



February 13, 2014

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By Alameda County Environmental Health at 2:12 pm, Feb 18, 2014

Timothy L. Bishop
Project Manager
Marketing Business Unit

**Chevron Environmental
Management Company**
6101 Bollinger Canyon Road
San Ramon, CA 94583
Tel 925.790.6463
TimBishop@chevron.com

Mr. Keith Nowell
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

RE: Second Semi-Annual 2013 Groundwater Monitoring Report

3943 Broadway, Oakland, California 94611
Fuel Leak Case No.: RO0000203

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) 790-6463.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tim Bishop".

Timothy L. Bishop
Union Oil of California – Project Manager

Attachment:
Second Semi-Annual 2013 Groundwater Monitoring Report



ARCADIS U.S., Inc.
2000 Powell Street
7th Floor
Emeryville
California 94608
Tel 510.652.4500
Fax 510.652.4906
www.arcadis-us.com

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

Subject:
Second Semi-Annual 2013 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 Semi-Annual Groundwater Monitoring Report for the following facility:

Date:
February 13, 2014

Contact:
Katherine Brandt

Phone:
510.596.9675

Email:
katherine.brandt@arcadis-us.com

<u>Facility No.</u>	<u>Case No.</u>	<u>Location</u>
0746	RO0000203	3943 Broadway Oakland, California 94611

Our ref:
B0047338.2013

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

ARCADIS

Katherine Brandt
Certified Project Manager



Jacob Henry, P.G.
Project Geologist

Copies:
Mr. Timothy Bishop, EMC
Ms. Cherie McCaulou, CRWQCB – San Francisco Bay Region, 1515 Clay Street, Suite
1400, Oakland, California 94612 (CD)

**UNION OIL OF CALIFORNIA
SEMI-ANNUALLY MONITORING REPORT
SECOND SEMI-ANNUAL 2013
February 13, 2014**

Facility No.: 0746 Address: 3943 Broadway, Oakland, California 94611

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. RO0000203

WORK PERFORMED DURING THIS REPORTING PERIOD (Second Semi-Annual – 2013) :

1. Gettler-Ryan (G-R) conducted groundwater monitoring and sampling on December 13, 2013. Field data sheets and general procedures are included as **Attachment A**. Eleven (11) groundwater monitoring wells were gauged this monitoring event (MW-1 through MW-7, MW-10, MW-11, MW-12, and RW-1). Ten (10) of those wells were sampled during this monitoring event (MW-1 through MW-4, MW-6, MW-7, MW-10, MW-11, MW-12, and RW-1). Well MW-5 was not sampled due to the presence of liquid-phase hydrocarbons (LPH) in the well.

All groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g; C₆-C₁₂) by United States Environmental Protection Agency (EPA) Method 8015B; and benzene, toluene, ethylbenzene, and total xylenes (BTEX, collectively), methyl tertiary butyl ether (MTBE), 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC), and ethanol by EPA Method 8260B.

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**, Historic Groundwater Gauging and Analytical Results are summarized in **Table 2**, LPH Recovery Data are summarized in **Table 3**, 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**.

WORK PROPOSED FOR THE NEXT REPORTING PERIOD (First Semi-Annual – 2014):

1. Perform groundwater monitoring and related reporting during the first half 2014.

Current Phase of Project:	<u>Groundwater Monitoring</u>
Site Use:	<u>Active gasoline retail station</u>
Frequency of Sampling:	<u>Groundwater – Semi-Annually</u>
Frequency of Monitoring:	<u>Groundwater – Semi-Annually</u>
LPH Present On-Site:	<u>0.21feet (MW-5)</u>
Cumulative LPH Recovered to Date:	<u>3.919 gallons</u>
LPH Recovered This Quarter:	<u>0.000 gallons</u>
Bulk Soil Removed to Date:	<u>350 cubic yards during UST removal activities (1989)</u>
Bulk Soil Removed this Quarter:	<u>None</u>
Water Wells or Surface Waters within a 2,000' Radius and Their Respective Directions:	<u>Two irrigation wells located 1,330 feet east and 1,450 feet north of the site; the only surface water body (Glen Echo Creek) was located 1,630 feet southeast of the site</u>
Groundwater Use Designation:	<u>Irrigation</u>
Current Remediation Techniques:	<u>None</u>
Permits for Discharge (No.):	<u>None</u>
Approximate Depth to Groundwater:	<u>8.02 (MW-6) – 15.04 (MW-11) feet below top of casing (ft BTOC)</u> <u>Measured <input checked="" type="checkbox"/> Estimated</u>
Approximate Groundwater Elevation:	<u>63.14 (MW-11) – 71.92 (MW-6) feet relative to mean sea level</u>

**UNION OIL OF CALIFORNIA
SEMI-ANNUALLY MONITORING REPORT
SECOND SEMI-ANNUAL 2013
February 13, 2014**

Facility No.: 0746 Address: 3943 Broadway, Oakland, California 94611

(ft MSL)
Measured X Estimated
Groundwater Gradient: 0.05 ft/ft (Magnitude) Southwest (Direction)

DISCUSSION:

Groundwater conditions during the second half 2013 remained generally consistent with previous quarters. The maximum dissolved concentrations of ethylbenzene (23 micrograms per liter [$\mu\text{g/L}$]), total xylenes (4.2 $\mu\text{g/L}$), and MTBE (6 $\mu\text{g/L}$) were detected in the samples collected from MW-3. The maximum dissolved concentrations of TPH-g (3,200 $\mu\text{g/L}$) and benzene (2.1 $\mu\text{g/L}$) were detected in the samples collected from MW-4. Toluene, EDB, EDC, and ethanol were not detected above the laboratory reporting limits for all wells sampled.

Groundwater elevations at the site vary by approximately nine feet, creating a hydraulic gradient of 0.05 foot per foot in the southwest direction.

CONCLUSIONS AND RECOMMENDATIONS:

Dissolved hydrocarbon constituent concentrations have remained relatively consistent with previous quarters. ARCADIS will continue groundwater monitoring and monthly product gauging. ARCADIS is preparing a Low Threat Closure Request and recommends discontinuing groundwater monitoring once the LTC request is submitted.

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 2: Historic Groundwater Gauging and Analytical Results
- Table 3: Liquid Phase Hydrocarbon Recovery Data

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

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Figures



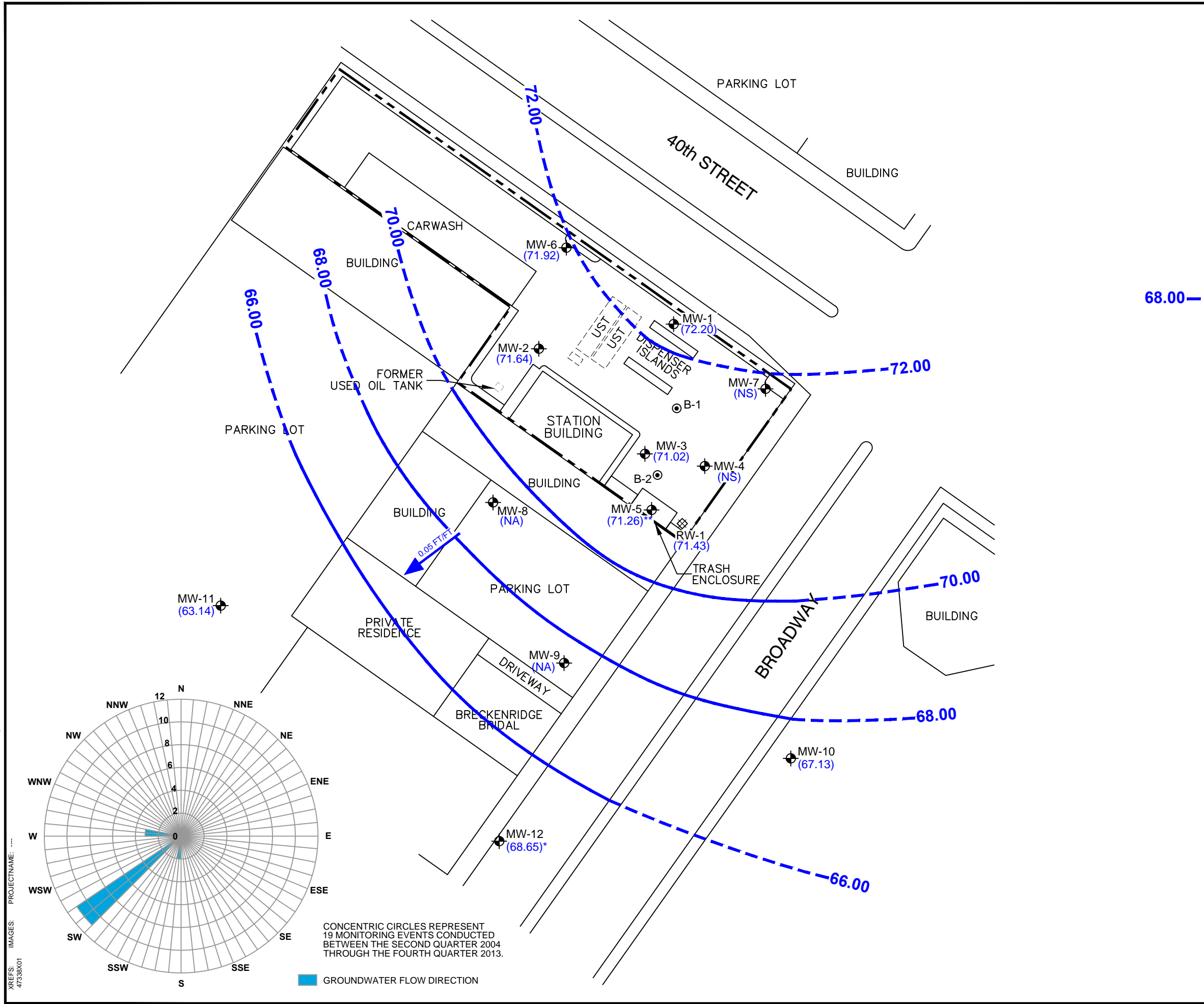
REFERENCE: BASE MAP USGS 7.5 MIN. TOPO. QUAD., OAKLAND WEST, CALIFORNIA, 1993, AND OAKLAND EAST, CALIFORNIA, 1997.



UNION OIL
 STATION NO. 0746
 3943 BROADWAY
 OAKLAND, CALIFORNIA

SITE LOCATION MAP





- LEGEND**
- PROPERTY BOUNDARY
 - MW-1 MONITORING WELL
 - RW-1 RECOVERY WELL
 - B-1 CPT BORING
 - (71.92) GROUNDWATER ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL (FT MSL)
 - 68.00 --- GROUNDWATER ELEVATION CONTOUR (FT MSL; DASHED WHERE INFERRED)
 - 0.05 FT/FT GROUNDWATER FLOW DIRECTION AND GRADIENT (FOOT PER FOOT)
 - (NA) NOT ACCESSIBLE
 - (NS) NOT SURVEYED
 - * NOT USED IN CONTOURING
 - ** CORRECTED GROUNDWATER ELEVATION

- NOTES:**
1. BASE MAP DIGITIZED FROM A FIGURE PDF PROVIDED BY DELTA, DATED 09/14/09, AT A SCALE OF 1"=50'.
 2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
 3. GROUNDWATER MONITORING WELLS WERE GAUGED AND SAMPLED ON DECEMBER 13, 2013.



UNION OIL
 STATION NO. 0746
 3943 BROADWAY
 OAKLAND, CALIFORNIA

**GROUNDWATER ELEVATION
 CONTOUR MAP**

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CONCENTRIC CIRCLES REPRESENT 19 MONITORING EVENTS CONDUCTED BETWEEN THE SECOND QUARTER 2004 THROUGH THE FOURTH QUARTER 2013.

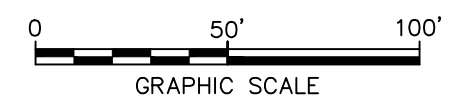
GROUNDWATER FLOW DIRECTION

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS LAYOUT: 4 SAVED: 1/9/2014 12:01 PM ACADVER: 18.15 (LMS TECH) PAGES: 10 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 1/9/2014 12:14 PM BY: HARRIS, JESSICA
 XREFS: IMAGES: PROJECTNAME: ... 47338X01



- LEGEND**
- PROPERTY BOUNDARY
 - MW-1 MONITORING WELL
 - RW-1 RECOVERY WELL
 - B-1 CPT BORING
 - [TPH-g] TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (C6-C12) CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
 - 1,000 TPH-g ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)
 - < DENOTES LESS THAN LABORATORY REPORTING LIMIT
 - [NA] NOT ACCESSIBLE
 - [LPH] LIQUID PHASE HYDROCARBON

- NOTES:**
1. BASE MAP DIGITIZED FROM A FIGURE PDF PROVIDED BY DELTA, DATED 09/14/09, AT A SCALE OF 1"=50'.
 2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
 3. GROUNDWATER MONITORING WELLS WERE GAUGED AND SAMPLED ON DECEMBER 13, 2013.

