



March 1, 2012

Roya C. Kambin  
Project Manager  
Marketing Business Unit

Chevron Environmental  
Management Company  
6101 Bollinger Canyon Road  
San Ramon, CA 94583  
Tel (925) 790-6270  
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Mr. Keith Nowell  
Alameda County Health Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

**RECEIVED**

**9:09 am, Mar 05, 2012**

Alameda County  
Environmental Health

**RE: First Quarter 2012 Groundwater Monitoring Report**  
1629 Webster Street, Alameda, California  
Fuel Leak Case No.: RO0000450

Dear Mr. Nowell,

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please contact me at (925) 790-6270.

Sincerely,

Roya Kambin  
Union Oil of California – Project Manager

Attachment  
First Quarter 2012 Monitoring Report

Mr. Keith Nowell  
 Alameda County Department of Environmental Health  
 1131 Harbor Bay Parkway  
 Alameda, California 94502-6577

ARCADIS U.S., Inc.  
 2000 Powell Street  
 7<sup>th</sup> Floor  
 Emeryville  
 California 94608  
 Tel 510.652.4500  
 Fax 510.652.4906  
[www.arcadis-us.com](http://www.arcadis-us.com)

Subject:  
 First Quarter 2012 Monitoring Report Submittal

ENVIRONMENT

Dear Mr. Nowell:

On behalf of Chevron Environmental Management Company, for itself and as Attorney-in-Fact for Union Oil Company of California (hereinafter "EMC"), ARCADIS is submitting the enclosed Quarterly Groundwater Monitoring Report for the following facility:

Date:  
 March 1, 2012

<u>Facility No.</u>	<u>Case No.</u>	<u>Location</u>
0843	RO0000450	1629 Webster Street Alameda, California

Contact:  
 Katherine Brandt

If you have any questions, please contact Katherine Brandt at 510.596.9675.  
 Sincerely,

Phone:  
 510.596.9675

ARCADIS

Email:  
[katherine.brandt@arcadis-us.com](mailto:katherine.brandt@arcadis-us.com)



David Lay  
 Professional Geologist




Katherine Brandt  
 Certified Project Manager

Our ref:  
 B0047584.2012

Copies:

Ms. Cherie McCaulou, CRWQCB – San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612 (CD)  
 Sam and Michelle Koka, 802 Pacific Avenue, Alameda CA 94501

**UNION OIL OF CALIFORNIA  
QUARTERLY MONITORING REPORT  
FIRST QUARTER 2012  
March 15, 2012**

Facility No.: 0843 Address: 1629 Webster Street, Alameda, California

Consulting Company/Contact Person/Phone No.: ARCADIS / Katherine Brandt / 510.596.9675

Primary Agency/Contact Person/Regulatory ID No.: Alameda County Department of Environmental Health / Mr. Keith Nowell  
Case No. RO0000450

**WORK PERFORMED DURING THIS REPORTING PERIOD (First Quarter – 2012) :**

1. TRC Solutions (TRC) conducted groundwater monitoring and sampling on February 2, 2012. Field data sheets and general procedures are included as **Attachment A**. Twelve (12) groundwater monitoring wells were gauged and sampled during this monitoring event (MW-1, MW-1AR, MW-1BR, and MW-3 through MW-11).

All groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g) by United States Environmental Protection Agency (EPA) Method 8015B; benzene, toluene, ethylbenzene, and total xylenes (BTEX, collectively), oxygenates (methyl tertiary butyl ether [MTBE], ethyl tertiary butyl ether [ETBE], di-isopropyl ether [DIPE], tertiary amyl methyl ether [TAME], tertiary butyl alcohol [TBA]), 1,2-dibromoethane (EDB) and 1,2-dichloroethane (1,2-DCE or EDC) by EPA Method 8260B; as well as field parameters electrical conductivity (EC), dissolved oxygen (DO), and oxidation reduction potential (ORP).

Additionally, the samples collected from groundwater monitoring wells MW-1, MW-1AR, MW-1BR, MW-7, MW-8, MW-9, MW-10, and MW-11 were analyzed for nitrate as NO<sub>3</sub>, sulfate, ferrous iron, non-volatile organic compounds, chromium (hexavalent, dissolved, and total), dissolved manganese, total recoverable manganese, dissolved vanadium, and total recoverable vanadium. Samples collected from wells MW-5 and MW-6 were only additionally analyzed for chromium (hexavalent, dissolved, and total).

The site location map, the site plan, and the groundwater contour map are presented on **Figures 1 through 3**. Concentration maps for TPH-g, benzene, and MTBE are on **Figures 4 through 6**. Current Groundwater Gauging and Analytical Results are summarized in **Table 1**, Current Additional Groundwater Analytical Results are summarized in **Table 1a**, Historic Groundwater Gauging and Analytical Results are summarized in **Table 2**, Historic Additional Groundwater Analytical Results are summarized in **Table 2a**, and Historical Groundwater Results from TRC are included as **Attachment B**. A copy of the laboratory analytical report and chain-of-custody documentation is included as **Attachment C**.

The adjacent Shell Station No. 13-5032 (Shell) located at 1601 Webster Street is on a semi-annual sampling schedule and therefore was sampled this quarter. Concentration data for TPH-g, benzene, and MTBE related to monitoring wells associated with the Shell from this quarter sampling are included on **Figures 4 through 6**.

**WORK PROPOSED FOR THE NEXT REPORTING PERIOD (Second Quarter – 2012):**

1. Perform groundwater monitoring and related reporting during second quarter 2012.

Current Phase of Project: Groundwater Monitoring/Remediation Pending

Site Use: Vacant Lot

Frequency of Sampling: Groundwater – Quarterly

Frequency of Monitoring: Groundwater – Quarterly

Are Separate-Phase Hydrocarbons (SPH) Present  
On-Site: No

Cumulative SPH Recovered to Date: None

SPH Recovered This Quarter: None

Bulk Soil Removed to Date: Unknown

Bulk Soil Removed this Quarter: None

Water Wells or Surface Waters within a 2,000' Three irrigation wells located 0.1 mile west, northwest, and southeast of the site

**UNION OIL OF CALIFORNIA  
QUARTERLY MONITORING REPORT  
FIRST QUARTER 2012  
March 15, 2012**

Facility No.: 0843 Address: 1629 Webster Street, Alameda, California

Radius and Their Respective Directions:

Groundwater Use Designation: Irrigation  
Current Remediation Techniques: None  
Permits for Discharge (No.): None  
Approximate Depth to Groundwater: 6.22 (MW-5) – 8.08 (MW-1AR) feet below top of casing  
  
Approximate Groundwater Elevation: 10.23 (MW-5) – 11.53 (MW-1) feet below top of casing  
  
Groundwater Gradient: 0.005 ft/ft (Magnitude) North-northeast (Direction)

**DISCUSSION:**

Groundwater conditions during the first quarter 2012 remained generally consistent with previous quarters. The maximum dissolved concentrations of MTBE (6,400 micrograms per liter [ $\mu\text{g}/\text{L}$ ]), TBA (2,800  $\mu\text{g}/\text{L}$ ), and TAME (5.0  $\mu\text{g}/\text{L}$ ) were detected in the samples collected from MW-7. TPH-g, benzene, toluene, ethylbenzene, ETBE, DIPE, EDB, EDC, and ethanol were not detected above the laboratory reporting limits for all wells sampled.

Additionally, maximum concentrations of ferrous iron (1,800 milligrams per liter [mg/L]) and non-volatile organic compounds (3.6 mg/L) were detected in the samples collected from MW-7. Maximum concentrations of total chromium (160  $\mu\text{g}/\text{L}$ ), total recoverable manganese (1,500  $\mu\text{g}/\text{L}$ ), and total recoverable vanadium (68  $\mu\text{g}/\text{L}$ ) were detected in the samples collected from MW-9. Maximum concentration of nitrate as  $\text{NO}_3^-$  (29 mg/L) was detected in the sample collected from MW-1BR. Maximum concentrations of sulfate (47 mg/L) and dissolved manganese (730  $\mu\text{g}/\text{L}$ ) were detected in the sample collected from MW-8. Maximum concentrations of hexavalent chromium (10  $\mu\text{g}/\text{L}$ ) and total chromium (11  $\mu\text{g}/\text{L}$ ) were detected in the sample collected from MW-10. Dissolved vanadium was not detected above the laboratory reporting limits for all wells sampled.

Groundwater elevations at the service station vary by approximately one-and-a-half feet, creating a relatively gentle hydraulic gradient of 0.005 foot per foot in the north-northeast direction.

**CONCLUSIONS AND RECOMMENDATIONS:**

Dissolved hydrocarbon constituent concentrations have remained relatively consistent with previous quarters. ARCADIS recommends continued groundwater monitoring.

**UNION OIL OF CALIFORNIA  
QUARTERLY MONITORING REPORT  
FIRST QUARTER 2012  
March 15, 2012**

Facility No.: 0843 Address: 1629 Webster Street, Alameda, California

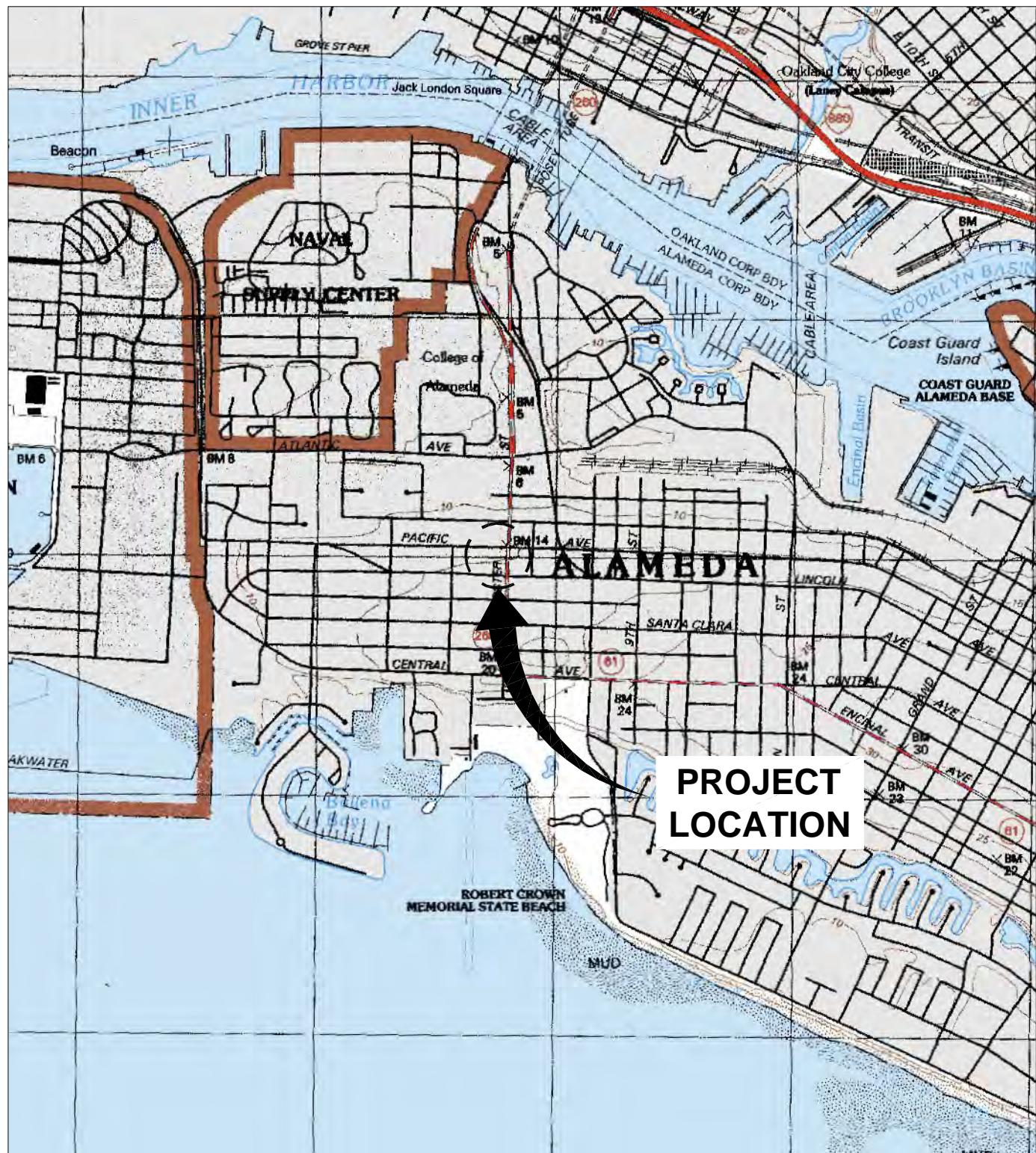
**ATTACHMENTS:**

- Figure 1: Site Location Map
  - Figure 2: Site Plan
  - Figure 3: Groundwater Contour Map
  - Figure 4: TPH-g Concentration Map
  - Figure 5: Benzene Concentration Map
  - Figure 6: MTBE Concentration Map
- 
- Table 1: Current Groundwater Gauging and Analytical Results
  - Table 1a: Current Additional Groundwater Analytical Results
  - Table 2: Historic Groundwater Gauging and Analytical Results
  - Table 2a: Historic Additional Groundwater Analytical Results

- Attachment A: Field Data Sheets and General Procedures
- Attachment B: Historical Groundwater Results from TRC
- Attachment C: Laboratory Report and Chain-of-Custody Documentation

**ARCADIS**

**Figures**



REFERENCE: BASE MAP USGS 7.5 MIN. TOPO. QUAD., OAKLAND WEST, CALIFORNIA, 1993.



XREFS: PROJECTNAME: ---  
IMAGES: Oakland West.jpg



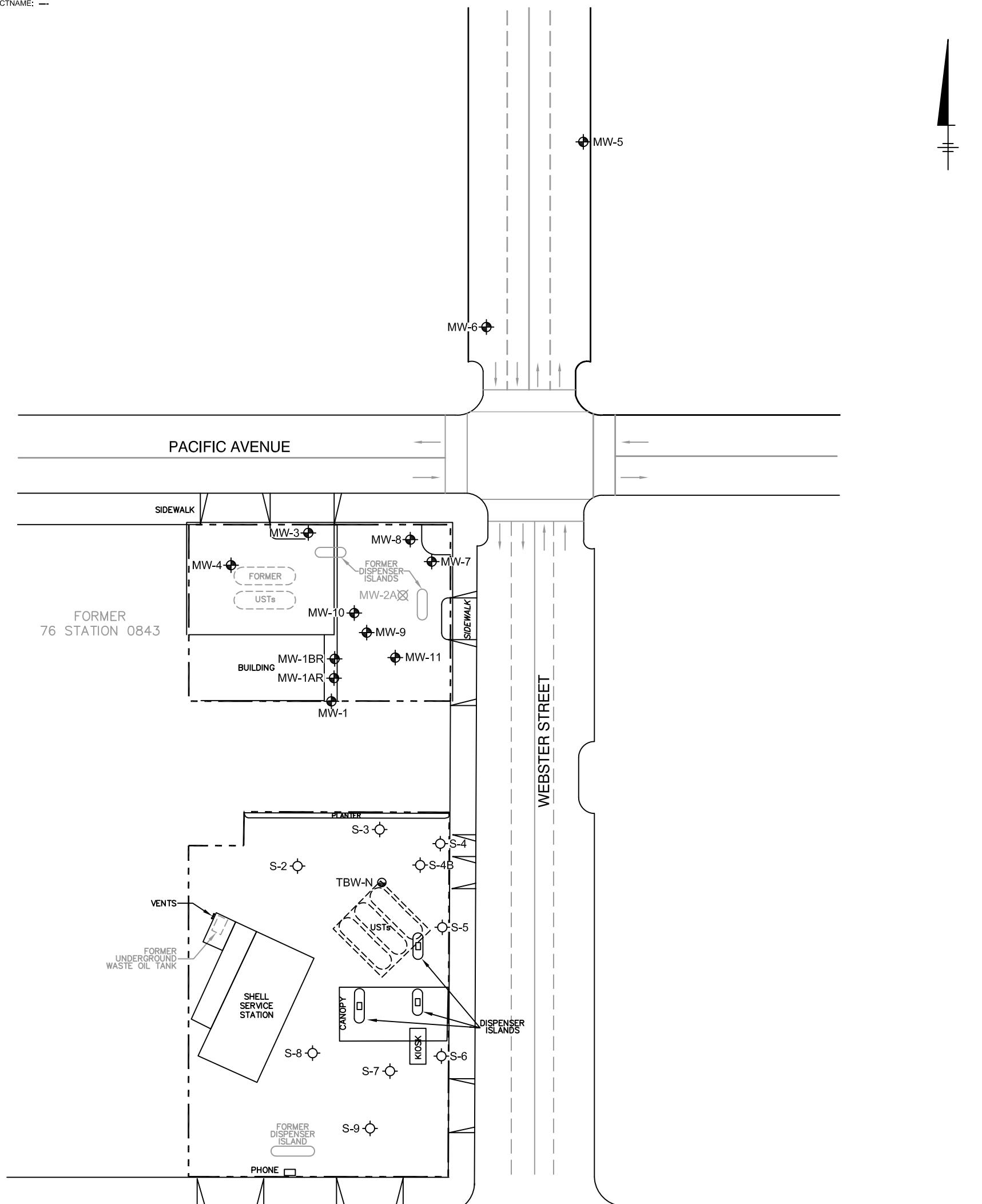
UNION OIL  
FORMER FACILITY NO. 0843  
1629 WEBSTER STREET  
ALAMEDA, CALIFORNIA

## SITE LOCATION MAP

 ARCADIS

FIGURE  
1

XREFS: IMAGES: PROJECTNAME: ---  
47584X01



#### LEGEND

- - - PROPERTY BOUNDARY
- MW-1 ● FORMER 76 STATION MONITORING WELL
- S-9 ○ SHELL SERVICE STATION MONITORING WELL
- TBW-N ● SHELL TANK BACKFILL MONITORING WELL
- MW-2A ✕ ABANDONED WELL

0 50' 100'  
GRAPHIC SCALE

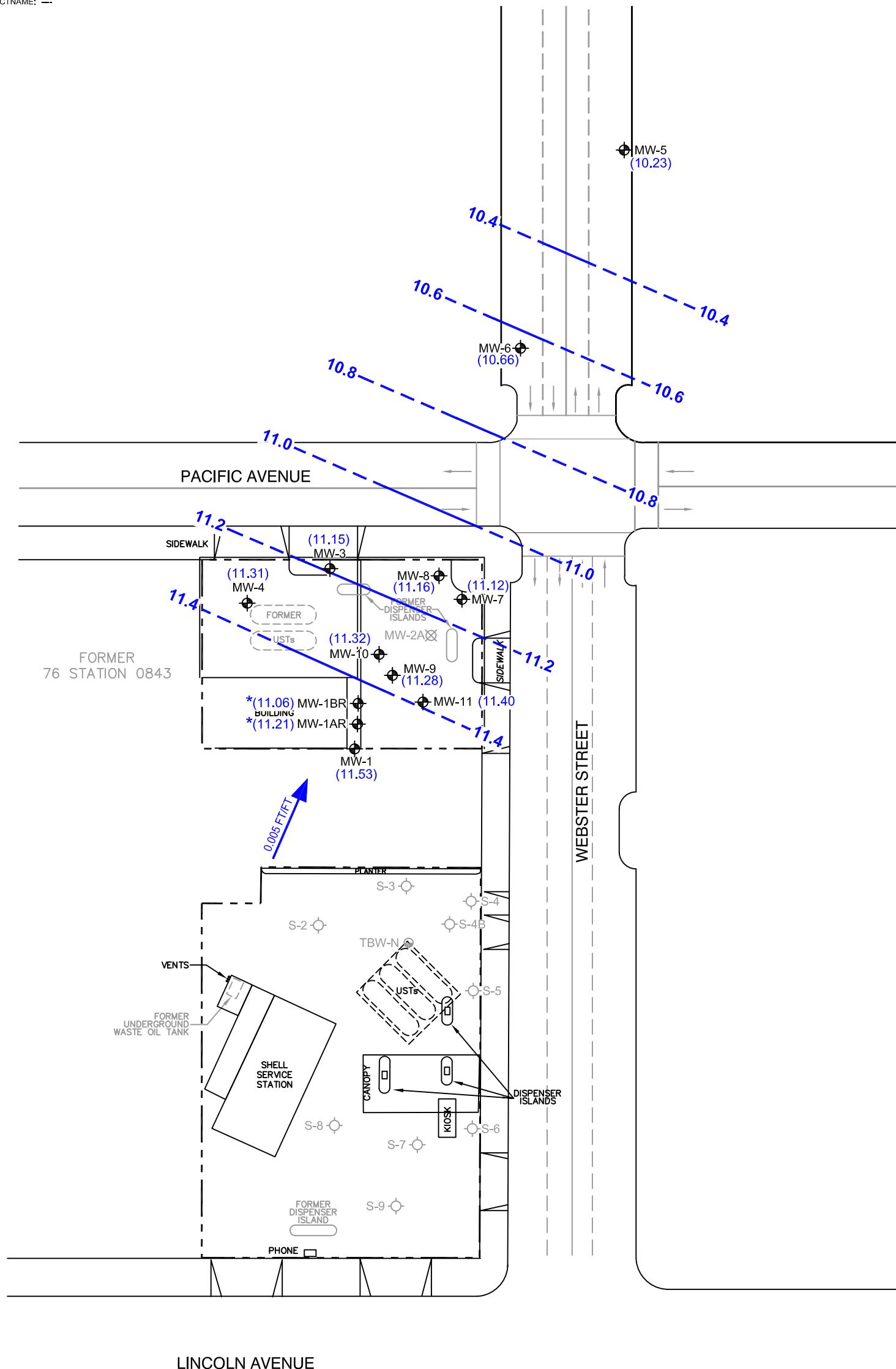
UNION OIL  
FORMER FACILITY NO. 0843  
1629 WEBSTER STREET  
ALAMEDA, CALIFORNIA

#### SITE PLAN

#### NOTES:

- BASE MAP PROVIDED BY TRC, DATED AUGUST 2010, AT A SCALE OF 1"=60'. SHELL SERVICE STATION DATA PROVIDED BY CRA.
- ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

XREFS: IMAGES: PROJECTNAME: ---  
 47584X01



#### LEGEND

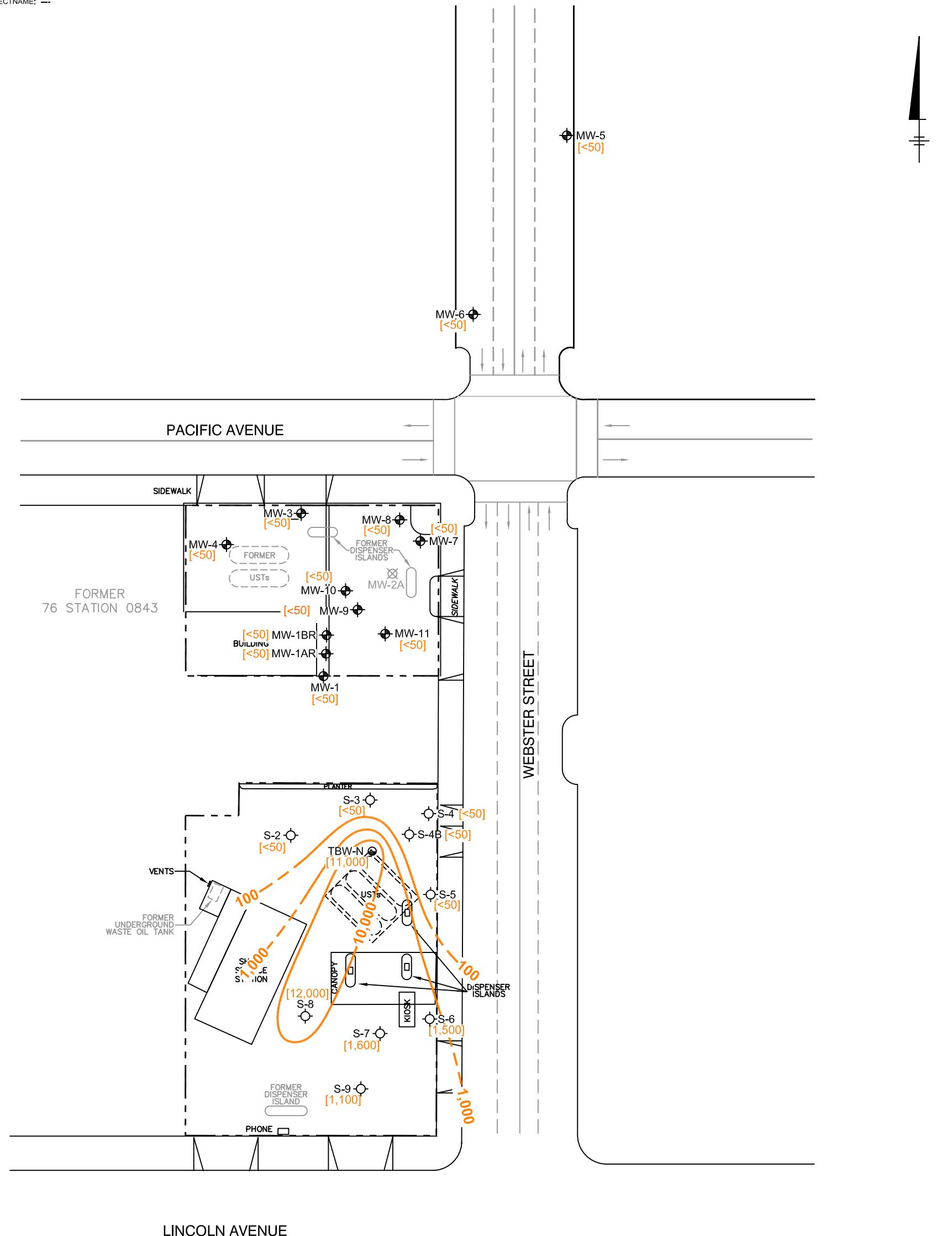
- PROPERTY BOUNDARY
- MW-1 FORMER 76 STATION MONITORING WELL
- S-9 SHELL SERVICE STATION MONITORING WELL
- TBW-N SHELL TANK BACKFILL MONITORING WELL
- MW-2A (Abandoned)
- (11.53) GROUNDWATER ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL (FT MSL)
- 11.4 — GROUNDWATER ELEVATION CONTOUR (FT MSL; DASHED WHERE INFERRED)
- 0.005 FT/FT APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT (FOOT PER FOOT)
- \* NOT USED FOR CONTOURING; SHORT SCREEN INTERVAL; DIFFERENT CONSTRUCTION

0 50' 100'  
 GRAPHIC SCALE

UNION OIL  
 FORMER FACILITY NO. 0843  
 1629 WEBSTER STREET  
 ALAMEDA, CALIFORNIA

GROUNDWATER ELEVATION  
 CONTOUR MAP  
 FEBRUARY 2, 2012

XREFS: IMAGES: PROJECTNAME: ---  
 47584X01



NOTES:

