



09/13/10

Technical Report for

Olsson Associates

RWF 33-22 WATER TESTING

010-1744_100_100003

Accutest Job Number: D16814

Sampling Date: 08/25/10

Report to:

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Total number of pages in report: 87



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

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Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

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Test results relate only to samples analyzed.

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Sample Summary

Olsson Associates

Job No: D16814

RWF 33-22 WATER TESTING
Project No: 010-1744_100_100003

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D16814-1	08/25/10	09:20 TD	08/26/10	AQ	Ground Water	DOE 172
D16814-1A	08/25/10	09:20 TD	08/26/10	DW	Drinking Water	DOE 172
D16814-1F	08/25/10	09:20 TD	08/26/10	AQ	Groundwater Filtered	DOE 172
D16814-2	08/25/10	12:00 TD	08/26/10	AQ	Ground Water	MW1
D16814-2A	08/25/10	12:00 TD	08/26/10	DW	Drinking Water	MW1
D16814-2F	08/25/10	12:00 TD	08/26/10	AQ	Groundwater Filtered	MW1
D16814-3	08/25/10	12:30 TD	08/26/10	AQ	Ground Water	MW2
D16814-3A	08/25/10	12:30 TD	08/26/10	DW	Drinking Water	MW2
D16814-3F	08/25/10	12:30 TD	08/26/10	AQ	Groundwater Filtered	MW2
D16814-4	08/25/10	13:45 TD	08/26/10	AQ	Ground Water	MW3
D16814-4A	08/25/10	13:45 TD	08/26/10	DW	Drinking Water	MW3
D16814-4F	08/25/10	13:45 TD	08/26/10	AQ	Groundwater Filtered	MW3
D16814-5	08/25/10	13:10 TD	08/26/10	AQ	Ground Water	MW4



Sample Summary
(continued)

Olsson Associates

Job No: D16814

RWF 33-22 WATER TESTING
Project No: 010-1744_100_100003

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
D16814-5A	08/25/10	13:10	TD	08/26/10	DW	Drinking Water	MW4
D16814-5F	08/25/10	13:10	TD	08/26/10	AQ	Groundwater Filtered	MW4
D16814-6	08/25/10	10:10	TD	08/26/10	AQ	Surface Water	CR-DG

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Olsson Associates**Job No** D16814**Site:** RWF 33-22 WATER TESTING**Report Dat** 9/13/2010 11:48:39 AM

On 08/26/2010, six (6) samples, 0 Trip Blanks, and 0 Field Blanks were received at Accutest Mountain States (AMS) at a temperature of 4.2°C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D16814 was assigned to the project. The lab sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ**Batch ID:** V3V369

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D16812-1MS and D16812-1MSD were used as the QC samples indicated.
- 2-Chloroethylvinylether was not found in the samples and the matrix spike and matrix spike duplicate (MS/MSD; on the client's sample) showed no recoveries for this compound. This is due to the acid preservation in the sample, which destroys this analyte.

Extractables by GCMS By Method SW846 8270C

Matrix AQ**Batch ID:** OP2431

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D16903-1MS and D16903-1MSD were used as the QC samples indicated.

Metals By Method SW846 6010B

Matrix AQ**Batch ID:** MP2806

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D16869-3MS and D16869-3MSD were used as the QC samples for the metals analysis.

Wet Chemistry By Method EPA 300/SW846 9056

Matrix AQ

Batch ID: GP2652

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D16771-2MS and D16771-2MSD were used as the QC samples for the Bromide, Chloride, Nitrate-N, and Nitrite-N analysis.

Matrix AQ

Batch ID: GP2669

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D16807-2MS and D16807-2MSD were used as the QC samples for the Bromide, Chloride, Nitrate-N, Nitrite-N, and Sulfate analysis.

Wet Chemistry By Method SM20 2320B

Matrix AQ

Batch ID: GN6126

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D16730-1DUP, D16730-1MS, and D16730-1MSD were used as the QC samples for the Total Alkalinity as CaCO₃ analysis.

Matrix AQ

Batch ID: GN6240

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM20 2510B

Matrix AQ

Batch ID: GP2671

- Sample D16730-1DUP was used as the QC sample for the Specific Conductivity analysis.

Wet Chemistry By Method SM20 2540C

Matrix AQ

Batch ID: GN6135

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample D16652-1DUP was used as the QC sample for the Total Dissolved Solids analysis.

Wet Chemistry By Method SM20 4500F C

Matrix AQ

Batch ID: GP2741

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D17105-3DUP, D17105-3MS, and D17105-3MSD were used as the QC samples for the Fluoride analysis.
- The analysis was conducted by Electrode. The laboratory was unable to analyze by IC due to matrix interference.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	DOE 172	Date Sampled:	08/25/10
Lab Sample ID:	D16814-1	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	RWF 33-22 WATER TESTING		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V06858.D	1	09/01/10	DC	n/a	n/a	V3V369
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	4.0	ug/l	
71-43-2	Benzene	8.9	1.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	1.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	1.0	ug/l	
75-00-3	Chloroethane	ND	4.0	1.5	ug/l	
67-66-3	Chloroform	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	4.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	12.9	2.0	0.30	ug/l	
591-78-6	2-Hexanone	ND	2.0	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.0	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.5	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	4.3	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.5	ug/l	
100-42-5	Styrene	ND	4.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	1.0	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DOE 172	Date Sampled:	08/25/10
Lab Sample ID:	D16814-1	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	RWF 33-22 WATER TESTING		

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.50	ug/l	
108-05-4	Vinyl Acetate	ND	4.0	0.60	ug/l	
1330-20-7	Xylene (total)	148	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	89%		63-130%
2037-26-5	Toluene-D8	90%		68-130%
460-00-4	4-Bromofluorobenzene	86%		61-130%

ND = Not detected MDL - Method Detection Limit
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 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DOE 172	Date Sampled:	08/25/10
Lab Sample ID:	D16814-1	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3550B		
Project:	RWF 33-22 WATER TESTING		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G08969.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	5.0	4.1	ug/l	
95-57-8	2-Chlorophenol	ND	1.5	1.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	2.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.7	ug/l	
105-67-9	2,4-Dimethylphenol	ND	1.0	1.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	2.0	1.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	2.5	ug/l	
106-44-5	4-Methylphenol	ND	2.0	1.8	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	1.1	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.3	ug/l	
108-95-2	Phenol	ND	5.0	2.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	1.5	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	2.0	1.7	ug/l	
83-32-9	Acenaphthene	ND	1.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	1.0	ug/l	
120-12-7	Anthracene	ND	1.3	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.90	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.5	1.4	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.5	1.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.5	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.1	1.1	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.8	ug/l	
106-47-8	4-Chloroaniline	ND	1.0	1.0	ug/l	
218-01-9	Chrysene	ND	1.0	1.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	2.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.0	1.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	2.5	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DOE 172	Date Sampled:	08/25/10
Lab Sample ID:	D16814-1	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3550B		
Project:	RWF 33-22 WATER TESTING		

ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	2.5	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	1.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.8	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	1.6	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	1.3	1.3	ug/l	
117-84-0	Di-n-octyl phthalate	ND	1.8	1.8	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	2.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1.5	1.5	ug/l	
206-44-0	Fluoranthene	ND	1.2	1.2	ug/l	
86-73-7	Fluorene	ND	1.4	1.4	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	1.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.8	ug/l	
67-72-1	Hexachloroethane	ND	1.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	1.6	ug/l	
78-59-1	Isophorone	ND	1.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.8	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	2.2	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	1.8	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	1.5	ug/l	
91-20-3	Naphthalene	1.0	1.0	1.0	ug/l	
98-95-3	Nitrobenzene	ND	1.0	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	1.6	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	1.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	1.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	92%		43-130%
4165-62-2	Phenol-d5	100%		47-130%
118-79-6	2,4,6-Tribromophenol	76%		32-138%
4165-60-0	Nitrobenzene-d5	68%		45-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DOE 172		
Lab Sample ID:	D16814-1	Date Sampled:	08/25/10
Matrix:	AQ - Ground Water	Date Received:	08/26/10
Method:	SW846 8270C SW846 3550B	Percent Solids:	n/a
Project:	RWF 33-22 WATER TESTING		

ABN HSL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	63%		45-130%
1718-51-0	Terphenyl-d14	68%		47-136%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DOE 172	Date Sampled: 08/25/10
Lab Sample ID: D16814-1	Date Received: 08/26/10
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: RWF 33-22 WATER TESTING	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	793	5.0	mg/l	1	08/28/10	JK	SM20 2320B
Bromide	< 4.0	4.0	mg/l	20	08/26/10 16:26	GH	EPA 300/SW846 9056
Chloride	2550	100	mg/l	200	08/26/10 19:36	GH	EPA 300/SW846 9056
Nitrogen, Nitrate	< 0.90	0.90	mg/l	20	08/26/10 16:26	GH	EPA 300/SW846 9056
Nitrogen, Nitrite	< 12	12	mg/l	200	08/26/10 19:36	GH	EPA 300/SW846 9056
Solids, Total Dissolved	15200	10	mg/l	1	08/30/10	JD	SM20 2540C
Specific Conductivity	17100	1.0	umhos/cm	1	08/27/10	CJ	SM20 2510B
Sulfate	6310	250	mg/l	500	08/27/10 13:25	GH	EPA 300/SW846 9056
pH	7.11		su	1	08/26/10 16:50	JD	SM20 4500H

 RL = Reporting Limit

Report of Analysis

Client Sample ID:	DOE 172	Date Sampled:	08/25/10
Lab Sample ID:	D16814-1A	Date Received:	08/26/10
Matrix:	DW - Drinking Water	Percent Solids:	n/a
Project:	RWF 33-22 WATER TESTING		

General Chemistry

Analyte	Result	MCL	Units	DF	Analyzed	By	Method
Fluoride ^a	0.43	4.0	mg/l	1	09/09/10	CJ	SM20 4500F C

(a) Matrix changed to DW to allow analysis by Electrode. Unable to analyze by IC due to matrix interference.