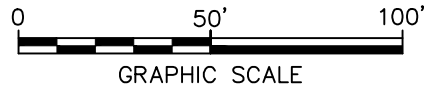


UNION OIL STATION NO. 0746 3943 BROADWAY OAKLAND, CALIFORNIA	
TPH-g CONCENTRATION MAP	
	FIGURE 4



- LEGEND**
- PROPERTY BOUNDARY
 - MW-1 ◉ MONITORING WELL
 - RW-1 ◈ RECOVERY WELL
 - B-1 ◉ CPT BORING
 - [BENZ] BENZENE CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
 - 1.0 --- BENZENE ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)
 - < DENOTES LESS THAN LABORATORY REPORTING LIMIT
 - [NA] NOT ACCESSIBLE
 - [LPH] LIQUID PHASE HYDROCARBON

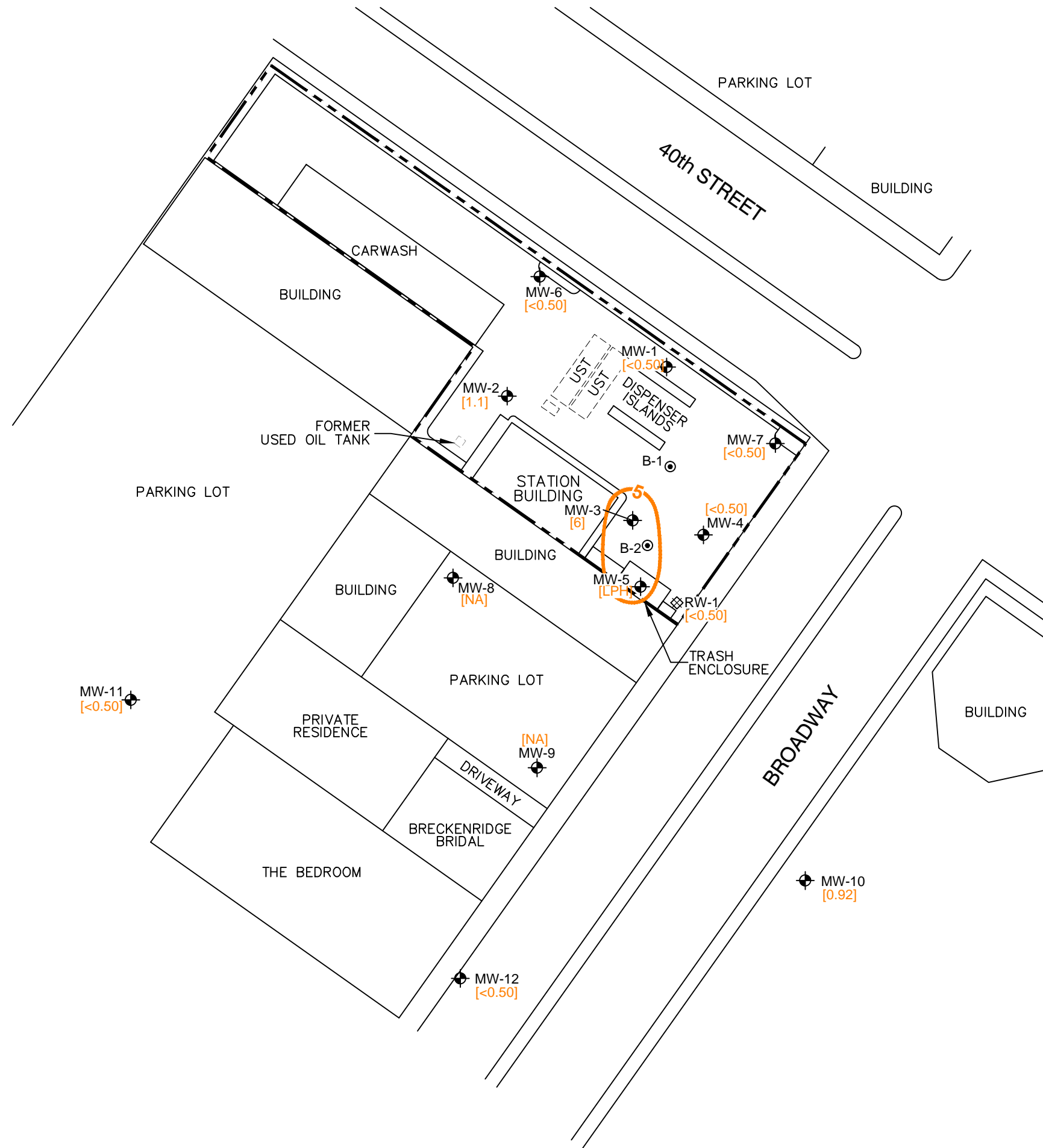
- NOTES:**
1. BASE MAP DIGITIZED FROM A FIGURE PDF PROVIDED BY DELTA, DATED 09/14/09, AT A SCALE OF 1"=50'.
 2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
 3. GROUNDWATER MONITORING WELLS WERE GAUGED AND SAMPLED ON DECEMBER 13, 2013.



UNION OIL
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3943 BROADWAY
OAKLAND, CALIFORNIA

BENZENE CONCENTRATION MAP

ARCADIS

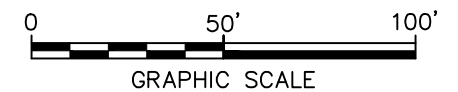


LEGEND

- PROPERTY BOUNDARY
- MW-1 MONITORING WELL
- RW-1 RECOVERY WELL
- B-1 CPT BORING
- [MTBE] METHYL TERTIARY BUTYL ETHER CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
- 5 --- MTBE ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)
- < DENOTES LESS THAN LABORATORY REPORTING LIMIT
- [NA] NOT ACCESSIBLE
- [LPH] LIQUID PHASE HYDROCARBON

NOTES:

1. BASE MAP DIGITIZED FROM A FIGURE PDF PROVIDED BY DELTA, DATED 09/14/09, AT A SCALE OF 1"=50'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
3. GROUNDWATER MONITORING WELLS WERE GAUGED AND SAMPLED ON DECEMBER 13, 2013.



UNION OIL
STATION NO. 0746
3943 BROADWAY
OAKLAND, CALIFORNIA

MTBE CONCENTRATION MAP



Table 1
Current Groundwater Gauging and Analytical Results
76 Station 0746
3943 Broadway Avenue, Oakland California

Well ID	Date Sampled	TOC (feet MSL)	DTW (feet BTOC)	LPH Thickness (feet)	GW Elevation (feet MSL)	Previous Quarter GWE (feet MSL)	Change in Elevation (feet)	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
MW-1	12/13/2013	80.54	8.34	0.00	72.20	72.66	-0.46	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-2	12/13/2013	81.32	9.68	0.00	71.64	71.92	-0.28	<50	<0.50	<0.50	<0.50	3.1	1.1	<0.50	<0.50	<250	
MW-3	12/13/2013	81.41	10.39	0.00	71.02	71.63	-0.61	1,100	<0.50	<0.50	23	4.2	6	<0.50	<0.50	<250	
MW-4	12/13/2013	--	10.05	0.00	--	--	--	3200	2.1	<0.50	3.2	<1.0	<0.50	<0.50	<0.50	<250	
MW-5	12/13/2013	81.38	10.30	0.21	71.08	71.63	-0.55	--	--	--	--	--	--	--	--	--	
MW-6	12/13/2013	79.94	8.02	0.00	71.92	72.44	-0.52	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-7	12/13/2013	--	9.09	0.00	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-8	12/13/2013	81.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	12/13/2013	80.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	12/13/2013	81.61	14.48	0.00	67.13	68.33	-1.20	<50	<0.50	<0.50	<0.50	<1.0	0.92	<0.50	<0.50	<250	
MW-11	12/13/2013	78.18	15.04	0.00	63.14	62.86	0.28	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-12	12/13/2013	79.61	10.96	0.00	68.65	70.09	-1.44	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
RW-1	12/13/2013	80.63	9.20	0.00	71.43	71.90	-0.47	150	0.81	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	

Table 1
Current Groundwater Gauging and Analytical Results
76 Station 0746
3943 Broadway Avenue, Oakland California

Note

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

Standard Abbreviations

--	not analyzed, measured, or collected
<	not detected at or above laboratory detection limit
TOC	top of casing (surveyed reference elevation)
feet MSL	feet relative to mean sea level
DTW	depth to water
BTOC	below top of casing
LPH	liquid-phase hydrocarbons
GW	groundwater
GWE	groundwater elevation

Analytes

TPH-g	total petroleum hydrocarbons with gasoline (C6-C12)
MTBE	methyl tertiary butyl ether
EDB	1,2-dibromoethane (same as ethylene dibromide)
EDC	1,2-dichloroethane (same as ethylene dichloride)
8015B	EPA Method 8015B for TPH-g
8260B	EPA Method 8260B for Volatile Organic Compounds

Table 2
Historic Groundwater Gauging and Analytical Results
76 Station 0746
3943 Broadway Avenue, Oakland California

Well ID	Date Sampled	TOC (feet MSL)	DTW (feet BTOC)	LPH Thickness (feet)	GW Elevation (feet MSL)	Previous Quarter GWE (feet MSL)	Change in Elevation (feet)	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
MW-1	12/9/2011	80.54	7.97	0.00	72.57	74.29	-1.72	<50	<0.50	<0.50	<0.50	<1.0	4.2	<0.50	<0.50	<250	
MW-1	6/1/2012	80.54	7.63	0.00	72.91	72.57	0.34	<50	<0.50	<0.50	<0.50	<1.0	0.87	<0.50	<0.50	<250	
MW-1	6/6/2013	80.54	7.88	0.00	72.66	72.91	-0.25	<50	<0.50	<0.50	<0.50	<1.0	0.51	<0.50	<0.50	<250	
MW-1	12/13/2013	80.54	8.34	0.00	72.20	72.66	-0.46	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-2	12/9/2011	81.32	8.95	0.00	72.37	73.57	-1.20	<50	<0.50	<0.50	<0.50	<1.0	7.9	<0.50	<0.50	<250	
MW-2	6/1/2012	81.32	9.18	0.00	72.14	72.37	-0.23	<50	<0.50	<0.50	<0.50	<1.0	2.9	<0.50	<0.50	<250	
MW-2	6/6/2013	81.32	9.40	0.00	71.92	72.14	-0.22	<50	<0.50	<0.50	<0.50	<1.0	0.95	<0.50	<0.50	<250	
MW-2	12/13/2013	81.32	9.68	0.00	71.64	71.92	-0.28	<50	<0.50	<0.50	<0.50	3.1	1.1	<0.50	<0.50	<250	
MW-3	12/9/2011	81.41	10.08	0.00	71.33	75.31	-3.98	9,900	11	<2.5	98	47	9.3	<2.5	<2.5	<1,200	A01
MW-3	6/1/2012	81.41	9.92	0.00	71.49	71.33	0.16	4,300	4.6	<0.50	17	3.4	19	<0.50	<0.50	<250	A01
MW-3	11/23/2012	81.41	9.78	0.00	71.63	71.49	0.14	2,000	1.3	<0.50	12	<1.0	11	<0.50	<0.50	<250	A01
MW-3	12/13/2013	81.41	10.39	0.00	71.02	71.63	-0.61	1,100	<0.50	<0.50	23	4.2	6	<0.50	<0.50	<250	
MW-4	12/9/2011	--	9.04	0.00	--	--	--	1,900	<0.50	<0.50	1.4	<1.0	<0.50	<0.50	<0.50	<250	
MW-4	6/1/2012	--	9.92	0.00	--	--	--	680	<2.5	<2.5	<2.5	<5.0	<2.5	<2.5	<2.5	<1,200	A01
MW-4	6/6/2013	--	9.17	0.00	--	--	--	410	0.52	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-4	12/13/2013	--	10.05	0.00	--	--	--	3200	2.1	<0.50	3.2	<1.0	<0.50	<0.50	<0.50	<250	
MW-5	9/13/2011	81.38	6.70	0.00	74.68	75.95	-1.27	--	--	--	--	--	--	--	--	--	
MW-5	10/21/2011	81.38	6.72	0.00	74.66	75.95	-1.29	--	--	--	--	--	--	--	--	--	
MW-5	11/4/2011	81.38	6.64	0.00	74.74	75.95	-1.21	--	--	--	--	--	--	--	--	--	
MW-5	12/9/2011	81.38	10.02	0.21	71.36	74.66	-3.30	--	--	--	--	--	--	--	--	--	
MW-5	1/12/2012	81.38	10.12	0.02	71.26	71.36	-0.10	--	--	--	--	--	--	--	--	--	
MW-5	6/1/2012	81.38	8.22	0.02	73.16	71.26	1.90	--	--	--	--	--	--	--	--	--	
MW-5	6/6/2013	81.38	9.75	0.00	71.63	73.16	-1.53	30000.00	410.00	6.60	970.00	1300.00	2.50	<0.50	<0.50	<250	
MW-5	12/13/2013	81.38	10.30	0.21	71.08	71.63	-0.55	--	--	--	--	--	--	--	--	--	
MW-6	12/9/2011	79.94	6.75	0.00	73.19	73.70	-0.51	<50	<0.50	<0.50	<0.50	<1.0	2.0	<0.50	<0.50	<250	
MW-6	6/1/2012	79.94	7.32	0.00	72.62	73.19	-0.57	<50	<0.50	<0.50	<0.50	<1.0	0.64	<0.50	<0.50	<250	
MW-6	6/6/2013	79.94	7.50	0.00	72.44	72.62	-0.18	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-6	12/13/2013	79.94	8.02	0.00	71.92	72.44	-0.52	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-7	12/9/2011	--	8.54	0.00	--	--	--	120	<0.50	<0.50	<0.50	<1.0	4.5	<0.50	<0.50	<250	
MW-7	6/1/2012	--	8.22	0.00	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	0.71	<0.50	<0.50	<250	
MW-7	6/6/2013	--	8.56	0.00	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-7	12/13/2013	--	9.09	0.00	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	

Table 2
Historic Groundwater Gauging and Analytical Results
76 Station 0746
3943 Broadway Avenue, Oakland California

Well ID	Date Sampled	TOC (feet MSL)	DTW (feet BTOC)	LPH Thickness (feet)	GW Elevation (feet MSL)	Previous Quarter GWE (feet MSL)	Change in Elevation (feet)	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
MW-8	12/9/2011	81.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	6/1/2012	81.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	6/6/2013	81.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	12/13/2013	81.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	12/9/2011	80.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	6/1/2012	80.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	6/6/2013	80.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	12/13/2013	80.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	12/9/2011	81.61	14.41	0.00	67.20	69.25	-2.05	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-10	6/1/2012	81.61	12.65	0.00	68.96	67.20	1.76	<50	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<250	
MW-10	6/6/2013	81.61	13.28	0.00	68.33	68.96	-0.63	<50	<0.50	<0.50	<0.50	<1.0	0.92	<0.50	<0.50	<250	
MW-10	12/13/2013	81.61	14.48	0.00	67.13	68.33	-1.20	<50	<0.50	<0.50	<0.50	<1.0	0.92	<0.50	<0.50	<250	
MW-11	12/9/2011	78.18	13.27	0.00	64.91	62.39	2.52	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-11	6/1/2012	78.18	14.50	0.00	63.68	64.91	-1.23	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-11	6/6/2013	78.18	15.32	0.00	62.86	63.68	-0.82	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-11	12/13/2013	78.18	15.04	0.00	63.14	62.86	0.28	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-12	12/9/2011	79.61	9.42	0.00	70.19	72.28	-2.09	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-12	6/1/2012	79.61	10.13	0.00	69.48	70.19	-0.71	<50	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<250	
MW-12	6/6/2013	79.61	9.52	0.00	70.09	69.48	0.61	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-12	12/13/2013	79.61	10.96	0.00	68.65	70.09	-1.44	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
RW-1	10/21/2011	80.63	5.45	0.00	75.18	77.02	-1.84	--	--	--	--	--	--	--	--	--	
RW-1	12/9/2011	80.63	9.28	0.00	71.35	75.18	-3.83	2,900	240	1.2	180	30	<0.50	<0.50	<0.50	<250	A01
RW-1	1/12/2012	80.63	9.53	0.00	71.10	71.35	-0.25	--	--	--	--	--	--	--	--	--	
RW-1	6/1/2012	80.63	8.48	0.00	72.15	71.10	1.05	3,600	140	<2.5	56	<5.0	<2.5	<2.5	<2.5	<1,200	A01
RW-1	6/6/2013	80.63	8.73	0.00	71.90	72.15	-0.25	1,300	1.2	1.4	5.8	<1.0	<0.50	<0.50	<0.50	<250	
RW-1	12/13/2013	80.63	9.20	0.00	71.43	71.90	-0.47	150	0.81	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	