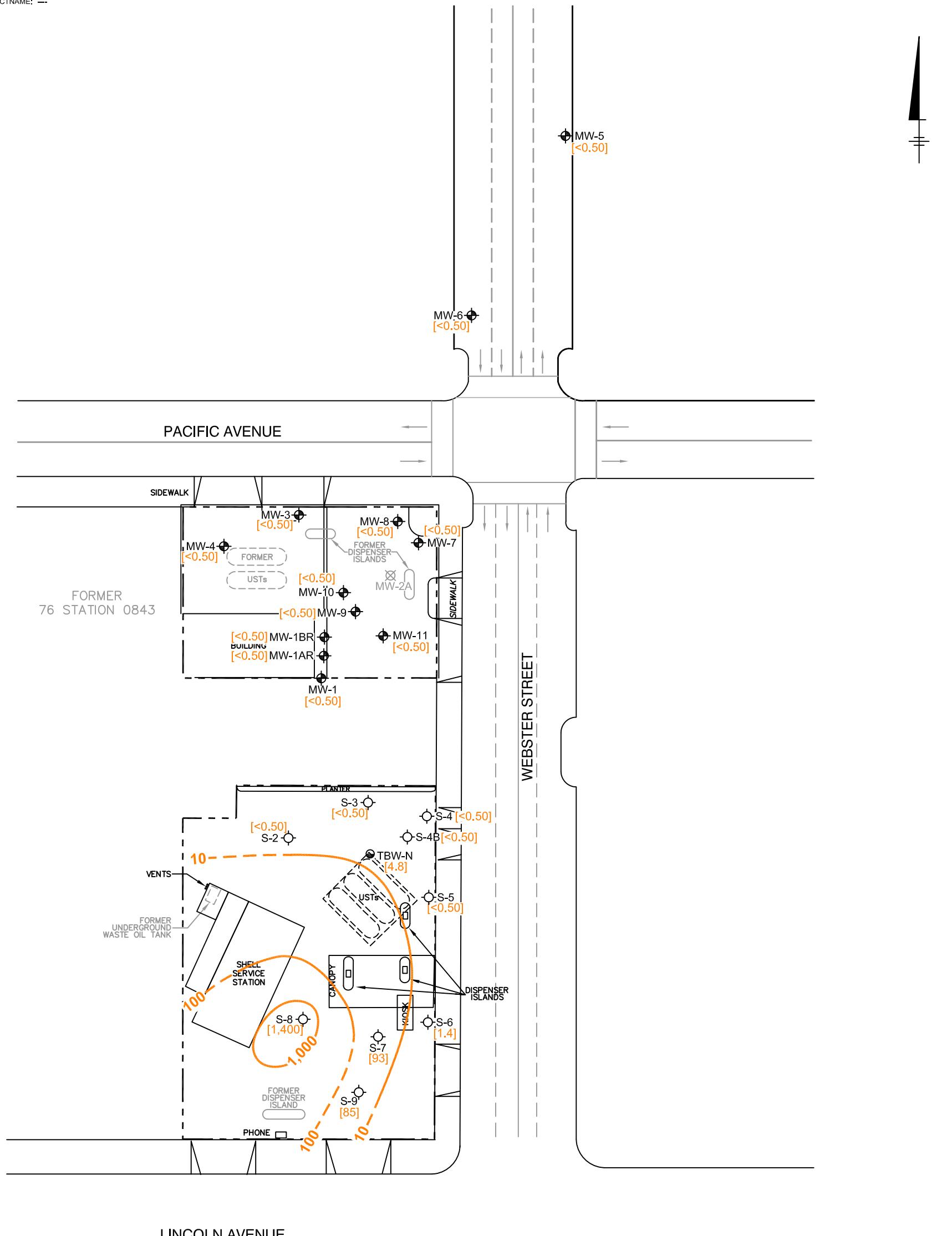
- BASE MAP PROVIDED BY TRC, DATED AUGUST 2010, AT A SCALE OF 1"=60'. SHELL SERVICE STATION DATA PROVIDED BY CRA.
- ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
- SHELL DATA COLLECTED FIRST QUARTER 2012.

0 50' 100'  
 GRAPHIC SCALE

UNION OIL  
 FORMER FACILITY NO. 0843  
 1629 WEBSTER STREET  
 ALAMEDA, CALIFORNIA

TPH-g CONCENTRATION MAP  
 FEBRUARY 2, 2012

XREFS: IMAGES: PROJECTNAME: ---  
 47584X01



#### LEGEND

- PROPERTY BOUNDARY
- MW-1 ● FORMER 76 STATION MONITORING WELL
- S-9 ○ SHELL SERVICE STATION MONITORING WELL
- TBW-N ● SHELL TANK BACKFILL MONITORING WELL
- MW-2A ✕ ABANDONED WELL
- [BENZ] BENZENE CONCENTRATION IN MICROGRAMS PER LITER ( $\mu\text{g}/\text{L}$ )
- 100 — BENZENE ISOCONCENTRATION CONTOUR ( $\mu\text{g}/\text{L}$ ; DASHED WHERE INFERRED)
- < DENOTES LESS THAN LABORATORY REPORTING LIMIT

0 50' 100'  
 GRAPHIC SCALE

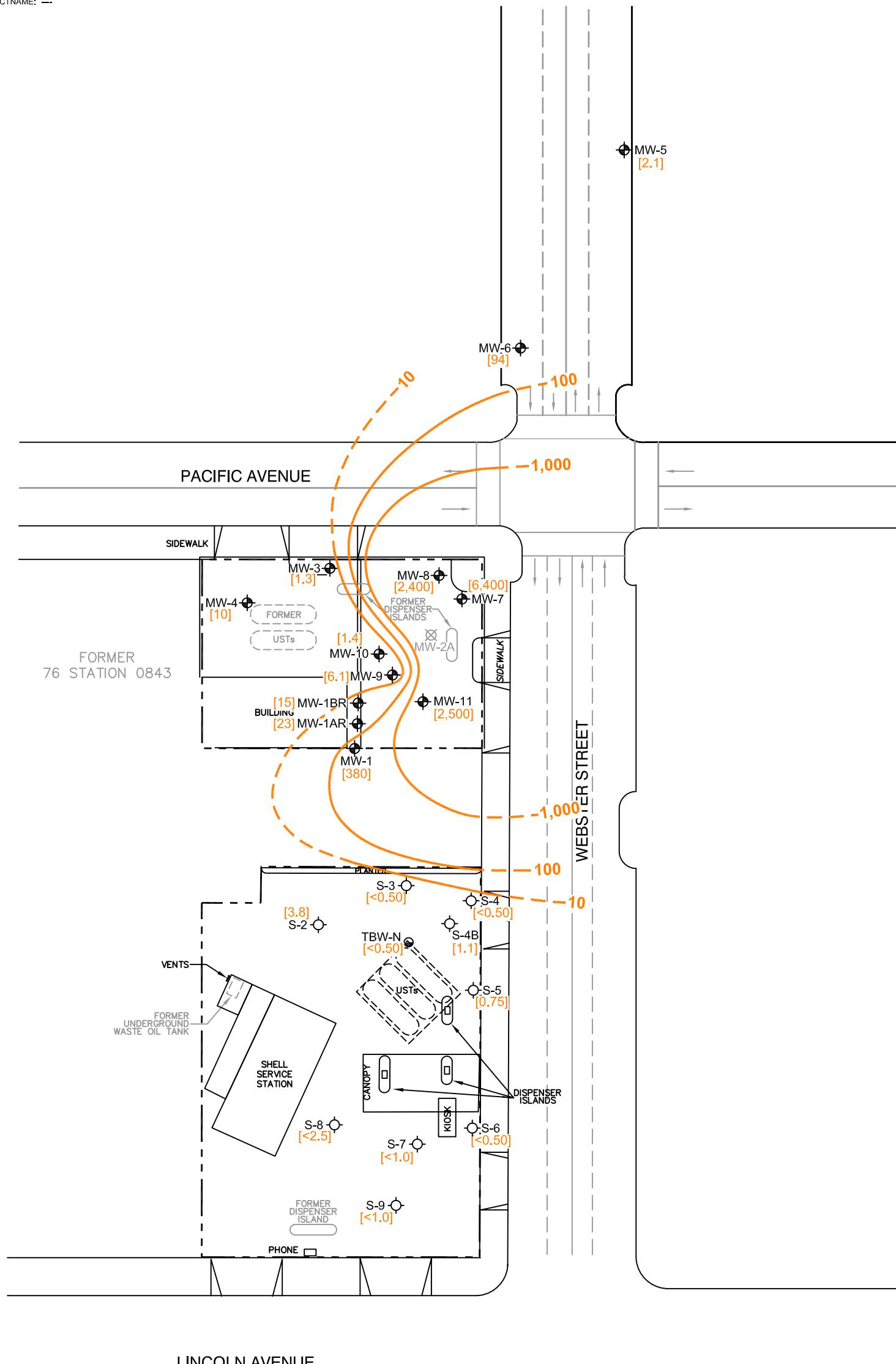
UNION OIL  
 FORMER FACILITY NO. 0843  
 1629 WEBSTER STREET  
 ALAMEDA, CALIFORNIA

BENZENE CONCENTRATION MAP  
 FEBRUARY 2, 2012

#### NOTES:

1. BASE MAP PROVIDED BY TRC, DATED AUGUST 2010, AT A SCALE OF 1"=60'. SHELL SERVICE STATION DATA PROVIDED BY CRA.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
3. SHELL DATA COLLECTED FIRST QUARTER 2012.

XREFS: IMAGES: PROJECTNAME: ---  
 47584X01



#### LEGEND

- PROPERTY BOUNDARY
  - MW-1 ● FORMER 76 STATION MONITORING WELL
  - S-9 ○ SHELL SERVICE STATION MONITORING WELL
  - TBW-N ● SHELL TANK BACKFILL MONITORING WELL
  - MW-2A ✕ ABANDONED WELL
  - [MTBE] METHYL TERTIARY BUTYL ETHER CONCENTRATION IN MICROGRAMS PER LITER ( $\mu\text{g}/\text{L}$ )
  - 100 — MTBE ISOCONCENTRATION CONTOUR ( $\mu\text{g}/\text{L}$ ; DASHED WHERE INFERRED)
  - < DENOTES LESS THAN LABORATORY REPORTING LIMIT
- 0 50' 100'  
 GRAPHIC SCALE

#### NOTES:

1. BASE MAP PROVIDED BY TRC, DATED AUGUST 2010, AT A SCALE OF 1"=60'. SHELL SERVICE STATION DATA PROVIDED BY CRA.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
3. SHELL DATA COLLECTED FIRST QUARTER 2012.

UNION OIL  
 FORMER FACILITY NO. 0843  
 1629 WEBSTER STREET  
 ALAMEDA, CALIFORNIA

**MTBE CONCENTRATION MAP**  
**FEBRUARY 2, 2012**

**ARCADIS**

**Tables**

**Table 1**  
**Current Groundwater Gauging and Analytical Results**  
**Union Oil of California**  
**Unocal Site 0843**  
**1629 Webster Street, Alameda, California**

Well ID	Date Sampled	TOC Elevation (feet AMSL)	DTW (feet bTOC)	LPH Thickness (feet)	GW Elevation (feet AMSL)	TPH-G 8015B	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	TAME	ETBE	DIPE	EDB	EDC	Ethanol	Comments
MW-1	2/2/2012	19.13	7.60	0.00	11.53	<50	<0.50	<0.50	<0.50	1.0	380	94	<0.50	<0.50	<0.50	<0.50	<0.50	<250	A01
MW-1AR	2/2/2012	19.29	8.08	0.00	11.21	<50	<0.50	<0.50	<0.50	1.4	23	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1BR	2/2/2012	19.13	8.07	0.00	11.06	<50	<0.50	<0.50	<0.50	1.7	15	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	2/2/2012	18.05	6.90	0.00	11.15	<50	<0.50	<0.50	<0.50	<1.0	1.3	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-4	2/2/2012	18.14	6.83	0.00	11.31	<50	<0.50	<0.50	<0.50	<1.0	10	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-5	2/2/2012	16.45	6.22	0.00	10.23	<50	<0.50	<0.50	<0.50	<1.0	2.1	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-6	2/2/2012	16.97	6.31	0.00	10.66	<50	<0.50	<0.50	<0.50	<1.0	94	21	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-7	2/2/2012	17.81	6.69	0.00	11.12	<50	<0.50	<0.50	<0.50	<1.0	6,400	2,800	5.0	<0.50	<0.50	<0.50	<0.50	<250	A01
MW-8	2/2/2012	18.13	6.97	0.00	11.16	<50	<0.50	<0.50	<0.50	<1.0	2,400	740	2.3	<0.50	<0.50	<0.50	<0.50	<250	A01
MW-9	2/2/2012	18.75	7.47	0.00	11.28	<50	<0.50	<0.50	<0.50	<1.0	6.1	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-10	2/2/2012	18.84	7.52	0.00	11.32	<50	<0.50	<0.50	<0.50	3.2	1.4	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-11	2/2/2012	18.72	7.32	0.00	11.40	<50	<0.50	<0.50	<0.50	<1.0	2,500	730	2.0	<0.50	<0.50	<0.50	<0.50	<250	A01

**Note**

Analytical results given in micrograms per liter ( $\mu\text{g/l}$ ) unless otherwise noted

**Standard Abbreviations**

<	not detected at or above laboratory detection limit
$\mu\text{g/l}$	micrograms per liter (approx. equivalent to parts per billion, ppb)
TOC	top of casing (surveyed reference elevation)
AMSL	above mean sea level
DTW	depth to water
bTOC	below top of casing
LPH	liquid-phase hydrocarbons
GW	groundwater
TPH-G	total petroleum hydrocarbons as gasoline
MTBE	methyl tertiary butyl ether
TBA	tertiary butyl alcohol
TAME	tertiary amyl methyl ether
ETBE	ethyl tertiary butyl ether
DIPE	di-isopropyl ether
EDB	1,2-dibromoethane
EDC	1,2-dichloroethane (same as ethylene dichloride)
8015B	EPA Method 8015B for TPH-G
8260B	EPA Method 8260B for BTEX/MTBE/Oxygenates
A01	PQL's and MDL's are raised due to sample dilution.
A90	TPPH does not exhibit a "gasoline" pattern. TPPH is entirely due to MTBE.
*	TPPH (C6 through C12)
J	Estimated Value

**Table 1a**  
**Current Additional Groundwater Analytical Results**  
**Union Oil of California**  
**Unocal Site 0843**  
**1629 Webster Street, Alameda, California**

Well ID	Date Sampled	EC @ 25°C (umhos/cm)	DO (mg/l)	ORP (mV)	Nitrate as NO <sub>3</sub> (mg/l)	Sulfate (mg/l)	Ferrous Iron	Non-Volatile Organic Compounds				Dissolved Hexavalent Chromium	Dissolved Dissolved Manganese	Dissolved Vanadium	Total Chromium	Total Recoverable Manganese	Total Recoverable Vanadium	Comments
								1.2	<2.0	<10	1.4							
MW-1	2/2/2012	424	7.6	273.0	20	23	<100	1.2	<2.0	<10	1.4	<3.0	130	920	67	A10, S05		
MW-1AR	2/2/2012	468	7.90	269.1	23	35	<100	1.6	<2.0	<10	110	<3.0	22	290	11	S05		
MW-1BR	2/2/2012	456	7.20	273.1	29	28	<100	1.3	<2.0	<10	40	<3.0	55	400	23	S05		
MW-3	2/2/2012	576	6.00	301.8	--	--	--	--	--	--	--	--	--	--	--	--	S05	
MW-4	2/2/2012	980	7.7	297.7	--	--	--	--	--	--	--	--	--	--	--	--	S05	
MW-5	2/2/2012	620	8.00	236.9	--	--	--	--	<2.0	<10	--	--	72	--	--	--	S05	
MW-6	2/2/2012	535	6.40	252.9	--	--	--	--	<2.0	<10	--	--	77	--	--	--	S05	
MW-7	2/2/2012	682	7.1	67.33	4.1	39	1,800	3.6	<2.0	<10	710	<3.0	<10	620	<3.0	S05		
MW-8	2/2/2012	602	7.00	196.2	5.2	47	<100	3.4	<2.0	<10	730	<3.0	<10	800	3.6	S05		
MW-9	2/2/2012	640	6.9	288.1	19	40	<200	2.0	5.2	<10	2.0	<3.0	160	1,500	68	A10, S05		
MW-10	2/2/2012	535	6.90	297.6	20	34	<100	1.4	10	11	5.3	<3.0	16	62	3.7	S05		
MW-11	2/2/2012	732	6.8	288.8	7.0	29	<100	2.7	<2.0	<10	540	<3.0	<10	830	<3.0	S05		

**Note**

Analytical results given in micrograms per liter ( $\mu\text{g/l}$ ) unless otherwise noted

**Standard Abbreviations**

A10	PQL's and MDL's were raised due to matrix interference.
S05	The sampling holding time was exceeded.
--	not analyzed, measured, or collected
<	not detected at or above laboratory detection limit
umhos/cm	micromhos per centimeter
mg/l	milligrams per liter (approx. equivalent to parts per million, ppm)
$\mu\text{g/l}$	micrograms per liter (approx. equivalent to parts per billion, ppb)
mV	millivolts
EC	Electrical Conductivity
DO	Dissolved Oxygen
ORP	Oxidation Reduction Potential
J	Estimated Value



**Table 2**  
**Historic Groundwater Gauging and Analytical Results**  
**Union Oil of California**  
**Unocal Site 0843**  
**1629 Webster Street, Alameda, California**

**Note**

Analytical results given in micrograms per liter ( $\mu\text{g/l}$ ) unless otherwise noted

**Standard Abbreviations**

<	not detected at or above laboratory detection limit
$\mu\text{g/l}$	micrograms per liter (approx. equivalent to parts per billion, ppb)
TOC	top of casing (surveyed reference elevation)
AMSL	above mean sea level
DTW	depth to water
bTOC	below top of casing
LPH	liquid-phase hydrocarbons
GW	groundwater
TPH-G	total petroleum hydrocarbons as gasoline
MTBE	methyl tertiary butyl ether
TBA	tertiary butyl alcohol
TAME	tertiary amyl methyl ether
ETBE	ethyl tertiary butyl ether
DIPE	di-isopropyl ether
EDB	1,2-dibromoethane
EDC	1,2-dichloroethane (same as ethylene dichloride)
8260B	EPA Method 8260B for BTEX/MTBE/Oxygenates
GC/MS	gas chromatography-mass spectrometry
A01	PQL's and MDL's are raised due to sample dilution.
A90	TPPH does not exhibit a "gasoline" pattern. TPPH is entirely due to MTBE.
*	TPPH (C6 through C12)
J	Estimated Value



**Table 2a**  
**Historic Additional Groundwater Analytical Results**  
**Union Oil of California**  
**Unocal Site 0843**  
**1629 Webster Street, Alameda, California**

Well ID	Date Sampled	EC @ 25°C (umhos/cm)	DO (mg/l)	ORP (mV)	Nitrate as NO <sub>3</sub> (mg/l)	Sulfate (mg/l)	Ferrous Iron	Non-Volatile Organic Compounds				Dissolved Hexavalent Chromium (mg/l)	Dissolved Dissolved Chromium (mg/l)	Dissolved Manganese	Dissolved Vanadium	Total Chromium	Total Manganese	Total Vanadium	Comments
								Non-Volatile Organic Compounds	Hexavalent Chromium (mg/l)	Dissolved Chromium (mg/l)	Dissolved Manganese								

**Note**

Analytical results given in micrograms per liter ( $\mu\text{g/l}$ ) unless otherwise noted

**Standard Abbreviations**

A10	PQL's and MDL's were raised due to matrix interference.
S05	The sampling holding time was exceeded.
--	not analyzed, measured, or collected
<	not detected at or above laboratory detection limit
umhos/cm	micromhos per centimeter
mg/l	milligrams per liter (approx. equivalent to parts per million, ppm)
$\mu\text{g/l}$	micrograms per liter (approx. equivalent to parts per billion, ppb)
mV	millivolts
EC	Electrical Conductivity
DO	Dissolved Oxygen
ORP	Oxidation Reduction Potential
J	Estimated Value

**Table 1a**  
**Current Additional Groundwater Analytical Results**  
**Union Oil of California**  
**Unocal Site 0843**  
**1629 Webster Street, Alameda, California**

Well ID	Date Sampled	EC @ 25°C (umhos/cm)	DO (mg/l)	ORP (mV)	Nitrate as NO <sub>3</sub> (mg/l)	Sulfate (mg/l)	Ferrous Iron	Non-Volatile Organic Compounds				Dissolved Hexavalent Chromium	Dissolved Dissolved Manganese	Dissolved Vanadium	Total Chromium	Total Recoverable Manganese	Total Recoverable Vanadium	Comments
								1.2	<2.0	<10	1.4							
MW-1	2/2/2012	424	7.6	273.0	20	23	<100	1.2	<2.0	<10	1.4	<3.0	130	920	67	A10, S05		
MW-1AR	2/2/2012	468	7.90	269.1	23	35	<100	1.6	<2.0	<10	110	<3.0	22	290	11	S05		
MW-1BR	2/2/2012	456	7.20	273.1	29	28	<100	1.3	<2.0	<10	40	<3.0	55	400	23	S05		
MW-3	2/2/2012	576	6.00	301.8	--	--	--	--	--	--	--	--	--	--	--	--	S05	
MW-4	2/2/2012	980	7.7	297.7	--	--	--	--	--	--	--	--	--	--	--	--	S05	
MW-5	2/2/2012	620	8.00	236.9	--	--	--	--	<2.0	<10	--	--	72	--	--	--	S05	
MW-6	2/2/2012	535	6.40	252.9	--	--	--	--	<2.0	<10	--	--	77	--	--	--	S05	
MW-7	2/2/2012	682	7.1	67.33	4.1	39	1,800	3.6	<2.0	<10	710	<3.0	<10	620	<3.0	S05		
MW-8	2/2/2012	602	7.00	196.2	5.2	47	<100	3.4	<2.0	<10	730	<3.0	<10	800	3.6	S05		
MW-9	2/2/2012	640	6.9	288.1	19	40	<200	2.0	5.2	<10	2.0	<3.0	160	1,500	68	A10, S05		
MW-10	2/2/2012	535	6.90	297.6	20	34	<100	1.4	10	11	5.3	<3.0	16	62	3.7	S05		
MW-11	2/2/2012	732	6.8	288.8	7.0	29	<100	2.7	<2.0	<10	540	<3.0	<10	830	<3.0	S05		

**Note**

Analytical results given in micrograms per liter ( $\mu\text{g/l}$ ) unless otherwise noted

**Standard Abbreviations**

A10	PQL's and MDL's were raised due to matrix interference.
S05	The sampling holding time was exceeded.
--	not analyzed, measured, or collected
<	not detected at or above laboratory detection limit
umhos/cm	micromhos per centimeter
mg/l	milligrams per liter (approx. equivalent to parts per million, ppm)
$\mu\text{g/l}$	micrograms per liter (approx. equivalent to parts per billion, ppb)
mV	millivolts
EC	Electrical Conductivity
DO	Dissolved Oxygen
ORP	Oxidation Reduction Potential
J	Estimated Value



**Table 2**  
**Historic Groundwater Gauging and Analytical Results**  
**Union Oil of California**  
**Unocal Site 0843**  
**1629 Webster Street, Alameda, California**

**Note**

Analytical results given in micrograms per liter ( $\mu\text{g/l}$ ) unless otherwise noted

**Standard Abbreviations**

<	not detected at or above laboratory detection limit
$\mu\text{g/l}$	micrograms per liter (approx. equivalent to parts per billion, ppb)
TOC	top of casing (surveyed reference elevation)
AMSL	above mean sea level
DTW	depth to water
bTOC	below top of casing
LPH	liquid-phase hydrocarbons
GW	groundwater
TPH-G	total petroleum hydrocarbons as gasoline
MTBE	methyl tertiary butyl ether
TBA	tertiary butyl alcohol
TAME	tertiary amyl methyl ether
ETBE	ethyl tertiary butyl ether
DIPE	di-isopropyl ether
EDB	1,2-dibromoethane
EDC	1,2-dichloroethane (same as ethylene dichloride)
8260B	EPA Method 8260B for BTEX/MTBE/Oxygenates
GC/MS	gas chromatography-mass spectrometry
A01	PQL's and MDL's are raised due to sample dilution.
A90	TPPH does not exhibit a "gasoline" pattern. TPPH is entirely due to MTBE.
*	TPPH (C6 through C12)
J	Estimated Value



**Table 2a**  
**Historic Additional Groundwater Analytical Results**  
**Union Oil of California**  
**Unocal Site 0843**  
**1629 Webster Street, Alameda, California**

Well ID	Date Sampled	EC @ 25°C (umhos/cm)	DO (mg/l)	ORP (mV)	Nitrate as NO <sub>3</sub> (mg/l)	Sulfate (mg/l)	Ferrous Iron	Non-Volatile Organic Compounds				Dissolved Hexavalent Chromium (mg/l)	Dissolved Dissolved Chromium (mg/l)	Dissolved Manganese	Dissolved Vanadium	Total Chromium	Total Manganese	Total Vanadium	Comments
								Non-Volatile Organic Compounds	Hexavalent Chromium (mg/l)	Dissolved Chromium (mg/l)	Dissolved Manganese								

**Note**

Analytical results given in micrograms per liter ( $\mu\text{g/l}$ ) unless otherwise noted

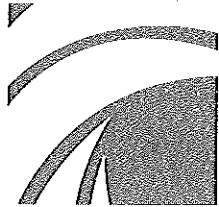
**Standard Abbreviations**

A10	PQL's and MDL's were raised due to matrix interference.
S05	The sampling holding time was exceeded.
--	not analyzed, measured, or collected
<	not detected at or above laboratory detection limit
umhos/cm	micromhos per centimeter
mg/l	milligrams per liter (approx. equivalent to parts per million, ppm)
$\mu\text{g/l}$	micrograms per liter (approx. equivalent to parts per billion, ppb)
mV	millivolts
EC	Electrical Conductivity
DO	Dissolved Oxygen
ORP	Oxidation Reduction Potential
J	Estimated Value

**ARCADIS**

**Attachment A**

Field Data Sheets and General Procedures



**123 Technology Drive West  
Irvine, CA 92618**

**949.727.9336 PHONE  
949.727.7399 FAX**

**[www.TRCsolutions.com](http://www.TRCsolutions.com)**

**DATE:** February 7, 2012

**TO:** Katherine Brandt  
ARCADIS U.S., Inc.  
1900 Powell Street, 12<sup>th</sup> Floor  
Emeryville, California 94608

**SITE:** Unocal Site 0843  
Facility 351849  
1629 Webster Street, Alameda CA

**RE:** Transmittal of Groundwater Monitoring Data

Dear Ms. Brandt,

Please find attached the field data sheets, chain of custody (COC) forms, and technical services request (TSR) form for the monitoring event that was completed on February 2, 2012. Field measurements and collection of samples submitted to the laboratory were completed in general accordance with our usual groundwater monitoring protocol which is also attached for your reference.