MCL = Maximum Contamination Level (40 CFR 141)

Report of Analysis

Client Sample ID:	DOE 172	Date Sampled:	08/25/10
Lab Sample ID:	D16814-1F	Date Received:	08/26/10
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	RWF 33-22 WATER TESTING		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	66.4	25	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Barium	15.7	10	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Boron	259	50	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Calcium	455000	400	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Cobalt	< 5.0	5.0	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Copper	< 5.0	5.0	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Lithium	148	2.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Magnesium	615000	200	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Manganese	1520	5.0	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Molybdenum	< 10	10	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Nickel	< 30	30	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Potassium	17600	1000	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Strontium	8550	5.0	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Uranium	67.4	50	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Zinc	< 30	30	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³

(1) Instrument QC Batch: MA962

(2) Instrument QC Batch: MA967

(3) Prep QC Batch: MP2806

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW1	Date Sampled:	08/25/10
Lab Sample ID:	D16814-2	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	RWF 33-22 WATER TESTING		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V06859.D	1	09/01/10	DC	n/a	n/a	V3V369
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	1.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	1.0	ug/l	
75-00-3	Chloroethane	ND	4.0	1.5	ug/l	
67-66-3	Chloroform	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	4.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
591-78-6	2-Hexanone	ND	2.0	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.0	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.5	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	4.3	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.5	ug/l	
100-42-5	Styrene	ND	4.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	1.0	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW1	Date Sampled:	08/25/10
Lab Sample ID:	D16814-2	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	RWF 33-22 WATER TESTING		

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.50	ug/l	
108-05-4	Vinyl Acetate	ND	4.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	87%		63-130%
2037-26-5	Toluene-D8	88%		68-130%
460-00-4	4-Bromofluorobenzene	81%		61-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW1		
Lab Sample ID:	D16814-2	Date Sampled:	08/25/10
Matrix:	AQ - Ground Water	Date Received:	08/26/10
Method:	SW846 8270C SW846 3550B	Percent Solids:	n/a
Project:	RWF 33-22 WATER TESTING		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G08970.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	5.0	4.1	ug/l	
95-57-8	2-Chlorophenol	ND	1.5	1.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	2.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.7	ug/l	
105-67-9	2,4-Dimethylphenol	ND	1.0	1.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	2.0	1.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	2.5	ug/l	
106-44-5	4-Methylphenol	ND	2.0	1.8	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	1.1	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.3	ug/l	
108-95-2	Phenol	ND	5.0	2.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	1.5	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	2.0	1.7	ug/l	
83-32-9	Acenaphthene	ND	1.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	1.0	ug/l	
120-12-7	Anthracene	ND	1.3	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.90	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.5	1.4	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.5	1.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.5	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.1	1.1	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.8	ug/l	
106-47-8	4-Chloroaniline	ND	1.0	1.0	ug/l	
218-01-9	Chrysene	ND	1.0	1.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	2.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.0	1.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	2.5	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW1	Date Sampled:	08/25/10
Lab Sample ID:	D16814-2	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3550B		
Project:	RWF 33-22 WATER TESTING		

ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	2.5	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	1.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.8	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	1.6	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	1.3	1.3	ug/l	
117-84-0	Di-n-octyl phthalate	ND	1.8	1.8	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	2.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1.5	1.5	ug/l	
206-44-0	Fluoranthene	ND	1.2	1.2	ug/l	
86-73-7	Fluorene	ND	1.4	1.4	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	1.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.8	ug/l	
67-72-1	Hexachloroethane	ND	1.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	1.6	ug/l	
78-59-1	Isophorone	ND	1.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.8	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	2.2	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	1.8	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	1.5	ug/l	
91-20-3	Naphthalene	ND	1.0	1.0	ug/l	
98-95-3	Nitrobenzene	ND	1.0	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	1.6	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	1.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	1.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	102%		43-130%
4165-62-2	Phenol-d5	109%		47-130%
118-79-6	2,4,6-Tribromophenol	85%		32-138%
4165-60-0	Nitrobenzene-d5	80%		45-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW1		
Lab Sample ID:	D16814-2	Date Sampled:	08/25/10
Matrix:	AQ - Ground Water	Date Received:	08/26/10
Method:	SW846 8270C SW846 3550B	Percent Solids:	n/a
Project:	RWF 33-22 WATER TESTING		

ABN HSL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	74%		45-130%
1718-51-0	Terphenyl-d14	81%		47-136%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW1	Date Sampled: 08/25/10
Lab Sample ID: D16814-2	Date Received: 08/26/10
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: RWF 33-22 WATER TESTING	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	2000	5.0	mg/l	1	09/03/10	CJ	SM20 2320B
Bromide	< 4.0	4.0	mg/l	20	08/26/10 16:37	GH	EPA 300/SW846 9056
Chloride	1050	25	mg/l	50	08/27/10 11:11	GH	EPA 300/SW846 9056
Nitrogen, Nitrate	< 0.90	0.90	mg/l	20	08/26/10 16:37	GH	EPA 300/SW846 9056
Nitrogen, Nitrite	< 1.2	1.2	mg/l	20	08/26/10 16:37	GH	EPA 300/SW846 9056
Solids, Total Dissolved	8410	10	mg/l	1	08/30/10	JD	SM20 2540C
Specific Conductivity	9820	1.0	umhos/cm	1	08/27/10	CJ	SM20 2510B
Sulfate	3940	100	mg/l	200	08/27/10 11:22	GH	EPA 300/SW846 9056
pH	7.25		su	1	08/26/10 16:50	JD	SM20 4500H

 RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW1	
Lab Sample ID:	D16814-2A	Date Sampled: 08/25/10
Matrix:	DW - Drinking Water	Date Received: 08/26/10
		Percent Solids: n/a
Project:	RWF 33-22 WATER TESTING	

General Chemistry

Analyte	Result	MCL	Units	DF	Analyzed	By	Method
Fluoride ^a	0.51	4.0	mg/l	1	09/09/10	CJ	SM20 4500F C

(a) Matrix changed to DW to allow analysis by Electrode. Unable to analyze by IC due to matrix interference.

MCL = Maximum Contamination Level (40 CFR 141)

Report of Analysis

Client Sample ID:	MW1	Date Sampled:	08/25/10
Lab Sample ID:	D16814-2F	Date Received:	08/26/10
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	RWF 33-22 WATER TESTING		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	35.8	25	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Barium	18.7	10	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Boron	330	50	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Calcium	281000	400	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Cobalt	< 5.0	5.0	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Copper	< 5.0	5.0	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Lithium	85.0	2.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Magnesium	299000	200	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Manganese	245	5.0	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Molybdenum	17.7	10	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Nickel	< 30	30	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Potassium	12000	1000	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Strontium	4080	5.0	ug/l	1	09/08/10	09/09/10 JM	SW846 6010B ¹	SW846 3010A ³
Uranium	< 50	50	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Zinc	< 30	30	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³

(1) Instrument QC Batch: MA962

(2) Instrument QC Batch: MA967

(3) Prep QC Batch: MP2806

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW2	Date Sampled:	08/25/10
Lab Sample ID:	D16814-3	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	RWF 33-22 WATER TESTING		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V06860.D	1	09/01/10	DC	n/a	n/a	V3V369
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	1.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	1.0	ug/l	
75-00-3	Chloroethane	ND	4.0	1.5	ug/l	
67-66-3	Chloroform	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	4.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
591-78-6	2-Hexanone	ND	2.0	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.0	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.5	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	4.3	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.5	ug/l	
100-42-5	Styrene	ND	4.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	1.0	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW2	Date Sampled:	08/25/10
Lab Sample ID:	D16814-3	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	RWF 33-22 WATER TESTING		

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.50	ug/l	
108-05-4	Vinyl Acetate	ND	4.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	91%		63-130%
2037-26-5	Toluene-D8	88%		68-130%
460-00-4	4-Bromofluorobenzene	82%		61-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW2		
Lab Sample ID:	D16814-3	Date Sampled:	08/25/10
Matrix:	AQ - Ground Water	Date Received:	08/26/10
Method:	SW846 8270C SW846 3550B	Percent Solids:	n/a
Project:	RWF 33-22 WATER TESTING		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G08971.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	5.0	4.1	ug/l	
95-57-8	2-Chlorophenol	ND	1.5	1.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	2.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.7	ug/l	
105-67-9	2,4-Dimethylphenol	ND	1.0	1.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	2.0	1.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	2.5	ug/l	
106-44-5	4-Methylphenol	ND	2.0	1.8	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	1.1	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.3	ug/l	
108-95-2	Phenol	ND	5.0	2.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	1.5	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	2.0	1.7	ug/l	
83-32-9	Acenaphthene	ND	1.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	1.0	ug/l	
120-12-7	Anthracene	ND	1.3	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.90	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.5	1.4	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.5	1.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.5	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.1	1.1	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.8	ug/l	
106-47-8	4-Chloroaniline	ND	1.0	1.0	ug/l	
218-01-9	Chrysene	ND	1.0	1.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	2.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.0	1.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	2.5	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW2	Date Sampled:	08/25/10
Lab Sample ID:	D16814-3	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3550B		
Project:	RWF 33-22 WATER TESTING		

ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	2.5	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	1.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.8	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	1.6	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	1.3	1.3	ug/l	
117-84-0	Di-n-octyl phthalate	ND	1.8	1.8	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	2.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1.5	1.5	ug/l	
206-44-0	Fluoranthene	ND	1.2	1.2	ug/l	
86-73-7	Fluorene	ND	1.4	1.4	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	1.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.8	ug/l	
67-72-1	Hexachloroethane	ND	1.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	1.6	ug/l	
78-59-1	Isophorone	ND	1.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.8	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	2.2	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	1.8	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	1.5	ug/l	
91-20-3	Naphthalene	ND	1.0	1.0	ug/l	
98-95-3	Nitrobenzene	ND	1.0	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	1.6	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	1.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	1.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	95%		43-130%
4165-62-2	Phenol-d5	101%		47-130%
118-79-6	2,4,6-Tribromophenol	72%		32-138%
4165-60-0	Nitrobenzene-d5	73%		45-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW2	
Lab Sample ID:	D16814-3	Date Sampled: 08/25/10
Matrix:	AQ - Ground Water	Date Received: 08/26/10
Method:	SW846 8270C SW846 3550B	Percent Solids: n/a
Project:	RWF 33-22 WATER TESTING	