Table 2
Historic Groundwater Gauging and Analytical Results
76 Station 0746
3943 Broadway Avenue, Oakland California

Well ID	Date Sampled	TOC (feet MSL)	DTW (feet BTOC)	LPH Thickness (feet)	GW Elevation (feet MSL)	Previous Quarter GWE (feet MSL)	Change in Elevation (feet)	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
---------	--------------	----------------	-----------------	----------------------	-------------------------	---------------------------------	----------------------------	-------	---------	---------	---------------	---------------	------	-----	-----	---------	----------

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

Standard Abbreviations

- not analyzed, measured, or collected
- < not detected at or above laboratory detection limit
- TOC top of casing (surveyed reference elevation)
- feet MSL feet relative to mean sea level
- DTW depth to water
- BTOC below top of casing
- LPH liquid-phase hydrocarbons
- GW groundwater
- GWE groundwater elevation

Analytes

- TPH-g total petroleum hydrocarbons with gasoline (C6-C12)
- MTBE methyl tertiary butyl ether
- EDB 1,2-dibromoethane (same as ethylene dibromide)
- EDC 1,2-dichloroethane (same as ethylene dichloride)
- 8015B EPA Method 8015B for TPH-g
- 8260B EPA Method 8260B for Volatile Organic Compounds

Laboratory Qualifiers

- A01 PQL's and MDL's are raised due to sample dilution.
- PQL practical quantitation limit
- MDL method detection limit

Table 3
Liquid Phase Hydrocarbon Recovery Data
76 Station 0746
3943 Broadway Avenue, Oakland California

Date	MW-5	RW-1
11/11/1998	0.00	0.00
2/22/1999	0.040	0.00
4/2/1999	0.070	0.00
5/4/1999	0.00	0.00
5/20/1999	0.00	0.00
6/29/1999	0.00	0.00
0729/99	0.00	0.00
8/24/1999	0.00	0.00
9/27/1999	0.00	0.00
10/28/1999	0.00	0.00
11/15/1999	0.00	0.00
12/20/1999	0.00	0.00
1/20/2000	0.00	0.00
2/26/2000	0.00	0.00
3/31/2000	0.00	0.00
4/13/2000	0.000	0.00
5/22/2000	0.00	0.00
11/22/2000	0.020	0.00
2/14/2001	0.060	0.00
3/28/2001	0.00	0.00
4/28/2001	0.00	0.00
5/15/2001	0.00	0.00
6/29/2001	0.00	0.00
7/17/2001	0.00	0.00
8/30/2001	0.000	0.00
9/24/2001	0.00	0.00
10/15/2001	0.030	0.00
11/23/2001	0.00	0.00
12/10/2001	0.000	0.00
1/14/2002	0.00	0.00
2/22/2002	0.00	0.00
3/11/2002	0.000	0.00
4/15/2002	0.00	0.00
5/24/2002	0.040	0.00
6/17/2002	0.040	0.00
7/15/2002	0.020	0.00
8/19/2002	0.050	0.00
9/5/2002	0.030	0.00
10/7/2002	0.020	0.00
11/29/2002	0.020	0.00
12/12/2002	0.010	0.00
1/6/2003	0.010	0.00
2/12/2003	0.020	0.00
3/13/2003	0.020	0.00
4/7/2003	0.010	0.00
5/15/2003	0.030	0.00
6/12/2003	0.020	0.00
7/7/2003	0.010	0.00
8/14/2003	0.020	0.00
9/12/2003	0.020	0.00
10/15/2003	0.087	0.000
11/4/2003	0.043	0.000
11/21/2003	0.032	0.000
12/18/2003	0.024	0.000
1/7/2004	0.009	0.000

Table 3
Liquid Phase Hydrocarbon Recovery Data
76 Station 0746
3943 Broadway Avenue, Oakland California

Date	MW-5	RW-1
2/9/2004	0.010	0.010
3/24/2004	0.031	0.000
4/16/2004	0.000	0.000
5/24/2004	0.050	0.000
6/8/2004	0.049	0.000
7/2/2004	0.046	0.000
8/20/2004	0.080	0.000
9/17/2004	0.048	0.000
10/22/2004	0.024	0.000
11/29/2004	0.036	0.000
12/21/2004	0.010	0.000
1/24/2005	0.027	0.000
2/18/2005	0.020	0.000
3/18/2005	0.024	0.000
4/14/2005	0.010	0.000
5/17/2005	0.010	0.000
6/24/2005	0.000	0.000
7/14/2005	0.020	0.000
8/5/2005	0.050	0.000
9/16/2005	0.009	0.000
10/21/2005	0.000	0.000
11/22/2005	0.000	0.000
12/15/2005	0.000	0.000
1/19/2006	0.000	0.000
2/15/2006	0.000	0.000
3/25/2006	0.000	0.000
4/27/2006	0.000	0.000
5/25/2006	0.000	0.000
6/14/2006	0.000	0.000
7/3/2006	0.000	0.000
8/10/2006	0.000	0.000
9/15/2006	0.027	0.000
10/27/2006	0.009	0.000
11/22/2006	0.017	0.000
12/21/2006	0.000	0.000
2/5/2007	0.010	0.000
2/20/2007	0.000	0.000
3/28/2007	0.000	0.000
4/30/2007	0.000	0.000
5/23/2007	0.073	0.000
6/28/2007	0.049	0.000
8/1/2007	0.000	0.000
8/27/2007	0.000	0.000
9/12/2007	0.040	0.000
10/16/2007	0.000	0.000
12/13/2007	0.029	0.000
1/29/2008	0.010	0.000
2/28/2008	0.020	0.000
3/21/2008	0.000	0.000
4/11/2008	0.058	0.000
5/21/2008	0.044	0.000
6/9/2008	0.029	0.000
7/18/2008	0.032	0.000
8/15/2008	0.024	0.000
9/24/2008	0.051	0.000
10/22/2008	0.044	0.000

Table 3
Liquid Phase Hydrocarbon Recovery Data
76 Station 0746
3943 Broadway Avenue, Oakland California

Date	MW-5	RW-1
11/26/2008	0.034	0.000
12/30/2008	0.022	0.000
1/23/2009	NA	0.000
3/27/2009	0.000	0.000
4/28/2009	0.102	0.000
5/28/2009	NA	NA
7/31/2009	0.034	0.000
8/21/2009	0.102	0.000
9/28/2009	0.017	0.000
10/26/2009	0.063	0.000
11/30/2009	0.075	0.000
12/15/2009	0.010	0.000
1/25/2010	0.003	0.000
2/26/2010	0.000	0.000
3/23/2010	0.010	0.000
4/22/2010	0.009	0.000
5/21/2010	0.117	0.000
6/28/2010	0.085	0.000
7/21/2010	0.040	0.000
8/18/2010	0.070	0.000
9/29/2010	0.030	0.000
10/18/2010	0.046	0.000
11/30/2010	0.058	0.000
12/29/2010	0.250	0.000
1/6/2011	0.138	0.000
1/20/2011	0.231	0.000
2/1/2011	0.230	0.000
2/14/2011	0.000	0.000
3/3/2011	0.000	0.000
3/22/2011	0.000	0.000
4/25/2011	0.000	0.000
5/27/2011	0.000	0.000
9/13/2011	0.000	0.000
10/20/2011	0.000	0.000
11/4/2011	0.000	0.000
12/23/2011	0.210	0.000

Total LPH Removed (gallons): 3.909 0.010

LPH removed for 2" casing well = (feet of product)(0.17 gallon/foot)

4" casing well = (feet of product)(0.67 gallon/foot)

6" casing well = (feet of product)(1.5 gallon/foot)

ARCADIS

Attachment A

Field Data Sheets and General Procedures



GETTLER-RYAN INC.



TRANSMITTAL

December 24, 2013

G-R #385648

TO: Ms. Katherine Brandt
Arcadis
2000 Powell Street, 7th Floor
Emeryville, CA 94608

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6805 Sierra Court, Suite G
Dublin, California 94568

RE: **Chevron Facility**
#351647/0746
3943 Broadway
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Semi Annual Event of December 13, 2013

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/351647 0746

WELL CONDITION STATUS SHEET

Client/
 Facility #: Chevron #351647 / 0746
 Site Address: 3943 Broadway
 City: Oakland, CA

Job #: 385648
 Event Date: 12/13/13
 Sampler: GILBERT MEDINA

WELL ID	Vault Frame Condition	Gasket/O-Ring (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retap	Apron Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) Inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/N	REPLACE CAP Y/N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y/N
MW-1	OK	R	OK					N	N	DIVERSIFIED/12/2	N
MW-2	OK	OK								EMCO/12/2	
MW-3	OK	R	OK							DIVERSIFIED/12/2	
MW-4	OK	R	OK							EMCO/12/2	
MW-5	OK	R	OK								
MW-6	OK	R	OK								
MW-7	OK										
MW-10	OK									UNIVERSAL/8/2	
MW-11	OK										
MW-12	OK	R	OK							BRAINARD/KILMAN/8/2	
RW-1	OK									EMCO/18/3	

Comments _____

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by Clean Harbors Environmental Services to Seaport Environmental located in Redwood City, California.



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351647 / 0746 Job Number: 385648
 Site Address: 3943 Broadway Event Date: 12/13/13 (inclusive)
 City: Oakland, CA Sampler: GM

Well ID: MW-1 Date Monitored: 12/13/13
 Well Diameter: 3/6 in.
 Total Depth: 19.80 ft.
 Depth to Water: 8.34 ft. Check if water column is less than 0.50 ft.
 $11.46 \times VF 0.17 = 1.94$ x3 case volume = Estimated Purge Volume: 6 gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.63

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:

Disposable Bailer X
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer X
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started:	_____ (2400 hrs)
Time Completed:	_____ (2400 hrs)
Depth to Product:	_____ ft
Depth to Water:	_____ ft
Hydrocarbon Thickness:	<u>Ø</u> ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	_____
Amt Removed from Skimmer:	_____ gal
Amt Removed from Well:	_____ gal
Water Removed:	_____ gal

Start Time (purge): 0635 Weather Conditions: COLD
 Sample Time/Date: 0705/12/13/13 Water Color: Green Odor: Y/N
 Approx. Flow Rate: - gpm. Sediment Description: SILT
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 9.74

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (° F)	D.O. (mg/L)	ORP (mV)
<u>0638</u>	<u>2</u>	<u>7.04</u>	<u>0.64</u>	<u>18.0</u>		
<u>0640</u>	<u>4</u>	<u>7.02</u>	<u>0.63</u>	<u>18.0</u>		
<u>0642</u>	<u>6</u>	<u>6.99</u>	<u>0.62</u>	<u>18.0</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>6x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260)/ETHANOL(8260B)</u>

COMMENTS:

Add/Replaced Gasket: | Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351647 / 0746 Job Number: 385648
 Site Address: 3943 Broadway Event Date: 12/13/13 (inclusive)
 City: Oakland, CA Sampler: GM

Well ID: MW-2 Date Monitored: 12/13/13
 Well Diameter: 2/6 in.
 Total Depth: 19.80 ft.
 Depth to Water: 9.68 ft. Check if water column is less than 0.50 ft.
 $10.12 \times VF 0.17 = 1.72$ x3 case volume = Estimated Purge Volume: 5.5 gal.

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.70

Purge Equipment:

Disposable Bailer X
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer X
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 1155 Weather Conditions: SUNNY
 Sample Time/Date: 1225/12/13/13 Water Color: TAN Odor: Y (N)
 Approx. Flow Rate: _____ gpm. Sediment Description: SILT
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 11.17

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos/cm} - \text{pS}$)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1158</u>	<u>2</u>	<u>7.74</u>	<u>0.63</u>	<u>17.4</u>		
<u>1201</u>	<u>4</u>	<u>7.20</u>	<u>0.61</u>	<u>17.3</u>		
<u>1204</u>	<u>5.5</u>	<u>7.16</u>	<u>0.60</u>	<u>17.2</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>6 x vov vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260)/ETHANOL(8260B)</u>

COMMENTS:

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351647 / 0746
 Site Address: 3943 Broadway
 City: Oakland, CA

Job Number: 385648
 Event Date: 12/13/13 (inclusive)
 Sampler: GM

Well ID: MW-3
 Well Diameter: 216 in.
 Total Depth: 22.50 ft.
 Depth to Water: 10.39 ft.

Date Monitored: 12/13/13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.81
 $12.11 \times VF \ 0.17 = 2.06 \times 3 \text{ case volume} = \text{Estimated Purge Volume: } 6.5 \text{ gal.}$

Purge Equipment:

Disposable Bailer X
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer X
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started:	_____ (2400 hrs)
Time Completed:	_____ (2400 hrs)
Depth to Product:	_____ ft
Depth to Water:	_____ ft
Hydrocarbon Thickness:	<u>0</u> ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	_____
Amt Removed from Skimmer:	_____ gal
Amt Removed from Well:	_____ gal
Water Removed:	_____ gal

Start Time (purge): 1240
 Sample Time/Date: 1310/12/13/13
 Approx. Flow Rate: - gpm.
 Did well de-water? No If yes, Time: _____ Volume: _____ gal.

Weather Conditions: SUNNY
 Water Color: TAN Odor: Y/N STRONG
 Sediment Description: SILT
 DTW @ Sampling: 11.85

Time (2400 hr.)	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} = \mu\text{S}$	Temperature (C) / (F)	D.O. (mg/L)	ORP (mV)
<u>1243</u>	<u>2.5</u>	<u>6.94</u>	<u>0.73</u>	<u>18.9</u>	_____	_____
<u>1245</u>	<u>4.5</u>	<u>6.89</u>	<u>0.71</u>	<u>18.7</u>	_____	_____
<u>1257</u>	<u>6.5</u>	<u>6.88</u>	<u>2.09</u>	<u>18.6</u>	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>6 x vva vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260)/ETHANOL(8260B)</u>

COMMENTS:

Add/Replaced Gasket: 1 Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351647 / 0746
 Site Address: 3943 Broadway
 City: Oakland, CA

Job Number: 385648
 Event Date: 12/13/13 (inclusive)
 Sampler: GM

Well ID: MW-4
 Well Diameter: 2.6 in.
 Total Depth: 19.77 ft.
 Depth to Water: 10.05 ft.
9.72 xVF 0.17 = 1.65

Date Monitored: 12/13/13

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.99 gal.