Please call me at 949-341-7440 if you have questions.

Sincerely,

A handwritten signature in black ink. The name "Anju Farfan" is written in cursive script. Above the name, the letters "TRC" are written vertically along the top curve of a large, stylized, open circle. To the right of the circle, there is a vertical line and a small, curved flourish.

Anju Farfan  
Groundwater Program Operations Manager

## **GENERAL FIELD PROCEDURES**

### **Groundwater Gauging and Sampling Assignments**

For each site, TRC technicians are provided with a Technical Service Request (TSR) that specifies activities required to complete the groundwater gauging and sampling assignment for the site. TSRs are based on client directives, instructions from the primary environmental consultant for the site, regulatory requirements, and TRC's previous experience with the site.

#### **Fluid Level Measurements (Gauging)**

Initial site activities include determination of well locations based on a site map provided with the TSR. Well boxes are opened and caps are removed. Indications of well or well box damage or of pressure buildup in the well are noted.

Fluid levels in each well are measured using a coated cloth tape equipped with an electronic interface probe, which distinguishes between liquid phase hydrocarbon (LPH) and water. The depth to LPH (if it is present), to water, and to the bottom of the well are measured from the top of the well casing (surveyors mark or notch if present) to the nearest 0.01 foot. Unless otherwise instructed, a well with less than 0.67 foot between the measured top of water and the measured bottom of the well casing is considered dry, and is not sampled. If the well contains 0.67 foot or more of water, an attempt is made to bail and/or sample as specified on the TSR.

Unless otherwise instructed, a well that is found to contain a measurable amount of LPH (0.01 foot) is not purged or sampled. Instead, one casing volume of fluid is bailed from the well and the well is re-sealed.

#### **Purging and Groundwater Parameter Measurement**

TSR instructions may specify that a well not be purged (no-purge sampling), be purged using low-flow methods, or be purged using conventional pump and/or bail methods. Conventional purging generally consists of pumping or bailing until a minimum of three casing volumes of water have been removed or until the well has been pumped dry. Pumping is generally accomplished using submersible electric or pneumatic diaphragm pumps. The pump intake is initially set at about 5 feet below the level of water in the casing, and is lowered as needed to compensate for falling water level. Pump depths are recorded in Field Notes.

During conventional purging, three groundwater parameters (temperature, pH, and conductivity) are measured after removal of each casing volume. Stabilization of these parameters, to within 10 percent, confirm that sufficient purging has been completed. In some cases, the TSR indicates that other parameters are also to be measured during purging. TRC commonly measures dissolved oxygen (DO), oxidation-reduction potential (ORP), and/or turbidity. Instruments used for groundwater parameter measurements are calibrated daily according to manufacturer's instructions.

Low-flow purging utilizes a bladder or peristaltic pump to remove water from the well at a low rate. Groundwater parameters specified by the TSR are measured continuously, using a flow cell, until they become stable in general accordance with EPA guidelines.

#### **Groundwater Sample Collection**

After wells are purged, or not purged, according to TSR instructions, samples are collected for laboratory analysis. For wells that have been purged using conventional pump or bail methods, sampling is conducted after the well has recovered to 80 percent of its original volume or after two hours if the well does not recover to at least 80 percent. If there is insufficient recharge of water in the well after two hours, the well is not sampled.

## **GENERAL FIELD PROCEDURES**

Samples are collected by lowering a new, disposable polyethylene bottom-fill bailer to just below the water level in the well. The bailer is retrieved and the water sample is carefully transferred to containers specified for the laboratory analytical methods indicated by the TSR. Particular care is given to containers for volatile organic analysis (VOAs) which require filling to zero headspace and fitting with Teflon-sealed caps.

Sample containers are labeled with project number (or site number), well designation, sample date, sample time, and the sampler's initials, and placed in an insulated chest with ice. Samples remain chilled prior to and during transport to a state-certified laboratory for analysis. Sample container descriptions and requested analyses are entered onto a chain-of-custody form in order to provide instructions to the laboratory. The chain-of-custody form accompanies the samples during transportation to provide a continuous record of possession from the field to the laboratory. If a freight or overnight carrier transports the samples, the carrier is noted on the form.

For wells that have been purged using low-flow methods, sample containers are filled from the effluent stream of the bladder or peristaltic pump. In some cases, if so specified by the TSR, samples are taken from the sample ports of actively pumping remediation wells.

### **Sequence of Gauging, Purging and Sampling**

The sequence in which monitoring activities are conducted is specified on the TSR. In general, wells are gauged beginning with the least affected well and ending with the well that has the highest concentration based on previous analytic results. After all gauging for the site is completed, wells are purged and/or sampled from the least-affected to the most-affected well. If wells must be gauged or sampled out of order, alternate interface probes and/or pumps are utilized and are noted in field documentation.

### **Decontamination**

In order to reduce the possibility of cross contamination between wells, strict isolation and decontamination procedures are observed. Portable pumps are not used in wells with LPH. Technicians wear nitrile gloves during all gauging, purging, and sampling activities. Gloves are changed between wells and more often if warranted. Any equipment that could come in contact with fluids are either dedicated a particular well, decontaminated prior to each use, or discarded after a single use. Decontamination consists of washing in a solution of Liquinox and water and rinsing twice. The final rinse is in deionized water.

### **Purge Water Disposal**

Purge water is generally collected in labeled drums for disposal as non-hazardous waste. Drums may be left on site for disposal by others, or transported to a collection location at a TRC field office, in either Fullerton, California or Concord, California, for eventual transfer to a licensed treatment or recycling facility. Alternatively, purge water may be collected directly from the site by a licensed vacuum truck company, or may be treated on site by an active remediation system, if so directed.

### **Exceptions**

Additional tasks or non-standard procedures, if any, that may be requested or required for a particular site, are documented in field notes on the following pages.



# FIELD MONITORING DATA SHEET

Technician: Bawliw

Job #/Task #: 189791, 0035.18Y9

Date: 7-2-12

Site # 0843

Project Manager AF.

Page 2 of 2

Well #	TOC	Time Gauged	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
• MW-1	✓	0556	20.08	7.60	—	—	0742	2"
• MW-1AR	✓	0603	29.70	8.08	—	—	0820	2"
• MW-1BR	✓	0607	34.45	8.07	—	—	0850	2"
• MW-10	✓	0612	29.15	7.52	—	—	0934	2"
MW-3	✓	0617	19.87	6.90	—	—	1015	2"
MW-4	✓	0622	17.09	6.83	—	—	1047	2"
FIELD DATA COMPLETE		QA/QC	COC	WELL BOX CONDITION SHEETS				
MANIFEST		DRUM INVENTORY	TRAFFIC CONTROL					

# GROUNDWATER SAMPLING FIELD NOTES

Technician: A. Vidars

Site: 0843

Project No.: 181791, 0035, 1844

Date: 2/2/12

Well No. MW-5

Purge Method: Sub

Depth to Water (feet): 6.22

Depth to Product (feet): —

Total Depth (feet) 20.24

LPH & Water Recovered (gallons): —

Water Column (feet): 14.02

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 9.02

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity ( $\mu\text{S}/\text{cm}$ )	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
	<b>Pre-Purge</b>						<u>3.28</u>	<u>121</u>	
<u>0925</u>		<u>3</u>	<u>593.8</u>	<u>15.9</u>	<u>6.63</u>	<u>2.42</u>	<u>122</u>		
		<u>6</u>	<u>603.4</u>	<u>17.1</u>	<u>6.51</u>	<u>2.10</u>	<u>125</u>		
<u>0930</u>		<u>9</u>	<u>606.9</u>	<u>17.8</u>	<u>6.47</u>	<u>1.81</u>	<u>126</u>		
<b>Static at Time Sampled</b>			<b>Total Gallons Purged</b>			<b>Sample Time</b>			
<u>9.01</u>			<u>9</u>			<u>0940</u>			
<b>Comments:</b> Pump depth - 5 ft. below DTW									

Well No. MW-6

Purge Method: Sub

Depth to Water (feet): 6.31

Depth to Product (feet): —

Total Depth (feet) 20.10

LPH & Water Recovered (gallons): —

Water Column (feet): 13.79

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 9.07

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity ( $\mu\text{S}/\text{cm}$ )	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
	<b>Pre-Purge</b>						<u>1.76</u>	<u>123</u>	
<u>1003</u>		<u>3</u>	<u>528.1</u>	<u>16.1</u>	<u>6.67</u>	<u>1.27</u>	<u>122</u>		
		<u>6</u>	<u>552.0</u>	<u>17.1</u>	<u>6.64</u>	<u>1.18</u>	<u>123</u>		
<u>1009</u>		<u>9</u>	<u>563.3</u>	<u>17.9</u>	<u>6.56</u>	<u>1.02</u>	<u>125</u>		
<b>Static at Time Sampled</b>			<b>Total Gallons Purged</b>			<b>Sample Time</b>			
<u>7.91</u>			<u>9</u>			<u>1021</u>			
<b>Comments:</b> Pump depth - 5 ft. below DTW.									

# GROUNDWATER SAMPLING FIELD NOTES

Technician: A. Vickers

Site: 0843

Project No.: 189791, 0035, 1844

Date: 2/2/12

Well No. MW-9

Purge Method: Sub

Depth to Water (feet): 7.47

Depth to Product (feet):       

Total Depth (feet) 24.39

LPH & Water Recovered (gallons):       

Water Column (feet): 16.92

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 10.85

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity ( $\mu\text{S}/\text{cm}$ )	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
0712		3	662.4	16.1	6.48	2.98	2.02	204	199
		6	664.8	17.8	6.50	1.90	1.90	197	197
	0717	9	670.3	18.3	6.54	1.75	1.75	195	195
Static at Time Sampled			Total Gallons Purged			Sample Time			
10.01			9			0727			
<b>Comments:</b> Pump depth - 5 ft. below DTW									

Well No. MW-11

Purge Method: Sub

Depth to Water (feet): 7.32

Depth to Product (feet):       

Total Depth (feet) 27.49

LPH & Water Recovered (gallons):       

Water Column (feet): 20.07

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 11.43

1 Well Volume (gallons): 4

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity ( $\mu\text{S}/\text{cm}$ )	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
0737		4	769.9	17.5	6.30	1.54	1.08	187	186
		8	769.1	18.5	6.48	1.52	1.52	184	184
	0744	12	759.2	18.8	6.48	1.60	1.60	180	180
Static at Time Sampled			Total Gallons Purged			Sample Time			
7.41			12			0802			
<b>Comments:</b> Pump depth - 5 ft. below DTW									

# GROUNDWATER SAMPLING FIELD NOTES

Technician: A. Vanders

Site: 0843

Project No.: 189791, 0035, 1849

Date: 2/2/12

Well No. MW - 7

Depth to Water (feet): 6.69

Purge Method: Sub

Total Depth (feet) 29.12

Depth to Product (feet): —

Water Column (feet): 22.43

LPH & Water Recovered (gallons): —

80% Recharge Depth(feet): 11.19

Casing Diameter (Inches): 2

1 Well Volume (gallons): 4

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity ( $\mu\text{S}/\text{cm}$ )	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
0815			4	663.5	16.2	6.53	1.30	145	
			8	700.5	18.4	6.54	1.48	141	
0825			12	703.0	19.6	6.56	1.71	130	
Static at Time Sampled			Total Gallons Purged			Sample Time			
8.62			12			0848			
<b>Comments:</b> Dry at each well volume, recharges quickly.									

Well No. MW - 8

Depth to Water (feet): 6.97

Purge Method: Sub

Total Depth (feet) 29.52

Depth to Product (feet): —

Water Column (feet): 22.55

LPH & Water Recovered (gallons): —

80% Recharge Depth(feet): 11.48

Casing Diameter (Inches): 2

1 Well Volume (gallons): 4

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity ( $\mu\text{S}/\text{cm}$ )	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
0829			4	580.9	18.9	6.62	1.09	95	
			8	604.9	19.3	6.57	0.92	97	
0838			12	613.3	19.7	6.58	0.77	101	
Static at Time Sampled			Total Gallons Purged			Sample Time			
7.43			12			0901			
<b>Comments:</b> Dry at 6.9 gallons, recharges quickly.									

## GROUNDWATER SAMPLING FIELD NOTES

Technician: BareisSite: 0843Project No.: 189791.0035.1849Date: 2-2-12Well No. MW-1Depth to Water (feet) 7.60Total Depth (feet) 20.08Water Column (feet) 12.4880% Recharge Depth(feet) 10.09Purge Method: SusDepth to Product (feet): -LPH & Water Recovered (gallons): -Casing Diameter (Inches): 21 Well Volume (gallons): 3

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity ( $\mu\text{S}/\text{cm}$ )	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
							4.26	150	
0728			3	52.38	11.7	9.16	4.09	134	
			6	343.6	13.7	8.81	2.09	126	
0734			9	421.4	15.7	8.32	1.69	147	
Static at Time Sampled			Total Gallons Purged			Sample Time			
				9			0742		
Comments:									

Well No. MW-1ARDepth to Water (feet) 8.08Total Depth (feet) 29.70Water Column (feet) 21.6280% Recharge Depth(feet) 12.40Purge Method: SusDepth to Product (feet): -LPH & Water Recovered (gallons): -Casing Diameter (Inches): 21 Well Volume (gallons): 4

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity ( $\mu\text{S}/\text{cm}$ )	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
							2.01	161	
0803			4	451.7	14.4	6.39	2.10	157	
			8	467.0	16.7	6.34	0.76	154	
0810			12	468.5	17.5	6.30	0.66	156	
Static at Time Sampled			Total Gallons Purged			Sample Time			
				12			0820		
Comments:									

# GROUNDWATER SAMPLING FIELD NOTES

Technician: Banlis

Site: 0843

Project No.: 189791.0035.1849

Date: 2-2-12

Well No. MW-1BVL

Depth to Water (feet): 8.07

Total Depth (feet) 34.45

Water Column (feet): 26.38

80% Recharge Depth(feet): 13.34

Purge Method: Sub

Depth to Product (feet): -

LPH & Water Recovered (gallons): -

Casing Diameter (Inches): 2

1 Well Volume (gallons): 5

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
0836		5		452.6	16.0	6.19	0.82	155	
		10		453.2	17.2	6.15	0.66	152	
0844		15		453.0	17.9	6.16	0.66	152	
Static at Time Sampled			Total Gallons Purged			Sample Time			
13.29			15			0850			
<b>Comments:</b>									

Well No. MW-10

Depth to Water (feet): 7.52

Total Depth (feet) 29.15

Water Column (feet): 21.63

80% Recharge Depth(feet): 11.84

Purge Method: Sub

Depth to Product (feet): -

LPH & Water Recovered (gallons): -

Casing Diameter (Inches): 2

1 Well Volume (gallons): 4

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
0917		4		513.3	17.6	6.23	3.16	147	
		8		531.4	18.5	6.15	2.14	151	
0924		12		539.4	19.1	6.10	1.22	152	
Static at Time Sampled			Total Gallons Purged			Sample Time			
8.70			12			0934			
<b>Comments:</b>									

# GROUNDWATER SAMPLING FIELD NOTES

Technician: Basilis

Site: 0843

Project No.: 189791, 0035, 1849

Date: 2/2/12

Well No. MW-3

Depth to Water (feet): 6.90

Total Depth (feet) 19.87

Water Column (feet): 12.97

80% Recharge Depth(feet): 9.49

Purge Method: SAL

Depth to Product (feet): —

LPH & Water Recovered (gallons): —

Casing Diameter (Inches): 2

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity ( $\mu\text{S}/\text{cm}$ )	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
							1.72	150	
1000		3	667.3	17.7	6.26	1.96	150		
		6	685.7	18.2	6.23	1.31	152		
	1005	9	709.1	19.0	6.17	0.71	153		
Static at Time Sampled			Total Gallons Purged			Sample Time			
			9			1015			
<b>Comments:</b>									

Well No. MW-4

Depth to Water (feet): 6.83

Total Depth (feet) 17.09

Water Column (feet): 10.26

80% Recharge Depth(feet): 8.88

Purge Method: HB

Depth to Product (feet): —

LPH & Water Recovered (gallons): —

Casing Diameter (Inches): 2

1 Well Volume (gallons): 2

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity ( $\mu\text{S}/\text{cm}$ )	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
							3.32	129	
1030		2	1009	18.6	6.43	2.67	146		
		4	1005	18.9	6.40	3.36	148		
	1040	6	984.4	19.2	6.42	4.21	148		
Static at Time Sampled			Total Gallons Purged			Sample Time			
			6			10417			
<b>Comments:</b> Dry at 6616. recovers quickly									

# WELL BOX CONDITION REPORT

SITE NO. 0843

ADDRESS 1629 Webster St. Alameda, CA

DATE 2/2/12

PERFORMED BY:

A. Vignes  
PAGE 1 OF 2

Well Name	Comments						
	MW-9	MW-11	MW-7	MW-8	MW-5	MW-6	
Current Well Box Size	8"	8"	8"	8"	12"	8"	
# of Ears	2	2	2	2	2	3	
# of Shipped Ears							
# of Broken Ears							
# of Missing Bolts							
Seal Damaged							
Broken Lid							
Missing Lid							
Well Box Is Exposed							
Grade			X				
Well Box Is Below Grade							
Paved Over							
Street Well							
Saw Cut Needed							
System Well							
USA Marked Well							
Foundation Damaged							
Unable to Locate							
Unable to Access							

# WELL BOX CONDITION REPORT

SITE NO. 0843

ADDRESS 1629 Webster St.

DATE 2-2-12

PERFORMED BY:

Bailio  
PAGE 2 OF 2

Well Name	Comments		
MW-1	8"	2	Foundation Damaged
MW-1AR	8"	2	Unable to Locate
MW-1BK	8"	2	Unable to Access
MW-1D	12"	2	Well Box is Below Grade
MW-3	8"	2	Well Box is Exposed
MW-4	8"	3	Broken Lid
			Missing Lid
			Seat Damaged
			# of Missing Bolts
			# of Broken Bolts
			# of Broken Ears
			# of Stripped Ears
			# of Ears
			Current Well Box Size

**CHAIN OF CUSTODY FORM**

Union Oil Company of California ■ 6101 Bollinger Canyon Road ■ San Ramon, CA 94583

COC 1 of 2

Union Oil Site ID: <u>0943</u> Site Global ID: <u>TB650102263</u> Site Address: <u>129 Webster St.</u> <u>Alameda, CA</u> Union Oil PM: <u>Ryan Hartman</u> Union Oil PM Phone No.: <u>(510) 390-6270</u>				Union Oil Consultant: <u>Arcad's</u> Consultant Contact: <u>Kathy Brandt</u> Consultant Phone No.: <u>510 390 9075</u> Sampling Company: TRC Sampled By (PRINT): <u>Andrew Jidder</u>				<b>ANALYSES REQUIRED</b>  <b>Turnaround Time (TAT):</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 24 Hours <input type="checkbox"/> <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/>							
<b>Charge Code:</b> NWRTB-0 <u>351849</u> -0-LAB  <i>This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.</i>				Sampler Signature: 				<b>BC Laboratories, Inc.</b> <b>Project Manager:</b> Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911							
<b>SAMPLE ID</b>															
Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers	TRH Diesel by EPA8016	TRH Gasoline by EPA8016	EPA8260B Full Fuel with OXYS	EPA8260B BTX/MTBE/OXYS by EPA3260B	TRH Gas by EPA8016 (or C12)	EPA8260B Ethanol by EPA3260B	Specified VOCs by GC/MS	Specified VOCs by GC/MS	Specified VOCs by GC/MS	
MW-9	W-S-A		120202	0727	12	X	X	X	X	X	X	X	X	X	X
MW-11	W-S-A			0802		X				X		X	X	X	X
MW-7	W-S-A			0848		X				X		X	X	X	X
MW-8	W-S-A			0901	↓	X				X		X	X	X	X
MW-5	W-S-A			0945	11					X		X			
MW-6	W-S-A			1021	11					X		X			
MW-9	W-S-A			0742	12	X				X		X	X	X	X
MW-1AR	W-S-A			0823		X				X		X	X	X	X
MW-1BR	W-S-A			0850		X				X		X	X	X	X
MW-10	W-S-A			0731	↓	X				X		X	X	X	X
MW-3	W-S-A			1015	9										
MW-4	W-S-A	↓		1047	9										
Relinquished By	Company	Date / Time:		Relinquished By	Company	Date / Time:		Relinquished By	Company	Date / Time:					
<u>John Decker</u>		<u>3/2/16 1310</u>													
Received By	Company	Date / Time:		Received By	Company	Date / Time:		Received By	Company	Date / Time:					
<u>John Decker</u>		<u>3/2/16 1310</u>													

## CHAIN OF CUSTODY FORM

Union Oil Company of California ■ 6101 Bollinger Canyon Road ■ San Ramon, CA 94583

COC 2 of 2

Union Oil Site ID: <u>0943</u>				Union Oil Consultant: <u>Arcadis</u>				ANALYSES REQUIRED							
Site Global ID: <u>T06C0102263</u>				Consultant Contact: <u>Kathy Brandt</u>											
Site Address: <u>129 Webster St.</u> <u>Alameda, CA</u>				Consultant Phone No.: <u>510 590 9275</u>											
Union Oil PM: <u>Eva Kambin</u>				Sampling Company: TRC											
Union Oil PM Phone No.: <u>925 796 0270</u>				Sampled By (PRINT): <u>John Myers</u>											
Charge Code: NWRTB-0 <u>351849</u> -0-LAB				Sampler Signature: <u>JM</u>											
<i>This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.</i>				BC Laboratories, Inc. Project Manager: Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911											
SAMPLE ID				Sample Time				# of Containers				Notes / Comments			
Field Point Name	Matrix	DTW	Date (yymmdd)												
MW-9	W-S-A		120202	0727			12								
MW-11	W-S-A		1	0802											
MW-7	W-S-A		1	0849											
MW-8	W-S-A		1	0941											
MW-1	W-S-A		1	0742											
MW-1AR	W-S-A		1	0820											
MW-15R	W-S-A		1	0850											
MW-10	W-S-A		1	0934			1								
	W-S-A														
	W-S-A														
	W-S-A														
	W-S-A														
Relinquished By	Company	Date / Time:		Relinquished By	Company	Date / Time :		Relinquished By	Company	Date / Time:					
<u>TRC</u>	<u>5/2/12</u>	<u>1310</u>													
Received By	Company	Date / Time:		Received By	Company	Date / Time :		Received By	Company	Date / Time:					
<u>John Myers</u>	<u>5/6/12</u>	<u>1430</u>													

**TRC SOLUTIONS**  
**TECHNICAL SERVICES REQUEST FORM**

23-Jan-12

<b>Site ID:</b>	0843	<b>Project No.:</b>	189791.0035.1849 / 00TA01
<b>Address</b>	1629 Webster Street	<b>Client:</b>	Roya Kambin
<b>City:</b>	Alameda	<b>Contact #:</b>	925-790-6270
<b>Cross Street:</b>	Pacific Ave	<b>PM:</b>	Kathy Brandt Arcadis
		<b>PM Contact #:</b>	510-596-9675

<b>Total number of wells:</b>	12	<b>Min. Well Diameter (in.):</b>	2	<b># of Techs, # of Hrs:</b>	2, 6
<b>Depth to Water (ft.):</b>	6	<b>Max. Well Diameter (in.):</b>	2	<b>Travel Time (hrs):</b>	
		<b>Max. Well Depth (ft.):</b>	20		

<b>ACTIVITIES:</b>	<b>Frequency</b>	<b>Notes</b>
Gauging:	<input checked="" type="checkbox"/>	Quarterly
Purge/Sampling:	<input checked="" type="checkbox"/>	Quarterly
No Purge/Sample	<input type="checkbox"/>	

<b>RELATED ACTIVITIES</b>	<b>Notes</b>
Drums:	<input checked="" type="checkbox"/>
Other Activities:	<input type="checkbox"/>
Traffic Control:	<input checked="" type="checkbox"/> City of Alameda

**PERMIT INFORMATION:**

Non-expiring permit #: EN-09-0013

**NOTIFICATIONS:**

Sam Koka, owner, SK Auto: 510-865-7631

**SITE INFORMATION:**

Coordinated event with Shell at 1601 Webster Street (Semi 1/3)
Gauge, purge and sampling order: MW-1, MW-1AR, MW-1BR, MW-9, MW-10, MW-11, MW-7, MW-8, MW-3, MW-4, MW-5 & MW-6
Take post-purge field readings after each casing volume purged.
MW-5 is in the middle of the Wienerschnitzel drive thru driveway. Must have the well done before 7:00am.
MW-3 is in the planter.