ABN HSL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	66%		45-130%
1718-51-0	Terphenyl-d14	72%		47-136%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW2	Date Sampled: 08/25/10
Lab Sample ID: D16814-3	Date Received: 08/26/10
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: RWF 33-22 WATER TESTING	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	1870	5.0	mg/l	1	09/03/10	CJ	SM20 2320B
Bromide	< 2.0	2.0	mg/l	10	08/26/10 15:53	GH	EPA 300/SW846 9056
Chloride	1980	50	mg/l	100	08/27/10 11:33	GH	EPA 300/SW846 9056
Nitrogen, Nitrate	< 0.45	0.45	mg/l	10	08/26/10 15:53	GH	EPA 300/SW846 9056
Nitrogen, Nitrite	< 6.1	6.1	mg/l	100	08/27/10 11:33	GH	EPA 300/SW846 9056
Solids, Total Dissolved	12400	10	mg/l	1	08/30/10	JD	SM20 2540C
Specific Conductivity	14400	1.0	umhos/cm	1	08/27/10	CJ	SM20 2510B
Sulfate	5280	250	mg/l	500	08/27/10 11:45	GH	EPA 300/SW846 9056
pH	7.09		su	1	08/26/10 16:50	JD	SM20 4500H

 RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW2	Date Sampled:	08/25/10
Lab Sample ID:	D16814-3A	Date Received:	08/26/10
Matrix:	DW - Drinking Water	Percent Solids:	n/a
Project:	RWF 33-22 WATER TESTING		

General Chemistry

Analyte	Result	MCL	Units	DF	Analyzed	By	Method
Fluoride ^a	0.55	4.0	mg/l	1	09/09/10	CJ	SM20 4500F C

(a) Matrix changed to DW to allow analysis by Electrode. Unable to analyze by IC due to matrix interference.

MCL = Maximum Contamination Level (40 CFR 141)

Report of Analysis

Client Sample ID: MW2	Date Sampled: 08/25/10
Lab Sample ID: D16814-3F	Date Received: 08/26/10
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: RWF 33-22 WATER TESTING	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	50.4	25	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Barium	20.1	10	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Boron	285	50	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Calcium	390000	400	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Cobalt	7.0	5.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Copper	< 5.0	5.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Lithium	124	2.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Magnesium	484000	200	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Manganese	4510	5.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Molybdenum	28.1	10	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Nickel	< 30	30	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Potassium	14000	1000	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Strontium	6150	5.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Uranium	70.9	50	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Zinc	< 30	30	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³

(1) Instrument QC Batch: MA962

(2) Instrument QC Batch: MA967

(3) Prep QC Batch: MP2806

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW3	Date Sampled:	08/25/10
Lab Sample ID:	D16814-4	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	RWF 33-22 WATER TESTING		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V06861.D	1	09/01/10	DC	n/a	n/a	V3V369
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	1.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	1.0	ug/l	
75-00-3	Chloroethane	ND	4.0	1.5	ug/l	
67-66-3	Chloroform	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	4.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	11.8	2.0	0.30	ug/l	
591-78-6	2-Hexanone	ND	2.0	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.0	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.5	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	4.3	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.5	ug/l	
100-42-5	Styrene	ND	4.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	1.0	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3	Date Sampled:	08/25/10
Lab Sample ID:	D16814-4	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	RWF 33-22 WATER TESTING		

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.50	ug/l	
108-05-4	Vinyl Acetate	ND	4.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	95%		63-130%
2037-26-5	Toluene-D8	89%		68-130%
460-00-4	4-Bromofluorobenzene	83%		61-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3		
Lab Sample ID:	D16814-4	Date Sampled:	08/25/10
Matrix:	AQ - Ground Water	Date Received:	08/26/10
Method:	SW846 8270C SW846 3550B	Percent Solids:	n/a
Project:	RWF 33-22 WATER TESTING		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G08972.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	5.0	4.1	ug/l	
95-57-8	2-Chlorophenol	ND	1.5	1.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	2.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.7	ug/l	
105-67-9	2,4-Dimethylphenol	ND	1.0	1.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	2.0	1.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	2.5	ug/l	
106-44-5	4-Methylphenol	ND	2.0	1.8	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	1.1	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.3	ug/l	
108-95-2	Phenol	ND	5.0	2.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	1.5	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	2.0	1.7	ug/l	
83-32-9	Acenaphthene	ND	1.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	1.0	ug/l	
120-12-7	Anthracene	ND	1.3	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.90	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.5	1.4	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.5	1.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.5	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.1	1.1	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.8	ug/l	
106-47-8	4-Chloroaniline	ND	1.0	1.0	ug/l	
218-01-9	Chrysene	ND	1.0	1.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	2.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.0	1.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	2.5	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3	Date Sampled:	08/25/10
Lab Sample ID:	D16814-4	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3550B		
Project:	RWF 33-22 WATER TESTING		

ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	2.5	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	1.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.8	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	1.6	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	1.3	1.3	ug/l	
117-84-0	Di-n-octyl phthalate	ND	1.8	1.8	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	2.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1.5	1.5	ug/l	
206-44-0	Fluoranthene	ND	1.2	1.2	ug/l	
86-73-7	Fluorene	ND	1.4	1.4	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	1.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.8	ug/l	
67-72-1	Hexachloroethane	ND	1.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	1.6	ug/l	
78-59-1	Isophorone	ND	1.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.8	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	2.2	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	1.8	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	1.5	ug/l	
91-20-3	Naphthalene	ND	1.0	1.0	ug/l	
98-95-3	Nitrobenzene	ND	1.0	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	1.6	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	1.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	1.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	101%		43-130%
4165-62-2	Phenol-d5	105%		47-130%
118-79-6	2,4,6-Tribromophenol	84%		32-138%
4165-60-0	Nitrobenzene-d5	77%		45-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3	
Lab Sample ID:	D16814-4	Date Sampled: 08/25/10
Matrix:	AQ - Ground Water	Date Received: 08/26/10
Method:	SW846 8270C SW846 3550B	Percent Solids: n/a
Project:	RWF 33-22 WATER TESTING	

ABN HSL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	65%		45-130%
1718-51-0	Terphenyl-d14	76%		47-136%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW3	Date Sampled: 08/25/10
Lab Sample ID: D16814-4	Date Received: 08/26/10
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: RWF 33-22 WATER TESTING	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	1850	5.0	mg/l	1	09/03/10	CJ	SM20 2320B
Bromide	< 2.0	2.0	mg/l	10	08/27/10 11:56	GH	EPA 300/SW846 9056
Chloride	2360	250	mg/l	500	08/27/10 13:03	GH	EPA 300/SW846 9056
Nitrogen, Nitrate	< 0.45	0.45	mg/l	10	08/27/10 11:56	GH	EPA 300/SW846 9056
Nitrogen, Nitrite	< 31	31	mg/l	500	08/27/10 13:03	GH	EPA 300/SW846 9056
Solids, Total Dissolved	14200	10	mg/l	1	08/30/10	JD	SM20 2540C
Specific Conductivity	16100	1.0	umhos/cm	1	08/27/10	CJ	SM20 2510B
Sulfate	5470	250	mg/l	500	08/27/10 13:03	GH	EPA 300/SW846 9056
pH	7.14		su	1	08/26/10 16:50	JD	SM20 4500H

 RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW3	
Lab Sample ID:	D16814-4A	Date Sampled: 08/25/10
Matrix:	DW - Drinking Water	Date Received: 08/26/10
		Percent Solids: n/a
Project:	RWF 33-22 WATER TESTING	

General Chemistry

Analyte	Result	MCL	Units	DF	Analyzed	By	Method
Fluoride ^a	0.56	4.0	mg/l	1	09/09/10	CJ	SM20 4500F C

(a) Matrix changed to DW to allow analysis by Electrode. Unable to analyze by IC due to matrix interference.

MCL = Maximum Contamination Level (40 CFR 141)

Report of Analysis

Client Sample ID:	MW3	Date Sampled:	08/25/10
Lab Sample ID:	D16814-4F	Date Received:	08/26/10
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	RWF 33-22 WATER TESTING		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	60.8	25	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Barium	22.0	10	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Boron	274	50	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Calcium	396000	400	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Cobalt	< 5.0	5.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Copper	< 5.0	5.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Lithium	113	2.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Magnesium	602000	200	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Manganese	1840	5.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Molybdenum	23.3	10	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Nickel	< 30	30	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Potassium	16000	1000	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Strontium	7130	5.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Uranium	61.7	50	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Zinc	< 30	30	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³

(1) Instrument QC Batch: MA962

(2) Instrument QC Batch: MA967

(3) Prep QC Batch: MP2806

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW4	Date Sampled:	08/25/10
Lab Sample ID:	D16814-5	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	RWF 33-22 WATER TESTING		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V06862.D	1	09/01/10	DC	n/a	n/a	V3V369
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	1.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	1.0	ug/l	
75-00-3	Chloroethane	ND	4.0	1.5	ug/l	
67-66-3	Chloroform	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	4.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
591-78-6	2-Hexanone	ND	2.0	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.0	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.5	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	4.3	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.5	ug/l	
100-42-5	Styrene	ND	4.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	1.0	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW4	Date Sampled:	08/25/10
Lab Sample ID:	D16814-5	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	RWF 33-22 WATER TESTING		

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.50	ug/l	
108-05-4	Vinyl Acetate	ND	4.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	92%		63-130%
2037-26-5	Toluene-D8	87%		68-130%
460-00-4	4-Bromofluorobenzene	81%		61-130%

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J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW4		
Lab Sample ID:	D16814-5	Date Sampled:	08/25/10
Matrix:	AQ - Ground Water	Date Received:	08/26/10
Method:	SW846 8270C SW846 3550B	Percent Solids:	n/a
Project:	RWF 33-22 WATER TESTING		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G08973.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	5.0	4.1	ug/l	
95-57-8	2-Chlorophenol	ND	1.5	1.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	2.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.7	ug/l	
105-67-9	2,4-Dimethylphenol	ND	1.0	1.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	2.0	1.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	2.5	ug/l	
106-44-5	4-Methylphenol	ND	2.0	1.8	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	1.1	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.3	ug/l	
108-95-2	Phenol	ND	5.0	2.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	1.5	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	2.0	1.7	ug/l	
83-32-9	Acenaphthene	ND	1.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	1.0	ug/l	
120-12-7	Anthracene	ND	1.3	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.90	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.5	1.4	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.5	1.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.5	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.1	1.1	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.8	ug/l	
106-47-8	4-Chloroaniline	ND	1.0	1.0	ug/l	
218-01-9	Chrysene	ND	1.0	1.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	2.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.0	1.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	2.5	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW4	Date Sampled:	08/25/10
Lab Sample ID:	D16814-5	Date Received:	08/26/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3550B		
Project:	RWF 33-22 WATER TESTING		

ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	2.5	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	1.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.8	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	1.6	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	1.3	1.3	ug/l	
117-84-0	Di-n-octyl phthalate	ND	1.8	1.8	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	2.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1.5	1.5	ug/l	
206-44-0	Fluoranthene	ND	1.2	1.2	ug/l	
86-73-7	Fluorene	ND	1.4	1.4	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	1.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.8	ug/l	
67-72-1	Hexachloroethane	ND	1.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	1.6	ug/l	
78-59-1	Isophorone	ND	1.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.8	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	2.2	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	1.8	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	1.5	ug/l	
91-20-3	Naphthalene	ND	1.0	1.0	ug/l	
98-95-3	Nitrobenzene	ND	1.0	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	1.6	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	1.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	1.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	88%		43-130%
4165-62-2	Phenol-d5	96%		47-130%
118-79-6	2,4,6-Tribromophenol	76%		32-138%
4165-60-0	Nitrobenzene-d5	67%		45-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW4		
Lab Sample ID:	D16814-5	Date Sampled:	08/25/10
Matrix:	AQ - Ground Water	Date Received:	08/26/10
Method:	SW846 8270C SW846 3550B	Percent Solids:	n/a
Project:	RWF 33-22 WATER TESTING		

ABN HSL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	62%		45-130%
1718-51-0	Terphenyl-d14	65%		47-136%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW4	Date Sampled: 08/25/10
Lab Sample ID: D16814-5	Date Received: 08/26/10
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: RWF 33-22 WATER TESTING	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	1170	5.0	mg/l	1	08/28/10	JK	SM20 2320B
Bromide	< 4.0	4.0	mg/l	20	08/27/10 12:07	GH	EPA 300/SW846 9056
Chloride	2420	250	mg/l	500	08/27/10 13:14	GH	EPA 300/SW846 9056
Nitrogen, Nitrate	< 0.90	0.90	mg/l	20	08/27/10 12:07	GH	EPA 300/SW846 9056
Nitrogen, Nitrite	< 31	31	mg/l	500	08/27/10 13:14	GH	EPA 300/SW846 9056
Solids, Total Dissolved	15100	10	mg/l	1	08/30/10	JD	SM20 2540C
Specific Conductivity	17100	1.0	umhos/cm	1	08/27/10	CJ	SM20 2510B
Sulfate	6290	250	mg/l	500	08/27/10 13:14	GH	EPA 300/SW846 9056
pH	7.15		su	1	08/26/10 16:50	JD	SM20 4500H

 RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW4	
Lab Sample ID:	D16814-5A	Date Sampled: 08/25/10
Matrix:	DW - Drinking Water	Date Received: 08/26/10
		Percent Solids: n/a
Project:	RWF 33-22 WATER TESTING	

General Chemistry

Analyte	Result	MCL	Units	DF	Analyzed	By	Method
Fluoride ^a	0.54	4.0	mg/l	1	09/09/10	CJ	SM20 4500F C

(a) Matrix changed to DW to allow analysis by Electrode. Unable to analyze by IC due to matrix interference.

MCL = Maximum Contamination Level (40 CFR 141)

Report of Analysis

Client Sample ID: MW4	Date Sampled: 08/25/10
Lab Sample ID: D16814-5F	Date Received: 08/26/10
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: RWF 33-22 WATER TESTING	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	67.0	25	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Barium	23.2	10	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Boron	256	50	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Calcium	457000	400	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Cobalt	7.1	5.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Copper	< 5.0	5.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Lithium	124	2.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Magnesium	631000	200	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Manganese	2060	5.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Molybdenum	20.1	10	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Nickel	< 30	30	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Potassium	19700	1000	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Strontium	8080	5.0	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ¹	SW846 3010A ³
Uranium	65.9	50	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³
Zinc	< 30	30	ug/l	1	09/08/10	09/10/10 JM	SW846 6010B ²	SW846 3010A ³

(1) Instrument QC Batch: MA962

(2) Instrument QC Batch: MA967

(3) Prep QC Batch: MP2806

RL = Reporting Limit

Report of Analysis

Client Sample ID:	CR-DG	Date Sampled:	08/25/10
Lab Sample ID:	D16814-6	Date Received:	08/26/10
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	RWF 33-22 WATER TESTING		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V06863.D	1	09/01/10	DC	n/a	n/a	V3V369
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	1.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	1.0	ug/l	
75-00-3	Chloroethane	ND	4.0	1.5	ug/l	
67-66-3	Chloroform	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	4.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
591-78-6	2-Hexanone	ND	2.0	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.0	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.5	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	4.3	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.5	ug/l	
100-42-5	Styrene	ND	4.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	1.0	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CR-DG	Date Sampled:	08/25/10
Lab Sample ID:	D16814-6	Date Received:	08/26/10
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	RWF 33-22 WATER TESTING		

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.50	ug/l	
108-05-4	Vinyl Acetate	ND	4.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	93%		63-130%
2037-26-5	Toluene-D8	85%		68-130%
460-00-4	4-Bromofluorobenzene	80%		61-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CR-DG	Date Sampled:	08/25/10
Lab Sample ID:	D16814-6	Date Received:	08/26/10
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3550B		
Project:	RWF 33-22 WATER TESTING		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G08974.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	5.0	4.1	ug/l	
95-57-8	2-Chlorophenol	ND	1.5	1.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	2.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.7	ug/l	
105-67-9	2,4-Dimethylphenol	ND	1.0	1.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	2.0	1.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	2.5	ug/l	
106-44-5	4-Methylphenol	ND	2.0	1.8	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	1.1	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.3	ug/l	
108-95-2	Phenol	ND	5.0	2.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	1.5	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	2.0	1.7	ug/l	
83-32-9	Acenaphthene	ND	1.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	1.0	ug/l	
120-12-7	Anthracene	ND	1.3	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.90	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.5	1.4	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.5	1.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.5	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.1	1.1	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.8	ug/l	
106-47-8	4-Chloroaniline	ND	1.0	1.0	ug/l	
218-01-9	Chrysene	ND	1.0	1.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	2.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.0	1.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	2.5	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CR-DG	Date Sampled:	08/25/10
Lab Sample ID:	D16814-6	Date Received:	08/26/10
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3550B		
Project:	RWF 33-22 WATER TESTING		

ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	2.5	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	1.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.8	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	1.6	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	1.3	1.3	ug/l	
117-84-0	Di-n-octyl phthalate	ND	1.8	1.8	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	2.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1.5	1.5	ug/l	
206-44-0	Fluoranthene	ND	1.2	1.2	ug/l	
86-73-7	Fluorene	ND	1.4	1.4	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	1.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.8	ug/l	
67-72-1	Hexachloroethane	ND	1.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	1.6	ug/l	
78-59-1	Isophorone	ND	1.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.8	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	2.2	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	1.8	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	1.5	ug/l	
91-20-3	Naphthalene	ND	1.0	1.0	ug/l	
98-95-3	Nitrobenzene	ND	1.0	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	1.6	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	1.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	1.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	86%		43-130%
4165-62-2	Phenol-d5	93%		47-130%
118-79-6	2,4,6-Tribromophenol	73%		32-138%
4165-60-0	Nitrobenzene-d5	68%		45-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CR-DG	Date Sampled:	08/25/10
Lab Sample ID:	D16814-6	Date Received:	08/26/10
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3550B		
Project:	RWF 33-22 WATER TESTING		

ABN HSL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	62%		45-130%
1718-51-0	Terphenyl-d14	69%		47-136%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Client / Reporting Information						Project Information							Requested Analysis								Matrix Codes						
Company Name Olson Associates			Project Name: RWF 33-22 Water Testing																		DRI- Drinking Water GW- Ground Water WW- Waler SW- Surface Water SO- Soil SL-Sudge OI-Oil						
Address 826 21½ Road			Street																		LIQ- Other Liquid						
City Grand Junction CO			State 81505																		AIR- Air						
Project Contact: Mr DOBRANSKY E-mail tobransky@oceanconsulting.com			Project # 010-1744-100-100003																		SOL-Other Solid WP-Wipe						
Phone # 970.270.2986			Fax # 970.263.7456																		LAB USE ONLY						
Samplers' Name T Dobransky			Client Purchase Order #																								
Accutest			SUMMA #	Collection				Number of preserved Bottles																			
Sample #			Field ID / Point of Collection	MECH Vial #	Date	Time	Sampled by	Matrix	# of bottles	DI	NaOH	MNO3	HSSO4	PAGE	NH-HSO4	MECH	ENCORE										
			DOE 172	-	8/25/10	0920	TPD	GW	9					9				X	X	X	X	X	X				O1
			MW1	-	8/25/10	1200	TPD	GW	9					9				X	X	X	X	X	X				O2
			MW2	-	8/25/10	1230	TPD	GW	9					9				X	X	X	X	X	X				O3
			MW3	-	8/25/10	1345	TPD	GW	9					9				X	X	X	X	X	X				O4
			MW4	-	8/25/10	1310	TPD	GW	9					9				X	X	X	X	X	X				O5
			CR-DG	-	8/25/10	1010	TPD	SW	5					5				X	X								O6
Turnaround Time (Business days)			Data Deliverable Information															Comments / Remarks									
<input checked="" type="checkbox"/> Std. 14 Business Days <input checked="" type="checkbox"/> 10 Day RUSH <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input type="checkbox"/> Other			Approved By: Date:			<input checked="" type="checkbox"/> Commercial "A" <input checked="" type="checkbox"/> Commercial "B" <input type="checkbox"/> NJ Reduced <input type="checkbox"/> NJ Full <input type="checkbox"/> Other			<input type="checkbox"/> FULL CLP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format			Anions * - Cl, Br, F, SO4, NO3, NO2, Chlorate, chlorite. Diss Metals ** - Ba, B, Ca, Cr, Co, Cu, Li, Mg, Mn, Ni, K, Sr, Zn, As, Mo, U.															
Emergency T/A data available VIA Lablink			Sample Custody must be documented below each time samples change possession, including courier delivery.																								
Relinquished by Sampler:			Date Time:			Received By:			Relinquished By:			Date Time:			Received By:												
Relinquished by:			8/25/10 1600			1			2						2												
3 Relinquished by:			Date Time:			Received By:			Custody Seal #			Preserved where applicable			On Ice Cooler Temp.												
									N/A			✓			✓ 42												
5						5																					

D16814: Chain of Custody

Page 1 of 2



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D16814

Client: OLSSON ASS.

