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By Alameda County Environmental Health at 10:38 am, Oct 21, 2014

**Mike Bauer**  
Project Manager  
Marketing Business Unit

**Chevron Environmental  
Management Company**  
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Brea, CA 92821  
Tel (714) 671-3200  
Fax (714) 671-3440  
mbauer@chevron.com

October 15, 2014

Mr. Jerry Wickham  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: Former Signal Oil Marine Storage and Distribution Facility  
(Former Chevron Bulk Plant 206127)  
2301-2311 Blanding Avenue  
Alameda, California  
LOP Case RO0002466

Dear Mr. Wickham:

The purpose of this letter is to verify that as a representative for Chevron Environmental Management Company (Chevron), I reviewed, and concur with, the comments in the *Second Semi-Annual 2014 Groundwater Monitoring and Sampling Report* for the referenced facility, prepared on behalf of Chevron by Conestoga-Rovers & Associates. I declare under penalty of perjury that the foregoing is true and correct.

Please feel free to contact me at (714) 671-3207 if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Mike Bauer".

---

Mike Bauer  
Project Manager



**CONESTOGA-ROVERS  
& ASSOCIATES**

10969 Trade Center Drive  
Rancho Cordova, California 95670  
Telephone: (916) 889-8900 Fax: (916) 889-8999  
<http://www.craworld.com>

October 15, 2014

Reference No. 631916

Mr. Jerry Wickham  
Alameda County Environmental Health (ACEH)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: Second Semi-Annual 2014  
Groundwater Monitoring and Sampling Report  
Former Signal Oil Marine Storage and Distribution Facility  
(Chevron Bulk Plant 206127)  
2301-2311 Blanding Avenue  
Alameda, California  
ACEH Case RO0002466

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Dear Mr. Wickham:

Conestoga-Rovers & Associates (CRA) is submitting this *Second Semi-Annual 2014 Groundwater Monitoring and Sampling Report* for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company. Groundwater monitoring and sampling was performed by Gettler-Ryan Inc. (G-R) of Dublin, California. G-R's *Groundwater Monitoring and Sampling Data Package* is included as Attachment A. Current groundwater monitoring and sampling data are presented in Table 1 and shown on Figures 2 through 5. Well construction specifications are summarized in Table 2. Eurofins Lancaster Laboratory Environmental LLCs' *Analytical Results* report is included as Attachment B. Historical groundwater monitoring and sampling data are included as Attachment C.

## **RESULTS OF SECOND SEMI-ANNUAL 2014 EVENT**

On July 25, 2014, G-R monitored and sampled site wells per the established schedule. Results of the current monitoring event indicate the following:

- Groundwater Flow Direction Northeast
- Hydraulic Gradient 0.02
- Approximate Depth to Water 3 to 10 feet below grade

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Results of the current sampling event are presented below in Table A.

<b>TABLE A - GROUNDWATER ANALYTICAL DATA</b>						
<i>Well ID</i>	<i>TPHd<sup>1</sup></i> ( <i>µg/L</i> )	<i>TPHg</i> ( <i>µg/L</i> )	<i>Benzene</i> ( <i>µg/L</i> )	<i>Toluene</i> ( <i>µg/L</i> )	<i>Ethylbenzene</i> ( <i>µg/L</i> )	<i>Total Xylenes</i> ( <i>µg/L</i> )
<i>ESLs</i>	100	100	1	40	30	20
MW-1RA	<b>2,500/390<sup>1</sup></b>	<b>1,100</b>	<b>17</b>	<0.5	<0.5	<0.5
MW-1RB	<b>2,300/57<sup>1</sup></b>	<b>270</b>	1	<0.5	<0.5	<0.5
MW-2	<50/<50 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5
MW-3	<b>1,700/&lt;50</b>	<b>120</b>	<0.5	<0.5	<0.5	<0.5
MW-4	<b>250/&lt;50</b>	<50	<0.5	<0.5	<0.5	<0.5
MW-5	<b>3,200/720</b>	<b>3,400</b>	<b>130</b>	9	2	14
MW-6	<b>1,500/&lt;50</b>	<b>460</b>	<b>12</b>	<0.5	<0.5	<0.5
ESL Environmental screening level						
<sup>1</sup> TPHd without and with 10-gram silica gel cleanup						
<b>Bold</b> Concentrations exceed their respective ESL						

## CONCLUSIONS AND RECOMMENDATIONS

Results of this current semi-annual monitoring and sampling are consistent with results from past monitoring events and indicate the following:

- The highest total petroleum hydrocarbons as diesel (TPHd), TPH as gasoline (TPHg), and benzene concentrations in groundwater are in the area of the former fuel pumps, and north of the former aboveground storage tanks (Figures 3 through 5).
- Analysis of TPHd using a 10-gram silica gel column cleanup (SGC) resulted in a significant reduction in dissolved TPHd concentrations as compared to samples analyzed without SGC. Only the samples from MW-1RA and MW-5 were above the TPHd ESL using SGC. This suggests that samples not analyzed using SGC contain polar non-hydrocarbons and/or non-dissolved petroleum components.
- Hydrocarbons are generally stable in site wells where concentrations are detected above groundwater ESLs.

CRA recommends continuing monitoring and sampling to verify concentration trends over time. CRA is currently awaiting ACEH comment on the November 30, 2012 *Piezometer Well Installation and Tidal Influence Study*, including a response to our request to suspend monitoring and sampling at the site.



**CONESTOGA-ROVERS  
& ASSOCIATES**

October 15, 2014

Reference No. 631916

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**ANTICIPATED FUTURE ACTIVITIES**

***Groundwater Monitoring***

G-R will monitor and sample site wells per the established semi-annual schedule. CRA will submit a groundwater monitoring and sampling report.

Please contact Brian Silva at (916) 889-8908 if you have any questions or require additional information.

Sincerely,

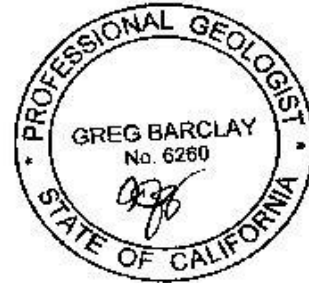
CONESTOGA-ROVERS & ASSOCIATES

A handwritten signature in black ink, appearing to be 'BS', written over a horizontal line.

Brian Silva

A handwritten signature in black ink, appearing to be 'Greg Barclay', written over a horizontal line.

Greg Barclay, PG 6260



BS/aa/33

Encl.



**CONESTOGA-ROVERS  
& ASSOCIATES**

October 15, 2014

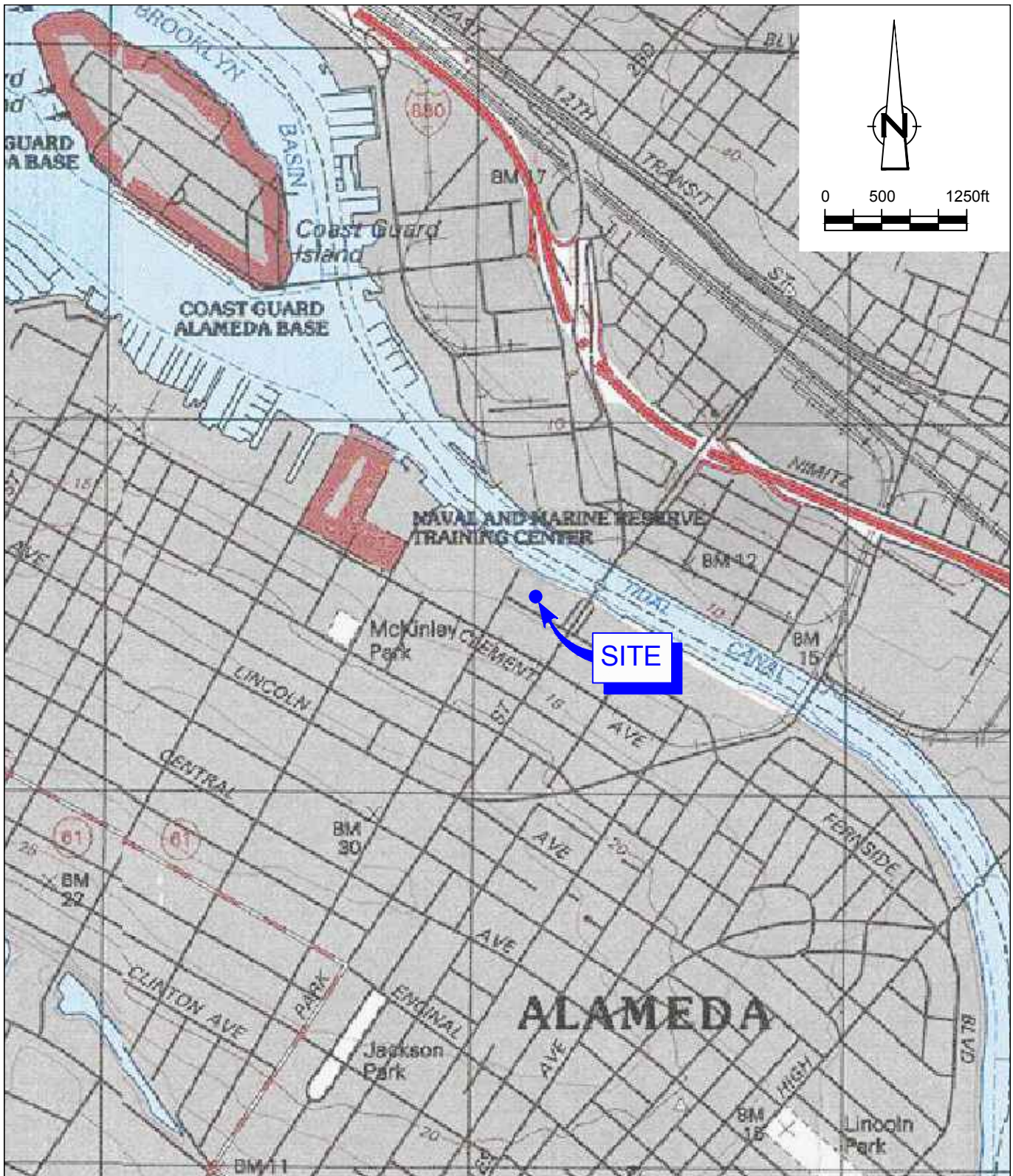
Reference No. 631916

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Figure 1	Vicinity Map
Figure 2	Groundwater Elevation Contour Map
Figure 3	TPHd Concentration Contour Map
Figure 4	TPHg Concentration Contour Map
Figure 5	Benzene Concentration Contour Map
Table 1	Groundwater Monitoring and Sampling Data
Table 2	Well Construction Specifications
Attachment A	Groundwater Monitoring and Sampling Data Package
Attachment B	Laboratory Analytical Report
Attachment C	Historical Groundwater Monitoring and Sampling Data

cc: Mr. Mike Bauer, Chevron (*electronic only*)  
Ms. Julie Beck Ball  
Mr. Peter Reinhold Beck  
Mr. Monroe Wingate  
Ms. Amanda Monroe

## FIGURES

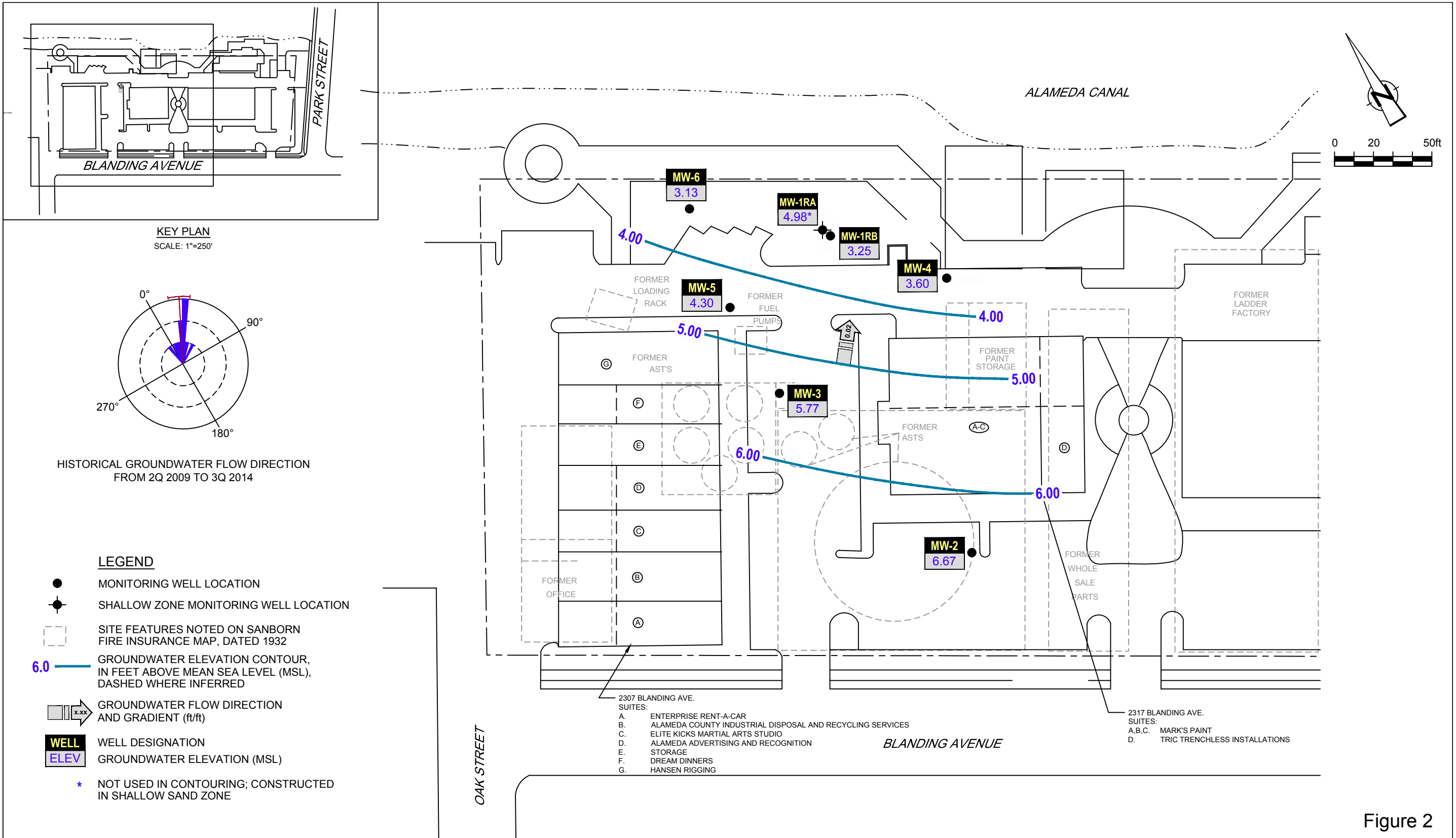


SOURCE: TOPOI MAPS.

Figure 1

VICINITY MAP  
 FORMER SIGNAL OIL MARINE STORAGE AND DISTRIBUTION FACILITY  
 (CHEVRON FACILITY 206127)  
 2301-2311 BLANDING AVENUE  
 Alameda, California

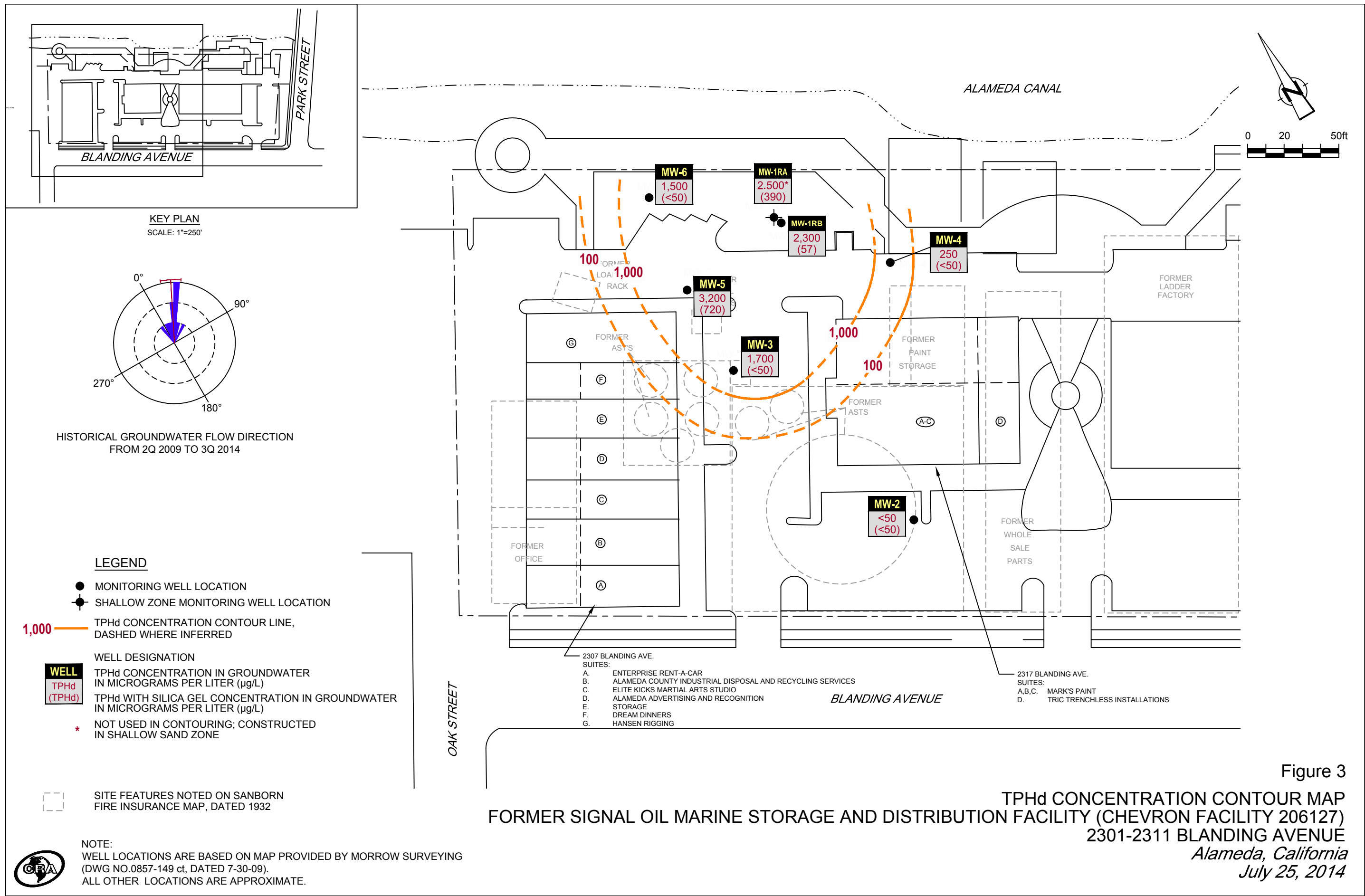




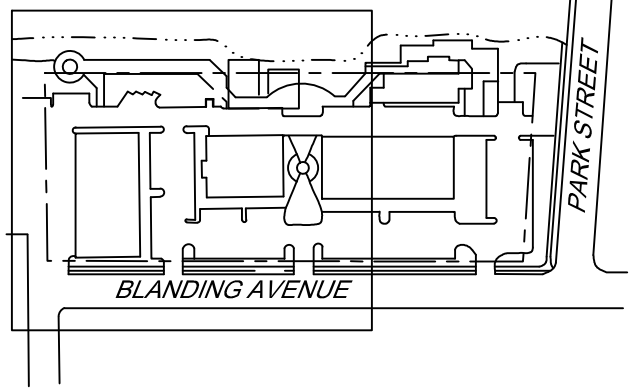
**Figure 2**  
**GROUNDWATER ELEVATION CONTOUR MAP**  
**FORMER SIGNAL OIL MARINE STORAGE AND DISTRIBUTION FACILITY (CHEVRON FACILITY 206127)**  
**2301-2311 BLANDING AVENUE**  
*Alameda, California*  
*July 25, 2014*

NOTE:  
WELL LOCATIONS ARE BASED ON MAP PROVIDED BY MORROW SURVEYING (DWG NO.0857-149 ct, DATED 7-30-09). ALL OTHER LOCATIONS ARE APPROXIMATE.

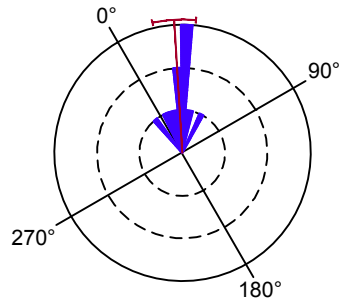




**Figure 3**  
**TPHd CONCENTRATION CONTOUR MAP**  
**FORMER SIGNAL OIL MARINE STORAGE AND DISTRIBUTION FACILITY (CHEVRON FACILITY 206127)**  
**2301-2311 BLANDING AVENUE**  
*Alameda, California*  
*July 25, 2014*

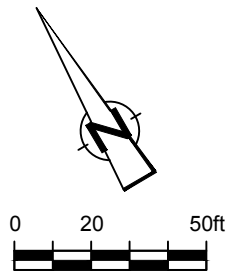
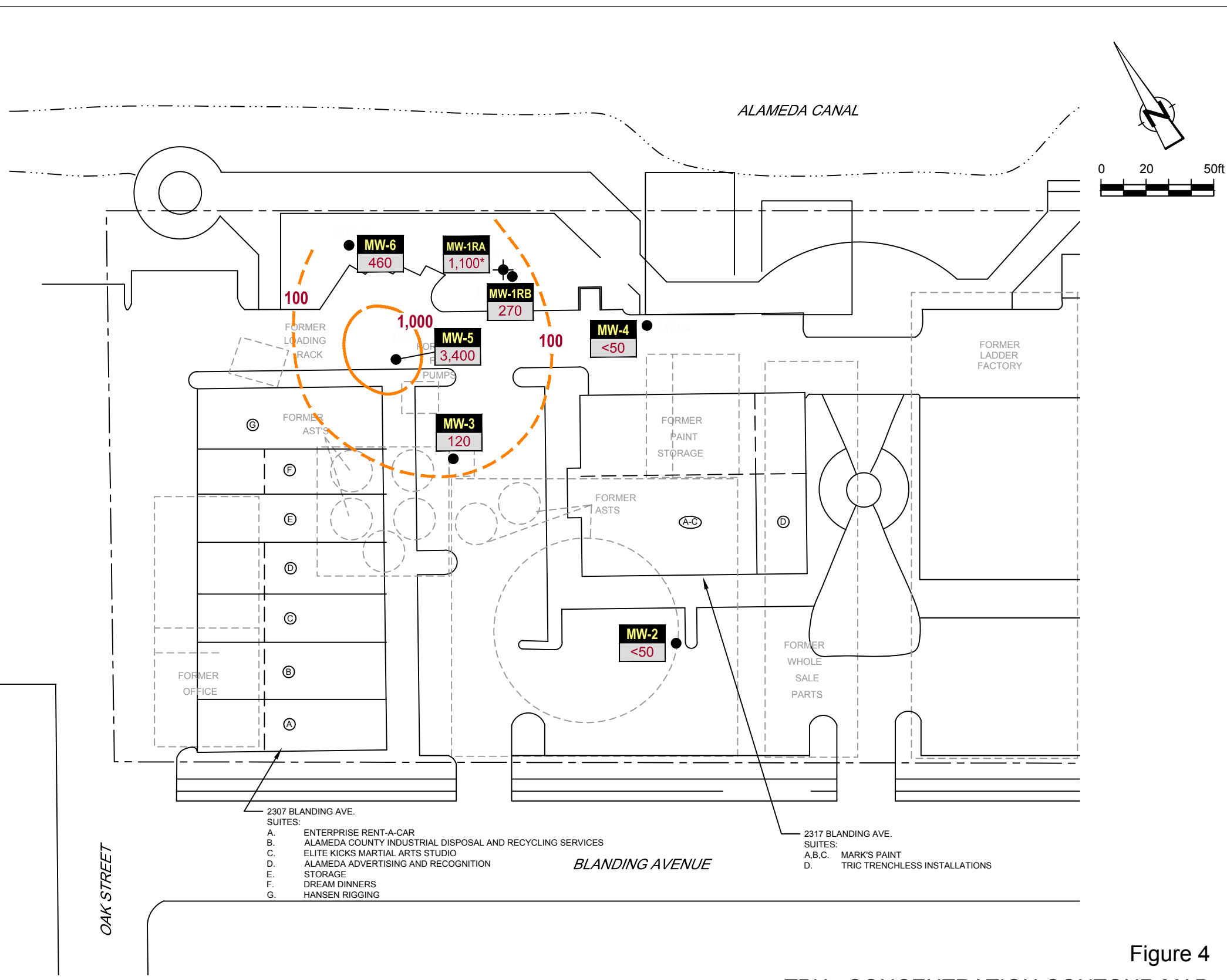


**KEY PLAN**  
SCALE: 1"=250'



HISTORICAL GROUNDWATER FLOW DIRECTION  
FROM 2Q 2009 TO 3Q 2014

- LEGEND**
- MONITORING WELL LOCATION
  - SHALLOW ZONE MONITORING WELL LOCATION
  - 100 ———— TPHg CONCENTRATION CONTOUR LINE, DASHED WHERE INFERRED
  - WELL**  
TPHg CONCENTRATION IN GROUNDWATER IN MICROGRAMS PER LITER (µg/L)
  - \* NOT USED IN CONTOURING; CONSTRUCTED IN SHALLOW SAND ZONE
  - SITE FEATURES NOTED ON SANBORN FIRE INSURANCE MAP, DATED 1932



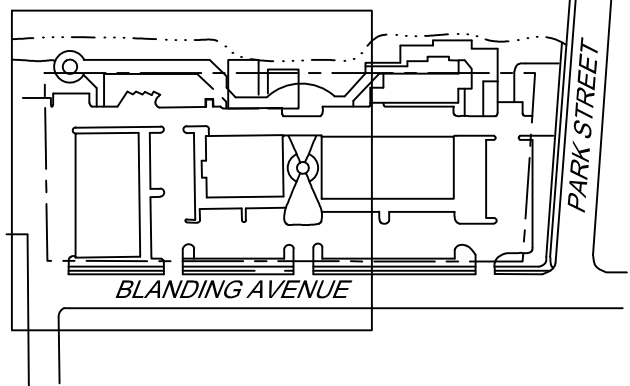
- 2307 BLANDING AVE. SUITES:
- A. ENTERPRISE RENT-A-CAR
  - B. ALAMEDA COUNTY INDUSTRIAL DISPOSAL AND RECYCLING SERVICES
  - C. ELITE KICKS MARTIAL ARTS STUDIO
  - D. ALAMEDA ADVERTISING AND RECOGNITION
  - E. STORAGE
  - F. DREAM DINNERS
  - G. HANSEN RIGGING

- 2317 BLANDING AVE. SUITES:
- A,B,C. MARK'S PAINT
  - D. TRIC TRENCHLESS INSTALLATIONS

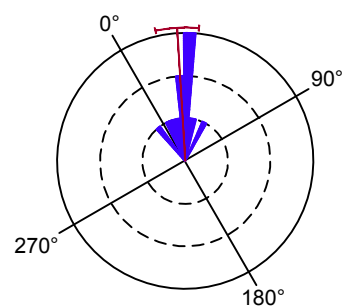
**Figure 4**  
**TPHg CONCENTRATION CONTOUR MAP**  
**FORMER SIGNAL OIL MARINE STORAGE AND DISTRIBUTION FACILITY (CHEVRON FACILITY 206127)**  
**2301-2311 BLANDING AVENUE**  
*Alameda, California*  
*July 25, 2014*

NOTE:  
WELL LOCATIONS ARE BASED ON MAP PROVIDED BY MORROW SURVEYING (DWG NO.0857-149 ct, DATED 7-30-09).  
ALL OTHER LOCATIONS ARE APPROXIMATE.





**KEY PLAN**  
SCALE: 1"=250'

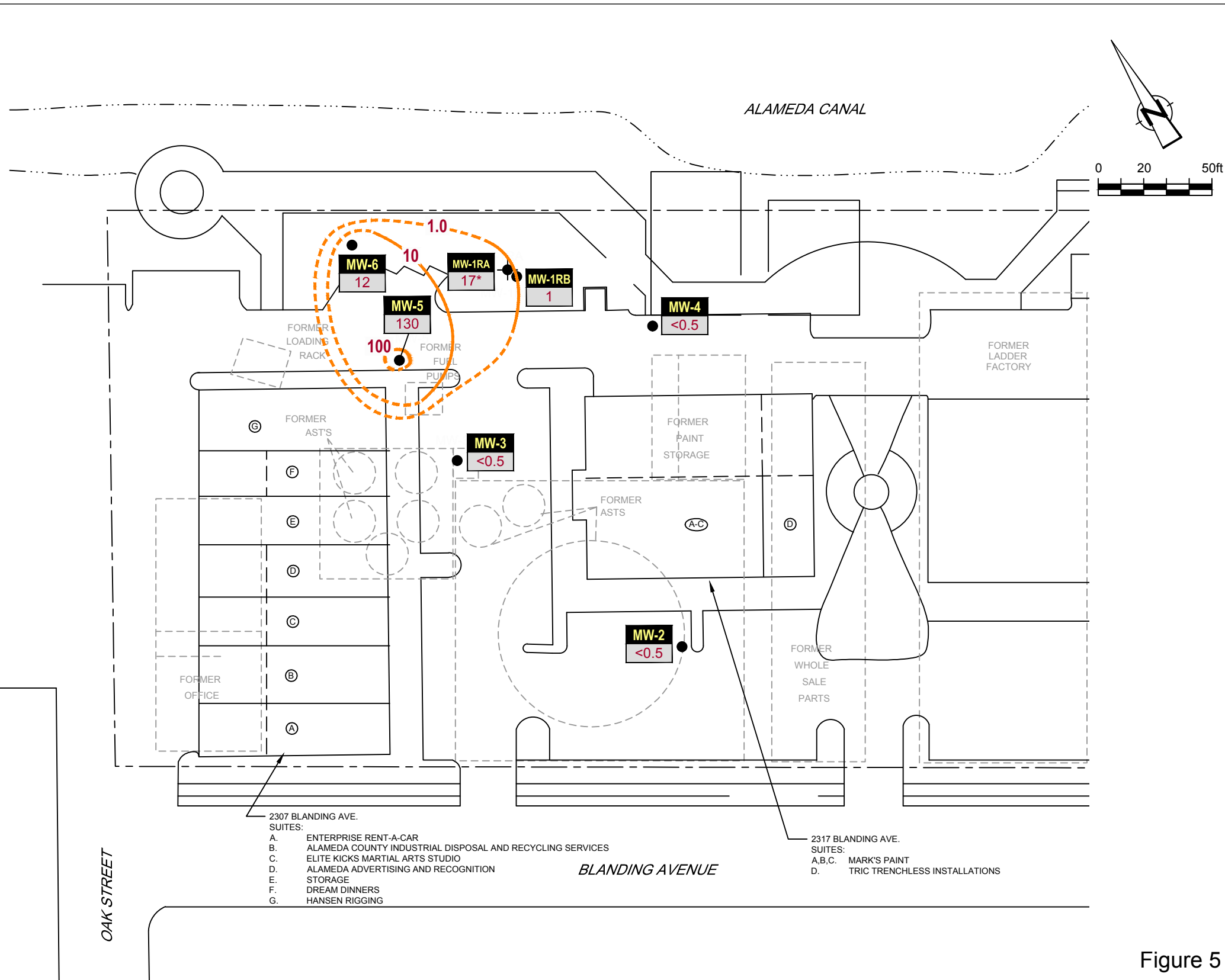


HISTORICAL GROUNDWATER FLOW DIRECTION  
FROM 2Q 2009 TO 3Q 2014

**LEGEND**

- MONITORING WELL LOCATION
- ⊕ SHALLOW ZONE MONITORING WELL LOCATION
- 10 — BENZENE CONCENTRATION CONTOUR LINE, DASHED WHERE INFERRED
- WELL**  
**BENZ** WELL DESIGNATION
- BENZ** BENZENE CONCENTRATION IN GROUNDWATER IN MICROGRAMS PER LITER (µg/L)
- \* NOT USED IN CONTOURING; CONSTRUCTED IN SHALLOW SAND ZONE
- SITE FEATURES NOTED ON SANBORN FIRE INSURANCE MAP, DATED 1932

NOTE:  
WELL LOCATIONS ARE BASED ON MAP PROVIDED BY MORROW SURVEYING (DWG NO.0857-149 ct, DATED 7-30-09).  
ALL OTHER LOCATIONS ARE APPROXIMATE.



- 2307 BLANDING AVE. SUITES:
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  - D. ALAMEDA ADVERTISING AND RECOGNITION
  - E. STORAGE
  - F. DREAM DINNERS
  - G. HANSEN RIGGING

- 2317 BLANDING AVE. SUITES:
- A,B,C. MARK'S PAINT
  - D. TRIC TRENCHLESS INSTALLATIONS

Figure 5  
**BENZENE CONCENTRATION CONTOUR MAP**  
**FORMER SIGNAL OIL MARINE STORAGE AND DISTRIBUTION FACILITY (CHEVRON FACILITY 206127)**  
**2301-2311 BLANDING AVENUE**  
*Alameda, California*  
*July 25, 2014*

## TABLES

TABLE 1

**GROUNDWATER MONITORING AND SAMPLING DATA  
FORMER SIGNAL OIL MARINE STORAGE AND DISTRIBUTION FACILITY  
CHEVRON BULK PLANT 206127  
2301-2311 BLANDING AVENUE  
ALAMEDA, CALIFORNIA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS				
					TPH-DRO	TPH-DRO w/ St Gel	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1	07/21/2010	13.49	9.47	4.02	440	-	65 J	<0.5	<0.5	<0.5	<0.5	<0.5
MW-1	10/22/2010 <sup>1</sup>	13.49	-	-	-	-	-	-	-	-	-	-
MW-1RA	10/28/2010	13.02	9.23	3.79	-	4,000	6,400	830	22	65	20	-
MW-1RA	01/14/2011	13.02	7.20	5.82	-	1,500	790	160	2	1	1	-
MW-1RA	04/19/2011	13.02	7.42	5.60	-	3,000	3,800	600	9	18	9	-
MW-1RA	06/30/2011	13.02	7.51	5.51	-	3,700	6,800	780	13	36	13	-
MW-1RA	10/14/2011	13.02	7.96	5.06	6,900	360	6,800	1,300	19	51	14	-
MW-1RA	01/18/2012	13.02	7.34	5.68	4,300	1,400	6,400	1,300	17	38	12	-
MW-1RA	04/19/2012	13.02	5.23	7.79	3,700	400	3,100	120	<5	<5	<5	-
MW-1RA	07/23/2012	13.02	7.92	5.10	6,000	1,000	-	-	-	-	-	-
MW-1RA	07/27/2012 <sup>4</sup>	13.02	8.50	4.52	-	-	4,800	640	9	20	7	-
MW-1RA	01/19/2013	13.02	7.30	5.72	3,000	270	1,500	180	<5	<5	<5	-
MW-1RA	07/15/2013	13.02	8.09	4.93	4,200	630	3,700	430	8	5	2	-
MW-1RA	01/09/2014	13.02	7.05	5.97	3,300	150	910	130	2	3	4	-
<b>MW-1RA</b>	<b>07/25/2014</b>	<b>13.02</b>	<b>8.04</b>	<b>4.98</b>	<b>2,500</b>	<b>390</b>	<b>1,100</b>	<b>17</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	-
MW-1RB	10/28/2010	13.21	9.00	4.21	-	1,600	650	3	<0.5	0.8	<0.5	-
MW-1RB	01/14/2011	13.21	10.97	2.24	-	960	150	1	<0.5	<0.5	<0.5	-
MW-1RB	04/19/2011	13.21	12.11	1.10	-	1,200	190	6	<0.5	<0.5	<0.5	-
MW-1RB	06/30/2011	13.21	11.86	1.35	-	1,900	310	9	<0.5	<0.5	<0.5	-
MW-1RB	10/14/2011	13.21	12.14	1.07	4,000	57	300	15	<0.5	<0.5	<0.5	-
MW-1RB	01/18/2012	13.21	14.71	-1.50	2,400	260	340	11	<0.5	<0.5	<0.5	-

TABLE 1

**GROUNDWATER MONITORING AND SAMPLING DATA  
FORMER SIGNAL OIL MARINE STORAGE AND DISTRIBUTION FACILITY  
CHEVRON BULK PLANT 206127  
2301-2311 BLANDING AVENUE  
ALAMEDA, CALIFORNIA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS				
					TPH-DRO	TPH-DRO w/ St Gel	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1RB	04/19/2012	13.21	8.33	4.88	2,800	53	180	1	<0.5	<0.5	<0.5	-
MW-1RB	07/23/2012	13.21	8.96	4.25	2,700	<50	-	-	-	-	-	-
MW-1RB	07/27/2012 <sup>4</sup>	13.21	8.45	4.76	-	-	990	89	1	0.8	0.7	-
MW-1RB	01/19/2013	13.21	8.65	4.56	2,000	62	200	2	<0.5	<0.5	<0.5	-
MW-1RB	07/15/2013	13.21	8.18	5.03	2,000	<50	230	<0.5	<0.5	<0.5	<0.5	-
MW-1RB	01/09/2014	13.21	7.78	5.43	1,400	<50	150	<0.5	<0.5	<0.5	<0.5	-
<b>MW-1RB</b>	<b>07/25/2014</b>	<b>13.21</b>	<b>9.96</b>	<b>3.25</b>	<b>2,300</b>	<b>57</b>	<b>270</b>	<b>1</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>-</b>
MW-2	07/21/2010	10.63	4.12	6.51	65 J	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-2	10/22/2010	10.63	4.31	6.32	-	58	<50	<0.5	<0.5	<0.5	<0.5	-
MW-2	10/28/2010 <sup>2</sup>	10.63	3.65	6.98	-	-	-	-	-	-	-	-
MW-2	01/14/2011	10.63	3.12	7.51	-	68	<50	<0.5	<0.5	<0.5	<0.5	-
MW-2	04/19/2011	10.63	3.51	7.12	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-
MW-2	06/30/2011	10.63	3.74	6.89	-	120	<50	<0.5	<0.5	<0.5	<0.5	-
MW-2	10/14/2011	10.63	3.52	7.11	160	<50	<50	<0.5	<0.5	<0.5	<0.5	-
MW-2	01/18/2012	10.63	3.85	6.78	140	<50	<50	<0.5	<0.5	<0.5	<0.5	-
MW-2	04/19/2012	10.63	3.16	7.47	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	-
MW-2	07/23/2012 <sup>3</sup>	10.63	-	-	-	-	-	-	-	-	-	-
MW-2	07/27/2012	10.63	3.40	7.23	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-2	01/19/2013	10.63	3.45	7.18	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	-
MW-2	07/15/2013	10.63	3.75	6.88	150	<50	<50	<0.5	<0.5	<0.5	<0.5	-
MW-2	01/09/2014 <sup>3</sup>	10.63	-	-	-	-	-	-	-	-	-	-
<b>MW-2</b>	<b>07/25/2014</b>	<b>10.63</b>	<b>3.96</b>	<b>6.67</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>-</b>

TABLE 1

**GROUNDWATER MONITORING AND SAMPLING DATA  
FORMER SIGNAL OIL MARINE STORAGE AND DISTRIBUTION FACILITY  
CHEVRON BULK PLANT 206127  
2301-2311 BLANDING AVENUE  
ALAMEDA, CALIFORNIA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS				
					TPH-DRO	TPH-DRO w/ St Gel	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-3	07/21/2010	10.72	5.09	5.63	640	-	65 J	0.6 J	<0.5	<0.5	<0.5	-
MW-3	10/22/2010	10.72	5.32	5.40	-	570	73	<0.5	<0.5	<0.5	<0.5	-
MW-3	10/28/2010 <sup>2</sup>	10.72	4.74	5.98	-	-	-	-	-	-	-	-
MW-3	01/14/2011	10.72	4.11	6.61	-	1,000	91	<0.5	<0.5	<0.5	<0.5	-
MW-3	04/19/2011	10.72	5.03	5.69	-	1,200	180	<0.5	<0.5	<0.5	<0.5	-
MW-3	06/30/2011	10.72	4.97	5.75	-	740	<50	<0.5	<0.5	<0.5	<0.5	-
MW-3	10/14/2011	10.72	4.52	6.20	1,800	<50	88	<0.5	<0.5	<0.5	<0.5	-
MW-3	01/18/2012	10.72	5.22	5.50	1,700	<50	<50	<0.5	<0.5	<0.5	<0.5	-
MW-3	04/19/2012	10.72	4.63	6.09	3,000	50	260	<0.5	<0.5	<0.5	<0.5	-
MW-3	07/23/2012	10.72	4.89	5.83	1,200	<50	-	-	-	-	-	-
MW-3	07/27/2012 <sup>4</sup>	10.72	4.58	6.14	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-3	01/19/2013	10.72	4.52	6.20	1,600	<50	69	<0.5	<0.5	<0.5	<0.5	-
MW-3	07/15/2013 <sup>3</sup>	10.72	4.54	6.18	1,500	<50	110	<0.5	<0.5	<0.5	<0.5	-
MW-3	01/09/2014	10.72	4.21	6.51	1,500	<50	<50	<0.5	<0.5	<0.5	<0.5	-
<b>MW-3</b>	<b>07/25/2014</b>	<b>10.72</b>	<b>4.95</b>	<b>5.77</b>	<b>1,700</b>	<b>&lt;50</b>	<b>120</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	-
MW-4	07/21/2010	11.40	6.72	4.68	<50	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-4	10/22/2010	11.40	6.87	4.53	-	91	<50	<0.5	<0.5	<0.5	<0.5	-
MW-4	10/28/2010 <sup>2</sup>	11.40	6.38	5.02	-	-	-	-	-	-	-	-
MW-4	01/14/2011	11.40	5.32	6.08	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-
MW-4	04/19/2011	11.40	7.65	3.75	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-
MW-4	06/30/2011	11.40	6.93	4.47	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-

TABLE 1

**GROUNDWATER MONITORING AND SAMPLING DATA  
FORMER SIGNAL OIL MARINE STORAGE AND DISTRIBUTION FACILITY  
CHEVRON BULK PLANT 206127  
2301-2311 BLANDING AVENUE  
ALAMEDA, CALIFORNIA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS					
					TPH-DRO	TPH-DRO w/ St Gel	TPH-GRO	B	T	E	X	MTBE by SW8260	
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-4	10/14/2011	11.40	5.66	5.74	440	<50	<50	<0.5	<0.5	<0.5	<0.5	-	
MW-4	01/18/2012	11.40	8.36	3.04	330	<50	<50	<0.5	<0.5	<0.5	<0.5	-	
MW-4	04/19/2012	11.40	6.40	5.00	360	<50	<50	<0.5	0.5	<0.5	<0.5	-	
MW-4	07/23/2012 <sup>3</sup>	11.40	-	-	-	-	-	-	-	-	-	-	
MW-4	07/27/2012	11.40	6.39	5.01	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	
MW-4	01/19/2013	11.40	6.78	4.62	380	<50	<50	<0.5	<0.5	<0.5	<0.5	-	
MW-4	07/15/2013	11.40	5.83	5.57	530	<50	<50	<0.5	<0.5	<0.5	<0.5	-	
MW-4	01/09/2014	11.40	5.19	6.21	240	<50	<50	<0.5	<0.5	<0.5	<0.5	-	
<b>MW-4</b>	<b>07/25/2014</b>	<b>11.40</b>	<b>7.80</b>	<b>3.60</b>	<b>250</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>-</b>	
MW-5	07/21/2010	10.50	5.76	4.74	2,000	-	1,500	80	2	1	2	-	
MW-5	10/22/2010	10.50	5.94	4.56	-	1,500	830	47	<0.5	1	<0.5	-	
MW-5	10/28/2010 <sup>2</sup>	10.50	5.17	5.33	-	-	-	-	-	-	-	-	
MW-5	01/14/2011	10.50	4.40	6.10	-	1,800	2,100	61	4	1	6	-	
MW-5	04/19/2011	10.50	5.69	4.81	-	2,000	2,200	73	4	1	6	-	
MW-5	06/30/2011	10.50	5.82	4.68	-	3,200	2,900	99	6	1	7	-	
MW-5	10/14/2011	10.50	4.51	5.99	4,600	89	2,300	76	5	1	5	-	
MW-5	01/18/2012	10.50	5.98	4.52	3,700	460	3,500	140	7	2	10	-	
MW-5	04/19/2012	10.50	5.40	5.10	3,600	310	2,000	87	5	1	5	-	
MW-5	07/23/2012	10.50	5.29	5.21	4,300	380	-	-	-	-	-	-	
MW-5	07/27/2012 <sup>4</sup>	10.50	5.08	5.42	-	-	1,800	48	3	0.7	4	-	
MW-5	01/19/2013	10.50	5.38	5.12	4,200	400	3,500	100	7	<5	7	-	
MW-5	07/15/2013	10.50	5.78	4.72	3,800	850	3,900	130	8	2	11	-	



TABLE 1

**GROUNDWATER MONITORING AND SAMPLING DATA  
FORMER SIGNAL OIL MARINE STORAGE AND DISTRIBUTION FACILITY  
CHEVRON BULK PLANT 206127  
2301-2311 BLANDING AVENUE  
ALAMEDA, CALIFORNIA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS				
					TPH-DRO	TPH-DRO w/ St Gel	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-5	01/09/2014	10.50	4.20	6.30	4,000	670	3,600	130	9	2	13	-
<b>MW-5</b>	<b>07/25/2014</b>	<b>10.50</b>	<b>6.20</b>	<b>4.30</b>	<b>3,200</b>	<b>720</b>	<b>3,400</b>	<b>130</b>	<b>9</b>	<b>2</b>	<b>14</b>	-
MW-6	10/28/2010	12.98	8.35	4.63	-	300	620	7	<0.5	1	2	-
MW-6	01/14/2011	12.98	7.58	5.40	-	560	120	3	<0.5	<0.5	<0.5	-
MW-6	04/19/2011	12.98	9.90	3.08	-	590	240	7	<0.5	<0.5	<0.5	-
MW-6	06/30/2011	12.98	9.97	3.01	-	640	200	3	<0.5	<0.5	<0.5	-
MW-6	10/14/2011	12.98	7.40	5.58	1,700	<50	510	10	<0.5	<0.5	<0.5	-
MW-6	01/18/2012	12.98	9.82	3.16	1,300	<50	300	7	<0.5	<0.5	<0.5	-
MW-6	04/19/2012	12.98	8.02	4.96	1,600	<50	290	7	0.6	<0.5	<0.5	-
MW-6	07/23/2012	12.98	9.69	3.29	1,600	73	-	-	-	-	-	-
MW-6	07/27/2012 <sup>4</sup>	12.98	8.39	4.59	-	-	450	9	<0.5	<0.5	0.6	-
MW-6	01/19/2013	12.98	8.92	4.06	830	<50	250	3	<0.5	<0.5	<0.5	-
MW-6	07/15/2013	12.98	7.70	5.28	2,400	<50	660	13	<0.5	<0.5	<0.5	-
MW-6	01/09/2014	12.98	6.85	6.13	1,400	<50	490	10	<0.5	<0.5	<0.5	-
<b>MW-6</b>	<b>07/25/2014</b>	<b>12.98</b>	<b>9.85</b>	<b>3.13</b>	<b>1,500</b>	<b>&lt;50</b>	<b>460</b>	<b>12</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	-
QA	07/21/2010	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	10/22/2010	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	10/28/2010	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	01/14/2011	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	04/19/2011	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	06/30/2011	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-

**GROUNDWATER MONITORING AND SAMPLING DATA  
FORMER SIGNAL OIL MARINE STORAGE AND DISTRIBUTION FACILITY  
CHEVRON BULK PLANT 206127  
2301-2311 BLANDING AVENUE  
ALAMEDA, CALIFORNIA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS					
					TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE by SW8260	
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
QA	10/14/2011	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
QA	01/18/2012	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
QA	04/19/2012	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
QA	07/23/2012	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
QA	01/19/2013	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
QA	07/15/2013	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
QA	01/09/2014	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
QA	07/25/2014	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-

**Abbreviations and Notes:**

TOC = Top of casing

DTW = Depth to water

GWE = Groundwater elevation

(ft-amsl) = Feet above mean sea level

ft = Feet

µg/L = Micrograms per liter

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes (Total)

MTBE = Methyl tert butyl ether

**GROUNDWATER MONITORING AND SAMPLING DATA  
FORMER SIGNAL OIL MARINE STORAGE AND DISTRIBUTION FACILITY  
CHEVRON BULK PLANT 206127  
2301-2311 BLANDING AVENUE  
ALAMEDA, CALIFORNIA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS					
					TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE by SW8260	
Units		ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L

-- = Not available / not applicable

<x = Not detected above laboratory method detection limit

J = Estimated concentration

\* TOC elevations for all wells were surveyed on July 30, 2009, by Morrow Surveying. Vertical Datum is NAVD 88 from GPS observations. TOC elevations were surveyed on January 25, 2001, by Virgil Chacez Land Surveying. The benchmark used for the survey was a City of Alameda benchmark being a cut square at the centerline return, south corner of Oak and Blanding, (Benchmark Elevation = 8.236 feet, NGVD 29).

1 Destroyed and re-installed as MW-1RB.

2 Monitored only for the 10/28/10 Special Event

3 Inaccessible.

4 Due to laboratory error, a second set of samples had to be collected for TPHg and BTEX on 7/27/12 for wells MW1RA, MW1RB, MW-3, MW-5 and MW-6.

5 No purge sample collected due to limited access.

**WELL CONSTRUCTION SPECIFICATIONS  
FORMER SIGNAL OIL MARINE STORAGE AND DISTRIBUTION FACILITY  
(CHEVRON BULK PLANT 206127)  
2301-2311 BLANDING AVENUE  
ALAMEDA, CALIFORNIA**

<i>Well ID</i>	<i>Date Installed</i>	<i>TOC</i>	<i>Total Depth (fbg)</i>	<i>Casing Diameter<sup>1</sup> (inches)</i>	<i>Slot Size (inches)</i>	<i>Screen Interval (fbg)</i>	<i>Filter Pack (fbg)</i>	<i>Status</i>
<b><u>Monitoring Wells</u></b>								
MW-1	8/15/1990	13.49	19.5	2	0.020	4-19	3-19.5	Replaced w/MW-1RB
MW-1RA	8/4/2010	13.02	13	2	0.020	8-13	7-13	Active
MW-1RB	8/4/2010	13.21	20	2	0.020	16.5-20	15.5-20	Active
MW-2	6/19/2009	10.63	18	2	0.020	10.5-15.5	10-16	Active
MW-3	6/19/2009	10.72	18.5	2	0.020	13.5-18.5	12.5-18.5	Active
MW-4	6/19/2009	11.40	20.5	2	0.020	15.5-20.5	14.5-20.5	Active
MW-5	6/23/2009	10.50	18	2	0.020	13-18	12-18	Active
MW-6	8/4/2010	12.98	20	2	0.020	16.5-20	15.5-20	Active
<b><u>Vapor Wells</u></b>								
VP-1	7/9/2008	NS	4.25	1	0.020	3.75-4.25	3.5-4.5	Vapor only
VP-2	7/9/2008	NS	4.75	1	0.020	4.25-4.75	4-5	Vapor only
VP-3	7/14/2008	NS	5.75	1	0.020	5.25-5.75	5-6	Vapor only
VP-4	7/14/2008	NS	5.75	1	0.020	5.25-5.75	5-6	Vapor only
VP-5	7/14/2008	NS	5.75	1	0.020	5.25-5.75	5-6	Vapor only
VP-6	7/9/2008	NS	5.75	1	0.020	5.25-5.75	5-6	Vapor only
<b><u>Sub-Slab Vapor Probes</u></b>								
VP-7	7/17/2009	NS	0.5	0.25	NA	NA	NA	Vapor only
VP-8	7/17/2009	NS	0.5	0.25	NA	NA	NA	Vapor only
VP-9	7/22/2009	NS	0.5	0.25	NA	NA	NA	Vapor only
VP-10	7/22/2009	NS	0.5	0.25	NA	NA	NA	Destroyed
VP-11	7/17/2009	NS	0.5	0.25	NA	NA	NA	Destroyed
VP-12	7/22/2009	NS	0.5	0.25	NA	NA	NA	Destroyed
VP-13	7/22/2009	NS	0.5	0.25	NA	NA	NA	Vapor only

**Abbreviations/Notes**

TOC = Top of casing elevation (feet above mean sea level)

<sup>1</sup> = Schedule 40 PVC casing material

fbg = Feet below grade

NA = Not applicable

NS = Not surveyed

ATTACHMENT A

GROUNDWATER MONITORING AND  
SAMPLING DATA PACKAGE



# GETTLER - RYAN INC.



## TRANSMITTAL

August 4, 2014  
G-R #386498

TO: Mr. Brian Silva  
Conestoga-Rovers & Associates  
10969 Trade Center Drive, Suite 107  
Rancho Cordova, California 95670

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

RE: **Chevron #206127**  
**2301-2337 Blanding Avenue**  
**Alameda, California**  
**(Former Signal Oil Marine Terminal)**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package <b>Second Semi-Annual Event of July 25, 2014</b>

### 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/206127

## WELL CONDITION STATUS SHEET

Client/Facility #: Chevron #206127  
 Site Address: 2301-2337 Blanding Avenue  
 City: Alameda, CA

Job #: 386498  
 Event Date: 7/25/14  
 Sampler: JD

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-2	OK	→	→	→	→	→	→	✓	✓	12" emco	✓
MW-5	OK	→	→	→	→	→	→	↓	↓	↓ 8" MORRISON ↓	↓
MW-3	OK	→	→	→	→	→	↓	↓	↓		
MW-4	OK	→	→	→	→	→	↓	↓	↓		
MW-1RA	OK	→	→	→	→	→	↓	↓	↓		
MW-1RD	OK	→	→	→	→	→	↓	↓	↓	↓	↓
MW-6	OK	→	2xM	2x13	OK	→	→	↓	↓	↓	↓

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 #206127  
 Site Address: 2301-2337 Blanding Avenue  
 City: Alameda, CA

Job Number: 386498  
 Event Date: 7/25/14 (inclusive)  
 Sampler: JH

Well ID: MW-1RA

Date Monitored: 7/25/14

Well Diameter: 2 in.

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

Total Depth: 12.63 ft.

Depth to Water: 8.04 ft.

Check if water column is less than 0.50 ft.

4.59 xVF .17 = .78 x3 case volume = Estimated Purge Volume: 2.34 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.95

**Purge Equipment:**

Disposable Bailer: X  
 Stainless Steel Bailer: \_\_\_\_\_  
 Stack Pump: \_\_\_\_\_  
 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: \_\_\_\_\_ ft  
 Visual Confirmation/Description: \_\_\_\_\_  
 Skimmer / Absorbant Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ ltr  
 Amt Removed from Well: \_\_\_\_\_ ltr  
 Water Removed: \_\_\_\_\_ ltr

Start Time (purge): 0945  
 Sample Time/Date: 1015 / 7/25/14  
 Approx. Flow Rate: - gpm.  
 Did well de-water? NO If yes, Time: \_\_\_\_\_

Weather Conditions: clear  
 Water Color: clear Odor: Y / (N)  
 Sediment Description: None  
 Volume: \_\_\_\_\_ gal. DTW @ Sampling: 8.81

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS) mS (µmhos/cm)	Temperature (C) / (F)	D.O. (mg/L)	ORP (mV)
<u>0947</u>	<u>1</u>	<u>7.03</u>	<u>887</u>	<u>20.4</u>	_____	_____
<u>0949</u>	<u>2</u>	<u>6.91</u>	<u>904</u>	<u>20.2</u>	_____	_____
<u>0951</u>	<u>2.5</u>	<u>6.85</u>	<u>915</u>	<u>20.1</u>	_____	_____

**LABORATORY INFORMATION**

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1RA</u>	<u>6</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	<u>2</u> x 1 liter ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/TPH-DRO(8015)
	<u>2</u> x voa vial	YES	NP	CHEVRON RTC	CHEVRON STUDY SAMPLES

**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 #206127  
 Site Address: 2301-2337 Blanding Avenue  
 City: Alameda, CA

Job Number: 386498  
 Event Date: 7/25/14 (inclusive)  
 Sampler: JH

Well ID: MW-1RB

Date Monitored: 7/25/14

Well Diameter: 2 in.

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

Total Depth: 19.91 ft.

Depth to Water: 9.96 ft.

Check if water column is less than 0.50 ft.

9.95 xVF .17 = 1.69 x3 case volume = Estimated Purge Volume: 5.07 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.95

**Purge Equipment:**

Disposable Bailer X  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 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: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr

Start Time (purge): 1025  
 Sample Time/Date: 1055 / 7/25/14  
 Approx. Flow Rate: - gpm.  
 Did well de-water? No If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Weather Conditions: Clear  
 Water Color: Cloudy Odor: Y/B  
 Sediment Description: L. silt  
 DTW @ Sampling: 10.60

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS mS µmhos/cm)	Temperature (C F)	D.O. (mg/L)	ORP (mV)
<u>1028</u>	<u>1.5</u>	<u>7.46</u>	<u>791</u>	<u>20.6</u>	_____	_____
<u>1032</u>	<u>3.0</u>	<u>7.32</u>	<u>764</u>	<u>20.4</u>	_____	_____
<u>1036</u>	<u>5.0</u>	<u>7.12</u>	<u>738</u>	<u>20.3</u>	_____	_____

**LABORATORY INFORMATION**

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1RB</u>	<u>6</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	<u>2</u> x 1 liter ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/TPH-DRO(8015)
	<del>x voa vial</del>	YES	NP	CHEVRON RTC	CHEVRON STUDY SAMPLES

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 #206127  
 Site Address: 2301-2337 Blanding Avenue  
 City: Alameda, CA

Job Number: 386498  
 Event Date: 7/25/14 (inclusive)  
 Sampler: JH

Well ID: MW- 2  
 Well Diameter: 2 in.  
 Total Depth: 15.58 ft.  
 Depth to Water: 3.96 ft.

Date Monitored: 7/25/14

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 11.62 xVF .17 = 1.97 x3 case volume = Estimated Purge Volume: 5.92 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 6.28

**Purge Equipment:**  
 Disposable Bailer X  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 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: \_\_\_\_\_ ft  
 Visual Confirmation/Description: \_\_\_\_\_  
 Skimmer / Absorbant Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ ltr  
 Amt Removed from Well: \_\_\_\_\_ ltr  
 Water Removed: \_\_\_\_\_ ltr

Start Time (purge): 0640 Weather Conditions: Clear  
 Sample Time/Date: 0715 / 7/25/14 Water Color: Clear Odor: Y / (N)  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: None  
 Did well de-water? No If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 5.22

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS) mS (µmhos/cm)	Temperature (C) (F)	D.O. (mg/L)	ORP (mV)
<u>0645</u>	<u>2</u>	<u>7.47</u>	<u>718</u>	<u>21.2</u>	_____	_____
<u>0650</u>	<u>4</u>	<u>7.35</u>	<u>726</u>	<u>21.1</u>	_____	_____
<u>0655</u>	<u>6</u>	<u>7.26</u>	<u>710</u>	<u>21.0</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW- 2</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX(8260)</u>
	<u>2</u> x 1 liter ambers	<u>YES</u>	<u>NP</u>	<u>LANCASTER</u>	<u>TPH-DRO w/sgc COLUMN/TPH-DRO(8015)</u>
	<del>x voa vial</del>	<u>YES</u>	<u>NP</u>	<u>CHEVRON RTC</u>	<u>CHEVRON STUDY SAMPLES</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 #206127  
 Site Address: 2301-2337 Blanding Avenue  
 City: Alameda, CA

Job Number: 386498  
 Event Date: 7/25/14 (inclusive)  
 Sampler: JH

Well ID: MW-3  
 Well Diameter: 2 in.  
 Total Depth: 17.84 ft.  
 Depth to Water: 4.95 ft.  
12.89 xVF .17 = 2.19

Date Monitored: 7/25/14

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.

x3 case volume = Estimated Purge Volume: 6.57 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 7.52

**Purge Equipment:**  
 Disposable Bailer X  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 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:	_____ ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	_____
Amt Removed from Skimmer:	_____ ltr
Amt Removed from Well:	_____ ltr
Water Removed:	_____ ltr

Start Time (purge): 1110 Weather Conditions: Clear  
 Sample Time/Date: 1155 / 7/25/14 Water Color: clear Odor: Y / (N)  
 Approx. Flow Rate: - gpm. Sediment Description: None  
 Did well de-water? NO If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 6.18

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS) mS (µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1115</u>	<u>2</u>	<u>7.61</u>	<u>837</u>	<u>20.3</u>	_____	_____
<u>1120</u>	<u>4</u>	<u>7.35</u>	<u>805</u>	<u>20.1</u>	_____	_____
<u>1128</u>	<u>6.5</u>	<u>7.22</u>	<u>786</u>	<u>20.0</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>6</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	<u>2</u> x 1 liter ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/TPH-DRO(8015)
	<del>2</del> x vial	YES	NP	CHEVRON RTC	CHEVRON STUDY SAMPLES

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 #206127  
 Site Address: 2301-2337 Blanding Avenue  
 City: Alameda, CA

Job Number: 386498  
 Event Date: 7/25/14 (inclusive)  
 Sampler: JH

Well ID: MW-4  
 Well Diameter: 2 in.  
 Total Depth: 20.16 ft.  
 Depth to Water: 7.80 ft.  
12.36 xVF .17 = 2.10

Date Monitored: 7/25/14

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]: 10.27  
 x3 case volume = Estimated Purge Volume: 6.30 gal.

### Purge Equipment:

Disposable Bailer X  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 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:	_____ ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	_____
Amt Removed from Skimmer:	_____ ltr
Amt Removed from Well:	_____ ltr
Water Removed:	_____ ltr

Start Time (purge): 0730  
 Sample Time/Date: 0800 / 7/25/14  
 Approx. Flow Rate: — gpm.  
 Did well de-water? NO If yes, Time: \_\_\_\_\_

Weather Conditions: Clear  
 Water Color: Clear Odor: Y / 10  
 Sediment Description: None  
 Volume: \_\_\_\_\_ gal. DTW @ Sampling: 8.30

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS/mS umhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0735</u>	<u>2</u>	<u>7.17</u>	<u>772</u>	<u>21.0</u>	_____	_____
<u>0740</u>	<u>4</u>	<u>7.14</u>	<u>736</u>	<u>20.9</u>	_____	_____
<u>0745</u>	<u>6</u>	<u>7.10</u>	<u>720</u>	<u>20.7</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>6</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	<u>2</u> x 1 liter ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/TPH-DRO(8015)
	<del>x voa vial</del>	YES	NP	CHEVRON RTC	CHEVRON STUDY SAMPLES

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 #206127  
 Site Address: 2301-2337 Blanding Avenue  
 City: Alameda, CA

Job Number: 386498  
 Event Date: 7/25/14 (inclusive)  
 Sampler: JH

Well ID: MW-5  
 Well Diameter: 2 in.  
 Total Depth: 17.87 ft.  
 Depth to Water: 6.20 ft.  
11.67 xVF .17 = 1.98

Date Monitored: 7/25/14

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]: 8.53  
 x3 case volume = Estimated Purge Volume: 5.95 gal.

### Purge Equipment:

Disposable Bailer X  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 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: \_\_\_\_\_ ft  
 Visual Confirmation/Description: \_\_\_\_\_  
 Skimmer / Absorbant Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ ltr  
 Amt Removed from Well: \_\_\_\_\_ ltr  
 Water Removed: \_\_\_\_\_ ltr

Start Time (purge): 0815 Weather Conditions: Clear  
 Sample Time/Date: 0850 / 7/25/14 Water Color: Clear Odor: Y / N  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: L. silt  
 Did well de-water? No If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 7.08

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS umhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0820</u>	<u>2</u>	<u>7.38</u>	<u>1325</u>	<u>20.8</u>	_____	_____
<u>0825</u>	<u>4</u>	<u>7.22</u>	<u>1307</u>	<u>20.7</u>	_____	_____
<u>0830</u>	<u>6</u>	<u>6.95</u>	<u>1288</u>	<u>20.6</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-5</u>	<u>6</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	<u>2</u> x 1 liter ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/TPH-DRO(8015)
	<u>2</u> x voa vial	YES	NP	CHEVRON RTC	CHEVRON STUDY SAMPLES

### 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 #206127  
 Site Address: 2301-2337 Blanding Avenue  
 City: Alameda, CA

Job Number: 386498  
 Event Date: 7/25/14 (inclusive)  
 Sampler: JH

Well ID: MW-6  
 Well Diameter: 2 in.  
 Total Depth: 20.01 ft.  
 Depth to Water: 9.85 ft.  
10.16 xVF .17 = 1.72

Date Monitored: 7/25/14

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.

x3 case volume = Estimated Purge Volume: 5.18 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.88

### Purge Equipment:

Disposable Bailer X  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 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:	_____ ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	_____
Amt Removed from Skimmer:	_____ ltr
Amt Removed from Well:	_____ ltr
Water Removed:	_____ ltr

Start Time (purge): 0900  
 Sample Time/Date: 0930 / 7/25/14  
 Approx. Flow Rate: \_\_\_\_\_ gpm.  
 Did well de-water? No If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Weather Conditions: Clear  
 Water Color: Cloudy Odor: Y/N  
 Sediment Description: L.O.W.  
 DTW @ Sampling: 10.90

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS (mhos/cm))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0904</u>	<u>1.5</u>	<u>6.94</u>	<u>1231</u>	<u>19.7</u>	_____	_____
<u>0908</u>	<u>3.0</u>	<u>6.89</u>	<u>1267</u>	<u>19.6</u>	_____	_____
<u>0913</u>	<u>5.0</u>	<u>6.82</u>	<u>1275</u>	<u>19.4</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>6</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	<u>2</u> x 1 liter ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/TPH-DRO(8015)
	<u>2</u> x voa vial	YES	NP	CHEVRON RTC	CHEVRON STUDY SAMPLES

### COMMENTS:

Add/Replaced Gasket: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_ Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_

# Chevron California Region Analysis Request/Chain of Custody



072514-08  
**Lancaster Laboratories**

For Eurofins Lancaster Laboratories use only  
 Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_  
Instructions on reverse side correspond with circled numbers.

1 Client Information				4 Matrix				5 Analyses Requested										6 Remarks			
Facility: <b>SS#206127-OML G-R#386498 Global ID#106019744728</b> Site Address: <b>2301-2337 BLANDING AVENUE, ALAMEDA, CA</b> Chevron: <b>MB CRASB</b> Lead: <b>Silver</b> Consultant: <b>Grinc-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568</b> Consultant Project Mgr.: <b>Deanna E. Harding, deanna@grinc.com</b> Consultant Phone: <b>(925) 551-7444 x180</b> Sampler: <b>Jim Harrow</b>				<input type="checkbox"/> Sediment <input checked="" type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Soil <input type="checkbox"/> Composite				Total Number of Containers: _____ BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input checked="" type="checkbox"/> TPH-GRO 8015 <input checked="" type="checkbox"/> TPH-DRO 8015 without Silica Gel Cleanup <input checked="" type="checkbox"/> TPH-DRO 8015 with Silica Gel Cleanup <input checked="" type="checkbox"/> 8260 Full Scan Oxygenates Total Lead Method _____ Dissolved Lead Method _____										SCR #: _____ <input type="checkbox"/> Results in Dry Weight <input type="checkbox"/> J value reporting needed <input checked="" type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds <input type="checkbox"/> 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run _____ oxy's on highest hit <input type="checkbox"/> Run _____ oxy's on all hits			
2 Sample Identification		Soil Depth		Collected		3 Grab Composite												6 Remarks			
				Date		Time														TPH-DRO WITH SILICA GEL REQUESTING 10 GRAM COLUMN CLEAN-UP WITH CAPRIC ACID REVERSE SURROGATE  AMEND LOC! PLEASE REMOVE MTBE FROM REQUESTED ANALYSIS MWC 07-25-14 25 JULY 1338 Please forward the lab results directly to the Lead Consultant and cc: G-R.	
QA				7/25/14																	
MW-1RA						1015															
MW-1RB						1055															
MW-2						0715															
MW-3						1155															
MW-4						0800															
MW-5						0850															
MW-6						0930															
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by _____ Date _____ Time _____				Received by _____ Date _____ Time _____				Relinquished by Commercial Carrier: _____ Received by _____ Date _____ Time _____									
Standard 5 day 4 day 72 hour 48 hour 24 hour <b>EDF/EDD</b>				Relinquished by _____ Date _____ Time _____				Received by _____ Date _____ Time _____													
8 Data Package (circle if required)				EDD (circle if required)				Temperature Upon Receipt _____ °C				Custody Seals Intact? Yes No									
Type I - Full				EDFFLAT (default)				UPS _____ FedEx _____ Other _____													
Type VI (Raw Data)				Other: _____																	



Yes  
 No

# Chain-of-Custody-Record

Chevron Facility #: 206127 Global ID#: T06019744728  
Facility Address: 2301-2337 Blanding Avenue, Alameda CA  
Consultant Project #: 15-386498  
Consultant Name: GETTLER-RYAN INC.  
Address: 6805 SIERRA COURT, SUITE G, DUBLIN, CA 94568  
Project Contact: (Name) DEANNA L. HARDING (deanna@grinc.com)  
(Phone) 925-551-7555 (Fax) 925-551-7888

Chevron Contact: (Name) Rachel Molher  
(Phone) 510-242-4939  
Laboratory Name: Chevron RTC  
Laboratory Service Order: \_\_\_\_\_  
Laboratory Service Code: \_\_\_\_\_  
Samples Collected by: (Name) Jim Herron  
Signature: \_\_\_\_\_

CHEVRON RTC SAMPLES

State Method:  CA  OR  WA  NW Series  CO  UT  ID

Sample Number	Number of Containers	Matrix S=Soil A=Air W=Water C=Charcoal	Sample Preservation	Date/Time	CHEVRON STUDY (NON-PRESERVED)															Remarks
MW-1RA	2	W	MP	7/25/14 10:15	X															Lab Sample No.
MW-5	↓	↓	↓	↓ 0850	X															
MW-6	↓	↓	↓	↓ 0930	X															

Relinquished By (Signature) 	Organization Gettler-Ryan	Date/Time 7/25/14 12:15	Received By (Signature) 	Organization	Date/Time 7/25/14 12:35	Iced (Y/N)	Turn Around Time (Circle Choice)  24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced (Y/N)	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)	Organization	Date/Time	Iced (Y/N)	

ATTACHMENT B

LABORATORY ANALYTICAL REPORT

## ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

Chevron  
L4310  
6001 Bollinger Canyon Rd.  
San Ramon CA 94583

August 05, 2014

Project: 206127

Submittal Date: 07/29/2014  
Group Number: 1492246  
PO Number: 0015140841  
Release Number: BAUER  
State of Sample Origin: CA

### Client Sample Description

QA-T-140725 NA Water  
MW-1RA-W-140725 Grab Groundwater  
MW-1RB-W-140725 Grab Groundwater  
MW-2-W-140725 Grab Groundwater  
MW-3-W-140725 Grab Groundwater  
MW-4-W-140725 Grab Groundwater  
MW-5-W-140725 Grab Groundwater  
MW-6-W-140725 Grab Groundwater

### Lancaster Labs (LL) #

7547752  
7547753  
7547754  
7547755  
7547756  
7547757  
7547758  
7547759

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	Chevron c/o CRA	Attn: Report Contact
ELECTRONIC COPY TO	Chevron	Attn: Anna Avina
ELECTRONIC COPY TO	CRA	Attn: Brian Silva

Respectfully Submitted,

A handwritten signature in black ink that reads "Amek Carter". The signature is written in a cursive style with a long horizontal stroke at the end of the name.

Amek Carter  
Specialist

(717) 556-7252

Sample Description: QA-T-140725 NA Water  
Facility# 206127 Job# 386498 GRD  
2301-2337 Blanding-Alameda T06019744728

LL Sample # WW 7547752  
LL Group # 1492246  
Account # 10904

Project Name: 206127

Collected: 07/25/2014

Chevron

Submitted: 07/29/2014 16:50

L4310

Reported: 08/05/2014 12:31

6001 Bollinger Canyon Rd.  
San Ramon CA 94583

BAAQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>					
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles SW-846 8015B</b>					
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	Z142111AA	07/30/2014 20:56	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z142111AA	07/30/2014 20:56	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14211B20A	07/31/2014 10:45	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14211B20A	07/31/2014 10:45	Miranda P Tillinghast	1

Sample Description: MW-1RA-W-140725 Grab Groundwater  
Facility# 206127 Job# 386498 GRD  
2301-2337 Blanding-Alameda T06019744728

LL Sample # WW 7547753  
LL Group # 1492246  
Account # 10904

Project Name: 206127

Collected: 07/25/2014 10:15 by JH Chevron  
L4310  
Submitted: 07/29/2014 16:50 6001 Bollinger Canyon Rd.  
Reported: 08/05/2014 12:31 San Ramon CA 94583

BAA1A

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>					
	<b>SW-846 8260B</b>		<b>ug/l</b>	<b>ug/l</b>	
10943	Benzene	71-43-2	17	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
01728	TPH-GRO N. CA water C6-C12	n.a.	1,100	50	1
<b>GC Petroleum Hydrocarbons</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
08269	TPH-DRO water C10-C28	n.a.	2,500	50	1
<b>GC Petroleum Hydrocarbons w/Si</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
02216	TPH-DRO water C10-C28 w/Si Gel	n.a.	390	50	1
	The reverse surrogate, capric acid, is present at <1%.				

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	Z142111AA	07/30/2014 17:44	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z142111AA	07/30/2014 17:44	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14211B20A	07/31/2014 14:50	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14211B20A	07/31/2014 14:50	Laura M Krieger	1
08269	TPH-DRO water C10-C28	SW-846 8015B	1	142110016A	07/31/2014 19:15	Christine E Dolman	1
02216	TPH-DRO water C10-C28 w/Si Gel	SW-846 8015B	1	142110017A	08/01/2014 20:01	Christine E Dolman	1
11172	DRO by 8015 w/ Silica Gel Ext	SW-846 3510C	1	142110017A	07/30/2014 16:20	JoElla L Rice	1
07003	Extraction - DRO (Waters)	SW-846 3510C	1	142110016A	07/30/2014 16:20	JoElla L Rice	1

Sample Description: MW-1RB-W-140725 Grab Groundwater  
Facility# 206127 Job# 386498 GRD  
2301-2337 Blanding-Alameda T06019744728

LL Sample # WW 7547754  
LL Group # 1492246  
Account # 10904

Project Name: 206127

Collected: 07/25/2014 10:55 by JH Chevron  
L4310  
Submitted: 07/29/2014 16:50 6001 Bollinger Canyon Rd.  
Reported: 08/05/2014 12:31 San Ramon CA 94583

BAA1B

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B ug/l</b>					
10943	Benzene	71-43-2	1	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles SW-846 8015B ug/l</b>					
01728	TPH-GRO N. CA water C6-C12	n.a.	270	50	1
<b>GC Petroleum SW-846 8015B ug/l</b>					
<b>Hydrocarbons</b>					
08269	TPH-DRO water C10-C28	n.a.	2,300	50	1
<b>GC Petroleum SW-846 8015B ug/l</b>					
<b>Hydrocarbons w/Si</b>					
02216	TPH-DRO water C10-C28 w/Si Gel	n.a.	57	50	1
The reverse surrogate, capric acid, is present at <1%.					

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	Z142111AA	07/30/2014 18:32	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z142111AA	07/30/2014 18:32	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14211B20A	07/31/2014 11:30	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14211B20A	07/31/2014 11:30	Miranda P Tillinghast	1
08269	TPH-DRO water C10-C28	SW-846 8015B	1	142110016A	07/31/2014 19:37	Christine E Dolman	1
02216	TPH-DRO water C10-C28 w/Si Gel	SW-846 8015B	1	142110017A	08/01/2014 21:06	Christine E Dolman	1
11172	DRO by 8015 w/ Silica Gel Ext	SW-846 3510C	1	142110017A	07/30/2014 16:20	JoElla L Rice	1
07003	Extraction - DRO (Waters)	SW-846 3510C	1	142110016A	07/30/2014 16:20	JoElla L Rice	1

Sample Description: MW-2-W-140725 Grab Groundwater  
Facility# 206127 Job# 386498 GRD  
2301-2337 Blanding-Alameda T06019744728

LL Sample # WW 7547755  
LL Group # 1492246  
Account # 10904

Project Name: 206127

Collected: 07/25/2014 07:15 by JH Chevron  
L4310  
Submitted: 07/29/2014 16:50 6001 Bollinger Canyon Rd.  
Reported: 08/05/2014 12:31 San Ramon CA 94583

BAA02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>					
	<b>SW-846 8260B</b>		<b>ug/l</b>	<b>ug/l</b>	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
<b>GC Petroleum Hydrocarbons</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
08269	TPH-DRO water C10-C28	n.a.	N.D.	50	1
<b>GC Petroleum Hydrocarbons w/Si</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
02216	TPH-DRO water C10-C28 w/Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	Z142111AA	07/30/2014 18:56	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z142111AA	07/30/2014 18:56	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14211B20A	07/31/2014 11:52	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14211B20A	07/31/2014 11:52	Miranda P Tillinghast	1
08269	TPH-DRO water C10-C28	SW-846 8015B	1	142110016A	07/31/2014 14:31	Christine E Dolman	1
02216	TPH-DRO water C10-C28 w/Si Gel	SW-846 8015B	1	142110017A	08/01/2014 21:28	Christine E Dolman	1
11172	DRO by 8015 w/ Silica Gel Ext	SW-846 3510C	1	142110017A	07/30/2014 16:20	JoElla L Rice	1
07003	Extraction - DRO (Waters)	SW-846 3510C	1	142110016A	07/30/2014 16:20	JoElla L Rice	1



Sample Description: MW-3-W-140725 Grab Groundwater  
Facility# 206127 Job# 386498 GRD  
2301-2337 Blanding-Alameda T06019744728

LL Sample # WW 7547756  
LL Group # 1492246  
Account # 10904

Project Name: 206127

Collected: 07/25/2014 11:55 by JH Chevron  
L4310  
Submitted: 07/29/2014 16:50 6001 Bollinger Canyon Rd.  
Reported: 08/05/2014 12:31 San Ramon CA 94583

BAA03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>					
	<b>SW-846 8260B</b>		<b>ug/l</b>	<b>ug/l</b>	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
01728	TPH-GRO N. CA water C6-C12	n.a.	120	50	1
<b>GC Petroleum Hydrocarbons</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
08269	TPH-DRO water C10-C28	n.a.	1,700	50	1
<b>GC Petroleum Hydrocarbons w/Si</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
02216	TPH-DRO water C10-C28 w/Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	Z142111AA	07/30/2014 19:20	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z142111AA	07/30/2014 19:20	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14211B20A	07/31/2014 15:12	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14211B20A	07/31/2014 15:12	Laura M Krieger	1
08269	TPH-DRO water C10-C28	SW-846 8015B	1	142110016A	07/31/2014 19:59	Christine E Dolman	1
02216	TPH-DRO water C10-C28 w/Si Gel	SW-846 8015B	1	142110017A	08/01/2014 21:50	Christine E Dolman	1
11172	DRO by 8015 w/ Silica Gel Ext	SW-846 3510C	1	142110017A	07/30/2014 16:20	JoElla L Rice	1
07003	Extraction - DRO (Waters)	SW-846 3510C	1	142110016A	07/30/2014 16:20	JoElla L Rice	1

Sample Description: MW-4-W-140725 Grab Groundwater  
Facility# 206127 Job# 386498 GRD  
2301-2337 Blanding-Alameda T06019744728

LL Sample # WW 7547757  
LL Group # 1492246  
Account # 10904

Project Name: 206127

Collected: 07/25/2014 08:00 by JH Chevron  
L4310  
Submitted: 07/29/2014 16:50 6001 Bollinger Canyon Rd.  
Reported: 08/05/2014 12:31 San Ramon CA 94583

BAA04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>					
	<b>SW-846 8260B</b>		<b>ug/l</b>	<b>ug/l</b>	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
<b>GC Petroleum Hydrocarbons</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
08269	TPH-DRO water C10-C28	n.a.	250	50	1
<b>GC Petroleum Hydrocarbons w/Si</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
02216	TPH-DRO water C10-C28 w/Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F142113AA	07/30/2014 19:02	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F142113AA	07/30/2014 19:02	Brett W Kenyon	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14211B20A	07/31/2014 12:14	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14211B20A	07/31/2014 12:14	Miranda P Tillinghast	1
08269	TPH-DRO water C10-C28	SW-846 8015B	1	142110016A	07/31/2014 14:53	Christine E Dolman	1
02216	TPH-DRO water C10-C28 w/Si Gel	SW-846 8015B	1	142110017A	08/01/2014 22:11	Christine E Dolman	1
11172	DRO by 8015 w/ Silica Gel Ext	SW-846 3510C	1	142110017A	07/30/2014 16:20	JoElla L Rice	1
07003	Extraction - DRO (Waters)	SW-846 3510C	1	142110016A	07/30/2014 16:20	JoElla L Rice	1

Sample Description: MW-5-W-140725 Grab Groundwater  
Facility# 206127 Job# 386498 GRD  
2301-2337 Blanding-Alameda T06019744728

LL Sample # WW 7547758  
LL Group # 1492246  
Account # 10904

Project Name: 206127

Collected: 07/25/2014 08:50 by JH Chevron  
L4310  
Submitted: 07/29/2014 16:50 6001 Bollinger Canyon Rd.  
Reported: 08/05/2014 12:31 San Ramon CA 94583

BAA05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>					
10943	Benzene	71-43-2	130	0.5	1
10943	Ethylbenzene	100-41-4	2	0.5	1
10943	Toluene	108-88-3	9	0.5	1
10943	Xylene (Total)	1330-20-7	14	0.5	1
<b>GC Volatiles SW-846 8015B</b>					
01728	TPH-GRO N. CA water C6-C12	n.a.	3,400	250	5
<b>GC Petroleum Hydrocarbons SW-846 8015B</b>					
08269	TPH-DRO water C10-C28	n.a.	3,200	50	1
<b>GC Petroleum Hydrocarbons w/Si SW-846 8015B</b>					
02216	TPH-DRO water C10-C28 w/Si Gel	n.a.	720	50	1
The reverse surrogate, capric acid, is present at <1%.					

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F142113AA	07/30/2014 20:08	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F142113AA	07/30/2014 20:08	Brett W Kenyon	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14211B20A	07/31/2014 17:48	Laura M Krieger	5
01146	GC VOA Water Prep	SW-846 5030B	1	14211B20A	07/31/2014 17:48	Laura M Krieger	5
08269	TPH-DRO water C10-C28	SW-846 8015B	1	142110016A	07/31/2014 20:20	Christine E Dolman	1
02216	TPH-DRO water C10-C28 w/Si Gel	SW-846 8015B	1	142110017A	08/01/2014 22:33	Christine E Dolman	1
11172	DRO by 8015 w/ Silica Gel Ext	SW-846 3510C	1	142110017A	07/30/2014 16:20	JoElla L Rice	1
07003	Extraction - DRO (Waters)	SW-846 3510C	1	142110016A	07/30/2014 16:20	JoElla L Rice	1

Sample Description: MW-6-W-140725 Grab Groundwater  
Facility# 206127 Job# 386498 GRD  
2301-2337 Blanding-Alameda T06019744728

LL Sample # WW 7547759  
LL Group # 1492246  
Account # 10904

Project Name: 206127

Collected: 07/25/2014 09:30 by JH Chevron  
L4310  
Submitted: 07/29/2014 16:50 6001 Bollinger Canyon Rd.  
Reported: 08/05/2014 12:31 San Ramon CA 94583

BAA06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>					
	<b>SW-846 8260B</b>		<b>ug/l</b>	<b>ug/l</b>	
10943	Benzene	71-43-2	12	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
01728	TPH-GRO N. CA water C6-C12	n.a.	460	50	1
<b>GC Petroleum Hydrocarbons</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
08269	TPH-DRO water C10-C28	n.a.	1,500	50	1
<b>GC Petroleum Hydrocarbons w/Si</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
02216	TPH-DRO water C10-C28 w/Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA  
All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F142113AA	07/30/2014 20:52	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F142113AA	07/30/2014 20:52	Brett W Kenyon	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14211B20A	07/31/2014 15:34	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14211B20A	07/31/2014 15:34	Laura M Krieger	1
08269	TPH-DRO water C10-C28	SW-846 8015B	1	142110016A	07/31/2014 18:09	Christine E Dolman	1
02216	TPH-DRO water C10-C28 w/Si Gel	SW-846 8015B	1	142110017A	08/01/2014 22:55	Christine E Dolman	1
11172	DRO by 8015 w/ Silica Gel Ext	SW-846 3510C	1	142110017A	07/30/2014 16:20	JoElla L Rice	1
07003	Extraction - DRO (Waters)	SW-846 3510C	1	142110016A	07/30/2014 16:20	JoElla L Rice	1

## Quality Control Summary

Client Name: Chevron  
Reported: 08/05/14 at 12:31 PM

Group Number: 1492246

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: F142113AA	Sample number(s): 7547757-7547759							
Benzene	N.D.	0.5	ug/l	92		78-120		
Ethylbenzene	N.D.	0.5	ug/l	85		79-120		
Toluene	N.D.	0.5	ug/l	91		80-120		
Xylene (Total)	N.D.	0.5	ug/l	86		80-120		
Batch number: Z142111AA	Sample number(s): 7547752-7547756							
Benzene	N.D.	0.5	ug/l	95		78-120		
Ethylbenzene	N.D.	0.5	ug/l	98		79-120		
Toluene	N.D.	0.5	ug/l	100		80-120		
Xylene (Total)	N.D.	0.5	ug/l	102		80-120		
Batch number: 14211B20A	Sample number(s): 7547752-7547759							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	118	117	80-139	1	30
Batch number: 142110016A	Sample number(s): 7547753-7547759							
TPH-DRO water C10-C28	N.D.	50.	ug/l	82	83	73-120	0	20
Batch number: 142110017A	Sample number(s): 7547753-7547759							
TPH-DRO water C10-C28 w/Si Gel	N.D.	50.	ug/l	73	77	43-120	5	20

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: F142113AA	Sample number(s): 7547757-7547759 UNSPK: 7547757								
Benzene	98	98	72-134	0	30				
Ethylbenzene	94	92	71-134	2	30				
Toluene	97	98	80-125	1	30				
Xylene (Total)	95	93	79-125	2	30				
Batch number: Z142111AA	Sample number(s): 7547752-7547756 UNSPK: P547723								
Benzene	104	105	72-134	1	30				
Ethylbenzene	109	111	71-134	2	30				
Toluene	107	110	80-125	3	30				
Xylene (Total)	111	113	79-125	1	30				

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: Chevron  
Reported: 08/05/14 at 12:31 PM

Group Number: 1492246

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: UST VOCs by 8260B - Water  
Batch number: F142113AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7547757	97	100	97	91
7547758	95	99	102	99
7547759	97	98	99	99
Blank	94	98	101	95
LCS	95	103	99	97
MS	97	100	102	99
MSD	98	103	99	98
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water  
Batch number: Z142111AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7547752	97	99	99	97
7547753	97	98	100	100
7547754	97	98	101	103
7547755	98	99	100	98
7547756	97	98	100	100
Blank	98	100	101	98
LCS	97	101	100	101
MS	97	100	100	102
MSD	97	100	100	102
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12  
Batch number: 14211B20A

	Trifluorotoluene-F
7547752	82
7547753	90
7547754	81
7547755	77
7547756	80
7547757	75
7547758	83
7547759	87
Blank	85
LCS	88
LCSD	81

Limits: 63-135

Analysis Name: TPH-DRO water C10-C28  
Batch number: 142110016A

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: Chevron  
Reported: 08/05/14 at 12:31 PM

Group Number: 1492246

### Surrogate Quality Control

Orthoterphenyl

---

7547753	96
7547754	105
7547755	101
7547756	94
7547757	94
7547758	104
7547759	97
Blank	88
LCS	103
LCSD	97

---

Limits: 46-131

Analysis Name: TPH-DRO water C10-C28 w/Si Gel  
Batch number: 142110017A  
Orthoterphenyl

---

7547753	98
7547754	88
7547755	89
7547756	99
7547757	87
7547758	86
7547759	87
Blank	82
LCS	88
LCSD	91

---

Limits: 46-131

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

# Chevron California Region Analysis Request/Chain of Custody



**Lancaster Laboratories**

472514-88

Acct. # 10904

For Eurofins Lancaster Laboratories use only  
Group # 1492246 Sample # 7547752-59

Instructions on reverse side correspond with circled numbers.

(1) Client Information				(4) Matrix			(5) Analyses Requested										SCR #: _____					
Facility <b>ES#208127-OML G-R#388498 GIBB#19744728</b>				<input type="checkbox"/> Sediment <input checked="" type="checkbox"/> Ground <input type="checkbox"/> Surface  <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air	<input type="checkbox"/> Soil  <input type="checkbox"/> Water  <input type="checkbox"/> Oil	Total Number of Containers BTEX + MTBE <input type="checkbox"/> 8021 <input type="checkbox"/> 8260 TPH-GRO <input type="checkbox"/> 8015 <input type="checkbox"/> 8260 TPH-DRO 8015 without Silica Gel Cleanup <input checked="" type="checkbox"/> TPH-DRO 8015 with Silica Gel Cleanup <input checked="" type="checkbox"/> 8260 Full Scan	Oxygenates Total Lead Dissolved Lead	Method Method	<input type="checkbox"/> Results in Dry Weight <input type="checkbox"/> J value reporting needed <input checked="" type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds <input type="checkbox"/> 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run _____ oxy's on highest hit <input type="checkbox"/> Run _____ oxy's on all hits													
Site Address <b>1-2337 BLANDING AVENUE, ALAMEDA, CA</b>																						
Chevron <b>CRAB</b> Lead <b>CRAB</b>																						
Consultant <b>Grinc-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568</b>																						
Consultant Project Mgr. <b>Deanna E. Harding, deanna@grinc.com</b>																						
Consultant Phone <b>(925) 551-7444 x190</b>																						
Sampler <b>Jim Harpur</b>				(3) Composite <input type="checkbox"/> Grab			(6) Remarks  TPH-DRO WITH SILICA GEL REQUESTING 10 GRAM COLUMN CLEAN-UP WITH CAPRIC ACID REVERSE SURROGATE  AMEND COC! PLEASE REMOVE MTBE FROM REQUESTED ANALYSIS MWC 07-25-14 25 JULY 13 3:06 PM Please forward the lab results directly to the Lead Consultant and cc:															
(2) Sample Identification		Soil Depth	Collected																			
			Date	Time																		
	MW-1RA		7/25/14	1015	X																	
	MW-1RB			1055																		
	MW-2			0715																		
	MW-3			1155																		
	MW-4			0820																		
	MW-5			0850																		
	MW-6			0930																		
(7) Turnaround Time Requested (TAT) (please circle) Standard <input checked="" type="checkbox"/> 5 day      4 day 72 hour      48 hour      24 hour				Relinquished by _____ Date _____ Time _____		Received by _____ Date _____ Time _____		Relinquished by _____ Date _____ Time _____		Received by _____ Date _____ Time _____		Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____		Received by _____ Date _____ Time _____		Temperature Upon Receipt <b>0.2-0.9 °C</b>		Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
(8) Data Package (circle if required) Type I - Full Type VI (Raw Data)				EDD (circle if required) EDFFLAT (default) Other: _____		Date _____ Time _____		Date _____ Time _____		Date _____ Time _____		Date _____ Time _____		Date _____ Time _____		Date _____ Time _____		Date _____ Time _____				



# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>µg</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>mL</b>	milliliter(s)	<b>L</b>	liter(s)
<b>m<sup>3</sup></b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

**ppm** parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

**ppb** parts per billion

**Dry weight basis** Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

#### Data Qualifiers:

**C** – result confirmed by reanalysis.

**J** - estimated value – The result is  $\geq$  the Method Detection Limit (MDL) and  $<$  the Limit of Quantitation (LOQ).

#### U.S. EPA CLP Data Qualifiers:

##### Organic Qualifiers

<b>A</b>	TIC is a possible aldol-condensation product
<b>B</b>	Analyte was also detected in the blank
<b>C</b>	Pesticide result confirmed by GC/MS
<b>D</b>	Compound quantitated on a diluted sample
<b>E</b>	Concentration exceeds the calibration range of the instrument
<b>N</b>	Presumptive evidence of a compound (TICs only)
<b>P</b>	Concentration difference between primary and confirmation columns $>25\%$
<b>U</b>	Compound was not detected
<b>X,Y,Z</b>	Defined in case narrative

##### Inorganic Qualifiers

<b>B</b>	Value is $<$ CRDL, but $\geq$ IDL
<b>E</b>	Estimated due to interference
<b>M</b>	Duplicate injection precision not met
<b>N</b>	Spike sample not within control limits
<b>S</b>	Method of standard additions (MSA) used for calculation
<b>U</b>	Compound was not detected
<b>W</b>	Post digestion spike out of control limits
<b>*</b>	Duplicate analysis not within control limits
<b>+</b>	Correlation coefficient for MSA $<0.995$

**Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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ATTACHMENT C

HISTORICAL GROUNDWATER MONITORING AND SAMPLING DATA

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
**Chevron #206127 (Former Signal Oil Marine Terminal)**  
**2301-2337 Blanding Avenue**  
**Alameda, California**

WELL ID/ DATE	TQC* (fL)	DTW (fL)	GWE (msl)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>MW-1</b>										
01/23/01 <sup>1</sup>	--	7.16	--	1,100 <sup>2,3</sup>	5,210 <sup>4</sup>	868	<50.0	<50.0	<50.0	<250
04/09/01	10.62	8.12	2.50	1,200 <sup>6</sup>	3,000 <sup>5</sup>	920	<20	<20	<20	<100
07/30/01	10.62	9.15	1.47	550 <sup>3,8</sup>	2,000 <sup>7</sup>	730	13	<5.0	<5.0	<25
10/08/01	10.62	7.86	2.76	2,200 <sup>9</sup>	1,200	120	2.4	5.9	6.4	<2.5
01/13/02	10.62	7.02	3.60	3,300 <sup>3</sup>	930	320	0.78	0.87	3.8	<2.5
04/08/02	10.62	9.60	1.02	1,200 <sup>3</sup>	960	50	1.4	2.6	9.0	<2.5
07/31/02	10.62	9.27	1.35	2,800 <sup>3</sup>	930	64	1.4	1.9	11	<5.0
10/15/02	10.62	8.00	2.62	1,000 <sup>3</sup>	620	25	0.78	1.4	4.3	<2.5
01/14/03	10.62	7.05	3.57	960 <sup>3</sup>	1,600	20	1.3	1.3	<1.5	<2.5
04/15/03	10.62	8.02	2.60	920 <sup>3</sup>	870	56	1	1.4	3.1	<2.5
07/16/03 <sup>10</sup>	10.62	10.08	0.54	1,400 <sup>3</sup>	780	85	1	0.8	0.7	<0.5
10/18/03 <sup>10</sup>	10.62	8.51	2.11	1,200 <sup>3</sup>	640	42	0.8	<0.5	0.5	<0.5
01/22/04 <sup>10</sup>	10.62	8.95	1.67	1,500 <sup>3</sup>	440	18	<0.5	<0.5	<0.5	<0.5
04/23/04 <sup>10</sup>	10.62	8.95	1.67	2,200 <sup>3</sup>	410	10	<0.5	<0.5	<0.5	<0.5
07/23/04 <sup>10</sup>	10.62	9.21	1.41	1,800 <sup>3</sup>	400	6	<0.5	<0.5	<0.5	<0.5
10/22/04 <sup>10</sup>	10.62	8.36	2.26	2,200 <sup>3</sup>	150	2	<0.5	<0.5	<0.5	<0.5
01/28/05 <sup>10</sup>	10.62	7.09	3.53	1,200 <sup>3</sup>	55	8	<0.5	<0.5	<0.5	<0.5
04/26/05 <sup>10</sup>	10.62	7.84	2.78	480 <sup>3</sup>	<50	5	<0.5	<0.5	<0.5	<0.5
07/15/05 <sup>10</sup>	10.62	8.12	2.50	610 <sup>3,11</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/14/05 <sup>10</sup>	10.62	8.07	2.55	920 <sup>3,12</sup>	<50	10	<0.5	<0.5	<0.5	<0.5
01/12/06 <sup>10</sup>	10.62	6.98	3.64	960 <sup>3,12</sup>	<50	6	<0.5	<0.5	<0.5	<0.5
04/13/06 <sup>10</sup>	10.62	7.04	3.58	1,200 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/13/06 <sup>10</sup>	10.62	7.13	3.49	1,200 <sup>3</sup>	92	14	<0.5	<0.5	<0.5	<0.5
10/17/06 <sup>10</sup>	10.62	7.64	2.98	990 <sup>3</sup>	<50	3	<0.5	<0.5	<0.5	<0.5
01/16/07 <sup>10</sup>	10.62	7.09	3.53	840 <sup>3</sup>	83	4	<0.5	<0.5	<0.5	<0.5
04/17/07 <sup>10</sup>	10.62	7.11	3.51	1,200 <sup>3</sup>	57	<0.5	<0.5	<0.5	<0.5	<0.5
07/17/07 <sup>10</sup>	10.62	7.41	3.21	1,100 <sup>3</sup>	120	8	<0.5	<0.5	<0.5	<0.5
10/16/07 <sup>10</sup>	10.62	7.55	3.07	750 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/16/08 <sup>10</sup>	10.62	6.98	3.64	1,700 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/16/08 <sup>10</sup>	10.62	7.36	3.26	1,100 <sup>3</sup>	62	<0.5	<0.5	<0.5	<0.5	<0.5
07/16/08 <sup>10</sup>	10.62	7.89	2.73	580 <sup>3</sup>	93	3	<0.5	<0.5	<0.5	<0.5
10/15/08 <sup>10</sup>	10.62	7.46	3.16	740 <sup>3</sup>	56	0.7	<0.5	<0.5	0.8	<0.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Chevron #206127 (Former Signal Oil Marine Terminal)  
 2301-2337 Blanding Avenue  
 Alameda, California

<b>WELL ID/ DATE</b>	<b>TOC* (fl.)</b>	<b>DTW (ft.)</b>	<b>GWE (msl)</b>	<b>TPH-DRO (µg/L)</b>	<b>TPH-GRO (µg/L)</b>	<b>B (µg/L)</b>	<b>T (µg/L)</b>	<b>E (µg/L)</b>	<b>X (µg/L)</b>	<b>MTBE (µg/L)</b>
<b>MW-1 (cont)</b>										
01/21/09 <sup>10</sup>	10.62	7.19	3.43	390 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/15/09 <sup>10</sup>	10.62	6.93	3.69	1,400 <sup>3</sup>	80	0.7	<0.5	<0.5	<0.5	<0.5
07/03/09 <sup>10</sup>	13.49	8.08	5.41	1,300 <sup>3</sup>	51	<0.5	<0.5	<0.5	<0.5	<0.5
10/01/09 <sup>10</sup>	13.49	9.52	3.97	1,500 <sup>3</sup>	86	<0.5	<0.5	<0.5	<0.5	<0.5
01/19/10 <sup>10</sup>	13.49	7.64	5.85	340 <sup>3,15</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/26/10 <sup>16</sup>	13.49	9.20	4.29	820 <sup>3</sup>	66	<0.5	<0.5	<0.5	<0.5	<0.5
<b>MW-2</b>										
06/30/09 <sup>1</sup>	10.63	3.80	6.83	--	--	--	--	--	--	--
07/03/09 <sup>14</sup>	10.63	3.91	6.72	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	--
10/01/09 <sup>14</sup>	10.63	4.11	6.52	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	--
01/19/10 <sup>14</sup>	10.63	3.90	6.73	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	--
04/26/10 <sup>14</sup>	10.63	4.08	6.55	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	--
<b>MW-3</b>										
06/30/09 <sup>1</sup>	10.72	4.61	6.11	--	--	--	--	--	--	--
07/03/09 <sup>14</sup>	10.72	4.57	6.15	170 <sup>3</sup>	310	1	<0.5	2	<0.5	--
10/01/09 <sup>14</sup>	10.72	5.22	5.50	1,000 <sup>3</sup>	52	<0.5	<0.5	<0.5	<0.5	--
01/19/10 <sup>14</sup>	10.72	4.84	5.88	1,800 <sup>3</sup>	120	2	<0.5	<0.5	<0.5	--
04/26/10 <sup>14</sup>	10.72	4.86	5.86	1,700 <sup>3</sup>	170	2	<0.5	<0.5	<0.5	--
<b>MW-4</b>										
06/30/09 <sup>1</sup>	11.40	6.02	5.38	--	--	--	--	--	--	--
07/03/09 <sup>14</sup>	11.40	5.85	5.55	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	--
10/01/09 <sup>14</sup>	11.40	6.95	4.45	370 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	--
01/19/10 <sup>14</sup>	11.40	6.22	5.18	110 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	--
04/26/10 <sup>14</sup>	11.40	6.61	4.79	210 <sup>5,17</sup>	<50	<0.5	<0.5	<0.5	<0.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Chevron #206127 (Former Signal Oil Marine Terminal)  
 2301-2337 Blanding Avenue  
 Alameda, California

WELL ID/ DATE	TQC* (ft.)	DTW (ft.)	GWE (msl)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>MW-5</b>										
06/30/09 <sup>1</sup>	10.50	5.20	5.30	--	--	--	--	--	--	--
07/03/09 <sup>14</sup>	10.50	5.17	5.33	110 <sup>3</sup>	930	33	2	0.6	3	--
10/01/09 <sup>14</sup>	10.50	5.66	4.84	2,500 <sup>3</sup>	1,800	57	3	0.9	5	--
01/19/10 <sup>14</sup>	10.50	5.48	5.02	2,600 <sup>3</sup>	2,200	74	4	1	5	--
04/26/10 <sup>14</sup>	10.50	5.91	4.59	1,700 <sup>3</sup>	2,200	94	4	2	5	--
<b>CS-2</b>										
07/30/01	--	--	--	140 <sup>3,5</sup>	<50	<0.50	<0.50	<0.50	<0.50	<2.5
10/08/01	--	--	--	53 <sup>9</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
01/13/02	--	--	--	<50 <sup>3</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
04/08/02	--	--	--	77 <sup>3</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
07/31/02	--	--	--	<50 <sup>3</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
10/15/02	--	--	--	<50 <sup>3</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
01/14/03	--	--	--	<50 <sup>3</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
04/15/03	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5
07/16/03 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	0.7	<0.5	0.6	<0.5
10/18/03 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/22/04 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/23/04 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/23/04 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/22/04 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/28/05 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/26/05 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/15/05 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/14/05 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/12/06 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/13/06 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/13/06 <sup>10</sup>	--	--	--	140 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/17/06 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/16/07 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/17/07 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Chevron #206127 (Former Signal Oil Marine Terminal)  
 2301-2337 Blanding Avenue  
 Alameda, California

WELL ID/ DATE	TOC* (fl.)	DTW (fl.)	GWE (msl)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>CS-2 (cont)</b>										
07/17/07 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/16/07 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/16/08 <sup>10</sup>	--	--	--	85 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/16/08 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/16/08 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/15/08 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/21/09 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/15/09 <sup>10</sup>	--	--	--	86 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/03/09 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/01/09 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/19/10 <sup>10</sup>	--	--	--	210 <sup>3,16</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TRIP BLANK</b>										
<b>TB-LB</b>										
01/23/01	--	--	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50
04/09/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/30/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
<b>QA</b>										
10/08/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
01/13/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
04/08/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
07/31/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
10/15/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
01/14/03	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
04/15/03	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5
07/16/03 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/18/03 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/22/04 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/23/04 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/23/04 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/22/04 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Chevron #206127 (Former Signal Oil Marine Terminal)  
 2301-2337 Blanding Avenue  
 Alameda, California

WELL ID/ DATE	TOC* (%)	DTW (ft.)	GWE (msl)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
QA (cont)										
01/28/05 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/26/05 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/15/05 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/14/05 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/12/06 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/13/06 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/13/06 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/17/06 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/16/07 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/17/07 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/17/07 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/16/07 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/16/08 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/16/08 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/16/08 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/15/08 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/21/09 <sup>10</sup>	--	--	--	--	<50 <sup>13</sup>	<0.5	<0.5	<0.5	<0.5	<0.5
04/15/09 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/03/09 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/01/09 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/19/10 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/26/10 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
**Chevron #206127 (Former Signal Oil Marine Terminal)**  
**2301-2337 Blanding Avenue**  
**Alameda, California**

**EXPLANATIONS:**

TOC = Top of Casing  
(ft.) = Feet

DTW = Depth to Water

GWE = Groundwater Elevation  
(msl) = Mean sea level

TPH = Total Petroleum Hydrocarbons

DRO = Diesel Range Organics

GRO = Gasoline Range Organics

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl Tertiary Butyl Ether

(µg/L) = Micrograms per liter

-- = Not Measured/Not Analyzed

CS-2 = Creek Sample

QA = Quality Assurance/Trip Blank

\* TOC elevations for all wells were surveyed on July 30, 2009, by Morrow Surveying. Vertical Datum is NAVD 88 from GPS observations. TOC elevations were surveyed on January 25, 2001, by Virgil Chavez Land Surveying. The benchmark used for the survey was a City of Alameda benchmark being a cut square at the centerline return, south corner of Oak and Blanding, (Benchmark Elevation = 8.236 feet, NGVD 29).

<sup>1</sup> Well development performed.

<sup>2</sup> Laboratory report indicates unidentified hydrocarbons <C16.

<sup>3</sup> Analyzed with silica gel cleanup.

<sup>4</sup> Laboratory report indicates weathered gasoline C6-C12.

<sup>5</sup> Laboratory report indicates discrete peaks.

<sup>6</sup> Laboratory report indicates diesel C9-C24 + unidentified hydrocarbons <C16.

<sup>7</sup> Laboratory report indicates gasoline C6-C12.

<sup>8</sup> Laboratory report indicates unidentified hydrocarbons C9-C24.

<sup>9</sup> Analysis performed without silica gel cleanup although was requested on the Chain of Custody.

<sup>10</sup> BTEX and MTBE by EPA Method 8260.

<sup>11</sup> Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. It elutes in the DRO range later than #2 fuel.

<sup>12</sup> Laboratory report indicates the observed sample pattern includes #2 fuel/diesel and an additional pattern which elutes later in the DRO range.

<sup>13</sup> Laboratory report indicates the original analysis was performed on an instrument where the ending calibration standard failed the method criteria. The sample was originally analyzed approximately 60 minutes after the LCS/LCSD. The LCS/LCSD showed good GRO recovery and the surrogate recovery for this sample was 85%. The sample was reanalyzed from a vial with headspace since only 1 vial was submitted. The results for the original and the reanalysis were similar. The reanalysis was reported.

<sup>14</sup> BTEX by EPA Method 8260.

<sup>15</sup> Laboratory report indicates DRO was detected in the method blank at a concentration of 38 µg/L. Results from the reextraction are within limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

<sup>16</sup> Laboratory report indicates DRO was detected in the method blank at a concentration of 38 µg/L. Results from the reextraction are within limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. The DRO result for the reextract is 96 µg/L.

<sup>17</sup> Laboratory report indicates DRO was detected in the method blank at a concentration of 47 µg/L. Results from the reextraction are within limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.



**Table 2**  
**Groundwater Analytical Results - Metals**  
 Chevron #206127 (Former Signal Oil Marine Terminal)  
 2301-2337 Blanding Avenue  
 Alameda, California

WELL ID/ DATE	Antimony (µg/L)	Arsenic (µg/L)	Barium (µg/L)	Beryllium (µg/L)	Cadmium (µg/L)	Chromium (µg/L)	Cobalt (µg/L)	Copper (µg/L)	Lead (µg/L)	Molybdenum (µg/L)	Nickel (µg/L)	Selenium (µg/L)	Silver (µg/L)	Thallium (µg/L)	Vanadium (µg/L)	Zinc (µg/L)	Mercury (µg/L)
<b>MW-2</b> 07/03/09	<9.7	<7.2	28.1	<1.4	<2.0	14.6	<2.1	<2.7	<6.9	<4.9	10.6	<8.9	<2.3	<14.0	12.6	11.6	<0.056
<b>MW-3</b> 07/03/09	<9.7	<7.2	143	<1.4	<2.0	8.5	<2.1	3.3	<6.9	<4.9	7.8	<8.9	<2.3	<14.0	13.8	18.8	<0.056
<b>MW-4</b> 07/03/09	<9.7	<7.2	83.5	<1.4	<2.0	10.0	<2.1	<2.7	<6.9	<4.9	4.5	<8.9	<2.3	<14.0	6.3	15.8	<0.056
<b>MW-5</b> 07/03/09	<9.7	32.7	148	<1.4	<2.0	<3.4	<2.1	3.1	<6.9	<4.9	3.6	<8.9	<2.3	<14.0	<2.5	19.2	<0.056

**EXPLANATIONS**

(µg/L) = Micrograms per liter

**ANALYTICAL METHODS:**

Metals analyzed by EPA Method SW-846 6010B  
 Mercury analyzed by Method SW-7470A