**TRC SOLUTIONS**  
**TECHNICAL SERVICES REQUEST FORM**

23-Jan-12

**Site ID:** 0843  
**Address:** 1629 Webster Street  
**City:** Alameda  
**Cross Street:** Pacific Ave

**Project No.:** 189791.0035.1849 / 00TA01  
**Client:** Roya Kambin  
**Contact #:** 925-790-6270  
**PM:** Kathy Brandt      Arcadis  
**PM Contact #:** 510-596-9675

**LAB INFORMATION:**

**Global ID:** T0600102263

**Lab WO:** 351849

**Lab Used:** BC

**Lab Notes:** Lab Analyses:  
TPH-G by 8015B (C6 - C12), BTEX/MTBE/OXYS by 8260B, EDB/EDC by 8260B, Ethanol by 8260B [Containers: 6 vials w/HCl]  
Specific Conductance by 120.1, DO by SM4500-O [Container: one 1L poly unpreserved]  
ORP by ASTM D1948 [two 1L ambers unpreserved]

Additional analyses for wells MW-1, MW-1AR, MW-1BR, MW-7, MW-8, MW-9, MW-10, MW-11:  
Sulfate by 300.0, Nitrate by 300.0, Dissolved Manganese by 200.8, Dissolved Vanadium by 200.8, Dissolved Chromium by 6010, Chromium VI by 7196 [no additional container needed]  
Total Manganese by 200.8, Total Chromium by 6010, Total Vanadium by 200.8 [Container: one 1L poly w/HNO3]  
Ferrous Iron by 3500FE+D [Container: one 500 mL poly w/HCl]  
TOC by 415.1 [Containers: one 500mL amber w/H<sub>2</sub>SO<sub>4</sub>]

Additional analyses for wells MW-5 & MW-6:  
Chromium VI by 7196, dissolved Chromium by 6010 [Container: one 1Pt poly unpreserved]  
Total Chromium by 6010 [Container: one 1Pt poly w/HNO3]

**TRC SOLUTIONS**  
**TECHNICAL SERVICES REQUEST FORM**

23-Jan-12

**Site ID.:** 0843  
**Address** 1629 Webster Street  
**City:** Alameda  
**Cross Street** Pacific Ave

Well IDs	Benz.	MTBE	Gauging				Sampling				Field Measurements			<b>Comments</b>
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Pre-Purge	Post-Purge	Type	
MW-4	0	0	<input checked="" type="checkbox"/>	D.O, ORP	2" casing									
MW-3	0	0	<input checked="" type="checkbox"/>	D.O, ORP	2" casing									
MW-5	0	1.2	<input checked="" type="checkbox"/>	D.O, ORP	2" casing									
MW-10	0	1.4	<input checked="" type="checkbox"/>	D.O, ORP										
MW-1AR	0	22	<input checked="" type="checkbox"/>	D.O, ORP										
MW-1BR	0	34	<input checked="" type="checkbox"/>	D.O, ORP										
MW-9	0	44	<input checked="" type="checkbox"/>	D.O, ORP										
MW-6	0	86	<input checked="" type="checkbox"/>	D.O, ORP	2" casing									
MW-1	0	130	<input checked="" type="checkbox"/>	D.O, ORP	2" casing									
MW-11	0	2100	<input checked="" type="checkbox"/>	D.O, ORP										
MW-8	0	2500	<input checked="" type="checkbox"/>	D.O, ORP										
MW-7	0	5900	<input checked="" type="checkbox"/>	D.O, ORP										

**ARCADIS**

**Attachment B**

Historical Groundwater Results from TRC

**Table 1**  
**CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**

**February 14, 2011**  
**Former 76 Station 0843**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-1</b>														
2/14/2011	19.13	6.78	0	12.35	1.35	--	580	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	1100	
<b>MW-1AR</b>														
2/14/2011	19.29	7.01	0	12.28	1.19	--	58	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	91	
<b>MW-1BR</b>														
2/14/2011	19.13	6.96	0	12.17	1.50	--	80	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	140	
<b>MW-3</b>														
2/14/2011	18.05	6.04	0	12.01	1.36	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	45	
<b>MW-4</b>														
2/14/2011	18.14	5.94	0	12.20	1.48	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>MW-5</b>														
2/14/2011	16.45	5.49	0	10.96	0.87	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>MW-6</b>														
2/14/2011	16.97	5.63	0	11.34	0.91	--	110	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	180	
<b>MW-7</b>														
2/14/2011	17.81	6.33	0	11.48	0.90	--	7900	ND<50	ND<50	ND<50	ND<100	--	13000	
<b>MW-8</b>														
2/14/2011	18.13	6.22	0	11.91	1.38	--	3900	ND<25	ND<25	ND<25	ND<50	--	7100	
<b>MW-9</b>														
2/14/2011	18.75	6.69	0	12.06	1.33	--	170	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	320	
<b>MW-10</b>														
2/14/2011	18.84	6.71	0	12.13	1.45	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.9	
<b>MW-11</b>														
2/14/2011	18.72	6.52	0	12.20	1.48	--	3500	ND<6.2	ND<6.2	ND<6.2	ND<12	--	7400	



**Table 1b**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

Former 76 Station 0843												
Date Sampled	Manganese dissolved (µg/l)	Manganese total (µg/l)	Nitrogen as Nitrate (mg/l)	Sulfate (mg/l)	Dissolved Oxygen (Lab) (mg O/)	Redox Potential (ORP-Lab) (mV)	Specific Conductance (umhos)	Post-purge Dissolved Oxygen (%)	Pre-purge Dissolved Oxygen (%)	Pre-purge ORP (%)	Post-purge ORP (%)	Comments
<b>MW-1</b>												
2/14/2011	5.4	530	18	25	8.9	418.5	509	6.45	4.45	355	356	
<b>MW-1AR</b>												
2/14/2011	150	190	21	32	7.3	217.9	537	1.31	1.48	349	362	
<b>MW-1BR</b>												
2/14/2011	73	170	29	28	8.1	286.1	531	1.07	1.74	356	351	
<b>MW-3</b>												
2/14/2011	--	--	--	--	4.9	288.9	587	1.15	2.43	187	188	
<b>MW-4</b>												
2/14/2011	--	--	--	--	9.2	294.6	770	7.02	6.84	187	172	
<b>MW-5</b>												
2/14/2011	--	--	--	--	6.0	317.6	617	1.55	2.81	179	195	
<b>MW-6</b>												
2/14/2011	--	--	--	--	5.2	326.6	542	1.01	2.16	195	198	
<b>MW-7</b>												
2/14/2011	920	1000	2.9	55	8.0	191.4	713	0.94	1.20	198	76	
<b>MW-8</b>												
2/14/2011	830	1400	5.8	75	8.0	267.0	694	2.81	3.44	197	188	
<b>MW-9</b>												
2/14/2011	60	440	8.1	29	9.5	305.5	690	0.78	0.64	349	346	
<b>MW-10</b>												
2/14/2011	43	45	13	30	9.2	326.6	560	2.25	3.77	342	355	
<b>MW-11</b>												
2/14/2011	560	760	3.1	21	9.4	473.7	750	0.88	0.56	337	324	













**Table 2**  
**CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**

**February 14, 2011**  
**Former 76 Station 0843**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 ( $\mu\text{g/l}$ )	TPH-G (GC/MS) ( $\mu\text{g/l}$ )	Benzene ( $\mu\text{g/l}$ )	Toluene ( $\mu\text{g/l}$ )	Ethyl-benzene ( $\mu\text{g/l}$ )	Total Xylenes ( $\mu\text{g/l}$ )	MTBE (8021B) ( $\mu\text{g/l}$ )	MTBE (8260B) ( $\mu\text{g/l}$ )	Comments
11/13/2009	18.14	6.97	0	11.17	-0.21	--	--	--	--	--	--	--	--	Sampled Q1 and Q3 only
2/5/2010	18.14	5.55	0	12.59	1.42	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.91	
6/7/2010	18.14	5.78	0	12.36	-0.23	--	--	--	--	--	--	--	--	Sampled Q1 and Q3 only
8/3/2010	18.14	6.47	0	11.67	-0.69	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
11/11/2010	18.14	7.42	0	10.72	-0.95	--	--	--	--	--	--	--	--	Sampled Q1 and Q3 only
2/14/2011	18.14	5.94	0	12.20	1.48	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>MW-5</b>														
12/14/1999	13.34	6.45	0	6.89	--	ND	--	ND	ND	ND	ND	3.5	3.8	
3/14/2000	13.34	4.46	0	8.88	1.99	ND	--	ND	ND	ND	ND	ND	--	
5/31/2000	13.34	5.18	0	8.16	-0.72	ND	--	ND	ND	ND	ND	ND	--	
8/29/2000	13.34	5.46	0	7.88	-0.28	ND	--	ND	ND	ND	ND	ND	--	
12/1/2000	13.34	5.95	0	7.39	-0.49	ND	--	ND	ND	ND	ND	ND	--	
3/17/2001	13.34	5.36	0	7.98	0.59	ND	--	ND	ND	ND	ND	ND	--	
5/23/2001	13.34	5.09	0	8.25	0.27	ND	--	ND	ND	ND	ND	ND	--	
9/24/2001	13.34	5.58	0	7.76	-0.49	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
12/10/2001	13.34	5.51	0	7.83	0.07	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
3/11/2002	13.34	4.70	0	8.64	0.81	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
6/7/2002	13.34	--	--	--	--	--	--	--	--	--	--	--	--	Paved over
9/3/2002	13.34	--	--	--	--	--	--	--	--	--	--	--	--	Paved over
12/12/2002	13.34	6.42	0	6.92	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0	--	
3/13/2003	13.34	5.12	0	8.22	1.30	ND<50	--	ND<0.50	0.54	ND<0.50	ND<0.50	ND<2.0	--	
6/12/2003	13.34	5.24	0	8.10	-0.12	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0	--	
9/12/2003	13.34	5.53	0	7.81	-0.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
12/31/2003	13.34	5.11	0	8.23	0.42	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
2/12/2004	13.34	5.02	0	8.32	0.09	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
6/7/2004	13.34	5.35	0	7.99	-0.33	ND<50	--	ND<0.3	ND<0.3	ND<0.3	ND<0.6	ND<1	--	
9/17/2004	13.34	6.10	0	7.24	-0.75	--	--	--	--	--	--	--	--	Sampled annually
12/11/2004	13.34	5.53	0	7.81	0.57	--	--	--	--	--	--	--	--	Sampled annually
3/11/2005	13.34	4.96	0	8.38	0.57	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
5/17/2005	13.34	5.04	0	8.30	-0.08	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
7/27/2005	13.34	5.31	0	8.03	-0.27	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
11/23/2005	13.34	5.86	0	7.48	-0.55	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
2/24/2006	13.34	5.08	0	8.26	0.78	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
5/30/2006	13.34	5.01	0	8.33	0.07	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

**Table 2**  
**CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**

**February 14, 2011**  
**Former 76 Station 0843**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 ( $\mu\text{g/l}$ )	TPH-G (GC/MS) ( $\mu\text{g/l}$ )	Benzene ( $\mu\text{g/l}$ )	Toluene ( $\mu\text{g/l}$ )	Ethyl-benzene ( $\mu\text{g/l}$ )	Total Xylenes ( $\mu\text{g/l}$ )	MTBE (8021B) ( $\mu\text{g/l}$ )	MTBE (8260B) ( $\mu\text{g/l}$ )	Comments
8/30/2006	13.34	5.65	0	7.69	-0.64	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
11/22/2006	13.34	5.82	0	7.52	-0.17	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
2/23/2007	13.34	4.47	0	8.87	1.35	--	ND<50	ND<0.50	ND<0.50	ND<0.50	0.53	--	ND<0.50	
5/18/2007	13.34	5.51	0	7.83	-1.04	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
8/10/2007	13.34	6.05	0	7.29	-0.54	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
11/9/2007	13.34	6.10	0	7.24	-0.05	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
2/8/2008	13.34	5.06	0	8.28	1.04	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
5/16/2008	13.34	5.69	0	7.65	-0.63	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
8/15/2008	13.34	6.35	0	6.99	-0.66	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
11/26/2008	13.34	6.82	0	6.52	-0.47	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
2/24/2009	16.45	5.10	0	11.35	4.83	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
5/28/2009	16.45	5.12	0	11.33	-0.02	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/14/2009	16.45	6.29	0	10.16	-1.17	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
11/13/2009	16.45	6.23	0	10.22	0.06	--	--	--	--	--	--	--	--	Sampled Q1 and Q3 only
2/5/2010	16.45	5.38	0	11.07	0.85	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/7/2010	16.45	5.39	0	11.06	-0.01	--	--	--	--	--	--	--	--	Sampled Q1 and Q3 only
8/3/2010	16.45	5.89	0	10.56	-0.50	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
11/11/2010	16.45	6.36	0	10.09	-0.47	--	--	--	--	--	--	--	--	Sampled Q1 and Q3 only
2/14/2011	16.45	5.49	0	10.96	0.87	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>MW-6</b>														
12/14/1999	14.08	6.64	0	7.44	--	ND	--	ND	ND	ND	ND	11000	18000	
3/14/2000	14.08	4.72	0	9.36	1.92	ND	--	ND	ND	ND	ND	19000	21000	
5/31/2000	14.08	5.28	0	8.80	-0.56	ND	--	ND	ND	ND	ND	13200	--	
8/29/2000	14.08	5.39	0	8.69	-0.11	ND	--	ND	ND	ND	ND	270	400	
12/1/2000	14.08	6.11	0	7.97	-0.72	ND	--	ND	ND	ND	ND	6330	3640	
3/17/2001	14.08	6.02	0	8.06	0.09	18700	--	2950	989	1040	3000	10200	11500	
5/23/2001	14.08	5.82	0	8.26	0.20	ND	--	ND	ND	ND	ND	4660	--	
9/24/2001	14.08	6.59	0	7.49	-0.77	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	160	190	
12/10/2001	14.08	6.50	0	7.58	0.09	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3200	2400	
3/11/2002	14.08	4.81	0	9.27	1.69	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	92	120	
6/7/2002	14.08	--	--	--	--	--	--	--	--	--	--	--	--	Paved over
9/3/2002	14.08	--	--	--	--	--	--	--	--	--	--	--	--	Paved over
12/12/2002	14.08	6.51	0	7.57	--	590	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1500	6200	
3/13/2003	14.08	5.20	0	8.88	1.31	--	--	--	--	--	--	--	5100	

**Table 2**  
**CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**

**February 14, 2011**  
**Former 76 Station 0843**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 ( $\mu\text{g/l}$ )	TPH-G (GC/MS) ( $\mu\text{g/l}$ )	Benzene ( $\mu\text{g/l}$ )	Toluene ( $\mu\text{g/l}$ )	Ethyl-benzene ( $\mu\text{g/l}$ )	Total Xylenes ( $\mu\text{g/l}$ )	MTBE (8021B) ( $\mu\text{g/l}$ )	MTBE (8260B) ( $\mu\text{g/l}$ )	Comments
3/13/2003	14.08	5.20	0	8.88	1.31	1600	--	ND<5.0	ND<5.0	ND<5.0	ND<5.0	4900	4100	
6/12/2003	14.08	5.38	0	8.70	-0.18	1600	--	ND<10	ND<10	ND<10	ND<10	5200	3700	
9/12/2003	14.08	6.29	0	7.79	-0.91	--	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	310	
12/31/2003	14.08	5.38	0	8.70	0.91	3300	--	ND<25	ND<25	ND<25	ND<25	3800	--	
2/12/2004	14.08	5.06	0	9.02	0.32	1100	--	ND<10	ND<10	ND<10	ND<10	1900	2800	
6/7/2004	14.08	5.45	0	8.63	-0.39	2500	--	ND<3	ND<3	ND<3	ND<6	3200	2900	
9/17/2004	14.08	6.20	0	7.88	-0.75	--	1300	ND<10	ND<10	ND<10	ND<20	--	2000	
12/11/2004	14.08	5.60	0	8.48	0.60	--	1800	ND<10	ND<10	ND<10	ND<20	--	2700	
3/11/2005	14.08	4.71	0	9.37	0.89	--	ND<1000	ND<10	ND<10	ND<10	ND<20	--	2500	
5/17/2005	14.08	4.98	0	9.10	-0.27	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2200	
7/27/2005	14.08	5.48	0	8.60	-0.50	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1100	
11/23/2005	14.08	6.01	0	8.07	-0.53	--	590	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1700	
2/24/2006	14.08	5.12	0	8.96	0.89	--	400	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	990	
5/30/2006	14.08	5.04	0	9.04	0.08	--	ND<1200	ND<12	ND<12	ND<12	ND<25	--	560	
8/30/2006	14.08	7.01	0	7.07	-1.97	--	930	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	820	
11/22/2006	14.08	6.16	0	7.92	0.85	--	690	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	620	
2/23/2007	14.08	5.44	0	8.64	0.72	--	190	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	410	
5/18/2007	14.08	5.63	0	8.45	-0.19	--	390	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	620	
8/10/2007	14.08	6.71	0	7.37	-1.08	--	390	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	660	
11/9/2007	14.08	6.17	0	7.91	0.54	--	580	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	820	
2/8/2008	14.08	5.20	0	8.88	0.97	--	360	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	570	
5/16/2008	14.08	5.70	0	8.38	-0.50	--	200	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	480	
8/15/2008	14.08	6.46	0	7.62	-0.76	--	160	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	450	
11/26/2008	14.08	7.01	0	7.07	-0.55	--	300	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	400	
2/24/2009	16.97	5.20	0	11.77	4.70	--	250	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	450	
5/28/2009	16.97	5.26	0	11.71	-0.06	--	74	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	290	
9/14/2009	16.97	6.30	0	10.67	-1.04	--	230	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	310	
11/13/2009	16.97	6.40	0	10.57	-0.10	--	--	--	--	--	--	--	Sampled Q1 and Q3 only	
2/5/2010	16.97	5.89	0	11.08	0.51	--	130	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	310	
6/7/2010	16.97	5.52	0	11.45	0.37	--	--	--	--	--	--	--	Sampled Q1 and Q3 only	
8/3/2010	16.97	5.96	0	11.01	-0.44	--	71	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	180	
11/11/2010	16.97	6.54	0	10.43	-0.58	--	--	--	--	--	--	--	Sampled Q1 and Q3 only	
2/14/2011	16.97	5.63	0	11.34	0.91	--	110	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	180	

**Table 2**  
**CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**

**February 14, 2011**  
**Former 76 Station 0843**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water		Change in Elevation (feet)	TPH-G 8015 ( $\mu\text{g/l}$ )	TPH-G (GC/MS) ( $\mu\text{g/l}$ )	Benzene ( $\mu\text{g/l}$ )	Toluene ( $\mu\text{g/l}$ )	Ethyl-benzene ( $\mu\text{g/l}$ )	Total Xylenes ( $\mu\text{g/l}$ )	MTBE (8021B) ( $\mu\text{g/l}$ )	MTBE (8260B) ( $\mu\text{g/l}$ )	Comments
				Water Elevation (feet)	Change in Elevation (feet)										
5/28/2009	17.81	8.29	0	9.52	--	--	1100	ND<0.50	ND<0.50	1.4	7.1	--	15000		
9/14/2009	17.81	6.77	0	11.04	1.52	--	7900	ND<25	ND<25	ND<25	ND<50	--	15000		
11/13/2009	17.81	6.78	0	11.03	-0.01	--	5700	ND<10	ND<10	ND<10	ND<20	--	13000		
2/5/2010	17.81	8.50	0	9.31	-1.72	--	4300	ND<12	ND<12	ND<12	ND<25	--	12000		
6/7/2010	17.81	5.74	0	12.07	2.76	--	7100	ND<12	ND<12	ND<12	ND<25	--	16000		
8/3/2010	17.81	6.36	0	11.45	-0.62	--	1600	ND<10	ND<10	ND<10	ND<20	--	12000		
11/11/2010	17.81	7.23	0	10.58	-0.87	--	2600	ND<5.0	ND<5.0	ND<5.0	ND<10	--	13000		
2/14/2011	17.81	6.33	0	11.48	0.90	--	7900	ND<50	ND<50	ND<50	ND<100	--	13000		
<b>MW-8</b>															
5/28/2009	18.13	7.42	0	10.71	--	--	850	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	12000		
9/14/2009	18.13	6.97	0	11.16	0.45	--	3500	ND<25	ND<25	ND<25	ND<50	--	5600		
11/13/2009	18.13	7.11	0	11.02	-0.14	--	3200	ND<5.0	ND<5.0	ND<5.0	ND<10	--	6700		
2/5/2010	18.13	7.38	0	10.75	-0.27	--	2400	ND<10	ND<10	ND<10	ND<20	--	6300		
6/7/2010	18.13	6.07	0	12.06	1.31	--	4200	ND<10	ND<10	ND<10	ND<20	--	9000		
8/3/2010	18.13	6.56	0	11.57	-0.49	--	1200	ND<5.0	ND<5.0	ND<5.0	ND<10	--	5600		
11/11/2010	18.13	7.60	0	10.53	-1.04	--	ND<5000	ND<50	ND<50	ND<50	ND<100	--	4900		
2/14/2011	18.13	6.22	0	11.91	1.38	--	3900	ND<25	ND<25	ND<25	ND<50	--	7100		
<b>MW-9</b>															
5/28/2009	18.75	6.24	0	12.51	--	--	1200	ND<0.50	ND<0.50	0.75	15	--	13000		
9/14/2009	18.75	7.36	0	11.39	-1.12	--	280	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	390		
11/13/2009	18.75	7.56	0	11.19	-0.20	--	170	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	280		
2/5/2010	18.75	6.70	0	12.05	0.86	--	100	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	190		
6/7/2010	18.75	6.59	0	12.16	0.11	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	66		
8/3/2010	18.75	7.00	0	11.75	-0.41	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	99		
11/11/2010	18.75	8.02	0	10.73	-1.02	--	83	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	270		
2/14/2011	18.75	6.69	0	12.06	1.33	--	170	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	320		
<b>MW-10</b>															
5/28/2009	18.84	6.69	0	12.15	--	--	700	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3500		
9/14/2009	18.84	7.50	0	11.34	-0.81	--	3300	ND<6.2	ND<6.2	ND<6.2	ND<12	--	4900		
11/13/2009	18.84	7.70	0	11.14	-0.20	--	1500	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	3300		
2/5/2010	18.84	6.66	0	12.18	1.04	--	110	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	260		
6/7/2010	18.84	6.56	0	12.28	0.10	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	7.9		
8/3/2010	18.84	7.14	0	11.70	-0.58	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.3		
11/11/2010	18.84	8.16	0	10.68	-1.02	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.6		
2/14/2011	18.84	6.71	0	12.13	1.45	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.9		

**Table 2**  
**CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**

**February 14, 2011**  
**Former 76 Station 0843**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-11</b>														
5/28/2009	18.72	6.18	0	12.54	--	--	920	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	15000	
9/14/2009	18.72	7.45	0	11.27	-1.27	--	11000	ND<25	ND<25	ND<25	ND<50	--	18000	
11/13/2009	18.72	7.51	0	11.21	-0.06	--	6200	ND<10	ND<10	ND<10	ND<20	--	13000	
2/5/2010	18.72	7.50	0	11.22	0.01	--	4500	ND<12	ND<12	ND<12	ND<25	--	13000	
6/7/2010	18.72	6.36	0	12.36	1.14	--	4300	ND<10	ND<10	ND<10	ND<20	--	9500	
8/3/2010	18.72	6.90	0	11.82	-0.54	--	1400	ND<5.0	ND<5.0	ND<5.0	ND<10	--	6000	
11/11/2010	18.72	8.00	0	10.72	-1.10	--	1600	ND<5.0	ND<5.0	ND<5.0	ND<10	--	6100	
2/14/2011	18.72	6.52	0	12.20	1.48	--	3500	ND<6.2	ND<6.2	ND<6.2	ND<12	--	7400	

**Table 2a**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

**Former 76 Station 0843**

Date Sampled	TBA ( $\mu\text{g/l}$ )	Ethanol (8260B) ( $\mu\text{g/l}$ )	Ethylene-dibromide (EDB) ( $\mu\text{g/l}$ )	EDB (504) ( $\mu\text{g/l}$ )	1,2-DCA (EDC) ( $\mu\text{g/l}$ )	DIPE ( $\mu\text{g/l}$ )	ETBE ( $\mu\text{g/l}$ )	TAME ( $\mu\text{g/l}$ )	Carbon (organic, total) ( $\text{mg/l}$ )	Chromium VI ( $\mu\text{g/l}$ )	Chromium (total) ( $\mu\text{g/l}$ )	Chromium (dissolved) ( $\mu\text{g/l}$ )	Comments
<b>MW-1</b>													
9/2/1999	ND	ND	--	--	--	ND	ND	ND	--	--	--	--	
3/15/2005	ND<5.0	ND<50	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
2/24/2006	62	ND<250	--	--	--	ND<0.50	ND<0.50	5.5	--	--	--	--	
11/22/2006	74	ND<250	--	--	--	ND<0.50	ND<0.50	0.51	--	--	--	--	
2/23/2007	ND<100	ND<2500	--	--	--	ND<5.0	ND<5.0	ND<5.0	--	--	--	--	
5/18/2007	ND<100	ND<2500	--	--	--	ND<5.0	ND<5.0	ND<5.0	--	--	--	--	
8/10/2007	ND<500	ND<12000	--	--	--	ND<25	ND<25	ND<25	--	--	--	--	
11/9/2007	ND<500	ND<12000	--	--	--	ND<25	ND<25	ND<25	--	--	--	--	
2/8/2008	ND<100	ND<2500	--	--	--	ND<5.0	ND<5.0	ND<5.0	--	--	--	--	
5/16/2008	ND<250	ND<6200	--	--	--	ND<12	ND<12	ND<12	--	--	--	--	
8/15/2008	ND<100	ND<2500	--	--	--	ND<5.0	ND<5.0	ND<5.0	--	--	--	--	
11/26/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
2/24/2009	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	2.5	1.3	--	--	--	
5/28/2009	ND<200	ND<5000	ND<10	--	ND<10	ND<10	ND<10	ND<10	1.8	2.0	87	--	
9/14/2009	ND<100	ND<2500	--	--	--	ND<5.0	ND<5.0	ND<5.0	1.4	2.2	220	--	
2/5/2010	ND<250	ND<6200	ND<12	--	ND<12	ND<12	ND<12	ND<12	--	--	--	--	
8/3/2010	140	ND<500	ND<1.0	--	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1.5	ND<2.0	70	ND<10	
2/14/2011	99	ND<500	ND<1.0	--	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1.6	2.7	91	ND<10	
<b>MW-1AR</b>													
5/28/2009	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	1.6	--	--	--	--	
9/14/2009	110	ND<500	--	--	--	ND<1.0	ND<1.0	ND<1.0	4.5	ND<2.0	170	--	
11/13/2009	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
2/5/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
6/7/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.1	ND<2.0	25	ND<10	
8/3/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.2	ND<2.0	ND<10	ND<10	
11/11/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.3	ND<2.0	14	ND<10	
2/14/2011	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.0	2.6	ND<10	ND<10	
<b>MW-1BR</b>													
5/28/2009	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	2.0	--	--	--	--	
9/14/2009	33	ND<500	--	--	--	ND<1.0	ND<1.0	1.9	3.7	ND<2.0	250	--	
11/13/2009	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	1.2	--	--	--	--	
2/5/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
6/7/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.8	ND<2.0	26	ND<10	
8/3/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.8	ND<2.0	25	ND<10	