Purge Equipment:
 Disposable Bailer X
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer X
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 0805 Weather Conditions: Sunny
 Sample Time/Date: 0835 12/13/13 Water Color: TAN Odor: YN SLIGHT
 Approx. Flow Rate: - gpm. Sediment Description: SILT
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 10.96

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm-pS)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>0808</u>	<u>2</u>	<u>7.12</u>	<u>0.59</u>	<u>17.9</u>		
<u>0810</u>	<u>3.5</u>	<u>7.10</u>	<u>0.59</u>	<u>17.8</u>		
<u>0812</u>	<u>5</u>	<u>7.06</u>	<u>0.59</u>	<u>17.8</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>6 x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260)/ETHANOL(8260B)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER-RYAN Inc.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351647 / 0746
 Site Address: 3943 Broadway
 City: Oakland, CA

Job Number: 385648
 Event Date: 12/13/13 (inclusive)
 Sampler: GM

Well ID: MW-5
 Well Diameter: (2) 6 in.
 Total Depth: 20.01 ft.
 Depth to Water: 10.30 ft.
9.71 xVF _____ = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Date Monitored: 12/13/13

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: <u>10.09</u> ft
Depth to Water: <u>10.30</u> ft
Hydrocarbon Thickness: <u>0.21</u> ft
Visual Confirmation/Description: <u>BLACK/OILY</u>
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____

Start Time (purge): _____ Weather Conditions: _____
 Sample Time/Date: / Water Color: _____ Odor: Y / N
 Approx. Flow Rate: _____ gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/ EDB/EDC(8260)/ETHANOL(8260B)

COMMENTS: THERE IS PRODUCT IN SKIMMER. SKIMMER IN WELL.

Add/Replaced Gasket: 1 Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351647 / 0746
 Site Address: 3943 Broadway
 City: Oakland, CA

Job Number: 385648
 Event Date: 12/13/13 (inclusive)
 Sampler: GM

Well ID: MW-6
 Well Diameter: 216 in.
 Total Depth: 19.55 ft.
 Depth to Water: 8.02 ft.

Date Monitored: 12/13/13

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.53 xVF 0.17 = 1.96 x3 case volume = Estimated Purge Volume: 6 gal.

Purge Equipment:

Disposable Bailer X
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer X
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started:	_____ (2400 hrs)
Time Completed:	_____ (2400 hrs)
Depth to Product:	_____ ft
Depth to Water:	_____ ft
Hydrocarbon Thickness:	<u>0</u> ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	_____
Amt Removed from Skimmer:	_____ gal
Amt Removed from Well:	_____ gal
Water Removed:	_____ gal

Start Time (purge): 0550 Weather Conditions: COLD
 Sample Time/Date: 0620 12/13/13 Water Color: TAN Odor: Y/N
 Approx. Flow Rate: - gpm. Sediment Description: SILT
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 9.61

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0553</u>	<u>2</u>	<u>7.04</u>	<u>0.84</u>	<u>17.3</u>		
<u>0556</u>	<u>4</u>	<u>7.01</u>	<u>0.82</u>	<u>17.3</u>		
<u>0559</u>	<u>6</u>	<u>6.99</u>	<u>0.81</u>	<u>17.2</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>6</u> x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260)/ETHANOL(8260B)

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351647 / 0746
 Site Address: 3943 Broadway
 City: Oakland, CA

Job Number: 385648
 Event Date: 12/13/13 (inclusive)
 Sampler: GM

Well ID: MW-7
 Well Diameter: (2) 6 in.
 Total Depth: 19.65 ft.
 Depth to Water: 9.09 ft.

Date Monitored: 12/13/13

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Depth to Water 10.56 xVF 0.17 = 1.79 Check if water column is less than 0.50 ft. x3 case volume = Estimated Purge Volume: 5.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.20

Purge Equipment:

Disposable Bailer X
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer X
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: <u>0</u> ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____

Start Time (purge): 0720
 Sample Time/Date: 0750 / 12/13/13
 Approx. Flow Rate: - gpm.
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal.

Weather Conditions: SUNNY
 Water Color: TAN Odor: Y/N
 Sediment Description: SL SILT
 DTW @ Sampling: 10.01

Time (2400 hr.)	Volume (gal.)	pH	Conductivity _{MS} (µmhos/cm-PS)	Temperature (C F)	D.O. (mg/L)	ORP (mV)
<u>0723</u>	<u>2</u>	<u>7.11</u>	<u>281</u>	<u>17.0</u>		
<u>0725</u>	<u>4</u>	<u>7.07</u>	<u>0.78</u>	<u>17.6</u>		
<u>0727</u>	<u>5.5</u>	<u>7.05</u>	<u>0.78</u>	<u>17.5</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-7</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260)/ETHANOL(8260B)</u>

COMMENTS: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351647 / 0746
 Site Address: 3943 Broadway
 City: Oakland, CA

Job Number: 385648
 Event Date: 12/13/13 (inclusive)
 Sampler: GIM

Well ID: MW-10
 Well Diameter: 316 in.
 Total Depth: 21.70 ft.
 Depth to Water: 14.48 ft.

Date Monitored: 12/13/13

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.92
 $7.22 \times VF 0.17 = 1.22$ x3 case volume = Estimated Purge Volume: 4 gal.

Purge Equipment:

Disposable Bailer X
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer X
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 1105
 Sample Time/Date: 1135 12/13/13
 Approx. Flow Rate: — gpm.
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal.

Weather Conditions: Sunny
 Water Color: CLEAR Odor: Y/N
 Sediment Description: NONE
 DTW @ Sampling: 15.09

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1107</u>	<u>1.5</u>	<u>7.10</u>	<u>0.51</u>	<u>18.8</u>		
<u>1109</u>	<u>3</u>	<u>7.02</u>	<u>0.51</u>	<u>18.7</u>		
<u>1111</u>	<u>4</u>	<u>6.95</u>	<u>0.49</u>	<u>18.5</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-10</u>	<u>6 x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/ EDB/EDC(8260)/ETHANOL(8260B)</u>

COMMENTS: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351647 / 0746
 Site Address: 3943 Broadway
 City: Oakland, CA

Job Number: 385648
 Event Date: 12/13/13 (inclusive)
 Sampler: GM

Well ID: MW-11
 Well Diameter: 2/6 in.
 Total Depth: 19.11 ft.
 Depth to Water: 15.04 ft.

Date Monitored: 12/13/13

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

4.07 xVF 0.17 = 0.69 x3 case volume = Estimated Purge Volume: 2.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.85

Purge Equipment:

Disposable Bailer X
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer X
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 1020
 Sample Time/Date: 1045/12/13/13
 Approx. Flow Rate: - gpm.
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal.

Weather Conditions: Sunny
 Water Color: CLEAR Odor: Y (N)
 Sediment Description: SLT
 DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C F)	D.O. (mg/L)	ORP (mV)
<u>1022</u>	<u>1.75</u>	<u>6.94</u>	<u>0.91</u>	<u>18.4</u>		
<u>1023</u>	<u>1.75</u>	<u>6.81</u>	<u>0.90</u>	<u>18.4</u>		
<u>1024</u>	<u>2.5</u>	<u>6.77</u>	<u>0.99</u>	<u>18.4</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-11</u>	<u>6 x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260)/ETHANOL(8260B)</u>

COMMENTS:

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351647 / 0746
 Site Address: 3943 Broadway
 City: Oakland, CA

Job Number: 385648
 Event Date: 12/13/13 (inclusive)
 Sampler: GM

Well ID: MW-12
 Well Diameter: (2) 6 in.
 Total Depth: 17.58 ft.
 Depth to Water: 10.96 ft.

Date Monitored: 12/13/13

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.28
 $6.62 \times VF 0.17 = 1.12$ x3 case volume = Estimated Purge Volume: 3.5 gal.

Purge Equipment:

Disposable Bailer X
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer X
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 0930
 Sample Time/Date: 1000 12/13/13
 Approx. Flow Rate: - gpm.
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal.

Weather Conditions: SUNNY
 Water Color: TAN Odor: YIN
 Sediment Description: SILT
 DTW @ Sampling: 11.86

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C) (F)	D.O. (mg/L)	ORP (mV)
<u>0932</u>	<u>1.25</u>	<u>7.08</u>	<u>0.57</u>	<u>19.5</u>	_____	_____
<u>0934</u>	<u>2.5</u>	<u>7.05</u>	<u>0.57</u>	<u>19.4</u>	_____	_____
<u>0935</u>	<u>3.5</u>	<u>7.04</u>	<u>0.56</u>	<u>19.5</u>	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-12</u>	<u>6 x vovial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260)/ETHANOL(8260B)</u>

COMMENTS: _____

Add/Replaced Gasket: 1 Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351647 / 0746 Job Number: 385648
 Site Address: 3943 Broadway Event Date: 12/13/13 (inclusive)
 City: Oakland, CA Sampler: GM

Well ID: RW-1
 Well Diameter: 2(6) in.
 Total Depth: 16.34 ft.
 Depth to Water: 9.20 ft.

Date Monitored: 12/13/13

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.62
 xVF 1.50 = 10.71 x3 case volume = Estimated Purge Volume: 33 gal.

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump X
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer X
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 0855 Weather Conditions: SUNNY
 Sample Time/Date: 1320 / 12/13/13 Water Color: TAN Odor: (Y) N STRONG
 Approx. Flow Rate: 2 → 1 gpm. Sediment Description: SILT
 Did well de-water? YES If yes, Time: 0910 Volume: 14 gal. DTW @ Sampling: 9.24

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0903</u>	<u>11</u>	<u>6.91</u>	<u>0.38</u>	<u>19.9</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>RW-1</u>	<u>6x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260)/ETHANOL(8260B)</u>

COMMENTS:

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____

CHAIN OF CUSTODY FORM

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

COC / of /

Union Oil Site ID: 0746				Union Oil Consultant: ARCADIS				ANALYSES REQUIRED													
Site Global ID: T0600101471				Consultant Contact: KATHERINE BRANDT				TPH - Diesel by EPA 8015	TPH - G by GC/MS	BTEX/MTBE by EPA 8260B	Ethanol by EPA 8260B / EPA 8210 (9260)	EPA 8260B Full List with OXYS	TPH - G20 (06-12) (9015B)							Turnaround Time (TAT):	
Site Address: 3943 BROADWAY OAKLAND, CA				Consultant Phone No.: (510) 546 1675																Standard <input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/>	
Union Oil PM: TIMOTHY L. BISHOP				Sampling Company: ARCADIS GITTLE R. RYAN INC																48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/>	
Union Oil PM Phone No.: (925) 790-6463				Sampled By (PRINT): GILBERT MEDINA																Special Instructions	
Charge Code: NWRTB-0 351647-0-LAB				Sampler Signature: <i>[Signature]</i>																	
<p><small>This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.</small></p>				Project Manager: Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911																Notes / Comments	
				BC Laboratories, Inc.																	
SAMPLE ID				Sample Time	# of Containers																
Field Point Name	Matrix	DTW	Date (yymmdd)																		
QA	W-S-A		131213	—	2										X						
MW-1	W-S-A			0705	6				X												
MW-2	W-S-A			1225																	
MW-3	W-S-A			1310																	
MW-4	W-S-A			0835																	
MW-6	W-S-A			0620																	
MW-7	W-S-A			0750																	
MW-10	W-S-A			1135																	
MW-11	W-S-A			1045																	
MW-12	W-S-A			1000																	
RW-1	W-S-A			1320																	
	W-S-A																				
Relinquished By: <i>[Signature]</i> Company: <i>[Signature]</i> Date / Time: 12/14/13 1600				Relinquished By: <i>[Signature]</i> Company: <i>[Signature]</i> Date / Time: 1530				Relinquished By: _____ Company: _____ Date / Time: _____													
Received By: _____ Company: _____ Date / Time: _____				Received By: <i>[Signature]</i> Company: <i>[Signature]</i> Date / Time: 1530				Received By: _____ Company: _____ Date / Time: _____													

ARCADIS

Attachment B

Historical Groundwater Results from TRC

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

76 Station 0746

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
MW-1														
11/1/1989	--	--	--	--	--	ND	--	ND	ND	ND	0.3	--	--	
2/15/1990	--	--	--	--	--	170	--	7.9	ND	2.2	2.8	--	--	
8/16/1990	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
11/7/1990	--	--	--	--	--	45	--	ND	ND	ND	ND	--	--	
2/25/1991	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
5/28/1991	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
8/28/1991	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
11/19/1991	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
2/6/1992	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
5/23/1992	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
8/26/1992	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
11/20/1992	--	--	--	--	--	ND	--	0.75	ND	ND	ND	--	--	
12/21/1992	81.07	8.12	0	72.95	--	--	--	--	--	--	--	--	--	
1/30/1993	81.07	7.63	0	73.44	0.49	--	--	--	--	--	--	--	--	
2/24/1993	81.07	7.16	0	73.91	0.47	1100	--	280	4.9	120	140	--	--	
3/22/1993	81.07	6.26	0	74.81	0.90	--	--	--	--	--	--	--	--	
4/28/1993	81.07	7.91	0	73.16	-1.65	--	--	--	--	--	--	--	--	
5/25/1993	81.07	7.87	0	73.20	0.04	260	--	27	4.9	2.6	54	--	--	
6/23/1993	80.54	7.66	0	72.88	-0.32	--	--	--	--	--	--	--	--	
7/22/1993	80.54	7.87	0	72.67	-0.21	--	--	--	--	--	--	--	--	
8/25/1993	80.54	8.00	0	72.54	-0.13	ND	--	ND	ND	ND	ND	--	--	
9/22/1993	80.54	8.10	0	72.44	-0.10	--	--	--	--	--	--	--	--	
10/28/1993	80.54	8.15	0	72.39	-0.05	--	--	--	--	--	--	--	--	
11/30/1993	80.54	7.65	0	72.89	0.50	--	--	--	--	--	--	--	--	Sampled semi-annually
2/16/1994	80.54	7.46	0	73.08	0.19	ND	--	0.84	ND	ND	0.59	--	--	
5/31/1994	80.54	7.80	0	72.74	-0.34	--	--	--	--	--	--	--	--	
8/31/1994	80.54	8.27	0	72.27	-0.47	ND	--	ND	0.98	ND	0.84	--	--	
9/27/1994	80.54	8.37	0	72.17	-0.10	--	--	--	--	--	--	--	--	
10/11/1994	80.54	8.36	0	72.18	0.01	--	--	--	--	--	--	--	--	
11/10/1994	80.54	6.43	0	74.11	1.93	--	--	--	--	--	--	--	--	
2/7/1995	80.54	7.06	0	73.48	-0.63	6100	--	670	ND	120	60	--	--	
5/3/1995	80.54	6.85	0	73.69	0.21	260	--	21	39	17	24	--	--	
8/3/1995	80.54	7.69	0	72.85	-0.84	--	--	--	--	--	--	--	--	
11/7/1995	80.54	8.15	0	72.39	-0.46	ND	--	ND	ND	ND	ND	--	--	
5/6/1996	80.54	7.40	0	73.14	0.75	170	--	1.0	20	2.3	17	55	--	
11/5/1996	80.54	7.90	0	72.64	-0.50	ND	--	ND	ND	ND	ND	5.2	--	
5/15/1997	80.54	7.77	0	72.77	0.13	ND	--	ND	ND	ND	ND	16	--	

