REPORT

# FIRST SEMIANNUAL 2014 GROUNDWATER MONITORING REPORT

## SLIC CASE #RO0002892
## CHEVRON PIPELINE COMPANY
## SUNOL SPILL
## 2793 CALAVERAS RD.
## SUNOL, CA

*Prepared for*
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, CA 94502

April 2014

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April 25, 2014

Mr. Jerry Wickham
Department of Environmental Health
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

Dear Mr. Wickham:

I declare, under penalty of perjury, that the information and/or recommendations contained in URS' report titled "**SLIC Case No. RO0002892, Chevron Sunol Pipeline, 2793 Calaveras Road, Sunol, CA – First Semiannual 2014 Groundwater Monitoring Report**" are true and correct to the best of my knowledge at the present time.

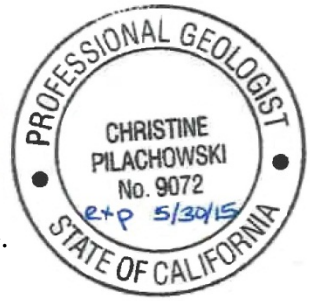
Submitted by:

Stephen Gwin
Chevron Pipe Line Company

This letter report ("**First Semiannual 2014 Groundwater Monitoring Report**") was prepared under my direct supervision. The information presented in this report is based on our review of available data obtained during our quarterly sampling activities and our previous subsurface investigation efforts. To the best of our knowledge, we have incorporated into our recommendations all relevant data pertaining to the Chevron Pipeline Company's Sunol Spill Site in Sunol, California.

The First Semi-Annual 2014 Groundwater Monitoring Report discussed herein was developed in accordance with the standard of care used to develop this type of report. The assumptions that were made and the recommendations for continued field activities were based on our professional experience and protocols reported in the literature for similar investigations.

Approved by:
**URS CORPORATION**

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April 25, 2014

Mr. Jerry Wickham
Department of Environmental Health
Alameda County Environmental Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

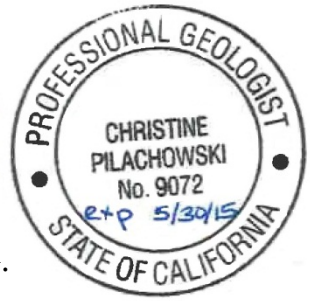
**Subject: SLIC Case No. RO0002892, Chevron Pipe Line Company (CPL), Sunol Spill, 2793 Calaveras Rd, Sunol, CA,**
**First Semiannual 2014 Groundwater Monitoring Report**

Dear Mr. Wickham:

A December 30, 2005 letter from the Alameda County Environmental Health (ACEH) staff requested the initiation of a quarterly groundwater monitoring program for the Chevron Pipe Line Company Sunol Spill Site located at Mile Post 2.7 along Calaveras Road. In a letter dated December 10, 2010, the ACEH agreed to change the quarterly groundwater monitoring program to semiannual. URS Corporation Americas (URS) submitted a Request for Closure (RFC) to ACEH on August 23, 2013. In a letter dated October 30, 2013, ACEH requested monitoring wells MW-12 through MW-15 to be sampled for two consecutive quarters starting in first quarter 2014. In response to these requests and on behalf of CPL, URS has prepared this First Semiannual 2014 Site Groundwater Monitoring Report, and will complete a second consecutive quarter of sampling of monitoring wells MW-12 through MW-15, if sufficient water is present for sampling.

If you have any questions on this report, please call Mr. Joe Morgan of URS at 510-874-3201.

Sincerely,
**URS CORPORATION**

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cc: Mr. Stephen Gwin, Chevron Pipe Line Company
Mr. Robert Horwath, URS Oakland
Mr. Jeremy Quick, URS Oakland
Ms. Vicky Wiraatmadja, URS Oakland

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Since the last semiannual sampling event in August 2013, URS Corporation Americas (URS) performed monthly groundwater elevation gauging and conducted the First Semiannual 2014 monitoring of the Chevron Pipe Line Company (CPL) Sunol Spill Site (Site) located at Mile Post 2.7 along Calaveras Road. In addition, monitoring wells MW-12 through MW-15, installed in December 2012 along Calaveras Road, were assessed monthly to determine whether there was sufficient water for development. Only MW-12 contained sufficient water volume to allow for development by the end of first quarter 2014. Monitoring wells MW-13 through MW-15 were not developed due to insufficient water.

On March 20 and 21, 2014, URS conducted field activities including groundwater elevation gauging of monitoring wells MW-1 through MW-4, and MW-8 through MW-15, and sampling of monitoring wells MW-1 through MW-4, and MW-8 through MW-12 and the stream located northwest of the release location to assess the groundwater conditions at the Site. Monitoring wells MW-5 through MW-7 were abandoned on June 23, 2008, and are no longer part of the groundwater monitoring program. A Site vicinity map is included as Figure 1. Groundwater monitoring wells and surface water sampling locations are provided on Figure 2.

URS gauged the depth to groundwater and collected groundwater samples for laboratory analysis using low-flow purge methodology. Due to insufficient water at the time of installation in December 2012, and during subsequent gauging events, monitoring wells MW-13 through MW-15 have not yet been developed. Additionally, monitoring well MW-13 through MW-15 did not contain sufficient water for a grab-sample during this event and were not sampled.

## 2.1 MONTHLY GAUGING ACTIVITIES

Depth to groundwater measurements were recorded monthly from September 2013 through March 2014 in wells MW-1 through MW-4 and MW-8 through MW-15 from the top of casing using an interface meter. Light non-aqueous phase liquid (LNAPL) was not measured in any of the wells during these gauging events. Groundwater samples from each well were collected after gauging the groundwater elevation on March 20 and 21, 2014.

## 2.2 MONITORING WELL DEVELOPMENT

On March 17, 2014, monitoring well MW-12 contained sufficient groundwater for development (approximately 2.9 feet of water in the well column). URS contracted Gregg Drilling and Testing (C57# 485165) to conduct the well development activities. Monitoring well MW-12 was surged for approximately 30 minutes then bailed dry using a stainless steel bailer. The monitoring well was sampled after a 72-hour recharge period, with the methodology described below. The development log of MW-12 is included as Appendix A. Development purge water was stored on Site in properly labeled Department of Transportation approved 55-gallon drum until the purge water could be characterized and disposed of off-Site.

Since installation in December 2012, monitoring wells MW-13 through MW-15 have been gauged on a monthly basis. Due to insufficient water at the time of installation and during subsequent gauging events, monitoring wells MW-13 through MW-15 have not yet been developed. Additionally, monitoring well MW-13 through MW-15 did not contain sufficient water for a grab-sample during this event and were not sampled.

## 2.3 FIRST SEMIANNUAL 2014 GROUNDWATER MONITORING ACTIVITIES

On March 20, 2014, URS measured the depth to groundwater and checked for LNAPL, and calculated groundwater elevations above mean sea level in all Site wells (Table 1). The First Semiannual 2014 monitoring event groundwater elevations are shown on Figure 3.

After measuring the depth to groundwater at each well for this First Semiannual 2014 event, URS collected groundwater samples on March 20 and 21, 2014. Monitoring wells MW-1 through MW-4 and MW-9 through MW-12 were sampled using low-flow methods, as described in Section 2.4.1. No samples were collected from MW-13 through MW-15 due to insufficient groundwater. In addition, a grab surface water sample was collected using a clean disposable cup from the small stream northwest of the release location.

## 2.4 GROUNDWATER MONITORING EVENT

The groundwater surface elevation slightly increased in all wells (MW-1 through MW-4 and MW-9 through MW-11) relative to the last sampling event in August 2013. During this First Semiannual 2014 event, the groundwater elevations from the monitoring well network ranged from 290.73 feet above mean sea level (msl) (MW-10) to 293.85 feet above msl (MW-3). These increased groundwater elevations at the Site are typical of seasonal fluctuations with higher groundwater levels in the wet season and lower groundwater levels in the dry season.

The groundwater elevation for the five shallow monitoring wells along Calaveras Road (MW-8, and MW-12 through MW-15) ranged from 309.42 feet above msl (MW-15) to 313.76 feet above msl (MW-8). Groundwater elevations in the Calaveras Road monitoring wells are considerably higher than the groundwater elevations in MW-1 through MW-4 and MW-9 through MW-11. This is due to MW-8 and MW-12 through MW-15 being screened along the base of a hill in colluvial and fractured bedrock while MW-1 through MW-4 and MW-9 through MW-11 are screened in the colluvial/alluvial system in the adjacent Alameda Creek Valley across Calaveras Road.

In addition, splays of Calaveras Fault, which trends along the base of the hill, likely inhibit the hydraulic connection between the hillside water bearing zone and that of the valley colluvial/alluvial system. As such, there are at least two different water bearing zones at the Site; the hillside water-bearing zone and the valley floor water-bearing zone with the hillside water-bearing zone acting as a partial recharge source to the valley floor water bearing zone.

Figure 3 illustrates groundwater elevations at the Site and groundwater contours for wells MW-1 through MW-4 and MW-9 through MW-11, which fall within the valley floor water-bearing zone. Monitoring wells MW-8 and MW-12 through MW-15 are not included in groundwater contours on Figure 3 as they belong to a different water-bearing zones and have had insufficient water for well development (MW-13 through MW-15). Groundwater elevations for all Site wells are included in Table 1.

Based on water level data from MW-1 through MW-4 and MW-9 through MW-11, the local groundwater flow direction in the valley floor water-bearing zone was interpreted to be to the northeast at a gradient of 0.025 feet per foot (ft/ft) (Figure 3). The seasonal groundwater recharge from the hillside water-bearing zone appears to flow downhill into the valley floor water-bearing zone on a limited basis.

### 2.4.1 MW-1 through MW-4 and MW-8 through MW-12

Monitoring wells MW-1 through MW-4 and MW-8 through MW-12 were purged using low-flow methods prior to sampling. The electrical submersible sampling pump was decontaminated prior to sampling each monitoring well. The pump and new tubing were lowered into each well until the pump intake was within the appropriate screen interval, and the tubing was then attached to a flow cell. A discharge line of clean tubing was connected to the discharge end of the flow cell and into a holding cell on the sampling truck used to collect all purge water. The pump was set at a rate of 200 milliliters per minute (mL/min) to limit draw-down in the well. The low-flow groundwater sampling forms are included in Appendix B.

In addition to monitoring the water level at each monitoring well during low-flow sampling, the following geochemical parameters: temperature, pH, conductivity, oxidation reduction potential (ORP), and dissolved oxygen (DO) of the purged groundwater were measured using an in-line flow-through cell and multi-parameter Horiba U-22 meter. The Horiba U-22 meter was calibrated with fluid provided by the equipment rental company every morning before the start of low-flow sampling. During purging, the parameter readings described above were recorded every 3 minutes until the parameters stabilized.

Parameters were considered to be stable when three consecutive readings were within the following guidelines: pH +/- 0.2 pH units, conductivity +/- 3% of reading, ORP +/- 20 millivolts (mV), DO +/- 0.2 milligrams per liter (mg/L).

After monitoring all field parameters, the flow-through cell was detached and groundwater samples were collected directly from the pump discharge tubing.

### 2.4.2 MW-13 through MW-15

Due to insufficient recharge, MW-13 through MW-15 have yet to be developed. Half a foot of water or less has been measured in these wells since installation in December 2012. During this First Semiannual 2014 groundwater monitoring event, monitoring well MW-13 through MW-15 did not contain sufficient water for a grab-sample during this event and were not sampled.

### 2.4.3 Surface Water

The surface water sampling location along the small stream is located at the base of the alluvial terrace within the Alameda Creek floodplain and is shown on Figure 2. The former sampling point (SW-Creek, sampled prior to the first quarter of 2007) is also provided on Figure 2 for reference. To the west, beyond the current sampling location, the small stream fans out into the floodplain and surface flow terminates within floodplain grasses. A stream sample was collected on March 20, 2014 using a clean disposable container.

## 3.1 ANALYTICAL PROGRAM

The groundwater samples from wells MW-1 through MW-4 and MW-8 through MW-12 were collected in clean laboratory-provided containers. The containers were labeled with project specific identification, pre-cooled with ice, packed to prevent breakage, and placed on ice in a cooler with a trip blank sample immediately after collection. The samples were submitted to Lancaster Analytical Laboratory in Lancaster, Pennsylvania, a California Certified Laboratory, under URS chain-of-custody procedures. The samples were analyzed on a standard turn-around-time.

Groundwater samples collected during semiannual sampling activities and the grab surface water sample were analyzed for the following parameters.

***Gasoline Compounds***

- Total petroleum hydrocarbons – gasoline range organics (TPH-GRO) by United States Environmental Protection Agency (USEPA) Method 8015B.
- Benzene, toluene, ethylbenzene, xylenes (BTEX) by USEPA Method 8260B.

In addition to gasoline compounds, groundwater samples were also analyzed for the following field and laboratory parameters:

***Geochemical Parameters***

- Field measurements included ORP, DO and pH and were collected in monitoring wells MW-1 through MW-4, and MW-8 through MW-12 using an in-line flow-through cell and multi-parameter Horiba U-22 meter. These measurements were collected until parameters stabilized.
- Laboratory samples were analyzed for: nitrate and sulfate (EPA method 300.0), manganese, methane and dissolved iron (SW-846 6010B), ferrous iron (SM20 3500 Fe B modified), total dissolved solids (SM 2540 C), and alkalinity (SM20 2320B) and were collected from MW-1 through MW-4, and MW-8 through MW-12. All samples for dissolved iron analysis were filtered by the laboratory.

## 3.2 GROUNDWATER ANALYTICAL RESULTS DISCUSSION

A tabulated summary of the analytical results for the gasoline compounds is presented in Table 2. Complete laboratory analytical results and chain of custody forms are presented as Appendix C. Groundwater results are compared to the Environmental Screening Level (ESL) for groundwater as a current or potential drinking water resource (Regional Water Quality Control Board, Final Interim May 2013).

### 3.2.1 Petroleum Hydrocarbon Results

During the First Semiannual 2014 monitoring event, groundwater samples from wells MW-1 through MW-4 and MW-8 through MW-12 were analyzed for gasoline compounds. A summary of maximum and current groundwater results are as follows.

**Table A. Summary of Historical Maximum and Current Gasoline Compound Concentrations**

| | TPH-GRO (µg /L) | | Benzene (µg /L) | | Toluene (µg /L) | | Ethylbenzene (µg /L) | | Total Xylenes (µg /L) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Max.** | **Current** | **Max.** | **Current** | **Max.** | **Current** | **Max.** | **Current** | **Max.** | **Current** |
| **ESL** | **100** | | **1** | | **40** | | **30** | | **20** | |
| **MW-1** | **57,000** (Feb 2006) | **490** | **38** (Feb 2006) | <0.5 | **2,700** (Feb 2006) | <0.5 | **3,000** (Feb 2006) | <0.5 | **8,700** (Feb 2006) | <0.5 |
| **MW-2** | <50 (Feb 2006) | <50 | 0.7 ( Nov 2006) | <0.5 | <0.5 (Feb 2006) | <0.5 | <0.5 (Feb 2006) | <0.5 | 2 (Mar 2010) | <0.5 |
| **MW-3** | **170** (Aug 2006) | <50 | <0.5 (Feb 2006) | <0.5 | 2 (Aug 2011) | <0.5 | 1 (Aug 2011) | <0.5 | 5 (Aug 2011) | <0.5 |
| **MW-4** | 70 (Aug 2006) | <50 | 0.6 (Aug 2006) | <0.5 | <0.5 (Feb 2006) | <0.5 | 1 (Mar 2013) | <0.5 | 5 (Mar 2011) | <0.5 |
| **MW-8** | **78,000** (Dec 2010) | **23,000** | **2,000** (Dec2010) | **490** | **16,000** (Sept 2010) | **130** | **3,200** (Aug 2011) | **1,600** | **16,000** (Sept 2010) | **4,200** |
| **MW-9** | **74,000** (Nov 2006) | **2,300** | **480** (Nov 2006) | <0.5 | **12,000** (Nov 2006) | 0.7 | **2,200** (Nov 2006) | 9 | **17,000** (Nov 2006) | **28** |
| **MW-10** | **540** (Dec 2009) | <50 | 1 (Dec 2009) | <0.5 | 2 (Dec 2009) | <0.5 | 5 (Dec 2009) | <0.5 | **23** (Dec 2009) | <0.5 |
| **MW-11** | 66 (Dec 2009) | <50 | <0.5 (Dec 2007) | <0.5 | 2 (Jun 2009) | <0.5 | <0.5 (Dec 2007) | <0.5 | 3 (Dec 2009) | <0.5 |
| **MW-12** | **520** (March 2013) | <50 | **2** (March 2013) | <0.5 | 1 (March 2013) | <0.5 | <0.5 (March 2013) | <0.5 | <0.5 (March 2013) | <0.5 |

**Bold** values = above ESLs
µg /L = micrograms per liter
<x.x = Result was less than the laboratory reporting limit
ESL for groundwater as a current or potential drinking water resource

ESLs for the analytes are shown in the table above. Analytical results for gasoline compounds collected during the First Semiannual 2014 sampling event are as follows.

- The MW-1 sample contained TPH-GRO at 490 µg/L, which is above the ESL of 100 µg/L. BTEX concentrations were below their respective laboratory reporting limits of 0.5 µg/L and consequently below their respective ESLs. Monitoring well MW-1 has not been consistently sampled due to the groundwater in the well being hydraulically disconnected from the aquifer. As shown in Table A, maximum concentrations were detected in February 2006; TPH-GRO has decreased two orders of magnitude since sampling began in 2006, and has fallen from 570 µg/L since the August 2013 monitoring event.
- All analytical results from MW-2 were below their respective laboratory reporting limits. Monitoring well MW-2 has not been consistently sampled due to the groundwater in the well being hydraulically disconnected from the aquifer. TPH-GRO and BTEX concentrations have been below ESLs since sampling began in 2006.

- All analytical results from MW-3 were below their respective laboratory reporting limits. Monitoring well MW-3 has not been consistently sampled due to the groundwater in the monitoring well being hydraulically disconnected from the aquifer. TPH-GRO and BTEX concentrations have been below ESLs since November 2006.
- All analytical results from MW-4 were below their respective laboratory reporting limits. Monitoring well MW-4 has not been consistently sampled due to the groundwater in the well being hydraulically disconnected from the aquifer. TPH-GRO and BTEX concentrations have been below ESLs since sampling began in 2006.
- The MW-8 sample contained concentrations of TPH-GRO and BTEX at 23,000 µg/L, 490 µg/L, 130 µg/L, 1,600 µg/L, and 4,200 µg/L, respectively. Concentrations of TPH-GRO and BTEX in MW-8 are above ESLs of 100 µg/L, 1 µg/L, 40 µg/L, 30 µg/L, and 20 µg/L, respectively; however, concentrations of TPH-GRO and BTEX in MW-8 have shown a decrease since the maximum concentrations were detected in 2010, as displayed in Table A. Since the August 2013 event, TPH-GRO concentration has decreased from 56,000 µg/Lin monitoring well MW-8.
- The MW-9 sample contained a TPH-GRO concentration of 2,300 µg/L and a total xylenes concentration of 28 µg/L; both are above the respective ESLs. The toluene and ethylbenzene concentrations were 0.7 µg/L and 9 µg/L, respectively, which are below their respective ESLs of 40 µg/L and 30 µg/L. The benzene analytical result was below the laboratory reporting limit. Since the August 2013 event, the TPH-GRO concentration has slightly increased from 2,200 µg/L. However, as shown in Table A, TPH-GRO has decreased one order of magnitude and BTEX has decreased three orders of magnitude since the maximum concentrations were detected in the November 2006 sampling event.
- All analytical results from MW-10 were below their respective laboratory reporting limits. TPH-GRO concentration has been below ESLs since March 2010. Concentrations of benzene, toluene and ethylbenzene have been below ESLs since MW-10 was installed in 2007; total xylenes have been below ESLs since March 2010.
- All analytical results from MW-11 were below their respective laboratory reporting limits. TPH-GRO and BTEX concentrations have been below ESLs since MW-11 was installed in 2007.
- All analytical results from MW-12 were below their respective laboratory reporting limits, and are below their respective ESLs. MW-12 was not sampled during the Second Semiannual 2013 event due to insufficient water. Concentrations of TPH-GRO, benzene, and toluene have decreased from 520 µg/L, 2 µg/L, and 1 µg/L, respectively since the March 2013 grab groundwater sample was collected.

### 3.2.2 TPH-GRO and BTEX Concentration Trends and Lateral Extent

TPH-GRO and associated BTEX concentrations have steadily decreased since the pipe line release in all wells including MW-8, which increased to a maximum TPH-GRO concentration of 78,000 µg/L in December 2010 and has decreased to 23,000 µg/L in March 2014. The residual hydrocarbon plume is horizontally defined to the north by MW-10, to the west by MW-3, MW-4, and MW-11, to the south by MW-2 and grab groundwater sample from MW-12, and to the east by the bedrock hillside.

## 3.3 GEOCHEMICAL ANALYTICAL RESULTS

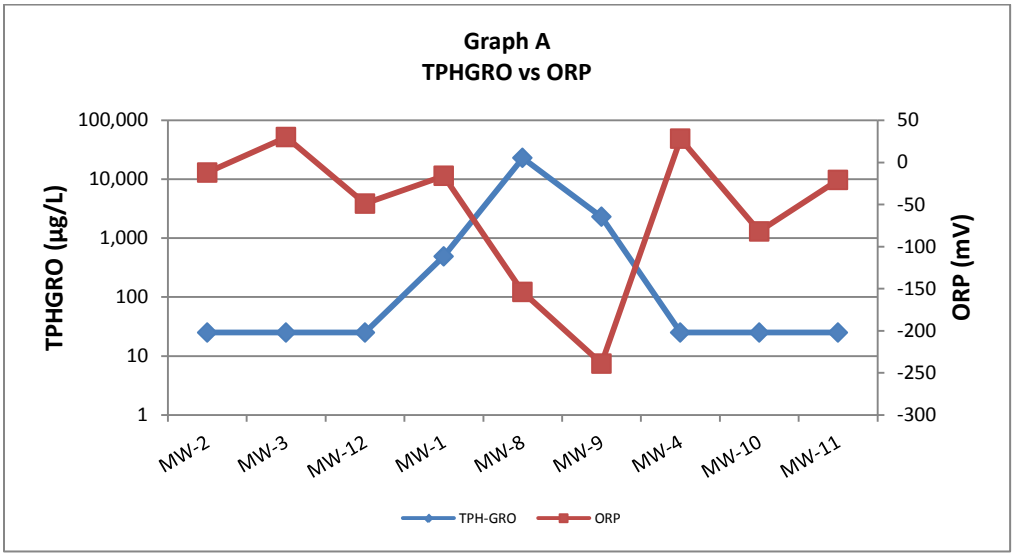
A biodegradation assessment was completed to evaluate whether TPH-GRO and BTEX in groundwater are being decreased by aerobic and/or anaerobic biodegradation. Observations from the First Semiannual 2014 monitoring event are discussed below to provide an overview of the biodegradation. A brief summary of post-purge ORP measurements is provided below, followed by a discussion of the bioremediation parameters in order of the five stages of biodegradation: aerobic respiration (post-purge DO); denitrification (nitrate); iron (III) reduction (ferric to ferrous); sulfate reduction (sulfate); and methanogenesis (methane). To illustrate how geochemical parameters change when coming in contact with dissolved hydrocarbons, graphs are presented showing the variation generally from south to north through the center of the residual petroleum hydrocarbon plume (MW-2, MW-3, MW-12, MW-1, MW-8, MW-9, MW-4, MW-10 and MW-11).

The groundwater samples collected from MW-1 through MW-4 and MW-8 through MW-12 were analyzed for a selection of field and laboratory geochemical parameters. Current and historical geochemical results are presented in Table 3. Groundwater sampling forms are included in Appendix B.

### 3.3.1 Oxidation Reduction Potential

ORP is a measure of electron activity and is an indicator of the relative tendency of a solute species to gain or lose electrons. ORP in groundwater generally ranges from -400 mV (reducing conditions) to +800 mV (oxidizing conditions). Under oxidizing conditions, the ORP of groundwater is positive, while under reducing conditions the ORP is usually negative. Reducing conditions (negative ORP) suggests that anaerobic biodegradation is occurring, while oxidizing conditions (positive ORP) suggest that aerobic biodegradation is occurring.

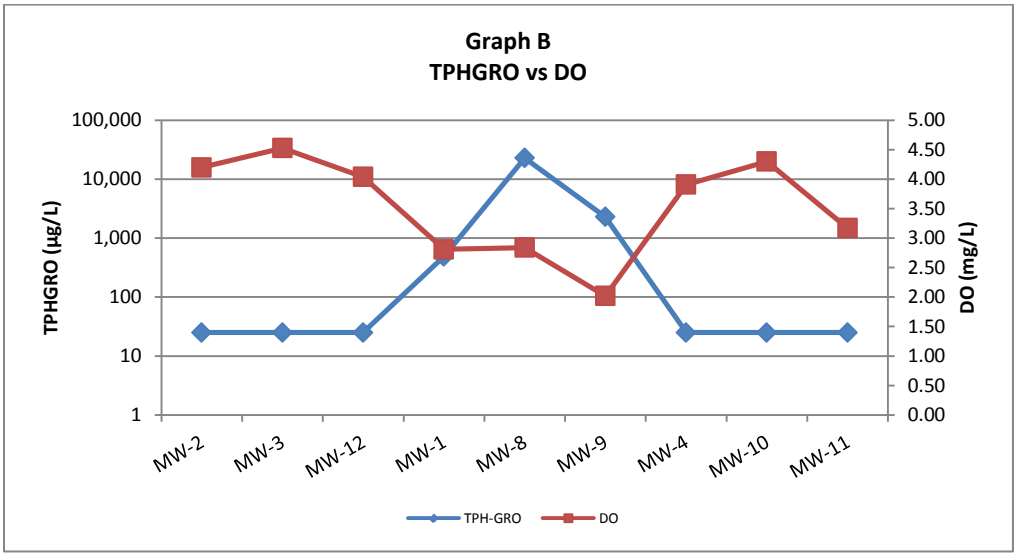
As shown in Graph A, ORP concentrations generally vary inversely with respect to hydrocarbon concentrations at the Site. Post-purge ORP levels during the First Semiannual 2014 event ranged from -239 mV (MW-9) to +30 mV (MW-3), indicating that anaerobic biodegradation is occurring within monitoring wells located within the residual petroleum hydrocarbon plume (MW-8 and MW-9).