**Table 2a**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

**Former 76 Station 0843**

Date Sampled	TBA ( $\mu\text{g/l}$ )	Ethanol (8260B) ( $\mu\text{g/l}$ )	Ethylene-dibromide (EDB) ( $\mu\text{g/l}$ )	EDB (504) ( $\mu\text{g/l}$ )	1,2-DCA (EDC) ( $\mu\text{g/l}$ )	DIPE ( $\mu\text{g/l}$ )	ETBE ( $\mu\text{g/l}$ )	TAME ( $\mu\text{g/l}$ )	Carbon (organic, total) ( $\text{mg/l}$ )	Chromium VI ( $\mu\text{g/l}$ )	Chromium (total) ( $\mu\text{g/l}$ )	Chromium (dissolved) ( $\mu\text{g/l}$ )	Comments
11/11/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.9	ND<2.0	12	ND<10	
2/14/2011	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.7	3.7	34	ND<10	
<b>MW-2</b>													
9/2/1999	ND	ND	--	--	--	ND	ND	ND	--	--	--	--	
12/14/1999	ND	ND	ND	--	ND	ND	ND	ND	--	--	--	--	
3/14/2000	1300	ND	ND	--	ND	ND	ND	ND	--	--	--	--	
5/31/2000	ND	ND	ND	--	ND	ND	ND	ND	--	--	--	--	
8/29/2000	250	ND	ND	--	ND	ND	ND	ND	--	--	--	--	
12/1/2000	ND	ND	ND	--	ND	ND	ND	ND	--	--	--	--	
3/17/2001	ND	ND	ND	--	ND	14.8	ND	ND	--	--	--	--	
5/23/2001	ND	ND	ND	--	ND	ND	ND	ND	--	--	--	--	
9/24/2001	ND<5000	ID<5000000	ND<100	--	ND<100	ND<100	ND<100	ND<100	--	--	--	--	
12/10/2001	ND<500	ID<1200000	ND<25	--	ND<25	ND<25	ND<25	ND<25	--	--	--	--	
3/11/2002	ND<1000	ND<5000000	ND<20	--	ND<20	ND<20	ND<20	ND<20	--	--	--	--	
6/7/2002	ND<1000	ND<2000000	ND<25	--	ND<25	ND<25	ND<25	ND<25	--	--	--	--	
9/3/2002	ND<1000	ND<5000000	ND<20	--	ND<20	ND<20	ND<20	ND<20	--	--	--	--	
<b>MW-2A</b>													
12/12/2002	ND<100	ND<500000	ND<2.0	--	2.3	ND<2.0	ND<2.0	ND<2.0	--	--	--	--	
3/13/2003	ND<100	ND<500000	ND<2.0	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--	
6/12/2003	ND<100	ND<500000	ND<2.0	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--	
9/12/2003	ND<100	ND<500	ND<2.0	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--	
12/31/2003	ND<100	ND<500	ND<2.0	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--	
2/12/2004	ND<100	ND<500	ND<2.0	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--	
6/7/2004	ND<12	ND<800	ND<0.5	--	ND<0.5	ND<1	ND<1	ND<1	--	--	--	--	
9/17/2004	6.7	ND<50	--	--	--	ND<1.0	ND<0.50	ND<0.50	--	--	--	--	
12/11/2004	ND<5.0	ND<50	--	--	--	ND<1.0	ND<0.50	ND<0.50	--	--	--	--	
3/15/2005	ND<5.0	ND<50	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
5/17/2005	ND<5.0	ND<50	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
7/27/2005	ND<5.0	ND<50	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
11/23/2005	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
2/24/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
5/30/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
8/30/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
11/22/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
2/23/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	

**Table 2a**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

**Former 76 Station 0843**

Date Sampled	TBA ( $\mu\text{g/l}$ )	Ethanol (8260B) ( $\mu\text{g/l}$ )	Ethylene-dibromide (EDB) ( $\mu\text{g/l}$ )	EDB (504) ( $\mu\text{g/l}$ )	1,2-DCA (EDC) ( $\mu\text{g/l}$ )	DIPE ( $\mu\text{g/l}$ )	ETBE ( $\mu\text{g/l}$ )	TAME ( $\mu\text{g/l}$ )	Carbon (organic, total) ( $\text{mg/l}$ )	Chromium VI ( $\mu\text{g/l}$ )	Chromium (total) ( $\mu\text{g/l}$ )	Chromium (dissolved) ( $\mu\text{g/l}$ )	Comments
5/18/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
8/10/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
11/9/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
2/8/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
5/16/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
8/15/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
11/26/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
2/24/2009	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	17	--	--	--	--
<b>MW-3</b>													
9/2/1999	ND	ND	--	--	--	ND	ND	ND	--	--	--	--	--
3/11/2005	ND<5.0	ND<50	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
5/17/2005	ND<5.0	ND<50	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
7/27/2005	ND<5.0	ND<50	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
11/23/2005	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
2/24/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
5/30/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
8/30/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
11/22/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
2/23/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
5/18/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
8/10/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
11/9/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
2/8/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
5/16/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
8/15/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
11/26/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
2/24/2009	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	3.2	--	--	--	--
5/28/2009	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
9/14/2009	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
2/5/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
8/3/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
2/14/2011	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
<b>MW-4</b>													
9/2/1999	ND	ND	--	--	--	ND	ND	ND	--	--	--	--	--
12/10/2001	ND<290	ND<7100000	ND<14	--	ND<14	ND<14	ND<14	ND<14	--	--	--	--	--

**Table 2a**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

**Former 76 Station 0843**

Date Sampled	TBA ( $\mu\text{g/l}$ )	Ethanol (8260B) ( $\mu\text{g/l}$ )	Ethylene-dibromide (EDB) ( $\mu\text{g/l}$ )	EDB (504) ( $\mu\text{g/l}$ )	1,2-DCA (EDC) ( $\mu\text{g/l}$ )	DIPE ( $\mu\text{g/l}$ )	ETBE ( $\mu\text{g/l}$ )	TAME ( $\mu\text{g/l}$ )	Carbon (organic, total) (mg/l)	Chromium VI ( $\mu\text{g/l}$ )	Chromium (total) ( $\mu\text{g/l}$ )	Chromium (dissolved) ( $\mu\text{g/l}$ )	Comments
12/12/2002	ND<100	ND<500000	ND<2.0	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--	
9/12/2003	--	ND<500	--	--	--	--	--	--	--	--	--	--	
9/17/2004	ND<5.0	ND<50	--	--	--	ND<1.0	ND<0.50	ND<0.50	--	--	--	--	
12/11/2004	ND<25	ND<250	--	--	--	ND<5.0	ND<2.5	ND<2.5	--	--	--	--	
3/11/2005	ND<5.0	ND<50	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
5/17/2005	ND<5.0	ND<50	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
7/27/2005	ND<5.0	ND<50	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
11/23/2005	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
2/24/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
5/30/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
8/30/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
11/22/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
2/23/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
5/18/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
8/10/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
11/9/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
2/8/2008	ND<10	290	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
5/16/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
8/15/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
11/26/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
2/24/2009	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	1.7	--	--	--	
5/28/2009	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
9/14/2009	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
2/5/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
8/3/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
2/14/2011	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
<b>MW-5</b>													
9/12/2003	--	ND<500	--	--	--	--	--	--	--	--	--	--	
3/11/2005	ND<5.0	ND<50	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
5/17/2005	ND<5.0	ND<50	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
7/27/2005	ND<5.0	ND<50	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
11/23/2005	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
2/24/2006	59	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
5/30/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
8/30/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	

**Table 2a**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

**Former 76 Station 0843**

Date Sampled	TBA ( $\mu\text{g/l}$ )	Ethylene-dibromide				Carbon			Chromium VI ( $\mu\text{g/l}$ )	Chromium (total) ( $\mu\text{g/l}$ )	Chromium (dissolved) ( $\mu\text{g/l}$ )	Comments
		Ethanol (8260B) ( $\mu\text{g/l}$ )	(EDB) ( $\mu\text{g/l}$ )	EDB (504) ( $\mu\text{g/l}$ )	1,2-DCA (EDC) ( $\mu\text{g/l}$ )	DIPE ( $\mu\text{g/l}$ )	ETBE ( $\mu\text{g/l}$ )	TAME ( $\mu\text{g/l}$ )				
11/22/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--
2/23/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--
5/18/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--
8/10/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--
11/9/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--
2/8/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--
5/16/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--
8/15/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--
11/26/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--
2/24/2009	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	4.5	--	--	--
5/28/2009	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--
9/14/2009	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--
2/5/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--
8/3/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--
2/14/2011	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--
<b>MW-6</b>												
3/17/2001	ND	ND	ND	--	219	ND	ND	ND	--	--	--	--
9/24/2001	ND<100	ND<1000000	ND<2.0	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--
12/10/2001	ND<500	ID<1200000	ND<25	--	ND<25	ND<25	ND<25	ND<25	--	--	--	--
3/11/2002	ND<100	ND<500000	ND<2.0	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--
12/12/2002	ND<10000	ID<5000000	ND<200	--	ND<200	ND<200	ND<200	ND<200	--	--	--	--
3/13/2003	ND<5000	ID<2500000	ND<100	--	ND<100	ND<100	ND<100	ND<100	--	--	--	--
6/12/2003	ND<2000	ID<1000000	ND<40	--	ND<40	ND<40	ND<40	ND<40	--	--	--	--
9/12/2003	--	ND<2500	--	--	--	--	--	--	--	--	--	--
2/12/2004	ND<2000	ND<10000	ND<40	--	ND<40	ND<40	ND<40	ND<40	--	--	--	--
6/7/2004	ND<200	ND<8000	ND<5	--	ND<5	ND<10	ND<10	ND<10	--	--	--	--
9/17/2004	ND<100	ND<1000	--	--	--	ND<20	ND<10	ND<10	--	--	--	--
12/11/2004	ND<100	ND<1000	--	--	--	ND<20	ND<10	ND<10	--	--	--	--
3/11/2005	ND<100	ND<1000	--	--	--	ND<10	ND<10	ND<10	--	--	--	--
5/17/2005	ND<100	ND<1000	--	--	--	ND<10	ND<10	ND<10	--	--	--	--
7/27/2005	ND<100	ND<1000	--	--	--	ND<10	ND<10	ND<10	--	--	--	--
11/23/2005	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	1.0	--	--	--	--
2/24/2006	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	0.68	--	--	--	--
5/30/2006	ND<250	ND<6200	--	--	--	ND<12	ND<12	ND<12	--	--	--	--
8/30/2006	ND<100	ND<2500	--	--	--	ND<5.0	ND<5.0	ND<5.0	--	--	--	--

**Table 2a**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

**Former 76 Station 0843**

Date Sampled	TBA ( $\mu\text{g/l}$ )	Ethanol (8260B) ( $\mu\text{g/l}$ )	Ethylene-dibromide (EDB) ( $\mu\text{g/l}$ )	EDB (504) ( $\mu\text{g/l}$ )	1,2-DCA (EDC) ( $\mu\text{g/l}$ )	DIPE ( $\mu\text{g/l}$ )	ETBE ( $\mu\text{g/l}$ )	TAME ( $\mu\text{g/l}$ )	Carbon (organic, total) ( $\text{mg/l}$ )	Chromium VI ( $\mu\text{g/l}$ )	Chromium (total) ( $\mu\text{g/l}$ )	Chromium (dissolved) ( $\mu\text{g/l}$ )	Comments
11/22/2006	ND<100	ND<2500	--	--	--	ND<5.0	ND<5.0	ND<5.0	--	--	--	--	--
2/23/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
5/18/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
8/10/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
11/9/2007	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	0.52	--	--	--	--	--
2/8/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
5/16/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
8/15/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
11/26/2008	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
2/24/2009	ND<10	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	2.7	--	--	--	--
5/28/2009	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
9/14/2009	23	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
2/5/2010	41	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
8/3/2010	ND<10	ND<250	ND<0.50	ND<0.010	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
2/14/2011	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	--
<b>MW-7</b>													
5/28/2009	150	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	11	--	--	--	--	--
9/14/2009	680	ND<12000	--	--	--	ND<25	ND<25	ND<25	9.8	ND<2.0	76	--	--
11/13/2009	ND<200	ND<5000	ND<10	--	ND<10	ND<10	ND<10	ND<10	--	--	--	--	--
2/5/2010	1600	ND<6200	ND<12	--	ND<12	ND<12	ND<12	ND<12	--	--	--	--	--
6/7/2010	ND<250	ND<6200	ND<12	--	ND<12	ND<12	ND<12	ND<12	3.9	ND<2.0	11	ND<10	
8/3/2010	1400	ND<5000	ND<10	--	ND<10	ND<10	ND<10	ND<10	3.6	ND<2.0	79	ND<10	
11/11/2010	1200	ND<2500	ND<5.0	--	ND<5.0	ND<5.0	ND<5.0	ND<5.0	4.1	ND<2.0	27	ND<10	
2/14/2011	ND<1000	ND<25000	ND<50	--	ND<50	ND<50	ND<50	ND<50	4.1	ND<2.0	43	ND<10	
<b>MW-8</b>													
5/28/2009	36	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	9.7	9.9	ND<2.0	140	--	--
9/14/2009	ND<500	ND<12000	--	--	--	ND<25	ND<25	ND<25	14	ND<2.0	60	--	--
11/13/2009	ND<100	ND<2500	ND<5.0	--	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	--	--	--	--
2/5/2010	960	ND<5000	ND<10	--	ND<10	ND<10	ND<10	ND<10	--	--	--	--	--
6/7/2010	ND<200	ND<5000	ND<10	--	ND<10	ND<10	ND<10	ND<10	4.0	ND<2.0	21	ND<10	
8/3/2010	670	ND<2500	ND<5.0	ND<0.010	ND<5.0	ND<5.0	ND<5.0	ND<5.0	3.9	ND<2.0	74	ND<10	
11/11/2010	ND<1000	ND<25000	ND<50	--	ND<50	ND<50	ND<50	ND<50	3.7	ND<2.0	46	ND<10	
2/14/2011	ND<500	ND<12000	ND<25	--	ND<25	ND<25	ND<25	ND<25	3.7	ND<2.0	59	ND<10	
<b>MW-9</b>													
5/28/2009	40	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	11	--	--	--	--	--

**Table 2a**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

**Former 76 Station 0843**

Date Sampled	TBA ( $\mu\text{g/l}$ )	Ethanol (8260B) ( $\mu\text{g/l}$ )	Ethylene-dibromide (EDB) ( $\mu\text{g/l}$ )	EDB (504) ( $\mu\text{g/l}$ )	1,2-DCA (EDC) ( $\mu\text{g/l}$ )	DIPE ( $\mu\text{g/l}$ )	ETBE ( $\mu\text{g/l}$ )	TAME ( $\mu\text{g/l}$ )	Carbon (organic, total) ( $\text{mg/l}$ )	Chromium VI ( $\mu\text{g/l}$ )	Chromium (total) ( $\mu\text{g/l}$ )	Chromium (dissolved) ( $\mu\text{g/l}$ )	Comments
9/14/2009	24	ND<250	--	--	--	ND<0.50	ND<0.50	ND<0.50	3.0	ND<2.0	520	--	
11/13/2009	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
2/5/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
6/7/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.7	6.1	24	ND<10	
8/3/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.6	2.5	25	ND<10	
11/11/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.4	2.6	24	ND<10	
2/14/2011	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.4	6.6	22	ND<10	
<b>MW-10</b>													
5/28/2009	39	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	4.6	2.4	2.0	ND<10	--	
9/14/2009	240	ND<3100	--	--	--	ND<6.2	ND<6.2	ND<6.2	2.7	ND<2.0	24	--	
11/13/2009	ND<50	ND<1200	ND<2.5	--	ND<2.5	ND<2.5	ND<2.5	ND<2.5	--	--	--	--	
2/5/2010	35	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	--	
6/7/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.0	6.5	15	ND<10	
8/3/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.0	8.7	19	ND<10	
11/11/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.8	10	20	11	
2/14/2011	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.8	14	18	15	
<b>MW-11</b>													
5/28/2009	140	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	9.4	--	--	--	--	
9/14/2009	850	ND<12000	--	--	--	ND<25	ND<25	ND<25	3.3	ND<2.0	14	--	
11/13/2009	ND<200	ND<5000	ND<10	--	ND<10	ND<10	ND<10	ND<10	--	--	--	--	
2/5/2010	1600	ND<6200	ND<12	--	ND<12	ND<12	ND<12	ND<12	--	--	--	--	
6/7/2010	ND<200	ND<5000	ND<10	--	ND<10	ND<10	ND<10	ND<10	3.0	ND<2.0	ND<10	ND<10	
8/3/2010	620	ND<2500	ND<5.0	ND<0.010	ND<5.0	ND<5.0	ND<5.0	ND<5.0	2.9	ND<2.0	ND<10	ND<10	
11/11/2010	ND<100	ND<2500	ND<5.0	--	ND<5.0	ND<5.0	ND<5.0	ND<5.0	2.8	ND<2.0	17	ND<10	
2/14/2011	670	ND<3100	ND<6.2	--	ND<6.2	ND<6.2	ND<6.2	ND<6.2	3.5	ND<2.0	14	ND<10	

**Table 2b**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

**Former 76 Station 0843**

Date Sampled	Iron Ferrous ( $\mu\text{g/l}$ )	Manganese dissolved ( $\mu\text{g/l}$ )	Manganese total ( $\mu\text{g/l}$ )	Nitrogen as Nitrate ( $\text{mg/l}$ )	Sulfate ( $\text{mg/l}$ )	Dissolved Oxygen (Lab) ( $\text{mg O/l}$ )	Redox Potential (ORP-Lab) (mV)	Specific Conductance (umhos)	Post-purge Dissolved Oxygen ( $\text{O}_2$ )	Pre-purge Dissolved Oxygen ( $\text{O}_2$ )	Pre-purge ORP ( $\text{O}_2$ )	Post-purge ORP ( $\text{O}_2$ )	Comments
<b>MW-1</b>													
9/2/1999	--	--	--	--	--	--	--	--	--	--	--	--	--
3/15/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
2/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
11/22/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
2/23/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
5/18/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
8/10/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
11/9/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
2/8/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
5/16/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
8/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
11/26/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
2/24/2009	ND<100	ND<1.0	500	--	18	--	--	--	4.63	3.22	57	59	
5/28/2009	ND<500	2.4	550	9.9	25	8.6	130	463	0.80	2.95	119	171	
9/14/2009	ND<100	3.7	1600	11	25	6.8	204	429	1.93	3.81	233	146	
2/5/2010	--	--	--	--	--	--	--	--	0.83	1.42	66	71	
8/3/2010	ND<100	1.8	1100	16	24	6.7	333.4	508	1.10	1.68	172	158	
2/14/2011	ND<500	5.4	530	18	25	8.9	418.5	509	6.45	4.45	355	356	
<b>MW-1AR</b>													
5/28/2009	--	--	--	--	--	--	--	--	1.72	0.95	144	177	
9/14/2009	2500	570	830	17	39	7.0	205	655	1.68	1.83	235	187	
11/13/2009	--	--	--	--	--	--	--	--	3.13	2.98	174	16	
2/5/2010	--	--	--	--	--	--	--	--	0.37	0.94	79	75	
6/7/2010	490	210	450	21	30	6.1	273.4	554	0.79	1.27	56	78	
8/3/2010	550	180	230	21	31	8.1	225.1	537	0.39	0.58	148	108	
11/11/2010	370	210	330	20	31	7.6	206.5	545	2.67	2.46	204	216	
2/14/2011	420	150	190	21	32	7.3	217.9	537	1.31	1.48	349	362	
<b>MW-1BR</b>													
5/28/2009	--	--	--	--	--	--	--	--	0.61	1.37	145	165	
9/14/2009	ND<500	230	930	17	59	6.7	207	673	0.46	1.02	228	143	
11/13/2009	--	--	--	--	--	--	--	--	5.74	4.59	151	107	
2/5/2010	--	--	--	--	--	--	--	--	0.38	0.82	85	79	
6/7/2010	380	110	180	27	30	6.6	479.4	539	0.74	1.42	48	10	
8/3/2010	240	130	230	26	28	7.3	271.8	548	0.37	0.43	54	59	

**Table 2b**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

**Former 76 Station 0843**

Date Sampled	Iron Ferrous ( $\mu\text{g/l}$ )	Manganese dissolved ( $\mu\text{g/l}$ )	Manganese total ( $\mu\text{g/l}$ )	Nitrogen as Nitrate ( $\text{mg/l}$ )	Sulfate ( $\text{mg/l}$ )	Dissolved Oxygen (Lab) ( $\text{mg O/}$ )	Redox Potential (ORP-Lab) (mV)	Specific Conductance (umhos)	Post-purge Dissolved Oxygen ( $\text{O}_2$ )	Pre-purge Dissolved Oxygen ( $\text{O}_2$ )	Pre-purge ORP ( $\text{mV}$ )	Post-purge ORP ( $\text{mV}$ )	Comments
11/11/2010	250	130	170	ND<0.44	28	7.0	227.8	540	1.78	1.43	212	212	
2/14/2011	290	73	170	29	28	8.1	286.1	531	1.07	1.74	356	351	
<b>MW-2</b>													
9/2/1999	--	--	--	--	--	--	--	--	--	--	--	--	--
12/14/1999	--	--	--	--	--	--	--	--	--	--	--	--	--
3/14/2000	--	--	--	--	--	--	--	--	--	--	--	--	--
5/31/2000	--	--	--	--	--	--	--	--	--	--	--	--	--
8/29/2000	--	--	--	--	--	--	--	--	--	--	--	--	--
12/1/2000	--	--	--	--	--	--	--	--	--	--	--	--	--
3/17/2001	--	--	--	--	--	--	--	--	--	--	--	--	--
5/23/2001	--	--	--	--	--	--	--	--	--	--	--	--	--
9/24/2001	--	--	--	--	--	--	--	--	--	--	--	--	--
12/10/2001	--	--	--	--	--	--	--	--	--	--	--	--	--
3/11/2002	--	--	--	--	--	--	--	--	--	--	--	--	--
6/7/2002	--	--	--	--	--	--	--	--	--	--	--	--	--
9/3/2002	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>MW-2A</b>													
12/12/2002	--	--	--	--	--	--	--	--	--	--	--	--	--
3/13/2003	--	--	--	--	--	--	--	--	--	--	--	--	--
6/12/2003	--	--	--	--	--	--	--	--	--	--	--	--	--
9/12/2003	--	--	--	--	--	--	--	--	--	--	--	--	--
12/31/2003	--	--	--	--	--	--	--	--	--	--	--	--	--
2/12/2004	--	--	--	--	--	--	--	--	--	--	--	--	--
6/7/2004	--	--	--	--	--	--	--	--	--	--	--	--	--
9/17/2004	--	--	--	--	--	--	--	--	--	--	--	--	--
12/11/2004	--	--	--	--	--	--	--	--	--	--	--	--	--
3/15/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
5/17/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
7/27/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
11/23/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
2/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
5/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
8/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
11/22/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
2/23/2007	--	--	--	--	--	--	--	--	--	--	--	--	--

**Table 2b**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

**Former 76 Station 0843**

Date Sampled	Iron Ferrous (µg/l)	Manganese dissolved (µg/l)	Manganese total (µg/l)	Nitrogen as Nitrate (mg/l)	Sulfate (mg/l)	Dissolved Oxygen (Lab) (mg O/)	Redox Potential (ORP-Lab) (mV)	Specific Conductance (umhos)	Post-purge Dissolved Oxygen ()	Pre-purge Dissolved Oxygen ()	Pre-purge ORP ()	Post-purge ORP ()	Comments
5/18/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
8/10/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
11/9/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
2/8/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
5/16/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
8/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
11/26/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
2/24/2009	110	ND<1.0	130	--	87	--	--	--	3.38	4.44	50	34	
<b>MW-3</b>													
9/2/1999	--	--	--	--	--	--	--	--	--	--	--	--	--
3/11/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
5/17/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
7/27/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
11/23/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
2/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
5/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
8/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
11/22/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
2/23/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
5/18/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
8/10/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
11/9/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
2/8/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
5/16/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
8/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
11/26/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
2/24/2009	ND<100	ND<1.0	1100	--	130	--	--	--	5.01	2.30	46	49	
5/28/2009	--	--	--	--	--	--	--	--	0.61	4.03	141	85	
9/14/2009	--	--	--	--	--	6.6	196	658	0.49	2.02	146	119	
2/5/2010	--	--	--	--	--	--	--	--	1.04	2.64	338	71	
8/3/2010	--	--	--	--	--	6.7	279.4	601	0.95	2.24	103	103	
2/14/2011	--	--	--	--	--	4.9	288.9	587	1.15	2.43	187	188	
<b>MW-4</b>													
9/2/1999	--	--	--	--	--	--	--	--	--	--	--	--	--
12/10/2001	--	--	--	--	--	--	--	--	--	--	--	--	--

**Table 2b**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

**Former 76 Station 0843**

Date Sampled	Iron Ferrous (µg/l)	Manganese dissolved (µg/l)	Manganese total (µg/l)	Nitrogen as Nitrate (mg/l)	Sulfate (mg/l)	Dissolved Oxygen (Lab) (mg O/)	Redox Potential (ORP-Lab) (mV)	Specific Conductance (umhos)	Post-purge Dissolved Oxygen (%)	Pre-purge Dissolved Oxygen (%)	Pre-purge ORP (%)	Post-purge ORP (%)	Comments
12/12/2002	--	--	--	--	--	--	--	--	--	--	--	--	--
9/12/2003	--	--	--	--	--	--	--	--	--	--	--	--	--
9/17/2004	--	--	--	--	--	--	--	--	--	--	--	--	--
12/11/2004	--	--	--	--	--	--	--	--	--	--	--	--	--
3/11/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
5/17/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
7/27/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
11/23/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
2/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
5/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
8/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
11/22/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
2/23/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
5/18/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
8/10/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
11/9/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
2/8/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
5/16/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
8/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
11/26/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
2/24/2009	ND<100	3.1	250	--	130	--	--	--	6.15	4.27	61	64	
5/28/2009	--	--	--	--	--	--	--	--	3.68	3.76	141	55	
9/14/2009	--	--	--	--	--	7.1	195	1020	2.16	2.78	142	63	
2/5/2010	--	--	--	--	--	--	--	--	8.59	7.70	309	326	
8/3/2010	--	--	--	--	--	8.3	280.9	1110	5.26	2.88	102	106	
2/14/2011	--	--	--	--	--	9.2	294.6	770	7.02	6.84	187	172	
<b>MW-5</b>													
9/12/2003	--	--	--	--	--	--	--	--	--	--	--	--	--
3/11/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
5/17/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
7/27/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
11/23/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
2/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
5/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
8/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--

**Table 2b**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

**Former 76 Station 0843**

Date Sampled	Iron Ferrous ( $\mu\text{g/l}$ )	Manganese dissolved ( $\mu\text{g/l}$ )	Manganese total ( $\mu\text{g/l}$ )	Nitrogen as Nitrate ( $\text{mg/l}$ )	Sulfate ( $\text{mg/l}$ )	Dissolved Oxygen (Lab) ( $\text{mg O/}$ )	Redox Potential (ORP-Lab) (mV)	Specific Conductance (umhos)	Post-purge Dissolved Oxygen ( $\text{O}_2$ )	Pre-purge Dissolved Oxygen ( $\text{O}_2$ )	Pre-purge ORP ( $\text{mV}$ )	Post-purge ORP ( $\text{mV}$ )	Comments
11/22/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
2/23/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
5/18/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
8/10/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
11/9/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
2/8/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
5/16/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
8/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
11/26/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
2/24/2009	ND<100	ND<1.0	720	--	64	--	--	--	5.65	2.58	27	34	
5/28/2009	--	--	--	--	--	--	--	--	1.71	4.32	138	94	
9/14/2009	--	--	--	--	--	4.0	204	609	0.64	2.08	147	115	
2/5/2010	--	--	--	--	--	--	--	--	2.08	2.59	295	71	
8/3/2010	--	--	--	--	--	8.6	288.2	611	7.12	2.08	62	102	
2/14/2011	--	--	--	--	--	6.0	317.6	617	1.55	2.81	179	195	
<b>MW-6</b>													
3/17/2001	--	--	--	--	--	--	--	--	--	--	--	--	--
9/24/2001	--	--	--	--	--	--	--	--	--	--	--	--	--
12/10/2001	--	--	--	--	--	--	--	--	--	--	--	--	--
3/11/2002	--	--	--	--	--	--	--	--	--	--	--	--	--
12/12/2002	--	--	--	--	--	--	--	--	--	--	--	--	--
3/13/2003	--	--	--	--	--	--	--	--	--	--	--	--	--
6/12/2003	--	--	--	--	--	--	--	--	--	--	--	--	--
9/12/2003	--	--	--	--	--	--	--	--	--	--	--	--	--
2/12/2004	--	--	--	--	--	--	--	--	--	--	--	--	--
6/7/2004	--	--	--	--	--	--	--	--	--	--	--	--	--
9/17/2004	--	--	--	--	--	--	--	--	--	--	--	--	--
12/11/2004	--	--	--	--	--	--	--	--	--	--	--	--	--
3/11/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
5/17/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
7/27/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
11/23/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
2/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
5/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
8/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--

