Location Map
Former City of Yakima Municipal Landfill
Yakima, Washington

2. BACKGROUND

Historically a ranch, the mill site, including the Subject Property, was developed in 1903 by the Cascade Lumber Company for use as a lumber mill commencing operations in 1904. The Cascade Lumber Company merged with Boise Payette Lumber Company between 1957 and 1958 to form Boise Cascade.

A 1920 Sanborn Fire Insurance map shows the presence of three log ponds taking up approximately 60 percent of the mill site, railroad tracks running generally east-west (still present), a boiler house, and other additional buildings. The lumber mill operations at the Subject Property gradually transitioned from using log ponds for preservation of lumber to log decks with sprinklers. The southern log pond was drained and a portion of the pond was used as a municipal landfill. The operational dates for this landfill are not certain. A Phase I Site Assessment (SA) documents the municipal landfill use between 1947 and 1961 (URS 2003). However, aerial photographs from 1947, 1955, and 1959 still showed the southern log pond with no visual evidence of landfilling activities. The photograph included in Appendix B is undated but shows the plywood plant and the drained log pond prior to use as a landfill, also suggesting that the plywood plant was not built over the landfill.

The City of Yakima reported to the Washington State Department of Ecology (Ecology) that the landfill was used between 1963 and 1970, while the Yakima County Health District (YCHD) states it was closed in 1972 (Ecology 1996a; Rice 1996). Additional information indicates the landfill may have operated from 1961 to 1964.

The municipal landfill is unlined, covers approximately 28 acres, and is covered with 2 to 3 feet of silty clay (URS 2003). The average depth of the landfill is estimated at about 12 feet, with the deepest area in the southeast corner of the landfill measuring as much as 30 feet in depth. These dimensions suggest that approximately 452,000 cubic yards of municipal solid waste could be present in the landfill. An evaluation of the extent of municipal solid waste in 2008 refined this volume estimate (see Section 6.0).

3. CONCEPTUAL SITE MODEL

3.1 REGIONAL HYDROGEOLOGIC SETTING

The City of Yakima and surrounding area are part of the Columbia River Basin, which has been largely shaped by volcanic activity and several glaciations. The Yakima region sequence is composed of alluvium at the surface, underlain by the Ellensburg Formation and cemented gravel, and Miocene basalt flows from the Columbia River Group Basalt (Landau Associates, Inc. 1998). Deposits encountered during the Parametrix investigation drilling included alluvial gravels, sand, and silt, as well as fill.

Shallow groundwater in this area appears to flow to the southeast and east, towards the Yakima River. Ten monitoring wells were constructed by Landau Associates on the mill site (MW-1 through MW-6, MW-10) and the Subject Property (MW-7 through MW-9) as part of the Hydrogeologic Study and Groundwater Monitoring Plan (Landau Associates, Inc. 1998). Only seven of these wells are still operational and MW-9 is dry. During the investigation, a replacement well (MW-9A) was constructed.