Immediate Client Services Action Required: No

Date / Time Received: 8/26/2010 9:00:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: RWF 33-22 WATER TESTING

Airbill #'s: fedex

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | Infrared gun | |
| 3. Cooler media: | Ice (bag) | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume rec'd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www.accutest.com

D16814: Chain of Custody
Page 2 of 2



GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 2

Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V369-MB1	3V06849A.D 1		09/01/10	DC	n/a	n/a	V3V369

The QC reported here applies to the following samples:

Method: SW846 8260B

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	1.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	1.0	ug/l	
75-00-3	Chloroethane	ND	4.0	1.5	ug/l	
67-66-3	Chloroform	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	4.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
591-78-6	2-Hexanone	ND	2.0	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.0	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.5	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	4.3	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.5	ug/l	
100-42-5	Styrene	ND	4.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.50	ug/l	

Method Blank Summary

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Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V369-MB1	3V06849A.D 1		09/01/10	DC	n/a	n/a	V3V369

The QC reported here applies to the following samples:

Method: SW846 8260B

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	2.0	0.50	ug/l	
108-05-4	Vinyl Acetate	ND	4.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Limits
17060-07-0	1,2-Dichloroethane-D4	89% 63-130%
2037-26-5	Toluene-D8	90% 68-130%
460-00-4	4-Bromofluorobenzene	85% 61-130%

Blank Spike Summary

Page 1 of 2

Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V369-BS1	3V06850A.D 1		09/01/10	DC	n/a	n/a	V3V369

The QC reported here applies to the following samples:

Method: SW846 8260B

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	27.0	54	49-130
71-43-2	Benzene	50	48.9	98	70-130
75-27-4	Bromodichloromethane	50	49.5	99	70-130
75-25-2	Bromoform	50	45.1	90	48-138
108-90-7	Chlorobenzene	50	50.0	100	70-130
75-00-3	Chloroethane	50	43.7	87	61-130
67-66-3	Chloroform	50	51.6	103	70-130
110-75-8	2-Chloroethyl vinyl ether	50	42.0	84	22-185
75-15-0	Carbon disulfide	50	57.4	115	55-130
56-23-5	Carbon tetrachloride	50	52.9	106	70-130
75-34-3	1,1-Dichloroethane	50	51.3	103	70-130
75-35-4	1,1-Dichloroethylene	50	51.6	103	70-130
107-06-2	1,2-Dichloroethane	50	48.6	97	70-130
78-87-5	1,2-Dichloropropane	50	48.8	98	70-130
124-48-1	Dibromochloromethane	50	45.0	90	64-132
156-59-2	cis-1,2-Dichloroethylene	50	51.5	103	70-130
10061-01-5	cis-1,3-Dichloropropene	50	45.9	92	67-130
541-73-1	m-Dichlorobenzene	50	48.1	96	52-148
95-50-1	o-Dichlorobenzene	50	47.6	95	53-146
106-46-7	p-Dichlorobenzene	50	46.2	92	57-136
156-60-5	trans-1,2-Dichloroethylene	50	51.7	103	70-130
10061-02-6	trans-1,3-Dichloropropene	50	42.0	84	66-130
100-41-4	Ethylbenzene	50	51.3	103	70-130
591-78-6	2-Hexanone	50	38.8	78	38-130
108-10-1	4-Methyl-2-pentanone	50	43.9	88	68-130
74-83-9	Methyl bromide	50	42.3	85	35-151
74-87-3	Methyl chloride	50	43.0	86	46-138
75-09-2	Methylene chloride	50	47.6	95	70-130
78-93-3	Methyl ethyl ketone	50	37.3	75	37-130
100-42-5	Styrene	50	39.6	79	38-130
71-55-6	1,1,1-Trichloroethane	50	50.5	101	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	45.9	92	70-130
79-00-5	1,1,2-Trichloroethane	50	47.7	95	69-130
127-18-4	Tetrachloroethylene	50	50.3	101	66-134
108-88-3	Toluene	50	49.7	99	70-140
79-01-6	Trichloroethylene	50	50.4	101	70-130

Blank Spike Summary

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Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V369-BS1	3V06850A.D 1		09/01/10	DC	n/a	n/a	V3V369

The QC reported here applies to the following samples:

Method: SW846 8260B

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-01-4	Vinyl chloride	50	40.7	81	58-135
108-05-4	Vinyl Acetate	50	40.1	80	50-130
1330-20-7	Xylene (total)	100	89.2	89	55-134

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	83%	63-130%
2037-26-5	Toluene-D8	86%	68-130%
460-00-4	4-Bromofluorobenzene	88%	61-130%

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D16812-1MS	3V06856.D	1	09/01/10	DC	n/a	n/a	V3V369
D16812-1MSD	3V06857.D	1	09/01/10	DC	n/a	n/a	V3V369
D16812-1	3V06855.D	1	09/01/10	DC	n/a	n/a	V3V369

The QC reported here applies to the following samples:

Method: SW846 8260B

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Compound	D16812-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	50	27.4	55	25.7	51	6	21-130/30
71-43-2	Benzene	ND	50	50.2	100	51.9	104	3	59-132/30
75-27-4	Bromodichloromethane	ND	50	51.6	103	53.3	107	3	58-130/30
75-25-2	Bromoform	ND	50	48.4	97	48.8	98	1	45-140/30
108-90-7	Chlorobenzene	ND	50	51.2	102	53.6	107	5	70-130/30
75-00-3	Chloroethane	ND	50	45.1	90	46.8	94	4	61-130/30
67-66-3	Chloroform	ND	50	52.6	105	55.3	111	5	69-130/30
110-75-8	2-Chloroethyl vinyl ether	ND	50	1.4	3* a	1.3	3* a	7	20-168/30
75-15-0	Carbon disulfide	ND	50	59.0	118	61.5	123	4	41-132/30
56-23-5	Carbon tetrachloride	ND	50	54.7	109	57.1	114	4	70-130/30
75-34-3	1,1-Dichloroethane	ND	50	53.5	107	55.4	111	3	70-130/30
75-35-4	1,1-Dichloroethylene	ND	50	52.7	105	55.0	110	4	69-137/30
107-06-2	1,2-Dichloroethane	ND	50	51.2	102	52.1	104	2	62-130/30
78-87-5	1,2-Dichloropropane	ND	50	50.6	101	51.0	102	1	63-131/30
124-48-1	Dibromochloromethane	ND	50	46.5	93	46.9	94	1	52-141/30
156-59-2	cis-1,2-Dichloroethylene	ND	50	53.3	107	54.9	110	3	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND	50	46.0	92	46.9	94	2	51-134/30
541-73-1	m-Dichlorobenzene	ND	50	49.8	100	50.9	102	2	38-148/30
95-50-1	o-Dichlorobenzene	ND	50	49.2	98	50.3	101	2	40-148/30
106-46-7	p-Dichlorobenzene	ND	50	48.4	97	49.1	98	1	43-136/30
156-60-5	trans-1,2-Dichloroethylene	ND	50	54.6	109	56.2	112	3	69-134/30
10061-02-6	trans-1,3-Dichloropropene	ND	50	43.6	87	44.3	89	2	50-130/30
100-41-4	Ethylbenzene	ND	50	53.1	106	56.3	113	6	68-130/30
591-78-6	2-Hexanone	ND	50	44.3	89	39.5	79	11	29-130/30
108-10-1	4-Methyl-2-pentanone	ND	50	48.5	97	45.6	91	6	62-130/30
74-83-9	Methyl bromide	ND	50	45.1	90	45.9	92	2	20-171/30
74-87-3	Methyl chloride	ND	50	44.0	88	45.4	91	3	25-148/30
75-09-2	Methylene chloride	ND	50	48.8	98	50.2	100	3	58-139/30
78-93-3	Methyl ethyl ketone	ND	50	43.6	87	37.7	75	15	37-130/30
100-42-5	Styrene	ND	50	41.0	82	42.5	85	4	27-130/30
71-55-6	1,1,1-Trichloroethane	ND	50	51.5	103	53.9	108	5	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	50.1	100	47.5	95	5	61-140/30
79-00-5	1,1,2-Trichloroethane	ND	50	50.2	100	49.7	99	1	52-135/30
127-18-4	Tetrachloroethylene	ND	50	51.7	103	55.1	110	6	61-134/30
108-88-3	Toluene	ND	50	50.3	101	54.2	108	7	56-142/30
79-01-6	Trichloroethylene	ND	50	52.8	106	54.2	108	3	61-132/30

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D16812-1MS	3V06856.D	1	09/01/10	DC	n/a	n/a	V3V369
D16812-1MSD	3V06857.D	1	09/01/10	DC	n/a	n/a	V3V369
D16812-1	3V06855.D	1	09/01/10	DC	n/a	n/a	V3V369

The QC reported here applies to the following samples:

Method: SW846 8260B

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Compound	D16812-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-01-4	Vinyl chloride	ND	50	41.9	84	42.3	85	1	54-148/30
108-05-4	Vinyl Acetate	ND	50	44.0	88	43.4	87	1	40-139/30
1330-20-7	Xylene (total)	ND	100	94.3	94	97.2	97	3	36-146/30

CAS No.	Surrogate Recoveries	MS	MSD	D16812-1	Limits
17060-07-0	1,2-Dichloroethane-D4	88%	87%	87%	63-130%
2037-26-5	Toluene-D8	87%	88%	88%	68-130%
460-00-4	4-Bromofluorobenzene	87%	88%	84%	61-130%

(a) Compound below QC limit due to acid preservation which destroys this compound.



GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

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Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2431-MB	1G08963.D	1	09/02/10	TMB	08/30/10	OP2431	E1G281

The QC reported here applies to the following samples:

Method: SW846 8270C

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	5.0	4.1	ug/l	
95-57-8	2-Chlorophenol	ND	1.5	1.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	2.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.7	ug/l	
105-67-9	2,4-Dimethylphenol	ND	1.0	1.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	2.0	1.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	2.5	ug/l	
106-44-5	4-Methylphenol	ND	2.0	1.8	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	1.1	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.3	ug/l	
108-95-2	Phenol	ND	5.0	2.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	1.5	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	2.0	1.7	ug/l	
83-32-9	Acenaphthene	ND	1.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	1.0	ug/l	
120-12-7	Anthracene	ND	1.3	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.90	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.5	1.4	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.5	1.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.5	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.1	1.1	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.8	ug/l	
106-47-8	4-Chloroaniline	ND	1.0	1.0	ug/l	
218-01-9	Chrysene	ND	1.0	1.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	2.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.0	1.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	2.5	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	2.5	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	1.0	ug/l	

Method Blank Summary

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Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2431-MB	1G08963.D	1	09/02/10	TMB	08/30/10	OP2431	E1G281

The QC reported here applies to the following samples:

Method: SW846 8270C

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Compound	Result	RL	MDL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	1.0	1.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.8	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	1.6	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	1.3	1.3	ug/l	
117-84-0	Di-n-octyl phthalate	ND	1.8	1.8	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	2.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1.5	1.5	ug/l	
206-44-0	Fluoranthene	ND	1.2	1.2	ug/l	
86-73-7	Fluorene	ND	1.4	1.4	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	1.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.8	ug/l	
67-72-1	Hexachloroethane	ND	1.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	1.6	ug/l	
78-59-1	Isophorone	ND	1.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.8	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	2.2	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	1.8	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	1.5	ug/l	
91-20-3	Naphthalene	ND	1.0	1.0	ug/l	
98-95-3	Nitrobenzene	ND	1.0	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	1.6	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	1.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	1.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.8	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	112% 43-130%
4165-62-2	Phenol-d5	121% 47-130%
118-79-6	2,4,6-Tribromophenol	79% 32-138%

Method Blank Summary

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Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2431-MB	1G08963.D	1	09/02/10	TMB	08/30/10	OP2431	E1G281

The QC reported here applies to the following samples:

Method: SW846 8270C

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	78% 45-130%
321-60-8	2-Fluorobiphenyl	72% 45-130%
1718-51-0	Terphenyl-d14	70% 47-136%

Blank Spike Summary

Page 1 of 3

Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2431-BS	1G08964.D	1	09/02/10	TMB	08/30/10	OP2431	E1G281

The QC reported here applies to the following samples:

Method: SW846 8270C

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	30.0	60	17-130
95-57-8	2-Chlorophenol	50	49.1	98	42-130
59-50-7	4-Chloro-3-methyl phenol	50	48.6	97	46-130
120-83-2	2,4-Dichlorophenol	50	47.0	94	47-130
105-67-9	2,4-Dimethylphenol	50	37.0	74	31-130
51-28-5	2,4-Dinitrophenol	50	41.7	83	35-135
534-52-1	4,6-Dinitro-o-cresol	50	40.7	81	54-130
95-48-7	2-Methylphenol	50	49.8	100	47-130
106-44-5	4-Methylphenol	50	50.9	102	45-130
88-75-5	2-Nitrophenol	50	47.8	96	43-130
100-02-7	4-Nitrophenol	50	43.7	87	52-130
87-86-5	Pentachlorophenol	50	41.3	83	49-130
108-95-2	Phenol	50	50.1	100	32-130
95-95-4	2,4,5-Trichlorophenol	50	45.9	92	59-130
88-06-2	2,4,6-Trichlorophenol	50	45.1	90	57-130
83-32-9	Acenaphthene	50	43.2	86	58-130
208-96-8	Acenaphthylene	50	45.5	91	56-130
120-12-7	Anthracene	50	43.8	88	59-130
56-55-3	Benzo(a)anthracene	50	46.7	93	58-130
50-32-8	Benzo(a)pyrene	50	46.3	93	58-130
205-99-2	Benzo(b)fluoranthene	50	46.6	93	64-130
191-24-2	Benzo(g,h,i)perylene	50	46.6	93	62-130
207-08-9	Benzo(k)fluoranthene	50	48.2	96	60-130
101-55-3	4-Bromophenyl phenyl ether	50	43.4	87	65-130
85-68-7	Butyl benzyl phthalate	50	44.1	88	56-130
100-51-6	Benzyl Alcohol	50	52.1	104	60-130
91-58-7	2-Chloronaphthalene	50	43.1	86	60-130
106-47-8	4-Chloroaniline	50	45.6	91	32-130
218-01-9	Chrysene	50	44.8	90	58-130
111-91-1	bis(2-Chloroethoxy)methane	50	45.7	91	58-130
111-44-4	bis(2-Chloroethyl)ether	50	48.3	97	55-130
108-60-1	bis(2-Chloroisopropyl)ether	50	45.0	90	53-130
7005-72-3	4-Chlorophenyl phenyl ether	50	41.0	82	67-130
95-50-1	1,2-Dichlorobenzene	50	47.0	94	52-130
541-73-1	1,3-Dichlorobenzene	50	46.2	92	50-130
106-46-7	1,4-Dichlorobenzene	50	47.0	94	51-130

Blank Spike Summary

Page 2 of 3

Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2431-BS	1G08964.D	1	09/02/10	TMB	08/30/10	OP2431	E1G281

The QC reported here applies to the following samples:

Method: SW846 8270C

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
121-14-2	2,4-Dinitrotoluene	50	47.8	96	51-131
606-20-2	2,6-Dinitrotoluene	50	46.2	92	59-130
91-94-1	3,3'-Dichlorobenzidine	50	49.2	98	51-130
53-70-3	Dibenzo(a,h)anthracene	50	45.7	91	62-130
132-64-9	Dibenzofuran	50	42.6	85	60-130
84-74-2	Di-n-butyl phthalate	50	44.8	90	55-130
117-84-0	Di-n-octyl phthalate	50	43.6	87	59-130
84-66-2	Diethyl phthalate	50	41.7	83	70-130
131-11-3	Dimethyl phthalate	50	42.8	86	51-130
117-81-7	bis(2-Ethylhexyl)phthalate	50	43.8	88	58-130
206-44-0	Fluoranthene	50	44.9	90	60-130
86-73-7	Fluorene	50	43.6	87	61-130
118-74-1	Hexachlorobenzene	50	41.5	83	58-130
87-68-3	Hexachlorobutadiene	50	43.2	86	42-130
77-47-4	Hexachlorocyclopentadiene	50	22.2	44	36-130
67-72-1	Hexachloroethane	50	47.3	95	43-130
193-39-5	Indeno(1,2,3-cd)pyrene	50	47.4	95	62-130
78-59-1	Isophorone	50	48.8	98	52-130
91-57-6	2-Methylnaphthalene	50	44.6	89	54-130
88-74-4	2-Nitroaniline	50	45.5	91	60-130
99-09-2	3-Nitroaniline	50	47.1	94	62-130
100-01-6	4-Nitroaniline	50	44.8	90	56-130
91-20-3	Naphthalene	50	43.6	87	54-130
98-95-3	Nitrobenzene	50	44.5	89	50-130
621-64-7	N-Nitroso-di-n-propylamine	50	49.8	100	60-130
86-30-6	N-Nitrosodiphenylamine	50	36.1	72	54-130
85-01-8	Phenanthrene	50	41.9	84	62-130
129-00-0	Pyrene	50	46.2	92	54-130
120-82-1	1,2,4-Trichlorobenzene	50	43.7	87	52-130

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	83%	43-130%
4165-62-2	Phenol-d5	93%	47-130%
118-79-6	2,4,6-Tribromophenol	85%	32-138%

Blank Spike Summary

Page 3 of 3

Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2431-BS	1G08964.D	1	09/02/10	TMB	08/30/10	OP2431	E1G281

The QC reported here applies to the following samples:

Method: SW846 8270C

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	78%	45-130%
321-60-8	2-Fluorobiphenyl	72%	45-130%
1718-51-0	Terphenyl-d14	77%	47-136%

6.2.1

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Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2431-MS	1G08977.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281
OP2431-MSD	1G08978.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281
D16903-1	1G08976.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281

The QC reported here applies to the following samples:

Method: SW846 8270C

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Compound	D16903-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		50	47.0	94	50.1	100	6	8.2-155/30
95-57-8	2-Chlorophenol	ND		50	49.5	99	56.0	112	12	43-130/30
59-50-7	4-Chloro-3-methyl phenol	ND		50	50.5	101	54.2	108	7	48-130/30
120-83-2	2,4-Dichlorophenol	ND		50	48.5	97	53.0	106	9	47-130/30
105-67-9	2,4-Dimethylphenol	ND		50	37.0	74	40.0	80	8	40-130/30
51-28-5	2,4-Dinitrophenol	ND		50	46.6	93	46.7	93	0	53-130/30
534-52-1	4,6-Dinitro-o-cresol	ND		50	42.4	85	45.3	91	7	65-130/30
95-48-7	2-Methylphenol	ND		50	48.7	97	55.3	111	13	41-130/30
106-44-5	4-Methylphenol	ND		50	49.9	100	55.8	112	11	42-130/30
88-75-5	2-Nitrophenol	ND		50	49.8	100	53.9	108	8	46-130/30
100-02-7	4-Nitrophenol	ND		50	49.7	99	51.8	104	4	52-130/30
87-86-5	Pentachlorophenol	ND		50	41.5	83	45.2	90	9	51-130/30
108-95-2	Phenol	ND		50	49.0	98	55.9	112	13	41-130/30
95-95-4	2,4,5-Trichlorophenol	ND		50	46.6	93	52.4	105	12	56-130/30
88-06-2	2,4,6-Trichlorophenol	ND		50	45.1	90	52.3	105	15	56-130/30
83-32-9	Acenaphthene	ND		50	41.1	82	46.9	94	13	54-130/30
208-96-8	Acenaphthylene	ND		50	43.7	87	48.9	98	11	55-130/30
120-12-7	Anthracene	ND		50	43.1	86	48.8	98	12	60-130/30
56-55-3	Benzo(a)anthracene	ND		50	45.5	91	51.4	103	12	54-130/30
50-32-8	Benzo(a)pyrene	ND		50	45.8	92	52.1	104	13	59-130/30
205-99-2	Benzo(b)fluoranthene	ND		50	48.0	96	53.2	106	10	58-130/30
191-24-2	Benzo(g,h,i)perylene	ND		50	46.9	94	52.0	104	10	58-130/30
207-08-9	Benzo(k)fluoranthene	ND		50	45.6	91	53.1	106	15	53-130/30
101-55-3	4-Bromophenyl phenyl ether	ND		50	41.8	84	48.1	96	14	61-130/30
85-68-7	Butyl benzyl phthalate	ND		50	44.9	90	46.6	93	4	51-130/30
100-51-6	Benzyl Alcohol	ND		50	51.3	103	56.5	113	10	40-130/30
91-58-7	2-Chloronaphthalene	ND		50	39.9	80	46.0	92	14	57-130/30
106-47-8	4-Chloroaniline	ND		50	46.8	94	51.4	103	9	32-130/30
218-01-9	Chrysene	ND		50	43.8	88	50.0	100	13	55-130/30
111-91-1	bis(2-Chloroethoxy)methane	ND		50	46.7	93	51.8	104	10	48-130/30
111-44-4	bis(2-Chloroethyl)ether	ND		50	47.6	95	54.1	108	13	45-130/30
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	43.9	88	49.2	98	11	41-130/30
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	41.0	82	45.4	91	10	56-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	40.3	81	45.6	91	12	41-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	37.6	75	43.0	86	13	39-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	38.7	77	44.0	88	13	39-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2431-MS	1G08977.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281
OP2431-MSD	1G08978.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281
D16903-1	1G08976.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281

The QC reported here applies to the following samples:

Method: SW846 8270C

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Compound	D16903-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
121-14-2	2,4-Dinitrotoluene	ND	50	51.7	103	56.0	112	8	56-130/30
606-20-2	2,6-Dinitrotoluene	ND	50	48.4	97	52.6	105	8	61-130/30
91-94-1	3,3'-Dichlorobenzidine	ND	50	42.5	85	48.3	97	13	19-130/30
53-70-3	Dibenzo(a,h)anthracene	ND	50	46.1	92	50.6	101	9	61-130/30
132-64-9	Dibenzofuran	ND	50	41.8	84	46.8	94	11	57-130/30
84-74-2	Di-n-butyl phthalate	ND	50	44.2	88	47.9	96	8	57-130/30
117-84-0	Di-n-octyl phthalate	ND	50	43.4	87	47.0	94	8	49-130/30
84-66-2	Diethyl phthalate	ND	50	44.2	88	47.9	96	8	70-130/30
131-11-3	Dimethyl phthalate	ND	50	44.4	89	48.6	97	9	55-130/30
117-81-7	bis(2-Ethylhexyl)phthalate	ND	50	43.2	86	45.4	91	5	54-130/30
206-44-0	Fluoranthene	ND	50	44.8	90	49.3	99	10	54-130/30
86-73-7	Fluorene	ND	50	43.8	88	48.3	97	10	54-130/30
118-74-1	Hexachlorobenzene	ND	50	40.3	81	45.7	91	13	59-130/30
87-68-3	Hexachlorobutadiene	ND	50	30.7	61	37.5	75	20	32-130/30
77-47-4	Hexachlorocyclopentadiene	ND	50	14.3	29	17.3	35	19	28-130/30
67-72-1	Hexachloroethane	ND	50	32.2	64	38.3	77	17	31-130/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND	50	47.6	95	51.1	102	7	59-130/30
78-59-1	Isophorone	ND	50	49.5	99	53.8	108	8	45-130/30
91-57-6	2-Methylnaphthalene	ND	50	41.7	83	46.0	92	10	43-130/30
88-74-4	2-Nitroaniline	ND	50	47.5	95	52.6	105	10	58-130/30
99-09-2	3-Nitroaniline	ND	50	50.8	102	55.4	111	9	55-130/30
100-01-6	4-Nitroaniline	ND	50	50.6	101	53.2	106	5	58-130/30
91-20-3	Naphthalene	ND	50	42.3	85	46.5	93	9	43-130/30
98-95-3	Nitrobenzene	ND	50	46.0	92	51.2	102	11	47-130/30
621-64-7	N-Nitroso-di-n-propylamine	ND	50	48.4	97	53.6	107	10	41-130/30
86-30-6	N-Nitrosodiphenylamine	ND	50	35.0	70	39.8	80	13	56-132/30
85-01-8	Phenanthrene	ND	50	41.0	82	46.1	92	12	59-130/30
129-00-0	Pyrene	ND	50	48.0	96	50.1	100	4	51-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	50	37.3	75	42.1	84	12	43-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D16903-1	Limits
367-12-4	2-Fluorophenol	86%	102%	108%	43-130%
4165-62-2	Phenol-d5	93%	107%	119%	47-130%
118-79-6	2,4,6-Tribromophenol	96%	100%	86%	32-138%

Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: D16814
Account: CORCCOGJ Olsson Associates
Project: RWF 33-22 WATER TESTING

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2431-MS	1G08977.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281
OP2431-MSD	1G08978.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281
D16903-1	1G08976.D	1	09/03/10	TMB	08/30/10	OP2431	E1G281

The QC reported here applies to the following samples:

Method: SW846 8270C

D16814-1, D16814-2, D16814-3, D16814-4, D16814-5, D16814-6

CAS No.	Surrogate Recoveries	MS	MSD	D16903-1	Limits
4165-60-0	Nitrobenzene-d5	80%	91%	82%	45-130%
321-60-8	2-Fluorobiphenyl	70%	79%	77%	45-130%
1718-51-0	Terphenyl-d14	87%	87%	84%	47-136%



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D16814
Account: CORCCOGJ - Olsson Associates
Project: RWF 33-22 WATER TESTING

QC Batch ID: MP2806
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 09/08/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	7	49		
Antimony	30	1.7	13		
Arsenic	25	2.8	6.5	-4.4	<25
Barium	10	.14	2.4	0.70	<10
Beryllium	10	1.4	4.4		
Boron	50	3.5	19	1.0	<50
Cadmium	10	.22	1.2		
Calcium	400	17	9.2	28.9	<400
Chromium	10	.27	1.6	0.30	<10
Cobalt	5.0	.48	.3	-0.10	<5.0
Copper	5.0	1.6	2.7	-1.6	<5.0
Iron	70	7.7	10		
Lead	50	1.3	3.2		
Lithium	2.0	.76	1.6	0.0	<2.0
Magnesium	200	5.8	12	8.7	<200
Manganese	5.0	.21	.7	1.2	<5.0
Molybdenum	10	.41	1.2	0.80	<10
Nickel	30	.38	.6	-0.30	<30
Phosphorus	100	15	54		
Potassium	1000	380	540	272	<1000
Selenium	50	2.8	7.2		
Silicon	50	12	20		
Silver	30	.98	.3		
Sodium	400	230	23		
Strontium	5.0	.091	3.4	0.20	<5.0
Thallium	10	3.1	2.1		
Tin	50	14	4.4		
Titanium	10	.098	.7		
Uranium	50	2.2	3.9	-0.20	<50
Vanadium	10	.27	.3		
Zinc	30	.76	1.7	2.0	<30

Associated samples MP2806: D16814-1F, D16814-2F, D16814-3F, D16814-4F, D16814-5F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D16814
Account: CORCCOGJ - Olsson Associates
Project: RWF 33-22 WATER TESTING

QC Batch ID: MP2806
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D16814
Account: CORCCOGJ - Olsson Associates
Project: RWF 33-22 WATER TESTING

QC Batch ID: MP2806
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 09/08/10

Metal	D16869-3 Original MS		Spikelot MPICPALL % Rec	QC Limits
Aluminum				
Antimony				
Arsenic	0.0	1050	1000	105.0 75-125
Barium	68.8	1940	2000	93.6 75-125
Beryllium				
Boron	14.5	1060	1000	104.6 75-125
Cadmium	anr			
Calcium	19800	43400	25000	94.4 75-125
Chromium	2.9	516	500	102.6 75-125
Cobalt	18.5	517	500	99.7 75-125
Copper	4.6	471	500	93.3 75-125
Iron	anr			
Lead	anr			
Lithium	6.0	1030	1000	102.4 75-125
Magnesium	5520	28800	25000	93.1 75-125
Manganese	1180	1620	500	88.0 75-125
Molybdenum	2.4	521	500	103.7 75-125
Nickel	4.7	497	500	98.5 75-125
Phosphorus				
Potassium	2430	25700	25000	93.1 75-125
Selenium	anr			
Silicon	anr			
Silver	anr			
Sodium	anr			
Strontium	229	714	500	97.0 75-125
Thallium				
Tin				
Titanium				
Uranium	0.0	989	1000	98.7 75-125
Vanadium				
Zinc	12.0	493	500	96.4 75-125

Associated samples MP2806: D16814-1F, D16814-2F, D16814-3F, D16814-4F, D16814-5F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D16814
Account: CORCCOGJ - Olsson Associates
Project: RWF 33-22 WATER TESTING

QC Batch ID: MP2806
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D16814
Account: CORCCOGJ - Olsson Associates
Project: RWF 33-22 WATER TESTING

QC Batch ID: MP2806
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 09/08/10