**Table 2b**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

**Former 76 Station 0843**

Date Sampled	Iron Ferrous (µg/l)	Manganese dissolved (µg/l)	Manganese total (µg/l)	Nitrogen as Nitrate (mg/l)	Sulfate (mg/l)	Dissolved Oxygen (Lab) (mg O/)	Redox Potential (ORP-Lab) (mV)	Specific Conductance (umhos)	Post-purge Dissolved Oxygen ()	Pre-purge Dissolved Oxygen ()	Pre-purge ORP ()	Post-purge ORP ()	Comments
11/22/2006	--	--	--	--	--	--	--	--	--	--	--	--	--
2/23/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
5/18/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
8/10/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
11/9/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
2/8/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
5/16/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
8/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
11/26/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
2/24/2009	ND<100	1.2	2300	--	85	--	--	--	3.40	1.29	68	67	
5/28/2009	--	--	--	--	--	--	--	--	1.06	1.85	142	56	
9/14/2009	--	--	--	--	--	7.1	205	595	0.46	1.07	154	118	
2/5/2010	--	--	--	--	--	--	--	--	2.96	2.73	314	135	
8/3/2010	--	--	--	--	--	8.0	291.7	530	0.72	1.35	96	103	
2/14/2011	--	--	--	--	--	5.2	326.6	542	1.01	2.16	195	198	
<b>MW-7</b>													
5/28/2009	--	--	--	--	--	--	--	--	1.24	0.63	160	124	
9/14/2009	3200	2000	2200	4.2	180	6.9	217	1030	0.26	1.35	-13	-53	
11/13/2009	--	--	--	--	--	--	--	--	--	0.76	1	-24	
2/5/2010	--	--	--	--	--	--	--	--	1.46	0.69	-10	-7	
6/7/2010	1200	1200	1500	4.1	72	8.2	342.6	801	0.57	1.10	11	-13	
8/3/2010	4500	1100	1500	3.9	69	8.9	105.6	745	2.18	1.05	112	105	
11/11/2010	2000	1000	1000	2.3	67	6.3	54.88	740	1.45	2.32	176	190	
2/14/2011	2700	920	1000	2.9	55	8.0	191.4	713	0.94	1.20	198	76	
<b>MW-8</b>													
5/28/2009	ND<1000	280	830	12	130	9.0	124	923	2.22	1.38	146	68	
9/14/2009	480	1000	1300	7.7	260	6.2	407	1100	0.28	1.11	151	92	
11/13/2009	--	--	--	--	--	--	--	--	3.51	0.84	111	72	
2/5/2010	--	--	--	--	--	--	--	--	1.17	0.58	88	63	
6/7/2010	620	870	1200	6.1	81	8.3	350.3	791	0.72	1.27	22	35	
8/3/2010	1500	860	1300	6.8	85	8.9	218.5	733	3.03	0.90	88	101	
11/11/2010	430	810	1000	5.2	83	7.7	229.2	724	1.31	0.98	179	170	
2/14/2011	440	830	1400	5.8	75	8.0	267.0	694	2.81	3.44	197	188	
<b>MW-9</b>													
5/28/2009	--	--	--	--	--	--	--	--	--	--	--	--	

**Table 2b**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**

**Former 76 Station 0843**

Date Sampled	Iron Ferrous (µg/l)	Manganese (dissolved) (µg/l)	Manganese (total) (µg/l)	Nitrogen as Nitrate (mg/l)	Sulfate (mg/l)	Dissolved Oxygen (Lab) (mg O/)	Redox Potential (ORP-Lab) (mV)	Specific Con- ductance (umhos)	Post-purge Dissolved Oxygen (%)	Pre-purge Dissolved Oxygen (%)	Pre-purge ORP (%)	Post-purge ORP (%)	Comments
9/14/2009	ND<1000	180	4700	5.0	68	7.3	204	580	3.58	4.16	236	171	
11/13/2009	--	--	--	--	--	--	--	--	5.06	4.22	81	105	
2/5/2010	--	--	--	--	--	--	--	--	0.93	1.25	102	102	
6/7/2010	280	200	1100	6.9	41	7.9	380.3	665	0.95	1.46	61	39	
8/3/2010	160	120	540	5.8	42	7.2	300.6	651	1.02	0.70	48	64	
11/11/2010	ND<500	180	1000	6.0	35	6.5	217.8	686	1.92	2.72	201	207	
2/14/2011	230	60	440	8.1	29	9.5	305.5	690	0.78	0.64	349	346	
<b>MW-10</b>													
5/28/2009	150	280	350	9.1	30	7.1	139	661	0.30	1.76	151	156	
9/14/2009	210	280	380	6.3	33	6.1	205	675	2.19	0.67	235	114	
11/13/2009	--	--	--	--	--	--	--	--	1.20	1.58	95	77	
2/5/2010	--	--	--	--	--	--	--	--	0.83	0.98	87	87	
6/7/2010	260	18	340	10	29	8.1	379.1	490	3.24	3.26	82	84	
8/3/2010	150	10	150	12	27	8.4	315.2	476	3.71	3.62	74	62	
11/11/2010	ND<100	9.2	160	13	28	7.6	175.6	529	3.07	4.23	190	207	
2/14/2011	160	43	45	13	30	9.2	326.6	560	2.25	3.77	342	355	
<b>MW-11</b>													
5/28/2009	--	--	--	--	--	--	--	--	0.22	0.80	1.56	147	
9/14/2009	310	570	740	0.73	37	6.7	192	780	0.81	0.82	224	49	
11/13/2009	--	--	--	--	--	--	--	--	0.35	1.52	53	23	
2/5/2010	--	--	--	--	--	--	--	--	1.33	1.56	280	126	
6/7/2010	310	280	980	1.5	20	7.0	501.3	737	0.70	1.31	97	44	
8/3/2010	100	440	730	3.3	20	6.9	317.6	727	0.54	1.21	12	-20	
11/11/2010	990	610	830	2.7	23	6.6	145.0	718	0.60	2.02	192	211	
2/14/2011	240	560	760	3.1	21	9.4	473.7	750	0.88	0.56	337	324	

**ARCADIS**

**Attachment C**

Laboratory Report and Chain-of-Custody Documentation



**Laboratories, Inc.**

Environmental Testing Laboratory Since 1949

Date of Report: 02/17/2012

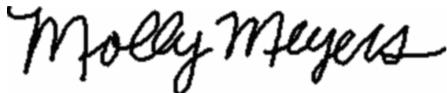
Kathy Brandt

Arcadis  
1900 Powell Street 12th Floor  
Emeryville, CA 94608

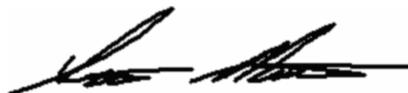
Project: 0843  
BC Work Order: 1201931  
Invoice ID: B116581

Enclosed are the results of analyses for samples received by the laboratory on 2/2/2012. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Contact Person: Molly Meyers  
Client Service Rep



Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*  
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 [www.bclabs.com](http://www.bclabs.com)

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## Chain of Custody and Cooler Receipt Form for 1201931 Page 1 of 6

CHK BY		DISTRIBUTION		#12-01931		SHORT HOLDING TIME									
						<input checked="" type="checkbox"/> Cr <sup>+6</sup>	<input type="checkbox"/> NO <sub>2</sub>	<input type="checkbox"/> NO <sub>3</sub>	<input type="checkbox"/> OP	<input type="checkbox"/> SS					
		SUB-OUT				<input type="checkbox"/> SO <sub>2</sub>	<input type="checkbox"/> Cl <sub>2</sub>	<input type="checkbox"/> BOD	<input type="checkbox"/> MBAS	<input type="checkbox"/> COT					
CHAIN OF CUSTODY FORM															
Union Oil Company of California ■ 6101 Bollinger Canyon Road ■ San Ramon, CA 94583															
Union Oil Site ID: 0843				Union Oil Consultant: Arcadis				ANALYSES REQUIRED							
Site Global ID: T0600102263				Consultant Contact: Kathy Brandt				Turnaround Time (TAT):							
Site Address: 1629 Webster St. Alameda, CA				Consultant Phone No.: 510 596 9675				Standard <input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/>							
Union Oil PM: Roya Kambin				Sampling Company: TRC				Special Instructions							
Union Oil PM Phone No.: 925 790 6270				Sampled By (PRINT): Andrew Vidlers											
Charge Code: NWRTB-0351849-0-LAB				Sampler Signature:											
This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.															
BC Laboratories, Inc. Project Manager: Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911															
SAMPLE ID															
Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers	Notes / Comments									
MW-9	W-S-A	-1	120202	0727	12	X	X	X	X	X	X	X	X		
MW-11	W-S-A	-2		0802		X							X		
MW-7	W-S-A	-3		0848		X							X		
MW-8	W-S-A	-4		0901	↓	X							X		
MW-5	W-S-A	-5		0940	11								X		
MW-6	W-S-A	-6		1021	11								X		
MW-1	W-S-A	-7		07412	12	X							X		
MW-1AR	W-S-A	-8		0820		X							X		
MW-1BR	W-S-A	-9		0850		X							X		
MW-10	W-S-A	-10		0934	↓	X							X		
MW-3	W-S-A	-11		1015	9	V	V	V	V	V	V	V			
MW-4	W-S-A	-12	↓	1047	9	V	V	V	V	V	V	V			
Relinquished By	Company	Date / Time:		Relinquished By	Company	Date / Time:		Relinquished By	Company	Date / Time:					
	TRC	2/2/12 1310		Harry Bogen	BCLABS	2-2-12 1900		Todd	BCLABS	2-2-12 2255					
Received By	Company	Date / Time:		Received By	Company	Date / Time:		Received By	Company	Date / Time:					
Harry Bogen	BCLABS	2-2-12 1430		Todd	BCLABS	2-2-12 1930		John	BCL	2-2-12 2255					

BC

**Laboratories, Inc.**

Environmental Testing Laboratory Since 1949

## Chain of Custody and Cooler Receipt Form for 1201931

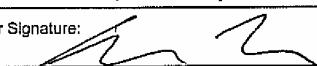
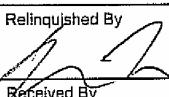
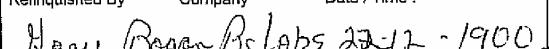
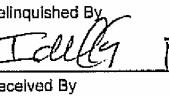
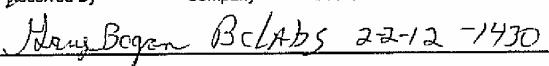
Page 2 of 6

#12-01931

## CHAIN OF CUSTODY FORM

Union Oil Company of California ■ 6101 Bollinger Canyon Road ■ San Ramon, CA 94583

COC 2 of 2

Union Oil Site ID: <u>0843</u>	Union Oil Consultant: <u>Arcadis</u>	ANALYSES REQUIRED		Turnaround Time (TAT): Standard <input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/>								
Site Global ID: <u>T0600102263</u>	Consultant Contact: <u>Kathy Brandt</u>											
Site Address: <u>1629 Webster St. Alameda, CA</u>	Consultant Phone No.: <u>510 596 9675</u>											
Union Oil PM: <u>Roya Kambin</u>	Sampling Company: <u>TRC</u>											
Union Oil PM Phone No.: <u>925 790 6270</u>	Sampled By (PRINT): <u>Andrew Vidwers</u>											
Charge Code: NWRTB-0351849-0-LAB		Sampler Signature: 	Special Instructions									
This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.		BC Laboratories, Inc. Project Manager: Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911										
SAMPLE ID				Notes / Comments								
Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers	TPH - Dissolved by EPA 8015	TPH - 6 hr GC/MS	EPA 8010B Full List with OAXX	BTENMIBEROXAS by EPA 8260B	EPA 8260B	Total Manganese by 2008	Total Vanadium by 2008
MW-9	W-S-A	-1	120202	0727	12			X				
MW-11	W-S-A	-2		0802				X				
MW-7	W-S-A	-3		0848								
MW-8	W-S-A	-4		0901								
MW-1	W-S-A	-7		0742								
MW-1AR	W-S-A	-8		0820								
MW-1BR	W-S-A	-9		0850								
MW-10	W-S-A	-10		0934								
	W-S-A											
	W-S-A											
	W-S-A											
	W-S-A											
Relinquished By	Company	Date / Time:		Relinquished By	Company	Date / Time:		Relinquished By	Company	Date / Time:		
	TRC	12/02/12 1310			Henry Bogen BC Labs	12-12-1900			BC LABS	2-2-12 22:55		
Received By	Company	Date / Time:		Received By	Company	Date / Time:		Received By	Company	Date / Time:		
	Henry Bogen BC Labs	12-12-1900			BC LABS	2-2-12 19:30			BC	2-2-12 22:55		



## Chain of Custody and Cooler Receipt Form for 1201931 Page 3 of 6

BC LABORATORIES INC.		SAMPLE RECEIPT FORM			Rev. No. 12	06/24/08	Page 1 Of 4			
Submission #: 12-01931										
SHIPPING INFORMATION				SHIPPING CONTAINER						
Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		Ice Chest <input checked="" type="checkbox"/> Box <input type="checkbox"/>		None <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____						
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____										
Custody Seals	Ice Chest <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>	Containers <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>	None <input checked="" type="checkbox"/> Comments: _____							
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Emissivity: 0.98 Container: PTFE Thermometer ID: 177			Date/Time 2-2-12 2355						
	Temperature: A 14 °C / C 20 °C			Analyst Init JNW						
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/GENERAL PHYSICAL	B	B	B							
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS	C	C	C							
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON	D	D	D							
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A (6)	A (6)	A (4)	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER	E,F	E,F	E,F							
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON	G	G	G							
ENCORE										
Comments: _____										
Sample Numbering Completed By: BLT Date/Time: 2/3/12 (0820)										
I = Actual / C = Corrected										
[H:\DOCSWP80\LAB_DOCS\FORMS\1SAMREC2.WPD]										

X



## Chain of Custody and Cooler Receipt Form for 1201931 Page 4 of 6

BC LABORATORIES INC.		SAMPLE RECEIPT FORM		Rev. No. 12	06/24/08	Page 2 Of 4				
Submission #: 12-01931										
SHIPPING INFORMATION			SHIPPING CONTAINER							
Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____			Ice Chest <input checked="" type="checkbox"/> Box <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____							
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____										
Custody Seals		Ice Chest <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Containers <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	None <input checked="" type="checkbox"/> Comments: _____						
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: 0.98 Container: D+P Thermometer ID: 177				Date/Time: 2-2-12				
		Temperature: A 1.1 °C / C 1.7 °C				Analyst Init: JWW2355				
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/GENERAL PHYSICAL			B	B	B					
PT PE UNPRESERVED			G	D	D					
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS			C	C	C					
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON			D							
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	(	(	(	A	A	A	(	(	(	)
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
OT AMBER			E, F	E, F	E, F					
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments: \_\_\_\_\_

Sample Numbering Completed By: BLT Date/Time: 2/3/12 @ 0820

A = Actual / C = Corrected

[H:\DOCS\WP80\LAB\_DOCS\FORMS\1SAMREC2.WPD]





## Chain of Custody and Cooler Receipt Form for 1201931 Page 5 of 6

BC LABORATORIES INC.		SAMPLE RECEIPT FORM				Rev. No. 12	06/24/08	Page 3 Of 4		
Submission #: 12-01931										
SHIPPING INFORMATION						SHIPPING CONTAINER				
Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____			Ice Chest <input checked="" type="checkbox"/> Box <input type="checkbox"/>			None <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____				
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____										
Custody Seals		Ice Chest <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>	Containers <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>	None <input checked="" type="checkbox"/> Comments: _____						
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: 0.98 Container: QPle Thermometer ID: 177 Temperature: A 1.1 °C / C 118.17 °C				Date/Time 2-2-12 2355 Analyst Init JNW				
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/GENERAL PHYSICAL						B	B	B		
PT PE UNPRESERVED						G	G	G		
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS						C	C	C		
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON						D	D	D	D	
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	(	(	)	)	(	)	(	)	A 16)	
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
OT EPA 548										
OT EPA 549										
OT EPA 632										
QT EPA 8015M										
QT AMBER						E, F	E, F	E, F		
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments: \_\_\_\_\_

Sample Numbering Completed By: PBLT Date/Time: 2/3/12 @ 0820

A = Actual / C = Corrected

[H:\DOCS\WP801\LAB\_DOCS\FORMS\SAMREC2.WPD]



## Chain of Custody and Cooler Receipt Form for 1201931 Page 6 of 6

BC LABORATORIES INC.		SAMPLE RECEIPT FORM		Rev. No. 12	06/24/08	Page 4 Of 4				
Submission #: 12-01931										
SHIPPING INFORMATION			SHIPPING CONTAINER							
Federal Express <input type="checkbox"/>	UPS <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	Ice Chest <input checked="" type="checkbox"/>	None <input type="checkbox"/>	BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____					
			Box <input type="checkbox"/>	Other <input type="checkbox"/> (Specify) _____						
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____										
Custody Seals	Ice Chest <input type="checkbox"/>	Containers <input type="checkbox"/>	None <input checked="" type="checkbox"/>	Comments: _____						
Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>								
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Emissivity: 0.98 Container: Q40 Thermometer ID: 177			Date/Time 2-2-12 2355 Analyst Init JNW						
Temperature: A 0.8 °C / C 1.4 °C										
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	I1	I2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										B
PT PE UNPRESERVED	B,C	B,C								G
QT INORGANIC CHEMICAL METALS										C
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A 16	A 16	I	I	I	I	I	I	I	
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL_ 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER	D,E	D,E								E,F
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
Comments:										
Sample Numbering Completed By: BLT	Date/Time: 2/3/12 @ 0820		D:\DOCS\WPB01\LAB_DOCS\FORMS\SAMREC2.WPD							
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.										



Arcadis  
1900 Powell Street 12th Floor  
Emeryville, CA 94608

**Reported:** 02/17/2012 14:06  
**Project:** 0843  
**Project Number:** 351849  
**Project Manager:** Kathy Brandt

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1201931-01	<b>COC Number:</b> --- <b>Project Number:</b> 0843 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-9-W-120202 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 02/02/2012 22:55 <b>Sampling Date:</b> 02/02/2012 07:27 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600102263 Location ID (FieldPoint): MW-9 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1201931-02	<b>COC Number:</b> --- <b>Project Number:</b> 0843 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-11-W-120202 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 02/02/2012 22:55 <b>Sampling Date:</b> 02/02/2012 08:02 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600102263 Location ID (FieldPoint): MW-11 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1201931-03	<b>COC Number:</b> --- <b>Project Number:</b> 0843 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-7-W-120202 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 02/02/2012 22:55 <b>Sampling Date:</b> 02/02/2012 08:48 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600102263 Location ID (FieldPoint): MW-7 Matrix: W Sample QC Type (SACode): CS Cooler ID:		



Arcadis  
1900 Powell Street 12th Floor  
Emeryville, CA 94608

**Reported:** 02/17/2012 14:06  
**Project:** 0843  
**Project Number:** 351849  
**Project Manager:** Kathy Brandt

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1201931-04	<b>COC Number:</b> --- <b>Project Number:</b> 0843 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-8-W-120202 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 02/02/2012 22:55 <b>Sampling Date:</b> 02/02/2012 09:01 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600102263 Location ID (FieldPoint): MW-8 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1201931-05	<b>COC Number:</b> --- <b>Project Number:</b> 0843 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-5-W-120202 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 02/02/2012 22:55 <b>Sampling Date:</b> 02/02/2012 09:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600102263 Location ID (FieldPoint): MW-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1201931-06	<b>COC Number:</b> --- <b>Project Number:</b> 0843 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-6-W-120202 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 02/02/2012 22:55 <b>Sampling Date:</b> 02/02/2012 10:21 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600102263 Location ID (FieldPoint): MW-6 Matrix: W Sample QC Type (SACode): CS Cooler ID:		



Arcadis  
1900 Powell Street 12th Floor  
Emeryville, CA 94608

**Reported:** 02/17/2012 14:06  
**Project:** 0843  
**Project Number:** 351849  
**Project Manager:** Kathy Brandt

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1201931-07	<b>COC Number:</b> --- <b>Project Number:</b> 0843 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-1-W-120202 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 02/02/2012 22:55 <b>Sampling Date:</b> 02/02/2012 07:42 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600102263 Location ID (FieldPoint): MW-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1201931-08	<b>COC Number:</b> --- <b>Project Number:</b> 0843 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-1AR-W-120202 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 02/02/2012 22:55 <b>Sampling Date:</b> 02/02/2012 08:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600102263 Location ID (FieldPoint): MW-1AR Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1201931-09	<b>COC Number:</b> --- <b>Project Number:</b> 0843 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-1BR-W-120202 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 02/02/2012 22:55 <b>Sampling Date:</b> 02/02/2012 08:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600102263 Location ID (FieldPoint): MW-1BR Matrix: W Sample QC Type (SACode): CS Cooler ID:		



Arcadis  
1900 Powell Street 12th Floor  
Emeryville, CA 94608

**Reported:** 02/17/2012 14:06  
**Project:** 0843  
**Project Number:** 351849  
**Project Manager:** Kathy Brandt

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1201931-10	<b>COC Number:</b> --- <b>Project Number:</b> 0843 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-10-W-120202 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 02/02/2012 22:55 <b>Sampling Date:</b> 02/02/2012 09:34 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600102263 Location ID (FieldPoint): MW-10 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1201931-11	<b>COC Number:</b> --- <b>Project Number:</b> 0843 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-W-120202 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 02/02/2012 22:55 <b>Sampling Date:</b> 02/02/2012 10:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: T0600102263 Location ID (FieldPoint): MW-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1201931-12	<b>COC Number:</b> --- <b>Project Number:</b> 0843 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-4-W-120202 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 02/02/2012 22:55 <b>Sampling Date:</b> 02/02/2012 10:47 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: T0600102263 Location ID (FieldPoint): MW-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:		



Arcadis  
1900 Powell Street 12th Floor  
Emeryville, CA 94608

**Reported:** 02/17/2012 14:06  
**Project:** 0843  
**Project Number:** 351849  
**Project Manager:** Kathy Brandt

## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1201931-01	Client Sample Name:	0843, MW-9-W-120202, 2/2/2012 7:27:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
<b>Methyl t-butyl ether</b>	<b>6.1</b>	<b>ug/L</b>	<b>0.50</b>	<b>EPA-8260</b>	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	110	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	98.6	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	95.6	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	02/07/12	02/07/12 13:34	JMC	MS-V12	1	BVB0480



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Reported: 02/17/2012 14:06  
Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201931-01	Client Sample Name:	0843, MW-9-W-120202, 2/2/2012 7:27:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	77.2	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	02/06/12	02/08/12 00:50	jjh	GC-V4	1	BVB0381



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Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Water Analysis (General Chemistry)

BCL Sample ID:	1201931-01	Client Sample Name:	0843, MW-9-W-120202, 2/2/2012 7:27:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Nitrate as NO <sub>3</sub>	19	mg/L	0.44	EPA-300.0	ND		1
Sulfate	40	mg/L	1.0	EPA-300.0	ND		1
Electrical Conductivity @ 25 C	640	umhos/cm	1.00	EPA-120.1			2
Iron (II) Species	ND	ug/L	200	SM-3500-FeD	ND	A10	3
Non-Volatile Organic Carbon	2.0	mg/L	0.30	EPA-415.1	ND		4
Dissolved Oxygen	6.9	mg O/L	0.50	SM-4500OG		S05	5
Oxidation Reduction Potential (Eobs_Ag/AgCl)	288.1	mV	-1000	ASTM-D1498			6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	02/03/12	02/03/12 20:11	AKB	IC2	1	BVB0273
2	EPA-120.1	02/07/12	02/07/12 11:41	RML	MET-1	1	BVB0424
3	SM-3500-FeD	02/03/12	02/03/12 15:00	MSA	SPEC05	2	BVB1240
4	EPA-415.1	02/07/12	02/08/12 07:56	CDR	TOC2	1	BVB0334
5	SM-4500OG	02/03/12	02/03/12 09:30	HPR	YSI-57	1	BVB0404
6	ASTM-D1498	02/06/12	02/06/12 09:51	RML	MET-1	1	BVB0379



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Reported: 02/17/2012 14:06  
Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Water Analysis (Metals)

BCL Sample ID:	1201931-01	Client Sample Name:	0843, MW-9-W-120202, 2/2/2012 7:27:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	5.2	ug/L	2.0	EPA-7196	ND		1
Dissolved Chromium	ND	ug/L	10	EPA-6010B	ND		2
Dissolved Manganese	2.0	ug/L	1.0	EPA-200.8	ND		3
Dissolved Vanadium	ND	ug/L	3.0	EPA-200.8	ND		3
Total Chromium	160	ug/L	10	EPA-6010B	ND		4
Total Recoverable Manganese	1500	ug/L	2.0	EPA-200.8	ND	A10	5
Total Recoverable Vanadium	68	ug/L	6.0	EPA-200.8	ND	A10	5

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC Batch ID
			Date/Time				
1	EPA-7196	02/03/12	02/03/12 01:21	TDC	KONE-1	1	BVB0228
2	EPA-6010B	02/03/12	02/07/12 09:42	ARD	PE-OP1	1	BVB0311
3	EPA-200.8	02/03/12	02/10/12 17:38	PPS	PE-EL1	1	BVB0604
4	EPA-6010B	02/08/12	02/09/12 09:18	ARD	PE-OP1	1	BVB0568
5	EPA-200.8	02/09/12	02/14/12 11:51	SRM	PE-EL1	2	BVB0629



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**Project:** 0843  
**Project Number:** 351849  
**Project Manager:** Kathy Brandt

## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1201931-02	Client Sample Name: 0843, MW-11-W-120202, 2/2/2012 8:02:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
<b>Methyl t-butyl ether</b>	<b>2500</b>	<b>ug/L</b>	<b>12</b>	<b>EPA-8260</b>	ND	<b>A01</b>	<b>2</b>
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
<b>t-Amyl Methyl ether</b>	<b>2.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>EPA-8260</b>	ND		<b>1</b>
<b>t-Butyl alcohol</b>	<b>730</b>	<b>ug/L</b>	<b>10</b>	<b>EPA-8260</b>	ND		<b>1</b>
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	102	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	99.4	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	100	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	96.9	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	99.0	%	86 - 115 (LCL - UCL)	EPA-8260			2

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260	02/07/12	02/07/12	13:17	JMC	MS-V12	1	BVB0480
2	EPA-8260	02/07/12	02/08/12	12:46	JMC	MS-V12	25	BVB0480



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## Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201931-02	Client Sample Name: 0843, MW-11-W-120202, 2/2/2012 8:02:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	82.0	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	02/06/12	02/08/12 01:13	jjh	GC-V4	1	BVB0381



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Project Manager: Kathy Brandt

## Water Analysis (General Chemistry)

BCL Sample ID:	1201931-02	Client Sample Name:	0843, MW-11-W-120202, 2/2/2012 8:02:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Nitrate as NO <sub>3</sub>	7.0	mg/L	0.44	EPA-300.0	ND		1
Sulfate	29	mg/L	1.0	EPA-300.0	ND		1
Electrical Conductivity @ 25 C	732	umhos/cm	1.00	EPA-120.1			2
Iron (II) Species	ND	ug/L	100	SM-3500-FeD	ND		3
Non-Volatile Organic Carbon	2.7	mg/L	0.30	EPA-415.1	ND		4
Dissolved Oxygen	6.8	mg O/L	0.50	SM-4500OG		S05	5
Oxidation Reduction Potential (E <sub>obs</sub> _Ag/AgCl)	288.8	mV	-1000	ASTM-D1498			6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	02/03/12	02/04/12 00:19	LD1	IC2	1	BVB0273
2	EPA-120.1	02/07/12	02/07/12 11:46	RML	MET-1	1	BVB0424
3	SM-3500-FeD	02/03/12	02/03/12 15:00	MSA	SPEC05	1	BVB1240
4	EPA-415.1	02/07/12	02/08/12 08:36	CDR	TOC2	1	BVB0334
5	SM-4500OG	02/03/12	02/03/12 09:30	HPR	YSI-57	1	BVB0404
6	ASTM-D1498	02/06/12	02/06/12 10:00	RML	MET-1	1	BVB0379



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**Reported:** 02/17/2012 14:06  
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## Water Analysis (Metals)

BCL Sample ID:	1201931-02	Client Sample Name:	0843, MW-11-W-120202, 2/2/2012 8:02:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	2.0	EPA-7196	ND		1
Dissolved Chromium	ND	ug/L	10	EPA-6010B	ND		2
<b>Dissolved Manganese</b>	<b>540</b>	<b>ug/L</b>	<b>1.0</b>	<b>EPA-200.8</b>	ND		3
Dissolved Vanadium	ND	ug/L	3.0	EPA-200.8	ND		3
Total Chromium	ND	ug/L	10	EPA-6010B	ND		4
<b>Total Recoverable Manganese</b>	<b>830</b>	<b>ug/L</b>	<b>1.0</b>	<b>EPA-200.8</b>	ND		5
Total Recoverable Vanadium	ND	ug/L	3.0	EPA-200.8	ND		5

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC Batch ID
			Date/Time				
1	EPA-7196	02/03/12	02/03/12 01:21	TDC	KONE-1	1	BVB0228
2	EPA-6010B	02/03/12	02/07/12 09:44	ARD	PE-OP1	1	BVB0311
3	EPA-200.8	02/03/12	02/10/12 17:40	PPS	PE-EL1	1	BVB0604
4	EPA-6010B	02/08/12	02/09/12 09:20	ARD	PE-OP1	1	BVB0568
5	EPA-200.8	02/09/12	02/13/12 17:31	SRM	PE-EL2	1	BVB0629



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## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1201931-03	Client Sample Name:	0843, MW-7-W-120202, 2/2/2012 8:48:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
<b>Methyl t-butyl ether</b>	<b>6400</b>	<b>ug/L</b>	<b>50</b>	<b>EPA-8260</b>	ND	<b>A01</b>	<b>2</b>
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
<b>t-Amyl Methyl ether</b>	<b>5.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>EPA-8260</b>	ND		<b>1</b>
<b>t-Butyl alcohol</b>	<b>2800</b>	<b>ug/L</b>	<b>10</b>	<b>EPA-8260</b>	ND		<b>1</b>
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	107	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	96.3	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	98.8	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	98.1	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.4	%	86 - 115 (LCL - UCL)	EPA-8260			2

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260	02/07/12	02/07/12	12:59	JMC	MS-V12	1	BVB0480
2	EPA-8260	02/07/12	02/08/12	16:00	JMC	MS-V12	100	BVB0480



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## Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201931-03	Client Sample Name: 0843, MW-7-W-120202, 2/2/2012 8:48:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	88.5	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	02/06/12	02/08/12 01:35	jjh	GC-V4	1	BVB0381



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Project Manager: Kathy Brandt

## Water Analysis (General Chemistry)

BCL Sample ID:	1201931-03	Client Sample Name:	0843, MW-7-W-120202, 2/2/2012 8:48:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Nitrate as NO <sub>3</sub>	4.1	mg/L	0.44	EPA-300.0	ND		1
Sulfate	39	mg/L	1.0	EPA-300.0	ND		1
Electrical Conductivity @ 25 C	682	umhos/cm	1.00	EPA-120.1			2
Iron (II) Species	1800	ug/L	100	SM-3500-FeD	ND		3
Non-Volatile Organic Carbon	3.6	mg/L	0.30	EPA-415.1	ND		4
Dissolved Oxygen	7.1	mg O/L	0.50	SM-4500OG		S05	5
Oxidation Reduction Potential (Eobs_Ag/AgCl)	67.33	mV	-1000	ASTM-D1498			6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	02/03/12	02/04/12 00:33	LD1	IC2	1	BVB0273
2	EPA-120.1	02/07/12	02/07/12 12:08	RML	MET-1	1	BVB0425
3	SM-3500-FeD	02/03/12	02/03/12 15:00	MSA	SPEC05	1	BVB1240
4	EPA-415.1	02/07/12	02/08/12 08:50	CDR	TOC2	1	BVB0334
5	SM-4500OG	02/03/12	02/03/12 09:30	HPR	YSI-57	1	BVB0404
6	ASTM-D1498	02/06/12	02/06/12 10:04	RML	MET-1	1	BVB0379



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Project Number: 351849  
Project Manager: Kathy Brandt

## Water Analysis (Metals)

BCL Sample ID:	1201931-03	Client Sample Name:	0843, MW-7-W-120202, 2/2/2012 8:48:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	2.0	EPA-7196	ND		1
Dissolved Chromium	ND	ug/L	10	EPA-6010B	ND		2
<b>Dissolved Manganese</b>	<b>710</b>	<b>ug/L</b>	<b>1.0</b>	<b>EPA-200.8</b>	ND		3
Dissolved Vanadium	ND	ug/L	3.0	EPA-200.8	ND		3
Total Chromium	ND	ug/L	10	EPA-6010B	ND		4
<b>Total Recoverable Manganese</b>	<b>620</b>	<b>ug/L</b>	<b>1.0</b>	<b>EPA-200.8</b>	ND		5
Total Recoverable Vanadium	ND	ug/L	3.0	EPA-200.8	ND		5

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC Batch ID
			Date/Time				
1	EPA-7196	02/03/12	02/03/12 01:21	TDC	KONE-1	1	BVB0228
2	EPA-6010B	02/03/12	02/07/12 09:46	ARD	PE-OP1	1	BVB0311
3	EPA-200.8	02/03/12	02/10/12 17:43	PPS	PE-EL1	1	BVB0604
4	EPA-6010B	02/08/12	02/09/12 09:22	ARD	PE-OP1	1	BVB0568
5	EPA-200.8	02/09/12	02/13/12 18:03	SRM	PE-EL2	1	BVB0629



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**Reported:** 02/17/2012 14:06  
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**Project Manager:** Kathy Brandt

## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1201931-04	Client Sample Name:	0843, MW-8-W-120202, 2/2/2012 9:01:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
<b>Methyl t-butyl ether</b>	<b>2400</b>	<b>ug/L</b>	<b>12</b>	<b>EPA-8260</b>	ND	<b>A01</b>	<b>2</b>
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
<b>t-Amyl Methyl ether</b>	<b>2.3</b>	<b>ug/L</b>	<b>0.50</b>	<b>EPA-8260</b>	ND		<b>1</b>
<b>t-Butyl alcohol</b>	<b>740</b>	<b>ug/L</b>	<b>10</b>	<b>EPA-8260</b>	ND		<b>1</b>
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	101	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	99.0	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.9	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	98.1	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	100	%	86 - 115 (LCL - UCL)	EPA-8260			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	02/07/12	02/07/12 12:42	JMC	MS-V12	1	BVB0480
2	EPA-8260	02/07/12	02/08/12 12:11	JMC	MS-V12	25	BVB0480



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Project Manager: Kathy Brandt

## Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201931-04	Client Sample Name:	0843, MW-8-W-120202, 2/2/2012 9:01:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	82.7	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	02/06/12	02/08/12 01:59	jjh	GC-V4	1	BVB0381



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Reported: 02/17/2012 14:06  
Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Water Analysis (General Chemistry)

BCL Sample ID:	1201931-04	Client Sample Name:	0843, MW-8-W-120202, 2/2/2012 9:01:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Nitrate as NO <sub>3</sub>	5.2	mg/L	0.44	EPA-300.0	ND		1
Sulfate	47	mg/L	1.0	EPA-300.0	ND		1
Electrical Conductivity @ 25 C	602	umhos/cm	1.00	EPA-120.1			2
Iron (II) Species	ND	ug/L	100	SM-3500-FeD	ND		3
Non-Volatile Organic Carbon	3.4	mg/L	0.30	EPA-415.1	ND		4
Dissolved Oxygen	7.0	mg O/L	0.50	SM-4500OG		S05	5
Oxidation Reduction Potential (Eobs_Ag/AgCl)	196.2	mV	-1000	ASTM-D1498			6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	02/03/12	02/04/12 00:46	LD1	IC2	1	BVB0273
2	EPA-120.1	02/07/12	02/07/12 12:20	RML	MET-1	1	BVB0425
3	SM-3500-FeD	02/03/12	02/03/12 15:00	MSA	SPEC05	1	BVB1240
4	EPA-415.1	02/07/12	02/08/12 09:03	CDR	TOC2	1	BVB0334
5	SM-4500OG	02/03/12	02/03/12 09:30	HPR	YSI-57	1	BVB0404
6	ASTM-D1498	02/06/12	02/06/12 10:08	RML	MET-1	1	BVB0379



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**Reported:** 02/17/2012 14:06  
**Project:** 0843  
**Project Number:** 351849  
**Project Manager:** Kathy Brandt

## Water Analysis (Metals)

BCL Sample ID:	1201931-04	Client Sample Name:	0843, MW-8-W-120202, 2/2/2012 9:01:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	2.0	EPA-7196	ND		1
Dissolved Chromium	ND	ug/L	10	EPA-6010B	ND		2
<b>Dissolved Manganese</b>	<b>730</b>	<b>ug/L</b>	<b>1.0</b>	<b>EPA-200.8</b>	ND		3
Dissolved Vanadium	ND	ug/L	3.0	EPA-200.8	ND		3
Total Chromium	ND	ug/L	10	EPA-6010B	ND		4
<b>Total Recoverable Manganese</b>	<b>800</b>	<b>ug/L</b>	<b>1.0</b>	<b>EPA-200.8</b>	ND		5
<b>Total Recoverable Vanadium</b>	<b>3.6</b>	<b>ug/L</b>	<b>3.0</b>	<b>EPA-200.8</b>	ND		5

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC Batch ID
			Date/Time				
1	EPA-7196	02/03/12	02/03/12 01:21	TDC	KONE-1	1	BVB0228
2	EPA-6010B	02/03/12	02/07/12 09:48	ARD	PE-OP1	1	BVB0311
3	EPA-200.8	02/03/12	02/10/12 17:46	PPS	PE-EL1	1	BVB0604
4	EPA-6010B	02/08/12	02/09/12 09:23	ARD	PE-OP1	1	BVB0568
5	EPA-200.8	02/09/12	02/13/12 18:06	SRM	PE-EL2	1	BVB0629



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**Project:** 0843  
**Project Number:** 351849  
**Project Manager:** Kathy Brandt

## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1201931-05	Client Sample Name:	0843, MW-5-W-120202, 2/2/2012 9:40:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
<b>Methyl t-butyl ether</b>	<b>2.1</b>	<b>ug/L</b>	<b>0.50</b>	<b>EPA-8260</b>	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.7	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	95.4	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	02/07/12	02/07/12 12:24	JMC	MS-V12	1	BVB0480



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Project Manager: Kathy Brandt

## Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201931-05	Client Sample Name: 0843, MW-5-W-120202, 2/2/2012 9:40:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	75.8	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	02/06/12	02/08/12 02:22	jjh	GC-V4	1	BVB0381



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Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Water Analysis (General Chemistry)

BCL Sample ID:	1201931-05	Client Sample Name:	0843, MW-5-W-120202, 2/2/2012 9:40:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Electrical Conductivity @ 25 C	620	umhos/cm	1.00	EPA-120.1			1
Dissolved Oxygen	8.0	mg O/L	0.50	SM-4500OG		S05	2
Oxidation Reduction Potential (Eobs_Ag/AgCl)	236.9	mV	-1000	ASTM-D1498			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-120.1	02/07/12	02/07/12 12:25	RML	MET-1	1	BVB0425
2	SM-4500OG	02/03/12	02/03/12 09:30	HPR	YSI-57	1	BVB0404
3	ASTM-D1498	02/06/12	02/06/12 10:13	RML	MET-1	1	BVB0379



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**Project Number:** 351849  
**Project Manager:** Kathy Brandt

## Water Analysis (Metals)

BCL Sample ID:	1201931-05	Client Sample Name:	0843, MW-5-W-120202, 2/2/2012 9:40:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	2.0	EPA-7196	ND		1
Dissolved Chromium	ND	ug/L	10	EPA-6010B	ND		2
<b>Total Chromium</b>	<b>72</b>	ug/L	<b>10</b>	<b>EPA-6010B</b>	ND		3

Run #	Method	Prep Date	Run			Dilution	QC Batch ID
			Date/Time	Analyst	Instrument		
1	EPA-7196	02/03/12	02/03/12 01:27	TDC	KONE-1	1	BVB0228
2	EPA-6010B	02/03/12	02/07/12 09:49	ARD	PE-OP1	1	BVB0311
3	EPA-6010B	02/08/12	02/09/12 09:25	ARD	PE-OP1	1	BVB0568



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## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1201931-06	Client Sample Name:	0843, MW-6-W-120202, 2/2/2012 10:21:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
<b>Methyl t-butyl ether</b>	<b>94</b>	<b>ug/L</b>	<b>0.50</b>	<b>EPA-8260</b>	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
<b>t-Butyl alcohol</b>	<b>21</b>	<b>ug/L</b>	<b>10</b>	<b>EPA-8260</b>	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	94.8	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	94.6	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	02/07/12	02/07/12 12:06	JMC	MS-V12	1	BVB0480



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Reported: 02/17/2012 14:06  
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Project Number: 351849  
Project Manager: Kathy Brandt

## Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201931-06	Client Sample Name: 0843, MW-6-W-120202, 2/2/2012 10:21:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	76.5	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	02/06/12	02/08/12 02:44	jjh	GC-V4	1	BVB0381



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## Water Analysis (General Chemistry)

BCL Sample ID:	1201931-06	Client Sample Name:	0843, MW-6-W-120202, 2/2/2012 10:21:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Electrical Conductivity @ 25 C	535	umhos/cm	1.00	EPA-120.1			1
Dissolved Oxygen	6.4	mg O/L	0.50	SM-4500OG		S05	2
Oxidation Reduction Potential (Eobs_Ag/AgCl)	252.9	mV	-1000	ASTM-D1498			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-120.1	02/07/12	02/07/12 12:31	RML	MET-1	1	BVB0425
2	SM-4500OG	02/03/12	02/03/12 09:30	HPR	YSI-57	1	BVB0404
3	ASTM-D1498	02/06/12	02/06/12 10:18	RML	MET-1	1	BVB0379



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## Water Analysis (Metals)

BCL Sample ID:	1201931-06	Client Sample Name:	0843, MW-6-W-120202, 2/2/2012 10:21:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	2.0	EPA-7196	ND		1
Dissolved Chromium	ND	ug/L	10	EPA-6010B	ND		2
<b>Total Chromium</b>	<b>77</b>	ug/L	<b>10</b>	<b>EPA-6010B</b>	ND		3

Run #	Method	Prep Date	Run			Dilution	QC Batch ID
			Date/Time	Analyst	Instrument		
1	EPA-7196	02/03/12	02/03/12 01:27	TDC	KONE-1	1	BVB0228
2	EPA-6010B	02/03/12	02/07/12 09:51	ARD	PE-OP1	1	BVB0311
3	EPA-6010B	02/08/12	02/09/12 09:27	ARD	PE-OP1	1	BVB0568



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## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1201931-07	Client Sample Name: 0843, MW-1-W-120202, 2/2/2012 7:42:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	380	ug/L	5.0	EPA-8260	ND	A01	2
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	1.0	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	94	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	92.5	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	95.1	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	98.2	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	99.0	%	86 - 115 (LCL - UCL)	EPA-8260			2

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260	02/07/12	02/07/12	11:48	JMC	MS-V12	1	BVB0480
2	EPA-8260	02/07/12	02/08/12	11:53	JMC	MS-V12	10	BVB0480



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## Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201931-07	Client Sample Name:	0843, MW-1-W-120202, 2/2/2012 7:42:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	75.5	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	02/06/12	02/08/12 03:07	jjh	GC-V4	1	BVB0381



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Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Water Analysis (General Chemistry)

BCL Sample ID:	1201931-07	Client Sample Name:	0843, MW-1-W-120202, 2/2/2012 7:42:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Nitrate as NO <sub>3</sub>	20	mg/L	0.44	EPA-300.0	ND		1
Sulfate	23	mg/L	1.0	EPA-300.0	ND		1
Electrical Conductivity @ 25 C	424	umhos/cm	1.00	EPA-120.1			2
Iron (II) Species	ND	ug/L	100	SM-3500-FeD	ND		3
Non-Volatile Organic Carbon	1.2	mg/L	0.30	EPA-415.1	ND		4
Dissolved Oxygen	7.6	mg O/L	0.50	SM-4500OG		S05	5
Oxidation Reduction Potential (E <sub>obs</sub> _Ag/AgCl)	273.0	mV	-1000	ASTM-D1498			6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	02/03/12	02/04/12 01:00	LD1	IC2	1	BVB0273
2	EPA-120.1	02/07/12	02/07/12 12:37	RML	MET-1	1	BVB0425
3	SM-3500-FeD	02/03/12	02/03/12 15:00	MSA	SPEC05	1	BVB1240
4	EPA-415.1	02/07/12	02/08/12 09:16	CDR	TOC2	1	BVB0334
5	SM-4500OG	02/03/12	02/03/12 09:30	HPR	YSI-57	1	BVB0404
6	ASTM-D1498	02/06/12	02/06/12 10:22	RML	MET-1	1	BVB0379



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Project Manager: Kathy Brandt

## Water Analysis (Metals)

BCL Sample ID:	1201931-07	Client Sample Name:	0843, MW-1-W-120202, 2/2/2012 7:42:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	2.0	EPA-7196	ND		1
Dissolved Chromium	ND	ug/L	10	EPA-6010B	ND		2
<b>Dissolved Manganese</b>	<b>1.4</b>	<b>ug/L</b>	<b>1.0</b>	<b>EPA-200.8</b>	ND		3
Dissolved Vanadium	ND	ug/L	3.0	EPA-200.8	ND		3
<b>Total Chromium</b>	<b>130</b>	<b>ug/L</b>	<b>10</b>	<b>EPA-6010B</b>	ND		4
<b>Total Recoverable Manganese</b>	<b>920</b>	<b>ug/L</b>	<b>2.0</b>	<b>EPA-200.8</b>	ND	<b>A10</b>	5
<b>Total Recoverable Vanadium</b>	<b>67</b>	<b>ug/L</b>	<b>6.0</b>	<b>EPA-200.8</b>	ND	<b>A10</b>	5

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC Batch ID
			Date/Time				
1	EPA-7196	02/03/12	02/03/12 01:27	TDC	KONE-1	1	BVB0228
2	EPA-6010B	02/03/12	02/07/12 09:53	ARD	PE-OP1	1	BVB0311
3	EPA-200.8	02/03/12	02/10/12 17:49	PPS	PE-EL1	1	BVB0604
4	EPA-6010B	02/08/12	02/09/12 09:28	ARD	PE-OP1	1	BVB0568
5	EPA-200.8	02/09/12	02/14/12 11:54	SRM	PE-EL1	2	BVB0629



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## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1201931-08	Client Sample Name:	0843, MW-1AR-W-120202, 2/2/2012 8:20:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	23	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
<b>Total Xylenes</b>	<b>1.4</b>	<b>ug/L</b>	<b>1.0</b>	<b>EPA-8260</b>	<b>ND</b>	<b></b>	<b>1</b>
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	107	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.4	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.7	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	02/07/12	02/07/12 11:31	JMC	MS-V12	1	BVB0480



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Reported: 02/17/2012 14:06  
Project: 0843  
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Project Manager: Kathy Brandt

## Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201931-08	Client Sample Name: 0843, MW-1AR-W-120202, 2/2/2012 8:20:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	74.5	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	02/07/12	02/08/12 03:29	jjh	GC-V4	1	BVB0423



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Reported: 02/17/2012 14:06  
Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Water Analysis (General Chemistry)

BCL Sample ID:	1201931-08	Client Sample Name:	0843, MW-1AR-W-120202, 2/2/2012 8:20:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Nitrate as NO <sub>3</sub>	23	mg/L	0.44	EPA-300.0	ND		1
Sulfate	35	mg/L	1.0	EPA-300.0	ND		1
Electrical Conductivity @ 25 C	468	umhos/cm	1.00	EPA-120.1			2
Iron (II) Species	ND	ug/L	100	SM-3500-FeD	ND		3
Non-Volatile Organic Carbon	1.6	mg/L	0.30	EPA-415.1	ND		4
Dissolved Oxygen	7.9	mg O/L	0.50	SM-4500OG		S05	5
Oxidation Reduction Potential (E <sub>obs</sub> _Ag/AgCl)	269.1	mV	-1000	ASTM-D1498			6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	02/03/12	02/04/12 01:14	LD1	IC2	1	BVB0273
2	EPA-120.1	02/07/12	02/07/12 12:42	RML	MET-1	1	BVB0425
3	SM-3500-FeD	02/03/12	02/03/12 15:00	MSA	SPEC05	1	BVB1240
4	EPA-415.1	02/07/12	02/08/12 09:30	CDR	TOC2	1	BVB0334
5	SM-4500OG	02/03/12	02/03/12 09:30	HPR	YSI-57	1	BVB0404
6	ASTM-D1498	02/06/12	02/06/12 10:26	RML	MET-1	1	BVB0379



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Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Water Analysis (Metals)

BCL Sample ID:	1201931-08	Client Sample Name:	0843, MW-1AR-W-120202, 2/2/2012 8:20:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	2.0	EPA-7196	ND		1
Dissolved Chromium	ND	ug/L	10	EPA-6010B	ND		2
<b>Dissolved Manganese</b>	<b>110</b>	<b>ug/L</b>	<b>1.0</b>	<b>EPA-200.8</b>	ND		3
Dissolved Vanadium	ND	ug/L	3.0	EPA-200.8	ND		3
Total Chromium	22	ug/L	10	EPA-6010B	ND		4
Total Recoverable Manganese	290	ug/L	1.0	EPA-200.8	ND		5
Total Recoverable Vanadium	11	ug/L	3.0	EPA-200.8	ND		5

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC Batch ID
			Date/Time				
1	EPA-7196	02/03/12	02/03/12 01:27	TDC	KONE-1	1	BVB0228
2	EPA-6010B	02/03/12	02/07/12 09:54	ARD	PE-OP1	1	BVB0311
3	EPA-200.8	02/03/12	02/10/12 17:52	PPS	PE-EL1	1	BVB0604
4	EPA-6010B	02/10/12	02/14/12 10:29	ARD	PE-OP1	1	BVB0715
5	EPA-200.8	02/09/12	02/13/12 18:12	SRM	PE-EL2	1	BVB0629



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**Project:** 0843  
**Project Number:** 351849  
**Project Manager:** Kathy Brandt

## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1201931-09	Client Sample Name:	0843, MW-1BR-W-120202, 2/2/2012 8:50:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	15	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
<b>Total Xylenes</b>	<b>1.7</b>	<b>ug/L</b>	<b>1.0</b>	<b>EPA-8260</b>	<b>ND</b>		<b>1</b>
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	95.4	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.4	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	02/07/12	02/07/12 11:13	JMC	MS-V12	1	BVB0480



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Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201931-09	Client Sample Name:	0843, MW-1BR-W-120202, 2/2/2012 8:50:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	72.8	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	02/07/12	02/08/12 06:11	jjh	GC-V4	1	BVB0423



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Reported: 02/17/2012 14:06  
Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Water Analysis (General Chemistry)

BCL Sample ID:	1201931-09	Client Sample Name:	0843, MW-1BR-W-120202, 2/2/2012 8:50:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Nitrate as NO <sub>3</sub>	29	mg/L	0.44	EPA-300.0	ND		1
Sulfate	28	mg/L	1.0	EPA-300.0	ND		1
Electrical Conductivity @ 25 C	456	umhos/cm	1.00	EPA-120.1			2
Iron (II) Species	ND	ug/L	100	SM-3500-FeD	ND		3
Non-Volatile Organic Carbon	1.3	mg/L	0.30	EPA-415.1	ND		4
Dissolved Oxygen	7.2	mg O/L	0.50	SM-4500OG		S05	5
Oxidation Reduction Potential (E <sub>obs</sub> _Ag/AgCl)	273.1	mV	-1000	ASTM-D1498			6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	02/03/12	02/04/12 01:27	LD1	IC2	1	BVB0273
2	EPA-120.1	02/07/12	02/07/12 12:48	RML	MET-1	1	BVB0425
3	SM-3500-FeD	02/03/12	02/03/12 15:00	MSA	SPEC05	1	BVB1240
4	EPA-415.1	02/07/12	02/08/12 09:43	CDR	TOC2	1	BVB0334
5	SM-4500OG	02/03/12	02/03/12 09:30	HPR	YSI-57	1	BVB0404
6	ASTM-D1498	02/06/12	02/06/12 10:31	RML	MET-1	1	BVB0379



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Reported: 02/17/2012 14:06  
Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Water Analysis (Metals)