Table 2
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

76 Station 0746

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
11/12/1997	80.54	7.48	0	73.06	0.29	ND	--	ND	ND	ND	ND	11	--	
5/4/1998	80.54	7.39	0	73.15	0.09	ND	--	ND	ND	ND	ND	320	--	
11/11/1998	80.54	7.37	0	73.17	0.02	ND	--	ND	ND	ND	ND	200	--	
5/20/1999	80.54	7.41	0	73.13	-0.04	ND	--	ND	ND	ND	ND	89	47	
11/15/1999	80.54	7.84	0	72.70	-0.43	ND	--	ND	ND	ND	ND	8.12	7.19	
5/22/2000	80.54	7.53	0	73.01	0.31	ND	--	0.89	ND	ND	ND	220	290	
11/22/2000	80.54	7.35	0	73.19	0.18	ND	--	ND	ND	ND	ND	105	142	
5/15/2001	80.54	7.48	0	73.06	-0.13	345	--	ND	3.41	2.77	25.2	178	374	
11/23/2001	80.54	7.57	0	72.97	-0.09	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	350	350	
5/24/2002	80.54	7.10	0	73.44	0.47	70	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	200	240	
11/29/2002	80.54	7.96	0	72.58	-0.86	ND<250	--	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	330	
5/15/2003	80.54	7.22	0	73.32	0.74	ND<250	--	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	210	
11/4/2003	80.54	7.94	0	72.60	-0.72	--	120	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	140	
5/24/2004	80.54	7.54	0	73.00	0.40	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	26	
11/29/2004	80.54	7.27	0	73.27	0.27	--	58	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	44	
6/24/2005	80.54	7.06	0	73.48	0.21	--	87	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	80	
12/15/2005	80.54	7.35	0	73.19	-0.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	32	
6/14/2006	80.54	7.06	0	73.48	0.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	44	
12/21/2006	80.54	7.12	0	73.42	-0.06	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	16	
6/28/2007	80.54	7.79	0	72.75	-0.67	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	5.6	
12/13/2007	80.54	7.94	0	72.60	-0.15	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	10	
6/9/2008	80.54	8.00	0	72.54	-0.06	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	29	
12/30/2008	80.54	7.51	0	73.03	0.49	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.2	
9/28/2009	80.54	8.10	0	72.44	-0.59	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.98	
12/15/2009	80.54	7.32	0	73.22	0.78	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/28/2010	80.54	7.80	0	72.74	-0.48	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	8.1	
12/29/2010	80.54	6.22	0	74.32	1.58	--	99	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.6	
MW-2														
11/1/1989	--	--	--	--	--	200	--	ND	ND	3.0	1.2	--	--	
2/15/1990	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
8/16/1990	--	--	--	--	--	ND	--	ND	6.7	ND	ND	--	--	
11/7/1990	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
2/25/1991	--	--	--	--	--	ND	--	0.68	0.42	ND	0.86	--	--	
5/28/1991	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
8/28/1991	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
11/19/1991	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
2/6/1992	--	--	--	--	--	ND	--	0.36	0.66	ND	0.62	--	--	
5/23/1992	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	

Table 2
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

76 Station 0746

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
4/8/1993	82.01	9.14	0.02	72.89	-0.33	--	--	--	--	--	--	--	--	LPH in well
4/28/1993	82.01	9.44	0.03	72.59	-0.29	--	--	--	--	--	--	--	--	LPH in well
5/12/1993	82.01	9.57	0.03	72.46	-0.13	--	--	--	--	--	--	--	--	LPH in well
5/25/1993	82.01	9.45	0.03	72.58	0.12	--	--	--	--	--	--	--	--	LPH in well
6/7/1993	81.41	8.94	0	72.47	-0.11	--	--	--	--	--	--	--	--	
6/23/1993	81.41	9.20	0.02	72.23	-0.24	--	--	--	--	--	--	--	--	LPH in well
7/8/1993	81.41	9.31	0.03	72.12	-0.10	--	--	--	--	--	--	--	--	LPH in well
7/22/1993	81.41	9.47	0	71.94	-0.18	--	--	--	--	--	--	--	--	
8/11/1993	81.41	9.59	0	71.82	-0.12	--	--	--	--	--	--	--	--	
8/25/1993	81.41	9.67	0.03	71.76	-0.06	--	--	--	--	--	--	--	--	LPH in well
9/8/1993	81.41	10.34	0	71.07	-0.69	--	--	--	--	--	--	--	--	
9/22/1993	81.41	9.84	0.02	71.59	0.51	--	--	--	--	--	--	--	--	LPH in well
10/7/1993	81.41	9.87	0	71.54	-0.05	--	--	--	--	--	--	--	--	
10/28/1993	81.41	10.03	0	71.38	-0.16	--	--	--	--	--	--	--	--	
11/12/1993	81.41	9.76	0	71.65	0.27	--	--	--	--	--	--	--	--	
11/30/1993	81.41	9.66	0.02	71.76	0.11	--	--	--	--	--	--	--	--	LPH in well
2/16/1994	81.41	8.87	0	72.54	0.78	57000	--	910	2500	2100	9000	--	--	Sheen
5/31/1994	81.41	9.48	0	71.93	-0.61	39000	--	670	630	1500	6200	--	--	
8/31/1994	81.41	10.08	0	71.33	-0.60	44000	--	500	240	1400	5700	--	--	
9/24/1994	81.41	10.22	0	71.19	-0.14	--	--	--	--	--	--	--	--	
10/11/1994	81.41	10.41	0.01	71.01	-0.18	--	--	--	--	--	--	--	--	LPH in well
11/10/1994	81.41	7.47	0	73.94	2.93	86000	--	3300	3800	1800	8300	--	--	Sheen
2/7/1995	81.41	8.05	0	73.36	-0.58	45000	--	1400	1300	1500	5600	--	--	
3/14/1995	81.41	7.05	0	74.36	1.00	--	--	--	--	--	--	--	--	
5/3/1995	81.41	7.91	0	73.50	-0.86	26000	--	740	990	1100	4400	--	--	
8/3/1995	81.41	9.28	0	72.13	-1.37	18000	--	59	ND	530	1900	--	--	
8/19/1995	81.41	--	0	--	--	--	--	--	--	--	--	--	--	
11/7/1995	81.41	10.79	0	70.62	--	17000	--	110	26	400	1500	880	--	
5/6/1996	81.41	9.44	0	71.97	1.35	5100	--	48	ND	87	210	370	--	Sheen
11/5/1996	81.41	10.64	0	70.77	-1.20	35000	--	2200	ND	1200	2800	460	--	
5/15/1997	81.41	9.61	0	71.80	1.03	2400	--	110	ND	ND	140	100	--	
11/12/1997	81.41	9.18	0	72.23	0.43	29000	--	2000	ND	1800	3000	ND	--	
5/4/1998	81.41	9.50	0	71.91	-0.32	8200	--	430	ND	310	320	ND	--	
11/11/1998	81.41	9.25	0	72.16	0.25	8700	--	500	ND	330	310	ND	--	
5/20/1999	81.41	8.95	0	72.46	0.30	4300	--	250	ND	ND	86	ND	--	
11/15/1999	81.41	10.35	0	71.06	-1.40	6720	--	326	ND	398	226	120	45.1	
5/22/2000	81.41	9.14	0	72.27	1.21	4000	--	99	4.5	190	75	100	94	
11/22/2000	81.41	9.33	0	72.08	-0.19	6130	--	93.7	6.71	174	47.8	212	131	

Table 2
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

76 Station 0746

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
7/22/1993	81.29	9.26	0	72.03	-0.36	--	--	--	--	--	--	--	--	
8/25/1993	81.29	9.45	0	71.84	-0.19	640	--	100	1.1	100	22	--	--	
9/22/1993	81.29	9.63	0	71.66	-0.18	--	--	--	--	--	--	--	--	
10/28/1993	81.29	9.62	0	71.67	0.01	--	--	--	--	--	--	--	--	
11/30/1993	81.29	9.40	0	71.89	0.22	200	--	28	ND	17	8.1	--	--	
12/21/1993	81.48	9.10	0	72.38	0.49	--	--	--	--	--	--	--	--	
2/16/1994	81.29	9.21	0	72.08	-0.30	190	--	11	0.98	21	6.6	--	--	
5/31/1994	81.29	9.11	0	72.18	0.10	1100	--	190	ND	100	58	--	--	
8/31/1994	81.29	10.01	0	71.28	-0.90	400	--	17	0.94	14	5.2	--	--	
9/27/1994	81.29	10.09	0	71.20	-0.08	--	--	--	--	--	--	--	--	
10/11/1994	81.29	11.50	0	69.79	-1.41	--	--	--	--	--	--	--	--	
11/10/1994	81.29	9.21	0	72.08	2.29	7700	--	1800	280	460	1300	--	--	
2/7/1995	81.29	7.66	0	73.63	1.55	540	--	47	ND	17	2.5	--	--	
5/3/1995	81.29	8.29	0	73.00	-0.63	160	--	8.3	0.52	1.5	3.7	--	--	
8/3/1995	81.29	8.60	0	72.69	-0.31	57	--	2.0	ND	ND	ND	--	--	
8/19/1995	81.29	--	0	--	--	--	--	--	--	--	--	--	--	
11/7/1995	81.29	10.28	0	71.01	--	ND	--	0.71	ND	ND	ND	0.86	--	
5/6/1996	81.29	8.70	0	72.59	1.58	1200	--	12	11	15	36	ND	--	
11/5/1996	81.29	10.00	0	71.29	-1.30	700	--	32	0.71	1.8	1.3	6.5	--	
5/15/1997	81.29	9.37	0	71.92	0.63	51	--	ND	ND	ND	ND	ND	ND	
11/12/1997	81.29	8.92	0	72.37	0.45	74	--	1.7	ND	ND	ND	ND	ND	
5/4/1998	81.29	9.48	0	71.81	-0.56	ND	--	ND	ND	ND	ND	ND	ND	
11/11/1998	81.29	9.13	0	72.16	0.35	ND	--	0.63	ND	ND	ND	ND	ND	
5/20/1999	81.29	8.41	0	72.88	0.72	ND	--	ND	ND	ND	ND	ND	ND	
11/15/1999	81.29	9.68	0	71.61	-1.27	ND	--	ND	ND	ND	ND	ND	ND	
5/22/2000	81.29	8.60	0	72.69	1.08	ND	--	ND	ND	ND	ND	ND	ND	
11/22/2000	81.29	8.91	0	72.38	-0.31	ND	--	ND	ND	ND	ND	ND	ND	
5/15/2001	81.29	8.66	0	72.63	0.25	ND	--	ND	1.10	ND	1.16	ND	ND	
11/23/2001	81.29	8.84	0	72.45	-0.18	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
5/24/2002	81.29	7.93	0	73.36	0.91	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	9.6	3.5	
11/29/2002	81.29	9.34	0	71.95	-1.41	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.6	
5/15/2003	81.29	7.87	0	73.42	1.47	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
11/4/2003	81.48	9.45	0	72.03	-1.39	--	61	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
5/24/2004	81.48	8.49	0	72.99	0.96	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
11/29/2004	81.48	9.01	0	72.47	-0.52	--	120	ND<0.50	ND<0.50	0.52	ND<1.0	--	0.55	
6/24/2005	81.48	7.81	0	73.67	1.20	--	90	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/15/2005	81.48	8.73	0	72.75	-0.92	--	170	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.65	
6/14/2006	81.48	7.43	0	74.05	1.30	--	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**

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Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	Ground- LPH Thickness (feet)	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
11/29/2004	81.38	9.16	0.21	72.38	0.14	--	--	--	--	--	--	--	--	LPH in well
6/24/2005	81.38	8.41	0	72.97	0.59	--	53000	560	230	1600	5100	--	82	
12/15/2005	81.38	8.96	0	72.42	-0.55	--	27000	130	ND<25	560	1800	--	120	
6/14/2006	81.38	8.41	0	72.97	0.55	--	11000	110	ND<12	360	640	--	48	
12/21/2006	81.38	9.65	0	71.73	-1.24	--	78000	490	43	1400	4300	--	96	
6/28/2007	81.38	9.99	0.29	71.61	-0.12	--	--	--	--	--	--	--	--	LPH in well
12/13/2007	81.38	10.12	0.17	71.39	-0.22	--	--	--	--	--	--	--	--	LPH in well
6/9/2008	81.38	10.12	0.17	71.39	0.00	--	--	--	--	--	--	--	--	LPH in well
12/30/2008	81.38	9.33	0.13	72.15	0.76	--	--	--	--	--	--	--	--	LPH in well
9/28/2009	81.38	9.77	0.01	71.62	-0.53	--	--	--	--	--	--	--	--	LPH in well
12/15/2009	81.38	8.87	0.01	72.52	0.90	--	--	--	--	--	--	--	--	LPH in well
6/28/2010	81.38	9.82	0.5	71.93	-0.58	--	--	--	--	--	--	--	--	LPH in well
12/29/2010	81.38	8.69	1.49	73.81	1.87	--	--	--	--	--	--	--	--	LPH in well
MW-6														
11/7/1990	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
2/25/1991	--	--	--	--	--	ND	--	0.37	0.4	0.35	1.5	--	--	
5/28/1991	--	--	--	--	--	ND	--	ND	ND	ND	0.42	--	--	
8/28/1991	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
11/19/1991	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
2/6/1992	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
5/23/1992	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
8/26/1992	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
11/20/1992	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
12/21/1992	80.47	7.71	0	72.76	--	--	--	--	--	--	--	--	--	
1/30/1993	80.47	7.25	0	73.22	0.46	--	--	--	--	--	--	--	--	
2/24/1993	80.47	6.74	0	73.73	0.51	ND	--	ND	ND	ND	ND	--	--	
3/22/1993	80.47	5.85	0	74.62	0.89	--	--	--	--	--	--	--	--	
4/28/1993	80.47	7.58	0	72.89	-1.73	--	--	--	--	--	--	--	--	
5/25/1993	80.47	7.48	0	72.99	0.10	ND	--	ND	ND	ND	ND	--	--	
6/23/1993	79.94	7.34	0	72.60	-0.39	--	--	--	--	--	--	--	--	
7/22/1993	79.94	7.53	0	72.41	-0.19	--	--	--	--	--	--	--	--	
8/25/1993	79.94	7.66	0	72.28	-0.13	ND	--	ND	ND	ND	ND	--	--	
9/22/1993	79.94	7.76	0	72.18	-0.10	--	--	--	--	--	--	--	--	
10/28/1993	79.94	8.30	0	71.64	-0.54	--	--	--	--	--	--	--	--	
11/30/1993	79.94	7.40	0	72.54	0.90	--	--	--	--	--	--	--	--	
2/16/1994	79.94	7.13	0	72.81	0.27	ND	--	ND	ND	ND	ND	--	--	
5/31/1994	79.94	7.49	0	72.45	-0.36	--	--	--	--	--	--	--	--	
8/31/1994	79.94	7.93	0	72.01	-0.44	ND	--	ND	1.5	ND	1.6	--	--	

Table 2
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

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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
9/27/1994	79.94	8.03	0	71.91	-0.10	--	--	--	--	--	--	--	--	
10/11/1994	79.94	8.05	0	71.89	-0.02	--	--	--	--	--	--	--	--	
11/10/1994	79.94	6.12	0	73.82	1.93	--	--	--	--	--	--	--	--	
2/7/1995	79.94	6.65	0	73.29	-0.53	ND	--	ND	ND	ND	ND	--	--	
5/3/1995	79.94	6.47	0	73.47	0.18	ND	--	ND	ND	ND	1.0	--	--	
8/3/1995	79.94	7.28	0	72.66	-0.81	--	--	--	--	--	--	--	--	
11/7/1995	79.94	7.98	0	71.96	-0.70	ND	--	ND	ND	ND	ND	--	--	
5/6/1996	79.94	7.80	0	72.14	0.18	--	--	--	--	--	--	--	--	
11/5/1996	79.94	7.63	0	72.31	0.17	--	--	--	--	--	--	--	--	
5/15/1997	79.94	7.41	0	72.53	0.22	--	--	--	--	--	--	--	--	
11/12/1997	79.94	7.51	0	72.43	-0.10	--	--	--	--	--	--	--	--	
5/4/1998	79.94	7.15	0	72.79	0.36	--	--	--	--	--	--	--	--	
11/11/1998	79.94	7.04	0	72.90	0.11	--	--	--	--	--	--	--	--	
5/20/1999	79.94	7.00	0	72.94	0.04	--	--	--	--	--	--	--	--	
11/15/1999	79.94	7.42	0	72.52	-0.42	--	--	--	--	--	--	--	--	
5/22/2000	79.94	7.24	0	72.70	0.18	--	--	--	--	--	--	--	--	
11/22/2000	79.94	7.40	0	72.54	-0.16	--	--	--	--	--	--	--	--	
5/15/2001	79.94	7.12	0	72.82	0.28	--	--	--	--	--	--	--	--	
11/23/2001	79.94	7.19	0	72.75	-0.07	--	--	--	--	--	--	--	--	
5/24/2002	79.94	6.54	0	73.40	0.65	--	--	--	--	--	--	--	--	
11/29/2002	79.94	7.26	0	72.68	-0.72	--	--	--	--	--	--	--	--	
5/15/2003	79.94	6.26	0	73.68	1.00	--	--	--	--	--	--	--	--	
11/4/2003	79.94	7.80	0	72.14	-1.54	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.4	
5/24/2004	79.94	7.54	0	72.40	0.26	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.8	
11/29/2004	79.94	7.01	0	72.93	0.53	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	4.8	
6/24/2005	79.94	7.68	0	72.26	-0.67	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.47	
12/15/2005	79.94	7.49	0	72.45	0.19	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.88	
6/14/2006	79.94	6.45	0	73.49	1.04	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.0	
12/21/2006	79.94	6.91	0	73.03	-0.46	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	1.0	
6/28/2007	79.94	7.46	0	72.48	-0.55	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	1.2	
12/13/2007	79.94	7.41	0	72.53	0.05	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.64	
6/9/2008	79.94	8.20	0	71.74	-0.79	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.65	
12/30/2008	79.94	7.47	0	72.47	0.73	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/28/2009	79.94	7.96	0	71.98	-0.49	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.67	
12/15/2009	79.94	7.22	0	72.72	0.74	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/28/2010	79.94	7.68	0	72.26	-0.46	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/29/2010	79.94	5.93	0	74.01	1.75	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

MW-7

Table 2
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

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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
3/9/1993	81.71	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
3/22/1993	81.71	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
4/8/1993	81.71	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
4/28/1993	81.71	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
5/12/1993	81.71	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
5/25/1993	81.71	10.12	0	71.59	--	1200	--	5.4	ND	9.0	21	--	--	
6/7/1993	81.41	9.98	0	71.43	-0.16	--	--	--	--	--	--	--	--	
6/23/1993	81.41	10.36	0	71.05	-0.38	--	--	--	--	--	--	--	--	
7/8/1993	81.41	10.52	0	70.89	-0.16	--	--	--	--	--	--	--	--	
7/22/1993	81.41	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
8/11/1993	81.41	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
8/25/1993	81.41	10.95	0	70.46	--	1800	--	11	17	8.9	29	--	--	
9/8/1993	81.41	11.34	0	70.07	-0.39	--	--	--	--	--	--	--	--	
9/22/1993	81.41	11.13	0	70.28	0.21	--	--	--	--	--	--	--	--	
10/7/1993	81.41	10.96	0	70.45	0.17	--	--	--	--	--	--	--	--	
10/28/1993	81.41	11.19	0	70.22	-0.23	--	--	--	--	--	--	--	--	
11/12/1993	81.41	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
11/30/1993	81.41	10.42	0	70.99	--	3500	--	18	ND	ND	ND	--	--	
2/16/1994	81.41	9.86	0	71.55	0.56	990	--	4.9	1.8	2.4	4.5	--	--	
5/31/1994	81.41	10.61	0	70.80	-0.75	350	--	3.0	1.0	0.73	1.7	--	--	
8/31/1994	81.41	11.37	0	70.04	-0.76	1800	--	ND	ND	ND	ND	--	--	
9/27/1994	81.41	--	--	--	--	--	--	--	--	--	--	--	--	Car parked over well
10/11/1994	81.41	11.50	0	69.91	--	--	--	--	--	--	--	--	--	
11/10/1994	81.41	7.81	0	73.60	3.69	940	--	6.7	6.3	ND	16	--	--	
2/7/1995	81.41	8.69	0	72.72	-0.88	230	--	1.4	0.95	0.9	1.1	--	--	
5/3/1995	81.41	8.60	0	72.81	0.09	75	--	ND	ND	ND	1.0	--	--	
8/3/1995	81.41	--	--	--	--	--	--	--	--	--	--	--	--	Car parked over well
11/7/1995	81.41	11.05	0	70.36	--	210	--	1.3	1.2	ND	ND	--	--	
5/6/1996	81.41	--	--	--	--	--	--	--	--	--	--	--	--	Car parked over well
11/5/1996	81.41	--	--	--	--	--	--	--	--	--	--	--	--	Car parked over well
5/15/1997	81.41	10.46	0	70.95	--	ND	--	ND	ND	ND	ND	43	--	
11/12/1997	81.41	--	--	--	--	--	--	--	--	--	--	--	--	Car parked over well
5/4/1998	81.41	--	--	--	--	--	--	--	--	--	--	--	--	Car parked over well
11/11/1998	81.41	--	--	--	--	--	--	--	--	--	--	--	--	Car parked over well
5/20/1999	81.41	9.75	0	71.66	--	ND	--	ND	ND	ND	ND	23	10	
11/15/1999	81.41	--	--	--	--	--	--	--	--	--	--	--	--	Car parked over well
5/22/2000	81.41	9.80	0	71.61	--	ND	--	ND	1.9	ND	3.3	ND	--	
11/22/2000	81.41	9.76	0	71.65	0.04	ND	--	ND	1.16	ND	1.22	ND	--	

Table 2
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

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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
8/25/1993	80.53	10.44	0	70.09	-0.34	220	--	10	ND	6.8	1.4	--	--	
9/22/1993	80.53	10.64	0	69.89	-0.20	--	--	--	--	--	--	--	--	
10/28/1993	80.53	10.68	0	69.85	-0.04	--	--	--	--	--	--	--	--	
11/30/1993	80.53	9.87	0	70.66	0.81	200	--	5.6	ND	2.9	2.7	--	--	
2/16/1994	80.53	9.21	0	71.32	0.66	250	--	5.1	1.3	4.4	1.5	--	--	
5/31/1994	80.53	10.15	0	70.38	-0.94	360	--	7.8	0.97	4.6	2.2	--	--	
8/31/1994	80.53	10.97	0	69.56	-0.82	650	--	7.7	2.8	4.4	5.0	59	--	
9/27/1994	80.53	11.10	0	69.43	-0.13	--	--	--	--	--	--	--	--	
10/11/1994	80.53	11.20	0	69.33	-0.10	--	--	--	--	--	--	--	--	
11/10/1994	80.53	7.25	0	73.28	3.95	ND	--	ND	ND	ND	ND	--	--	
2/7/1995	80.53	7.76	0	72.77	-0.51	57	--	0.7	ND	0.86	ND	--	--	
5/3/1995	80.53	7.82	0	72.71	-0.06	ND	--	0.85	0.67	1.3	1.0	--	--	
8/3/1995	80.53	9.70	0	70.83	-1.88	91	--	1.1	ND	ND	ND	--	--	
11/7/1995	80.53	10.64	0	69.89	-0.94	130	--	1.5	0.62	0.71	ND	60	--	
5/6/1996	80.53	9.01	0	71.52	1.63	860	--	6.1	13	6.0	25	ND	--	
11/5/1996	80.53	11.42	0	69.11	-2.41	84	--	0.74	ND	1.2	4.5	ND	--	
5/15/1997	80.53	9.89	0	70.64	1.53	ND	--	ND	ND	ND	ND	ND	--	
11/12/1997	80.53	10.22	0	70.31	-0.33	ND	--	0.55	ND	ND	ND	74	--	
5/4/1998	80.53	10.05	0	70.48	0.17	ND	--	ND	ND	ND	ND	45	--	
11/11/1998	80.53	9.23	0	71.30	0.82	ND	--	ND	ND	ND	ND	ND	--	
5/20/1999	80.53	8.78	0	71.75	0.45	ND	--	ND	ND	ND	ND	ND	--	
11/15/1999	80.53	9.12	0	71.41	-0.34	ND	--	ND	ND	ND	ND	ND	--	
5/22/2000	80.53	9.17	0	71.36	-0.05	ND	--	ND	1.9	ND	3.5	ND	--	
11/22/2000	80.53	9.08	0	71.45	0.09	ND	--	ND	1.18	ND	1.16	ND	--	
5/15/2001	80.53	8.85	0	71.68	0.23	ND	--	ND	ND	ND	ND	ND	--	
11/23/2001	80.53	9.10	0	71.43	-0.25	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
5/24/2002	80.53	8.79	0	71.74	0.31	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
11/29/2002	80.53	9.24	0	71.29	-0.45	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
5/15/2003	80.53	8.56	0	71.97	0.68	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
11/4/2003	80.53	--	--	--	--	--	--	--	--	--	--	--	--	Car parked over well
5/24/2004	80.53	9.38	0	71.15	--	--	330	1.8	ND<0.50	ND<0.50	ND<1.0	--	160	
11/29/2004	80.53	9.55	0	70.98	-0.17	--	690	0.72	ND<0.50	1.3	ND<1.0	--	160	
6/24/2005	80.53	8.65	0	71.88	0.90	--	240	0.80	ND<0.50	0.55	ND<1.0	--	67	
12/15/2005	80.53	9.43	0	71.10	-0.78	--	400	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	82	
6/14/2006	80.53	9.43	0	71.10	0.00	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.2	
12/21/2006	80.53	9.01	0	71.52	0.42	--	580	ND<0.50	ND<0.50	0.71	ND<0.50	--	36	
6/28/2007	80.53	11.64	0	68.89	-2.63	--	1200	0.81	ND<0.50	ND<0.50	0.54	--	52	
12/13/2007	80.53	11.18	0	69.35	0.46	--	1100	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	31	

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

76 Station 0746

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	Ground-LPH Thickness (feet)	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
8/25/1993	78.18	14.10	0	64.08	1.36	ND	--	ND	ND	ND	ND	--	--	
9/22/1993	78.18	15.03	0	63.15	-0.93	--	--	--	--	--	--	--	--	
10/28/1993	78.18	13.84	0	64.34	1.19	--	--	--	--	--	--	--	--	
11/30/1993	78.18	13.04	0	65.14	0.80	ND	--	ND	ND	ND	ND	--	--	
2/16/1994	78.18	12.76	0	65.42	0.28	ND	--	ND	ND	ND	ND	--	--	
5/31/1994	78.18	12.79	0	65.39	-0.03	ND	--	ND	ND	ND	ND	--	--	
8/31/1994	78.18	12.97	0	65.21	-0.18	ND	--	ND	1.5	ND	1.8	--	--	
9/27/1994	78.18	14.88	0	63.30	-1.91	--	--	--	--	--	--	--	--	
10/11/1994	78.18	13.40	0	64.78	1.48	--	--	--	--	--	--	--	--	
11/10/1994	78.18	13.57	0	64.61	-0.17	ND	--	ND	ND	ND	ND	--	--	
2/7/1995	78.18	12.28	0	65.90	1.29	--	--	--	--	--	--	--	--	Sampled semi-annually
5/3/1995	78.18	9.28	0	68.90	3.00	ND	--	ND	ND	ND	ND	--	--	
8/3/1995	78.18	12.67	0	65.51	-3.39	--	--	--	--	--	--	--	--	
11/7/1995	78.18	12.28	0	65.90	0.39	ND	--	ND	ND	ND	ND	--	--	
5/6/1996	78.18	13.30	0	64.88	-1.02	--	--	--	--	--	--	--	--	Sampling discontinued
11/5/1996	78.18	10.90	0	67.28	2.40	--	--	--	--	--	--	--	--	
5/15/1997	78.18	11.65	0	66.53	-0.75	--	--	--	--	--	--	--	--	
11/12/1997	78.18	9.66	0	68.52	1.99	--	--	--	--	--	--	--	--	
5/4/1998	78.18	10.87	0	67.31	-1.21	--	--	--	--	--	--	--	--	
11/11/1998	78.18	11.40	0	66.78	-0.53	--	--	--	--	--	--	--	--	
5/20/1999	78.18	10.71	0	67.47	0.69	ND	--	ND	ND	ND	ND	ND	ND	
11/15/1999	78.18	11.32	0	66.86	-0.61	ND	--	ND	1.04	ND	ND	ND	--	
5/22/2000	78.18	10.98	0	67.20	0.34	ND	--	ND	ND	ND	ND	ND	--	
11/22/2000	78.18	11.17	0	67.01	-0.19	ND	--	ND	ND	ND	ND	ND	--	
5/15/2001	78.18	10.93	0	67.25	0.24	ND	--	ND	ND	ND	ND	ND	--	
11/23/2001	78.18	11.08	0	67.10	-0.15	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
5/24/2002	78.18	10.58	0	67.60	0.50	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
11/29/2002	78.18	11.27	0	66.91	-0.69	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
5/15/2003	78.18	10.25	0	67.93	1.02	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
11/4/2003	78.18	11.23	0	66.95	-0.98	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
5/24/2004	78.18	10.10	0	68.08	1.13	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
11/29/2004	78.18	10.96	0	67.22	-0.86	--	63	ND<0.50	ND<0.50	1.0	2.5	--	ND<0.50	
6/24/2005	78.18	14.07	0	64.11	-3.11	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/15/2005	78.18	13.28	0	64.90	0.79	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/14/2006	78.18	12.53	0	65.65	0.75	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/21/2006	78.18	12.78	0	65.40	-0.25	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
6/28/2007	78.18	--	--	--	--	--	--	--	--	--	--	--	--	Bus parked over well
12/13/2007	78.18	15.37	0	62.81	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

Table 2
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

76 Station 0746

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	Ground-LPH Thickness (feet)	Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
11/10/1994	80.63	6.34	0	74.29	3.27	--	--	--	--	--	--	--	--	
2/7/1995	80.63	7.18	0	73.45	-0.84	--	--	--	--	--	--	--	--	
3/14/1995	80.63	6.01	0	74.62	1.17	--	--	--	--	--	--	--	--	
11/7/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	
10/15/2001	80.63	8.43	0	72.20	--	--	--	--	--	--	--	--	--	
11/23/2001	80.63	8.57	0	72.06	-0.14	--	--	--	--	--	--	--	--	
12/10/2001	80.63	8.51	0	72.12	0.06	--	--	--	--	--	--	--	--	
1/14/2002	80.63	8.13	0	72.50	0.38	--	--	--	--	--	--	--	--	
2/22/2002	80.63	6.18	0	74.45	1.95	--	--	--	--	--	--	--	--	
3/11/2002	80.63	6.31	0	74.32	-0.13	--	--	--	--	--	--	--	--	
4/15/2002	80.63	6.39	0	74.24	-0.08	--	--	--	--	--	--	--	--	
5/24/2002	80.63	8.14	0	72.49	-1.75	--	--	--	--	--	--	--	--	
6/17/2002	80.63	8.18	0	72.45	-0.04	--	--	--	--	--	--	--	--	
7/15/2002	80.63	8.29	0	72.34	-0.11	--	--	--	--	--	--	--	--	
8/19/2002	80.63	8.44	0	72.19	-0.15	--	--	--	--	--	--	--	--	
9/5/2002	80.63	8.47	0	72.16	-0.03	--	--	--	--	--	--	--	--	
10/7/2002	80.63	8.43	0	72.20	0.04	--	--	--	--	--	--	--	--	
11/29/2002	80.63	8.92	0	71.71	-0.49	--	--	--	--	--	--	--	--	
12/12/2002	80.63	8.87	0	71.76	0.05	--	--	--	--	--	--	--	--	
1/6/2003	80.63	8.66	0	71.97	0.21	--	--	--	--	--	--	--	--	
2/12/2003	80.63	8.39	0	72.24	0.27	--	--	--	--	--	--	--	--	
3/13/2003	80.63	8.06	0	72.57	0.33	--	--	--	--	--	--	--	--	
4/7/2003	80.63	8.09	0	72.54	-0.03	--	--	--	--	--	--	--	--	
5/15/2003	80.63	8.07	0	72.56	0.02	--	--	--	--	--	--	--	--	
6/12/2003	80.63	8.11	0	72.52	-0.04	--	--	--	--	--	--	--	--	
7/7/2003	80.63	8.13	0	72.50	-0.02	--	--	--	--	--	--	--	--	
8/14/2003	80.63	8.23	0	72.40	-0.10	--	--	--	--	--	--	--	--	
9/12/2003	80.63	8.29	0	72.34	-0.06	--	--	--	--	--	--	--	--	
11/4/2003	80.63	9.97	0	70.66	-1.68	--	2600	11	ND<10	ND<10	ND<20	--	210	
5/24/2004	80.63	8.31	0	72.32	1.66	--	3100	20	ND<5.0	16	ND<10	--	200	
11/29/2004	80.63	8.23	0	72.40	0.08	--	4500	46	ND<1.0	34	3.6	--	140	
6/24/2005	80.63	7.53	0	73.10	0.70	--	2000	20	0.87	50	3.0	--	56	
12/15/2005	80.63	8.11	0	72.52	-0.58	--	3300	37	0.70	35	4.7	--	44	
6/14/2006	80.63	7.41	0	73.22	0.70	--	1500	2.0	0.95	6.9	ND<1.0	--	21	
12/21/2006	80.63	7.78	0	72.85	-0.37	--	3100	21	0.65	56	5.4	--	27	
6/28/2007	80.63	9.09	0	71.54	-1.31	--	2800	46	0.96	44	2.6	--	65	
12/13/2007	80.63	9.21	0	71.42	-0.12	--	9100	190	2.1	400	81	--	30	
6/9/2008	80.63	9.30	0	71.33	-0.09	--	5400	23	ND<2.5	330	13	--	39	

Table 2
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

76 Station 0746

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
12/30/2008	80.63	8.23	0	72.40	1.07	--	5800	130	ND<2.5	270	58	--	22	
9/28/2009	80.63	9.10	0	71.53	-0.87	--	3400	3.8	ND<2.5	23	5.0	--	21	
12/15/2009	80.63	7.96	0	72.67	1.14	--	9100	18	ND<2.5	450	160	--	ND<2.5	
6/28/2010	80.63	8.68	0	71.95	-0.72	--	2300	20	1.0	56	ND<1.0	--	5.6	
12/29/2010	80.63	6.04	0	74.59	2.64	--	4100	9.3	1.3	6.8	ND<1.0	--	1.6	

Table 2a
ADDITIONAL CURRENT ANALYTICAL RESULTS

76 Station 0746

Date Sampled	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene- dibromide (EDB) (µg/l)	EDB (504) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)	Comments
5/4/1998	--	--	--	--	--	--	--	--	--	2.94	
5/20/1999	--	--	--	--	--	--	--	--	--	3.22	
11/4/2003	--	ND<500	--	--	--	--	--	--	--	--	
5/24/2004	--	ND<50	--	--	--	--	--	--	--	--	
11/29/2004	--	ND<50	--	--	--	--	--	--	--	--	
6/24/2005	--	ND<1000	--	--	--	--	--	--	--	--	
12/15/2005	--	ND<250	--	--	--	--	--	--	--	--	
6/14/2006	--	ND<250	--	--	--	--	--	--	--	--	
12/21/2006	--	ND<250	--	--	--	--	--	--	--	--	
12/13/2007	--	ND<250	--	--	--	--	--	--	--	--	
6/9/2008	--	ND<250	--	--	--	--	--	--	--	--	
12/30/2008	--	ND<250	--	--	--	--	--	--	--	--	
9/28/2009	--	ND<250	--	--	--	--	--	--	--	--	
6/28/2010	--	ND<250	ND<0.50	--	ND<0.50	--	--	--	--	--	
12/29/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	
MW-12											
5/15/1997	--	--	--	--	--	--	--	--	--	2.10	
5/4/1998	--	--	--	--	--	--	--	--	--	3.41	
11/4/2003	ND<100	ND<500	--	--	--	ND<2.0	ND<2.0	ND<2.0	--	--	
5/24/2004	ND<5.0	ND<50	ND<0.50	--	ND<0.50	ND<1.0	ND<0.50	ND<0.50	--	--	
11/29/2004	ND<5.0	ND<50	ND<0.50	--	ND<0.50	ND<1.0	ND<0.50	ND<0.50	--	--	
6/24/2005	--	ND<1000	--	--	--	--	--	--	--	--	
12/15/2005	--	ND<250	--	--	--	--	--	--	--	--	
6/14/2006	--	ND<250	--	--	--	--	--	--	--	--	
12/21/2006	--	ND<250	--	--	--	--	--	--	--	--	
6/28/2007	--	ND<250	--	--	--	--	--	--	--	--	
12/13/2007	--	ND<250	--	--	--	--	--	--	--	--	
6/9/2008	--	ND<250	--	--	--	--	--	--	--	--	
12/30/2008	--	ND<250	--	--	--	--	--	--	--	--	
9/28/2009	--	ND<250	--	--	--	--	--	--	--	--	
12/15/2009	--	ND<250	--	--	--	--	--	--	--	--	
6/28/2010	--	ND<250	ND<0.50	ND<0.010	ND<0.50	--	--	--	--	--	
12/29/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	
RW-1											
11/7/1995	--	--	--	--	--	--	--	--	2.13	--	

Table 2a
ADDITIONAL CURRENT ANALYTICAL RESULTS

76 Station 0746

Date Sampled	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene- dibromide (EDB) (µg/l)	EDB (504) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)	Comments
11/4/2003	ND<2000	ND<10000	--	--	--	ND<40	ND<40	ND<40	--	--	
5/24/2004	ND<50	ND<500	ND<5.0	--	ND<5.0	ND<10	ND<5.0	ND<5.0	--	--	
11/29/2004	38	ND<100	ND<1.0	--	ND<1.0	ND<2.0	ND<1.0	1.3	--	--	
6/24/2005	--	ND<1000	--	--	--	--	--	--	--	--	
12/15/2005	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	
6/14/2006	--	ND<250	--	--	--	--	--	--	--	--	
12/21/2006	34	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	
6/28/2007	--	ND<250	--	--	--	--	--	--	--	--	
12/13/2007	--	ND<500	--	--	--	--	--	--	--	--	
6/9/2008	--	ND<1200	--	--	--	--	--	--	--	--	
12/30/2008	--	ND<1200	--	--	--	--	--	--	--	--	
9/28/2009	--	ND<1200	--	--	--	--	--	--	--	--	
12/15/2009	--	ND<1200	--	--	--	--	--	--	--	--	
6/28/2010	--	ND<250	ND<0.50	--	ND<0.50	--	--	--	--	--	
12/29/2010	ND<10	ND<250	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	

ARCADIS

Attachment C

Laboratory Report and Chain-of-Custody Documentation



Date of Report: 12/27/2013

Kathy Brandt

Arcadis

2000 Powell Street 7th Floor
Emeryville, CA 94608

Project: 0746
BC Work Order: 1327382
Invoice ID: B163129

Enclosed are the results of analyses for samples received by the laboratory on 12/16/2013. 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; AK UST101



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13-27-382

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

Union Oil Consultant: ARCADIS

Union Oil Site ID: 0746
 Site Global ID: 1060010147
 Site Address: 3943 BROADWAY OAKLAND, CA
 Union Oil PM: TIMOTHY L. BISHOP
 Union Oil PM Phone No.: (925) 790-4463
 Charge Code: NWRB-0 357647-0-LAB
 This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.

Union Oil Consultant: ARCADIS
 Consultant Contact: KATHERINE BRANDT
 Consultant Phone No.: (925) 946-9675
 Sampling Company: GETTLER-RYAN INC
 Sampled By (PRINT): GILBERT MEDINA
 Sampler Signatures: *G. Medina*
 BC Laboratories, Inc.
 Project Manager: Molly Meyers
 4100 Atlas Court, Bakersfield, CA 93308
 Phone No. 661-327-4911

Field Point Name	Matrix	DTW	Date (yyymmdd)	Sample Time	# of Containers	ANALYSES REQUIRED						Notes / Comments
						TPH - Diesel by EPA 8015	TPH - G by GC/MS	BTEX/MTBE by EPA 8260B	Ethanol by EPA 8260B / EDB/EDC (260)	EPA 8260B Full List with OXYS	TPH - G20 (C6-12) (8015B)	
-1 QA	W-S-A		131213		2	X	X	X	X	X		
-2 MW-1	W-S-A			0705	6	X	X	X	X	X		
-3 MW-2	W-S-A			1225		X	X	X	X	X		
-4 MW-3	W-S-A			1310		X	X	X	X	X		
-5 MW-4	W-S-A			0835		X	X	X	X	X		
-6 MW-6	W-S-A			0620		X	X	X	X	X		
-7 MW-7	W-S-A			0750		X	X	X	X	X		
-8 MW-10	W-S-A			1135		X	X	X	X	X		
-9 MW-11	W-S-A			1045		X	X	X	X	X		
-10 MW-12	W-S-A			1000		X	X	X	X	X		
-11 RW-1	W-S-A			1320		X	X	X	X	X		

Relinquished By: *P. Mohr* Company: GETTLER-RYAN INC Date / Time: 12/14/13 1600
 Received By: *Henry Berger* Company: BELAB 12-16-13 1530
 Relinquished By: *Henry Berger* Company: BELAB 12-16-13 1530
 Received By: *Henry Berger* Company: BELAB 12-16-13 1815

Stamp: SHIP BY DISTRIBUTION [Signature] SUB-OUT

REC- KO- 2330 12.16.13 2330

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.