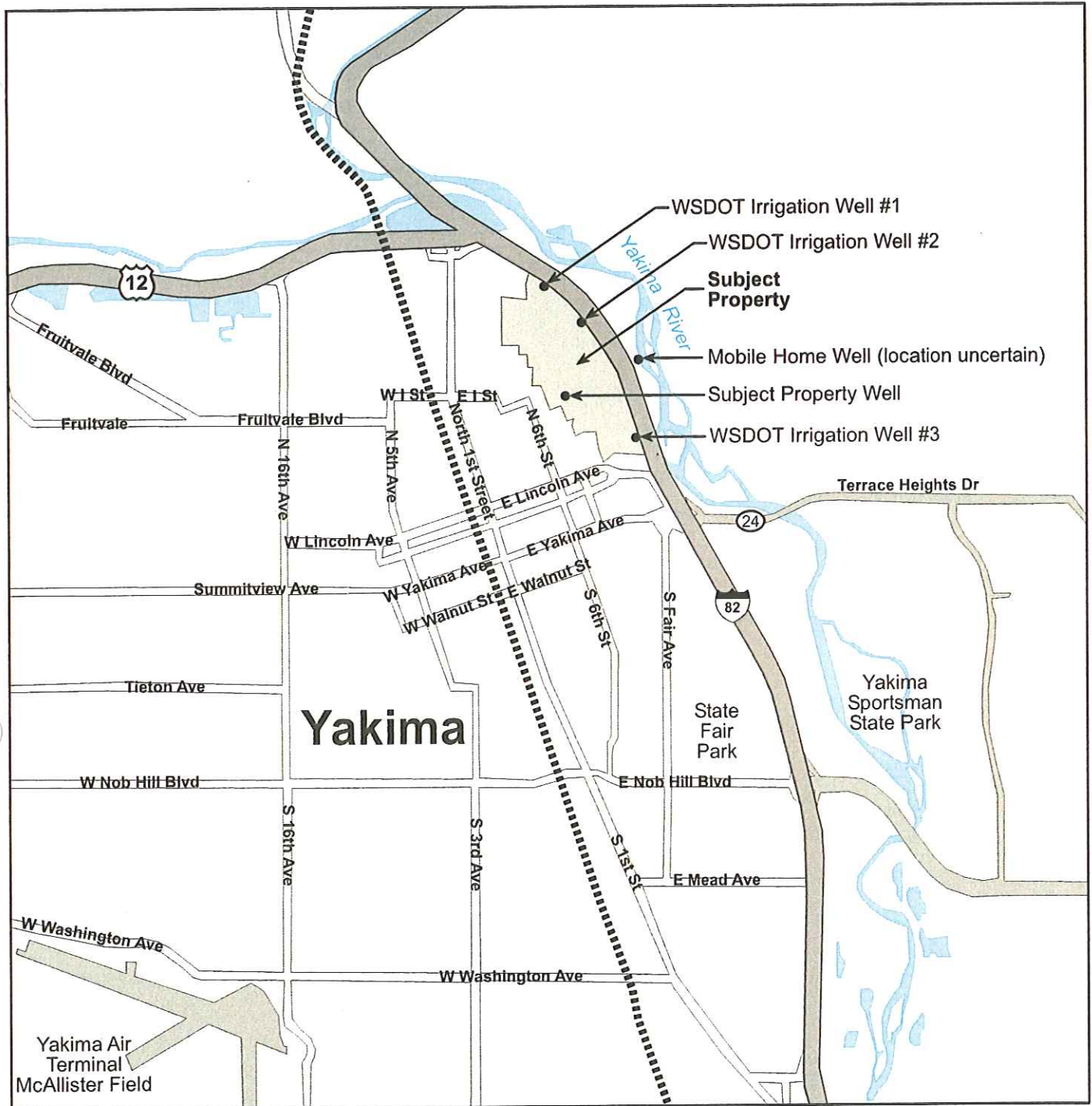
3.2 BENEFICIAL USE OF GROUNDWATER

A search of the Ecology website located 12 water wells that are potentially downgradient and within 0.5 mile of the mill site and Subject Property. Five of these (identified in Figure 3-1) are listed as water supply wells. One unnamed well was installed on the mill site by Cascade Lumber Company in 1927. This is likely the on-site water well located near the hog fuel boiler. Three wells are listed as irrigation wells installed by the Washington Highway Department (now Washington State Department of Transportation [WSDOT]). The irrigation well installed in 1985 is likely the WSDOT well located near MW-5 on the mill site. The water supply well installed in 1985 is labeled as a domestic well for the North Acres Mobile Home Park. This mobile home park is located northwest of the mill site; therefore the location may be incorrect.

Table 3-1. Downgradient Water Supply Wells within 0.5 Mile of Subject Property and Mill Site

Well Group	Well ID	Owner at Installation	Year Installed	Depth (ft)	Use
1	-	WA Highway Dept.	1965	30	Irrigation
2	-	WA Highway Dept.	1985	20	Irrigation
3	-	North Acres Mobile Home Park	1985	72	Domestic
4	-	Cascade Lumber Co.	1927	2425	Water
5	-	WA Highway Dept.	1965	34	Irrigation

Well information from <http://apps.ecy.wa.gov/website/facsite/viewer.htm>



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Figure 3-1
Downgradient Water Supply
Wells in Proximity to Site
Former Boise Cascade Mill Site
Yakima, Washington

4. FIELD INVESTIGATION ACTIVITIES

Field activities at the Subject Property included the following:

- Conducted a geophysical survey;
- Excavated test pits and drilled soil borings to assess the extent of the landfill;
- Collected soil samples for logging purposes and groundwater samples for chemical analysis; and
- Performed a methane survey, including installation of gas probes, measuring levels of combustible gas in existing monitoring wells, and conducting a limited bar-hole survey.

4.1 GEOPHYSICAL SURVEY

A geophysical survey was conducted on February 12 and 13, 2008, to evaluate the extent of the former municipal landfill and to clear excavation and drilling locations for underground utilities. The survey was conducted by Geo Recon International using GPR. GPR used during this survey was a GSSI, SIR System 3000, which utilizes a 400 megahertz antenna transmitting a 2.5 nanosecond pulse at a rate of 16 times per second. When the GPR signal encounters a change in electrical properties (a change in electrical permittivity), the reflected signal is digitally processed and recorded in the instrument consol. The character of the reflection is used to interpret the source (municipal solid waste, underground storage tanks, etc.) of the reflection.

4.2 TEST PITS, DRILLING, AND SOIL CLASSIFICATION

Fourteen test pits were excavated on the Subject Property to depths of 3.5 to 16.5 feet below grade by Saybr Contractors on February 25 to 27, 2008, using a backhoe. Gas probes were installed in two of these test pits (GP-1, GP-2).

Two soil borings were drilled to depths of 15 to 30 feet below grade by Boart Longyear on March 3 and 4, 2008, using a sonic drilling rig. A gas probe (GP-3) was installed in one of these borings. The second boring was drilled in order to install a replacement monitoring well (MW-9A) for MW-9, which was dry.

Test pit and boring locations were checked for subsurface utilities prior to drilling by Applied Professional Services. The soil test pits and borings were located in areas to determine the extent of the landfill and for evaluation of groundwater. Table 4-1 summarizes the rationale for placement of the test pits and borings. The borings were logged by a Parametrix geologist in accordance with the Unified Soil Classification System (USCS). The soil boring logs are attached in Appendix D. Test pits were backfilled with the material excavated from them, with attention to the original stratification. After completion of drilling, borings were backfilled with bentonite and then topped with concrete.

4.4 CLEANUP LEVELS

The MTCA regulations (Chapter 173-340 Washington Administrative Code [WAC]) provide cleanup levels for various chemicals in the environment, based on potential impacts to human health and the environment. When evaluating chemical data for site investigations, these MTCA cleanup levels serve as the basis for selecting preliminary cleanup levels (PCLs) to screen the data. Final cleanup levels are then selected as part of the remedial alternatives analysis for application to the site cleanup, by considering Applicable or Relevant and Appropriate Requirements along with the PCLs.

The selection of PCLs was affected, in part, by the current and future land uses of the Subject Property. Although the Subject Property is currently industrial, future development of the Subject Property may include mixed residential, retail, and commercial use purposes (greater exposure potential than the industrial scenario). Therefore, MTCA, Method A (unrestricted and industrial) and Method B cleanup levels published by Ecology were selected for evaluation.

MTCA Method A cleanup levels are based upon default criteria that can be applied to sites with a limited number of hazardous substances present, to routine cleanups, and where Method A values exist for all contaminants of concern. Method A values are usually the most protective and generally take into account all possible pathways of exposure. Method B is known as the “universal method” and can be applied to all sites. Method B uses risk-based equations, based on conservative assumptions, to come up with cleanup levels for different exposure pathways. MTCA B is typically used at sites that are contaminated with substances not included in Method A. Groundwater samples were also compared to U.S. EPA Maximum Contaminant Levels (MCLs).

Current published Ecology cleanup levels were attained from the Ecology Cleanup Levels and Risk Calculations (CLARC) webpage in May 2008. These cleanup levels were used to establish PCLs for the Subject Property as described below:

- If MTCA Method A, MTCA Method B, Method C, and MCL values were available, to the lowest of these values was selected as PCLs for comparison to the data.

4.5 METHANE SURVEY

Three methane surveys were conducted on the monitoring wells on the Subject Property (MW-7, MW-8, MW-9, MW-9A) and the mill site (MW-1, MW-5, MW-6, MW-10), as well as on the newly installed gas probes (GP-1, GP-2, GP-3). The listed monitoring wells were appropriate for methane testing because part of each well screen was open above the water table, such that methane (if present) could migrate into the well casing.

The first survey was conducted between February 5 and February 7, 2008, on a subset of the monitoring wells. This survey was conducted prior to the placement of valves on the well casings. The second survey was conducted on March 5, 2008, following the installation of the gas probes and the replacement well MW-9A. All monitoring wells, with the exception of MW-1, and all gas probes were surveyed at this time. Valves were attached to the well casings prior to this round of measurements.

A third survey was conducted on March 25, 2008, of the three gas probes and MW-9A. A limited bar-hole survey was conducted at this time in the vicinity of GP-1. The methane surveys were conducted using a GEM 500. A record of the calibration details are provided in Appendix E. Results of the methane surveys are presented in Section 5.4.

5. SUMMARY OF RESULTS

5.1 GEOPHYSICAL SURVEY

The approximate boundary of the municipal solid waste identified by the GPR survey was similar to the perimeter of the former log pond. This boundary was marked with stakes and spray paint in the field. The western and southern boundaries coincided with the test pit results, but the northern and eastern boundaries did not. The contents of the municipal solid waste, and their potentially similar electrical permittivity to the surrounding fill and surface level log yard debris, may be a cause for these discrepancies. Extent of municipal solid waste based upon the GPR survey is shown in Figure 5-1.

5.2 TEST PITS, DRILLING, AND SUBSURFACE SAMPLING

5.2.1 Extent of Municipal Landfill

The approximate extent of municipal solid waste was defined on the north, west, and south sides of the Subject Property based upon subsurface sampling and visual observation. However, the extent of municipal solid waste to the east was not defined. Test pits were excavated as far to the east as topography, overhead utilities, and the property boundary allowed. The municipal solid waste appears to extend to the property line. The extent of the municipal solid waste based upon test pits and drilling is shown in Figure 5-2.

5.2.2 Subsurface Stratigraphy and Groundwater

Surface level woody log yard debris appears to overlie much of the Subject Property that was or currently is in use as log storage decks. This area is delineated as "log decks" in Figures 5-1 and 5-2. Beneath the wood debris is either municipal solid waste, coarse fill soil, or naturally deposited alluvium (silty sand with gravel). Headspace readings measured with a field photoionization detector, which detects organic vapors, ranged from 0 parts per million (ppm) to 40 ppm. Table 5-1 summarizes field observations.

Groundwater was encountered on the Subject Property and adjacent mill site from 8.5 to 18 feet below grade. The approximate direction of groundwater flow is to the southeast, similar to previous work conducted at the mill site (Landau Associates, Inc., 1998). A summary of groundwater data collected by Parametrix is presented in Appendix F.

Table 5-1. Summary of Field Observations Results, Subject Property

Sample ID	Depth (Feet)	Lithology	Comments
GP-1-5	5	Silty sand with cobbles and wood debris	Wood debris, no municipal solid waste
GP-1-10	10	Silty sand with gravel and cobbles	Appears to be natural stratification, no municipal solid waste
GP-2-5	5	Gravelly sand	Fill soil, no municipal solid waste
GP-3-5	5	Silty to sandy gravel	No municipal solid waste
GP-3-12	12	Silty sand	No municipal solid waste
MW-9A-5	5	Silty to sandy gravel	Appears to be natural stratification, no municipal solid waste
MW-9A-18	18	Silty to sandy gravel	First encountered groundwater, no municipal solid waste
TP-1A-3.5	3.5	Gravel, glass, cardboard, plastic	Municipal solid waste
TP-1B-3.5	3.5	Gravelly silt, glass, cardboard, plastic	Municipal solid waste
TP-1C-5	5	Gravelly silt with cobbles, landfill debris	Municipal solid waste
TP-1C-8.5	8.5	Black gravel with metal cans, glass, cardboard	Municipal solid waste, decomposition odor
TP-1D-3	3	Black silt, sand, gravel, debris	Municipal solid waste
TP-1D-6	6	Sandy silt	No municipal solid waste
TP-1E-5	5	Silty sand, trace gravel and debris	Municipal solid waste pinches out
TP-2-5	5	Silty sand with cobbles, trace bricks	Fill soil, no municipal solid waste
TP-2-13	13	Silty sand with gravel, cobbles, wood	Fill soil, no municipal solid waste
TP-3A-5	5	Gravelly sand	Fill soil, no municipal solid waste
TP-3B-5	5	Silty to sandy gravel, cobbles, concrete debris	Fill material
TP-3B-10.5	10.5	Glass, cardboard, plastic with coarse black gravel	Municipal solid waste
TP-4A-5	5	Silty sand with wood debris	Fill soil, no municipal solid waste
TP-4A-10.5	10.5	Silty sand with landfill debris	Municipal solid waste
TP-4B-5	5	Silty sand with wood debris	Fill soil, no municipal solid waste
TP-4B-7.5	7.5	Silty sand with landfill debris	Municipal solid waste
TP-5A-5	5	Wood debris	No municipal solid waste
TP-5A-13.5	13.5	Silty sand with cobbles	Log pond bottom at 13.5ft.
TP-5B-5	5	Wood debris with gravel	Wood debris, no municipal solid waste
TP-5B-16.5	16.5	Wood debris	Wood debris, no municipal solid waste
TP-5C-5	5	Wood debris with gravel	Wood debris, no municipal solid waste
TP-5C-8	8	Glass bottles, paper	Municipal solid waste
TP-6-5	5	Broken concrete	Concrete fill material
TP-6-8.5	8.5	Tires, paper, bottles, plastic	Municipal solid waste

5.3 GROUNDWATER SAMPLING

Groundwater samples from two monitoring wells and one duplicate were collected and submitted for analytical laboratory analysis following sampling in February 2008. An additional groundwater sample was collected and submitted for analysis following sampling in March 2008, after the installation of the replacement well MW-9A. Groundwater data that

Table 5-2. Summary of Groundwater Data Exceedances*, Subject Property

Analyte	MCL	MTCA A	MTCA B carc.	MTCA B non-carc.	MW-7	MW-7D	MW-8	MW-9A
Total Iron (mg/L)	0.3				33.6	35.1	11.5	96.8
Total Manganese (mg/L)	0.05			2.2	2.26	2.36	2.24	3.24
Dissolved Iron (mg/L)	0.3				37.5	37.7	12.2	
Dissolved Manganese (mg/L)	0.05			2.2	2.52	2.53	2.34	0.872
Vinyl Chloride (µg/L)	2	0.2	0.0292	24	0.060	0.063	0.034	

Note: * = Groundwater exceedances are from the February and March 2008 sampling events. No exceedances exist for the limited August 2008 sampling event.

** = Field Duplicate (MW-7D is field duplicate of MW-7)

Blank spaces indicate that the sample was analyzed for the analyte but was below regulatory standards

5.4 METHANE RESULTS

During the methane surveys, methane, carbon dioxide, and oxygen concentrations were measured, as well as pressure in the first and last surveys. The flammable range of methane is approximately 5% (lower explosive limit) to 15% (upper explosive limit) by volume in air. Regulatory standards relating to methane apply to migration off the property, concentrations within on-site buildings, and surface-level concentrations. The absence of methane in MW-7 and MW-8 suggest that migration is not occurring. No monitoring wells or gas probes are located within buildings; however, the proximity of GP-3 to the plywood plant suggests that methane levels may be a concern in that building. Surface-level concentrations (measured by the bar-hole method) were not identified on the Subject Property.

Results of the February 5 through 7, 2008, methane surveys are presented in Table 5-3. Measurements were taken when the parameters had stabilized. Methane was not detected in any of the wells included in the survey.

Table 5-3. Summary of February 5-7, 2008, Methane Survey Results

Well ID	Pressure	CH ₄ (%)	CO ₂ (%)	O ₂ (%)
MW-1	1.2	0	0.2	18.3
MW-5	1.0	0	0.3	17.1
MW-6	1.0	0	4.7	12.4
MW-7	1.0	0	1.8	12.4
MW-8	1.3	0	2.6	11.6
MW-9	1.4	0	0.5	16.8
MW-10	0.2	0	1.9	15.2

CH₄ = Methane

CO₂ = Carbon Dioxide

O₂ = Oxygen

Pressure measured in inches of water column (27.71 inches of water = 1 pound per square inch)

Note: Concentrations are in percent by volume.

Table 5-4. Summary of March 5, 2008, Methane Survey Results (continued)

Well ID	Minutes	CH ₄ (%)	CO ₂ (%)	O ₂ (%)
MW-10	1	0.0	2.8	15.4
	2	0.0	3.4	14.3
	3	0.0	3.5	14.2
	5	0.0	3.6	14.0
	10	0.0	3.9	13.3

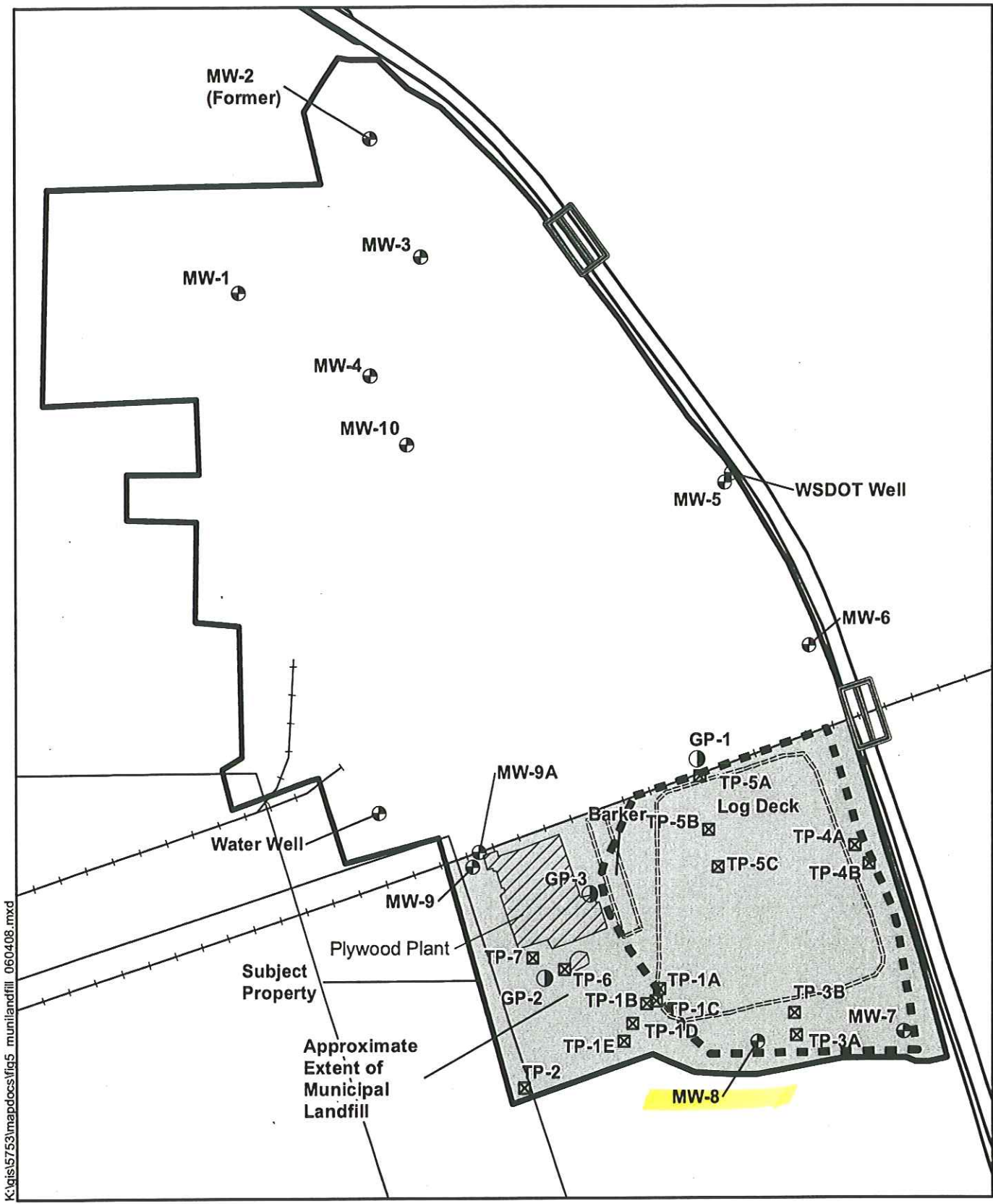
CH₄ = Methane
 CO₂ = Carbon Dioxide
 O₂ = Oxygen
 Note: Concentrations are in percent by volume.

Results of the March 25, 2008, methane and bar-hole survey are presented in Table 5-5. Measurements were taken when the parameters had stabilized. Methane was detected in two of the gas probes (GP-1 and GP-3). The bar-hole locations (BH-1, BH-2, and BH-3) were located approximately 3.8 feet east, 150 feet north, and 75 feet west of GP-1. The bar-hole measurements were taken around 2 feet below ground surface (bgs).

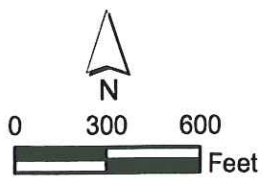
Table 5-5. Summary of March 25, 2008, Methane and Bar-Hole Survey Results

Well ID	Pressure	CH ₄ (%)	CO ₂ (%)	O ₂ (%)
GP-1	0	14.5	16.6	5.6
GP-2	0	0	5	12
GP-3	0	25.6	10.9	0
MW-9A	0	0	0	21
BH-1	0	0	1.9	18
BH-2	0	0	0.3	20.4
BH-3	0	0	0.1	20.5

BH = Bar-Hole
 CH₄ = Methane
 CO₂ = Carbon Dioxide
 O₂ = Oxygen
 Pressure measured in inches of water column (27.71 inches of water = 1 pound per square inch)
 Note: Concentrations are in percent by volume.

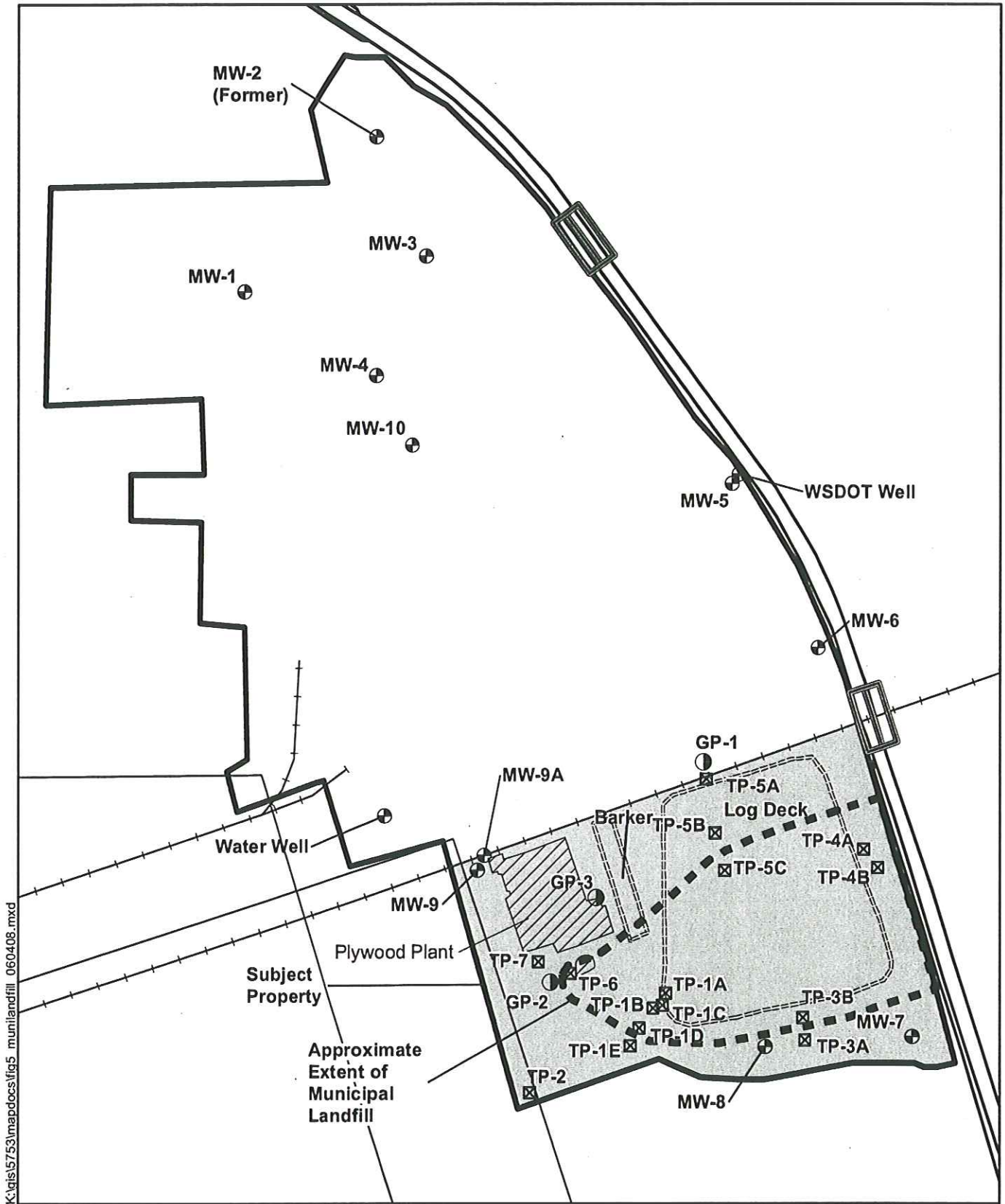


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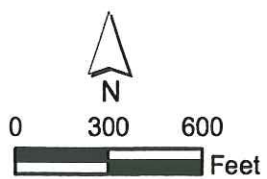


- ☒ Test Pits
- ⊕ Monitoring Wells
- Gas Probes
- +— Railroads
- ▭ Former Boise Cascade Mill Site
- ▭ Subject Property
- ▭ Approximate Extent of Municipal Landfill Based on GPR

**Figure 5-1
Municipal Landfill Extent
Based on GPR
Former City of Yakima
Municipal Landfill
Yakima Washington**



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- ☒ Test Pits
- ⊕ Monitoring Wells
- Gas Probes
- +— Railroads
- ▭ Former Boise Cascade Mill Site
- ▨ Subject Property
- ⋯ Approximate Extent of Municipal Landfill Based on Test Pits & Drilling

Figure 5-2
Municipal Landfill Extent
Based on Soil Data
Former City of Yakima
Municipal Landfill
Yakima Washington

6. CONCLUSIONS

This section presents the conclusions drawn from this Phase II Environmental Site Assessment of the Subject Property. .

6.1 EXTENT OF MUNICIPAL LANDFILL

The extent of the municipal landfill appears to be fairly well defined based upon historical information (see Appendix B, aerial photograph of drained log pond before landfilling), GPR survey, and test pit/soil boring results. Our best estimate of the horizontal extent of landfill material is shown in Figure 5-2.

The perimeter of the municipal landfill shown in the figure equates to an approximate surface area of about 20 acres. Background information presented in Section 2.0 of this report estimated that the average depth of the municipal landfill is about 12 feet, with a maximum depth of about 30 feet in the southeast corner of the landfill. The 20 acre surface area and assumed depth suggest that at least 388,000 cubic yards of municipal solid waste could be present in the landfill.

6.2 GROUNDWATER

Groundwater was sampled upgradient (MW-9A) and downgradient (MW-7, MW-8) of the municipal landfill, and the only parameters that exceeded PCLs (MCLs, MTCA) were iron, manganese, and vinyl chloride. TPH-Dx, TPH-Gx, SVOCs, PCBs, and metals were either not detected or were below regulatory standards. Additional sampling for vinyl chloride resulted in concentrations below PCLs..

6.2.1 Iron and Manganese

The MCLs for iron and manganese (0.3 mg/L, 0.05 mg/L) are secondary criteria based on non-health based factors such as taste and color. The secondary MCLs for both of these parameters were exceeded in the upgradient (MW-9A) and downgradient wells (MW-7, MW-8). The MTCA B value of 2.2 mg/L for manganese is health based and was exceeded in all three wells.

It appears there are naturally high concentrations of iron and manganese in groundwater, since they are both relatively high in the upgradient well. The upgradient well does not appear to be influenced by the municipal landfill as evidenced by the lack of landfill gas in the well and no detection of vinyl chloride in the groundwater.

7. REFERENCES

- Ecology. 1996a. Comments on the Boise Cascade Yakima Facility Industrial Residuals Landfill Closure and Monitoring Plan, Received January 17, 1996. Letter by Ecology to YCHD, Yakima, Washington, February 27.
- Landau Associates, Inc. 1998. Hydrogeologic Study and Groundwater Monitoring Plan—Boise Cascade Yakima Wood Products Complex, Yakima, Washington, December 17.
- Rice, Glenn. 1996. Interstate I-82 Gateway Project—January 11, 1996 Meeting Regarding Landfill and Wetland Issues. Letter by City of Yakima to Ecology, Yakima, Washington, January 22.
- URS. 2003. Phase I Environmental Site Assessment—Boise Building Solutions Sawmill and Plywood Mill, Yakima, Washington. Prepared for Boise Corp., November 3.

8. LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The potential for environmental liability associated with the release or threatened release of hazardous substances, and compliance with federal and state environmental laws, has become a major concern with many public agencies and private companies considering property transactions. Federal and state regulations do not specify the amount of effort necessary to determine the environmental status of real property. However, if brought to litigation, the court will consider the specialized knowledge or experience of the defendant, the relationship of the purchase price to the value of the property, and the ability to detect such contamination by appropriate inspection.

Parametrix, Inc. performed this Phase II ESA in accordance with the generally accepted standards of care that exist in the State of Washington at the time of the study. Judgments leading to conclusions and recommendations are made generally, with an incomplete knowledge of the subsurface and former conditions applicable to the Subject Property and adjacent properties.

More extensive studies may reduce the uncertainties associated with this assessment. The investigation was conducted to identify areas of environmental concern that may inhibit redevelopment of the property, and was designed based on the professional judgment of the Parametrix project team. Because Subject Property activities and regulations beyond our control could change at any time after the completion of our field investigation, our observations, findings, and opinions can be considered valid only as of the date the field work was completed for this report.

The data and samples from any given test location indicate conditions that apply only at that particular location, and such conditions may not necessarily apply to the general Subject Property as a whole. Therefore, Parametrix cannot and will not provide guarantees, certifications or warranties that the property is free of environment impairment. The extent of testing and data collection directly affects the statistical confidence level of the work performed. As a practical matter, to reach or even approach a 100 percent statistical confidence level would be prohibitively expensive.

APPENDIX A

Summary of SAP/QAPP Activities

1. FIELD INVESTIGATION

1.1 GEOPHYSICAL STUDY

A geophysical survey will be completed using a magnetometer and ground penetrating radar (GPR). The objective of this survey will be to identify and map the location of existing subsurface features, USTs, product lines, and utilities. The results of the geophysical survey will be used to determine locations of subsurface obstructions and clear areas for test pits and drilling. The GPR will be used in Area A to attempt to define the boundary of the former municipal landfill.

1.2 FIELD SAMPLING

Field sampling will include groundwater monitoring and a methane survey. The proposed locations of these samples and the purpose of each are presented in Figures 3 through 6.

1.2.1 Groundwater Monitoring and Methods

The purpose of the monitoring of groundwater on the Site is to evaluate potential contamination from activities related to the Site's history and to determine if measured concentrations exceed Washington State's Model Toxics Control Act (MTCA) cleanup levels. Groundwater monitoring will be conducted at the nine present monitoring wells on the Site (MW-1 and MW-3 through MW-10).

The parameters for testing groundwater are listed below:

- Total petroleum hydrocarbons (gasoline and diesel range),
- Volatile organic compounds (VOCs),
- Semi-volatile organic compounds (SVOCs),
- Dissolved metals,
- Total metals,
- Alkalinity,
- Chloride,
- Sulfate,
- Ammonia,
- Nitrate,
- Total organic carbon,
- Total dissolved solids,
- PCBs, and
- Extra volume for additional testing.

Field parameters collected during groundwater sampling will include temperature, pH, turbidity, ORP, conductivity, and dissolved oxygen.

- Sample labels
- Field sampling records
- Chain-of-custody forms

Each sample container will be identified with printed labels and a unique and appropriate sample number. Sample labels will include the following information:

- Project identification
- Sample identification
- Analysis request
- Date and time of collection
- Initials of collector

All sampling locations will be recorded in the field notebook. Indelible ink will be used to prepare labels, chain-of-custody forms, and field notes.

1.4 DATA REPORTING

Verbal recommendations regarding the analytical results will be provided within 1 working day of the receipt of sample results from the analytical laboratory. A data report will be provided within 30 days of the receipt of final sample results from the laboratory.

2. QUALITY ASSURANCE PROJECT PLAN

This QAPP establishes the quality assurance (QA) objectives for the Site assessment and characterization investigation. It also establishes the QA organization and procedures to meet the project objectives. This QAPP also presents the procedures for sample handling, sample chain-of-custody, instrument/equipment performance criteria, analytical methods for sample analysis, internal quality control, audits, corrective actions, and data assessment.

The QA procedures described in this section are developed to ensure the project-specified Data Quality Objectives (DQOs) are met and that data generated are representative of the actual conditions found at the Site. The goal of the QA plan is to ensure a reasonable degree of confidence in data generated. QA plans do this through the establishment of a rigorous system of quality and performance checks on data collection, analysis, and reporting activities. In addition, QA plans strengthen the quality of data by requiring appropriate and timely corrective action to document and ensure compliance with established performance and quality criteria.

2.1 PROJECT OBJECTIVES

The following are the objectives of the sampling program as outlined in Section 2:

- Conduct an assessment of Site characteristics and evaluate potential contamination of the Site.
- Conduct a geophysical survey using a magnetometer and GPR to determine locations of test pits and drilling, as well as attempt to define the boundary of the former municipal landfill.
- Conduct a round of groundwater monitoring at the nine monitoring wells (MW-1, MW-3 through MW-10) present throughout the Site.

2.2.2 Accuracy

Accuracy is assessed using the results of standard reference material, linear check samples, and matrix spike (MS) analyses. It is normally expressed as a percent recovery, which is calculated as:

$$\text{Percent Recovery} = \frac{(\text{Total Analyte Found} - \text{Analyte Originally Present}) \times 100}{\text{Analyte Added}}$$

The percent recovery will be routinely calculated and checked against DQOs. Percent recoveries should be within the limits defined in the EPA SW-8260B, SOM01.1, NWTPH-Dx, NWTPH-Gx, or 5035 Methods.

2.2.3 Bias

Bias is the systematic or persistent distortion of a measurement process that causes errors in one direction. Bias will be assessed with field and/or laboratory matrix spike samples, similar to the method described for accuracy. Bias measurements are usually carried out with a minimum frequency of 1 in 20, or one per batch of samples analyzed, under the same sampling episode.

2.2.4 Sensitivity

Sensitivity expresses the capability of a method or instrument for meeting prescribed measurement reporting limits. Sensitivity will be assessed by comparing data reporting limits with current regulatory criteria for VOCs and total petroleum hydrocarbons (TPH) in groundwater.

2.2.5 Representativeness

Sample locations and sampling procedures will be chosen to maximize representativeness. A qualitative assessment (based on professional experience and judgment) will be made of sample data representativeness based on a review of sampling records and a QA audit of field activities.

2.2.6 Completeness

The amount of valid data produced will be compared with the total analyses performed to assess the percent of completeness. Completeness will be routinely calculated and compared with the DQOs. The completeness goal for this project is 95 percent.

2.2.7 Comparability

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. Sample data will be comparable with other measurement data for similar samples and sample conditions. Comparability of the data will be maintained by using consistent methods and units. The specific analysis parameters, reporting units, applicable methods for analysis, and method detection limits are listed in this QAPP. Actual reporting limits will depend on the sample matrix (necessary dilutions, etc.) and will be reported as defined for the specific samples.

2.3.2 Documentation

Sample documents will be carefully prepared so that sample identification and chain-of-custody can be maintained and sample disposition controlled. Sample identification documents are summarized in Table 3-5 and will include:

- Field notebook
- Sample labels
- Chain-of-custody records

Table 2-4. Sampling and Sample Handling Records

Records	Use	Responsibility/Requirements
Field Notebook	Records significant events, observations, and appropriate measurements.	Maintained by field sampler/geologist; all entries must be factual, detailed, objective; entries must be signed and dated.
Sample Label	Accompanies sample; contains specific sample identification information	Completed and attached to sample container by sampler.
Chain-of-Custody Record	Documents chain-of-custody (responsibility/accountability) for sample handling	Documented by sample number. Original accompanies sample. A copy is retained by Quality Assurance Officer (QAO).

- The field coordinator will determine whether proper custody procedures were followed during the field work and will decide if additional samples are required.

2.4.1.3 Laboratory Custody Procedures

A designated sample custodian will accept custody of the shipped samples and verify that the information on the sample labels matches the chain-of-custody records. Pertinent information on shipment, pickup, courier, and condition of the samples is entered in the "Remarks" section of the chain-of-custody form. The custodian then enters the sample identification number data into a bound logbook of the chain-of-custody forms, which is arranged by project code and station number.

The laboratory custodian uses the sample identification number or assigns a unique laboratory number to each sample, transfers the samples to the proper analyst, or stores them in the appropriate secure area. Sample control and custody at the laboratory through sample disposal will be conducted in accordance with standard laboratory procedures that maintain the sample integrity and security.

2.4.2 Transfer of Custody and Shipment

When samples are transferred, the person relinquishing the samples will sign the chain-of-custody record and record the data and time of transfer. The sample collector will sign the form in the first signature space.

Program documentation of sample custody will be verified by the QAO during regular review of the data package.

The following transfer of custody and shipment procedures will be followed:

- The coolers in which samples are packed must be accompanied by a chain-of-custody record. When transferring samples, the individuals relinquishing and receiving them must sign, date, and note the time on the chain-of-custody record to document the sample custody transfer.
- Shipping containers will be sealed with custody seals for shipment to the laboratory. The method of shipment, name of courier, and other pertinent information will be entered in the "Remarks" section of the chain-of-custody record and traffic report.
- All shipments will be accompanied by the chain-of-custody record identifying their contents. The original record will accompany the shipment. The other copies will be distributed as appropriate to the QAO and program manager.

2.4.3 Sample Identification

Each sample will be labeled and sealed immediately after collection. The labels will be filled out using waterproof ink and will be firmly affixed to the sample containers and protected with clear, water-resistant tape.

The following information will be indicated on each sample label:

- Name of sampler
- Date, time, and location of collection
- Sample number
- Analysis required
- Preservative, if any

than the MRL or PQL are indicated. Alternative methods to obtain lower PQLs will be solicited during the laboratory section process, and project documents will be updated accordingly.

Where appropriate, based on anticipated data uses and with recognition of validation requirements, these procedures may be modified to incorporate techniques familiar to the project laboratory. The laboratory will notify the project QAO of any proposed procedural changes and document these changes in the cover letter with the data reports.

Because of the potential sample heterogeneity, matrix interferences may make achievement of the desired detection limits and associated quality control criteria impossible. In such instances, the laboratory must report to the QAO the reason for noncompliance with QC criteria or elevated detection limits.

2.7 DATA REDUCTION, VALIDATION, AND REPORTING

All analyses performed for this project must reference QC results to enable reviewers to validate (or determine the quality of) the data. Sample analysis data, when reported by the laboratory, will include QC results but not the backup documentation. The project QAO is responsible for conducting checks for internal consistency, transmittal errors, laboratory protocols, and for complete adherence to the QC elements specified in the QAPP.

A verification level validation will be performed on all field documentation and analytical data reports. The data validation process will be used to verify the data quality. The SAP will be used as the primary document guiding the data validation effort. When this is not possible, method-specific QA requirements (typically listed in the SOP for the analytical methods) and professional judgment will be used to guide the data validation effort.

The following QC elements will be reviewed, as appropriate:

- Analytical holding times
- Preparation of blank contamination
- Standard precision
- Analytical accuracy (blank and matrix spike recoveries and laboratory control sample recoveries)
- Analytical precision (comparison of replicate sample results, expressed as relative percent differences)

Each data package will be assessed to determine whether the required documentation is of known and verifiable quality. This includes the following items:

- Field chain-of-custody record (to ensure that it is present, complete, and signed)
- Certified analytical report
- QA/QC sample results

2.8 INTERNAL QUALITY CONTROL

QC checks will consist of measurements performed in the field and laboratory. The analytical methods referenced in Section 3.7 specify routine methods required to evaluate data precision and accuracy, and whether the data are within the QC limits. Field and intra-laboratory methods are described below.

2.9.2 Laboratory Instruments

The analytical laboratory manager is ultimately responsible for the care of the laboratory instruments. The manager may delegate the responsibility to the senior supervising chemist or technician qualified to perform routine maintenance after demonstrating that personnel are trained in maintenance procedures for the laboratory section (wet chemistry, metals, and organics). Training of laboratory personnel on the routine care of laboratory equipment should be provided, at a minimum, during the initial installation of the equipment and, for new analysts, before initial use of the equipment.

Maintenance and other appropriate details should be documented in daily maintenance log books. The individual performing the maintenance procedures will date and sign each entry. At a minimum, the preventative maintenance schedules contained in the EPA methods and in the equipment manufacturer's instructions will be followed.

2.10 SPECIFIC ROUTINE PROCEDURES USED TO ASSESS DATA

Analytical data will be reviewed to ensure that the QA/QC objectives for precision, accuracy, and completeness are met. These reviews will identify the occurrence of deficiencies in time to take corrective action. This section describes routine procedures for assessing project data.

2.10.1 Assessment of Data Precision

Precision measures the mutual agreement among individual measurements of the same property, usually under prescribed similar conditions. Field duplicate samples will be used to measure precision. The estimate of precision of duplicate measurements is expressed as an RPD, which is calculated as follows:

$$RPD = \frac{D_1 - D_2}{(D_1 + D_2) \div 2} \times 100$$

Where: D1 = First sample value
D2 = Second sample value

The RPDs between the primary sample and the duplicate sample will be calculated and compared with QA objectives.

2.10.2 Assessment of Accuracy

Accuracy is assessed using the results of standard reference material, continuing calibration, and matrix spike analyses. It is routinely expressed as a percent recovery. The percent recovery will be routinely calculated and checked against QA objectives.

2.10.3 Assessment of Completeness

The amount of valid data produced will be compared with the total analyses performed to assess the percent of completeness. Completeness will be calculated and compared with the DQOs.

2.10.4 Assessment of Representativeness

Sample locations and sampling procedures will have been chosen to maximize representativeness. A qualitative assessment (based on professional experience and judgment) will be made of sample data representativeness based on a review of sampling records and QA audit of field activities.