BCL Sample ID:	1201931-09	Client Sample Name:	0843, MW-1BR-W-120202, 2/2/2012 8:50:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	2.0	EPA-7196	ND		1
Dissolved Chromium	ND	ug/L	10	EPA-6010B	ND		2
<b>Dissolved Manganese</b>	<b>40</b>	<b>ug/L</b>	<b>1.0</b>	<b>EPA-200.8</b>	ND		3
Dissolved Vanadium	ND	ug/L	3.0	EPA-200.8	ND		3
Total Chromium	55	ug/L	10	EPA-6010B	ND		4
Total Recoverable Manganese	400	ug/L	1.0	EPA-200.8	ND		5
Total Recoverable Vanadium	23	ug/L	3.0	EPA-200.8	ND		5

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC Batch ID
			Date/Time				
1	EPA-7196	02/03/12	02/03/12 01:27	TDC	KONE-1	1	BVB0228
2	EPA-6010B	02/03/12	02/07/12 10:01	ARD	PE-OP1	1	BVB0311
3	EPA-200.8	02/03/12	02/10/12 17:55	PPS	PE-EL1	1	BVB0604
4	EPA-6010B	02/10/12	02/14/12 10:31	ARD	PE-OP1	1	BVB0715
5	EPA-200.8	02/09/12	02/13/12 18:14	SRM	PE-EL2	1	BVB0629



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**Reported:** 02/17/2012 14:06  
**Project:** 0843  
**Project Number:** 351849  
**Project Manager:** Kathy Brandt

## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1201931-10	Client Sample Name:	0843, MW-10-W-120202, 2/2/2012 9:34:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	1.4	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
<b>Total Xylenes</b>	<b>3.2</b>	<b>ug/L</b>	<b>1.0</b>	<b>EPA-8260</b>	<b>ND</b>		<b>1</b>
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.2	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	101	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	02/07/12	02/07/12 10:55	JMC	MS-V12	1	BVB0480



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Reported: 02/17/2012 14:06  
Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201931-10	Client Sample Name: 0843, MW-10-W-120202, 2/2/2012 9:34:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	73.3	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	02/07/12	02/08/12 06:33	jjh	GC-V4	1	BVB0423



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Reported: 02/17/2012 14:06  
Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Water Analysis (General Chemistry)

BCL Sample ID:	1201931-10	Client Sample Name:	0843, MW-10-W-120202, 2/2/2012 9:34:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Nitrate as NO <sub>3</sub>	20	mg/L	0.44	EPA-300.0	ND		1
Sulfate	34	mg/L	1.0	EPA-300.0	ND		1
Electrical Conductivity @ 25 C	535	umhos/cm	1.00	EPA-120.1			2
Iron (II) Species	ND	ug/L	100	SM-3500-FeD	ND		3
Non-Volatile Organic Carbon	1.4	mg/L	0.30	EPA-415.1	ND		4
Dissolved Oxygen	6.9	mg O/L	0.50	SM-4500OG		S05	5
Oxidation Reduction Potential (E <sub>obs</sub> _Ag/AgCl)	297.6	mV	-1000	ASTM-D1498			6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	02/03/12	02/04/12 01:41	LD1	IC2	1	BVB0273
2	EPA-120.1	02/07/12	02/07/12 12:54	RML	MET-1	1	BVB0425
3	SM-3500-FeD	02/03/12	02/03/12 15:00	MSA	SPEC05	1	BVB1241
4	EPA-415.1	02/07/12	02/08/12 10:26	CDR	TOC2	1	BVB0335
5	SM-4500OG	02/03/12	02/03/12 09:30	HPR	YSI-57	1	BVB0404
6	ASTM-D1498	02/06/12	02/06/12 10:36	RML	MET-1	1	BVB0379



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Project Manager: Kathy Brandt

## Water Analysis (Metals)

BCL Sample ID:	1201931-10	Client Sample Name:	0843, MW-10-W-120202, 2/2/2012 9:34:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	10	ug/L	2.0	EPA-7196	ND		1
Dissolved Chromium	11	ug/L	10	EPA-6010B	ND		2
Dissolved Manganese	5.3	ug/L	1.0	EPA-200.8	ND		3
Dissolved Vanadium	ND	ug/L	3.0	EPA-200.8	ND		3
Total Chromium	16	ug/L	10	EPA-6010B	ND		4
Total Recoverable Manganese	62	ug/L	1.0	EPA-200.8	ND		5
Total Recoverable Vanadium	3.7	ug/L	3.0	EPA-200.8	ND		5

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC Batch ID
			Date/Time				
1	EPA-7196	02/03/12	02/03/12 01:21	TDC	KONE-1	1	BVB0228
2	EPA-6010B	02/03/12	02/07/12 10:03	ARD	PE-OP1	1	BVB0311
3	EPA-200.8	02/03/12	02/10/12 17:58	PPS	PE-EL1	1	BVB0604
4	EPA-6010B	02/10/12	02/14/12 10:33	ARD	PE-OP1	1	BVB0715
5	EPA-200.8	02/09/12	02/13/12 18:17	SRM	PE-EL2	1	BVB0629



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**Project Manager:** Kathy Brandt

## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1201931-11	Client Sample Name:	0843, MW-3-W-120202, 2/2/2012 10:15:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
<b>Methyl t-butyl ether</b>	<b>1.3</b>	<b>ug/L</b>	<b>0.50</b>	<b>EPA-8260</b>	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	107	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	96.0	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	98.8	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	02/07/12	02/07/12 10:37	JMC	MS-V12	1	BVB0481



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Reported: 02/17/2012 14:06  
Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201931-11	Client Sample Name: 0843, MW-3-W-120202, 2/2/2012 10:15:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	74.1	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	02/07/12	02/08/12 06:56	jjh	GC-V4	1	BVB0423



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**Reported:** 02/17/2012 14:06  
**Project:** 0843  
**Project Number:** 351849  
**Project Manager:** Kathy Brandt

## Water Analysis (General Chemistry)

BCL Sample ID:	1201931-11	Client Sample Name:	0843, MW-3-W-120202, 2/2/2012 10:15:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Electrical Conductivity @ 25 C	576	umhos/cm	1.00	EPA-120.1			1
Dissolved Oxygen	6.0	mg O/L	0.50	SM-4500OG		S05	2
Oxidation Reduction Potential (Eobs_Ag/AgCl)	301.8	mV	-1000	ASTM-D1498			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-120.1	02/07/12	02/07/12 13:00	RML	MET-1	1	BVB0425
2	SM-4500OG	02/03/12	02/03/12 09:30	HPR	YSI-57	1	BVB0405
3	ASTM-D1498	02/06/12	02/06/12 10:44	RML	MET-1	1	BVB0380



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**Project Manager:** Kathy Brandt

## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1201931-12	Client Sample Name:	0843, MW-4-W-120202, 2/2/2012 10:47:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
<b>Methyl t-butyl ether</b>	<b>10</b>	<b>ug/L</b>	<b>0.50</b>	<b>EPA-8260</b>	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	94.8	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	93.3	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	02/07/12	02/07/12 10:20	JMC	MS-V12	1	BVB0480



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Reported: 02/17/2012 14:06  
Project: 0843  
Project Number: 351849  
Project Manager: Kathy Brandt

## Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201931-12	Client Sample Name: 0843, MW-4-W-120202, 2/2/2012 10:47:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	73.4	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	02/07/12	02/08/12 07:19	jjh	GC-V4	1	BVB0423



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**Reported:** 02/17/2012 14:06  
**Project:** 0843  
**Project Number:** 351849  
**Project Manager:** Kathy Brandt

## Water Analysis (General Chemistry)

BCL Sample ID:	1201931-12	Client Sample Name:	0843, MW-4-W-120202, 2/2/2012 10:47:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Electrical Conductivity @ 25 C	980	umhos/cm	1.00	EPA-120.1			1
Dissolved Oxygen	7.7	mg O/L	0.50	SM-4500OG		S05	2
Oxidation Reduction Potential (Eobs_Ag/AgCl)	297.7	mV	-1000	ASTM-D1498			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-120.1	02/07/12	02/07/12 13:05	RML	MET-1	1	BVB0425
2	SM-4500OG	02/03/12	02/03/12 09:30	HPR	YSI-57	1	BVB0405
3	ASTM-D1498	02/06/12	02/06/12 10:53	RML	MET-1	1	BVB0380



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## Volatile Organic Analysis (EPA Method 8260)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BVB0480</b>						
Benzene	BVB0480-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BVB0480-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BVB0480-BLK1	ND	ug/L	0.50		
Ethylbenzene	BVB0480-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BVB0480-BLK1	ND	ug/L	0.50		
Toluene	BVB0480-BLK1	ND	ug/L	0.50		
Total Xylenes	BVB0480-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BVB0480-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BVB0480-BLK1	ND	ug/L	10		
Diisopropyl ether	BVB0480-BLK1	ND	ug/L	0.50		
Ethanol	BVB0480-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BVB0480-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane-d4 (Surrogate)	BVB0480-BLK1	104	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BVB0480-BLK1	98.1	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BVB0480-BLK1	95.6	%	86 - 115 (LCL - UCL)		
<b>QC Batch ID: BVB0481</b>						
Benzene	BVB0481-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BVB0481-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BVB0481-BLK1	ND	ug/L	0.50		
Ethylbenzene	BVB0481-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BVB0481-BLK1	ND	ug/L	0.50		
Toluene	BVB0481-BLK1	ND	ug/L	0.50		
Total Xylenes	BVB0481-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BVB0481-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BVB0481-BLK1	ND	ug/L	10		
Diisopropyl ether	BVB0481-BLK1	ND	ug/L	0.50		
Ethanol	BVB0481-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BVB0481-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane-d4 (Surrogate)	BVB0481-BLK1	103	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BVB0481-BLK1	103	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BVB0481-BLK1	97.3	%	86 - 115 (LCL - UCL)		



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## Volatile Organic Analysis (EPA Method 8260)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	Control Limits		Lab Quals
							RPD	Percent Recovery	
<b>QC Batch ID: BVB0480</b>									
Benzene	BVB0480-BS1	LCS	23.260	25.000	ug/L	93.0	70 - 130		
Toluene	BVB0480-BS1	LCS	22.190	25.000	ug/L	88.8	70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BVB0480-BS1	LCS	10.330	10.000	ug/L	103	76 - 114		
Toluene-d8 (Surrogate)	BVB0480-BS1	LCS	9.9000	10.000	ug/L	99.0	88 - 110		
4-Bromofluorobenzene (Surrogate)	BVB0480-BS1	LCS	9.8000	10.000	ug/L	98.0	86 - 115		
<b>QC Batch ID: BVB0481</b>									
Benzene	BVB0481-BS1	LCS	24.720	25.000	ug/L	98.9	70 - 130		
Toluene	BVB0481-BS1	LCS	24.260	25.000	ug/L	97.0	70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BVB0481-BS1	LCS	10.010	10.000	ug/L	100	76 - 114		
Toluene-d8 (Surrogate)	BVB0481-BS1	LCS	10.150	10.000	ug/L	102	88 - 110		
4-Bromofluorobenzene (Surrogate)	BVB0481-BS1	LCS	9.6600	10.000	ug/L	96.6	86 - 115		



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## Volatile Organic Analysis (EPA Method 8260)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		
								Percent Recovery	Percent RPD	Lab Quals
<b>QC Batch ID: BVB0480</b>		Used client sample: Y - Description: MW-4-W-120202, 02/02/2012 10:47								
Benzene	MS	1201931-12	ND	23.060	25.000	ug/L		92.2		70 - 130
	MSD	1201931-12	ND	23.810	25.000	ug/L	3.2	95.2	20	70 - 130
Toluene	MS	1201931-12	ND	21.390	25.000	ug/L		85.6		70 - 130
	MSD	1201931-12	ND	22.300	25.000	ug/L	4.2	89.2	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1201931-12	ND	10.460	10.000	ug/L		105		76 - 114
	MSD	1201931-12	ND	10.070	10.000	ug/L	3.8	101		76 - 114
Toluene-d8 (Surrogate)	MS	1201931-12	ND	9.8100	10.000	ug/L		98.1		88 - 110
	MSD	1201931-12	ND	9.9700	10.000	ug/L	1.6	99.7		88 - 110
4-Bromofluorobenzene (Surrogate)	MS	1201931-12	ND	9.7600	10.000	ug/L		97.6		86 - 115
	MSD	1201931-12	ND	9.8400	10.000	ug/L	0.8	98.4		86 - 115
<b>QC Batch ID: BVB0481</b>		Used client sample: Y - Description: MW-3-W-120202, 02/02/2012 10:15								
Benzene	MS	1201931-11	ND	27.320	25.000	ug/L		109		70 - 130
	MSD	1201931-11	ND	25.410	25.000	ug/L	7.2	102	20	70 - 130
Toluene	MS	1201931-11	ND	25.630	25.000	ug/L		103		70 - 130
	MSD	1201931-11	ND	24.190	25.000	ug/L	5.8	96.8	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1201931-11	ND	10.230	10.000	ug/L		102		76 - 114
	MSD	1201931-11	ND	10.380	10.000	ug/L	1.5	104		76 - 114
Toluene-d8 (Surrogate)	MS	1201931-11	ND	10.080	10.000	ug/L		101		88 - 110
	MSD	1201931-11	ND	9.8800	10.000	ug/L	2.0	98.8		88 - 110
4-Bromofluorobenzene (Surrogate)	MS	1201931-11	ND	9.8300	10.000	ug/L		98.3		86 - 115
	MSD	1201931-11	ND	10.110	10.000	ug/L	2.8	101		86 - 115



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## Purgeable Aromatics and Total Petroleum Hydrocarbons

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BVB0381</b>						
Gasoline Range Organics (C6 - C12)	BVB0381-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BVB0381-BLK1	71.5	%	70 - 130 (LCL - UCL)		
<b>QC Batch ID: BVB0423</b>						
Gasoline Range Organics (C6 - C12)	BVB0423-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BVB0423-BLK1	77.1	%	70 - 130 (LCL - UCL)		



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## Purgeable Aromatics and Total Petroleum Hydrocarbons

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	Control Limits		Lab Quals
							RPD	Percent Recovery	
<b>QC Batch ID: BVB0381</b>									
Gasoline Range Organics (C6 - C12)	BVB0381-BS1	LCS	984.68		ug/L			85 - 115	
a,a,a-Trifluorotoluene (FID Surrogate)	BVB0381-BS1	LCS	34.798	40.000	ug/L	87.0		70 - 130	
<b>QC Batch ID: BVB0423</b>									
Gasoline Range Organics (C6 - C12)	BVB0423-BS1	LCS	1034.9		ug/L			85 - 115	
a,a,a-Trifluorotoluene (FID Surrogate)	BVB0423-BS1	LCS	34.256	40.000	ug/L	85.6		70 - 130	



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## Purgeable Aromatics and Total Petroleum Hydrocarbons

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		
								Percent Recovery	Percent RPD	Lab Quals
<b>QC Batch ID: BVB0381</b>		Used client sample: N								
Gasoline Range Organics (C6 - C12)	MS	1201079-33	ND	1011.3		ug/L			70 - 130	
	MSD	1201079-33	ND	1012.8		ug/L	0.2	20	70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1201079-33	ND	35.035	40.000	ug/L		87.6	70 - 130	
	MSD	1201079-33	ND	34.083	40.000	ug/L	2.8	85.2	70 - 130	
<b>QC Batch ID: BVB0423</b>		Used client sample: N								
Gasoline Range Organics (C6 - C12)	MS	1201079-34	ND	1023.3		ug/L			70 - 130	
	MSD	1201079-34	ND	1058.1		ug/L	3.3	20	70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1201079-34	ND	34.514	40.000	ug/L		86.3	70 - 130	
	MSD	1201079-34	ND	34.124	40.000	ug/L	1.1	85.3	70 - 130	



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## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BVB0273</b>						
Nitrate as NO <sub>3</sub>	BVB0273-BLK1	ND	mg/L	0.44		
Sulfate	BVB0273-BLK1	ND	mg/L	1.0		
<b>QC Batch ID: BVB0334</b>						
Non-Volatile Organic Carbon	BVB0334-BLK1	ND	mg/L	0.30		
<b>QC Batch ID: BVB0335</b>						
Non-Volatile Organic Carbon	BVB0335-BLK1	ND	mg/L	0.30		
<b>QC Batch ID: BVB1240</b>						
Iron (II) Species	BVB1240-BLK1	ND	ug/L	100		
<b>QC Batch ID: BVB1241</b>						
Iron (II) Species	BVB1241-BLK1	ND	ug/L	100		



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## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	Control Limits		Lab Quals
							RPD	Percent Recovery	
<b>QC Batch ID: BVB0273</b>									
Nitrate as NO <sub>3</sub>	BVB0273-BS1	LCS	22.842	22.134	mg/L	103		90 - 110	
Sulfate	BVB0273-BS1	LCS	104.81	100.00	mg/L	105		90 - 110	
<b>QC Batch ID: BVB0334</b>									
Non-Volatile Organic Carbon	BVB0334-BS1	LCS	5.2780	5.0000	mg/L	106		85 - 115	
<b>QC Batch ID: BVB0335</b>									
Non-Volatile Organic Carbon	BVB0335-BS1	LCS	5.3540	5.0000	mg/L	107		85 - 115	
<b>QC Batch ID: BVB0424</b>									
Electrical Conductivity @ 25 C	BVB0424-BS1	LCS	315.80	303.00	umhos/cm	104		90 - 110	
<b>QC Batch ID: BVB0425</b>									
Electrical Conductivity @ 25 C	BVB0425-BS1	LCS	313.80	303.00	umhos/cm	104		90 - 110	
<b>QC Batch ID: BVB1240</b>									
Iron (II) Species	BVB1240-BS1	LCS	2005.5	2000.0	ug/L	100		90 - 110	
<b>QC Batch ID: BVB1241</b>									
Iron (II) Species	BVB1241-BS1	LCS	2005.5	2000.0	ug/L	100		90 - 110	



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## Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		
								Percent Recovery	Percent RPD	Lab Quals
<b>QC Batch ID: BVB0273</b>		Used client sample: Y - Description: MW-9-W-120202, 02/02/2012 07:27								
Nitrate as NO <sub>3</sub>	DUP	1201931-01	18.885	18.787		mg/L	0.5		10	
	MS	1201931-01	18.885	41.759	22.358	mg/L		102		80 - 120
	MSD	1201931-01	18.885	42.363	22.358	mg/L	1.4	105	10	80 - 120
Sulfate	DUP	1201931-01	39.754	39.603		mg/L	0.4		10	
	MS	1201931-01	39.754	151.04	101.01	mg/L		110		80 - 120
	MSD	1201931-01	39.754	151.43	101.01	mg/L	0.3	111	10	80 - 120
<b>QC Batch ID: BVB0334</b>		Used client sample: N								
Non-Volatile Organic Carbon	DUP	1201907-03	2.3060	2.2890		mg/L	0.7		10	
	MS	1201907-03	2.3060	7.5085	5.0251	mg/L		104		80 - 120
	MSD	1201907-03	2.3060	7.5477	5.0251	mg/L	0.5	104	10	80 - 120
<b>QC Batch ID: BVB0335</b>		Used client sample: Y - Description: MW-10-W-120202, 02/02/2012 09:34								
Non-Volatile Organic Carbon	DUP	1201931-10	1.4300	1.4290		mg/L	0.1		10	
	MS	1201931-10	1.4300	6.7367	5.0251	mg/L		106		80 - 120
	MSD	1201931-10	1.4300	6.6794	5.0251	mg/L	0.9	104	10	80 - 120
<b>QC Batch ID: BVB0379</b>		Used client sample: Y - Description: MW-9-W-120202, 02/02/2012 07:27								
Oxidation Reduction Potential (Eobs_Ag/ DUP		1201931-01	288.07	298.05		mV	3.4		10	
<b>QC Batch ID: BVB0380</b>		Used client sample: Y - Description: MW-3-W-120202, 02/02/2012 10:15								
Oxidation Reduction Potential (Eobs_Ag/ DUP		1201931-11	301.75	300.36		mV	0.5		10	
<b>QC Batch ID: BVB0404</b>		Used client sample: Y - Description: MW-9-W-120202, 02/02/2012 07:27								
Dissolved Oxygen		DUP	1201931-01	6.9000	6.9000	mg O/L	0		10	
<b>QC Batch ID: BVB0405</b>		Used client sample: Y - Description: MW-3-W-120202, 02/02/2012 10:15								
Dissolved Oxygen		DUP	1201931-11	6.0000	6.0000	mg O/L	0		10	
<b>QC Batch ID: BVB0424</b>		Used client sample: N								
Electrical Conductivity @ 25 C		DUP	201103-22RE	239.80	241.90	umhos/cm	0.9		10	
<b>QC Batch ID: BVB0425</b>		Used client sample: Y - Description: MW-7-W-120202, 02/02/2012 08:48								
Electrical Conductivity @ 25 C		DUP	1201931-03	682.00	682.10	umhos/cm	0.0		10	
<b>QC Batch ID: BVB1240</b>		Used client sample: N								
Iron (II) Species		DUP	1201921-03	4198.8	4164.2	ug/L	0.8		10	
<b>QC Batch ID: BVB1241</b>		Used client sample: Y - Description: MW-10-W-120202, 02/02/2012 09:34								
Iron (II) Species		DUP	1201931-10	ND	ND	ug/L			10	



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## Water Analysis (Metals)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BVB0228</b>						
Hexavalent Chromium	BVB0228-BLK1	ND	ug/L	2.0		
<b>QC Batch ID: BVB0311</b>						
Dissolved Chromium	BVB0311-BLK1	ND	ug/L	10		
<b>QC Batch ID: BVB0568</b>						
Total Chromium	BVB0568-BLK1	ND	ug/L	10		
<b>QC Batch ID: BVB0604</b>						
Dissolved Manganese	BVB0604-BLK1	ND	ug/L	1.0		
Dissolved Vanadium	BVB0604-BLK1	ND	ug/L	3.0		
<b>QC Batch ID: BVB0629</b>						
Total Recoverable Manganese	BVB0629-BLK1	ND	ug/L	1.0		
Total Recoverable Vanadium	BVB0629-BLK1	ND	ug/L	3.0		
<b>QC Batch ID: BVB0715</b>						
Total Chromium	BVB0715-BLK1	ND	ug/L	10		



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## Water Analysis (Metals)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	Control Limits		Lab Quals
							RPD	Percent Recovery	
<b>QC Batch ID: BVB0228</b>									
Hexavalent Chromium	BVB0228-BS1	LCS	50.825	50.000	ug/L	102		85 - 115	
<b>QC Batch ID: BVB0311</b>									
Dissolved Chromium	BVB0311-BS1	LCS	201.56	200.00	ug/L	101		85 - 115	
<b>QC Batch ID: BVB0568</b>									
Total Chromium	BVB0568-BS1	LCS	206.14	200.00	ug/L	103		85 - 115	
<b>QC Batch ID: BVB0604</b>									
Dissolved Manganese	BVB0604-BS1	LCS	105.50	100.00	ug/L	105		85 - 115	
Dissolved Vanadium	BVB0604-BS1	LCS	41.982	40.000	ug/L	105		85 - 115	
<b>QC Batch ID: BVB0629</b>									
Total Recoverable Manganese	BVB0629-BS1	LCS	101.04	100.00	ug/L	101		85 - 115	
Total Recoverable Vanadium	BVB0629-BS1	LCS	37.740	40.000	ug/L	94.4		85 - 115	
<b>QC Batch ID: BVB0715</b>									
Total Chromium	BVB0715-BS1	LCS	204.55	200.00	ug/L	102		85 - 115	



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## Water Analysis (Metals)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		
								Percent Recovery	Percent RPD	Lab Quals
<b>QC Batch ID: BVB0228</b>		Used client sample: Y - Description: MW-9-W-120202, 02/02/2012 07:27								
Hexavalent Chromium	DUP	1201931-01	5.2450	5.3470		ug/L	1.9		10	
	MS	1201931-01	5.2450	57.119	52.632	ug/L		98.6		85 - 115
	MSD	1201931-01	5.2450	57.783	52.632	ug/L	1.2	99.8	10	85 - 115
<b>QC Batch ID: BVB0311</b>		Used client sample: N								
Dissolved Chromium	DUP	1202002-01	5.7902	ND		ug/L			20	
	MS	1202002-01	5.7902	220.06	204.08	ug/L		105		75 - 125
	MSD	1202002-01	5.7902	218.76	204.08	ug/L	0.6	104	20	75 - 125
<b>QC Batch ID: BVB0568</b>		Used client sample: N								
Total Chromium	DUP	1201917-02	17.767	17.854		ug/L	0.5		20	
	MS	1201917-02	17.767	227.57	200.00	ug/L		105		75 - 125
	MSD	1201917-02	17.767	214.63	200.00	ug/L	5.9	98.4	20	75 - 125
<b>QC Batch ID: BVB0604</b>		Used client sample: N								
Dissolved Manganese	DUP	1201991-02	ND	ND		ug/L			20	
	MS	1201991-02	ND	101.67	102.04	ug/L		99.6		70 - 130
	MSD	1201991-02	ND	101.35	102.04	ug/L	0.3	99.3	20	70 - 130
Dissolved Vanadium	DUP	1201991-02	ND	ND		ug/L			20	
	MS	1201991-02	ND	40.158	40.816	ug/L		98.4		70 - 130
	MSD	1201991-02	ND	39.100	40.816	ug/L	2.7	95.8	20	70 - 130
<b>QC Batch ID: BVB0629</b>		Used client sample: Y - Description: MW-11-W-120202, 02/02/2012 08:02								
Total Recoverable Manganese	DUP	1201931-02	832.14	802.41		ug/L	3.6		20	
	MS	1201931-02	832.14	855.77	100.00	ug/L		23.6		70 - 130
	MSD	1201931-02	832.14	861.21	100.00	ug/L	0.6	29.1	20	70 - 130
Total Recoverable Vanadium	DUP	1201931-02	0.88100	ND		ug/L			20	A02
	MS	1201931-02	0.88100	37.890	40.000	ug/L		92.5		70 - 130
	MSD	1201931-02	0.88100	38.867	40.000	ug/L	2.5	95.0	20	70 - 130
<b>QC Batch ID: BVB0715</b>		Used client sample: N								
Total Chromium	DUP	1202004-01	1.5247	ND		ug/L			20	
	MS	1202004-01	1.5247	212.83	200.00	ug/L		106		75 - 125
	MSD	1202004-01	1.5247	211.09	200.00	ug/L	0.8	105	20	75 - 125



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**Reported:** 02/17/2012 14:06  
**Project:** 0843  
**Project Number:** 351849  
**Project Manager:** Kathy Brandt

## Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.
A02	The difference between duplicate readings is less than the PQL.
A03	The sample concentration is more than 4 times the spike level.
A10	PQL's and MDL's were raised due to matrix interference.
S05	The sample holding time was exceeded.