Metal	D16869-3 Original	MSD	Spikelot MPICPAL	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.0	1040	1000	104.0	1.0	20
Barium	68.8	1910	2000	92.1	1.6	20
Beryllium						
Boron	14.5	1040	1000	102.6	1.9	20
Cadmium	anr					
Calcium	19800	42800	25000	92.0	1.4	20
Chromium	2.9	502	500	99.8	2.8	20
Cobalt	18.5	501	500	96.5	3.1	20
Copper	4.6	458	500	90.7	2.8	20
Iron	anr					
Lead	anr					
Lithium	6.0	1030	1000	102.4	0.0	20
Magnesium	5520	28500	25000	91.9	1.0	20
Manganese	1180	1600	500	84.0	1.2	20
Molybdenum	2.4	507	500	100.9	2.7	20
Nickel	4.7	483	500	95.7	2.9	20
Phosphorus						
Potassium	2430	25300	25000	91.5	1.6	20
Selenium	anr					
Silicon	anr					
Silver	anr					
Sodium	anr					
Strontium	229	707	500	95.6	1.0	20
Thallium						
Tin						
Titanium						
Uranium	0.0	985	1000	98.3	0.4	20
Vanadium						
Zinc	12.0	491	500	96.0	0.4	20

Associated samples MP2806: D16814-1F, D16814-2F, D16814-3F, D16814-4F, D16814-5F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D16814
Account: CORCCOGJ - Olsson Associates
Project: RWF 33-22 WATER TESTING

QC Batch ID: MP2806
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D16814
 Account: CORCCOGJ - Olsson Associates
 Project: RWF 33-22 WATER TESTING

QC Batch ID: MP2806
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 09/08/10

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	1010	1000	101.0	80-120
Barium	1810	2000	90.5	80-120
Beryllium				
Boron	1030	1000	103.0	80-120
Cadmium	anr			
Calcium	24500	25000	98.0	80-120
Chromium	512	500	102.4	80-120
Cobalt	496	500	99.2	80-120
Copper	458	500	91.6	80-120
Iron	anr			
Lead	anr			
Lithium	1010	1000	101.0	80-120
Magnesium	22500	25000	90.0	80-120
Manganese	497	500	99.4	80-120
Molybdenum	517	500	103.4	80-120
Nickel	492	500	98.4	80-120
Phosphorus				
Potassium	22500	25000	90.0	80-120
Selenium	anr			
Silicon	anr			
Silver	anr			
Sodium	anr			
Strontium	476	500	95.2	80-120
Thallium				
Tin				
Titanium				
Uranium	974	1000	97.4	80-120
Vanadium				
Zinc	478	500	95.6	80-120

Associated samples MP2806: D16814-1F, D16814-2F, D16814-3F, D16814-4F, D16814-5F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D16814
Account: CORCCOGJ - Olsson Associates
Project: RWF 33-22 WATER TESTING

QC Batch ID: MP2806
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested



General Chemistry

QC Data Summaries

8

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D16814
Account: CORCCOGJ - Olsson Associates
Project: RWF 33-22 WATER TESTING

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN6126	5.0	0.0	mg/l	100	99.3	99.3	90-110%
Alkalinity, Total as CaCO3	GN6240	5.0	0.0	mg/l	1000	1030	103.5	90-110%
Bromide	GP2669/GN6120	0.20	0.0	mg/l	20	19.6	98.0	90-110%
Chloride	GP2652/GN6091	0.50	0.0	mg/l	20	21.0	105.0	90-110%
Chloride	GP2669/GN6120	0.50	0.0	mg/l	20	21.1	105.5	90-110%
Fluoride	GP2741/GN6290	0.20	0.0	mg/l	10	9.9	98.8	95-105%
Nitrogen, Nitrate	GP2669/GN6120	0.045	0.0	mg/l	4.52	4.34	96.1	90-110%
Nitrogen, Nitrite	GP2669/GN6120	0.061	0.0	mg/l	6.09	6.15	101.0	90-110%
Phosphate, Ortho	GP2669/GN6120	0.065	0.0	mg/l	9.78	9.23	94.3	90-110%
Solids, Total Dissolved	GN6135	10	0.0	mg/l	400	397	99.3	90-110%
Specific Conductivity	GP2671/GN6138			umhos/cm	99.9	90.6	90.7	90-110%
Sulfate	GP2669/GN6120	0.50	0.0	mg/l	30	29.2	97.3	90-110%
pH	GN6100			su	8.00	8.01	100.1	99.3-100.7%

Associated Samples:

Batch GN6100: D16814-1, D16814-2, D16814-3, D16814-4, D16814-5
Batch GN6126: D16814-1, D16814-5
Batch GN6135: D16814-1, D16814-2, D16814-3, D16814-4, D16814-5
Batch GN6240: D16814-2, D16814-3, D16814-4
Batch GP2652: D16814-1, D16814-2, D16814-3
Batch GP2669: D16814-1, D16814-2, D16814-3, D16814-4, D16814-5
Batch GP2671: D16814-1, D16814-2, D16814-3, D16814-4, D16814-5
Batch GP2741: D16814-1A, D16814-2A, D16814-3A, D16814-4A, D16814-5A
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D16814
Account: CORCCOGJ - Olsson Associates
Project: RWF 33-22 WATER TESTING

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN6126	D16730-1	mg/l	313	313	0.1	0-20%
Fluoride	GP2741/GN6290	D17105-3	mg/l	0.18	0.18	0.0	0-20%
Solids, Total Dissolved	GN6135	D16652-1	mg/l	518	526	1.5	0-25%
Specific Conductivity	GP2671/GN6138	D16730-1	umhos/cm	601	600	0.2	0-20%

Associated Samples:

Batch GN6126: D16814-1, D16814-5

Batch GN6135: D16814-1, D16814-2, D16814-3, D16814-4, D16814-5

Batch GP2671: D16814-1, D16814-2, D16814-3, D16814-4, D16814-5

Batch GP2741: D16814-1A, D16814-2A, D16814-3A, D16814-4A, D16814-5A

(*) Outside of QC limits

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MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D16814
Account: CORCCOGJ - Olsson Associates
Project: RWF 33-22 WATER TESTING

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO ₃	GN6126	D16730-1	mg/l	313	100	399	86.0	80-120%
Bromide	GP2652/GN6091	D16771-2	mg/l	0.0	2.5	2.6	104.0	80-120%
Bromide	GP2669/GN6120	D16807-2	mg/l	0.44	12.5	12.6	97.3	80-120%
Bromide	GP2669/GN6120	D16807-2	mg/l	0.47	12.5	12.6	97.3	80-120%
Chloride	GP2652/GN6091	D16771-2	mg/l	0.85	10	9.8	89.5	80-120%
Chloride	GP2669/GN6120	D16807-2	mg/l	117	50	160	86.0	80-120%
Fluoride	GP2741/GN6290	D17105-3	mg/l	0.18	10	10.2	102.4	85-115%
Nitrogen, Nitrate	GP2652/GN6091	D16771-2	mg/l	0.071	0.565	0.65	102.5	80-120%
Nitrogen, Nitrate	GP2669/GN6120	D16807-2	mg/l	0.0	2.83	2.7	80.4	80-120%
Nitrogen, Nitrite	GP2652/GN6091	D16771-2	mg/l	0.0	0.305	0.31	101.8	80-120%
Nitrogen, Nitrite	GP2669/GN6120	D16807-2	mg/l	0.0	1.52	1.5	98.5	80-120%
Phosphate, Ortho	GP2652/GN6091	D16771-2	mg/l	0.0	0.815	0.79	96.9	80-120%
Phosphate, Ortho	GP2669/GN6120	D16807-2	mg/l	0.0	4.08	3.3	81.0	80-120%
Phosphate, Ortho	GP2669/GN6120	D16807-2	mg/l	0.0	4.08	3.3	81.0	80-120%
Sulfate	GP2652/GN6091	D16771-2	mg/l	5.7	10	15.6	99.0	80-120%
Sulfate	GP2669/GN6120	D16807-2	mg/l	868	500	1380	102.4	80-120%

Associated Samples:

Batch GN6126: D16814-1, D16814-5

Batch GP2652: D16814-1, D16814-2, D16814-3

Batch GP2669: D16814-1, D16814-2, D16814-3, D16814-4, D16814-5

Batch GP2741: D16814-1A, D16814-2A, D16814-3A, D16814-4A, D16814-5A

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D16814
Account: CORCCOGJ - Olsson Associates
Project: RWF 33-22 WATER TESTING

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Alkalinity, Total as CaCO ₃	GN6126	D16730-1	mg/l	313	100	399	0.0	20%
Bromide	GP2652/GN6091	D16771-2	mg/l	0.0	2.5	2.6	0.0	20%
Bromide	GP2669/GN6120	D16807-2	mg/l	0.44	12.5	12.7	0.8	20%
Bromide	GP2669/GN6120	D16807-2	mg/l	0.47	12.5	12.7	0.8	20%
Chloride	GP2652/GN6091	D16771-2	mg/l	0.85	10	9.8	0.0	20%
Chloride	GP2669/GN6120	D16807-2	mg/l	117	50	161	0.6	20%
Fluoride	GP2741/GN6290	D17105-3	mg/l	0.18	10	9.80	4.4	
Nitrogen, Nitrate	GP2652/GN6091	D16771-2	mg/l	0.071	0.565	0.65	0.0	20%
Nitrogen, Nitrate	GP2669/GN6120	D16807-2	mg/l	0.0	2.83	2.8	3.6	20%
Nitrogen, Nitrite	GP2652/GN6091	D16771-2	mg/l	0.0	0.305	0.31	0.0	20%
Nitrogen, Nitrite	GP2669/GN6120	D16807-2	mg/l	0.0	1.52	1.5	0.0	20%
Phosphate, Ortho	GP2652/GN6091	D16771-2	mg/l	0.0	0.815	0.79	0.0	20%
Phosphate, Ortho	GP2669/GN6120	D16807-2	mg/l	0.0	4.08	3.2	3.1N	20%
Phosphate, Ortho	GP2669/GN6120	D16807-2	mg/l	0.0	4.08	3.2	3.1N	20%
Sulfate	GP2652/GN6091	D16771-2	mg/l	5.7	10	15.7	0.6	20%
Sulfate	GP2669/GN6120	D16807-2	mg/l	868	500	1370	0.7	20%

Associated Samples:

Batch GN6126: D16814-1, D16814-5

Batch GP2652: D16814-1, D16814-2, D16814-3

Batch GP2669: D16814-1, D16814-2, D16814-3, D16814-4, D16814-5

Batch GP2741: D16814-1A, D16814-2A, D16814-3A, D16814-4A, D16814-5A

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits