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**First Quarter 2016  
Semi-Annual Groundwater  
Monitoring Report**

Former Chevron-branded  
Service Station 91723  
9757 San Leandro Street  
Oakland, California



Prepared for:  
Chevron Environmental  
Management Company  
6101 Bollinger Canyon Road  
San Ramon, CA 94583

Prepared by:  
Stantec Consulting Services Inc.  
15575 Los Gatos Blvd., Building C  
Los Gatos, CA 95032

May 5, 2016



**Carryl MacLeod**  
Project Manager  
Marketing Business Unit

**Chevron Environmental  
Management Company**  
6101 Bollinger Canyon Road  
San Ramon, CA 94583  
Tel (925) 790-6506  
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May 5, 2016

Mr. Mark Detterman  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

Dear Mr. Detterman:

Attached for your review is the *First Quarter 2016 Semi-Annual Groundwater Monitoring Report* for former Chevron-branded service station 91723, located at 9757 San Leandro Street in Oakland, California. This report was prepared by Stantec Consulting Services Inc. (Stantec), upon whose assistance and advice I have relied. I declare under penalty of perjury that the information and/or recommendations contained in the attached report are true and correct, to the best of my knowledge.

If you should have any further questions, please do not hesitate to contact me or the Stantec project manager, Travis Flora, at (408) 356-6124 ext. 238, or [travis.flora@stantec.com](mailto:travis.flora@stantec.com).

Sincerely,

A handwritten signature in cursive that reads 'Carryl MacLeod'.

**Carryl MacLeod**  
Project Manager



May 5, 2016

**Attention:** **Mr. Mark Detterman**  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502

**Reference:** **First Quarter 2016 Semi-Annual Groundwater Monitoring Report**  
Former Chevron-branded Service Station 91723  
9757 San Leandro Street, Oakland, California

Dear Mr. Detterman:

On behalf of Chevron Environmental Management Company (Chevron), Stantec Consulting Services Inc. (Stantec) is pleased to submit the *First Quarter 2016 Semi-Annual Groundwater Monitoring Report* for former Chevron-branded service station 91723, which was located at 9757 San Leandro Street, Oakland, Alameda County, California (Site - shown on **Figure 1**). This report is presented in three sections: Site Background, First Quarter 2016 Groundwater Monitoring and Sampling Program, and Conclusions and Recommendations.

## **SITE BACKGROUND**

The Site is a former Chevron-branded service station located on the western corner at the intersection of San Leandro Street and 98th Avenue in Oakland, California. The Site is currently a large parking area staging semi-trucks for a distribution company. A former service station operated at the Site from approximately 1946 to 1978. According to available records, Chevron purchased and began operation of the service station in 1968. Prior to 1966, three fuel underground storage tanks (USTs) and one fuel dispenser island (first generation) located in the eastern portion of the Site were removed. Second-generation fuel structures (installed between 1966 and 1968) included three fuel USTs located in the north-central portion of the Site, one waste oil UST located in the western portion of the Site, and five fuel dispenser islands (four located in the central portion of the Site and one located in the southern portion of the Site). In 1978, the service station was closed and all second-generation fuel structures were removed.

Land use near the Site consists primarily of commercial and industrial properties. The Site is bounded on the northwest and southwest by a former food processing plant, on the northeast by San Leandro Street followed by railroad tracks, and on the southeast by 98th Avenue followed by commercial businesses. A former Shell-branded service station was located immediately adjacent to and northwest of the Site.

## **FIRST QUARTER 2016 GROUNDWATER MONITORING AND SAMPLING PROGRAM**

Gettler-Ryan Inc. (G-R) performed the First Quarter 2016 groundwater monitoring and sampling event on March 11, 2016. G-R's standard operating procedures (SOPs) and field data sheets are included in **Attachment A**. G-R gauged depth-to-groundwater (DTW) in five Site wells (MW-2, MW-5, MW-6, MW-8, and MW-9) prior to collecting groundwater samples for laboratory analysis. All five Site wells were sampled.

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Former Chevron-branded Service Station 91723

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Investigation-derived waste (IDW) generated during the First Quarter 2016 groundwater monitoring and sampling event was transported by Clean Harbors Environmental Services to Seaport Environmental in Redwood City, California.

## Groundwater Elevation and Gradient

Well construction details and a screen interval assessment for each Site well are presented in **Table 1**. Well MW-9 is currently screened across the prevailing groundwater table, while the DTW measurements in wells MW-2, MW-5, MW-6, and MW-8 were above the screen intervals, and the screen intervals are currently entirely submerged. Groundwater elevation data from Third Quarter 2011 to present are included in **Table 2**. A groundwater elevation contour map (based on First Quarter 2016 data) is shown on **Figure 2**. The direction of groundwater flow beneath the Site at the time of sampling was toward the west at an average hydraulic gradient of approximately 0.002 feet per foot (ft/ft). This is generally consistent with the historical direction of groundwater flow, as shown by the groundwater flow direction rose diagram on **Figure 3** illustrating the direction of groundwater flow from Third Quarter 1988 to present.

## Schedule of Laboratory Analysis

Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline range organics (TPH-GRO) and benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds) using United States Environmental Protection Agency (US EPA) Method 8260B (SW-846); total petroleum hydrocarbons as diesel range organics with silica gel cleanup using US EPA Method 8015B; and total dissolved solids (TDS) using SM 2540 C-1997.

## Groundwater Analytical Results

During First Quarter 2016, groundwater samples were collected from five Site wells (MW-2, MW-5, MW-6, MW-8, and MW-9). Groundwater analytical results from Third Quarter 2011 to present are included in **Table 2** and **Table 3**. Only historically detected halogenated volatile organic compounds (HVOCs) are shown in **Table 3**. Historical monitored natural attenuation (MNA) parameters are presented in **Table 4**. Additional historical groundwater analytical data is included in **Attachment B**. A figure showing the latest groundwater analytical data plotted on a Site map is included as **Figure 4**. A TPH-GRO isoconcentration map is shown on **Figure 5**. A TPH-DRO isoconcentration map is shown on **Figure 6**. A benzene isoconcentration map is shown on **Figure 7**.

Certified laboratory analysis reports and chain-of-custody documents are presented as **Attachment C**. Hydrographs based on groundwater elevations and analytical results from Third Quarter 2011 to present are included in **Attachment D**. A summary of First Quarter 2016 groundwater analytical results follows:

- **TPH-GRO** was detected in four Site wells, at concentrations ranging from 25 micrograms per liter ( $\mu\text{g/L}$ ; well MW-2) to 1,500  $\mu\text{g/L}$  (well MW-8).
- **TPH-DRO** was detected in one Site well, at a concentration of 210  $\mu\text{g/L}$  (well MW-8).
- **Benzene** was detected in one Site well, at a concentration of 27  $\mu\text{g/L}$  (well MW-8).
- **Toluene** was detected in one Site well, at a concentration of 1  $\mu\text{g/L}$  (well MW-8).

## FIRST QUARTER 2016 SEMI-ANNUAL GROUNDWATER MONITORING REPORT

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- **Ethylbenzene** was detected in one Site well, at a concentration of 4 µg/L (well MW-8).
- **Total Xylenes** were detected in one Site well, at a concentration of 5 µg/L (well MW-8).

To better evaluate groundwater quality, TDS were also analyzed. TDS were detected in all five Site wells, at concentrations ranging from 465,000 µg/L (well MW-8) to 489,000 µg/L (well MW-9). TDS levels were below the California Department of Public Health (CDPH) Secondary Maximum Contaminant Level (SMCL) drinking water standard for public water supplies of 500 milligrams per liter (mg/L). This indicates that groundwater at the Site cannot be ruled out as a drinking water source based on TDS levels.

### CONCLUSIONS AND RECOMMENDATIONS

Maximum concentrations of TPH-GRO and the only detections of TPH-DRO and BTEX compounds are currently observed in well MW-8, which is located in the northern portion of the Site near the former second-generation USTs. An elevated TPH-GRO concentration (230 µg/L) was also detected in well MW-5, located near the former first-generation dispenser islands. Current and historical groundwater quality data indicate that the dissolved-phase petroleum hydrocarbon plume at the Site is adequately defined and stable or decreasing in size and concentration. The groundwater monitoring and sampling program will continue in Third Quarter 2016.

If you have any questions, please contact the Stantec Project Manager, Travis Flora, at (408) 356-6124 or [travis.flora@stantec.com](mailto:travis.flora@stantec.com).

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## LIMITATIONS

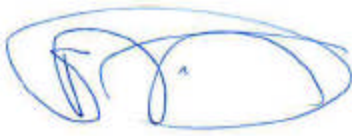
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Prepared by   
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Associate Project Manager

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**Dorota Runyan, P.E.**  
Senior Engineer



# **FIRST QUARTER 2016 SEMI-ANNUAL GROUNDWATER MONITORING REPORT**

Former Chevron-branded Service Station 91723

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## **Attachments:**

Table 1 – Well Details / Screen Interval Assessment – First Quarter 2016

Table 2 – Groundwater Monitoring Data and Analytical Results

Table 3 – Groundwater Analytical Results – Halogenated Volatile Organic Compounds

Table 4 – Monitored Natural Attenuation Parameters

Figure 1 – Site Location Map

Figure 2 – Groundwater Elevation Contour Map – First Quarter 2016

Figure 3 – Groundwater Flow Direction Rose Diagram – First Quarter 2016

Figure 4 – Site Plan Showing Groundwater Concentrations – First Quarter 2016

Figure 5 – TPH-GRO Isoconcentration Map – First Quarter 2016

Figure 6 – TPH-DRO Isoconcentration Map – First Quarter 2016

Figure 7 – Benzene Isoconcentration Map – First Quarter 2016

Attachment A – Gettler-Ryan Inc. Field Data Sheets and Standard Operating Procedures –  
First Quarter 2016

Attachment B – Historical Groundwater Analytical Data

Attachment C – Certified Laboratory Analysis Reports and Chain-of-Custody Documents

Attachment D – Hydrographs

## **cc:**

Ms. Carryl MacLeod, Chevron Environmental Management Company, 6101 Bollinger Canyon Road, San Ramon, CA 94583 – Electronic Copy

Hothem Trust c/o Mr. Jan Greben, Greben & Associates, 125 East De La Guerra Street, Suite 203, Santa Barbara, CA 93101 – Electronic Copy

Ms. Jean Kida, Gerber Products, 12 Vreeland Road, Florham Park, NJ 07932

Francis Meynard, Pacific American Group, 104 Caledonia Street, Sausalito, CA 94965 –  
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## **TABLES**



**Table 1**  
**Well Details / Screen Interval Assessment**  
**First Quarter 2016**

Former Chevron-Branded Service Station 91723  
 9757 San Leandro Street, Oakland, California

Well ID	Date Installed	Well Type	Casing Diameter (inches)	Top of Casing (feet above msl)	Construction Well Depth (feet bgs)	Current Well Depth <sup>1</sup> (feet below TOC)	Current Depth to Groundwater <sup>1</sup> (feet below TOC)	Screen Interval (feet bgs)	Screen Interval Assessment
MW-2	04/18/87	Monitoring	2	21.31	22.00	21.53	6.28	12-22	Depth-to-groundwater above screen interval.
MW-5	05/18/88	Monitoring	2	21.84	20.00	17.63	6.27	7-20	Depth-to-groundwater above screen interval.
MW-6	05/18/88	Monitoring	2	21.71	20.00	19.54	6.39	7-20	Depth-to-groundwater above screen interval.
MW-8	05/19/88	Monitoring	2	21.84	20.00	18.17	6.48	7-20	Depth-to-groundwater above screen interval.
MW-9	08/04/89	Monitoring	4	20.55	20.00	20.27	5.80	5.5-20	Depth-to-groundwater within screen interval.

Notes:  
 bgs = below ground surface  
 msl = mean sea level  
 TOC = top of casing  
<sup>1</sup> = As measured prior to groundwater sampling on March 11, 2016.

**Table 2**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron-Branded Service Station 91723  
9757 San Leandro Street, Oakland, California

WELL ID/ DATE	TOC (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)	TDS (µg/L)
<b>MW-2</b>											
09/23/11	21.31	9.78	11.53	--	180	<0.5	<0.5	0.6	0.6	0.6	--
12/29/11	21.31	9.73	11.58	--	100	<0.5	<0.5	0.7	0.9	<0.5	--
03/30/12	21.31	8.02	13.29	--	180	<0.5	<0.5	2	4	<0.5	--
06/12/12	21.31	9.58	11.73	--	99	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/27/12	21.31	9.81	11.50	--	93	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/13/13	21.31	9.52	11.79	--	110	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/17/13	21.31	9.96	11.35	--	94	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/21/14	21.31	9.35	11.96	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
09/11/14	21.31	9.93	11.38	--	99	<0.5	<0.5	<0.5	<0.5	--	--
03/10/15	21.31	9.30	12.01	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
08/24/15	21.31	9.97	11.34	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
<b>03/11/16</b>	<b>21.31</b>	<b>6.28</b>	<b>15.03</b>	<b>&lt;50<sup>1</sup></b>	<b>25</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>--</b>	<b>480,000</b>
<b>MW-5</b>											
09/23/11	21.84	9.85	11.99	--	190	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/29/11	21.84	9.91	11.93	--	180	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/30/12	21.84	7.92	13.92	--	190	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/12/12	21.84	9.65	12.19	--	260	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/27/12	21.84	9.83	12.01	--	230	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/13/13	21.84	9.55	12.29	--	200	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/17/13	21.84	9.93	11.91	--	140	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/21/14	21.84	9.41	12.43	--	100	<0.5	<0.5	<0.5	<0.5	--	--
09/11/14	21.84	9.94	11.90	--	150	<0.5	<0.5	<0.5	<0.5	--	--
03/10/15	21.84	9.36	12.48	--	120	<0.5	<0.5	<0.5	<0.5	--	--
08/24/15	21.84	10.04	11.80	--	260	<0.5	<0.5	<0.5	<0.5	--	--
<b>03/11/16</b>	<b>21.84</b>	<b>6.27</b>	<b>15.57</b>	<b>&lt;50<sup>1</sup></b>	<b>230</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>--</b>	<b>469,000</b>
<b>MW-6</b>											
09/23/11	21.71	9.99	11.72	--	<22	<0.5	<0.5	<0.5	<0.5	0.7	--
12/29/11	21.71	9.93	11.78	--	<22	<0.5	<0.5	<0.5	<0.5	0.6	--
03/30/12	21.71	8.00	13.71	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/12/12	21.71	9.76	11.95	--	66	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/27/12	21.71	9.93	11.78	--	27	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/13/13	21.71	9.70	12.01	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/17/13	21.71	10.06	11.65	--	34	<0.5	<0.5	<0.5	<0.5	<0.5	--

**Table 2**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron-Branded Service Station 91723  
9757 San Leandro Street, Oakland, California

WELL ID/ DATE	TOC (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)	TDS (µg/L)
<b>MW-6 (cont)</b>											
03/21/14	21.71	9.38	12.33	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
09/11/14	21.71	10.07	11.64	--	52	<0.5	<0.5	<0.5	<0.5	--	--
03/10/15	21.71	9.47	12.24	--	28	<0.5	<0.5	<0.5	<0.5	--	--
08/24/15	21.71	10.15	11.56	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
<b>03/11/16</b>	<b>21.71</b>	<b>6.39</b>	<b>15.32</b>	<b>&lt;50<sup>1</sup></b>	<b>31</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>--</b>	<b>487,000</b>
<b>MW-8</b>											
09/23/11	21.84	10.15	11.69	--	1,900	55	2	10	8	<0.5	--
12/29/11	21.84	10.10	11.74	--	1,300	31	1	5	5	<0.5	--
03/30/12	21.84	8.12	13.72	--	2,200	65	3	20	14	<0.5	--
06/12/12	21.84	9.90	11.94	--	2,300	49	2	14	14	<0.5	--
09/27/12	21.84	10.12	11.72	--	1,900	43	2	10	8	<0.5	--
03/13/13	21.84	9.86	11.98	--	1,400	31	1	7	5	<0.5	--
09/17/13	21.84	10.34	11.50	--	2,100	60	2	11	9	<0.5	--
03/21/14	21.84	9.49	12.35	--	270	2	<0.5	<0.5	0.6	--	--
09/11/14	21.84	10.22	11.62	--	3,000	44	2	13	8	--	--
03/10/15	21.84	9.61	12.23	--	1,500	36	1	5	6	--	--
08/24/15	21.84	10.33	11.51	--	2,700	39	2	5	7	--	--
<b>03/11/16</b>	<b>21.84</b>	<b>6.48</b>	<b>15.36</b>	<b>210<sup>1</sup></b>	<b>1,500</b>	<b>27</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>--</b>	<b>465,000</b>
<b>MW-9</b>											
09/23/11	20.55	9.30	11.25	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/29/11	20.55	9.51	11.04	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/30/12	20.55	7.52	13.03	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/12/12	20.55	9.14	11.41	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/27/12	20.55	9.24	11.31	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/13/13	20.55	9.07	11.48	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/17/13	20.55	9.51	11.04	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/21/14	20.55	8.87	11.68	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
09/11/14	20.55	9.43	11.12	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
03/10/15	20.55	8.10	12.45	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
08/24/15	20.55	9.53	11.02	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
<b>03/11/16</b>	<b>20.55</b>	<b>5.80</b>	<b>14.75</b>	<b>&lt;50<sup>1</sup></b>	<b>&lt;22</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>--</b>	<b>489,000</b>

**Table 2**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron-Branded Service Station 91723  
9757 San Leandro Street, Oakland, California

WELL ID/ DATE	TOC (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)	TDS (µg/L)
<b>TRIP BLANK</b>											
<b>QA</b>											
09/23/11	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/29/11	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/30/12	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/12/12	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/27/12	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/13/13	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/17/13	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/21/14	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
09/11/14	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
03/10/15	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
08/24/15	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
<b>03/11/16</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>&lt;22</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>--</b>	<b>--</b>

**Table 2**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron-Branded Service Station 91723  
9757 San Leandro Street, Oakland, California

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**EXPLANATIONS:**

Current groundwater monitoring data provided by Gettler-Ryan Inc. Current laboratory analytical results provided by Eurofins Lancaster Laboratories.

TOC = Top of Casing  
(ft.) = Feet

DTW = Depth to Water

GWE = Groundwater Elevation

(msl) = Mean Sea Level

TPH-GRO = Total Petroleum Hydrocarbons as Gasoline Range Organics

TPH-DRO = Total Petroleum Hydrocarbons as Diesel Range Organics

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MtBE = Methyl tertiary-butyl ether

TDS = total dissolved solids

(µg/L) = Micrograms per liter

-- = Not Measured/Not Analyzed

QA = Quality Assurance/Trip Blank

<sup>1</sup> With silica gel cleanup. Laboratory report indicates the reverse surrogate, capric acid, is present at <1%.

**Table 3**  
**Groundwater Analytical Results - Halogenated Volatile Organic Compounds**  
 Former Chevron-Branded Service Station 91723  
 9757 San Leandro Street, Oakland, California

<b>WELL ID/ DATE</b>	<b>1,1-DCA (<math>\mu\text{g/L}</math>)</b>	<b>1,1-DCE (<math>\mu\text{g/L}</math>)</b>	<b>cis -1,2-DCE (<math>\mu\text{g/L}</math>)</b>
<b>MW-2</b> 03/10/15	<0.5	<0.5	<0.5
<b>MW-5</b> 03/10/15	<0.5	<0.5	<0.5
<b>MW-6</b> 03/10/15	<0.5	<0.5	<0.5
<b>MW-8</b> 03/10/15	<0.5	<0.5	<0.5
<b>MW-9</b> 03/10/15	1	0.7	0.6

**EXPLANATIONS:**

Current groundwater monitoring data provided by Gettler-Ryan Inc.  
 Current laboratory analytical results provided by Eurofins Lancaster Laboratories.

1,1-DCA = 1,1-Dichloroethane  
 1,1-DCE = 1,1-Dichloroethene  
 cis -1,2-DCE = cis -1,2-Dichloroethene  
 ( $\mu\text{g/L}$ ) = Micrograms per liter

**Table 4**  
**Monitored Natural Attenuation Parameters**  
Former Chevron-Branded Service Station 91723  
9757 San Leandro Street, Oakland, California

WELL ID/ DATE	METHANE (µg/L)	NITRATE (µg/L)	SULFATE (µg/L)	ALKALINITY TO pH 4.5 (µg/L as CaCO <sub>3</sub> )	ALKALINITY TO pH 8.3 (µg/L as CaCO <sub>3</sub> )	FERROUS IRON (µg/L)	SULFIDE (µg/L)	POST-PURGE DO (mg/L)	POST-PURGE ORP (mV)
<b>MW-2</b>									
03/30/12	330	320	10,600	545,000	<460	2,200	<270 <sup>1</sup>	1.08	219
06/12/12	300	290	12,900	460,000	<700	1,400	<220 <sup>1</sup>	0.86	135
09/27/12	250	710	14,200	448,000	<700	450	99	0.91	138
03/13/13	680	<250	13,000	503,000	--	700	<54	1.39	-7
09/17/13	370	<250	12,000	506,000	--	690	130	0.74	8
03/21/14	--	--	--	--	--	--	--	1.48	-36
09/11/14	490	<250	10,400	487,000	--	4,500	<270 <sup>1</sup>	0.26	125
03/10/15	--	--	--	--	--	--	--	1.5	156
<b>MW-5</b>									
03/30/12	110	440	30,200	370,000	<460	300	<270 <sup>1</sup>	1.11	222
06/12/12	120	890	44,800	387,000	<700	7,300	<220 <sup>1</sup>	0.87	124
09/27/12	110	980	30,200	370,000	<700	7,400	<110 <sup>1</sup>	0.98	136
03/13/13	170	570	30,600	398,000	--	2,600	<54	1.19	-34
09/17/13	110	900	31,200	373,000	--	2,000	<54	0.46	-4
03/21/14	--	--	--	--	--	--	--	1.31	-28
09/11/14	99	<250	34,900	375,000	--	18,200	<270 <sup>1</sup>	0.11	81
03/10/15	--	--	--	--	--	--	--	1.4	143
<b>MW-6</b>									
03/30/12	62	<250	5,600	455,000	<460	210	<54	1.12	223
06/12/12	190	<250	6,300	458,000	<700	4,700	<110 <sup>1</sup>	0.84	115
09/27/12	170	640	8,500	434,000	<700	8,800	<110 <sup>1</sup>	0.96	133
03/13/13	190	<250	4,400	473,000	--	6,200	<54	2.61	7
09/17/13	120	<250	6,300	444,000	--	4,600	98	0.49	-14
03/21/14	--	--	--	--	--	--	--	1.16	26
09/11/14	320	<250	6,000	447,000	--	10,400	<54	0.21	109
03/10/15	--	--	--	--	--	--	--	1.6	179

**Table 4**  
**Monitored Natural Attenuation Parameters**  
Former Chevron-Branded Service Station 91723  
9757 San Leandro Street, Oakland, California

WELL ID/ DATE	METHANE (µg/L)	NITRATE (µg/L)	SULFATE (µg/L)	ALKALINITY TO pH 4.5 (µg/L as CaCO <sub>3</sub> )	ALKALINITY TO pH 8.3 (µg/L as CaCO <sub>3</sub> )	FERROUS IRON (µg/L)	SULFIDE (µg/L)	POST-PURGE DO (mg/L)	POST-PURGE ORP (mV)
<b>MW-8</b>									
03/30/12	2,100	2,300	32,200	454,000	<460	29,300	780 <sup>1</sup>	1.15	230
06/12/12	1,700	<250	9,200	441,000	<700	43,200	<220 <sup>1</sup>	0.98	47
09/27/12	1,900	420	7,900	444,000	<700	35,600	<270 <sup>1</sup>	1.21	50
03/13/13	1,800	<250	9,700	450,000	--	32,300	<540 <sup>1</sup>	1.61	-85
09/17/13	1,700	<250	5,700	468,000	--	22,300	<220 <sup>1</sup>	0.38	-78
03/21/14	--	--	--	--	--	--	--	1.09	-51
09/11/14	2,900	<250	3,700	417,000	--	59,500	<540 <sup>1</sup>	0.04	28
03/10/15	--	--	--	--	--	--	--	1.1	-76
<b>MW-9</b>									
03/30/12	<5.0	<250	7,400	381,000	<460	31	<54	1.34	179
06/12/12	<5.0	2,900	32,900	397,000	<700	340	<54	0.92	128
09/27/12	<5.0	1,700	32,200	398,000	<700	53	<54	1.10	141
03/13/13	<3.0	2,400	33,400	414,000	--	<8.0	<54	1.38	189
09/17/13	<3.0	910	29,200	414,000	--	<10	<54	1.41	124
03/21/14	--	--	--	--	--	--	--	1.04	72
09/11/14	<3.0	2,700	35,300	383,000	--	<10	<54	0.35	134
03/10/15	--	--	--	--	--	--	--	1.7	175



**Table 4**  
**Monitored Natural Attenuation Parameters**  
Former Chevron-Branded Service Station 91723  
9757 San Leandro Street, Oakland, California

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**EXPLANATIONS:**

Current groundwater monitoring data provided by Gettler-Ryan Inc. Current laboratory analytical results provided by Eurofins Lancaster Laboratories.

( $\mu\text{g/L}$ ) = Micrograms per liter

( $\mu\text{g/L}$  as  $\text{CaCO}_3$ ) = Micrograms per liter as calcium carbonate

DO = Dissolved Oxygen

( $\text{mg/L}$ ) = Milligrams per liter

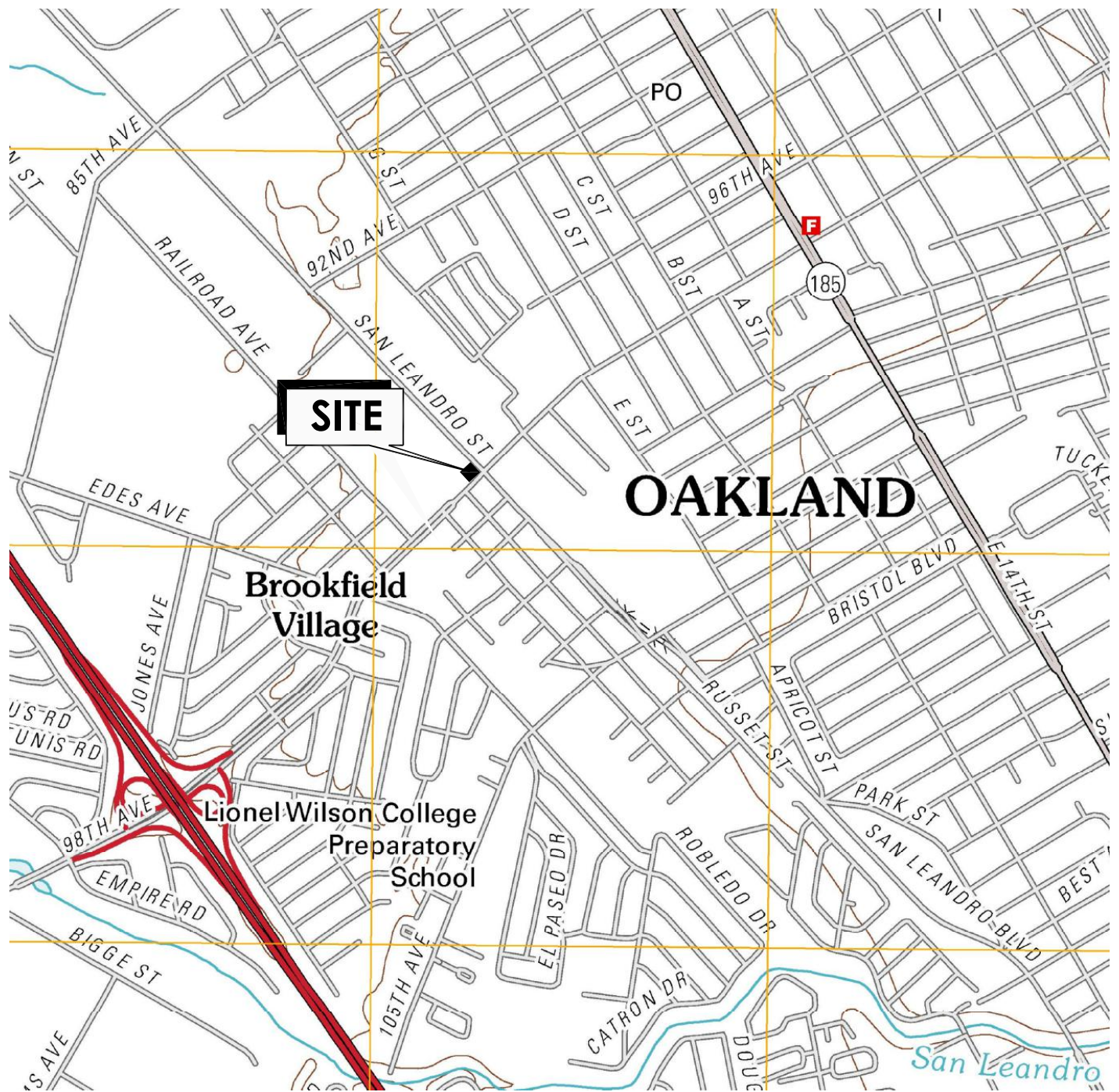
ORP = Oxidation Reduction Potential

( $\text{mV}$ ) = Millivolts

-- = Not Measured/Not Analyzed

<sup>1</sup> Laboratory report indicates reporting limits were raised due to interference from the sample matrix.

## **FIGURES**



CALIFORNIA



SCALE IN MILES



SCALE IN FEET

REFERENCE: USGS 7.5 MINUTE QUADRANGLE;  
SAN LEANDRO, CALIFORNIA; 2012



15575 Los Gatos Blvd, Building C  
Los Gatos, CA 95032

Phone: (408)356-6124 Fax: (408)356-6138

FOR:

FORMER CHEVRON-BRANDED  
SERVICE STATION 91723  
9757 SAN LEANDRO STREET  
OAKLAND, CALIFORNIA

SITE LOCATION MAP

FIGURE:

1

JOB NUMBER:

211602332

DRAWN BY:

JRO

CHECKED BY:

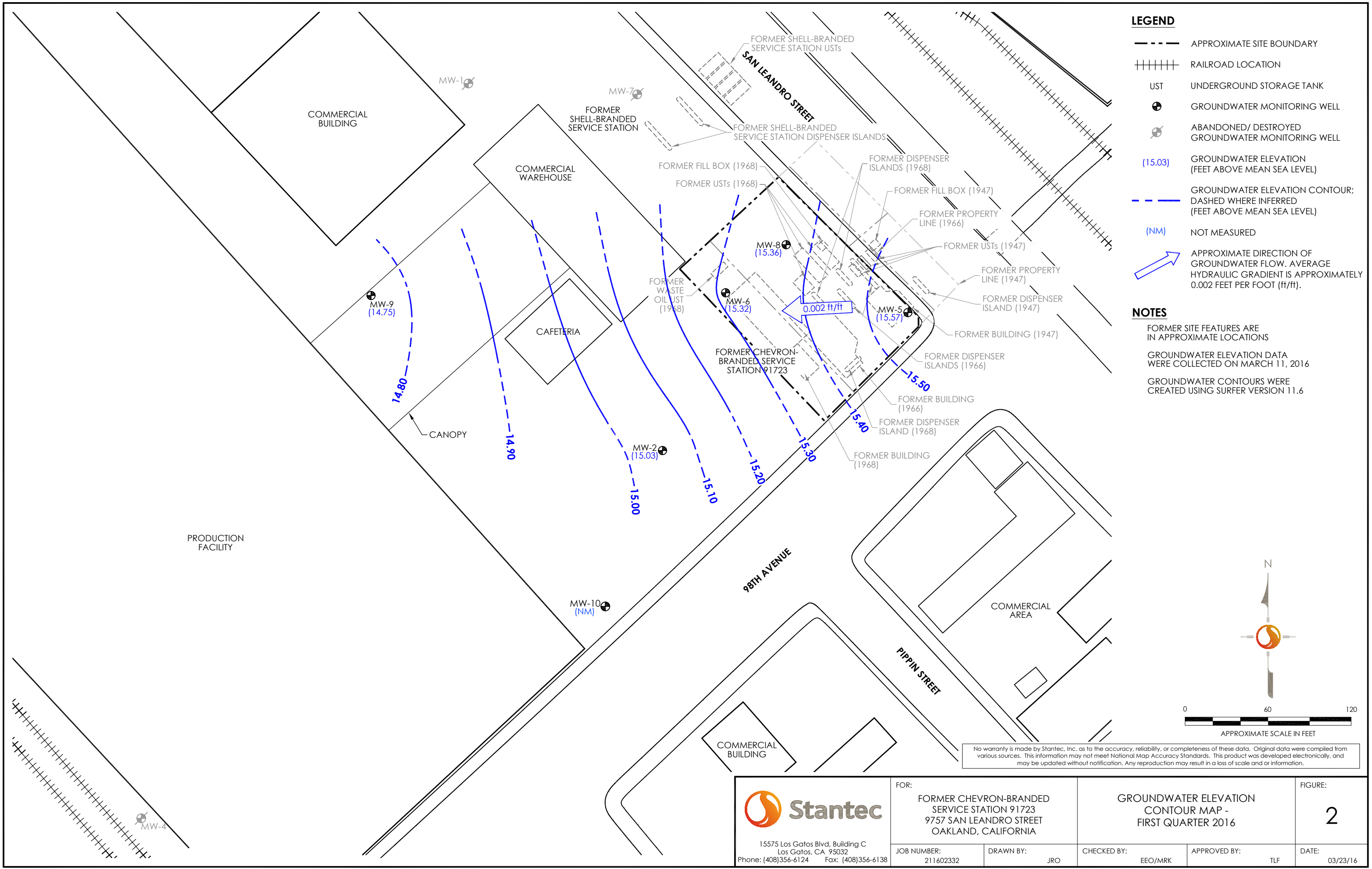
EEO/MRK

APPROVED BY:

TLF

DATE:

03/23/16

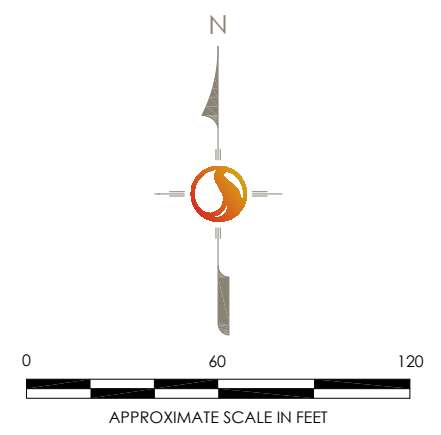


**LEGEND**

- APPROXIMATE SITE BOUNDARY
- ++++ RAILROAD LOCATION
- UST UNDERGROUND STORAGE TANK
- ⊕ GROUNDWATER MONITORING WELL
- ⊕ ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
- (15.03) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- - - - GROUNDWATER ELEVATION CONTOUR; DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL)
- (NM) NOT MEASURED
- ➔ APPROXIMATE DIRECTION OF GROUNDWATER FLOW. AVERAGE HYDRAULIC GRADIENT IS APPROXIMATELY 0.002 FEET PER FOOT (ft/ft).

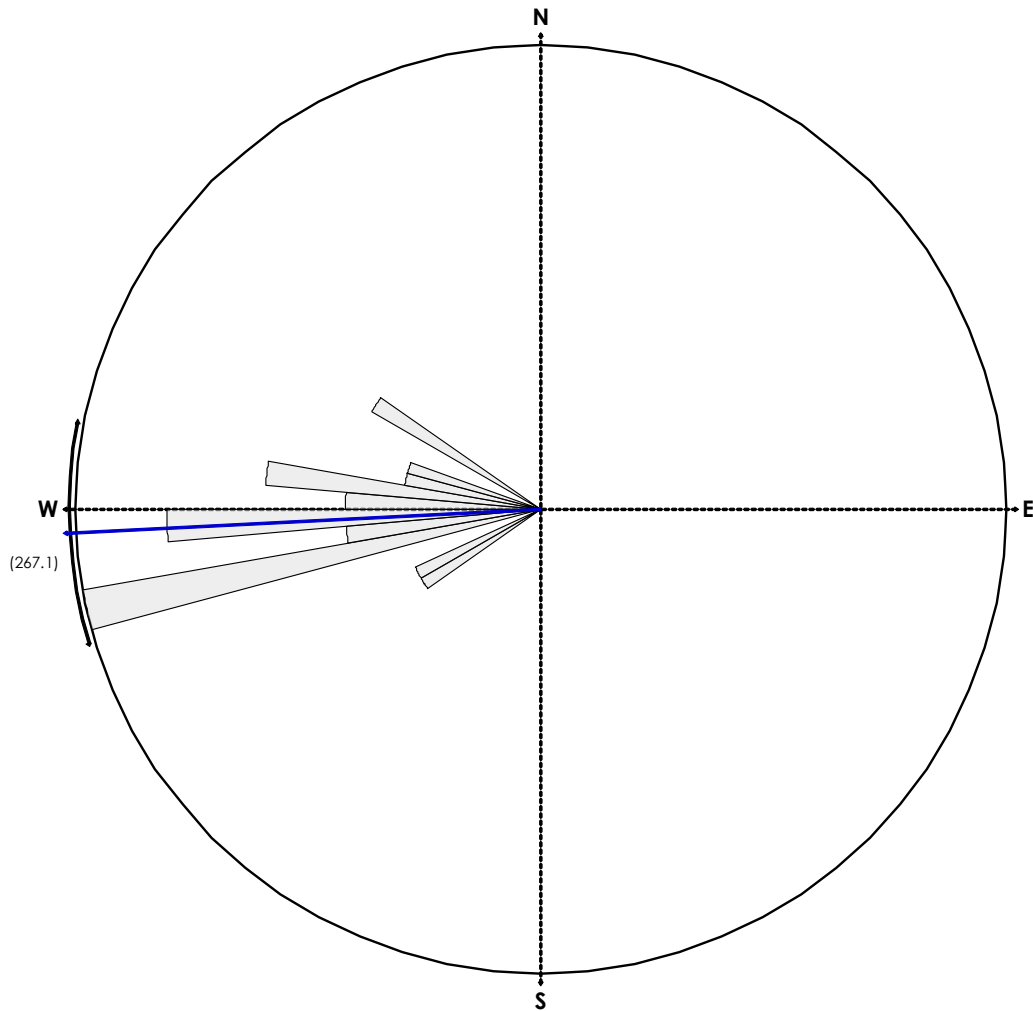
**NOTES**

FORMER SITE FEATURES ARE IN APPROXIMATE LOCATIONS  
 GROUNDWATER ELEVATION DATA WERE COLLECTED ON MARCH 11, 2016  
 GROUNDWATER CONTOURS WERE CREATED USING SURFER VERSION 11.6



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 15575 Los Gatos Blvd, Building C Los Gatos, CA 95032 Phone: (408)356-6124 Fax: (408)356-6138	FOR: FORMER CHEVRON-BRANDED SERVICE STATION 91723 9757 SAN LEANDRO STREET OAKLAND, CALIFORNIA	GROUNDWATER ELEVATION CONTOUR MAP - FIRST QUARTER 2016			FIGURE: <b>2</b>
	JOB NUMBER: 211602332	DRAWN BY: JRO	CHECKED BY: EEO/MRK	APPROVED BY: TLF	DATE: 03/23/16



EQUAL AREA PLOT

Number of Points 32  
 Class Size 5  
 Vector Mean 267.12  
 Vector Magnitude 31.05  
 Consistency Ratio 0.97

NOTE: ROSE DIAGRAM IS BASED ON THE DIRECTION OF GROUNDWATER FLOW BEGINNING THIRD QUARTER 1988. DIRECTIONS OF GROUNDWATER FLOW WERE NOT INCLUDED FOR EVENTS WHERE THE GROUNDWATER FLOW DIRECTION VARIED.

 15575 Los Gatos Blvd, Building C Los Gatos, CA 95032 Phone: (408)356-6124 Fax: (408)356-6138	FOR: FORMER CHEVRON-BRANDED SERVICE STATION 91723 9757 SAN LEANDRO STREET OAKLAND, CALIFORNIA	GROUNDWATER FLOW DIRECTION ROSE DIAGRAM - FIRST QUARTER 2016		FIGURE: <b>3</b>
	JOB NUMBER: 211602332	DRAWN BY: JRO	CHECKED BY: EEO/MRK	APPROVED BY: TLF



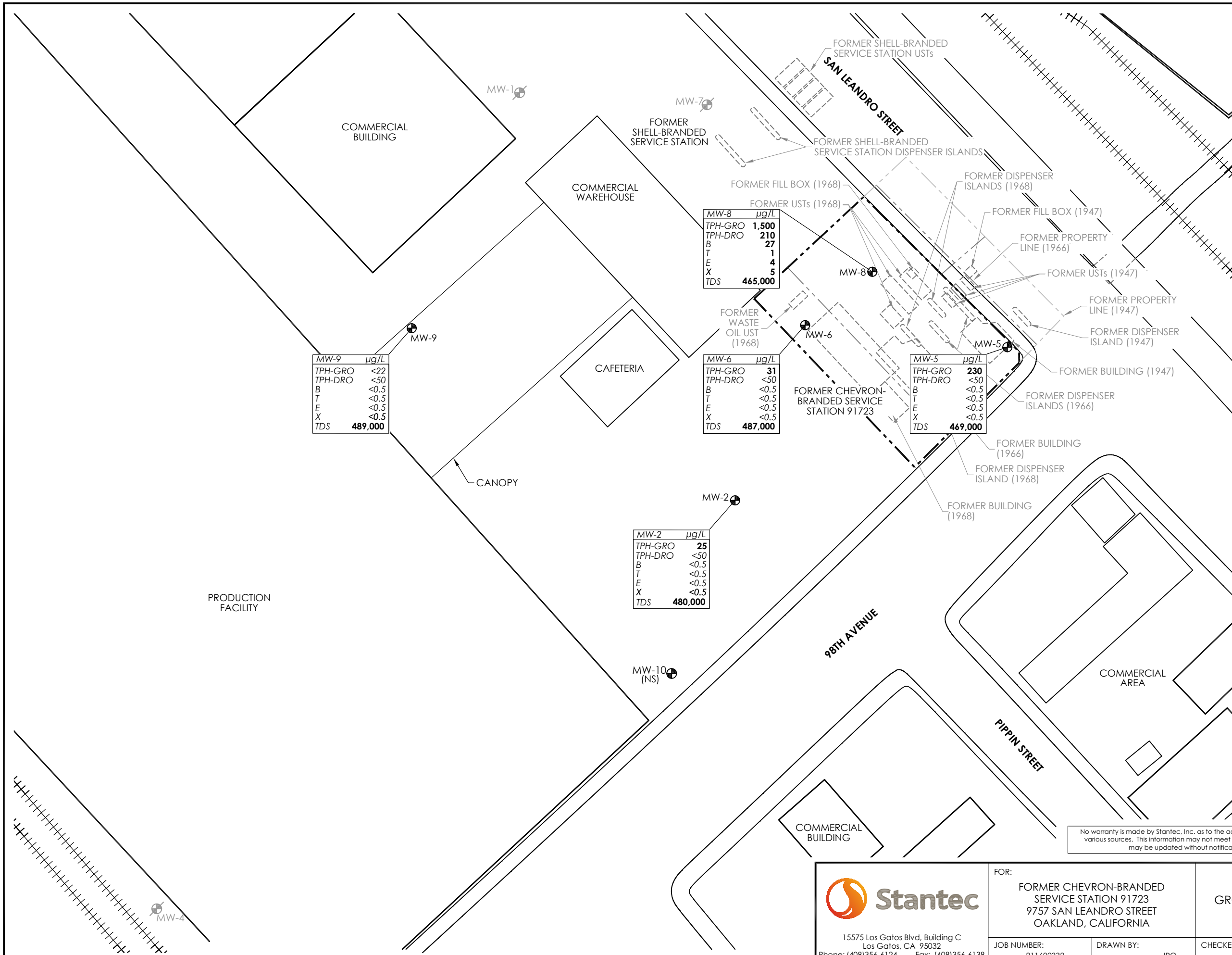
**LEGEND**

- APPROXIMATE SITE BOUNDARY
- ++++ RAILROAD LOCATION
- UST UNDERGROUND STORAGE TANK
- ⊕ GROUNDWATER MONITORING WELL
- ⊖ ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
- (NS) NOT SAMPLED

**ANALYTES**

- TPH-GRO — TOTAL PETROLEUM HYDROCARBONS AS GASOLINE RANGE ORGANICS
- TPH-DRO — TOTAL PETROLEUM HYDROCARBONS AS DIESEL RANGE ORGANICS
- B — BENZENE
- T — TOLUENE
- E — ETHYLBENZENE
- X — TOTAL XYLENES
- TDS — TOTAL DISSOLVED SOLIDS

µg/L = MICROGRAMS PER LITER



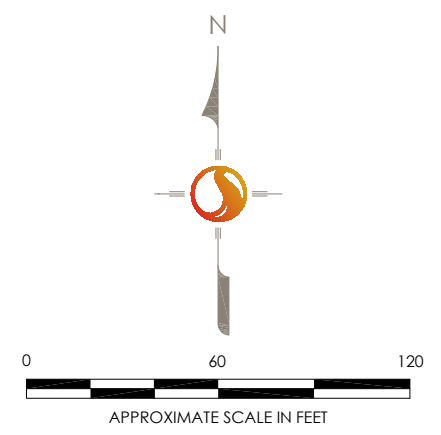
MW-9	µg/L
TPH-GRO	<22
TPH-DRO	<50
B	<0.5
T	<0.5
E	<0.5
X	<0.5
TDS	489,000

MW-8	µg/L
TPH-GRO	1,500
TPH-DRO	210
B	27
T	1
E	4
X	5
TDS	465,000

MW-6	µg/L
TPH-GRO	31
TPH-DRO	<50
B	<0.5
T	<0.5
E	<0.5
X	<0.5
TDS	487,000

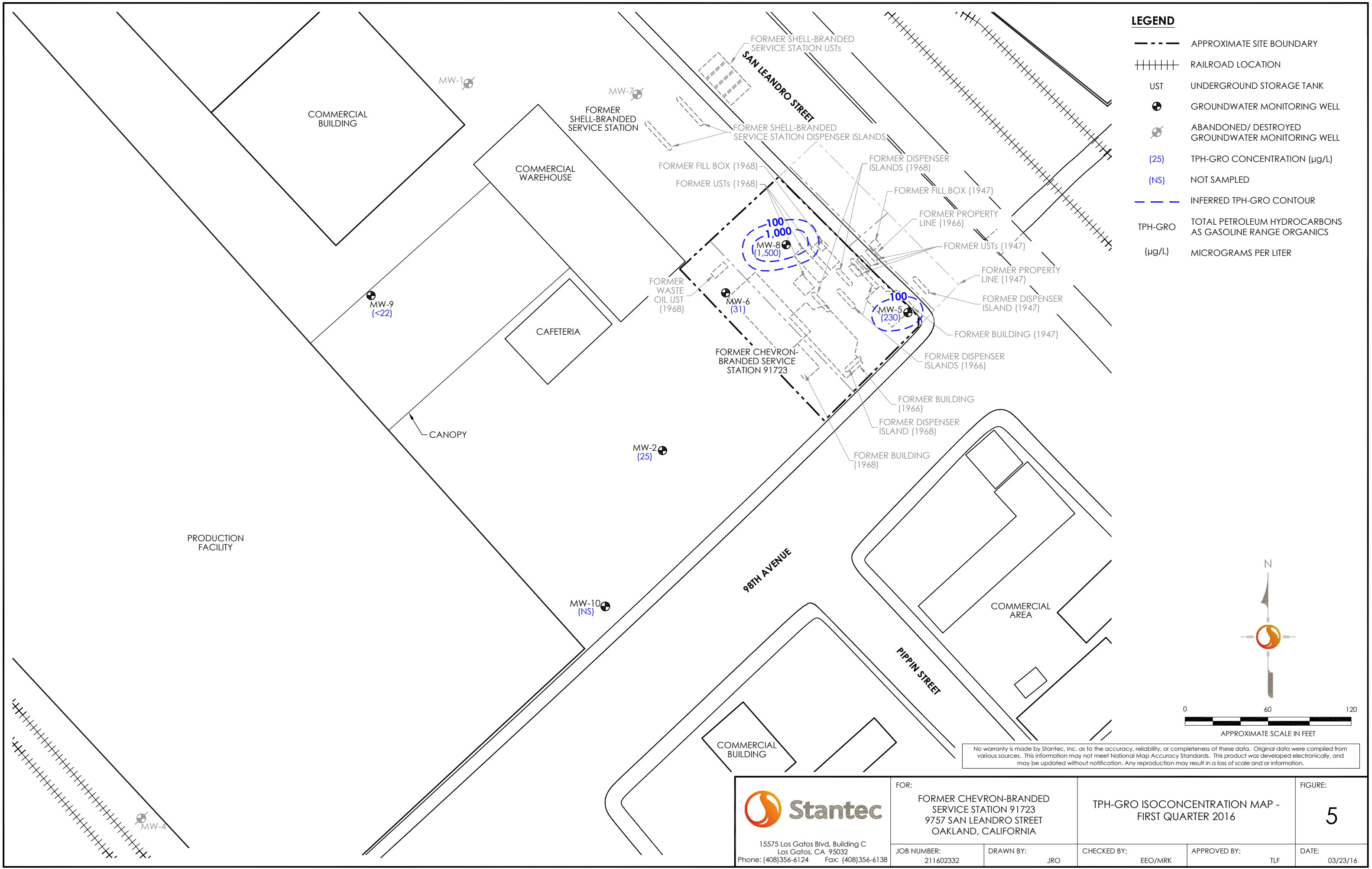
MW-5	µg/L
TPH-GRO	230
TPH-DRO	<50
B	<0.5
T	<0.5
E	<0.5
X	<0.5
TDS	469,000

MW-2	µg/L
TPH-GRO	25
TPH-DRO	<50
B	<0.5
T	<0.5
E	<0.5
X	<0.5
TDS	480,000

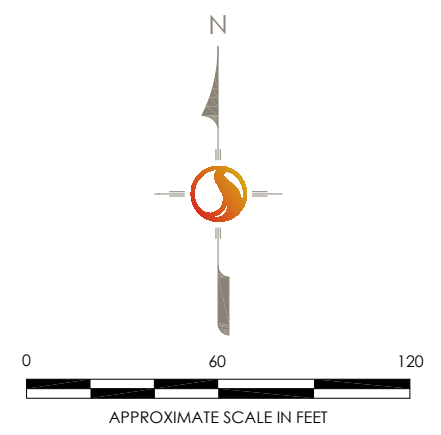


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	JOB NUMBER: 211602332	DRAWN BY: JRO	CHECKED BY: EEO/MRK	APPROVED BY: TLF

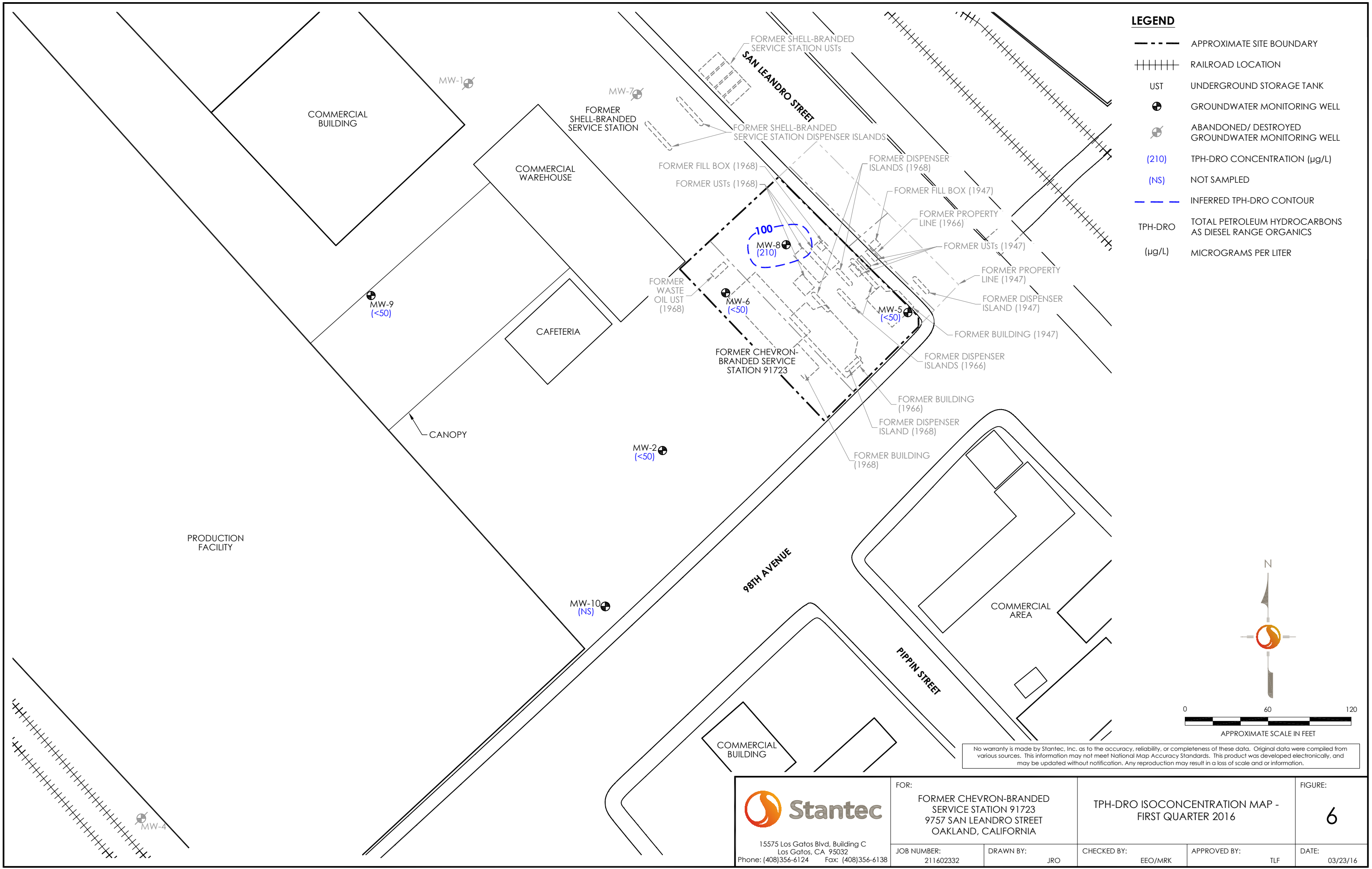


- LEGEND**
- APPROXIMATE SITE BOUNDARY
  - ++++ RAILROAD LOCATION
  - UST UNDERGROUND STORAGE TANK
  - ⊕ GROUNDWATER MONITORING WELL
  - ⊖ ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
  - (25) TPH-GRO CONCENTRATION (µg/L)
  - (NS) NOT SAMPLED
  - INFERRED TPH-GRO CONTOUR
  - TPH-GRO TOTAL PETROLEUM HYDROCARBONS AS GASOLINE RANGE ORGANICS (µg/L)
  - MICROGRAMS PER LITER

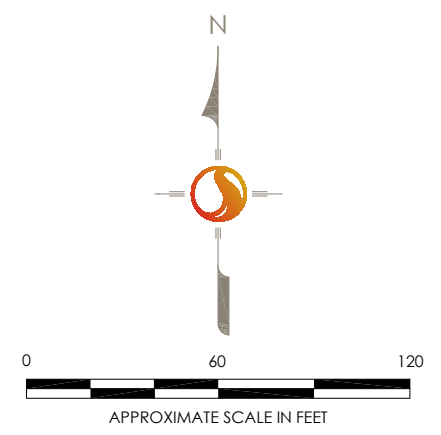


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	JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	
	211602332	JRO	EEO/MRK	TLF	03/23/16



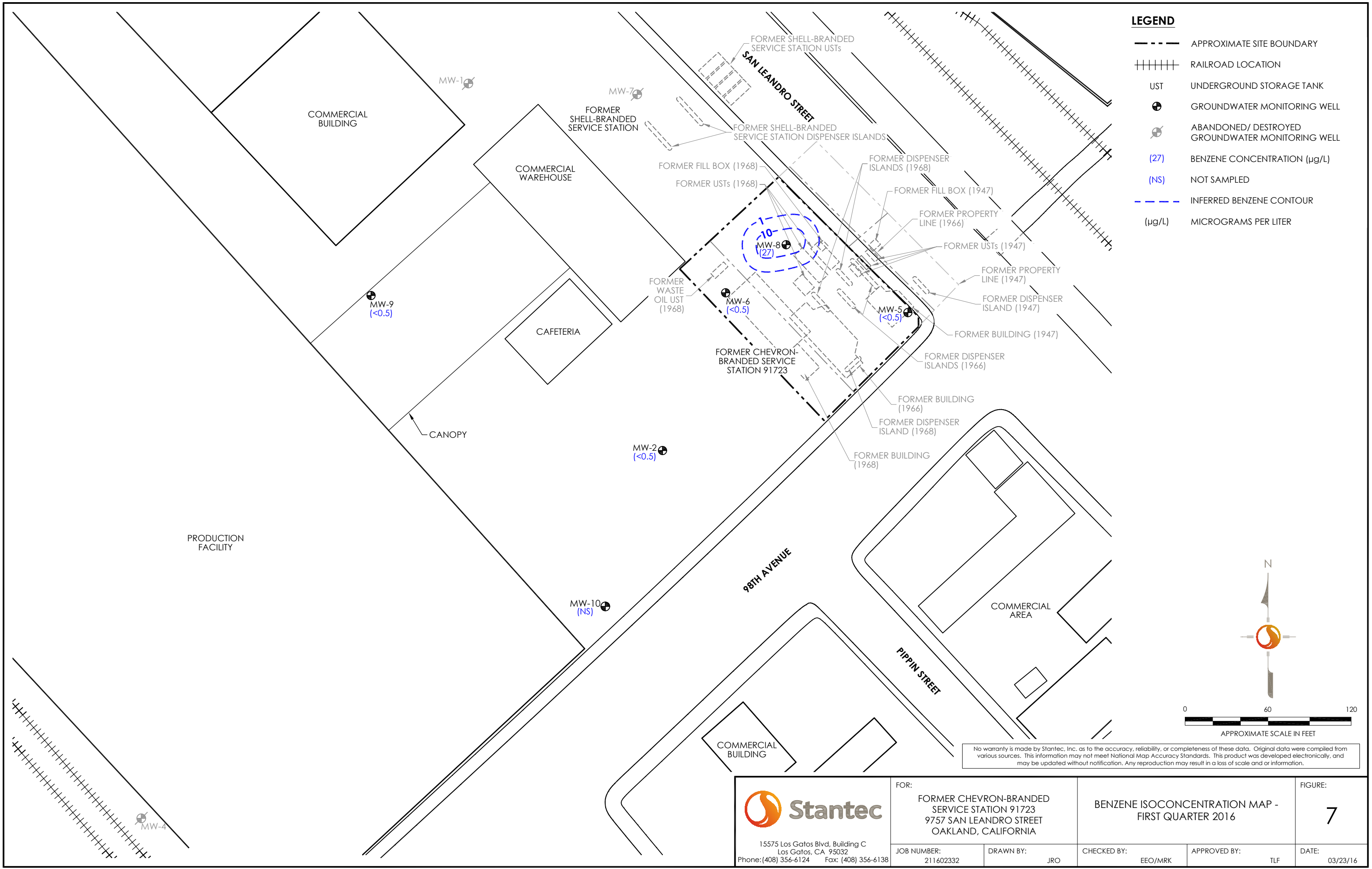
- LEGEND**
- APPROXIMATE SITE BOUNDARY
  - ++++ RAILROAD LOCATION
  - UST UNDERGROUND STORAGE TANK
  - ⊕ GROUNDWATER MONITORING WELL
  - ⊖ ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
  - (210) TPH-DRO CONCENTRATION (µg/L)
  - (NS) NOT SAMPLED
  - - - INFERRED TPH-DRO CONTOUR
  - TPH-DRO TOTAL PETROLEUM HYDROCARBONS AS DIESEL RANGE ORGANICS (µg/L)



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	JOB NUMBER: 211602332	DRAWN BY: JRO	CHECKED BY: EEO/MRK	APPROVED BY: TLF





<p>15575 Los Gatos Blvd, Building C Los Gatos, CA 95032 Phone: (408) 356-6124 Fax: (408) 356-6138</p>	<p>FOR: FORMER CHEVRON-BRANDED SERVICE STATION 91723 9757 SAN LEANDRO STREET OAKLAND, CALIFORNIA</p>	<p>BENZENE ISOCONCENTRATION MAP - FIRST QUARTER 2016</p>			<p>FIGURE: 7</p>
	<p>JOB NUMBER: 211602332</p>	<p>DRAWN BY: JRO</p>	<p>CHECKED BY: EEO/MRK</p>	<p>APPROVED BY: TLF</p>	<p>DATE: 03/23/16</p>

**ATTACHMENT A**

**Gettler-Ryan Inc. Field Data Sheets and Standard  
Operating Procedures – First Quarter 2016**



# GETTLER-RYAN INC.



## TRANSMITTAL

March 17, 2016  
G-R # 385899

To: Mr. Travis Flora  
Stantec  
15575 Los Gatos Blvd., Building C  
Los Gatos, California 95032

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

RE: **Former Chevron Station**  
**SS# 9-1723**  
**9757 San Leandro Street.**  
**Oakland, California**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Report First Semi Annual Event of March 11, 2016

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.



## 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 #9-1723  
 Site Address: 9757 San Leandro Street  
 City: Oakland, CA

Job Number: 386496  
 Event Date: 3.11.16 (inclusive)  
 Sampler: FT

Well ID: MW-2  
 Well Diameter: 2 1/4 in.  
 Total Depth: 21.53 ft.  
 Depth to Water: 6.28 ft.  
15.25 xVF .17 = 2.59 x3 case volume = Estimated Purge Volume: 8.0 gal.

Date Monitored: 3.11.16

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]: 9.33

### Purge Equipment:

Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Metal Filters \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
 Time Completed: \_\_\_\_\_ (2400 hrs)  
 Depth to Product: \_\_\_\_\_ ft  
 Depth to Water: \_\_\_\_\_ ft  
 Hydrocarbon Thickness: \_\_\_\_\_ ft  
 Visual Confirmation/Description: \_\_\_\_\_  
 Skimmer / Absorbent Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ ltr  
 Amt Removed from Well: \_\_\_\_\_ ltr  
 Water Removed: \_\_\_\_\_ ltr

Start Time (purge): 1150  
 Sample Time/Date: 1220 / 3-11-16  
 Approx. Flow Rate: \_\_\_\_\_ gpm.  
 Did well de-water? No If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Weather Conditions: RAIN  
 Water Color: LT. BRN. Odor: Y / (N)  
 Sediment Description: S. SILTY  
 DTW @ Sampling: 6.33

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS) / mS (µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1155</u>	<u>2.5</u>	<u>6.85</u>	<u>579</u>	<u>19.3</u>	_____	_____
<u>1200</u>	<u>5.0</u>	<u>6.88</u>	<u>585</u>	<u>19.5</u>	_____	_____
<u>1206</u>	<u>8.0</u>	<u>6.91</u>	<u>591</u>	<u>19.8</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3 x vva vial</u>	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO GC/MS/BTEX(8260B)</u>
	<u>2 x 500ml ambers</u>	<u>YES</u>	<u>NP</u>	<u>LANCASTER</u>	<u>TPH-DRO w/sgc COLUMN</u>
	<u>1 x 500ml poly</u>	<u>YES</u>	<u>NP</u>	<u>LANCASTER</u>	<u>TOTAL DISSOLVED SOLIDS</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 #9-1723  
 Site Address: 9757 San Leandro Street  
 City: Oakland, CA

Job Number: 386496  
 Event Date: 3-11-16 (inclusive)  
 Sampler: FT

Well ID: MW-5  
 Well Diameter: 2 1/4 in.  
 Total Depth: 17.63 ft.  
 Depth to Water: 6.27 ft.

Date Monitored: 3-11-16

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.  
 $11.36 \times VF .17 = 1.93$  x3 case volume = Estimated Purge Volume: 6.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.54

### Purge Equipment:

Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Metal Filters \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
 Time Completed: \_\_\_\_\_ (2400 hrs)  
 Depth to Product: \_\_\_\_\_ ft  
 Depth to Water: \_\_\_\_\_ ft  
 Hydrocarbon Thickness: \_\_\_\_\_ ft  
 Visual Confirmation/Description: \_\_\_\_\_  
 Skimmer / Absorbent Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ ltr  
 Amt Removed from Well: \_\_\_\_\_ ltr  
 Water Removed: \_\_\_\_\_ ltr

Start Time (purge): 1030  
 Sample Time/Date: 1055 / 3-11-16  
 Approx. Flow Rate:          gpm.  
 Did well de-water? No If yes, Time: \_\_\_\_\_

Weather Conditions: RAW  
 Water Color: 4.3 Odor: Y / N  
 Sediment Description: S. SILTY  
 Volume: \_\_\_\_\_ gal. DTW @ Sampling: 6.33

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS/mS / µmhos/cm)	Temperature (° / F)	D.O. (mg/L)	ORP (mV)
<u>1034</u>	<u>2.0</u>	<u>6.62</u>	<u>585</u>	<u>17.6</u>	_____	_____
<u>1038</u>	<u>4.0</u>	<u>6.65</u>	<u>591</u>	<u>17.8</u>	_____	_____
<u>1042</u>	<u>6.0</u>	<u>6.67</u>	<u>597</u>	<u>18.0</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-5</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO GC/MS/BTEX(8260B)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN
	<u>1</u> x 500ml poly	YES	NP	LANCASTER	TOTAL DISSOLVED SOLIDS

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 #9-1723  
 Site Address: 9757 San Leandro Street  
 City: Oakland, CA

Job Number: 386496  
 Event Date: 3.11.16 (inclusive)  
 Sampler: FT

Well ID: MW-6  
 Well Diameter: 214 in.  
 Total Depth: 19.54 ft.  
 Depth to Water: 6.39 ft.  
13.15 xVF .17 = 2.23

Date Monitored: 3.11.16

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: 7.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.02

### Purge Equipment:

Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Metal Filters \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
 Time Completed: \_\_\_\_\_ (2400 hrs)  
 Depth to Product: \_\_\_\_\_ 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): 1235  
 Sample Time/Date: 1300 / 3.11.16  
 Approx. Flow Rate: \_\_\_\_\_ gpm.  
 Did well de-water? NO If yes, Time: \_\_\_\_\_

Weather Conditions: LT. DRN  
 Water Color: LT. DRN Odor: Y 10  
 Sediment Description: S. SILTY  
 Volume: \_\_\_\_\_ gal. DTW @ Sampling: 6.45

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (° / F)	D.O. (mg/L)	ORP (mV)
<u>1240</u>	<u>2.5</u>	<u>6.90</u>	<u>551</u>	<u>18.8</u>	_____	_____
<u>1245</u>	<u>5.0</u>	<u>6.93</u>	<u>567</u>	<u>19.0</u>	_____	_____
<u>1249</u>	<u>7.0</u>	<u>6.95</u>	<u>562</u>	<u>19.2</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO GC/MS/BTEX(8260B)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN
	<u>1</u> x 500ml poly	YES	NP	LANCASTER	TOTAL DISSOLVED SOLIDS

### 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 #9-1723  
 Site Address: 9757 San Leandro Street  
 City: Oakland, CA

Job Number: 386496  
 Event Date: 3.11.16 (inclusive)  
 Sampler: FR

Well ID: MW-8  
 Well Diameter: 2 1/4 in.  
 Total Depth: 18.17 ft.  
 Depth to Water: 6.48 ft.  
11.69 xVF .17 = 1.98

Date Monitored: 3.11.16

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: 6.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.81

### Purge Equipment:

Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Metal Filters \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
 Time Completed: \_\_\_\_\_ (2400 hrs)  
 Depth to Product: \_\_\_\_\_ 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  
 Sample Time/Date: 1135 / 3.11.16  
 Approx. Flow Rate: / gpm.  
 Did well de-water? No If yes, Time: \_\_\_\_\_

Weather Conditions: RAIN  
 Water Color: 600 Odor: 0 / N STRONG  
 Sediment Description: S. SILTY  
 Volume: \_\_\_\_\_ gal. DTW @ Sampling: 6.55

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS) / mS (µmhos/cm)	Temperature (° / F)	D.O. (mg/L)	ORP (mV)
<u>1114</u>	<u>2.0</u>	<u>6.79</u>	<u>605</u>	<u>18.5</u>		
<u>1118</u>	<u>4.0</u>	<u>6.77</u>	<u>611</u>	<u>18.7</u>		
<u>1122</u>	<u>6.0</u>	<u>6.76</u>	<u>617</u>	<u>18.9</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-8</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO GC/MS/BTEX(8260B)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN
	<u>1</u> x 500ml poly	YES	NP	LANCASTER	TOTAL DISSOLVED SOLIDS

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 #9-1723  
 Site Address: 9757 San Leandro Street  
 City: Oakland, CA

Job Number: 386496  
 Event Date: 3.11.16 (inclusive)  
 Sampler: FT

Well ID: MW-9  
 Well Diameter: 21 in.  
 Total Depth: 20.27 ft.  
 Depth to Water: 5.80 ft.  
14.47 xVF .66 = 9.55

Date Monitored: 3.11.16

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: 29.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.69

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump /  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Metal Filters \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
 Time Completed: \_\_\_\_\_ (2400 hrs)  
 Depth to Product: \_\_\_\_\_ ft  
 Depth to Water: \_\_\_\_\_ ft  
 Hydrocarbon Thickness: \_\_\_\_\_ ft  
 Visual Confirmation/Description: \_\_\_\_\_  
 Skimmer / Absorbent Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ ltr  
 Amt Removed from Well: \_\_\_\_\_ ltr  
 Water Removed: \_\_\_\_\_ ltr

Start Time (purge): 1320  
 Sample Time/Date: 1345 / 3.11.16  
 Approx. Flow Rate: 2.5 gpm.  
 Did well de-water? No If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Weather Conditions: Cloudy  
 Water Color: Clean Odor: Y / N  
 Sediment Description: None  
 DTW @ Sampling: 6.10

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS) mS µmhos/cm	Temperature (°/ F)	D.O. (mg/L)	ORP (mV)
<u>1324</u>	<u>10.0</u>	<u>6.92</u>	<u>532</u>	<u>18.9</u>	_____	_____
<u>1328</u>	<u>20.0</u>	<u>6.95</u>	<u>540</u>	<u>19.2</u>	_____	_____
<u>1332</u>	<u>29.0</u>	<u>6.98</u>	<u>549</u>	<u>19.7</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-9</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO GC/MS/BTEX(8260B)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN
	<u>1</u> x 500ml poly	YES	NP	LANCASTER	TOTAL DISSOLVED SOLIDS

### COMMENTS:

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



**ATTACHMENT B**  
**Historical Groundwater Analytical Data**

Table 2. Summary of Chemical Results from Ground-water Samples

WELL NUMBER	SAMPLING DATE	TPH	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES, TOTAL	OTHER DETECTABLE VOLATILE COMPOUNDS			
		(GASOLINE) mg/l	ug/l	ug/l	ug/l	ug/l	1,1-DCE ug/l	1,1-DCA ug/l	1,1,1-TCA ug/l	1,2-DCA ug/l
MW-1	18-Apr-87	NT	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	61	9.5	93.1	0.5
	03-Jun-88	NT	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	8	40	ND(5)
	08-Aug-89	ND(0.05)	ND(1)	ND(1)	ND(1)	ND(1)	47	9	21	ND(1)
MW-2	18-Apr-87	NT	76.9	121	93.4	477	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)
	03-Jun-88	NT	64	18	48	60	ND(5)	ND(5)	ND(5)	ND(5)
	08-Aug-89	1.1	48	9	33	55	ND(1)	ND(1)	ND(1)	ND(1)
MW-4	18-Apr-87	NT	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)
	03-Jun-88	NT	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
	08-Aug-89	ND(0.05)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
MW-5	03-Jun-88	NT	93	ND(5)	100	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
	08-Aug-89	ND(0.05)	49	8	15	63	ND(1)	ND(1)	ND(1)	ND(1)
MW-6	03-Jun-88	NT	110	140	35	210	ND(5)	ND(5)	ND(5)	ND(5)
	08-Aug-89	1.0	45	8	15	74	ND(1)	ND(1)	ND(1)	ND(1)
MW-7	03-Jun-88	NT	ND(5)	ND(5)	ND(5)	ND(5)	25	5	18	ND(5)
	08-Aug-89	ND(0.05)	ND(1)	ND(1)	ND(1)	ND(1)	39	8	13	ND(1)
MW-8	03-Jun-88	NT	2300	2000	950	4100	ND(5)	ND(5)	ND(5)	ND(5)
	08-Aug-89	77	1900	820	1000	3600	ND(1)	ND(1)	ND(1)	ND(1)
MW-9	08-Aug-89	ND(0.05)	ND(1)	ND(1)	ND(1)	ND(1)	3	ND(1)	ND(1)	ND(1)
MW-10	08-Aug-89	ND(0.05)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Field	03-Jun-88	NT	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
Blank	08-Aug-89	ND(0.05)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)

## NOTES:

mg/l: milligrams per liter (equivalent to parts per million)

ug/l: micrograms per liter (equivalent to parts per billion)

NT: Not Tested

ND: Not detected; Limit of detection indicated in parenthesis

1,1-DCE: 1,1-Dichloroethene

1,1-DCA: 1,1-Dichloroethane

1,1,1-TCA: 1,1,1-Trichloroethane

1,2-DCA: 1,2-Dichloroethane

Volatile Organics in Water by EPA Method 624  
 Total Petroleum Hydrocarbons (TPH) as Gasoline  
 in Aqueous Solutions by EPA Method 8015 (Modified)  
 Extraction by EPA Method 5030, Purge and Trap

April 18, 1987 Results from Beta Associates (1987)

June 3, 1988 Results from Groundwater Technology (1988)

August 8, 1989 Results from Curtis &amp; Tompkins, Ltd.

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	Lead	MTBE
<b>MW-1</b>											
11/02/93	20.92	10.68	10.24	--	--	--	--	--	--	--	--
02/10/94	20.92	--	--	--	--	--	--	--	--	--	--
05/12/94	20.92	--	--	--	--	--	--	--	--	--	--
08/26/94	20.92	--	--	--	--	--	--	--	--	--	--

NO LONGER MONITORED OR SAMPLED

### MW-2

11/02/93	21.31	10.83	10.48	--	--	--	--	--	--	--	--
02/10/94	21.31	--	--	--	--	--	--	--	--	--	--
05/12/94	21.31	11.94	9.37	--	390	6.8	2.0	6.3	14	--	--
08/26/94	21.31	--	--	Sampled biannually	--	--	--	--	--	--	--
02/01/95	21.31	13.76	7.55	--	78	10	1.2	<0.5	0.51	--	--
08/02/95	21.31	11.53	9.78	--	100	3.5	<0.5	2.6	4.1	--	--
01/31/96	21.31	14.38	6.93	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
08/01/96	21.31	11.49	9.82	--	73	<0.5	<0.5	<0.5	<0.5	--	610
12/17/96	21.31	12.75	8.56	--	--	--	--	--	--	--	--
02/20/97	21.31	12.30	9.01	--	280	6.7	0.56	1.5	2.9	--	11
05/02/97	21.31	11.78	9.53	--	--	--	--	--	--	--	--
07/23/97	21.31	11.23	10.08	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
02/04/98	21.31	16.06	5.25	--	<50	1.1	<0.5	<0.5	<0.5	--	5.6
07/17/98	21.31	11.71	9.60	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5

### MW-4

11/02/93	--	--	10.23	--	--	--	--	--	--	--	--
02/10/94	--	--	--	--	--	--	--	--	--	--	--
05/12/94	--	--	--	--	--	--	--	--	--	--	--
08/26/94	--	--	--	--	--	--	--	--	--	--	--

NO LONGER MONITORED OR SAMPLED

### Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	Lead	MTBE
<b>MW-5</b>											
11/02/93	21.84	11.15	10.69	--	790	43	3.4	22	12	<400	--
02/10/94	21.84	13.10	8.74	--	1400	52	3.0	50	40	--	--
05/12/94	21.84	12.40	9.44	--	1800	87	6.2	77	66	--	--
08/26/94	21.84	--	--	--	--	--	--	--	--	--	--
11/11/94	21.84	13.50	8.34	--	380	18	<1.0	18	11	--	--
02/01/95	21.84	14.32	7.52	--	570	36	0.59	21	11	--	--
05/18/95	21.84	12.87	8.97	--	590	29	1.0	16	9.8	--	--
08/02/95	21.84	11.98	9.86	--	210	9.2	<0.5	4.0	1.2	--	--
11/01/95	21.84	11.58	10.26	--	210	5.6	<0.5	1.9	<0.5	--	<2.5
01/31/96	21.84	14.72	7.12	--	1200	50	<5.0	19	29	--	<25
05/16/96	21.84	14.22	7.62	--	440	14	<0.5	17	8.6	--	11
08/01/96	21.84	11.86	9.98	--	58	1.4	<0.5	<0.5	<0.5	--	2.5
12/17/96	21.84	13.13	8.71	--	300	9.7	<0.5	11	6.3	--	6.9
02/20/97	21.84	12.81	9.03	--	350	6.7	<0.5	4.3	1.9	--	5.0
05/02/97	21.84	12.50	9.34	--	270	4.8	<0.5	3.5	1.3	--	7.3
07/23/97	21.84	11.70	10.14	--	290	3.4	<0.5	<0.5	<0.5	--	3.1
11/04/97	21.84	11.69	10.15	--	180	3.8	<0.5	1.5	<0.5	--	8.6
02/04/98	21.84	16.54	5.30	--	140	4.3	<0.5	8.5	<0.5	--	<2.5
05/01/98	21.84	12.77	9.07	--	1200	19	<1.0	9.7	1.7	--	25
07/17/98	21.84	12.19	9.65	--	900	3.6	<2.0	12	2.6	--	11

### Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	Lead	MTBE
<b>MW-6</b>											
11/02/93	21.71	10.93	10.78	--	300	19	1.8	2.5	5.0	<400	--
02/10/94	21.71	12.86	8.85	--	200	10	0.9	2.0	4.0	--	--
05/12/94	21.71	12.08	9.63	--	210	10	1.1	1.2	3.1	--	--
08/26/94	21.71	10.82	10.89	--	310	16	1.4	2.3	7.1	--	--
11/11/94	21.71	13.25	8.46	--	<50	1.3	<0.5	<0.5	1.0	--	--
02/01/95	21.71	14.02	7.69	--	<50	1.9	<0.5	<0.5	0.51	--	--
05/18/95	21.71	12.43	9.28	--	<50	8.2	<0.5	<0.5	<0.5	--	--
08/02/95	21.71	11.64	10.07	--	<50	2.3	<0.5	<0.5	<0.5	--	--
11/01/95	21.71	11.31	10.40	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
01/31/96	21.71	13.63	8.08	--	<50	0.98	<0.5	<0.5	<0.5	--	<2.5
05/16/96	21.71	13.91	7.80	--	<50	1.6	<0.5	<0.5	<0.5	--	<2.5
08/01/96	21.71	11.56	10.15	--	<50	0.82	<0.5	<0.5	<0.5	--	<2.5
12/17/96	21.71	13.26	8.45	--	63	2.6	<0.5	<0.5	<0.5	--	<2.5
02/20/97	21.71	--	--	Inaccessible	--	--	--	--	--	--	--
05/02/97	21.71	--	--	Inaccessible	--	--	--	--	--	--	--
05/29/97	21.71	11.72	9.99	--	120	1.8	<0.5	<0.5	<0.5	--	2.6
07/23/97	21.71	11.31	10.40	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
11/04/97	21.71	11.38	10.33	--	63	1.2	<0.5	<0.5	<0.5	--	<2.5
02/04/98	21.71	16.19	5.52	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
05/01/98	21.71	12.40	9.31	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
07/17/98	21.71	11.84	9.87	--	<50	1.0	<0.5	<0.5	<0.5	--	<2.5



### Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	Lead	MTBE
<b>MW-7</b>											
11/02/93	20.95	10.88	10.07	--	--	--	--	--	--	--	--
02/10/94	20.95	--	--	--	--	--	--	--	--	--	--
05/12/94	20.95	--	--	--	--	--	--	--	--	--	--
08/26/94	20.95	--	--	--	--	--	--	--	--	--	--

NO LONGER MONITORED OR SAMPLED

#### MW-8

11/02/93	21.84	11.02	10.82	--	15,000	2000	440	420	1400	<400	--
02/10/94	21.84	12.97	8.87	--	6500	1200	380	250	7900	--	--
05/12/94	21.84	12.19	9.65	--	30,000	1400	2900	800	3800	--	--
08/26/94	21.84	10.90	10.94	--	17,000	720	200	330	930	--	--
11/11/94	21.84	13.38	8.46	--	6800	250	170	190	650	--	--
02/01/95	21.84	14.36	7.48	--	330	68	2.8	2.7	4.3	--	--
05/18/95	21.84	12.54	9.30	--	540	120	12	11	23	--	--
08/02/95	21.84	11.73	10.11	--	1100	150	9.7	20	40	--	--
11/01/95	21.84	11.36	10.48	--	1700	120	15	16	39	--	<5.0
01/31/96	21.84	14.64	7.20	--	57	5.3	<0.5	<0.5	<0.5	--	<2.5
05/16/96	21.84	13.99	7.85	--	2100	260	43	56	130	--	64
08/01/96	21.84	11.59	10.25	--	1100	45	0.92	8.9	25	--	7.4
12/17/96	21.84	12.95	8.89	--	2000	280	30	51	88	--	22
02/20/97	21.84	--	--	Inaccessible	--	--	--	--	--	--	--
05/02/97	21.84	--	--	Inaccessible	--	--	--	--	--	--	--
05/29/97	21.84	11.79	10.05	--	3400	280	31	53	120	--	<50
07/23/97	21.84	11.48	10.36	--	760	20	2.2	2.6	5.0	--	9.7
11/04/97	21.84	11.49	10.35	--	1100	150	13	22	39	--	49
02/04/98	21.84	16.29	5.55	--	270	6.8	<0.5	3.3	<0.5	--	<2.5
05/01/98	21.84	12.62	9.22	--	190	5.3	<0.5	<0.5	0.75	--	2.8
07/17/98	21.84	11.89	9.95	--	1400	210	20	24	54	--	<25

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	Lead	MTBE
<b>MW-9</b>											
11/02/93	20.55	10.53	10.02	--	--	--	--	--	--	--	--
02/10/94	20.55	--	--	--	--	--	--	--	--	--	--
05/12/94	20.55	11.60	8.95	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
08/26/94	20.55	--	--	Sampled biannually	--	--	--	--	--	--	--
02/01/95	20.55	13.35	7.20	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
08/02/95	20.55	11.22	9.33	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
01/31/96	20.55	14.10	6.45	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
08/01/96	20.55	11.20	9.35	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
12/17/96	20.55	12.29	8.26	--	--	--	--	--	--	--	--
02/20/97	20.55	12.09	8.46	--	55*	1.1	<0.5	<0.5	<0.5	--	<2.5
05/02/97	20.55	11.45	9.10	--	--	--	--	--	--	--	--
07/23/97	20.55	10.95	9.60	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
02/04/98	20.55	15.51	5.04	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
07/17/98	20.55	11.37	9.18	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
<b>MW-10</b>											
11/02/93	21.25	10.93	10.32	--	--	--	--	--	--	--	--
02/10/94	21.25	--	--	--	--	--	--	--	--	--	--
05/12/94	21.25	--	--	--	--	--	--	--	--	--	--
08/26/94	21.25	--	--	--	--	--	--	--	--	--	--

NO LONGER MONITORED OR SAMPLED

\* Chromatogram pattern indicates an unidentified hydrocarbon.

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	Lead	MTBE
<b>TRIP BLANK</b>											
02/10/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
05/12/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
08/26/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
11/11/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
02/01/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
05/18/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
08/02/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
11/01/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
01/31/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
05/16/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
08/01/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
12/17/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
02/20/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
05/02/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
07/23/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
02/04/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
05/01/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5
07/17/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<2.5

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on November 1, 1994.  
Earlier field data and analytical results are drawn from the September 14, 1994 Groundwater Technology, Inc. report.

**ABBREVIATIONS:**

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl t-Butyl Ether

**ATTACHMENT C**  
**Certified Laboratory Analysis Reports and**  
**Chain-of-Custody Documents**

## ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Report Date: March 28, 2016

### Project: 91723

Submittal Date: 03/15/2016  
Group Number: 1640716  
PO Number: 0015188594  
Release Number: CMACLEOD  
State of Sample Origin: CA

#### Client Sample Description

QA-T-160311 NA Water  
MW-2-W-160311 Grab Groundwater  
MW-5-W-160311 Grab Groundwater  
MW-6-W-160311 Grab Groundwater  
MW-8-W-160311 Grab Groundwater  
MW-9-W-160311 Grab Groundwater

#### Lancaster Labs (LL) #

8286149  
8286150  
8286151  
8286152  
8286153  
8286154

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>.

Electronic Copy To Stantec  
Electronic Copy To Stantec  
Electronic Copy To Stantec International  
Electronic Copy To Stantec  
Electronic Copy To Gettler-Ryan Inc.

Attn: Marisa Kaffenberger  
Attn: Erin O'Malley  
Attn: Travis Flora  
Attn: Laura Viesselman  
Attn: Gettler Ryan

Respectfully Submitted,

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

Amek Carter  
Specialist

(717) 556-7252

Sample Description: QA-T-160311 NA Water  
 Facility# 91723 Job# 386496 GRD  
 9757 San Leandro-Oakland T0600101789

LL Sample # WW 8286149  
 LL Group # 1640716  
 Account # 10906

Project Name: 91723

Collected: 03/11/2016

Chevron

Submitted: 03/15/2016 09:50

6001 Bollinger Canyon Rd L4310  
 San Ramon CA 94583

Reported: 03/28/2016 12:49

SLOQA

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	C6-C12-TPH-GRO	n.a.	N.D.	22	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

### General Sample Comments

CA ELAP Lab Certification No. 2792

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
10945	8260 BTEX+ GRO C6-C12	SW-846 8260B	1	F160812AA	03/21/2016 15:07	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160812AA	03/21/2016 15:07	Daniel H Heller	1

Sample Description: MW-2-W-160311 Grab Groundwater  
Facility# 91723 Job# 386496 GRD  
9757 San Leandro-Oakland T0600101789

LL Sample # WW 8286150  
LL Group # 1640716  
Account # 10906

Project Name: 91723

Collected: 03/11/2016 12:20 by FT

Chevron

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Submitted: 03/15/2016 09:50

Reported: 03/28/2016 12:49

SLOM2

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	C6-C12-TPH-GRO	n.a.	25	22	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Petroleum</b>		<b>SW-846 8015B</b>	<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
The reverse surrogate, capric acid, is present at <1%.					
<b>Wet Chemistry</b>		<b>SM 2540 C-1997</b>	<b>ug/l</b>	<b>ug/l</b>	
00212	Total Dissolved Solids	n.a.	480,000	19,400	1

### General Sample Comments

CA ELAP Lab Certification No. 2792

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
10945	8260 BTEX+ GRO C6-C12	SW-846 8260B	1	F160812AA	03/21/2016 16:57	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160812AA	03/21/2016 16:57	Daniel H Heller	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	160770034A	03/21/2016 14:39	Thomas C Wildermuth	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	160770034A	03/18/2016 09:30	Bradley W VanLeuven	1
00212	Total Dissolved Solids	SM 2540 C-1997	1	16077021201A	03/17/2016 06:33	Alyssa N Pearl	1



Sample Description: MW-5-W-160311 Grab Groundwater  
Facility# 91723 Job# 386496 GRD  
9757 San Leandro-Oakland T0600101789

LL Sample # WW 8286151  
LL Group # 1640716  
Account # 10906

Project Name: 91723

Collected: 03/11/2016 10:55 by FT

Chevron

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Submitted: 03/15/2016 09:50

Reported: 03/28/2016 12:49

SLOM5

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	C6-C12-TPH-GRO	n.a.	230	22	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Petroleum</b>		<b>SW-846 8015B</b>	<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
The reverse surrogate, capric acid, is present at <1%.					
<b>Wet Chemistry</b>		<b>SM 2540 C-1997</b>	<b>ug/l</b>	<b>ug/l</b>	
00212	Total Dissolved Solids	n.a.	469,000	19,400	1

### General Sample Comments

CA ELAP Lab Certification No. 2792

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
10945	8260 BTEX+ GRO C6-C12	SW-846 8260B	1	F160812AA	03/21/2016 20:35	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160812AA	03/21/2016 20:35	Daniel H Heller	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	160770034A	03/21/2016 15:01	Thomas C Wildermuth	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	160770034A	03/18/2016 09:30	Bradley W VanLeuven	1
00212	Total Dissolved Solids	SM 2540 C-1997	1	16076021201A	03/16/2016 05:41	Alyssa N Pearl	1

Sample Description: MW-6-W-160311 Grab Groundwater  
Facility# 91723 Job# 386496 GRD  
9757 San Leandro-Oakland T0600101789

LL Sample # WW 8286152  
LL Group # 1640716  
Account # 10906

Project Name: 91723

Collected: 03/11/2016 13:00 by FT

Chevron

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Submitted: 03/15/2016 09:50

Reported: 03/28/2016 12:49

SLOM6

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	C6-C12-TPH-GRO	n.a.	31	22	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Petroleum</b>		<b>SW-846 8015B</b>	<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				
<b>Wet Chemistry</b>		<b>SM 2540 C-1997</b>	<b>ug/l</b>	<b>ug/l</b>	
00212	Total Dissolved Solids	n.a.	487,000	19,400	1

### General Sample Comments

CA ELAP Lab Certification No. 2792

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
10945	8260 BTEX+ GRO C6-C12	SW-846 8260B	1	F160812AA	03/21/2016 20:57	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160812AA	03/21/2016 20:57	Daniel H Heller	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	160770034A	03/21/2016 15:22	Thomas C Wildermuth	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	160770034A	03/18/2016 09:30	Bradley W VanLeuven	1
00212	Total Dissolved Solids	SM 2540 C-1997	1	16077021201A	03/17/2016 06:33	Alyssa N Pearl	1

Sample Description: MW-8-W-160311 Grab Groundwater  
Facility# 91723 Job# 386496 GRD  
9757 San Leandro-Oakland T0600101789

LL Sample # WW 8286153  
LL Group # 1640716  
Account # 10906

Project Name: 91723

Collected: 03/11/2016 11:35 by FT

Chevron

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Submitted: 03/15/2016 09:50

Reported: 03/28/2016 12:49

SLOM8

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	Benzene	71-43-2	27	0.5	1
10945	C6-C12-TPH-GRO	n.a.	1,500	22	1
10945	Ethylbenzene	100-41-4	4	0.5	1
10945	Toluene	108-88-3	1	0.5	1
10945	Xylene (Total)	1330-20-7	5	0.5	1
<b>GC Petroleum</b>		<b>SW-846 8015B</b>	<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	210	50	1
The reverse surrogate, capric acid, is present at <1%.					
<b>Wet Chemistry</b>		<b>SM 2540 C-1997</b>	<b>ug/l</b>	<b>ug/l</b>	
00212	Total Dissolved Solids	n.a.	465,000	19,400	1

### General Sample Comments

CA ELAP Lab Certification No. 2792

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
10945	8260 BTEX+ GRO C6-C12	SW-846 8260B	1	F160812AA	03/21/2016 21:18	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160812AA	03/21/2016 21:18	Daniel H Heller	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	2	160770034A	03/21/2016 15:44	Thomas C Wildermuth	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	160770034A	03/18/2016 09:30	Bradley W VanLeuven	1
00212	Total Dissolved Solids	SM 2540 C-1997	1	16077021201A	03/17/2016 06:33	Alyssa N Pearl	1

Sample Description: MW-9-W-160311 Grab Groundwater  
Facility# 91723 Job# 386496 GRD  
9757 San Leandro-Oakland T0600101789

LL Sample # WW 8286154  
LL Group # 1640716  
Account # 10906

Project Name: 91723

Collected: 03/11/2016 13:45 by FT

Chevron

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Submitted: 03/15/2016 09:50

Reported: 03/28/2016 12:49

SLOM9

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	C6-C12-TPH-GRO	n.a.	N.D.	22	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Petroleum</b>		<b>SW-846 8015B</b>	<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons w/Si</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				
<b>Wet Chemistry</b>		<b>SM 2540 C-1997</b>	<b>ug/l</b>	<b>ug/l</b>	
00212	Total Dissolved Solids	n.a.	489,000	19,400	1

### General Sample Comments

CA ELAP Lab Certification No. 2792

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
10945	8260 BTEX+ GRO C6-C12	SW-846 8260B	1	F160812AA	03/21/2016 21:40	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160812AA	03/21/2016 21:40	Daniel H Heller	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	160770034A	03/21/2016 16:06	Thomas C Wildermuth	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	160770034A	03/18/2016 09:30	Bradley W VanLeuven	1
00212	Total Dissolved Solids	SM 2540 C-1997	1	16077021201A	03/17/2016 06:33	Alyssa N Pearl	1

## Quality Control Summary

Client Name: Chevron  
Reported: 03/28/2016 12:49

Group Number: 1640716

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.

### Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: F160812AA	Sample number(s): 8286149-8286154	
Benzene	N.D.	0.5
C6-C12-TPH-GRO	N.D.	22
Ethylbenzene	N.D.	0.5
Toluene	N.D.	0.5
Xylene (Total)	N.D.	0.5
Batch number: 160770034A	Sample number(s): 8286150-8286154	
TPH-DRO CA C10-C28 w/ Si Gel	N.D.	50
Batch number: 16076021201A	Sample number(s): 8286151	
Total Dissolved Solids	N.D.	9,700
Batch number: 16077021201A	Sample number(s): 8286150,8286152-8286154	
Total Dissolved Solids	N.D.	9,700

### LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Batch number: F160812AA	Sample number(s): 8286149-8286154								
Benzene	20	17.99			90		78-120		
C6-C12-TPH-GRO	1000	809.35	1000	851.88	81	85	77-120	5	30
Ethylbenzene	20	18.46			92		78-120		
Toluene	20	18.48			92		80-120		
Xylene (Total)	60	53.86			90		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 160770034A	Sample number(s): 8286150-8286154								
TPH-DRO CA C10-C28 w/ Si Gel	1600	1058.55	1600	1002.39	66	63	40-105	5	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 16076021201A	Sample number(s): 8286151								
Total Dissolved Solids	200000	201000	200000	192000	101	96	80-120	5	9
Batch number: 16077021201A	Sample number(s): 8286150,8286152-8286154								
Total Dissolved Solids	200000	177000			89		80-120		

### MS/MSD

\*- 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.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: Chevron  
Reported: 03/28/2016 12:49

Group Number: 1640716

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

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F160812AA	Sample number(s): 8286149-8286154 UNSPK: 8286150									
Benzene	N.D.	20	20.86	20	21.17	104	106	78-120	1	30
Ethylbenzene	N.D.	20	20.95	20	20.92	105	105	78-120	0	30
Toluene	N.D.	20	21.38	20	21.38	107	107	80-120	0	30
Xylene (Total)	N.D.	60	62.86	60	62.58	105	104	80-120	0	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 16076021201A	Sample number(s): 8286151 UNSPK: P282830									
Total Dissolved Solids	30500	200000	223000			96		80-120		
Batch number: 16077021201A	Sample number(s): 8286150,8286152-8286154 UNSPK: P288032									
Total Dissolved Solids	2644000	1600000	3896000	1600000	3908000	78*	79*	80-120	0	23

## Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc ug/l	DUP Conc ug/l	DUP RPD	DUP RPD Max
Batch number: 16076021201A	Sample number(s): 8286151 BKG: P282830			
Total Dissolved Solids	30500	33000	8* (1)	5
Batch number: 16077021201A	Sample number(s): 8286150,8286152-8286154 BKG: P288032			
Total Dissolved Solids	2644000	2640000	0	5

## 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: 8260 BTEX+ GRO C6-C12  
Batch number: F160812AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8286149	91	98	97	93
8286150	91	101	99	92
8286151	90	99	98	94
8286152	91	98	98	93
8286153	88	95	98	96
8286154	92	97	96	94
Blank	92	99	99	94
LCS	91	99	98	94
LCSD	90	99	98	93
MS	91	96	98	95
MSD	90	99	98	94
Limits:	80-116	77-113	80-113	78-113

\*- 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.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: Chevron  
Reported: 03/28/2016 12:49

Group Number: 1640716

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel  
Batch number: 160770034A

	Orthoterphenyl
8286150	75
8286151	73
8286152	70
8286153	71
8286154	69
Blank	70
LCS	77
LCSD	76

Limits: 42-126

\*- 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.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

# Chevron California Region Analysis Request/Chain of Custody

**eurofins** <sup>500</sup>  
**Lancaster Laboratories**

Acct. # 10906 For Eurofins Lancaster Laboratories use only  
 Group # 1640716 Sample # 8286149-54  
Instructions on reverse side correspond with circled numbers.

1041

① Client Information				④ Matrix				⑤ Analyses Requested												⑥ Remarks	
Facility # <u>SS#9-1723-OML G-R#386496 Global ID#T0600101789</u> Site Address <u>9757 SAN LEANDRO STREET, OAKLAND, CA</u> Chevron PM <u>CM</u> STANTECTF Lead Consultant <u>Flora</u> Consultant/Office <u>Getter-Ryan Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568</u> Consultant Project Mgr. <u>Deanna L. Harding, deanna@grinc.com</u> Consultant Phone # <u>(925) 551-7444 x180</u> Sampler <u>FRANK TENINARI</u>				Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Oil <input type="checkbox"/> Ground <input checked="" type="checkbox"/> NPDES <input type="checkbox"/> Total Number of Containers <u>6</u> Surface <input type="checkbox"/> Air <input type="checkbox"/>				BTEX <input checked="" type="checkbox"/> 8260 <input checked="" type="checkbox"/> TPH-GRO <input checked="" type="checkbox"/> 8015 <input type="checkbox"/> TPH-DRO 8015 without Silica Gel Cleanup <input type="checkbox"/> TPH-DRO 8015 with Silica Gel Cleanup <input checked="" type="checkbox"/> 8260 Full Scan Oxygenates Total Lead Dissolved Lead TOTAL DISSOLVED SOLIDS												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		Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX	TPH-GRO	TPH-DRO 8015 without Silica Gel Cleanup	TPH-DRO 8015 with Silica Gel Cleanup	8260 Full Scan	Oxygenates	Total Lead	Dissolved Lead	TOTAL DISSOLVED SOLIDS	⑥ Remarks	
QA			3.11.16							6	X	X		X				X			
MW-2				1220	X				6	X	X		X					X			
MW-5				1055	X				6	X	X		X					X			
MW-6				1300	X				6	X	X		X					X			
MW-8				1135	X				6	X	X		X					X			
MW-9				1345	X				6	X	X		X					X			
⑦ Turnaround Time Requested (TAT) (please circle)				Relinquished by <u>[Signature]</u> Date <u>3.11.16</u> Time _____				Received by <u>[Signature]</u> Date <u>11 MAR 16</u> Time <u>1600</u>				Received by <u>[Signature]</u> Date <u>14 MAR 16</u> Time <u>1630</u>				Received by <u>[Signature]</u> Date <u>3/15/16</u> Time <u>0950</u>					
<input checked="" type="radio"/> Standard 5 day 4 day <input type="radio"/> 72 hour 48 hour 24 hour				<input type="radio"/> EDF/EDD				Relinquished by Commercial Carrier: UPS _____ FedEx <input checked="" type="checkbox"/> Other _____				Temperature Upon Receipt <u>0.4 - 0.3</u> °C				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: _____																	



Client: California
**San Leandro**
**Delivery and Receipt Information**

Delivery Method:	<u>BASC</u>	Arrival Timestamp:	<u>03/15/2016 9:50</u>
Number of Packages:	<u>2</u>	Number of Projects:	<u>4</u>
State/Province of Origin:	<u>CA</u>		

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace $\geq$ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCI
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Krista Abel (3058) at 11:08 on 03/15/2016*
**Samples Chilled Details: San Leandro**

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

<u>Cooler #</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	DT121	0.4	DT	Wet	Y	Bagged	N
2	DT121	0.3	DT	Wet	Y	Bagged	N

# 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
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	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.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	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.		

## Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value  $\geq$  the Method Detection Limit (MDL or DL) and  $<$  the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column  $>40\%$ . The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column  $>100\%$ . The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

## Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) 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.

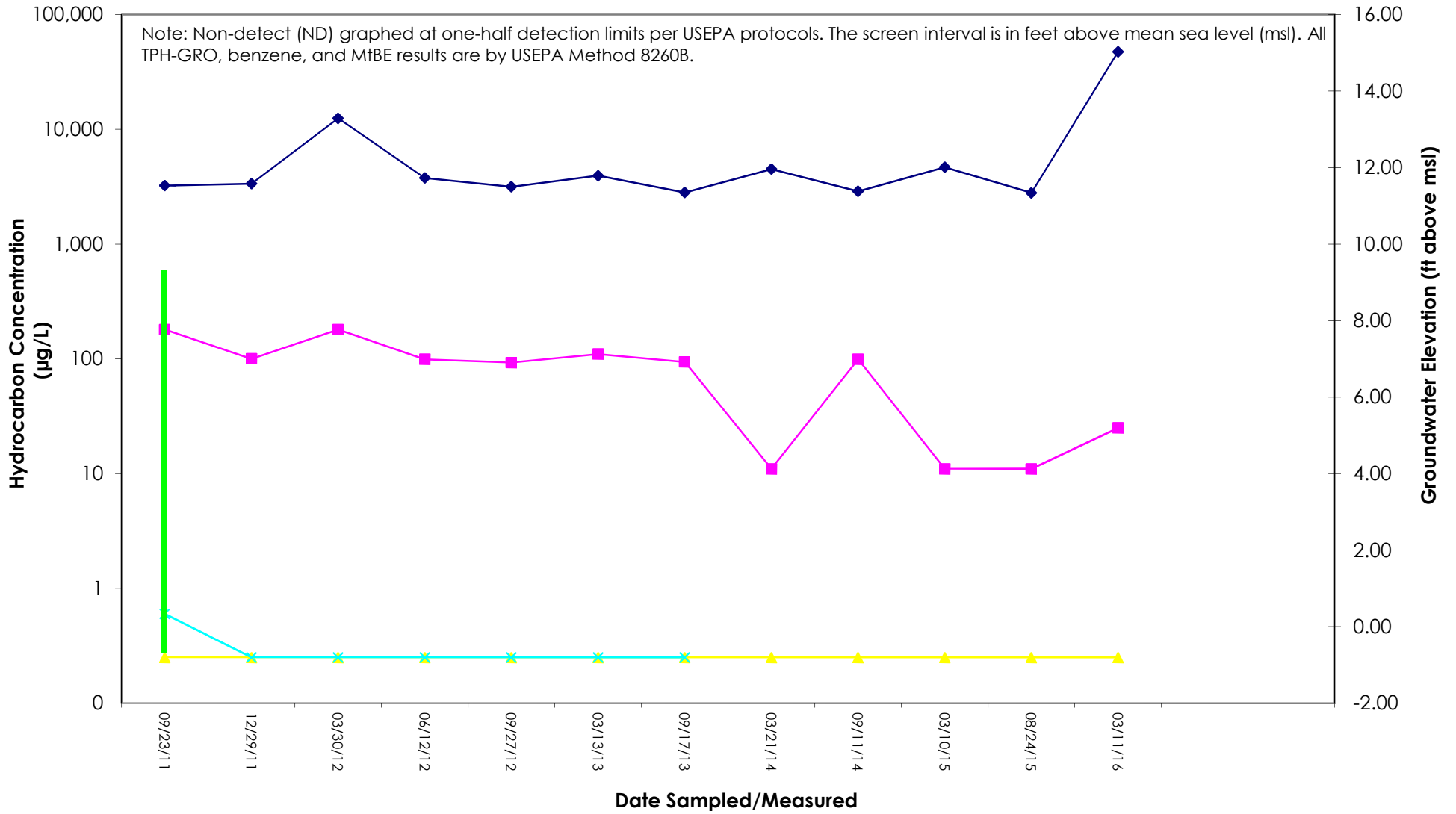
This report shall not be reproduced except in full, without the written approval of the laboratory.

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.

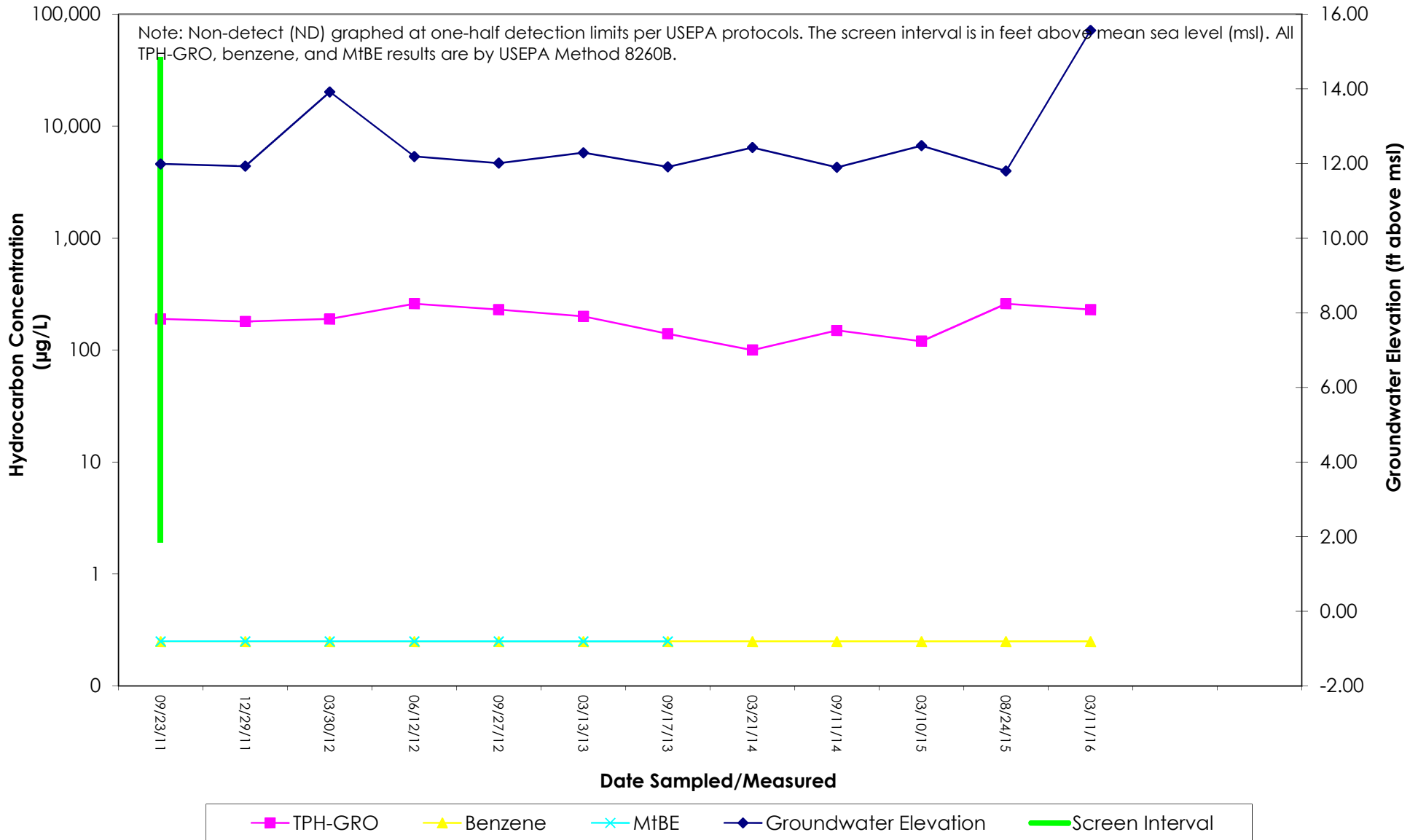
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**ATTACHMENT D**  
**Hydrographs**

**MW-2 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time**  
 Former Chevron-branded Service Station 91723  
 9757 San Leandro Street  
 Oakland, California



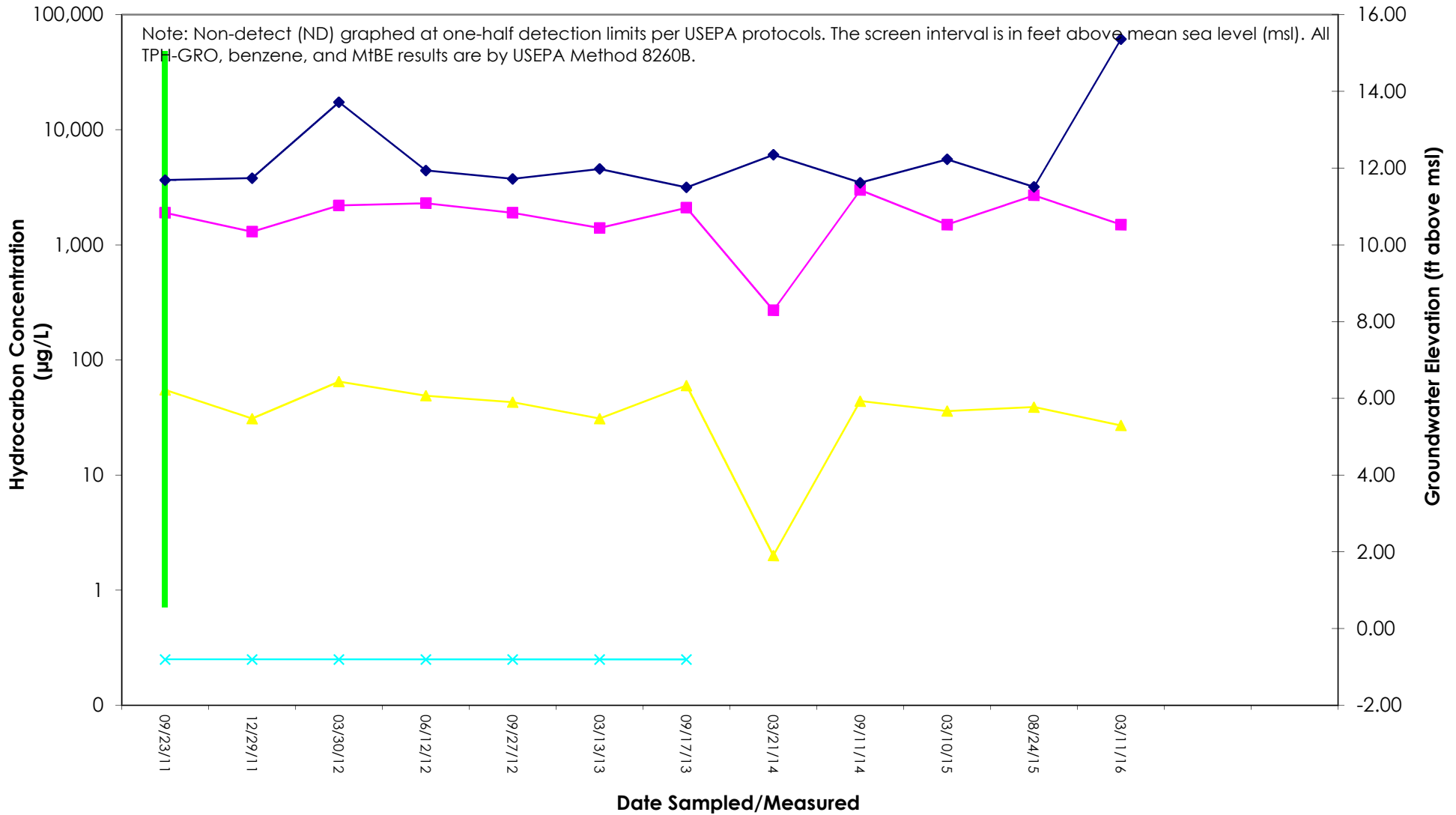
**MW-5 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time**  
 Former Chevron-branded Service Station 91723  
 9757 San Leandro Street  
 Oakland, California



**MW-6 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time**  
 Former Chevron-branded Service Station 91723  
 9757 San Leandro Street  
 Oakland, California



**MW-8 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time**  
 Former Chevron-branded Service Station 91723  
 9757 San Leandro Street  
 Oakland, California



# MW-9 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time

Former Chevron-branded Service Station 91723

9757 San Leandro Street

Oakland, California