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 1 of 2

Submission #: 13-27382

SHIPPING INFORMATION
 Federal Express UPS Hand Delivery
 BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER
 Ice Chest None Box
 Other (Specify) _____

FREE LIQUID
 YES NO

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals Ice Chest Containers None Comments: _____
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received
 YES NO

Emissivity: 0.97 Container: Vacus Thermometer ID: 207 Date/Time: 12/16/13 2370
 Temperature: (A) 0.9 °C / (C) 0.8 °C Analyst Init: JF

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
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										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A(2)									
40ml VOA VIAL	A(6)	A(6)	A(6)	A(6)	A(6)	A(6)	A(6)	A(6)	A(6)	A(6)
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										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: _____
 Sample Numbering Completed By: JFW Date/Time: 12/17/13 @ 0710
 A = Actual / C = Corrected [S:\MyDOCS\WordPerfect\LAB_DOCS\FORMS\SAMREC15]



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 2 Of 2

Submission #: 13-27382

SHIPPING INFORMATION
Federal Express [] UPS [] Hand Delivery
BC Lab Field Service [X] Other [] (Specify)

SHIPPING CONTAINER
Ice Chest [X] None [] Box []
Other [] (Specify)

FREE LIQUID
YES [] NO [X]

Refrigerant: Ice [] Blue Ice [X] None [] Other [] Comments:

Custody Seals Ice Chest [] Containers [] None [X] Comments:
Intact? Yes [] No [] Intact? Yes [] No []

All samples received? Yes [X] No [] All samples containers intact? Yes [X] No [] Description(s) match COC? Yes [X] No []

COC Received YES [X] NO []
Emissivity 0.97 Container: Vacus Thermometer ID: 207
Temperature: (A) 0.9 °C (C) 0.8 °C
Date/Time 12/16/13 2330
Analyst Init JF

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various sample types like QT GENERAL MINERAL, PT PE UNPRESERVED, etc.

Comments:
Sample Numbering Completed By: [Signature] Date/Time: 12/17/13 @ 0710

rs-1MvDNCsIWordPerfect(LAB DOCS\FORMS\SAMREC15)



Arcadis
2000 Powell Street 7th Floor
Emeryville, CA 94608

Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1327382-01	COC Number: --- Project Number: 0746 Sampling Location: --- Sampling Point: QA-W-131213 Sampled By: GRD	Receive Date: 12/16/2013 23:30 Sampling Date: 12/13/2013 00:00 Sample Depth: --- Lab Matrix: Water Sample Type: Trip Blank Delivery Work Order: Global ID: T0600101471 Location ID (FieldPoint): QA Matrix: W Sample QC Type (SACode): CS Cooler ID:
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1327382-02	COC Number: --- Project Number: 0746 Sampling Location: --- Sampling Point: MW-1-W-131213 Sampled By: GRD	Receive Date: 12/16/2013 23:30 Sampling Date: 12/13/2013 07:05 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101471 Location ID (FieldPoint): MW-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

1327382-03	COC Number: --- Project Number: 0746 Sampling Location: --- Sampling Point: MW-2-W-131213 Sampled By: GRD	Receive Date: 12/16/2013 23:30 Sampling Date: 12/13/2013 12:25 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101471 Location ID (FieldPoint): MW-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--



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Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1327382-04	COC Number: --- Project Number: 0746 Sampling Location: --- Sampling Point: MW-3-W-131213 Sampled By: GRD	Receive Date: 12/16/2013 23:30 Sampling Date: 12/13/2013 13:10 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101471 Location ID (FieldPoint): MW-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

1327382-05	COC Number: --- Project Number: 0746 Sampling Location: --- Sampling Point: MW-4-W-131213 Sampled By: GRD	Receive Date: 12/16/2013 23:30 Sampling Date: 12/13/2013 08:35 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101471 Location ID (FieldPoint): MW-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

1327382-06	COC Number: --- Project Number: 0746 Sampling Location: --- Sampling Point: MW-6-W-131213 Sampled By: GRD	Receive Date: 12/16/2013 23:30 Sampling Date: 12/13/2013 06:20 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101471 Location ID (FieldPoint): MW-6 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--



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Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1327382-07	COC Number: --- Project Number: 0746 Sampling Location: --- Sampling Point: MW-7-W-131213 Sampled By: GRD	Receive Date: 12/16/2013 23:30 Sampling Date: 12/13/2013 07:50 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101471 Location ID (FieldPoint): MW-7 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

1327382-08	COC Number: --- Project Number: 0746 Sampling Location: --- Sampling Point: MW-10-W-131213 Sampled By: GRD	Receive Date: 12/16/2013 23:30 Sampling Date: 12/13/2013 11:35 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101471 Location ID (FieldPoint): MW-10 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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1327382-09	COC Number: --- Project Number: 0746 Sampling Location: --- Sampling Point: MW-11-W-131213 Sampled By: GRD	Receive Date: 12/16/2013 23:30 Sampling Date: 12/13/2013 10:45 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101471 Location ID (FieldPoint): MW-11 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1327382-10	COC Number: --- Project Number: 0746 Sampling Location: --- Sampling Point: MW-12-W-131213 Sampled By: GRD	Receive Date: 12/16/2013 23:30 Sampling Date: 12/13/2013 10:00 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101471 Location ID (FieldPoint): MW-12 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

1327382-11	COC Number: --- Project Number: 0746 Sampling Location: --- Sampling Point: RW-1-W-131213 Sampled By: GRD	Receive Date: 12/16/2013 23:30 Sampling Date: 12/13/2013 13:20 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101471 Location ID (FieldPoint): RW-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Arcadis
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Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327382-01	Client Sample Name: 0746, QA-W-131213, 12/13/2013 12:00:00AM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	114	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	96.7	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.6	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	12/24/13	12/24/13 17:04	EAR	MS-V10	1	BWL1783



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Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1327382-01	Client Sample Name: 0746, QA-W-131213, 12/13/2013 12:00:00AM
----------------------------------	---

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)	106	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	12/24/13	12/24/13 13:32	jjh	GC-V9	1	BWL1809



Arcadis
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Emeryville, CA 94608

Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327382-02	Client Sample Name: 0746, MW-1-W-131213, 12/13/2013 7:05:00AM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	110	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	12/23/13	12/24/13 05:11	EAR	MS-V10	1	BWL1783



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Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1327382-02	Client Sample Name: 0746, MW-1-W-131213, 12/13/2013 7:05:00AM
----------------------------------	--

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)	108	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	12/24/13	12/24/13 13:52	jjh	GC-V9	1	BWL1809

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Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327382-03	Client Sample Name: 0746, MW-2-W-131213, 12/13/2013 12:25:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	1.1	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	3.1	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	98.2	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	103	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-8260B	12/23/13	12/24/13	05:29	EAR	MS-V10	1	BWL1783



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Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1327382-03	Client Sample Name: 0746, MW-2-W-131213, 12/13/2013 12:25:00PM
----------------------------------	---

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)	107	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	12/24/13	12/24/13 14:12	jjh	GC-V9	1	BWL1809

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Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327382-04	Client Sample Name: 0746, MW-3-W-131213, 12/13/2013 1:10:00PM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	23	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	6.0	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	4.2	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	99.0	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	104	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-8260B	12/23/13	12/24/13	05:47	EAR	MS-V10	1	BWL1783



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Emeryville, CA 94608

Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1327382-04	Client Sample Name: 0746, MW-3-W-131213, 12/13/2013 1:10:00PM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	1100	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	187	%	70 - 130 (LCL - UCL)	EPA-8015B		A19,S09	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	12/24/13	12/24/13 14:32	jjh	GC-V9	1	BWL1809



Arcadis
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Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327382-05	Client Sample Name: 0746, MW-4-W-131213, 12/13/2013 8:35:00AM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	2.1	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	3.2	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	97.1	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	104	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	12/23/13	12/24/13 06:06	EAR	MS-V10	1	BWL1783



Arcadis
2000 Powell Street 7th Floor
Emeryville, CA 94608

Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1327382-05	Client Sample Name: 0746, MW-4-W-131213, 12/13/2013 8:35:00AM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	3200	ug/L	500	EPA-8015B	ND	A01	1
a,a,a-Trifluorotoluene (FID Surrogate)	117	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	12/24/13	12/27/13 13:42	jjh	GC-V9	10	BWL1809

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Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327382-06	Client Sample Name: 0746, MW-6-W-131213, 12/13/2013 6:20:00AM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	95.9	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-8260B	12/23/13	12/24/13 06:24	EAR	MS-V10	1	BWL1783



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Emeryville, CA 94608

Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1327382-06	Client Sample Name: 0746, MW-6-W-131213, 12/13/2013 6:20:00AM
----------------------------------	--

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)	105	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	12/24/13	12/24/13 15:12	jjh	GC-V9	1	BWL1809



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Emeryville, CA 94608

Reported: 12/27/2013 15:34
Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327382-07	Client Sample Name: 0746, MW-7-W-131213, 12/13/2013 7:50:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	95.5	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.5	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-8260B	12/23/13	12/24/13	06:42	EAR	MS-V10	1	BWL1783



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Project: 0746
Project Number: 351647
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1327382-07	Client Sample Name: 0746, MW-7-W-131213, 12/13/2013 7:50:00AM
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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)	107	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	12/24/13	12/24/13 15:32	jjh	GC-V9	1	BWL1809



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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327382-08	Client Sample Name: 0746, MW-10-W-131213, 12/13/2013 11:35:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	0.92	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	99.2	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	12/23/13	12/24/13 07:00	EAR	MS-V10	1	BWL1783



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Project: 0746
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Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1327382-08	Client Sample Name: 0746, MW-10-W-131213, 12/13/2013 11:35:00AM
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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)	107	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	12/24/13	12/24/13 15:52	jjh	GC-V9	1	BWL1809

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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327382-09	Client Sample Name: 0746, MW-11-W-131213, 12/13/2013 10:45:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	12/23/13	12/24/13 07:19	EAR	MS-V10	1	BWL1783



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Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1327382-09	Client Sample Name: 0746, MW-11-W-131213, 12/13/2013 10:45:00AM
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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)	94.0	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	12/25/13	12/26/13 01:02	jjh	GC-V9	1	BWL1854



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Project Number: 351647
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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327382-10	Client Sample Name: 0746, MW-12-W-131213, 12/13/2013 10:00:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	98.2	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-8260B	12/23/13	12/24/13 07:37	EAR	MS-V10	1	BWL1783



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Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1327382-10	Client Sample Name: 0746, MW-12-W-131213, 12/13/2013 10:00:00AM
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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)	95.1	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	12/25/13	12/26/13 01:22	jjh	GC-V9	1	BWL1854



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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327382-11	Client Sample Name: 0746, RW-1-W-131213, 12/13/2013 1:20:00PM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	0.81	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	86.8	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.5	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-8260B	12/24/13	12/24/13	18:00	EAR	MS-V10	1	BWL1783



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Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1327382-11	Client Sample Name: 0746, RW-1-W-131213, 12/13/2013 1:20:00PM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	150	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	104	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	12/25/13	12/26/13 01:43	jjh	GC-V9	1	BWL1854

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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
QC Batch ID: BWL1783						
Benzene	BWL1783-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BWL1783-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BWL1783-BLK1	ND	ug/L	0.50		
Ethylbenzene	BWL1783-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BWL1783-BLK1	ND	ug/L	0.50		
Toluene	BWL1783-BLK1	ND	ug/L	0.50		
Total Xylenes	BWL1783-BLK1	ND	ug/L	1.0		
Ethanol	BWL1783-BLK1	ND	ug/L	250		
1,2-Dichloroethane-d4 (Surrogate)	BWL1783-BLK1	101	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BWL1783-BLK1	99.7	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BWL1783-BLK1	98.8	%	80 - 120 (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	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
QC Batch ID: BWL1783											
Benzene	BWL1783-BS1	LCS	26.120	25.000	ug/L	104		70 - 130			
Toluene	BWL1783-BS1	LCS	26.200	25.000	ug/L	105		70 - 130			
1,2-Dichloroethane-d4 (Surrogate)	BWL1783-BS1	LCS	10.610	10.000	ug/L	106		75 - 125			
Toluene-d8 (Surrogate)	BWL1783-BS1	LCS	10.150	10.000	ug/L	102		80 - 120			
4-Bromofluorobenzene (Surrogate)	BWL1783-BS1	LCS	10.390	10.000	ug/L	104		80 - 120			



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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		Lab Quals
								Percent Recovery	Percent Recovery	
QC Batch ID: BWL1783		Used client sample: N								
Benzene	MS	1325870-48	ND	26.780	25.000	ug/L		107		70 - 130
	MSD	1325870-48	ND	24.040	25.000	ug/L	10.8	96.2	20	70 - 130
Toluene	MS	1325870-48	ND	27.110	25.000	ug/L		108		70 - 130
	MSD	1325870-48	ND	24.430	25.000	ug/L	10.4	97.7	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1325870-48	ND	10.720	10.000	ug/L		107		75 - 125
	MSD	1325870-48	ND	10.780	10.000	ug/L	0.6	108		75 - 125
Toluene-d8 (Surrogate)	MS	1325870-48	ND	10.280	10.000	ug/L		103		80 - 120
	MSD	1325870-48	ND	9.8700	10.000	ug/L	4.1	98.7		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1325870-48	ND	9.9400	10.000	ug/L		99.4		80 - 120
	MSD	1325870-48	ND	9.8700	10.000	ug/L	0.7	98.7		80 - 120

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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
QC Batch ID: BWL1809						
Gasoline Range Organics (C6 - C12)	BWL1809-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BWL1809-BLK1	99.6	%	70 - 130 (LCL - UCL)		
QC Batch ID: BWL1854						
Gasoline Range Organics (C6 - C12)	BWL1854-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BWL1854-BLK1	92.3	%	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	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
QC Batch ID: BWL1809											
Gasoline Range Organics (C6 - C12)	BWL1809-BS1	LCS	1070.1	1000.0	ug/L	107		85 - 115			
a,a,a-Trifluorotoluene (FID Surrogate)	BWL1809-BS1	LCS	37.849	40.000	ug/L	94.6		70 - 130			
QC Batch ID: BWL1854											
Gasoline Range Organics (C6 - C12)	BWL1854-BS1	LCS	1131.0	1000.0	ug/L	113		85 - 115			
a,a,a-Trifluorotoluene (FID Surrogate)	BWL1854-BS1	LCS	37.552	40.000	ug/L	93.9		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		Lab Quals
								Percent Recovery	Percent Recovery	
QC Batch ID: BWL1809		Used client sample: N								
Gasoline Range Organics (C6 - C12)	MS	1325870-50	ND	1045.7	1000.0	ug/L		105		70 - 130
	MSD	1325870-50	ND	1122.1	1000.0	ug/L	7.1	112	20	70 - 130
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1325870-50	ND	39.293	40.000	ug/L		98.2		70 - 130
	MSD	1325870-50	ND	38.492	40.000	ug/L	2.1	96.2		70 - 130
QC Batch ID: BWL1854		Used client sample: N								
Gasoline Range Organics (C6 - C12)	MS	1325870-49	ND	1116.6	1000.0	ug/L		112		70 - 130
	MSD	1325870-49	ND	1130.8	1000.0	ug/L	1.3	113	20	70 - 130
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1325870-49	ND	37.981	40.000	ug/L		95.0		70 - 130
	MSD	1325870-49	ND	38.071	40.000	ug/L	0.2	95.2		70 - 130



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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.
- A19 Surrogate is high due to matrix interference. Interferences verified through second extraction/analysis.
- S09 The surrogate recovery on the sample for this compound was not within the control limits.