### 3.3.2 Dissolved Oxygen

DO is the most thermodynamically favored electron acceptor used in the aerobic biodegradation of petroleum hydrocarbons. During aerobic degradation, DO concentrations are reduced as aerobic respiration occurs.

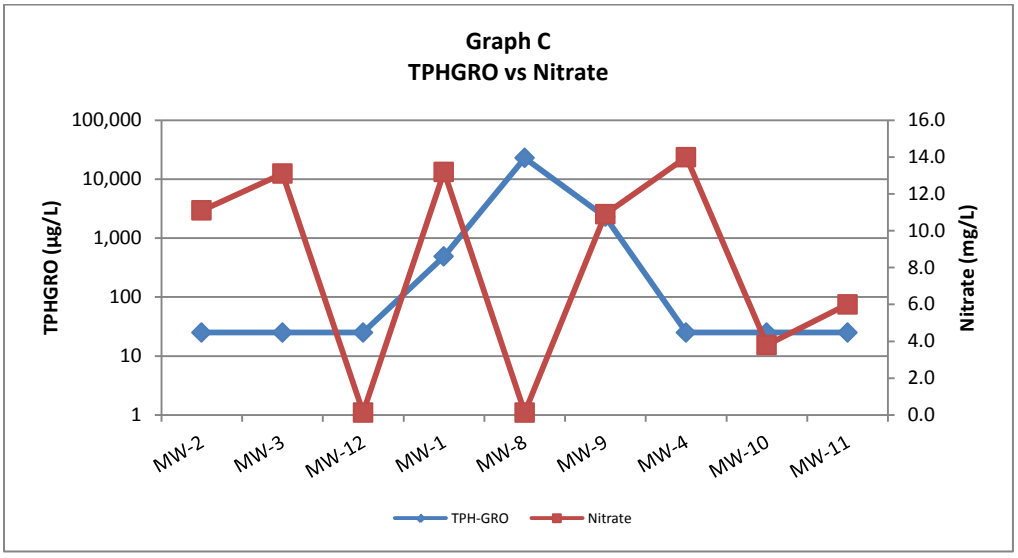
As shown in Graph B, DO concentrations are similar or lower in wells MW-8 and MW-9, which have the highest hydrocarbon concentrations. Post-purge DO concentrations for this sampling event, measured as milligrams per liter (mg/L) in the field ranged in concentrations from 2.02 mg/L in MW-9 to 4.53 mg/L in MW-3. The DO concentrations in all site wells were greater than 2 mg/L indicating that aerobic biodegradation may be occurring at the Site. However, analysis of several other bioremediation parameters (illustrated in subsequent sections) indicates that anaerobic biodegradation is occurring within the residual petroleum hydrocarbon plume. Thus the DO readings are inconsistent and may not represent true aquifer conditions.



### 3.3.3 Nitrates

After DO has been depleted in the groundwater, nitrate may be consumed during the anaerobic biodegradation of TPH-GRO and associated BTEX compounds. In this process, called denitrification, nitrate is reduced to nitrite and ultimately to nitrogen gas. Reduced nitrate concentrations in a hydrocarbon-impacted area compared to the areas outside the plume suggest that anaerobic biodegradation is occurring under nitrate-reducing conditions.

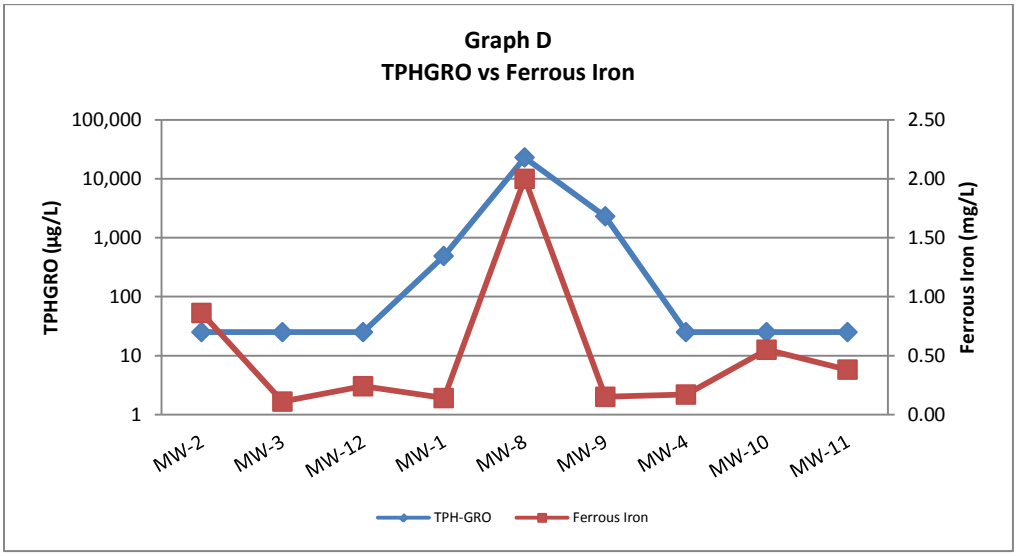
As shown in Graph C, an inverse relationship is observed at this Site, except for wells located outside of the residual petroleum hydrocarbon plume (MW-12, MW-10 and MW-11) and MW-9. Nitrate concentrations for this sampling event, measured by the analytical laboratory, ranged in concentrations from less than the reporting limit of 0.25 mg/L in MW-8 and MW-12 to 14.0 mg/L in MW-4. The lower concentrations of nitrate suggest that anaerobic biodegradation is occurring within MW-8.



### 3.3.4 Ferrous Iron

After both DO and nitrate are depleted in anaerobic groundwater, ferric iron ($Fe^{3+}$) in soil may be consumed by anaerobic biodegradation. In this process, ferric iron in soil is reduced to ferrous iron ($Fe^{2+}$), which is soluble in water. Therefore, if groundwater has relatively high levels of ferrous iron, anaerobic biodegradation may be occurring.

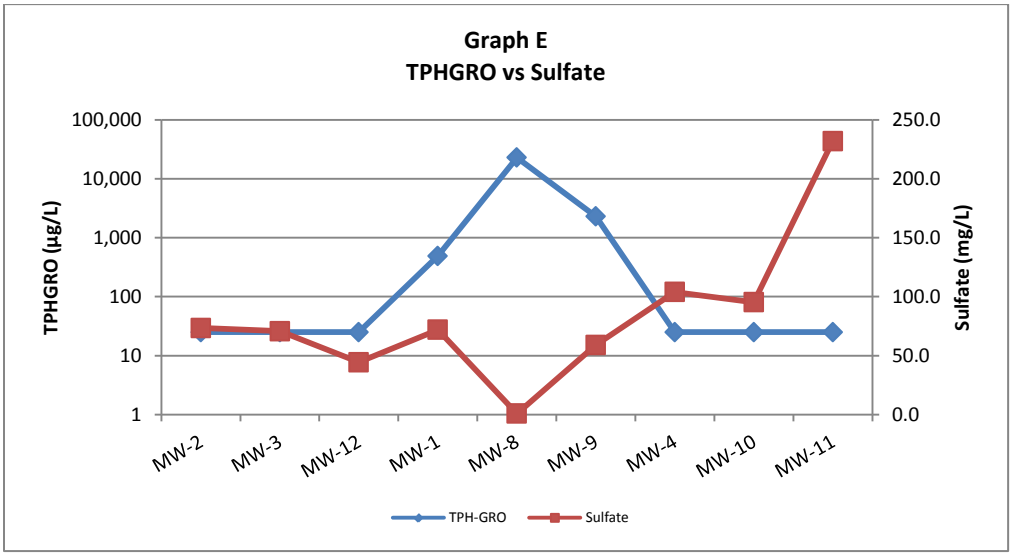
Ferrous iron concentrations for this sampling event, measured by the analytical laboratory ranged in concentrations from 0.11 mg/L in MW-3 to 2.0 mg/L in MW-8. As shown in Graph D, ferrous iron concentrations are generally highest in MW-8. These results suggest anaerobic biodegradation is occurring within MW-8.



### 3.3.5 Sulfate

After DO, nitrate, and ferric iron are depleted in anaerobic groundwater, sulfate may be consumed in the anaerobic biodegradation process. Sulfate is reduced to sulfide, which reacts with ferric iron on soil particles to precipitate out as various sulfides of iron and can also lead to higher ferrous iron concentrations. Iron sulfides are re-oxidized to iron oxides in the presence of oxygen in the vadose zone. Any dissolved sulfides are oxidized at the plume fringes where impacted groundwater mixes with non-impacted groundwater. If reported sulfate concentrations vary inversely with hydrocarbon concentrations, anaerobic biodegradation of fuel hydrocarbons is likely occurring under sulfate-reducing conditions.

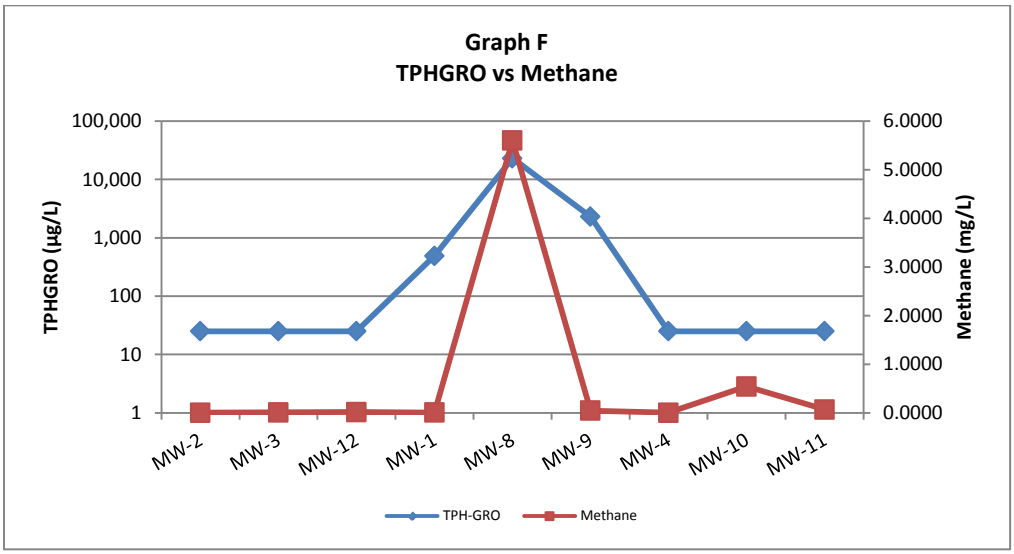
As shown in Graph E, sulfate concentrations vary inversely with hydrocarbon concentrations for wells MW-8, MW-9, and MW-11. Sulfate results for this sampling event, measured by the analytical laboratory, ranged from less than the reporting limit in MW-8 to 232 mg/L in MW-11. Sulfate concentrations were low in MW-8 and MW-9 which suggests that anaerobic biodegradation is occurring within the residual hydrocarbon plume.



### 3.3.6 Methane

The final step in the anaerobic biodegradation process is methanogenesis. When all soluble electron acceptors such as DO, nitrate, ferric iron, and sulfate are depleted, groundwater conditions become conducive to fermentation, and methane is generated by methanogenesis. The only electron acceptor available for the methanogenesis is carbon from carbon dioxide. This source of carbon dioxide is primarily from the by-products of previous stages of anaerobic biodegradation. Without methanogenesis, a great deal of carbon (in the form of fermentation products) would accumulate in anaerobic environments.

As shown on Graph F, there is a direct relationship of methane to TPH-GRO, especially as observed in MW-8. Methane results for this sampling event, measured by the analytical laboratory, ranged from less than the reporting limit in MW-2 and MW-4 to 5.6 mg/L in MW-8. These results suggest anaerobic biodegradation is occurring within MW-8, the center of the residual petroleum hydrocarbon plume.




#### *3.3.6.1 Summary of Geochemical Analytical Results*

Although DO measurements suggest aerobic conditions extend across the Site, other geochemical parameters indicate anaerobic hydrocarbon bioremediation is occurring within the residual petroleum hydrocarbon plume.

## 3.4 SUMMARY OF QA/QC REVIEW PARAMETERS

The quality assurance/quality control (QA/QC) program includes using standard sample collection procedures in the field and established analytical methodologies in the laboratory. Laboratory and field QC sample results were evaluated to assess the quality of the individual sample results and overall method performance. Analytical performance was evaluated on a

"batch QC" basis by evaluating the QC sample results for groups of samples that were prepared and analyzed together. The data evaluation performed included a review of:

- Blanks (laboratory method blanks, trip blanks, and equipment blanks)
- Spikes (laboratory control sample spikes, matrix control spikes, blank spikes and surrogate spikes)
- Duplicates (laboratory control sample duplicates, matrix control spike duplicates, and field duplicates)
- Sample Integrity (chain-of-custody documentation, sample preservation, and holding time compliance)

### 3.4.1 Method Holding Times

Analytical methods have prescribed holding times. The method holding time is defined as the maximum amount of time after collection that a sample may be held prior to extraction and/or analysis. Sample integrity becomes questionable for samples extracted and/or analyzed outside of the prescribed holding times due to degradation and/or volatilization of the sample.

The sample hold time for ferrous iron was exceeded for all samples due to the shipping time for the samples. Ferrous iron detections in samples MW-1, MW-2, MW-3, MW-4, MW-8, MW-9, MW-10, MW-11, MW-12, and MW-X were qualified as estimated and flagged with a "J."

The sample hold time for nitrate as nitrogen was exceeded for lab report 1461943 due to the sample cooler being delayed because of a UPS error. Nitrate as nitrogen detections in samples MW-2, MW-9, and MW-X were qualified as estimated and flagged with a "J." Nitrate as nitrogen nondetections in samples MW-8, and MW-12 were qualified as estimated and flagged with a "UJ."

### 3.4.2 Method Blanks

Method blanks are prepared in the laboratory using deionized, distilled (Reagent Grade Type II) water. Method blanks are extracted and/or analyzed following the same procedures as an environmental sample. Analysis of the method blank indicates potential sources of contamination from laboratory procedures (e.g. contaminated reagents, improperly cleaned laboratory equipment) or persistent contamination due to the presence of certain compounds in the ambient laboratory environment. The QA/QC review identifies method blanks with detections of target analytes and evaluates the effect of the detections on associated sample results. All reported results for the laboratory method blanks were less than the laboratory reporting limit, or were outside laboratory QC limits but did not require qualification, indicating no influence of contamination from laboratory instrumentation.

### 3.4.3 Trip Blanks

Trip blanks are samples of deionized, distilled (Reagent Grade Type II) water that are prepared in the laboratory, taken to the field, retained on Site throughout sample collection, returned to the laboratory, and analyzed with the environmental samples. The QA/QC review identifies trip blanks with detections of target analytes and evaluates the effect of the detections on associated

sample results. Two trip blanks were analyzed during this sampling event. The trip blanks did not have detections of any target analytes, indicating no evidence of contamination during shipment of the laboratory samples.

### 3.4.4 Equipment Blanks

Equipment blanks are samples of deionized, distilled (Reagent Grade Type II) water that are prepared in the field by pumping the water through the decontaminated pumps and tubing and into sample containers. The equipment blank is designed to detect contamination introduced to the sample by the decontamination process, sample containers, sample preservatives, and/or the ambient conditions at the collection Site. One equipment blank was submitted with the project samples during the sampling event, and no contamination of the equipment blank was detected.

### 3.4.5 Matrix Spikes and Laboratory Control Samples

Matrix spikes (MS), matrix spike duplicates (MSD), laboratory control samples (LCS), and laboratory control sample duplicates (LCSD) are analyzed by the laboratory to evaluate the accuracy and precision of the sample extraction and analysis procedures and to evaluate potential matrix interference. Matrix interference, the effect of the sample matrix on the analysis, may partially or completely mask the response of analytical instrumentation to the target analyte(s). Matrix interference may have a varying impact on the accuracy and precision of the extraction and/or analysis procedures, and may bias the sample results high or low.

The MS or MSD is prepared by adding a known quantity of the target compound(s) to a sample. The sample is then extracted and/or analyzed as a typical environmental sample and the results are reported as percent recovery. The spike percent recovery is defined as:

$$\text{Recovery (\%)} = \frac{\text{spike analysis result - original sample concentration}}{\text{concentration of spike addition}} \text{ x100\%}$$

MS and MSD recoveries are reviewed for compliance with laboratory-established control limits to evaluate the accuracy of the extraction and/or analysis procedures.

LCS and LCSD are prepared exactly like MS and MSD using a clean control matrix rather than an environmental sample. Typical control matrices include Reagent Grade Type II water and clean sand. LCS and LCSD are used to evaluate laboratory accuracy independent of matrix effects.

The QA/QC review identifies spike recoveries outside laboratory control limits and evaluates the effect of these recoveries on the associated sample results. All reported LCS/LCSD and MS/MSD sample recoveries were within laboratory QC limits, or were outside laboratory QC limits but did not require qualification, with the exception of the following:

- High MS recovery was observed for nitrate nitrogen in Batch 140803479204A in Report 1461133 in the MS sample from MW-4. The nitrate nitrogen detection in sample MW-4 was qualified as estimated, and flagged with a "J."

### 3.4.6 Laboratory Duplicate Analyses

Duplicate analyses are performed by the laboratory to evaluate the precision of analytical procedures. The laboratory may perform MSD and/or LSD analyses.

Precision is evaluated by calculating a relative percent difference (RPD) using the following equation:

$$\text{RPD (\%)} = \left| \frac{\text{(Spike Concentration} - \text{Spike Duplicate Concentration)}}{\frac{1}{2}\text{(Spike Concentration} + \text{Spike Duplicate Concentration)}} \right| \text{ x } 100\%$$

The RPD is compared to laboratory-established control limits to evaluate analytical precision. The QA/QC review identifies RPDs outside laboratory control limits and evaluates the effect of these recoveries on the associated sample results. All laboratory duplicate analyses were within laboratory QC limits.

### 3.4.7 Field Duplicate Analyses

Field duplicate samples are collected in the field and analyzed to evaluate the heterogeneity of the matrices. One field duplicate sample, MW-X (duplicate of MW-9), was collected during this sampling event. The QA/QC review identifies relative percent (%) difference (RPD) greater than 20% for compounds detected in the field sample and corresponding field duplicate sample. The field sample/duplicate sample pair RPDs were less than 20%, indicating homogeneity of the sample matrix.

### 3.4.8 Surrogate Recoveries

Surrogates are organic compounds that are similar to the target analytes in terms of their chemical structures and response to the analytical instrumentation, but are not usually detected in environmental samples. Surrogates are added to each environmental and laboratory QC sample to monitor the effect of the matrix on the accuracy of the extraction and/or analysis of organic analytes. Results for surrogate analyses are reported in terms of percent recovery (defined above). Reported recoveries are compared to laboratory-established control limits to evaluate sample-specific accuracy. The QA/QC review identifies surrogate recoveries outside laboratory control limits and evaluates the effect of these recoveries on the sample results. All surrogate recoveries were within laboratory QC limits.

## 3.5 EXPLANATION OF ANALYTICAL DATA QUALIFIERS

The analytical data were reviewed and qualified following USEPA guidelines for organic data review (USEPA, 2008) and inorganic data review (USEPA, 2010). A “J” qualifier indicates that the analyte was positively identified, but that the associated numerical value is an approximate concentration of the analyte in the sample. A “J+” or “J-” indicates that the result is an estimate, but may be biased either high or low, respectively. A “UJ” qualifier indicates that the analyte was not detected above the reported sample quantitation limit (i.e., the laboratory reporting limit). However, the reported quantitation limit is approximate and may or may not represent the

actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample. An "R" qualifier indicates that the sample results were rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria, and therefore, the presence or absence of the analyte could not be verified.

## 3.6 SUMMARY OF QA/QC REVIEW FINDINGS

The results of the data evaluation are summarized in the following paragraphs.

The sample hold time for ferrous iron was exceeded for all samples. Ferrous iron detections in samples MW-1, MW-2, MW-3, MW-4, MW-8, MW-9, MW-10, MW-11, MW-12 and MW-X were qualified as estimated and flagged with a "J".

The sample hold time for nitrate as nitrogen was exceeded for lab report 1461943 due to the sample cooler being delayed because of a United Parcel Service of North America, Incorporated (UPS) shipping error. Nitrate as nitrogen detections in samples MW-2, MW-9, and MW-X were qualified as estimated and flagged with a "J." Nitrate as nitrogen nondetections in samples MW-8, and MW-12 were qualified as estimated and flagged with a "UJ."

High MS recovery was observed for nitrate nitrogen in Batch 140803479204A in Report 1461133 in the MS sample from MW-4. The nitrate nitrogen detections in sample MW-4 was qualified as estimated, and flagged with a "J."

Chain-of-custody documentation is complete and consistent. Samples were preserved as required per method specifications. All samples were analyzed within method specified holding times, except as noted. Based on the data quality evaluation, no systematic problems were detected and the overall data objectives for sample contamination, precision, accuracy, and sample integrity were met. These analytical data are of acceptable quality and may be used for their intended purposes.

The First Semiannual 2014 groundwater event activities were conducted on March 20 and 21, 2014 and included measuring the depth to groundwater at monitoring wells MW-1 through MW-4 and MW-8 through MW-15 and collecting samples for analysis from monitoring wells MW-1 through MW-4 and MW-8 through MW-12. The findings are as follows.

- The groundwater elevations increased in all sampled wells since the last sampling event in August 2013. The groundwater flow direction within the Site's valley floor unconfined water-bearing zone is a northeasterly direction with a calculated hydraulic gradient of 0.025 ft/ft.
- TPH-GRO and BTEX concentrations have steadily decreased since the pipe line release in all wells except MW-8. TPH-GRO and BTEX concentrations have decreased in MW-8 since 2010. The highest concentrations of TPH-GRO, benzene, toluene, and ethylbenzene over the duration of the monitoring program were recorded in groundwater at well MW-8 located on the eastern side of Calaveras Road. TPH-GRO was 78,000 µg/L in December 2010 (23,000 µg/L in March 2014), benzene was 2,000 µg/L in December 2010 (490 µg/L in March 2014), toluene was 16,000 µg/L in September 2010 (130 µg/L in March 2014) and ethylbenzene was 3,200 µg/L in September 2010 and August 2011 (1,600 in March 2014). The highest concentration of total xylenes over the duration of the monitoring program was 17,000 µg/L in November 2006 (28 µg/L in March 2014) in groundwater monitoring well MW-9.
- Only three monitoring wells samples (MW-1, MW-8 and MW-9) had gasoline compound concentrations that exceeded their respective ESLs in the First Semiannual 2014 monitoring event. TPH-GRO concentrations were detected in monitoring well samples MW-1 at 490 µg/L, MW-8 at 23,000 µg /L, and MW-9 at 2,300 µg/L during the First Semiannual 2014 monitoring event. The MW-8 samples analyzed for BTEX exceeded the ESL values shown in parentheses: 490 µg/L (benzene, 1 µg/L), 130 µg/L (toluene, 40 µg/L), 1,600 µg/L (ethylbenzene, 30 µg/L) and 4,200 µg/L (total xylenes, 20 µg/L). The groundwater sample from monitoring well MW-9 exceeded the ESL for total xylenes (20 µg/L) at concentration of 28 µg/L. Concentrations of TPH-GRO and BTEX have decreased since the August 2013 monitoring event, with the exception of a stable concentration of TPH-GRO in MW-9.
- Due to insufficient recharge, MW-13 through MW-15 have yet to be developed. Half a foot of water or less has been measured in these wells since installation in December 2012. During this First Semiannual 2014 groundwater monitoring event, monitoring well MW-13 through MW-15 did not contain sufficient water for a grab-sample during this event and were not sampled.
- The residual hydrocarbon plume is horizontally defined to the north by MW-10, to the west by MW-3, MW-4, and MW-11, to the south by MW-2 and grab groundwater sample from MW-15, and to the east by the bedrock hillside. The geochemical parameters that were collected included ORP, DO, nitrates, ferrous iron, sulfate and methane. After reviewing the bioparameter data, the results indicate that anaerobic hydrocarbon bioremediation is occurring within the residual petroleum hydrocarbon plume.
- The analytical data are of acceptable quality and may be used for their intended purposes. The QA/QC review of data found it suitable for its intended use to address the groundwater conditions at the Site.

Based on the field observations and analytical results from the First Semiannual 2014 event, URS makes the following recommendations.

- Based on current groundwater conditions at the Site, URS finds the data further supports eligibility for closure under the State Water Resources Control Board's Low-Threat Closure Policy. URS recently submitted a low-threat case closure petition to ACEH on August 26, 2013.
- Continue monthly gauging to further assess the effect of seasonal groundwater fluctuations on groundwater flow direction and contaminant transport within the unconfined water-bearing zone during the closure petition process.
- As requested by ACEH, URS will conduct groundwater sampling of only the Calaveras Road monitoring wells (MW-12 through MW-15) in June 2014, and will submit a groundwater monitoring report presenting the results of the Second Quarter 2014 sampling event.

No evaluation is thorough enough to preclude the possibility that materials that are currently considered hazardous or materials that may be considered hazardous in the future may be present at a Site. Since regulatory evaluation criteria are constantly changing, concentrations of contaminants presently considered nonhazardous may, in the future, fall under different regulatory standards and require remediation. Opinions and judgments expressed herein, which are based on understanding and interpretation of current regulatory standards, should not be construed as legal opinions. This document and the information contained herein have been prepared solely for use by CPL, and reliance on this report by third parties will be at such party's sole risk, unless that party has written authorization from URS to use this document.

Services performed by URS were conducted in a manner consistent with that level of care and skill ordinarily exercised by other professional consultants under similar circumstances. No other representations to CPL, either expressed or implied, and no warranty or guarantee is included or intended for the semiannual groundwater monitoring report. The program described in this report is based upon the information acquired during the various investigations at the Site. It is possible that variations at the Site could exist beyond or between points explored during the course of the investigations. Also, changes in conditions could occur at some time in the future due to possible contamination migration, variations in rainfall, temperature, and/or other factors not apparent at the time of the various field activities.

Opinions relating to the environmental, geologic, and hydrogeologic conditions are based on limited data and actual conditions may vary from those encountered at the times and locations where the data was obtained, despite the use of due professional care.

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**TABLE 1**
Monitoring Well Groundwater Elevations
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 11/17/2005 | 37.82 | 290.22 | 37.62 | 290.42 | 0.20 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 12/13/2005 | 37.70 | 290.34 | 37.59 | 290.45 | 0.11 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 1/17/2006 | 35.69 | 292.35 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 2/21/2006 | 36.34 | 291.70 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 5/10/2006 | 33.78 | 294.26 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 6/7/2006 | 34.28 | 293.76 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 8/22/2006 | 37.11 | 290.93 | 37.08 | 290.96 | 0.03 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 11/14/2006 | 37.05 | 290.99 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 12/8/2006 | 36.91 | 291.13 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 1/10/2007 | 36.27 | 291.77 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 2/20/2007 | 36.14 | 291.90 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 6/5/2007 | 37.21 | 290.83 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 7/13/2007 | 37.48 | 290.56 | 37.46 | 290.58 | 0.02 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 8/17/2007 | 37.56 | 290.48 | 37.54 | 290.50 | 0.02 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 9/5/2007 | 37.62 | 290.42 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 9/12/2007 | 37.67 | 290.37 | 37.55 | 290.49 | 0.12 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 10/31/2007 | 37.63 | 290.41 | 37.58 | 290.46 | 0.05 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 12/5/2007 | 38.51 | 289.53 | 38.50 | 289.54 | 0.01 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 12/11/2007 | 37.49 | 290.55 | 37.46 | 290.58 | 0.03 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 3/4/2008 | 35.56 | 292.48 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 3/19/2008 | 35.94 | 292.10 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 5/20/2008 | 35.51 | 292.53 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 6/5/2008 | 35.69 | 292.35 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 7/18/2008 | 36.88 | 291.16 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 9/5/2008 | 37.57 | 290.47 | 37.56 | 290.48 | 0.01 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 9/18/2008 | 37.62 | 290.42 | 37.61 | 290.43 | 0.01 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 10/31/2008 | 37.67 | 290.37 | 37.65 | 290.39 | 0.02 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 11/24/2008 | 37.62 | 290.42 | 37.59 | 290.45 | 0.03 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 12/15/2008 | 37.53 | 290.51 | 37.52 | 290.52 | 0.01 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 1/22/2009 | 37.44 | 290.60 | -- | -- | -- |

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|---|---|---|---|---|---|---|---|---|---|---|
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 2/25/2009 | 36.28 | 291.76 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 3/27/2009 | 35.24 | 292.80 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 4/23/2009 | 35.59 | 292.45 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 5/28/2009 | 36.74 | 291.30 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 6/9/2009 | 37.05 | 290.99 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 8/25/2009 | 37.60 | 290.44 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 9/28/2009 | 37.61 | 290.43 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 10/21/2009 | 37.63 | 290.41 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 11/10/2009 | 37.62 | 290.42 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 12/9/2009 | 37.56 | 290.48 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 1/25/2010 | 35.47 | 292.57 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 2/19/2010 | 35.15 | 292.89 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 3/9/2010 | 34.41 | 293.63 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 4/22/2010 | 35.07 | 292.97 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 5/27/2010 | 35.41 | 292.63 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 6/23/2010 | 37.49 | 290.55 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 7/27/2010 | 37.18 | 290.86 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 8/31/2010 | 37.40 | 290.64 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 9/29/2010 | 37.36 | 290.68 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 10/27/2010 | 37.21 | 290.83 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 11/23/2010 | 37.17 | 290.87 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 12/14/2010 | 37.11 | 290.93 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 1/31/2011 | 35.42 | 292.62 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 2/28/2011 | 34.79 | 293.25 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 3/28/2011 | 32.19 | 295.85 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 4/28/2011 | 34.34 | 293.70 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 5/26/2011 | 35.52 | 292.52 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 6/27/2011 | 36.03 | 292.01 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 8/22/2011 | 37.04 | 291.00 | 37.03 | 291.01 | 0.01 |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 9/19/2011 | 37.23 | 290.81 | -- | -- | -- |

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|---|---|---|---|---|---|---|---|---|---|---|
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 10/24/2011 | 37.18 | 290.86 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 11/21/2011 | 37.14 | 290.90 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 12/19/2011 | 36.98 | 291.06 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 1/30/2012 | 36.92 | 291.12 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 2/20/2012 | 36.92 | 291.12 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 3/20/2012 | 36.68 | 291.36 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 4/24/2012 | 35.60 | 292.44 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 5/30/2012 | 36.52 | 291.52 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 6/12/2012 | 36.76 | 291.28 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 7/25/2012 | 37.02 | 291.02 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 8/28/2012 | 37.09 | 290.95 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 9/24/2012 | 37.16 | 290.88 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 10/30/2012 | 37.16 | 290.88 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 11/20/2012 | 37.24 | 290.80 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 12/7/2012 | 36.04 | 292.00 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 1/29/2013 | 35.53 | 292.51 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 2/28/2013 | 36.27 | 291.77 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 3/25/2013 | 36.32 | 291.72 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 4/29/2013 | 36.79 | 291.25 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 5/31/2013 | 36.83 | 291.21 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 6/28/2013 | 36.93 | 291.11 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 7/30/2013 | 37.04 | 291.00 | ~~37.04~~ | ~~291.00~~ | ~~sheen~~ |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 8/6/2013[4] | 37.00 | 291.04 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 8/14/2013[5] | 37.02 | 291.02 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 9/17/2013 | 37.05 | 290.99 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 10/29/2013 | 37.17 | 290.87 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 11/21/2013 | 37.18 | 290.86 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 12/16/2013 | 37.16 | 290.88 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 1/7/2014 | 37.20 | 290.84 | -- | -- | -- |
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 2/6/2014 | 37.08 | 290.96 | -- | -- | -- |

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**TABLE 1**
Monitoring Well Groundwater Elevations
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-1** | 10/20/2005 | 328.49 | 328.04 | 29.3-39.3 | 3/20/2014 | 36.41 | 291.63 | -- | -- | -- |
| | | | | | | | | | | |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 11/17/2005 | 33.74 | 290.41 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 12/13/2005 | 33.67 | 290.48 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 1/17/2006 | 31.51 | 292.64 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 2/21/2006 | 32.19 | 291.96 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 5/10/2006 | 29.71 | 294.44 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 6/7/2006 | 30.23 | 293.92 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 8/22/2006 | 33.11 | 291.04 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 11/14/2006 | 33.01 | 291.14 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 12/8/2006 | 32.85 | 291.30 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 1/10/2007 | 32.09 | 292.06 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 2/20/2007 | 31.93 | 292.22 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 6/5/2007 | 33.23 | 290.92 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 7/13/2007 | 33.49 | 290.66 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 8/17/2007 | 33.58 | 290.57 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 9/5/2007 | 33.61 | 290.54 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 9/12/2007 | 33.62 | 290.53 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 10/31/2007 | 33.61 | 290.54 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 12/5/2007 | 33.52 | 290.63 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 3/4/2008 | 31.41 | 292.74 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 3/19/2008 | 31.76 | 292.39 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 5/20/2008 | 31.41 | 292.74 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 6/5/2008 | 31.56 | 292.59 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 7/18/2008 | 32.88 | 291.27 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 9/5/2008 | 33.60 | 290.55 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 9/18/2008 | 33.65 | 290.50 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 10/31/2008 | 33.70 | 290.45 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 11/24/2008 | 33.62 | 290.53 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 12/15/2008 | 33.59 | 290.56 | -- | -- | -- |

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**TABLE 1**
Monitoring Well Groundwater Elevations
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 1/22/2009 | 33.46 | 290.69 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 2/25/2009 | 32.11 | 292.04 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 3/27/2009 | 31.14 | 293.01 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 4/23/2009 | 31.48 | 292.67 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 5/28/2009 | 37.74 | 286.41 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 6/9/2009 | 33.08 | 291.07 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 8/25/2009 | 33.63 | 290.52 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 9/28/2009 | 33.62 | 290.53 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 10/21/2009 | 33.68 | 290.47 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 11/10/2009 | 33.67 | 290.48 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 12/9/2009 | 33.61 | 290.54 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 1/25/2010 | 31.28 | 292.87 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 2/19/2010 | 31.03 | 293.12 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 3/9/2010 | 30.36 | 293.79 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 4/22/2010 | 30.96 | 293.19 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 5/27/2010 | 31.31 | 292.84 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 6/23/2010 | 32.66 | 291.49 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 7/27/2010 | 33.24 | 290.91 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 8/31/2010 | 33.44 | 290.71 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 9/29/2010 | 33.41 | 290.74 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 10/27/2010 | 33.25 | 290.90 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 11/23/2010 | 33.22 | 290.93 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 12/14/2010 | 33.12 | 291.03 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 1/31/2011 | 31.28 | 292.87 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 2/28/2011 | 30.67 | 293.48 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 3/28/2011 | 28.10 | 296.05 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 4/28/2011 | 30.24 | 293.91 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 5/26/2011 | 31.37 | 292.78 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 6/27/2011 | 31.87 | 292.28 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 7/25/2011 | 32.95 | 291.20 | -- | -- | -- |

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| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 8/22/2011 | 33.07 | 291.08 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 9/19/2011 | 33.27 | 290.88 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 10/24/2011 | 33.21 | 290.94 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 11/21/2011 | 33.17 | 290.98 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 12/19/2011 | 33.03 | 291.12 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 1/30/2012 | 32.95 | 291.20 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 2/20/2012 | 32.92 | 291.23 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 3/20/2012 | 32.65 | 291.50 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 3/24/2012 | 31.43 | 292.72 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 5/30/2012 | 32.47 | 291.68 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 6/12/2012 | 32.78 | 291.37 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 7/25/2012 | 33.06 | 291.09 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 8/28/2012 | 33.13 | 291.02 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 9/24/2012 | 33.20 | 290.95 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 10/30/2012 | 33.20 | 290.95 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 11/20/2012 | 33.29 | 290.86 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 12/7/2012 | 31.84 | 292.31 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 1/29/2013 | 31.37 | 292.78 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 2/28/2013 | 32.09 | 292.06 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 3/25/2013 | 32.18 | 291.97 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 4/29/2013 | 32.79 | 291.36 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 5/31/2013 | 32.90 | 291.25 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 6/28/2013 | 23.97 | 300.18 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 7/30/2013 | 33.07 | 291.08 | ~~33.07~~ | ~~291.08~~ | ~~sheen~~ |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 8/6/2013[4] | 33.05 | 291.10 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 8/14/2013[5] | 33.07 | 291.08 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 9/17/2013 | 33.10 | 291.05 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 10/29/2013 | 33.21 | 290.94 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 11/21/2013 | 33.23 | 290.92 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 12/16/2013 | 33.21 | 290.94 | -- | -- | -- |

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Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 1/7/2014 | 33.24 | 290.91 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 2/6/2014 | 33.12 | 291.03 | -- | -- | -- |
| **MW-2** | 10/21/2005 | 324.85 | 324.15 | 23.3-38.3 | 3/20/2014 | 32.28 | 291.87 | -- | -- | -- |
| | | | | | | | | | | |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 11/17/2005 | 35.93 | 289.72 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 12/13/2005 | 34.80 | 290.85 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 1/17/2006 | 30.88 | 294.77 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 2/21/2006 | 31.97 | 293.68 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 5/10/2006 | 30.38 | 295.27 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 6/7/2006 | 30.91 | 294.74 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 8/22/2006 | 34.66 | 290.99 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 11/14/2006 | 34.71 | 290.94 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 12/8/2006 | 34.65 | 291.00 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 1/10/2007 | 31.68 | 293.97 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 2/20/2007 | 31.66 | 293.99 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 6/5/2007 | 34.63 | 291.02 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 7/13/2007 | 34.75 | 290.90 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 8/17/2007 | 34.78 | 290.87 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 9/5/2007 | 34.70 | 290.95 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 9/12/2007 | 34.71 | 290.94 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 10/31/2007 | 34.63 | 291.02 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 12/5/2007 | 34.79 | 290.86 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 12/11/2007 | 34.77 | 290.88 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 3/4/2008 | 30.97 | 294.68 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 3/19/2008 | 31.64 | 294.01 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 5/20/2008 | 31.26 | 294.39 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 6/5/2008 | 31.45 | 294.20 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 7/18/2008 | 34.11 | 291.54 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 9/5/2008 | 34.77 | 290.88 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 9/18/2008 | 34.81 | 290.84 | -- | -- | -- |

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Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 10/31/2008 | 34.85 | 290.80 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 11/24/2008 | 34.79 | 290.86 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 12/15/2008 | 34.79 | 290.86 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 1/22/2009 | 34.71 | 290.94 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 2/25/2009 | 31.35 | 294.30 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 3/27/2009 | 30.87 | 294.78 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 4/23/2009 | 31.39 | 294.26 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 5/28/2009 | 33.97 | 291.68 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 6/9/2009 | 34.48 | 291.17 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 8/25/2009 | 34.83 | 290.82 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 9/28/2009 | 34.82 | 290.83 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 10/21/2009 | 34.79 | 290.86 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 11/10/2009 | 34.85 | 290.80 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 12/9/2009 | 34.83 | 290.82 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 1/25/2010 | 30.49 | 295.16 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 2/19/2010 | 30.92 | 294.73 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 3/9/2010 | 30.60 | 295.05 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 4/22/2010 | 31.03 | 294.62 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 5/27/2010 | 31.29 | 294.36 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 6/23/2010 | 33.94 | 291.71 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 7/27/2010 | 34.59 | 291.06 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 8/31/2010 | 34.70 | 290.95 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 9/29/2010 | 34.80 | 290.85 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 10/27/2010 | 34.82 | 290.83 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 11/23/2010 | 34.79 | 290.86 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 12/14/2010 | 33.05 | 292.60 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 1/31/2011 | 30.99 | 294.66 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 2/28/2011 | 30.69 | 294.96 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 3/28/2011 | 28.78 | 296.87 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 4/28/2011 | 30.55 | 295.10 | -- | -- | -- |

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**TABLE 1**
Monitoring Well Groundwater Elevations
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 5/26/2011 | 31.35 | 294.30 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 6/27/2011 | 32.13 | 293.52 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 7/25/2011 | 34.49 | 291.16 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 8/22/2011 | 34.70 | 290.95 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 9/19/2011 | 34.67 | 290.98 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 10/24/2011 | 34.39 | 291.26 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 11/21/2011 | 34.75 | 290.90 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 12/19/2011 | 38.96 | 286.69 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 1/30/2012 | 34.70 | 290.95 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 2/20/2012 | 34.76 | 290.89 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 3/20/2012 | 32.08 | 293.57 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 4/24/2012 | 31.03 | 294.62 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 5/30/2012 | 32.99 | 292.66 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 6/12/2012 | 33.60 | 292.05 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 7/25/2012 | 34.74 | 290.91 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 8/28/2012 | 34.79 | 290.86 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 9/24/2012 | 34.82 | 290.83 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 10/30/2012 | 34.85 | 290.80 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 11/20/2012 | 34.88 | 290.77 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 12/7/2012 | 30.97 | 294.68 | 30.97 | 294.68 | sheen |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 1/29/2013 | 31.14 | 294.51 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 2/28/2013 | 31.83 | 293.82 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 3/25/2013 | 32.08 | 293.57 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 4/29/2013 | 33.89 | 291.76 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 5/31/2013 | 34.63 | 291.02 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 6/28/2013 | 34.74 | 290.91 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 7/30/2013 | 34.83 | 290.82 | ~~34.83~~ | ~~290.82~~ | ~~sheen~~ |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 8/6/2013[4] | 34.79 | 290.86 | ~~34.79~~ | ~~290.86~~ | ~~sheen~~ |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 8/14/2013[5] | 34.82 | 290.83 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 9/17/2013 | 34.79 | 290.86 | -- | -- | -- |

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**TABLE 1**
Monitoring Well Groundwater Elevations
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 10/29/2013 | 34.50 | 291.15 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 11/21/2013 | 34.76 | 290.89 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 12/16/2013 | 34.79 | 290.86 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 1/7/2014 | 34.84 | 290.81 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 2/6/2014 | 34.72 | 290.93 | -- | -- | -- |
| **MW-3** | 10/21/2005 | 326.05 | 325.65 | 21.3-36.3 | 3/20/2014 | 31.80 | 293.85 | -- | -- | -- |
| | | | | | | | | | | |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 2/21/2006 | 36.72 | 292.95 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 5/10/2006 | 35.30 | 294.37 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 6/7/2006 | 35.76 | 293.91 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 8/22/2006 | 38.79 | 290.88 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 11/14/2006 | 38.84 | 290.83 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 12/8/2006 | 38.78 | 290.89 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 1/10/2007 | 36.54 | 293.13 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 2/20/2007 | 36.54 | 293.13 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 6/5/2007 | 38.77 | 290.90 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 7/13/2007 | 38.94 | 290.73 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 8/17/2007 | 39.00 | 290.67 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 9/5/2007 | 38.92 | 290.75 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 9/12/2007 | 38.93 | 290.74 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 10/31/2007 | 38.87 | 290.80 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 12/5/2007 | 38.97 | 290.70 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 12/11/2007 | 39.00 | 290.67 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 3/4/2008 | 36.15 | 293.52 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 3/19/2008 | 36.29 | 293.38 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 5/20/2008 | 36.27 | 293.40 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 6/5/2008 | 36.38 | 293.29 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 7/18/2008 | 38.31 | 291.36 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 9/5/2008 | 38.95 | 290.72 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 9/18/2008 | 39.03 | 290.64 | -- | -- | -- |

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**TABLE 1**
Monitoring Well Groundwater Elevations
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Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 10/31/2008 | 39.11 | 290.56 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 11/24/2008 | 39.03 | 290.64 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 12/11/2008 | 39.00 | 290.67 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 12/15/2008 | 39.03 | 290.64 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 1/22/2009 | 38.91 | 290.76 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 2/25/2009 | 36.35 | 293.32 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 3/27/2009 | 36.10 | 293.57 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 4/23/2009 | 36.36 | 293.31 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 5/28/2009 | 38.21 | 291.46 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 6/9/2009 | 38.62 | 291.05 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 8/25/2009 | 39.05 | 290.62 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 9/28/2009 | 39.04 | 290.63 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 10/21/2009 | 39.02 | 290.65 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 11/10/2009 | 39.09 | 290.58 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 12/9/2009 | 39.09 | 290.58 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 1/25/2010 | 35.96 | 293.71 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 2/19/2010 | 36.09 | 293.58 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 3/9/2010 | 35.69 | 293.98 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 4/22/2010 | 36.13 | 293.54 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 5/27/2010 | 36.27 | 293.40 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 6/23/2010 | 37.41 | 292.26 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 7/27/2010 | 38.75 | 290.92 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 8/31/2010 | 38.89 | 290.78 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 9/29/2010 | 38.98 | 290.69 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 10/27/2010 | 39.02 | 290.65 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 11/23/2010 | 38.99 | 290.68 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 12/14/2010 | 37.61 | 292.06 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 1/31/2011 | 36.16 | 293.51 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 2/28/2011 | 35.93 | 293.74 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 3/28/2011 | 33.63 | 296.04 | -- | -- | -- |

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First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 4/28/2011 | 35.65 | 294.02 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 5/26/2011 | 36.32 | 293.35 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 6/27/2011 | 36.84 | 292.83 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 7/25/2011 | 38.63 | 291.04 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 8/22/2011 | 38.88 | 290.79 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 9/19/2011 | 38.89 | 290.78 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 10/24/2011 | 38.89 | 290.78 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 11/21/2011 | 38.98 | 290.69 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 12/19/2011 | 34.75 | 294.92 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 1/30/2012 | 38.91 | 290.76 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 2/20/2012 | 38.94 | 290.73 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 3/20/2012 | 37.07 | 292.60 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 4/24/2012 | 36.21 | 293.46 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 5/30/2012 | 37.45 | 292.22 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 6/12/2012 | 37.94 | 291.73 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 7/25/2012 | 38.97 | 290.70 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 8/28/2012 | 39.02 | 290.65 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 9/24/2012 | 39.06 | 290.61 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 10/30/2012 | 39.08 | 290.59 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 11/20/2012 | 39.14 | 290.53 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 12/7/2012 | 36.21 | 293.46 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 1/29/2013 | 36.24 | 293.43 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 2/28/2013 | 36.67 | 293.00 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 3/25/2013 | 36.84 | 292.83 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 4/29/2013 | 38.19 | 291.48 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 5/31/2013 | 38.80 | 290.87 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 6/28/2013 | 38.86 | 290.81 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 7/30/2013 | 39.03 | 290.64 | ~~39.03~~ | ~~290.64~~ | ~~sheen~~ |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 8/6/2013[4] | 39.00 | 290.67 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 8/14/2013[5] | 39.03 | 290.64 | | | |

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**TABLE 1**
Monitoring Well Groundwater Elevations
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Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 9/17/2013 | 39.04 | 290.63 | | | |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 10/29/2013 | 38.61 | 291.06 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 11/21/2013 | 38.88 | 290.79 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 12/16/2013 | 38.92 | 290.75 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 1/7/2014 | 38.94 | 290.73 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 2/6/2014 | 38.88 | 290.79 | -- | -- | -- |
| **MW-4** | 1/31/2006 | 329.97 | 329.67 | 30.7-40.7 | 3/20/2014 | 36.71 | 292.96 | -- | -- | -- |
| | | | | | | | | | | |
| **MW-5** | 1/27/2006 | 335.14 | 334.81 | 39.5-49.5 | 2/21/2006 | 11.48 | 323.33 | -- | -- | -- |
| **MW-5** | 1/27/2006 | 335.14 | 334.81 | 39.5-49.5 | 6/7/2006 | 10.61 | 324.20 | -- | -- | -- |
| **MW-5** | 1/27/2006 | 335.14 | 334.81 | 39.5-49.5 | 8/22/2006 | 11.93 | 322.88 | -- | -- | -- |
| **MW-5** | 1/27/2006 | 335.14 | 334.81 | 39.5-49.5 | 11/14/2006 | 11.37 | 323.44 | -- | -- | -- |
| **MW-5** | 1/27/2006 | 335.14 | 334.81 | 39.5-49.5 | 2/20/2007 | 11.41 | 323.40 | -- | -- | -- |
| **MW-5** | 1/27/2006 | 335.14 | 334.81 | 39.5-49.5 | 6/5/2007 | 13.59 | 321.22 | -- | -- | -- |
| **MW-5** | 1/27/2006 | 335.14 | 334.81 | 39.5-49.5 | 9/12/2007 | 15.65 | 319.16 | -- | -- | -- |
| **MW-5** | 1/27/2006 | 335.14 | 334.81 | 39.5-49.5 | 12/11/2008 | -- | -- | -- | -- | -- |
| **MW-5** | 1/27/2006 | 335.14 | 334.81 | 39.5-49.5 | Q1 2008 | -- | -- | -- | -- | -- |
| **MW-5** | 1/27/2006 | 335.14 | 334.81 | 39.5-49.5 | Q2 2008 | Abandoned[1] | Abandoned[1] | -- | -- | -- |
| | | | | | | | | | | |
| **MW-6** | 1/27/2006 | 332.61 | 332.38 | 34.7-49.7 | 2/21/2006 | 18.02 | 314.36 | -- | -- | -- |
| **MW-6** | 1/27/2006 | 332.61 | 332.38 | 34.7-49.7 | 6/7/2006 | 16.83 | 315.55 | -- | -- | -- |
| **MW-6** | 1/27/2006 | 332.61 | 332.38 | 34.7-49.7 | 8/22/2006 | 18.66 | 313.72 | -- | -- | -- |
| **MW-6** | 1/27/2006 | 332.61 | 332.38 | 34.7-49.7 | 11/14/2006 | 17.37 | 315.01 | -- | -- | -- |
| **MW-6** | 1/27/2006 | 332.61 | 332.38 | 34.7-49.7 | 2/20/2007 | 17.51 | 314.87 | -- | -- | -- |
| **MW-6** | 1/27/2006 | 332.61 | 332.38 | 34.7-49.7 | 6/5/2007 | 19.44 | 312.94 | -- | -- | -- |
| **MW-6** | 1/27/2006 | 332.61 | 332.38 | 34.7-49.7 | 9/12/2007 | 23.46 | 308.92 | -- | -- | -- |
| **MW-6** | 1/27/2006 | 332.61 | 332.38 | 34.7-49.7 | 12/11/2008 | -- | -- | -- | -- | -- |
| **MW-6** | 1/27/2006 | 332.61 | 332.38 | 34.7-49.7 | Q1 2008 | -- | -- | -- | -- | -- |
| **MW-6** | 1/27/2006 | 332.61 | 332.38 | 34.7-49.7 | Q2 2008 | Abandoned[1] | Abandoned[1] | -- | -- | -- |

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**TABLE 1**
Monitoring Well Groundwater Elevations
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Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-7** | 1/27/2006 | 336.46 | 336.22 | 34.7-49.7 | 2/21/2006 | 15.43 | 320.79 | -- | -- | -- |
| **MW-7** | 1/27/2006 | 336.46 | 336.22 | 34.7-49.7 | 6/7/2006 | 16.68 | 319.54 | -- | -- | -- |
| **MW-7** | 1/27/2006 | 336.46 | 336.22 | 34.7-49.7 | 8/22/2006 | 16.77 | 319.45 | -- | -- | -- |
| **MW-7** | 1/27/2006 | 336.46 | 336.22 | 34.7-49.7 | 11/14/2006 | 16.99 | 319.23 | -- | -- | -- |
| **MW-7** | 1/27/2006 | 336.46 | 336.22 | 34.7-49.7 | 2/20/2007 | 18.34 | 317.88 | -- | -- | -- |
| **MW-7** | 1/27/2006 | 336.46 | 336.22 | 34.7-49.7 | 6/5/2007 | 19.88 | 316.34 | -- | -- | -- |
| **MW-7** | 1/27/2006 | 336.46 | 336.22 | 34.7-49.7 | 9/12/2007 | 21.76 | 314.46 | -- | -- | -- |
| **MW-7** | 1/27/2006 | 336.46 | 336.22 | 34.7-49.7 | 12/11/2008 | -- | -- | -- | -- | -- |
| **MW-7** | 1/27/2006 | 336.46 | 336.22 | 34.7-49.7 | Q1 2008 | -- | -- | -- | -- | -- |
| **MW-7** | 1/27/2006 | 336.46 | 336.22 | 34.7-49.7 | Q2 2008 | Abandoned[1] | Abandoned[1] | -- | -- | -- |
| | | | | | | | | | | |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 8/22/2006 | 18.71 | 315.22 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 11/14/2006 | 18.73 | 315.20 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 12/8/2006 | 19.15 | 314.78 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 1/10/2007 | 19.19 | 314.74 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 2/20/2007 | 19.23 | 314.70 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 6/5/2007 | 20.48 | 313.45 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 7/13/2007 | 21.21 | 312.72 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 8/17/2007 | 21.45 | 312.48 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 9/5/2007 | 21.55 | 312.38 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 9/12/2007 | 21.47 | 312.46 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 10/31/2007 | 20.33 | 313.60 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 12/5/2007 | 19.55 | 314.38 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 12/11/2007 | 19.58 | 314.35 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 3/4/2008[2] | -- | -- | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 3/19/2008[2] | -- | -- | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 5/20/2008[2] | -- | -- | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 6/5/2008[2] | -- | -- | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 7/18/2008 | 22.44 | 311.49 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 9/5/2008 | 21.76 | 312.17 | -- | -- | -- |

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|---|---|---|---|---|---|---|---|---|---|---|
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 9/18/2008 | 21.67 | 312.26 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 10/31/2008 | 21.87 | 312.06 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 11/24/2008 | 21.26 | 312.67 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 12/15/2008 | 20.73 | 313.20 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 1/22/2009 | 20.25 | 313.68 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 2/25/2009 | 19.50 | 314.43 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 3/27/2009 | 19.54 | 314.39 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 4/23/2009 | 20.24 | 313.69 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 5/28/2009 | 20.96 | 312.97 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 6/9/2009 | 23.31 | 310.62 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 8/25/2009 | 22.50 | 311.43 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 9/28/2009 | 22.58 | 311.35 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 10/21/2009 | 21.61 | 312.32 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 11/10/2009 | 21.15 | 312.78 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 12/9/2009 | 20.66 | 313.27 | 20.65 | 20.65 | 0.01 |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 1/25/2010 | 19.19 | 314.74 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 2/19/2010 | 19.13 | 314.80 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 3/9/2010 | 18.97 | 314.96 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 4/22/2010 | 19.15 | 314.78 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 5/27/2010 | 19.29 | 314.64 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 6/23/2010 | 19.82 | 314.11 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 7/27/2010 | 21.40 | 312.53 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 8/31/2010 | 21.65 | 312.28 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 9/29/2010 | 22.23 | 311.70 | 22.22 | 22.22 | 0.01 |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 10/27/2010 | 21.81 | 312.12 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 11/23/2010 | 22.31 | 311.62 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 12/14/2010 | 20.26 | 313.67 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 1/31/2011 | 19.43 | 314.50 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 2/28/2011 | 18.90 | 315.03 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 3/28/2011 | 18.40 | 315.53 | -- | -- | -- |

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|---|---|---|---|---|---|---|---|---|---|---|
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 4/28/2011 | 18.46 | 315.47 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 5/26/2011 | 18.45 | 315.48 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 6/27/2011 | 18.88 | 315.05 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 7/25/2011 | 19.42 | 314.51 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 8/22/2011 | 19.97 | 313.96 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 9/19/2011 | 20.52 | 313.41 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 10/24/2011 | 19.78 | 314.15 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 11/21/2011 | 19.03 | 314.90 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 12/19/2011 | 18.84 | 315.09 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 1/30/2012 | 18.88 | 315.05 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 2/20/2012 | 18.66 | 315.27 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 3/20/2012 | 18.72 | 315.21 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 4/24/2012 | 18.69 | 315.24 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 5/30/2012 | 19.73 | 314.20 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 6/12/2012 | 20.29 | 313.64 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 7/25/2012 | 21.67 | 312.26 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 8/28/2012 | 22.08 | 311.85 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 9/24/2012 | 22.11 | 311.82 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 10/30/2012 | 21.80 | 312.13 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 11/20/2012 | 21.24 | 312.69 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 12/7/2012 | 20.12 | 313.81 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 1/29/2013 | 18.91 | 315.02 | 18.91 | 315.02 | sheen |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 2/28/2013 | 18.95 | 314.98 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 3/25/2013 | 18.88 | 315.05 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 4/29/2013 | 19.56 | 314.37 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 5/31/2013 | 20.78 | 313.15 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 6/28/2013 | 21.53 | 312.40 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 7/30/2013 | 22.22 | 311.71 | ~~22.22~~ | ~~311.71~~ | ~~sheen~~ |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 8/6/2013[4] | 22.31 | 311.62 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 8/14/2013[5] | 22.34 | 311.59 | -- | -- | -- |

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**TABLE 1**
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| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 8/15/2013[5,6] | 23.05 | 310.88 | 23.03 | 310.90 | 0.02 |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 9/17/2013 | 22.54 | 311.39 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 10/29/2013 | 22.39 | 311.54 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 11/21/2013 | 21.98 | 311.95 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 12/16/2013 | 20.88 | 313.05 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 1/7/2014 | 20.41 | 313.52 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 2/6/2014 | 20.19 | 313.74 | -- | -- | -- |
| **MW-8** | 8/15/2006 | 335.23 | 333.93 | 14.5-24.5 | 3/20/2014 | 20.17 | 313.76 | -- | -- | -- |
| | | | | | | | | | | |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 8/22/2006 | 42.59 | 290.48 | 42.55 | 42.55 | 0.04 |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 11/14/2006 | 42.62 | 290.45 | 42.54 | 42.54 | 0.08 |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 12/8/2006 | 42.56 | 290.51 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 1/10/2007 | 42.01 | 291.06 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 2/20/2007 | 41.91 | 291.16 | 41.86 | 41.86 | 0.05 |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 3/20/2007 | 41.76 | 291.31 | 41.75 | 41.75 | 0.01 |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 6/5/2007 | 42.71 | 290.36 | 42.69 | 42.69 | 0.02 |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 7/13/2007 | 43.08 | 289.99 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 8/17/2007 | 43.14 | 289.93 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 9/5/2007 | 43.16 | 289.91 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 9/12/2007 | 43.09 | 289.98 | 43.01 | 43.01 | 0.08 |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 10/31/2007 | 43.17 | 289.90 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 12/5/2007 | 43.10 | 289.97 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 12/11/2007 | 42.91 | 290.16 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 3/4/2008 | 41.31 | 291.76 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 3/19/2008 | -- | -- | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 5/20/2008 | 41.33 | 291.74 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 6/5/2008 | 41.57 | 291.50 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 7/18/2008 | 42.52 | 290.55 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 9/5/2008 | 43.02 | 290.05 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 9/18/2008 | 43.07 | 290.00 | -- | -- | -- |

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**TABLE 1**
Monitoring Well Groundwater Elevations
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 10/31/2008 | 43.09 | 289.98 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 11/24/2008 | 43.02 | 290.05 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 12/15/2008 | 43.00 | 290.07 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 1/22/2009 | 42.90 | 290.17 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 2/25/2009 | 41.97 | 291.10 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 3/27/2009 | 41.02 | 292.05 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 4/23/2009 | 41.42 | 291.65 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 5/28/2009 | 42.31 | 290.76 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 6/9/2009 | 42.53 | 290.54 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 8/25/2009 | 43.03 | 290.04 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 9/28/2009 | 43.02 | 290.05 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 10/21/2009 | 43.06 | 290.01 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 11/10/2009 | 43.06 | 290.01 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 12/9/2009 | 42.99 | 290.08 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 1/25/2010 | 41.18 | 291.89 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 2/19/2010 | 40.79 | 292.28 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 3/9/2010 | 39.97 | 293.10 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 4/22/2010 | 40.78 | 292.29 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 5/27/2010 | 41.21 | 291.86 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 6/23/2010 | 41.94 | 291.13 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 7/27/2010 | 42.64 | 290.43 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 8/31/2010 | 42.84 | 290.23 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 9/29/2010 | 42.81 | 290.26 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 10/27/2010 | 42.65 | 290.42 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 11/23/2010 | 42.63 | 290.44 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 12/14/2010 | 42.60 | 290.47 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 1/31/2011 | 41.09 | 291.98 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 2/28/2011 | 41.09 | 291.98 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 3/28/2011 | 37.70 | 295.37 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 4/28/2011 | 39.97 | 293.10 | -- | -- | -- |

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**TABLE 1**
Monitoring Well Groundwater Elevations
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 5/26/2011 | 41.28 | 291.79 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 6/27/2011 | 41.79 | 291.28 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 7/25/2011 | 42.38 | 290.69 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 8/22/2011 | 42.52 | 290.55 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 9/19/2011 | 42.71 | 290.36 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 10/24/2011 | 42.65 | 290.42 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 11/21/2011 | 42.65 | 290.42 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 12/19/2011 | 42.64 | 290.43 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 1/30/2012 | 42.49 | 290.58 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 2/20/2012 | 42.46 | 290.61 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 3/20/2012 | 42.25 | 290.82 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 4/24/2012 | 41.29 | 291.78 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 5/30/2012 | 42.09 | 290.98 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 6/12/2012 | 42.23 | 290.84 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 7/25/2012 | 42.46 | 290.61 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 8/28/2012 | 44.53 | 288.54 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 9/24/2012 | 42.58 | 290.49 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 10/30/2012 | 42.59 | 290.48 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 11/20/2012 | 42.68 | 290.39 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 12/7/2012 | 41.79 | 291.28 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 1/29/2013 | 41.19 | 291.88 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 2/28/2013 | 41.98 | 291.09 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 3/25/2013 | 41.97 | 291.10 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 4/29/2013 | 42.28 | 290.79 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 5/31/2013 | 42.31 | 290.76 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 6/28/2013 | 42.36 | 290.71 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 7/30/2013 | 42.46 | 290.61 | ~~42.46~~ | ~~290.61~~ | ~~sheen~~ |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 8/6/2013[4] | 42.41 | 290.66 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 8/14/2013[5] | 42.44 | 290.63 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 9/17/2013 | 42.48 | 290.59 | -- | -- | -- |

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**TABLE 1**
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Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 10/29/2013 | 42.60 | 290.47 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 11/21/2013 | 42.59 | 290.48 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 12/16/2013 | 42.57 | 290.50 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 1/7/2014 | 42.63 | 290.44 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 2/6/2014 | 42.53 | 290.54 | -- | -- | -- |
| **MW-9** | 8/16/2006 | 333.49 | 333.07 | 36.0-46.0 | 3/20/2014 | 42.06 | 291.01 | -- | -- | -- |
| | | | | | | | | | | |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 9/5/2007 | 54.86 | 281.03 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 10/31/2007 | 46.34 | 289.55 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 12/5/2007 | 45.84 | 290.05 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 12/12/2007 | 46.84 | 289.05 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 3/4/2008 | 43.31 | 292.58 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 3/20/2008 | 44.41 | 291.48 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 5/20/2008 | 44.09 | 291.80 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 6/5/2008 | 43.67 | 292.22 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 7/18/2008 | 45.32 | 290.57 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 9/5/2008 | 45.79 | 290.10 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 9/18/2008 | 45.89 | 290.00 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 10/31/2008 | 46.50 | 289.39 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 11/24/2008 | 46.02 | 289.87 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 12/15/2008 | 45.91 | 289.98 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 1/22/2009 | 48.34 | 287.55 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 2/25/2009 | 45.21 | 290.68 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 3/27/2009 | 43.82 | 292.07 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 4/23/2009 | 44.13 | 291.76 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 5/28/2009 | 44.96 | 290.93 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 6/9/2009 | 45.19 | 290.70 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 8/25/2009 | 46.01 | 289.88 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 9/28/2009 | 45.94 | 289.95 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 10/21/2009 | 47.09 | 288.80 | -- | -- | -- |

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Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 11/10/2009 | 46.29 | 289.60 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 12/9/2009 | 46.02 | 289.87 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 1/25/2010 | 45.74 | 290.15 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 2/19/2010 | 43.44 | 292.45 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 3/9/2010 | 42.62 | 293.27 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 4/22/2010 | 43.51 | 292.38 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 5/27/2010 | 44.03 | 291.86 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 6/23/2010 | 44.52 | 291.37 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 7/27/2010 | 46.11 | 289.78 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 8/31/2010 | 45.85 | 290.04 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 9/29/2010 | 45.89 | 290.00 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 10/27/2010 | 47.09 | 288.80 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 11/23/2010 | 44.99 | 290.90 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 12/14/2010 | 45.77 | 290.12 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 1/31/2011 | 43.92 | 291.97 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 2/28/2011 | 43.20 | 292.69 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 3/28/2011 | 40.41 | 295.48 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 4/28/2011 | 42.68 | 293.21 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 5/26/2011 | 43.97 | 291.92 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 6/27/2011 | 44.51 | 291.38 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 7/25/2011 | 45.18 | 290.71 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 8/22/2011 | 45.57 | 290.32 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 9/19/2011 | 47.13 | 288.76 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 10/24/2011 | 45.97 | 289.92 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 11/21/2011 | 45.83 | 290.06 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 12/19/2011 | 45.72 | 290.17 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 1/30/2012 | 45.66 | 290.23 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 2/20/2012 | 45.64 | 290.25 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 3/20/2012 | 45.48 | 290.41 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 4/24/2012 | 43.94 | 291.95 | -- | -- | -- |

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**TABLE 1**
Monitoring Well Groundwater Elevations
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Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 5/30/2012 | 44.87 | 291.02 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 6/12/2012 | 45.16 | 290.73 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 7/25/2012 | 45.71 | 290.18 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 8/28/2012 | 45.85 | 290.04 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 9/24/2012 | 45.91 | 289.98 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 10/30/2012 | 46.65 | 289.24 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 11/20/2012 | 46.23 | 289.66 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 12/7/2012 | 45.79 | 290.10 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 1/29/2013 | 43.78 | 292.11 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 2/28/2013 | 44.82 | 291.07 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 3/25/2013 | 44.93 | 290.96 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 4/29/2013 | 45.65 | 290.24 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 5/31/2013 | 45.53 | 290.36 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 6/28/2013 | 45.61 | 290.28 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 7/30/2013 | 45.76 | 290.13 | ~~45.76~~ | ~~290.13~~ | ~~sheen~~ |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 8/6/2013[4] | 45.71 | 290.18 | ~~45.71~~ | ~~290.18~~ | ~~sheen~~ |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 8/14/2013[5] | 45.76 | 290.13 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 9/17/2013 | 46.26 | 289.63 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 10/29/2013 | 45.69 | 290.20 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 11/21/2013 | 45.79 | 290.10 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 12/16/2013 | 45.78 | 290.11 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 1/7/2014 | 45.83 | 290.06 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 2/6/2014 | 45.74 | 290.15 | -- | -- | -- |
| **MW-10** | 9/5/2007 | 336.55 | 335.89 | 40.3-55.3 | 3/20/2014 | 45.16 | 290.73 | -- | -- | -- |
| | | | | | | | | | | |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 9/6/2007 | Dry | Dry | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 10/31/2007 | 45.05 | 284.84 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 12/5/2007 | 43.04 | 286.85 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 12/12/2007 | 42.73 | 287.16 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 3/4/2008 | 36.91 | 292.98 | -- | -- | -- |

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**TABLE 1**
Monitoring Well Groundwater Elevations
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 3/20/2008 | 37.29 | 292.60 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 5/20/2008 | 37.06 | 292.83 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 6/4/2008 | 37.18 | 292.71 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 7/18/2008 | 37.97 | 291.92 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 9/5/2008 | 38.86 | 291.03 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 9/18/2008 | 38.97 | 290.92 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 10/31/2008 | 41.02 | 288.87 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 11/24/2008 | 39.85 | 290.04 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 12/15/2008 | 39.36 | 290.53 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 1/22/2009 | 41.73 | 288.16 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 2/25/2009 | 37.12 | 292.77 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 3/27/2009 | 36.87 | 293.02 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 4/23/2009 | 37.13 | 292.76 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 5/28/2009 | 37.99 | 291.90 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 6/9/2009 | 38.30 | 291.59 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 8/25/2009 | 39.78 | 290.11 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 9/28/2009 | 39.21 | 290.68 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 10/21/2009 | 42.22 | 287.67 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 11/10/2009 | 40.93 | 288.96 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 12/9/2009 | 39.73 | 290.16 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 1/25/2010 | 36.77 | 293.12 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 2/19/2010 | 36.78 | 293.11 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 3/9/2010 | 36.28 | 293.61 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 4/22/2010 | 36.87 | 293.02 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 5/27/2010 | 37.03 | 292.86 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 6/23/2010 | 37.72 | 292.17 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 7/27/2010 | 40.66 | 289.23 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 8/31/2010 | 39.34 | 290.55 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 9/29/2010 | 44.84 | 285.05 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 10/27/2010 | 42.23 | 287.66 | -- | -- | -- |

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**TABLE 1**
Monitoring Well Groundwater Elevations
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 11/23/2010 | 40.53 | 289.36 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 12/14/2010 | 39.56 | 290.33 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 1/31/2011 | 36.93 | 292.96 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 2/28/2011 | 36.63 | 293.26 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 3/28/2011 | 34.25 | 295.64 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 4/28/2011 | 36.32 | 293.57 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 5/26/2011 | 37.06 | 292.83 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 6/27/2011 | 37.46 | 292.43 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 7/25/2011 | 38.26 | 291.63 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 8/19/2011 | 39.41 | 290.48 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 8/22/2011 | 38.73 | 291.16 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 9/19/2011 | 47.13 | 282.76 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 10/24/2011 | 39.06 | 290.83 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 11/21/2011 | 39.02 | 290.87 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 12/19/2011 | 38.95 | 290.94 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 1/30/2012 | 38.96 | 290.93 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 2/20/2012 | 38.94 | 290.95 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 3/20/2012 | 38.67 | 291.22 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 4/24/2012 | 36.98 | 292.91 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 5/30/2012 | 37.97 | 291.92 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 6/12/2012 | 38.08 | 291.81 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 7/25/2012 | 38.82 | 291.07 | 38.82 | 291.07 | sheen |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 8/28/2012 | 38.98 | 290.91 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 9/24/2012 | 39.04 | 290.85 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 10/30/2012 | 41.70 | 288.19 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 11/20/2012 | 40.47 | 289.42 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 12/7/2012 | 37.00 | 292.89 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 1/29/2013 | 36.99 | 292.90 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 2/28/2013 | 37.40 | 292.49 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 3/25/2013 | 37.49 | 292.40 | -- | -- | -- |

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| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 4/29/2013 | 38.06 | 291.83 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 5/31/2013 | 38.62 | 291.27 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 6/28/2013 | 38.80 | 291.09 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 7/30/2013 | 39.02 | 290.87 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 8/6/2013[4] | 38.98 | 290.91 | ~~38.98~~ | ~~290.91~~ | ~~sheen~~ |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 8/14/2013[5] | 39.02 | 290.87 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 9/17/2013 | 41.38 | 288.51 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 10/29/2013 | 37.37 | 292.52 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 11/21/2013 | 38.53 | 291.36 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 12/16/2013 | 38.64 | 291.25 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 1/7/2014 | 38.68 | 291.21 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 2/6/2014 | 38.63 | 291.26 | -- | -- | -- |
| **MW-11** | 9/6/2007 | 330.29 | 329.89 | 37.0-47.0 | 3/20/2014 | 37.44 | 292.45 | -- | -- | -- |
| | | | | | | | | | | |
| **MW-12** | 12/4/2012 | 334.90 | 334.58 | 16.7-26.7 | 1/29/2013 | 25.53 | 309.05 | -- | -- | -- |
| **MW-12** | 12/4/2012 | 334.90 | 334.58 | 16.7-26.7 | 1/29/2013 | 22.26 | 312.32 | 22.26 | 307.63 | sheen |
| **MW-12** | 12/6/2012 | 334.90 | 334.58 | 16.7-26.9 | 2/28/2013 | 22.14 | 312.44 | -- | -- | -- |
| **MW-12** | 12/7/2012 | 334.90 | 334.58 | 16.7-26.10 | 3/25/2013 | 21.92 | 312.66 | -- | -- | -- |
| **MW-12** | 12/8/2012 | 334.90 | 334.58 | 16.7-26.11 | 3/26/2013[3] | 23.92 | 310.66 | -- | -- | -- |
| **MW-12** | 12/9/2012 | 334.90 | 334.58 | 16.7-26.12 | 4/29/2013 | 23.08 | 311.50 | -- | -- | -- |
| **MW-12** | 12/10/2012 | 334.90 | 334.58 | 16.7-26.13 | 5/31/2013 | 24.91 | 309.67 | -- | -- | -- |
| **MW-12** | 12/11/2012 | 334.90 | 334.58 | 16.7-26.14 | 6/28/2013 | 26.05 | 308.53 | -- | -- | -- |
| **MW-12** | 12/12/2012 | 334.90 | 334.58 | 16.7-26.15 | 7/30/2013 | 26.23 | 308.35 | -- | -- | -- |
| **MW-12** | 12/13/2012 | 334.90 | 334.58 | 16.7-26.16 | 8/6/2013[4] | 26.20 | 308.38 | ~~26.20~~ | ~~308.38~~ | ~~sheen~~ |
| **MW-12** | 12/13/2012 | 334.90 | 334.58 | 16.7-26.16 | 8/14/2013[5] | 26.28 | 308.30 | -- | -- | -- |
| **MW-12** | 12/13/2012 | 334.90 | 334.58 | 16.7-26.7 | 9/17/2013 | 26.33 | 308.25 | -- | -- | -- |
| **MW-12** | 12/13/2012 | 334.90 | 334.58 | 16.7-26.7 | 10/29/2013 | 26.33 | 308.25 | -- | -- | -- |
| **MW-12** | 12/13/2012 | 334.90 | 334.58 | 16.7-26.7 | 11/21/2013 | 26.34 | 308.24 | -- | -- | -- |
| **MW-12** | 12/13/2012 | 334.90 | 334.58 | 16.7-26.7 | 12/16/2013 | 24.93 | 309.65 | -- | -- | -- |
| **MW-12** | 12/13/2012 | 334.90 | 334.58 | 16.7-26.7 | 1/7/2014 | 24.25 | 310.33 | -- | -- | -- |

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**TABLE 1**
Monitoring Well Groundwater Elevations
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Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-12** | 12/13/2012 | 334.90 | 334.58 | 16.7-26.7 | 2/6/2014 | 23.84 | 310.74 | -- | -- | -- |
| **MW-12** | 12/13/2012 | 334.90 | 334.58 | 16.7-26.7 | 3/20/2014 | 24.34 | 310.24 | -- | -- | -- |
| | | | | | | | | | | |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 1/29/2013 | Dry | Dry | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 1/29/2013 | 25.98 | 310.81 | 25.98 | 329.89 | sheen |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 2/28/2013 | 26.00 | 310.79 | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 3/25/2013 | 25.96 | 310.83 | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 3/26/2013[3] | Dry | Dry | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 4/29/2013 | 26.00 | 310.79 | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 5/31/2013 | 25.96 | 310.83 | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 6/28/2013 | 25.96 | 310.83 | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 7/30/2013 | 25.98 | 310.81 | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 8/6/2013[4] | 25.96 | 310.83 | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 8/14/2013[5] | 25.97 | 310.82 | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 9/17/2013 | 26.04 | 310.75 | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 10/29/2013 | 26.01 | 310.78 | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 11/21/2013 | 26.03 | 310.76 | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 12/16/2013 | 25.98 | 310.81 | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 1/7/2014 | 26.01 | 310.78 | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 2/6/2014 | 25.99 | 310.80 | -- | -- | -- |
| **MW-13** | 12/5/2012 | 336.79 | 336.79 | 15.7-25.7 | 3/20/2014 | 26.03 | 310.76 | -- | -- | -- |
| | | | | | | | | | | |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 1/29/2013 | 25.76 | 312.18 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 1/29/2013 | 25.85 | 312.09 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 2/28/2013 | 25.88 | 312.06 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 3/25/2013 | 25.83 | 312.11 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 3/26/2013[3] | Dry | Dry | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 4/29/2013 | 25.95 | 311.99 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 5/31/2013 | 25.93 | 312.01 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 6/28/2013 | 25.91 | 312.03 | -- | -- | -- |

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**TABLE 1**
Monitoring Well Groundwater Elevations
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Chevron Pipe Line Company - Sunol Site

| Well ID | Date Installed | Ground Surface Elevation (feet msl) | Top of Casing Elevation (feet msl) | Screen Interval (feet bgs) | Date Measured | Depth to Groundwater (feet below TOC) | Groundwater Elevation (feet msl) | Depth to LNAPL (feet below TOC) | LNAPL Elevation (feet msl) | LNAPL Thickness (feet) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 7/30/2013 | 25.94 | 312.00 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 8/6/2013[4] | 25.91 | 312.03 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 8/14/2013[5] | 25.92 | 312.02 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 9/17/2013 | 26.04 | 311.90 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 10/29/2013 | 26.01 | 311.93 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 11/21/2013 | 26.03 | 311.91 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 12/16/2013 | 25.98 | 311.96 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 1/7/2014 | 26.00 | 311.94 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 2/6/2014 | 25.98 | 311.96 | -- | -- | -- |
| **MW-14** | 12/3/2012 | 338.15 | 337.94 | 16.0-26.0 | 3/20/2014 | 26.02 | 311.92 | -- | -- | -- |
| | | | | | | | | | | |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 1/29/2013 | Dry | Dry | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 1/29/2013 | 23.57 | 309.86 | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 2/28/2013 | 23.63 | 309.80 | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 3/25/2013 | 23.58 | 309.85 | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 3/26/2013[3] | 23.61 | 309.82 | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 4/29/2013 | 23.94 | 309.49 | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 5/31/2013 | 23.89 | 309.54 | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 6/28/2013 | 23.91 | 309.52 | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 7/30/2013 | 23.92 | 309.51 | ~~23.92~~ | ~~309.51~~ | ~~sheen~~ |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 8/6/2013[4] | 23.90 | 309.53 | ~~23.90~~ | ~~309.53~~ | ~~sheen~~ |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 8/14/2013[5] | 23.95 | 309.48 | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 9/17/2013 | 24.11 | 309.32 | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 10/29/2013 | 23.95 | 309.48 | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 11/21/2013 | 24.01 | 309.42 | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 12/16/2013 | 23.96 | 309.47 | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 1/7/2014 | 23.99 | 309.44 | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 2/6/2014 | 23.96 | 309.47 | -- | -- | -- |
| **MW-15** | 12/4/2012 | 333.38 | 333.43 | 14.0-24.0 | 3/20/2014 | 24.01 | 309.42 | -- | -- | -- |

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**TABLE 1**
Monitoring Well Groundwater Elevations
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

Notes/Abbreviations:

-- = Not present/not measured
TOC = top of casing
feet bgs = feet below ground surface
feet msl = feet above average mean sea level (msl).
LNAPL = light non-aqueous phase liquid
~~37.04~~ = data confirmed to be false positive readings based on visual and analytical data

1. MW-5 through MW-7 abandoned June 23, 2008.
2. MW-8 not gauged due to extreme overhead hazards posed by dead trees on the 80-90% grade directly uphill from the gauging location.
3. MW-12 through MW-15 results from 24 hour recharge period after purging well on March 25, 2013.
4. Confirmation gauging event conducted on August 6, 2013 to confirm false positive readings of LNAPL in the monitoring wells.
5. Semi-annual groundwater event conducted early to confirm false positive readings.
6. MW-8 result from 24 hour recharge period after well dewatered on August 14, 2013.

MW-1 through MW-3 surveyed on October 31, 2005.
MW-4 through MW-7 surveyed on February 14, 2006.
MW-8 and MW-9 surveyed on November 10, 2006.
MW-10 and MW-11 surveyed on September 13, 2007.
MW-12 through MW-15 surveyed on December 7, 2012

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**TABLE 2**

Summary of Groundwater Analytical Results Gasoline Compounds
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Sample Date | TPH-GRO (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Xylenes (µg/L) |
|---|---|---|---|---|---|---|
| **ESL[1]** | | **100** | **1** | **40** | **30** | **20** |
| **MW-1** | 2/22/2006 | **57,000** | **38** | **2,700** | **3,000** | **8,700** |
| **MW-1** | 6/8/2006 | **37,000** | **10** | **330** | **120** | **8,200** |
| **MW-1** | Q3 2006 [2] | NS | NS | NS | NS | NS |
| **MW-1** | 11/15/2006 | **38,000** | **14** | **110** | **38** | **5,900** |
| **MW-1** | 2/21/2007 | **18,000** | **4** | 7 | 8 | **1,600** |
| **MW-1** | 6/5/2007 | **17,000** | **3** | 7 | 4 | **1,100** |
| **MW-1** | Q3 2007 [2] | NS | NS | NS | NS | NS |
| **MW-1** | Q4 2007 [2] | NS | NS | NS | NS | NS |
| **MW-1** | 3/19/2008 | **12,000** | 0.8 | 1 | 1 | **320** |
| **MW-1** | 6/6/2008 | **8,200** | 1 | 2 | 3 | **150** |
| **MW-1** | Q3 2008 [3] | NS | NS | NS | NS | NS |
| **MW-1** | Q4 2008 [3] | NS | NS | NS | NS | NS |
| **MW-1** | 3/31/2009 | **3,700** | <0.5 | 1 | 1 | **44** |
| **MW-1** | 6/10/2009 | **5,000** | <0.5 | <0.5 | 0.7 | 13 |
| **MW-1** | Q3 2009 [3] | NS | NS | NS | NS | NS |
| **MW-1** | Q4 2009 [3] | NS | NS | NS | NS | NS |
| **MW-1** | 3/10/2010 | **3,800** | <0.5 | <0.5 | <0.5 | 4 |
| **MW-1** | Q2 2010 [3] | NS | NS | NS | NS | NS |
| **MW-1** | Q3 2010 [3] | NS | NS | NS | NS | NS |
| **MW-1** | 12/14/2010 | **1,900** | 0.8 | 1 | 0.7 | 3 |
| **MW-1** | 3/29/2011 | **1,200** | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-1** | 8/23/2011 | **960** | <0.5 | 1 | <0.5 | 2 |
| **MW-1** | 3/21/2012 | **880** | <0.5 | <0.5 | <0.5 | 0.7 |
| **MW-1** | 9/25/2012 | **1,100 J** | <0.5 | 7 | 5 | **29** |
| **MW-1** | 3/25/2013 | **709** | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-1** | 8/15/2013 | **570** | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-1** | 3/20/2014 | **490** | <0.5 | <0.5 | <0.5 | <0.5 |

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**TABLE 2**

Summary of Groundwater Analytical Results Gasoline Compounds
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Sample Date | TPH-GRO (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Xylenes (µg/L) |
|---|---|---|---|---|---|---|
| **ESL[1]** | | **100** | **1** | **40** | **30** | **20** |
| **MW-2/MW-X** | 2/21/2006 | <50/<50 | <0.5/<0.5 | <0.5/<0.5 | <0.5/<0.5 | <0.5/<0.5 |
| **MW-2** | 6/7/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-2** | 8/23/2006 | <50 | 0.5 | <0.5 | <0.5 | <0.5 |
| **MW-2** | 11/14/2006 | <50 | 0.7 | <0.5 | <0.5 | <0.5 |
| **MW-2** | 2/21/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-2** | 6/5/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-2** | Q3 2007 [3] | NS | NS | NS | NS | NS |
| **MW-2** | Q4 2007 [3] | NS | NS | NS | NS | NS |
| **MW-2** | 3/19/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-2/MW-X** | 6/5/2008 | <50/<50 | <0.5/<0.5 | <0.5/<0.5 | <0.5/<0.5 | <0.5/<0.5 |
| **MW-2** | Q3 2008 [3] | NS | NS | NS | NS | NS |
| **MW-2** | Q4 2008 [3] | NS | NS | NS | NS | NS |
| **MW-2** | 3/27/2009 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-2** | Q2 2009 [3] | NS | NS | NS | NS | NS |
| **MW-2** | Q3 2009 [3] | NS | NS | NS | NS | NS |
| **MW-2** | Q4 2009 [3] | NS | NS | NS | NS | NS |
| **MW-2** | 3/10/2010 | <50 | <0.5 | <0.5 | <0.5 | 2 |
| **MW-2** | 6/23/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-2** | Q3 2010 [3] | NS | NS | NS | NS | NS |
| **MW-2** | Q4 2010 [3] | NS | NS | NS | NS | NS |
| **MW-2** | 3/28/2011 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-2** | Q3 2011 [3] | NS | NS | NS | NS | NS |
| **MW-2** | 3/21/2012 | <50 | <0.5 | <0.5 | <0.5 | 0.6 |
| **MW-2** | Q3 2012 [3] | NS | NS | NS | NS | NS |
| **MW-2** | 3/25/2013 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-2** | 8/15/2013 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-2** | 3/21/2014 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |

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**TABLE 2**

Summary of Groundwater Analytical Results Gasoline Compounds
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Sample Date | TPH-GRO (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Xylenes (µg/L) |
|---|---|---|---|---|---|---|
| **ESL[1]** | | **100** | **1** | **40** | **30** | **20** |
| **MW-3** | 2/21/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-3** | 6/7/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-3** | 8/23/2006 | **170** | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-3** | 11/14/2006 | 86 | <0.5 | 1 | <0.5 | <0.5 |
| **MW-3** | 2/21/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-3** | Q2 2007 [3] | NS | NS | NS | NS | NS |
| **MW-3** | Q3 2007 [3] | NS | NS | NS | NS | NS |
| **MW-3** | Q4 2007 [3] | NS | NS | NS | NS | NS |
| **MW-3** | 3/19/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-3** | 6/5/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-3** | Q3 2008 [3] | NS | NS | NS | NS | NS |
| **MW-3** | Q4 2008 [3] | NS | NS | NS | NS | NS |
| **MW-3** | 3/31/2009 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-3** | Q2 2009 [3] | NS | NS | NS | NS | NS |
| **MW-3** | Q3 2009 [3] | NS | NS | NS | NS | NS |
| **MW-3** | Q4 2009 [3] | NS | NS | NS | NS | NS |
| **MW-3** | 3/9/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-3** | Q2 2010 [3] | NS | NS | NS | NS | NS |
| **MW-3** | Q3 2010 [3] | NS | NS | NS | NS | NS |
| **MW-3** | Q4 2010 [3] | NS | NS | NS | NS | NS |
| **MW-3** | 3/28/2011 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-3** | 8/23/2011 | <50 | <0.5 | 2 | 1 | 5 |
| **MW-3** | 3/20/2012 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-3** | Q3 2012 [3] | NS | NS | NS | NS | NS |
| **MW-3** | 3/25/2013 | <50 | <0.5 | <0.5 | <0.5 | 1 |
| **MW-3** | 8/14/2013 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-3** | 3/20/2014 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |

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**TABLE 2**

Summary of Groundwater Analytical Results Gasoline Compounds
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Sample Date | TPH-GRO (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Xylenes (µg/L) |
|---|---|---|---|---|---|---|
| **ESL[1]** | | **100** | **1** | **40** | **30** | **20** |
| **MW-4** | 2/21/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-4** | 6/7/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-4** | 8/23/2006 | 70 | 0.6 | <0.5 | <0.5 | 1 |
| **MW-4** | 11/15/2006 | <50 | <0.5 | <0.5 | <0.5 | 0.5 |
| **MW-4** | 2/21/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-4** | Q2 2007 [3] | NS | NS | NS | NS | NS |
| **MW-4** | Q3 2007 [3] | NS | NS | NS | NS | NS |
| **MW-4** | Q4 2007 [3] | NS | NS | NS | NS | NS |
| **MW-4** | 3/19/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-4** | 6/6/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-4** | Q3 2008 [3] | NS | NS | NS | NS | NS |
| **MW-4** | Q4 2008 [3] | NS | NS | NS | NS | NS |
| **MW-4** | 3/31/2009 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-4** | Q2 2009 [3] | NS | NS | NS | NS | NS |
| **MW-4** | Q3 2009 [3] | NS | NS | NS | NS | NS |
| **MW-4** | Q4 2009 [3] | NS | NS | NS | NS | NS |
| **MW-4** | 3/9/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-4** | 6/23/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-4** | Q3 2010 [3] | NS | NS | NS | NS | NS |
| **MW-4** | 12/14/2010 | <50 | <0.5 | <0.5 | <0.5 | 0.8 |
| **MW-4** | 3/29/2011 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-4** | Q3 2011 [3] | NS | NS | NS | NS | NS |
| **MW-4** | 3/21/2012 | <50 | <0.5 | <0.5 | <0.5 | 1 |
| **MW-4** | Q3 2012 [3] | NS | NS | NS | NS | NS |
| **MW-4** | 3/25/2013 | <50 | <0.5 | <0.5 | 1 | 5 |
| **MW-4** | 8/15/2013 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-4** | 3/20/2014 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |

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**TABLE 2**

Summary of Groundwater Analytical Results Gasoline Compounds
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Sample Date | TPH-GRO (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Xylenes (µg/L) |
|---|---|---|---|---|---|---|
| **ESL[(1)]** | | **100** | **1** | **40** | **30** | **20** |
| **MW-5** | 2/22/2006 | <50 | <0.5 | 0.6 | <0.5 | 1 |
| **MW-5** | 6/8/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-5** | 8/24/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-5** | 11/16/2006 | <50 | <0.5 | 2 | <0.5 | <0.5 |
| **MW-5** | 2/20/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-5** | 6/6/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-5** | 9/12/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-5** | Q4 2007 | NS | NS | NS | NS | NS |
| **MW-5** | Q1 2008 | NS | NS | NS | NS | NS |
| **MW-5** | Q2 2008 | Well Abandoned | | | | |
| | | | | | | |
| **MW-6** | 2/22/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-6** | 6/7/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-6** | 8/22/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-6** | 11/16/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-6** | 2/20/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-6** | 6/6/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-6** | 9/12/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-6** | Q4 2007 | NS | NS | NS | NS | NS |
| **MW-6** | Q1 2008 | NS | NS | NS | NS | NS |
| **MW-6** | Q2 2008 | Well Abandoned | | | | |
| | | | | | | |
| **MW-7** | 2/22/2006 | <50 | 0.7 | 2 | 0.9 | 5 |
| **MW-7** | 6/8/2006 | <50 | 0.7 | <0.5 | 1 | 4 |
| **MW-7/MW-X** | 8/22/2006 | <50/<50 | **2/2** | <0.5/<0.5 | 1/0.6 J | 3/2 J |
| **MW-7** | 11/16/2006 | <50 | 0.7 | 2 | 0.6 | 2 |
| **MW-7/MW-X** | 2/20/2007 | <50/<50 | 0.7/0.6 | 1/0.9 | 0.9/0.6 J | 3/2 J |
| **MW-7** | 6/6/2007 | <50 | 0.7 | 0.8 | 0.8 | 2 |

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**TABLE 2**

Summary of Groundwater Analytical Results Gasoline Compounds
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Sample Date | TPH-GRO (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Xylenes (µg/L) |
|---|---|---|---|---|---|---|
| **ESL[1]** | | **100** | **1** | **40** | **30** | **20** |
| **MW-7/MW-X** | 9/12/2007 | <50/<50 | <0.5/<0.5 | <0.5/<0.5 | <0.5/<0.5 | <0.5/<0.5 |
| **MW-7** | Q4 2007 | NS | NS | NS | NS | NS |
| **MW-7** | Q1 2008 | NS | NS | NS | NS | NS |
| **MW-7** | Q2 2008 | Well Abandoned | | | | |
| | | | | | | |
| **MW-8** | 8/24/2006 | **18,000** | **190** | **2,600** | **590** | **2,800** |
| **MW-8** | 11/16/2006 | **990** | **76** | **80** | **69** | **190** |
| **MW-8** | 2/20/2007 | **2,000** | **180** | **57** | **170** | **74** |
| **MW-8** | 6/6/2007 | **3,600** | **340** | **92** | **370** | **210** |
| **MW-8** | 9/12/2007 | **4,200** | **470** | **230** | **630** | **320** |
| **MW-8** | 12/11/2007 | **4,900** | **350** | **300** | **490** | **650** |
| **MW-8** | Q1 2008 [4] | NS | NS | NS | NS | NS |
| **MW-8** | Q2 2008 [4] | NS | NS | NS | NS | NS |
| **MW-8/MW-X** | 9/18/2008 | **11,000/9,200** | **740/690** | **320/290** | **790/720** | **2,600/2,100** |
| **MW-8** | 12/15/2008 | **12,000** | **810** | **920** | **880** | **3,300** |
| **MW-8/MW-X** | 3/27/2009 | **29,000/29,000 J** | **1,500/1,200** | **7,200/4,500** | **1,200/1,100** | **4,700/4,100** |
| **MW-8** | Q2 2009 [3] | NS | NS | NS | NS | NS |
| **MW-8** | Q3 2009 [3] | NS | NS | NS | NS | NS |
| **MW-8** | 12/10/2009 | **19,000** | **930** | **1,600** | **1,200** | **3,800** |
| **MW-8/MW-X** | 3/10/2010 | **10,000/10,000** | **570/580** | **500/500** | **730/730** | **1,800/1,800** |
| **MW-8** | 6/24/2010 | **14,000** | **630** | **680** | **870** | **2,500** |
| **MW-8/MW-X** | 9/29/2010 | **74,000/170,000 J** | **1,400/1,500 J** | **16,000/23,000 J** | **3,200/4,300 J** | **16,000/25,000 J** |
| **MW-8** | 12/15/2010 | **78,000** | **2,000** | **15,000** | **2,800** | **15,000** |
| **MW-8** | 3/29/2011 | **49,000** | **1,600** | **7,500** | **2,000** | **11,000** |
| **MW-8** | 8/23/2011 | **72,000** | **1,200** | **15,000** | **3,200** | **15,000** |
| **MW-8/MW-X** | 3/21/2012 | **52,000/55,000** | **1,000/1,000** | **2,300 J/2,900 J** | **2,600/2,600** | **8,500/9,700** |
| **MW-8** | Q3 2012 [3] | NS | NS | NS | NS | NS |
| **MW-8/MW-X** | 3/24/2013 | **41,000/42,000** | **760/770** | **3,100/4,000** | **820/819** | **12,000/12,000** |
| **MW-8[8]** | 8/15/2013 | **56,000** | **720** | **1,700** | **2,900** | **12,000** |
| **MW-8** | 3/21/2014 | **23,000** | **490** | **130** | **1,600** | **4,200** |

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**TABLE 2**

Summary of Groundwater Analytical Results Gasoline Compounds
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Sample Date | TPH-GRO (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Xylenes (µg/L) |
|---|---|---|---|---|---|---|
| **ESL[1]** | | **100** | **1** | **40** | **30** | **20** |
| **MW-9** | Q3 2006 [2] | NS | NS | NS | NS | NS |
| **MW-9** | 11/15/2006 | **74,000** | **480** | **12,000** | **2,200** | **17,000** |
| **MW-9** | Q1 2007 [2] | NS | NS | NS | NS | NS |
| **MW-9** | Q2 2007 [2] | NS | NS | NS | NS | NS |
| **MW-9** | Q3 2007 [2] | NS | NS | NS | NS | NS |
| **MW-9** | 12/11/2007 | **48,000** | **62** | **5,400** | **1,700** | **12,000** |
| **MW-9** | Q1 2008 [2] | NS | NS | NS | NS | NS |
| **MW-9** | 6/6/2008 | **31,000** | **5** | **1,000** | **1,300** | **9,000** |
| **MW-9** | 9/18/2008 | **25,000** | **6** | **610** | **800** | **4,800** |
| **MW-9** | 12/16/2008 | **34,000** | **6** | **750** | **930** | **6,000** |
| **MW-9** | 3/31/2009 | **20,000** | **3** | **100** | **460** | **3,200** |
| **MW-9** | 6/10/2009 | **27,000** | **<3** | **66** | **610** | **4,100** |
| **MW-9** | Q3 2009 [2] | NS | NS | NS | NS | NS |
| **MW-9** | 12/10/2009 | **20,000** | **3** | **85** | **460** | **2,800** |
| **MW-9** | 3/10/2010 | **18,000** | **<3** | 17 | **250** | **1,700** |
| **MW-9** | 6/24/2010 | **16,000** | 0.9 | 7 | **210** | **1,300** |
| **MW-9** | 9/29/2010 | **24,000** | **<10** | <10 | **440** | **2,100** |
| **MW-9** | 12/14/2010 | **9,100** | **6** | 2 | **80** | **340** |
| **MW-9** | 3/29/2011 | **7,100** | 0.8 | 0.9 | **44** | **190** |
| **MW-9/MW-X** | 8/23/2011 | **7900/8,300** | <0.5/<1.0 | 2/2 | 1 | 1 |
| **MW-9** | 3/21/2012 | **2,500** | <0.5 | <0.5 | 3 | 4 |
| **MW-9/MW-X** | 9/25/2012 | **3,900/4,100 J** | <1/<1 | 2/2 | 6/7 | 18/19 |
| **MW-9** | 3/25/2013 | **2,100** | <0.5 | **43** | 2 | **71** |
| **MW-9/MW-X** | 8/15/2013 | **2,200/2,400** | <0.5/<0.5 | 1/1 | 10/12 | **31 J/39 J** |
| **MW-9/ MW-X** | 3/21/2014 | **2,300/2,300** | <0.5/0.5 | 0.7/0.7 | 9/9 | **28/30** |

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**TABLE 2**

Summary of Groundwater Analytical Results Gasoline Compounds
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Chevron Pipe Line Company - Sunol Site

| Well ID | Sample Date | TPH-GRO (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Xylenes (µg/L) |
|---|---|---|---|---|---|---|
| **ESL[1]** | | **100** | **1** | **40** | **30** | **20** |
| **MW-10** | Q3 2007 [3] | NS | NS | NS | NS | NS |
| **MW-10** | 12/14/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-10** | 3/20/2008 | <50 | 0.9 | <0.5 | <0.5 | <0.5 |
| **MW-10** | 6/6/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-10** | 9/18/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-10** | 12/15/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-10** | 3/27/2009 | 52 | <0.5 | 0.7 | <0.5 | <0.5 |
| **MW-10** | 6/10/2009 | <50 | <0.5 | 1 | <0.5 | <0.5 |
| **MW-10/MW-X[6]** | 9/28/2009 | <50/<50 | <0.5/<0.5 | <0.5/<0.5 | <0.5/<0.5 | <0.5/<0.5 |
| **MW-10** | 12/10/2009 | **540** | 1 | 2 | 5 | **23** |
| **MW-10** | 3/9/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-10** | 6/23/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-10** | 9/29/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-10** | 12/15/2010 | <50 | <0.5 | 1 | <0.5 | <0.5 |
| **MW-10** | 3/28/2011 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-10** | 8/23/2011 | <50 | <0.5 | <0.5 | <0.5 | 0.6 |
| **MW-10** | 3/20/2012 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-10** | 9/24/2012 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-10** | 3/24/2013 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-10** | 8/14/2013 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-10** | 3/20/2014 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| | | | | | | |
| **MW-11** | Q3 2007 [3] | NS | NS | NS | NS | NS |
| **MW-11** | 12/14/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 3/20/2008 [1] | <50/<50 | <0.5/<0.5 | <0.5/<0.5 | <0.5/<0.5 | <0.5/<0.5 |
| **MW-11** | 6/6/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 9/24/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 12/15/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 3/27/2009 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |

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**TABLE 2**

Summary of Groundwater Analytical Results Gasoline Compounds
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Chevron Pipe Line Company - Sunol Site

| Well ID | Sample Date | TPH-GRO (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Xylenes (µg/L) |
|---|---|---|---|---|---|---|
| **ESL[(1)]** | | **100** | **1** | **40** | **30** | **20** |
| **MW-11** | 6/10/2009 | 59 | <0.5 | 2 | <0.5 | 3 |
| **MW-11** | 9/29/2009 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 12/10/2009 | 66 | <0.5 | <0.5 | <0.5 | 3 |
| **MW-11** | 3/9/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 6/23/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 9/29/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 12/15/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 3/28/2011 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 8/23/2011 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 3/20/2012 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 9/24/2012 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 3/24/2013 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 8/14/2013 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-11** | 3/20/2014 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| | | | | | | |
| **MW-12** | 3/26/2013 | **520** | **2** | 1 | <0.5 | <0.5 |
| **MW-12** | Q3 2013 [(7)] | NS | NS | NS | NS | NS |
| **MW-12** | 3/21/2014 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| | | | | | | |
| **MW-13** | Q1 2013 [(7)] | NS | NS | NS | NS | NS |
| **MW-13** | Q3 2013 [(7)] | NS | NS | NS | NS | NS |
| **MW-13** | Q1 2014 [(7)] | NS | NS | NS | NS | NS |
| | | | | | | |
| **MW-14** | Q1 2013 [(7)] | NS | NS | NS | NS | NS |
| **MW-14** | Q3 2013 [(7)] | NS | NS | NS | NS | NS |
| **MW-14** | Q1 2014 [(7)] | NS | NS | NS | NS | NS |
| | | | | | | |
| **MW-15** | 3/26/2013 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **MW-15** | Q3 2013 [(7)] | NS | NS | NS | NS | NS |
| **MW-15** | Q1 2014 [(7)] | NS | NS | NS | NS | NS |

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**TABLE 2**

Summary of Groundwater Analytical Results Gasoline Compounds
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| Well ID | Sample Date | TPH-GRO (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Xylenes (µg/L) |
|---|---|---|---|---|---|---|
| **ESL[1]** | | **100** | **1** | **40** | **30** | **20** |
| **SW-Creek** | 6/7/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **SW-Creek** | 8/22/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **SW-Creek** | 11/15/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **SW-Creek** | 11/15/2006 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 2/21/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 6/5/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 9/12/2007 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 1/25/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 3/20/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 6/5/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 9/18/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 12/15/2008 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 3/31/2009 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 6/9/2009 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | Q3 2009 [5] | NS | NS | NS | NS | NS |
| **Stream** | Q4 2009 [5] | NS | NS | NS | NS | NS |
| **Stream** | 3/9/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 6/24/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 9/28/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 12/15/2010 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 3/29/2011 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 8/23/2011 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 3/20/2012 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 9/24/2012 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | 3/26/2013 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Stream** | Q3 2013 [5] | NS | NS | NS | NS | NS |
| **Stream** | 3/20/2014 | <50 | <0.5 | <0.5 | <0.5 | <0.5 |

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TABLE 2
Summary of Groundwater Analytical Results Gasoline Compounds
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Chevron Pipe Line Company - Sunol Site

Notes:

TPH-GRO - Total Petroleum Hydrocarbons as Gasoline Range Organics
µg/L - micrograms per liter
ESL - Environmental Screening Level
**Bold** values exceed ESLs.
J - The reported value is the approximate concentration of the analyte in the sample due to sample heterogeneity.
NS - Not Sampled
"/" - separates primary and duplicate sample results, respectively

(1) Final Groundwater ESL, Groundwater is a Current or Potential Drinking Water Resource (Regional Water Quality Control Board, December
(2) Sample not collected during quarterly monitoring due to the presence of measurable light non-aqueous phase liquid.
(3) Sample not collected during quarterly monitoring because well is not hydraulically connected to unconfined water-bearing zone.
(4) Sample not collected due to extreme overhead hazards posed by dead trees on the 80-90% grade directly uphill from the sampling location.
(5) Sample not collected during quarterly monitoring due to the stream sample location being dry.
(6) Duplicate sample collected from MW-10 during the third quarter 2009 sampling event because MW-8 was not hydraulically connected to the water bearing zone.
(7) Sample not collected due to insufficient water measured in the monitoring well.
(8) Sample collected by bailer after well dewatered during purging. Light non-aqueous phase liquid present in well at time of sampling.

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**TABLE 3**
Summary of Groundwater Analytical Results Geochemical Indicators and Other Parameters
First Semi-Annual 2014 Groundwater Monitoring Report
Chevron Pipe Line Company - Sunol Site

| Well ID | Sample Date | DO[1] (mg/L) | ORP[1] (mV) | Nitrate (mg/L) | Manganese (mg/L) | Ferrous Iron (mg/L) | Dissolved Iron (mg/L) | Sulfate (mg/L) | Methane (mg/L) | pH[1] | TDS (mg/L) | Alkalinity to pH 4.5 (mg/L) as CaCO3 | Alkalinity to pH 8.3 (mg/L) as CaCO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW-1** | 6/8/2006 | 0.28 | 88.15 | 2.6 | 0.116 | <0.008 | <0.052 | 48.3 | <0.002 | 6.62 | 494 | 317 | <0.46 |
| **MW-1** | Q3 2006 | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] |
| **MW-1** | 11/15/2006 | 4.87[6] | 25 | 0.37 J | 1 | 0.22 | 0.079 | 108 | <0.002 | 6.67 | 882 | 597 | <0.46 |
| **MW-1** | 3/31/2009 | 2.45 | -147 | 10.3 J | 0.534 | 0.12 | <0.052 | 62.4 | 0.051 | 6.61 | 650 | 343 | <0.46 |
| **MW-1** | 6/10/2009 | 0.00 | -115 | 0.42 | 0.576 | 0.2 | <0.052 | 72.6 | <0.005 | 7.07 | 614 | 422 | <0.46 |
| **MW-1** | Q4 2009 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-1** | 3/10/2010 | 0.00 | -118 | NM[7] | 0.431 | <0.01 | <0.0522 | 56.9 | 0.067 | 6.79 | 551 | 347 | <0.46 |
| **MW-1** | Q2 2010 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-1** | Q3 2010 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-1** | 12/14/2010 | 1.97 | -193 | <0.25 | 1.07 | 1.5 J | 0.538 | 26.4 | 0.017 | 6.55 | 647 | 495 | <0.46 |
| **MW-1** | 3/29/2011 | 2.84 | -5 | 9 J | 0.21 | <0.01 J- | <0.052 | 49.4 | 0.012 | 7.01 | 532 | 327 | <0.46 |
| **MW-1** | 8/22/2011 | 2.34 | -276 | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | 6.88 | NM[9] | NM[9] | NM[9] |
| **MW-1** | 3/21/2012 | 0.31 | -54 | 1.1 | 0.456 | 0.58 J- | 0.0593 | 106 | <0.005 | 6.93 | 868 | 574 | <0.46 |
| **MW-1** | 9/25/2012 | 2.93 | -108 | <0.25 | 0.872 | 3.7 J- | <0.0333 | 45.9 | 0.0096 | 6.80 | 740 | 530 | <0.7 |
| **MW-1** | 3/26/2013 | 1.85 | -156 | 15.7 | 0.198 | 0.43 | <0.0333 | 71.8 | 0.15 | 8.29 | 596 | 366 | <0.7 |
| **MW-1** | 8/15/2013 | 4.34 | -193 | <0.25 | 0.362 | 0.87 J | <0.0430 | 39.6 | 0.0064 | 6.71 | 683 | 529 | <0.7 |
| **MW-1** | 3/20/2014 | 2.81 | -16 | 13.2 | 0.297 | 0.14 J | <0.0430 | 72 | 0.0064 | 6.99 | 638 | 397 | <0.7 |
| | | | | | | | | | | | | | |
| **MW-2** | 6/7/2006 | NR[3] | 36.43 | 11.9 | 0.003 | <0.008 | <0.052 | 47.5 | <0.002 | 6.56 | 465 | 286 | <0.46 |
| **MW-2** | 8/23/2006 | 0.32 | 25.69 | 7 | 0.024 | 0.015 | <0.052 | 121 | 0.005 | 6.63 | 811 | 470 | <0.46 |
| **MW-2** | 11/14/2006 | 0.2 | 220.84 | 4 | 0.021 | 0.021 | <0.052 U J | 126 J | 0.004 | 6.72 | 867 | 530 | <0.46 |
| **MW-2** | 3/27/2009 | 5.47 | -86 | 18.2 | 0.017 | 0.036 J | <0.052 | 65 | <0.01 | 6.62 | 642 | 347 | <0.46 |
| **MW-2** | Q2 2009 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-2** | Q4 2009 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-2** | 3/10/2010 | 2.81 | 38 | 13 J | 0.0182 | 0.35 | <0.0522 | 54.9 | <0.005 | 6.89 | 532 | 322 | <0.46 |
| **MW-2** | 6/23/2010 | 2.18 | 173 | 13.2 | 0.103 | 4 | <0.0522 | 50.9 | <0.005 | 11.51 | 524 | 319 | <0.46 |
| **MW-2** | Q3 2010 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-2** | Q4 2010 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-2** | 3/28/2011 | 6.11 | 168 | 16.600 | 0.001 | 0.021 J- | <0.052 | 53.8 | <0.01 | 7.04 | 529 | 304 | <0.46 |
| **MW-2** | Q3 2011 | NM[7] | NM[7] | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | NM[7] | NM[9] | NM[9] | NM[9] |
| **MW-2** | 3/21/2012 | 1.22 | 134 | 4.4 | 0.0079 | <0.010 R | 0.0141 | 159 | <0.005 | 7.01 | 874 | 568 | <0.46 |
| **MW-2** | Q3 2012 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-2** | 3/26/2013 | 2.28 | -144 | 13.2 | 0.13 | 1 | 0.568 | 74 | 0.77 | 7.98 | 597 | 383 | <0.7 |
| **MW-2** | 8/15/2013 | 3.82 | 59 | 15.5 | 0.0580 | 0.49 J | <0.0430 | 98.9 | <0.0030 | 6.73 | 740 | 430 | <0.7 |
| **MW-2** | 3/21/2014 | 4.20 | -12 | 11.1 J | 0.177 | 0.86 J | <0.0430 | 73.5 | <0.0030 | 7.40 | 685 | 417 | <0.7 |
| | | | | | | | | | | | | | |
| **MW-3** | 6/7/2006 | 0.37 | 31.23 | 10.9 | 0.005 | <0.008 | <0.052 | 45.1 | <0.002 | 6.56 | 446 | 274 | <0.46 |
| **MW-3** | 8/23/2006 | 0.3 | -1.8 | <0.25 | 0.368 | 0.24 | <0.052 | 26.3 | 1.5 | 6.6 | 711 | 421 | <0.46 |
| **MW-3** | 11/14/2006 | 0.12 | -17.57 | NM[5] | NM[5] | NM[5] | NM[5] | NM[5] | 0.42 | 6.95 | NM[5] | NM[5] | NM[5] |

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**TABLE 3**
Summary of Groundwater Analytical Results Geochemical Indicators and Other Parameters
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| Well ID | Sample Date | DO[1] (mg/L) | ORP[1] (mV) | Nitrate (mg/L) | Manganese (mg/L) | Ferrous Iron (mg/L) | Dissolved Iron (mg/L) | Sulfate (mg/L) | Methane (mg/L) | pH[1] | TDS (mg/L) | Alkalinity to pH 4.5 (mg/L) as CaCO3 | Alkalinity to pH 8.3 (mg/L) as CaCO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW-3** | 3/31/2009 | 0.00 | 48 | 22.2 J | 0.0017 | 0.08 | <0.052 | 57.7 | <0.01 | 6.75 | 688 | 320 | <0.46 |
| **MW-3** | Q2 2009 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-3** | Q4 2009 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-3** | 3/9/2010 | 1.75 | 182 | 12.6 J | 0.0093 | 0.064 | <0.0522 | 54.4 | <0.005 | 6.78 | 496 | 293 | <0.46 |
| **MW-3** | Q2 2010 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-3** | Q3 2010 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-3** | Q4 2010 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-3** | 3/28/2011 | 5.32 | 185 | 12.8 | <0.0084 | 0.026 J- | <0.052 | 46.3 | <0.01 | 7.06 | 454 | 269 | <0.46 |
| **MW-3** | 8/22/2011 | 2.15 | -183 | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | 7.02 | NM[9] | NM[9] | NM[9] |
| **MW-3** | 3/20/2012 | 4.40 | 37 | 14.9 | 0.0291 | 0.054 J- | 0.0219 J+ | 65.4 | 0.028 | 6.66 | 686 | 396 | <0.46 |
| **MW-3** | Q3 2012 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-3** | 3/26/2013 | 3.97 | 116 | 21.5 | 0.0095 | 0.73 | <0.0333 | 66.4 | <0.003 | 8.07 | 546 | 313 | <0.7 |
| **MW-3** | 8/14/2013 | 6.20 | 121 | 0.91 | 0.882 | 0.18 J | <0.0430 | 22.5 | 0.95 | 6.16 | 706 | 416 | <0.7 |
| **MW-3** | 3/20/2014 | 4.53 | 30 | 13.1 | 0.0270 | 0.11 J | <0.0430 | 70.7 | 0.0089 | 6.89 | 587 | 324 | <0.7 |
| | | | | | | | | | | | | | |
| **MW-4** | 6/7/2006 | 0.28 | 29.57 | 9.2 | 0.02 | 0.059 | <0.052 | 60.2 | <0.002 | 6.65 | 423 | 282 | <0.46 |
| **MW-4** | 8/23/2006 | NR[3] | -22.49 | <0.25 | 0.226 | 0.7 | <0.052 | 78.4 | 0.003 | 6.62 | 590 | 396 | <0.46 |
| **MW-4** | 11/15/2006 | 3.46[6] | 106 | 0.34 J | 0.137 | 0.47 | <0.052 | 90.3 | 0.003 | 6.74 | 672 | 490 | <0.46 |
| **MW-4** | 3/31/2009 | 3.96 | 5 | 19.5 J | 0.0406 | 0.14 | <0.052 | 83.7 | <0.01 | 6.64 | 631 | 323 | <0.46 |
| **MW-4** | Q2 2009 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-4** | Q4 2009 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-4** | 3/9/2010 | 0.05 | 123 | 10.5 J | 0.0343 | 0.13 | <0.0522 | 89.8 | <0.005 | 6.74 | 560 | 312 | <0.46 |
| **MW-4** | 6/23/2010 | 0.03 | 164 | 9.4 | 0.0295 | 0.034 | <0.0522 | 62.5 | <0.005 | 11.03 | 491 | 297 | <0.46 |
| **MW-4** | Q3 2010 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-4** | 12/14/2010 | 1.24 | 162 | 6.6 | 0.084 | 0.021 J | <0.052 | 213 | <0.010 | 6.51 | 771 | 354 | <0.46 |
| **MW-4** | 3/29/2011 | 3.81 | 220 | 12 J | 0.018 | 0.032 J- | <0.052 | 59.5 | <0.010 | 6.98 | 488 | 290 | <0.46 |
| **MW-4** | Q3 2011 | NM[7] | NM[7] | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | NM[7] | NM[9] | NM[9] | NM[9] |
| **MW-4** | 3/21/2012 | 2.69 | 107 | 13.3 | 0.0433 | 0.021 J- | 0.0141 | 119 | 0.0063 | 6.85 | 672 | 384 | <0.46 |
| **MW-4** | Q3 2012 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-4** | 3/26/2013 | 2.51 | 153 | 17.8 | 0.221 | 0.13 | <0.0333 | 89.7 | 0.00 | 6.85 | 560 | 306 | <0.7 |
| **MW-4** | 8/15/2013 | 4.19 | 141 | 0.31 | 0.152 | 0.08 J | <0.0430 | 200 | <0.0030 | 6.40 | 681 | 340 | <0.7 |
| **MW-4** | 3/20/2014 | 3.91 | 28 | 14.0 J | 0.0639 | 0.17 J | <0.0430 | 104 | <0.0030 | 6.83 | 607 | 310 | <0.7 |
| | | | | | | | | | | | | | |
| **MW-5** | 6/8/2006 | 0.19 | 12.05 | <0.25 | 0.029 | 0.120 | <0.052 | 71.30 | 0.004 | 7.24 | 502.00 | 313.00 | 2.60 |
| **MW-5** | 8/24/2006 | NR[3] | -151.92 | <0.25 | 0.021 | 0.280 | <0.052 | 72.20 | 0.0054 J | 7.32 | 506.00 | 320.00 | <0.46 |
| **MW-5** | 11/16/2006 | 0.08 | -48.11 | <0.25 | 0.020 J | 0.280 | <0.052 | 73.80 J | 0.005 | 7.45 | 513.00 | 320.00 | <0.46 |
| | | | | | | | | | | | | | |
| **MW-6** | 6/7/2006 | NM[2] | NM[2] | <0.25 | 0.599 | 12.600 | <0.052 | 41.60 | <0.002 | NM[2] | 531.00 | 364.00 | 3.70 |
| **MW-6** | 8/22/2006 | NM[2] | NM[2] | <0.25 | 0.600 | 5.500 | <0.052 | 36.90 | 5.800 | NM[2] | 553.00 | 375.00 | <0.46 |

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**TABLE 3**
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Chevron Pipe Line Company - Sunol Site

| Well ID | Sample Date | DO[1] (mg/L) | ORP[1] (mV) | Nitrate (mg/L) | Manganese (mg/L) | Ferrous Iron (mg/L) | Dissolved Iron (mg/L) | Sulfate (mg/L) | Methane (mg/L) | pH[1] | TDS (mg/L) | Alkalinity to pH 4.5 (mg/L) as CaCO3 | Alkalinity to pH 8.3 (mg/L) as CaCO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW-6** | 11/16/2006 | 0.04 | -71.00 | <0.25 | 0.203 J | 0.700 | <0.052 | 38.30 J | 5.700 | 7.92 | 541.00 | 366.00 | <0.46 |
| | | | | | | | | | | | | | |
| **MW-7** | 6/8/2006 | NM[2] | NM[2] | <0.25 | 0.706 | 13.400 | <0.052 | 70.40 | 0.022 | NM[2] | 542.00 | 310.00 | 5.90 |
| **MW-7** | 8/22/2006 | NM[2] | NM[2] | <0.25 | 0.160 | 0.910 | <0.052 | 75.70 | 0.094 | NM[2] | 534.00 | 335.00 | <0.46 |
| **MW-7** | 11/16/2006 | 0.06 | -24.00 | <0.25 | 0.376 | 5.800 | <0.052 | 77.60 J | 0.061 | 7.42 | 533.00 | 358.00 | <0.46 |
| | | | | | | | | | | | | | |
| **MW-8** | 8/24/2006 | NM[2] | NM[2] | <0.25 | 0.171 | 0.14 | <0.052 | 90.2 | <0.002 U J | NM[2] | 563 | 362 | <0.46 |
| **MW-8** | 11/16/2006 | 0.05 | -74 | <0.25 | 0.123 | 0.8 | <0.052 | 78.6 J | 0.002 | 7.22 | 564 | 350 | <0.46 |
| **MW-8** | 3/27/2009 | 6.88[6] | -113 | 0.27 | 0.553 | 2.5 J | <0.052 | 15.5 | 0.13 | 6.74 | 639 | 467 | <0.46 |
| **MW-8** | Q2 2009 | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] | NM[7] |
| **MW-8** | 12/10/2009 | 0.04 | -165 | <0.25 U J | 0.549 J | <2.5 | 0.06 | 2 J | <0.2 | 6.94 | 576 | 445 | <0.46 |
| **MW-8** | 3/10/2010 | 0.00 | -85 | <0.25 | 0.334 | 3 | <0.0522 | 1.7 | 0.33 | 6.89 | 587 | 453 | <0.46 |
| **MW-8** | 6/24/2010 | 5.83[6] | -84 | <0.25 | 1.08 | 7.8 | 0.0949 J+ | 6.1 | 0.65 | 6.72 | 679 | 502 | <0.46 |
| **MW-8** | Q3 2010 | NM[8] | NM[8] | NM[8] | NM[8] | NM[8] | NM[8] | NM[8] | NM[8] | NM[8] | NM[8] | NM[8] | NM[8] |
| **MW-8** | 12/15/2010 | NM[8] | NM[8] | <0.25 | 1.57 | 1.2 J | 0.0693 | 23 | 0.59 | NM[8] | 803.00 | 536 | <0.46 |
| **MW-8** | 3/29/2011 | NM[8] | NM[8] | <0.25U J | 2.29 | 1.2 J- | 0.413 | 84.1 | 0.39 J | NM[8] | 1210.00 | 680 | <0.46 |
| **MW-8** | 8/23/2011 | 1.18 | -261 | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | 6.94 | NM[9] | NM[9] | NM[9] |
| **MW-8/MW-X** | 3/21/2012 | 8.75[6] | -103 | 0.29/<0.25 | 0.383 J/0.590 J | 2.6 J-/3.0 J- | 0.017 J/0.385 J | <1.5 J/3.9 J | 67/58 | 7.43 | 599/674 | 473/507 | <0.46/<0.46 |
| **MW-8** | Q3 2012 | NM[5] | NM[5] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[5] | NM[4] | NM[4] | NM[4] |
| **MW-8/MW-X** | 3/25/2013 | 1.79 | -95 | <0.25/<0.25 | 0.855 | 2.3/2.4 | <0.043 | <0.25/<0.25 | 8.1/7.7 | 8.15 | 660 | 528 | <0.7/<0.7 |
| **MW-8** | 8/15/2013 | 3.73[13] | -119[13] | <0.25[14] | 0.855[14] | 2.9(14) J | <0.0430[14] | <1.5[14] | 4.3[14] | 6.20[13] | 660[14] | 528[14] | <0.7[14] |
| **MW-8** | 3/21/2014 | 2.84 | -154 | <0.25 UJ | 0.404 | 2 J | 0.0787 | <1.5 | 5.6 | 8.09 | 628 | 512 | <0.7 |
| | | | | | | | | | | | | | |
| **MW-9** | Q3 2006 | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] | NM[4] |
| **MW-9** | 11/15/2006 | 3.01[6] | 4 | <0.25 U J | 4.41 | 1.2 | 0.496 | 29.5 | 0.009 | 6.92 | 836 | 657 | <0.46 |
| **MW-9** | 3/31/2009 | 3.35 | -179 | 0.39 J | 3.2 | 0.099 | <0.052 | 60.5 | 0.012 | 6.59 | 632 | 419 | <0.46 |
| **MW-9** | 6/10/2009 | 0.00 | -141 | <0.25 | 3.01 | 1.7 | <0.052 | 46.4 | <0.005 | 6.98 | 622 | 468 | <0.46 |
| **MW-9** | 12/10/2009 | 1.43 | -188 | <0.25 U J | 4.39 J | 3.3 | 2.54 | 4.5 J | <0.2 | 6.6 | 734 | 620 | <0.46 |
| **MW-9** | 3/10/2010 | 0.00 | -197 | <0.25 | 2.94 | 1.7 | <0.0522 | 40.9 | 0.046 | 6.84 | 596 | 448 | <0.46 |
| **MW-9** | 6/24/2010 | 0.00 | -108 | <0.25 | 2.46 | 1.5 | 0.131 J+ | 33.5 | 0.012 | 6.61 | 489 | 380 | <0.46 |
| **MW-9** | 9/29/2010 | 0.70 | -231 | <0.25 | 3.83 | 2.2 J | 0.082 | 4.5 | 0.018 | 6.68 | 627 | 549 | <0.46 |
| **MW-9** | 12/14/2010 | 3.37 | -181 | 0.89 | 2.98 | 2.8 J | 1.48 | 25 | 0.025 | 6.46 | 666 | 523 | <0.46 |
| **MW-9** | 3/29/2011 | 2.78 | -140 | 6.40 J | 1.58 | 0.043 | <0.052 | 63 | 0.018 | 7.09 | 608 | 396 | <0.46 |
| **MW-9** | 8/22/2011 | 2.32 | -451 | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | 7.08 | NM[9] | NM[9] | NM[9] |
| **MW-9** | 3/21/2012 | 0.48 | -147 | 1.8 | 0.154 | 0.18 J- | 0.146 | 103 | <0.005 | 6.91 | 784 | 552 | <0.046 |
| **MW-9** | 9/25/2012 | 2.67 | -156 | <0.25 | 0.401 | 0.58 J- | <0.0333 | 32.3 | 0.028 | 6.79 | 742 | 529 | <0.7 |
| **MW-9** | 3/26/2013 | 1.86 | -132 | 11.4 | 0.506 | 0.27 | 0.248 | 58 | 0.057 | 8.19 | 569 | 379 | <0.7 |
| **MW-9/MW-X** | 8/15/2013 | 3.35 | -247 | 0.3 J/0.57 J | 0.217/0.213 | 0.46 J/0.44 J | 0.152/0.222 | 29.5/30.5 | 0.043/0.044 | 6.70 | 657/669 | 533/535 | <0.7/<0.7 |
| **MW-9/MW-X** | 3/21/2014 | 2.02 | -239 | 10.9 J/10.4 J | 0.178/0.173 | 0.15 J/0.15 J | 0.0868/0.0801 | 58.6/56.2 | 0.043/0.048 | 8.93 | 646/628 | 409/409 | <0.7/<0.7 |

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| Well ID | Sample Date | DO[1] (mg/L) | ORP[1] (mV) | Nitrate (mg/L) | Manganese (mg/L) | Ferrous Iron (mg/L) | Dissolved Iron (mg/L) | Sulfate (mg/L) | Methane (mg/L) | pH[1] | TDS (mg/L) | Alkalinity to pH 4.5 (mg/L) as CaCO3 | Alkalinity to pH 8.3 (mg/L) as CaCO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW-10** | 3/27/2009 | 3.65 | 48 | 8.2 | 0.367 | 0.21 J | <0.052 | 155 | 0.28 | 6.69 | 1,200 | 645 | <0.46 |
| **MW-10** | 6/10/2009 | 0.37 | 109 | <0.25 | 0.767 | 0.8 | <0.052 | 133 | 2.30 | 7.20 | 1,100 | 623 | <0.46 |
| **MW-10** | 12/10/2009 | 0.06 | -74 | 0.33 J | 0.964 J | 10.90 | <0.052 | 640 J | <0.2 | 6.85 | 1,580 | 512 | <0.46 |
| **MW-10** | 3/9/2010 | 1.52 | 105 | 13.9 J | 0.0357 | 0.054 | <0.052 | 63.6 | 0.19 | 6.89 | 596 | 349 | <0.46 |
| **MW-10** | 6/23/2010 | 0.00 | 79 | 0.68 | 0.2650 | 0.200 | <0.0522 | 136.0 | 0.94 | 6.76 | 1000 | 604 | <0.46 |
| **MW-10** | 9/29/2010 | 0.87 | 22 | <0.25 | 0.384 | 5.0 J | <0.0522 | 148 | 0.550 | 6.89 | 998 | 610 | <0.46 |
| **MW-10** | 12/15/2010 | 2.28 | 61 | 0.41 | 0.581 | 0.29 J | <0.0522 | 155 | 0.74 | 6.78 | 1,070 | 606 | <0.46 |
| **MW-10** | 3/28/2011 | 5.56 | 48 | 18.00 | 0.101 | 0.39 J- | <0.052 | 57 | 0.03 | 7.00 | 652 | 392 | <0.46 |
| **MW-10** | 8/22/2011 | 0.00 | 9 | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | 7.09 | NM[9] | NM[9] | NM[9] |
| **MW-10** | 3/20/2012 | 0.56 | -34 | 2.5 | 0.201 | 0.280 J- | 0.0743 J+ | 256 | 0.54 | 7.03 | 960 | 592 | <0.46 |
| **MW-10** | 9/24/2012 | 2.44 | -28 | 1.5 | 0.210 | 0.29 J- | <0.0333 | 112 | 1.30 | 6.91 | 970 | 567 | <0.7 |
| **MW-10** | 3/25/2013 | 1.36 | -4 | 2.5 | 0.282 | 2.800 | <0.0333 | 115 | 0.81 | 7.59 | 930 | 573 | <0.7 |
| **MW-10** | 8/14/2013 | 4.01 | -22 | 5.5 | 0.130 | 0.250 J | 0.111 | 111 | 0.44 | 6.29 | 904 | 564 | <0.7 |
| **MW-10** | 3/20/2014 | 4.30 | -82 | 3.8 | 0.179 | 0.55 J | <0.0430 | 95.3 | 0.54 | 7.26 | 906 | 557 | <0.7 |
| | | | | | | | | | | | | | |
| **MW-11** | 3/27/2009 | 5.86 | 53 | 15.3 | 0.114 | 0.058 J | <0.052 | 134 | 0.06 | 6.61 | 742 | 365 | <0.46 |
| **MW-11** | 6/10/2009 | 0.37 | 44 | NM | 0.415 | NM | NM | NM | 0.12 | 7.16 | NM | NM | NM |
| **MW-11** | 12/10/2009 | 1.01 | -50 | 0.48 J | 0.804 J | 3.6 | <0.052 | 151 J | <0.2 | 6.84 | 1720 | 556 | <0.46 |
| **MW-11** | 3/9/2010 | 3.68 | 133 | 11.9 J | 0.0176 | 0.087 | <0.0522 | 91.7 | 0.039 | 6.73 | 615 | 314 | <0.46 |
| **MW-11** | 6/23/2010 | 0.45 | -2 | 0.4 | 0.2420 | 0.150 | <0.0522 | 437 | 0.29 | 6.70 | 1,300 | 479 | <0.46 |
| **MW-11** | 9/28/2010 | 1.16 | 7 | <0.25 | 0.320 | 0.3 J | <0.0522 | 457 | 0.350 | 6.99 | 1,310 | 458 | <0.46 |
| **MW-11** | 12/15/2010 | NM[8] | NM[8] | <0.25 | 0.245 | 0.84 J | <0.0522 | 451 | 0.23 | NM[8] | 1,320 | 494 | <0.46 |
| **MW-11** | 2/28/2011 | 5.25 | 91.00 | 17.50 | 0.022 | 0.03 J- | <0.052 | 76 | 0.06 | 6.98 | 602 | 319 | <0.46 |
| **MW-11** | 8/22/2011 | 2.89 | -38.00 | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | NM[9] | 6.53 | NM[9] | NM[9] | NM[9] |
| **MW-11** | 3/20/2012 | 0.38 | -16.00 | 0.3 | 0.221 | 0.20 J- | 0.025 J+ | 134 | 0.42 | 7.02 | 954 | 455 | <0.46 |
| **MW-11** | 9/24/2012 | 2.28 | -3.00 | <0.25 | 0.195 | 0.028 J- | <0.0333 | 216 | 0.380 | 6.87 | 876 | 469 | <0.7 |
| **MW-11** | 3/25/2013 | 2.08 | -56 | 3.7 | 0.166 | 0.18 | <0.0333 | 286 | 0.130 | 7.97 | 922 | 419 | <0.7 |
| **MW-11** | 8/14/2013 | 3.35 | -41 | <0.25 | 0.195 | 0.24 J | <0.0430 | 268 | 0.160 | 6.15 | 876 | 431 | <0.7 |
| **MW-11** | 3/20/2014 | 3.17 | -21 | 6 | 0.109 | 0.38 J | <0.0430 | 232 | 0.068 | 6.93 | 787 | 389 | <0.7 |
| | | | | | | | | | | | | | |
| **MW-12** | 3/26/2013 | NM[10] | NM[10] | <0.25 | 0.842 | 0.580 | 0.042 | 44.3 | 0.13 | NM[10] | 571 | 441 | <0.7 |
| **MW-12** | Q3 2013 | NM[12] | NM[12] | NM[11] | NM[11] | NM[11] | NM[11] | NM[11] | NM[11] | NM[12] | NM[11] | NM[11] | NM[11] |
| **MW-12** | 3/21/2014 | 4.04 | -49 | <0.25 UJ | 0.244 | 0.24 J | <0.0430 | 44.4 | 0.015 | 7.65 | 560 | 392 | <0.7 |
| | | | | | | | | | | | | | |
| **MW-13** | 3/26/2013 | NM[10] | NM[10] | NM[11] | NM[11] | NM[11] | NM[11] | NM[11] | NM[11] | NM[10] | NM[11] | NM[11] | NM[11] |
| **MW-13** | Q3 2013 | NM[12] | NM[12] | NM[11] | NM[11] | NM[11] | NM[11] | NM[11] | NM[11] | NM[12] | NM[11] | NM[11] | NM[11] |
| **MW-13** | Q1 2014 | NM[12] | NM[12] | NM[11] | NM[11] | NM[11] | NM[11] | NM[11] | NM[11] | NM[12] | NM[11] | NM[11] | NM[11] |
| | | | | | | | | | | | | | |
| **MW-14** | 3/26/2013 | NM[10] | NM[10] | NM[11] | NM[11] | NM[11] | NM[11] | NM[11] | NM[11] | NM[10] | NM[11] | NM[11] | NM[11] |

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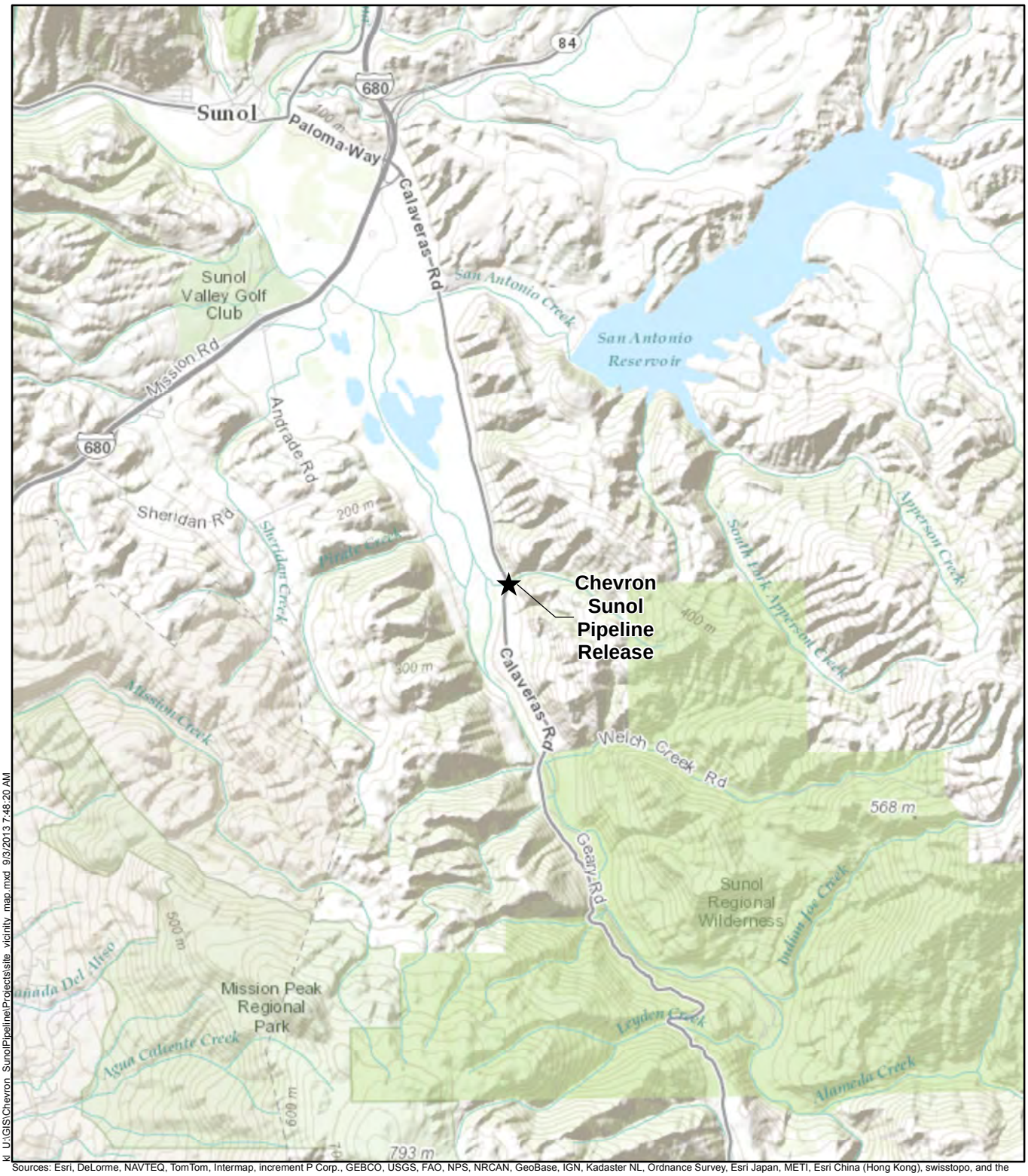
Chevron Pipe Line Company - Sunol Site

| Well ID | Sample Date | DO[(1)] (mg/L) | ORP[(1)] (mV) | Nitrate (mg/L) | Manganese (mg/L) | Ferrous Iron (mg/L) | Dissolved Iron (mg/L) | Sulfate (mg/L) | Methane (mg/L) | pH[(1)] | TDS (mg/L) | Alkalinity to pH 4.5 (mg/L) as CaCO3 | Alkalinity to pH 8.3 (mg/L) as CaCO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW-14** | Q3 2013 | NM[(12)] | NM[(12)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(12)] | NM[(11)] | NM[(11)] | NM[(11)] |
| **MW-14** | Q1 2014 | NM[(12)] | NM[(12)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(12)] | NM[(11)] | NM[(11)] | NM[(11)] |
| | | | | | | | | | | | | | |
| **MW-15** | 3/26/2013 | NM[(10)] | NM[(10)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(10)] | NM[(11)] | NM[(11)] | NM[(11)] |
| **MW-15** | Q3 2013 | NM[(12)] | NM[(12)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(12)] | NM[(11)] | NM[(11)] | NM[(11)] |
| **MW-15** | Q1 2014 | NM[(12)] | NM[(12)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(11)] | NM[(12)] | NM[(11)] | NM[(11)] | NM[(11)] |

Notes:
DO = Dissolved oxygen
ORP = Oxygen reduction potential
TDS = Total dissolved solids
CaCO3 = Calcium Carbonate
NM = Not measured
NR = Not Reported
J = Estimated result
UJ = Estimated result
J- = Biased low value
J+ = Biased high value
R = Rejected
mg/L = milligram per liter
mV = millivollt

Note: MW-5, MW-6, and MW-7 were destroyed on June 23, 2008.
(1) Post-purge DO, ORP, and pH values were obtained in the field using a flow-through cell and a multi-parameter meter unless otherwise noted.
(2) Field data was not collected for DO, ORP, and pH because groundwater was removed from the well without using the in-line flow-through cell due to insufficient recharge.
(3) DO meter did not appear to be functioning correctly.
(4) The well was not sampled and parameters were not measured due to the presence of light non-aqueous phase liquid at this location.
(5) The well was purged dry and recharge was insufficient to collect groundwater for geochemical analysis.
(6) DO readings were artificially high because purge water was poured into the multi-parameter meter from a bailer.
(7) Sample not collected during quarterly monitoring because well is not hydraulically connected to unconfined water-bearing zone.
(8) Parameters not collected because well dewatered before 1 well volume was collected.
(9) Geochemical parameters were not collected because the sampling crew could not collect enough sample from at least 4 of the monitoring wells for analysis.
(10) Field data was not collected for DO, ORP, and pH because groundwater was purged using a disposable bailer.
(11) Monitoring wells MW-13 through MW-15 had insufficient water to collect geochemical samples.
(12) Field data was not collected for DO, ORP, and pH because wells had insufficient water for purging.
(13) Field data for DO, ORP, and PH collected on August 14, 2014 before well dewatered. Sample collected by bailer on August 15, 2013.
(14) Light non-aqueous phase liquid was present in well MW-8 at the time of sampling.




Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the

kl U:\GIS\Chevron_SunolPipeline\Projects\site_vicinity_map.mxd 9/3/2013 7:48:20 AM

0 3,000 6,000 FEET

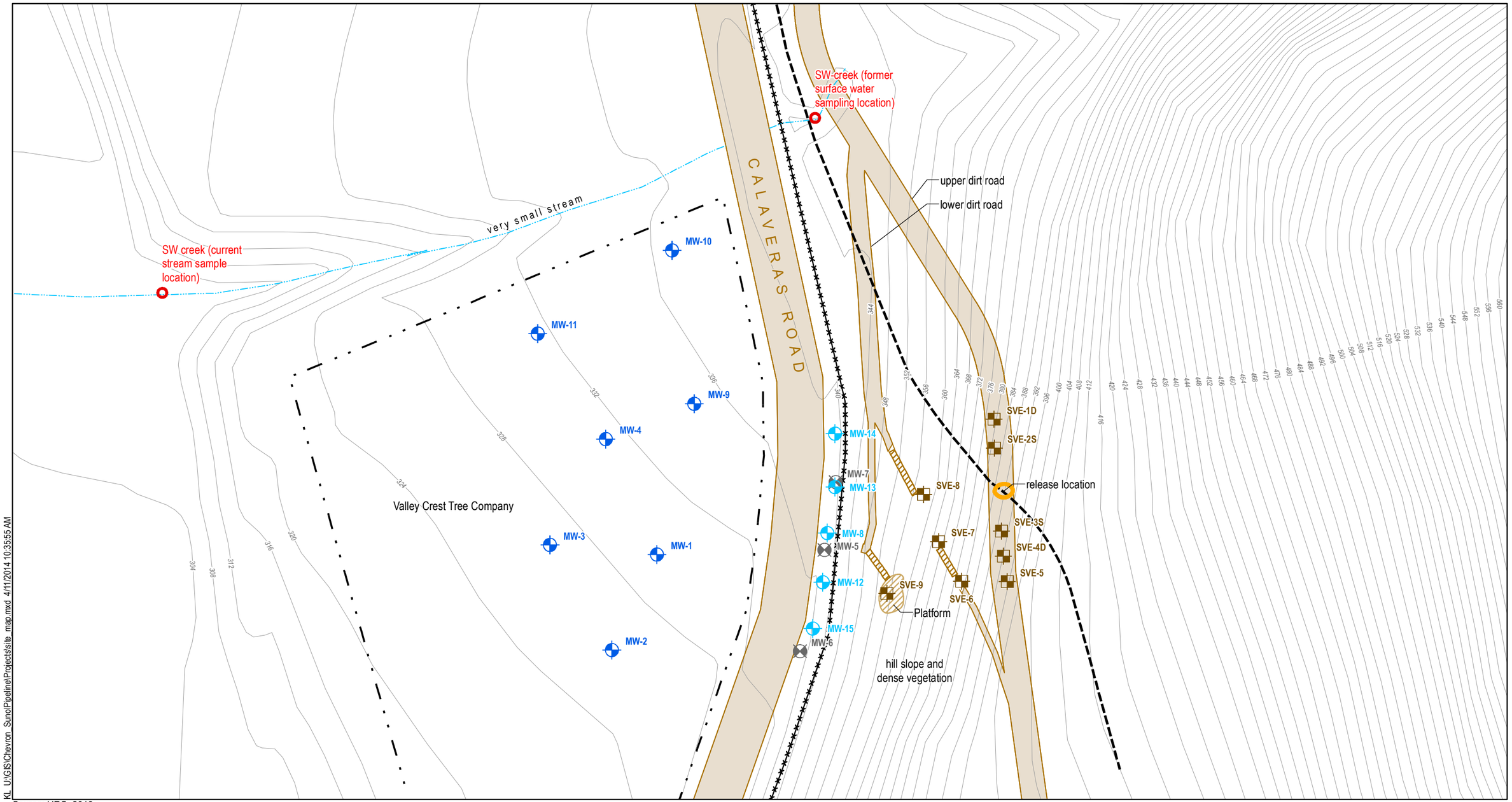
## SITE VICINITY MAP

April 2014
26818880

Chevron Pipe Line
Sunol, California

URS

**FIGURE 1**




KL_U:\GIS\Chevron_Sunol\Pipeline\Projects\site_map.mxd 4/11/2014 10:35:55 AM

Source: URS, 2013.

- Monitoring well in unconfined water bearing zone
- Monitoring well in perched zone
- Monitoring well - abandoned
- SVE well
- Stream sample location
- Location of slit in pipeline causing release
- 4-foot contour line
- Fence
- Pipeline
- Property line/fence
- Stream
- Road
- Stairs

0 25 50 FEET

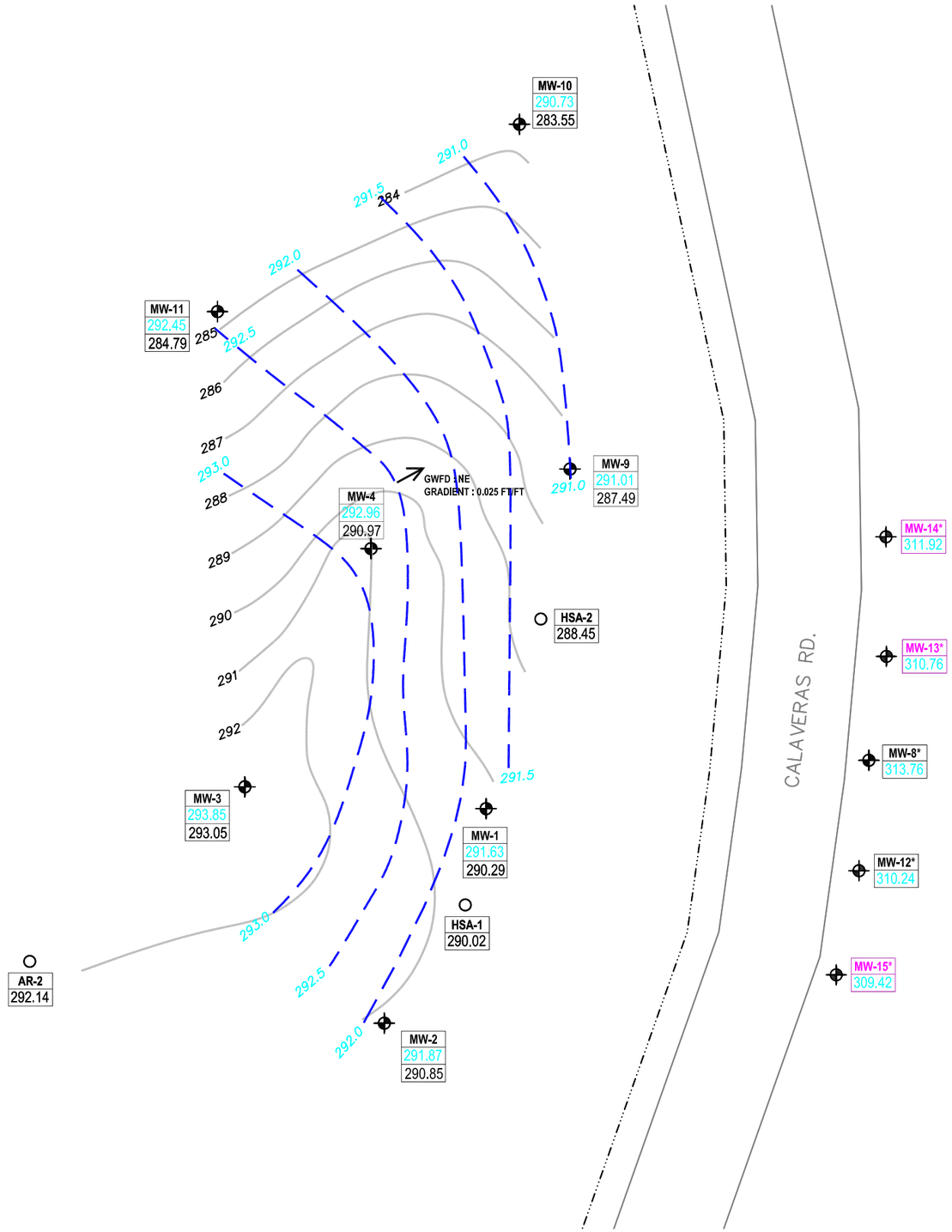
**SITE MAP**

April 2014
23818880

Chevron Pipe Line Company
Sunol, California

URS

**FIGURE 2**




## LEGEND:

- MONITORING WELL
- MW-1 / 291.02 / 290.29 — MONITORING WELL LABEL; GROUNDWATER ELEVATION; BEDROCK CONTACT ELEVATION
- SOIL BORING
- HSA-2 / 288.45 — SOIL BORING LABEL; BEDROCK CONTACT ELEVATION
- 292 — BEDROCK SURFACE ELEVATION
- GWFD — GROUNDWATER FLOW DIRECTION
- GROUNDWATER ELEVATION
- MW-13 / 308.30 — NOT PART OF THE MONITORING WELL NETWORK.

## NOTES:

1. ELEVATIONS IN FEET ABOVE AVERAGE MEAN SEA LEVEL (msl).
2. GROUNDWATER ELEVATIONS FOR MW–1 THROUGH MW–4 AND MW–8 THROUGH MW–15, AS MEASURED ON MARCH 20, 2014.
3. BEDROCK ELEVATION DATA OBTAINED FROM THE BORING LOGS OF MW–1 THROUGH MW–4, MW–9 THROUGH MW–11, HSA–1, HSA–2, AND AR–2.
4. THE BEDROCK ELEVATIONS SHOWN REPRESENT THE OVERBURDEN CONTACT WITH THE WEATHERED SILTSTONE/CLAYSTONE BEDROCK UNIT (POSSIBLY CRETACEOUS–AGE CLAY SHALE OF THE PANOCHE FORMATION).
5. CALCULATED GROUNDWATER GRADIENT IN NORTHEASTERLY FLOW DIRECTION dh/dl = 0.025 ft/ft.
6. MW–12 THROUGH MW–15 INSTALLED IN DECEMBER 2012. WELLS MW–13 THROUGH MW–15 NOT YET DEVELOPED DUE TO INSUFFICIENT WATER AT THE TIME OF MARCH 2014 GAUGING EVENT, AND THEREFORE NOT YET PART OF THE MONITORING WELL NETWORK.

* NOT USED IN GROUNDWATER CONTOURS.

NORTH

0 30' 60'

SCALE 1"= 30'

URS

CHEVRON PIPE LINE COMPANY

Project No. 26818880

UNCONFINED WATER–BEARING ZONE GROUNDWATER AND BEDROCK ELEVATIONS MAP CHEVRON BAY AREA PIPE LINE

Figure 3

Apr 14, 2014 – 5:08pm
T:\SFPUC Sunol Pipeline\Figures\FIGURE 3.dwg

# Appendix A
# Development Log

URS

# Monitoring Well Development Log

**Project Information:**

| | |
|---|---|
| Operator Name | Jeremy Quick/Vicky Wiraatmadja |
| Company Name | URS |
| Project Name | Chevron Pipe Line Company - Sunol Site |
| Site Name | Sunol |
| Date | 3/17/2014 |

| **Well Information:** | | | **Instrumentation:** | |
|---|---|---|---|---|
| Well ID | MW- | 12 | Turbidity Meter | Horiba U-22 |
| Well Total Depth | [ft] | 26.96 | Bladder Pump Control Box | NA - Bailer |
| Depth to Water | [ft] | 23.74 | Depth Sounder No | 5396 (Envirotech) |
| Height of Water | [ft] | 3.22 | | |

**Well Purge and Sampling Data**

| | |
|---|---|
| Single Casing Volume (CV) | 2.1 gal |

**Monitoring Well Development Data**

| Time | Temp [C] | Cond. [mS/cm] | pH | Turbidity [NTU] | Removed [gal] | Comments |
|---|---|---|---|---|---|---|
| 12:17 | 18.98 | 1.15 | 6.43 | 122.0 | 0.5 | minor cloudy, roots, sediment |
| 12:23 | 18.27 | 1.12 | 6.52 | 115.0 | 1 | minor cloudy, org. debris |
| 12:26 | 18.68 | 1.13 | 6.56 | 112.0 | 1.5 | minor cloudy, sediment |
| 12:29 | 18.54 | 1.13 | 6.68 | 87.6 | 2 | no odor, minor cloudy |
| 12:30 | 18.49 | 1.13 | 6.68 | 53.3 | 2.5 | minor cloudy |
| 12:31 | 18.50 | 1.13 | 6.68 | 44.5 | 2.75 | clear |
| 12:32 | 18.48 | 1.12 | 6.70 | 37.5 | 3.25 | minor cloudy, odorless |
| 12:34 | 18.61 | 1.13 | 6.65 | 35.7 | 3.5 | minor cloudy |
| 12:35 | 18.32 | 1.14 | 6.72 | 33.5 | 3.75 | clear, PVC flecks, org. debris |
| 12:36 | 18.56 | 1.13 | 6.71 | 24.8 | 4 | clear, PVC flecks, org. debris |
| 12:38 | 18.42 | 1.13 | 6.75 | 20.7 | 4.25 | clear, PVC flecks, org. debris |
| 12:40 | 18.44 | 1.13 | 6.74 | 20.2 | 4.5 | clear, PVC flecks, org. debris |
| 12:42 | 18.51 | 1.13 | 6.74 | 20.2 | 4.66 | clear, floating org. debris |
| 12:44 | 18.48 | 1.13 | 6.78 | 17.5 | 4.82 | clear, floating org. debris |
| 12:46 | 18.65 | 1.13 | 6.84 | 19.5 | 4.98 | clear, floating org. debris |
| 12:48 | 18.55 | 1.13 | 6.89 | 15.7 | 5.1 | clear, floating org. debris |
| 12:49 | dewatered | | | | | |
| 13:30 | 18.97 | 1.16 | 6.81 | 11.6 | 5.2 | clear |
| 13:32 | 18.87 | 1.13 | 6.98 | 11.2 | 5.3 | clear |
| 13:34 | 18.72 | 1.11 | 7.01 | 9.7 | 5.4 | clear |
| 13:35 | 18.41 | 1.14 | 7.04 | 10.6 | 5.5 | clear |
| 13:36 | 18.55 | 1.13 | 7.06 | 9.8 | 5.6 | clear |
| 13:37 | 18.55 | 1.13 | 7.10 | 9.4 | 5.7 | clear |
| 13:38 | 18.53 | 1.13 | 7.15 | 9.6 | 5.8 | clear |
| 13:39 | dewatered | | | | | |

| | |
|---|---|
| **Notes:** | Start Time Surge (26-27 / 25-26 / 24-25' bgs): 11:56 / 12:02/ 12:07<br>End Time Surge (26-27 / 25-26 / 24-25' bgs): 12:01 / 12:07 / 12:12<br>DTW at end of day: 13:57, 26.20 ft |

# Appendix B
# Groundwater Sampling Forms

URS

Low-Flow Sampling Log

| **Project Information:** | | **Pump Information:** | |
|---|---|---|---|
| Operator Name | Jeremy Quick/Vicky Wiraatmadja | Pump Model/Type | Mega Monsoon |
| Company Name | URS | Tubing Type | Poly |
| Project Name | Chevron Pipe Line - Sunol Site | Tubing Diameter | 3/8 inch |
| Site Name | Sunol | Tubing Length | |
| Date | 3/20/2014 | Pump placement from TOC | ~1-2 off bottom |

| **Well Information:** | | | **Pumping information:** | |
|---|---|---|---|---|
| Well ID | MW- | 1 | Final pumping rate | 260 mL/min |
| Well diameter | [in] | 4 | Flowcell volume | 1000 mL |
| Well total depth | [ft] | 39.3 | Calculated Sample Rate | NM |
| Depth to top of screen | [ft] | 29.3 | Sample rate | NM |
| Screen length | [ft] | 10 | Stabilized drawdown | NM |
| Depth to Water | [ft] | 36.41 | | |

**Low-Flow Sampling Stabilization Summary**

| | Time | Temp [°C] | pH [pH] | Cond. [mS/cm] | Turb [NTU] | DO [mg/L] | ORP [mV] |
|---|---|---|---|---|---|---|---|
| Stabilization Settings | | | +/-0.2 | +/-3% | +/-10% | +/-0.20 | +/-20 |
| Multi-parameter Readings | 11:45 | 19.18 | 7.08 | 1.46 | 21.3 | 10.62 | 12 |
| | 11:48 | 18.47 | 7.02 | 1.45 | 10.7 | 5.11 | -10 |
| | 11:51 | 18.68 | 7.04 | 1.43 | 9.8 | 4.10 | -16 |
| | 11:54 | 18.87 | 7.05 | 1.42 | 10.1 | 3.65 | -18 |
| | 11:57 | 19.01 | 7.04 | 1.40 | 7.6 | 3.38 | -19 |
| | 12:00 | 19.09 | 7.03 | 1.39 | 5.9 | 3.19 | -18 |
| | 12:03 | 19.22 | 7.03 | 1.39 | 5.7 | 3.06 | -18 |
| | 12:06 | 19.28 | 7.02 | 1.38 | 5.5 | 2.95 | -16 |
| | 12:09 | 19.26 | 7.01 | 1.38 | 5.1 | 2.88 | -16 |
| | 12:12 | 19.36 | 6.99 | 1.37 | 5.3 | 2.81 | -16 |
| | Sample collected from MW-1 at 12:25 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Variance in last 3 readings | | 0.02 | 0.01 | 0.00 | 0.40 | 0.07 | 0.00 |
| | | -0.10 | 0.02 | 0.01 | -0.20 | 0.07 | 0.00 |

**Notes:**

Starting pumping at 11:45
Initial depth to water = 36.41 ft
Total Volume Purged = 1.0 gal
Sample collected at 12:25

MS/MSD collected 12:25

URS

Low-Flow Sampling Log

| **Project Information:** | | **Pump Information:** | |
|---|---|---|---|
| Operator Name | Jeremy Quick/Vicky Wiraatmadja | Pump Model/Type | Mega Monsoon |
| Company Name | URS | Tubing Type | Poly |
| Project Name | Chevron Pipe Line - Sunol Site | Tubing Diameter | 3/8 inch |
| Site Name | Sunol | Tubing Length | |
| Date | 3/21/2014 | Pump placement from TOC | ~1-2 off bottom |

| **Well Information:** | | | **Pumping information:** | |
|---|---|---|---|---|
| Well ID | MW- | 2 | Final pumping rate | 240 mL/min |
| Well diameter | [in] | 4 | Flowcell volume | 1000 mL |
| Well total depth | [ft] | 38.3 | Calculated Sample Rate | NM |
| Depth to top of screen | [ft] | 23.3 | Sample rate | NM |
| Screen length | [ft] | 15 | Stabilized drawdown | NM |
| Depth to Water | [ft] | 32.28 | | |

**Low-Flow Sampling Stabilization Summary**

| | Time | Temp [°C] | pH [pH] | Cond. [mS/cm] | Turb [NTU] | DO [mg/L] | ORP [mV] |
|---|---|---|---|---|---|---|---|
| Stabilization Settings | | | +/-0.2 | +/-3% | +/-10% | +/-0.20 | +/-20 |
| Multi-parameter Readings | 7:47 | 16.96 | 6.60 | 1.46 | 83.5 | 11.93 | -32 |
| | 7:50 | 17.61 | 7.53 | 1.49 | 34.3 | 7.25 | -78 |
| | 7:53 | 17.94 | 7.78 | 1.51 | 19.1 | 5.86 | -89 |
| | 7:56 | 18.15 | 7.89 | 1.53 | 92.1 | 5.14 | -93 |
| | 7:59 | 18.23 | 7.93 | 1.61 | 98.0 | 4.83 | -95 |
| | 8:02 | 18.45 | 7.94 | 1.62 | 92.9 | 4.59 | -93 |
| | 8:05 | 18.47 | 7.92 | 1.62 | 86.5 | 4.42 | -88 |
| | 8:08 | 18.58 | 7.84 | 1.60 | 83.3 | 4.25 | -79 |
| | 8:11 | 18.75 | 7.78 | 1.59 | 86.1 | 4.14 | -70 |
| | 8:14 | 18.80 | 7.71 | 1.58 | 78.4 | 4.07 | -57 |
| | 8:17 | 18.78 | 7.62 | 1.57 | 75.8 | 4.06 | -45 |
| | 8:20 | 18.75 | 7.54 | 1.56 | 66.9 | 4.09 | -32 |
| | 8:23 | 18.87 | 7.46 | 1.54 | 64.0 | 4.11 | -19 |
| | 8:26 | 18.87 | 7.40 | 1.52 | 62.5 | 4.20 | -12 |
| | Sample from MW-2 collected 8:36 | | | | | | |
| | | | | | | | |
| Variance in last 3 readings | | -0.12 | 0.08 | 0.02 | 2.90 | -0.02 | -13.00 |
| | | 0.00 | 0.06 | 0.02 | 1.50 | -0.09 | -7.00 |

**Notes:**

Starting pumping at 7:47
Initial depth to water = 32.28 ft
Total Volume Purged = 2.7 gal
Sample collected at 8:36

URS

Low-Flow Sampling Log

| **Project Information:** | | **Pump Information:** | |
|---|---|---|---|
| Operator Name | Jeremy Quick/Vicky Wiraatmadja | Pump Model/Type | Mega Monsoon |
| Company Name | URS | Tubing Type | Poly |
| Project Name | Chevron Pipe Line - Sunol Site | Tubing Diameter | 3/8 inch |
| Site Name | Sunol | Tubing Length | |
| Date | 3/20/2014 | Pump placement from TOC | ~1-2 off bottom |

| **Well Information:** | | | **Pumping information:** | |
|---|---|---|---|---|
| Well ID | MW- | 3 | Final pumping rate | 300 mL/min |
| Well diameter | [in] | 4 | Flowcell volume | 1000 mL |
| Well total depth | [ft] | 36.3 | Calculated Sample Rate | NM |
| Depth to top of screen | [ft] | 21.3 | Sample rate | NM |
| Screen length | [ft] | 15 | Stabilized drawdown | NM |
| Depth to Water | [ft] | 31.80 | | |

**Low-Flow Sampling Stabilization Summary**

| | Time | Temp [°C] | pH [pH] | Cond. [mS/cm] | Turb [NTU] | DO [mg/L] | ORP [mV] |
|---|---|---|---|---|---|---|---|
| Stabilization Settings | | | +/-0.2 | +/-3% | +/-10% | +/-0.20 | +/-20 |
| Multi-parameter Readings | 14:14 | 19.25 | 7.15 | 1.45 | 92.5 | 9.31 | 45 |
| | 14:17 | 18.07 | 7.17 | 1.47 | 65.8 | 5.87 | 12 |
| | 14:20 | 18.11 | 7.18 | 1.46 | 52.2 | 4.87 | -0 |
| | 14:23 | 18.43 | 7.16 | 1.40 | 37.1 | 4.49 | +0 |
| | 14:26 | 18.40 | 7.08 | 1.35 | 27.6 | 4.51 | 9 |
| | 14:29 | 18.37 | 7.01 | 1.32 | 23.8 | 4.49 | 16 |
| | 14:32 | 18.29 | 6.96 | 1.30 | 18.1 | 4.54 | 21 |
| | 14:35 | 18.32 | 6.92 | 1.28 | 14.9 | 4.54 | 26 |
| | 14:38 | 18.29 | 6.91 | 1.27 | 14.6 | 4.53 | 27 |
| | 14:41 | 18.25 | 6.89 | 1.26 | 15.0 | 4.53 | 30 |
| | Sample collected at 14:49 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Variance in last 3 readings | | 0.03 | 0.01 | 0.01 | 0.30 | 0.01 | -1.00 |
| | | -0.04 | -0.02 | -0.01 | 0.40 | 0.00 | 3.00 |

**Notes:**

Starting pumping at 14:14
Initial depth to water = 31.80 ft
Total Volume Purged = 2.3 gal
Sample collected at 14:49

URS

Low-Flow Sampling Log

| **Project Information:** | | **Pump Information:** | |
|---|---|---|---|
| Operator Name | Jeremy Quick/Vicky Wiraatmadja | Pump Model/Type | Mega Monsoon |
| Company Name | URS | Tubing Type | Poly |
| Project Name | Chevron Pipe Line - Sunol Site | Tubing Diameter | 3/8 inch |
| Site Name | Sunol | Tubing Length | |
| Date | 3/20/2014 | Pump placement from TOC | ~1-2 off bottom |

| **Well Information:** | | **Pumping information:** | |
|---|---|---|---|
| Well ID | MW- 4 | Final pumping rate | 320 |
| Well diameter | [in] 4 | Flowcell volume | 1000 mL |
| Well total depth | [ft] 40.7 | Calculated Sample Rate | NM |
| Depth to top of screen | [ft] 30.7 | Sample rate | NM |
| Screen length | [ft] 10 | Stabilized drawdown | NM |
| Depth to Water | [ft] 36.71 | | |

**Low-Flow Sampling Stabilization Summary**

| | Time | Temp [°C] | pH [pH] | Cond. [mS/cm] | Turb [NTU] | DO [mg/L] | ORP [mV] |
|---|---|---|---|---|---|---|---|
| Stabilization Settings | | | +/-0.2 | +/-3% | +/-10% | +/-0.20 | +/-20 |
| Multi-parameter Readings | 15:14 | 19.14 | 7.10 | 1.40 | 24.2 | 8.89 | 52 |
| | 15:17 | 18.59 | 6.95 | 1.34 | 20.7 | 5.39 | 33 |
| | 15:20 | 18.92 | 6.95 | 1.32 | 24.2 | 4.42 | 19 |
| | 15:23 | 18.80 | 6.93 | 1.31 | 21.4 | 4.23 | 17 |
| | 15:26 | 19.00 | 6.93 | 1.31 | 21.8 | 4.00 | 14 |
| | 15:29 | 19.07 | 6.90 | 1.30 | 17.9 | 3.91 | 16 |
| | 15:32 | 18.99 | 6.87 | 1.29 | 15.1 | 3.93 | 21 |
| | 15:35 | 18.95 | 6.85 | 1.28 | 15.8 | 3.93 | 26 |
| | 15:38 | 18.98 | 6.83 | 1.27 | 14.8 | 3.91 | 28 |
| | Sample collected from MW-4 at 15:46 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Variance in last 3 readings | | 0.04 | 0.02 | 0.01 | -0.7 | 0.00 | -5 |
| | | -0.03 | 0.02 | 0.01 | 1.0 | 0.02 | -2 |

**Notes:**

Starting pumping at 15:14
Initial depth to water = 36.71 ft
Total Volume Purged = 2.0 gal
Sample collected at 15:46

URS

Low-Flow Sampling Log

| **Project Information:** | | **Pump Information:** | |
|---|---|---|---|
| Operator Name | Jeremy Quick/Vicky Wiraatmadja | Pump Model/Type | Mega Monsoon |
| Company Name | URS | Tubing Type | Poly |
| Project Name | Chevron Pipe Line - Sunol Site | Tubing Diameter | 3/8 inch |
| Site Name | Sunol | Tubing Length | |
| Date | 3/21/2014 | Pump placement from TOC | ~1-2 off bottom |

| **Well Information:** | | **Pumping information:** | |
|---|---|---|---|
| Well ID | MW- 8 | Final pumping rate | 160 mL/min |
| Well diameter | [in] 4 | Flowcell volume | 1000 mL |
| Well total depth | [ft] 24.5 | Calculated Sample Rate | NM |
| Depth to top of screen | [ft] 14.5 | Sample rate | NM |
| Screen length | [ft] 10 | Stabilized drawdown | NM |
| Depth to Water | [ft] 20.17 | | |

**Low-Flow Sampling Stabilization Summary**

| | Time | Temp [°C] | pH [pH] | Cond. [mS/cm] | Turb [NTU] | DO [mg/L] | ORP [mV] |
|---|---|---|---|---|---|---|---|
| Stabilization Settings | | | +/-0.2 | +/-3% | +/-10% | +/-0.20 | +/-20 |
| Multi-parameter Readings | 11:53 | 19.52 | 8.18 | 1.36 | 103.0 | 9.63 | -132 |
| | 11:56 | 19.69 | 8.27 | 1.35 | 67.0 | 5.85 | -152 |
| | 11:59 | 19.55 | 8.29 | 1.36 | 59.0 | 4.40 | -157 |
| | 12:02 | 19.65 | 8.32 | 1.37 | 39.7 | 3.76 | -158 |
| | 12:05 | 19.81 | 8.31 | 1.37 | 31.4 | 3.47 | -158 |
| | 12:08 | 20.19 | 8.27 | 1.36 | 26.0 | 3.23 | -158 |
| | 12:11 | 20.97 | 8.21 | 1.35 | 29.6 | 3.00 | -159 |
| | 12:14 | 21.12 | 8.19 | 1.35 | 19.3 | 2.90 | -157 |
| | 12:17 | 21.41 | 8.15 | 1.35 | 16.5 | 2.82 | -156 |
| | 12:20 | 21.42 | 8.12 | 1.36 | 15.0 | 2.83 | -154 |
| | 12:23 | 21.55 | 8.09 | 1.36 | 15.1 | 2.84 | -154 |
| | Sampled collected at 12:48 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Variance in last 3 readings | | -0.01 | 0.03 | -0.01 | 1.50 | -0.01 | -2.00 |
| | | -0.13 | 0.03 | 0.00 | -0.10 | -0.01 | 0.00 |

**Notes:**

Starting pumping at 11:53
Initial depth to water = 20.17 ft
Total Volume Purged = 1.4 gal
Sample collected at 12:48

URS

Low-Flow Sampling Log

| **Project Information:** | | **Pump Information:** | |
|---|---|---|---|
| Operator Name | Jeremy Quick/Vicky Wiraatmadja | Pump Model/Type | Mega Monsoon |
| Company Name | URS | Tubing Type | Poly |
| Project Name | Chevron Pipe Line - Sunol Site | Tubing Diameter | 3/8 inch |
| Site Name | Sunol | Tubing Length | |
| Date | 3/21/2014 | Pump placement from TOC | ~1-2 off bottom |

| **Well Information:** | | **Pumping information:** | |
|---|---|---|---|
| Well ID | MW- 9 | Final pumping rate | 360 mL/min |
| Well diameter | [in] 4 | Flowcell volume | 1000 mL |
| Well total depth | [ft] 46 | Calculated Sample Rate | NM |
| Depth to top of screen | [ft] 36 | Sample rate | NM |
| Screen length | [ft] 10 | Stabilized drawdown | NM |
| Depth to Water | [ft] 42.06 | | |

**Low-Flow Sampling Stabilization Summary**

| | Time | Temp [°C] | pH [pH] | Cond. [mS/cm] | Turb [NTU] | DO [mg/L] | ORP [mV] |
|---|---|---|---|---|---|---|---|
| Stabilization Settings | | | +/-0.2 | +/-3% | +/-10% | +/-0.20 | +/-20 |
| Multi-parameter Readings | 8:58 | 17.96 | 8.85 | 1.41 | 246.0 | 5.81 | -218 |
| | 9:01 | 18.71 | 8.97 | 1.42 | 114.0 | 3.71 | -230 |
| | 9:04 | 18.76 | 9.03 | 1.42 | 46.0 | 2.88 | -237 |
| | 9:07 | 19.20 | 9.00 | 1.40 | 23.0 | 2.49 | -237 |
| | 9:10 | 19.48 | 8.95 | 1.38 | 14.9 | 2.31 | -236 |
| | 9:13 | 19.47 | 8.94 | 1.38 | 11.3 | 2.23 | -235 |
| | 9:16 | 19.43 | 8.95 | 1.37 | 9.6 | 2.16 | -236 |
| | 9:19 | 19.31 | 8.96 | 1.37 | 8.8 | 2.13 | -237 |
| | 9:22 | 19.36 | 8.95 | 1.36 | 8.2 | 2.05 | -238 |
| | 9:25 | 19.44 | 8.93 | 1.36 | 8.0 | 2.02 | -239 |
| | Sample collected from MW-9 at 9:43 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Variance in last 3 readings | | -0.05 | 0.01 | 0.01 | 0.60 | 0.08 | 1.00 |
| | | -0.08 | 0.02 | 0.00 | 0.20 | 0.03 | 1.00 |

**Notes:**

Starting pumping at 8:58
Initial depth to water = 42.06 ft
Total Volume Purged = 2.5 gal
Sample collected at 9:43

URS

Low-Flow Sampling Log

| **Project Information:** | | **Pump Information:** | |
|---|---|---|---|
| Operator Name | Jeremy Quick/Vicky Wiraatmadja | Pump Model/Type | Mega Monsoon |
| Company Name | URS | Tubing Type | Poly |
| Project Name | Chevron Pipe Line - Sunol Site | Tubing Diameter | 3/8 inch |
| Site Name | Sunol | Tubing Length | |
| Date | 3/20/2014 | Pump placement from TOC | ~1-2 off bottom |

| **Well Information:** | | **Pumping information:** | |
|---|---|---|---|
| Well ID | MW- 10 | Final pumping rate | 100 mL/min |
| Well diameter | [in] 2 | Flowcell volume | 1000 mL |
| Well total depth | [ft] 55.3 | Calculated Sample Rate | NM |
| Depth to top of screen | [ft] 40.3 | Sample rate | NM |
| Screen length | [ft] 15 | Stabilized drawdown | NM |
| Depth to Water | [ft] 45.16 | | |

**Low-Flow Sampling Stabilization Summary**

| | Time | Temp [°C] | pH [pH] | Cond. [mS/cm] | Turb [NTU] | DO [mg/L] | ORP [mV] |
|---|---|---|---|---|---|---|---|
| Stabilization Settings | | | +/-0.2 | +/-3% | +/-10% | +/-0.20 | +/-20 |
| Multi-parameter Readings | 8:50 | 16.79 | 6.78 | 1.99 | 178.0 | 7.92 | -56 |
| | 8:53 | 17.63 | 7.11 | 1.98 | 81.0 | 6.54 | -101 |
| | 8:56 | 18.14 | 7.31 | 1.97 | 45.7 | 5.71 | -115 |
| | 8:59 | 18.85 | 7.33 | 1.93 | 26.9 | 5.06 | -112 |
| | 9:02 | 19.03 | 7.33 | 1.90 | 19.2 | 4.78 | -107 |
| | 9:05 | 19.15 | 7.31 | 1.88 | 14.1 | 4.54 | -99 |
| | 9:08 | 19.26 | 7.28 | 1.86 | 11.5 | 4.36 | -91 |
| | 9:11 | 19.26 | 7.24 | 1.85 | 9.7 | 4.23 | -85 |
| | 9:14 | 18.70 | 7.25 | 1.85 | 8.9 | 4.36 | -81 |
| | 9:17 | 18.44 | 7.26 | 1.85 | 8.1 | 4.30 | -82 |
| | Sample collected from MW-10 at 9:29 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Variance in last 3 readings | | 0.56 | -0.01 | 0.00 | 0.80 | -0.13 | -4.00 |
| | | 0.26 | -0.01 | 0.00 | 0.80 | 0.06 | 1.00 |

**Notes:**

Starting pumping at 8:50
Initial depth to water = 45.16 ft
Total Volume Purged = 1.8 gal
Sample collected at 9:29

Equipment blank sampled: 9:48

URS

Low-Flow Sampling Log

| **Project Information:** | | **Pump Information:** | |
|---|---|---|---|
| Operator Name | Jeremy Quick/Vicky Wiraatmadja | Pump Model/Type | Mega Monsoon |
| Company Name | URS | Tubing Type | Poly |
| Project Name | Chevron Pipe Line - Sunol Site | Tubing Diameter | 3/8 inch |
| Site Name | Sunol | Tubing Length | |
| Date | 3/20/2014 | Pump placement from TOC | ~1-2 off bottom |

| **Well Information:** | | | **Pumping information:** | |
|---|---|---|---|---|
| Well ID | MW- | 11 | Final pumping rate | 180 mL/min |
| Well diameter | [in] | 4 | Flowcell volume | 1000 mL |
| Well total depth | [ft] | 47 | Calculated Sample Rate | NM |
| Depth to top of screen | [ft] | 37 | Sample rate | NM |
| Screen length | [ft] | 10 | Stabilized drawdown | NM |
| Depth to Water | [ft] | 37.44 | | |

**Low-Flow Sampling Stabilization Summary**

| | Time | Temp [°C] | pH [pH] | Cond. [mS/cm] | Turb [NTU] | DO [mg/L] | ORP [mV] |
|---|---|---|---|---|---|---|---|
| Stabilization Settings | | | +/-0.2 | +/-3% | +/-10% | +/-0.20 | +/-20 |
| Multi-parameter Readings | 10:26 | 18.48 | 7.77 | 2.12 | 512.0 | 8.19 | -113 |
| | 10:29 | 18.62 | 7.72 | 2.10 | 245.0 | 4.87 | -114 |
| | 10:32 | 19.04 | 7.60 | 2.04 | 99.6 | 3.98 | -101 |
| | 10:35 | 19.34 | 7.47 | 1.97 | 60.1 | 3.62 | -86 |
| | 10:38 | 19.55 | 7.37 | 1.93 | 61.1 | 3.43 | -78 |
| | 10:41 | 19.62 | 7.29 | 1.90 | 57.0 | 3.31 | -72 |
| | 10:44 | 19.94 | 7.22 | 1.85 | 48.8 | 3.20 | -66 |
| | 10:47 | 20.08 | 7.17 | 1.78 | 43.9 | 3.14 | -58 |
| | 10:50 | 20.18 | 7.10 | 1.73 | 39.8 | 3.12 | -50 |
| | 10:53 | 20.23 | 7.07 | 1.67 | 33.1 | 3.13 | -44 |
| | 10:56 | 20.41 | 7.03 | 1.60 | 30.0 | 3.19 | -38 |
| | 10:59 | 20.64 | 6.98 | 1.56 | 24.1 | 3.20 | -29 |
| | 11:02 | 20.58 | 6.95 | 1.54 | 22.6 | 3.23 | -24 |
| | 11:05 | 20.55 | 6.93 | 1.54 | 24.0 | 3.17 | -21 |
| | Sample collected from MW-11 at 11:13 | | | | | | |
| Variance in last 3 readings | | 0.06 | 0.03 | 0.02 | 1.50 | -0.03 | -5.00 |
| | | 0.03 | 0.02 | 0.00 | -1.40 | 0.06 | -3.00 |

**Notes:**

Starting pumping at 10:26
Initial depth to water = 37.44 ft
Total Volume Purged = 2.6 gal
Sample collected at 11:13

URS

Low-Flow Sampling Log

| **Project Information:** | | **Pump Information:** | |
|---|---|---|---|
| Operator Name | Jeremy Quick/Vicky Wiraatmadja | Pump Model/Type | Mega Monsoon |
| Company Name | URS | Tubing Type | Poly |
| Project Name | Chevron Pipe Line - Sunol Site | Tubing Diameter | 3/8 inch |
| Site Name | Sunol | Tubing Length | |
| Date | 3/21/2014 | Pump placement from TOC | ~1-2 off bottom |

| **Well Information:** | | **Pumping information:** | |
|---|---|---|---|
| Well ID | MW- 12 | Final pumping rate | 240 |
| Well diameter | [in] 4 | Flowcell volume | 1000 mL |
| Well total depth | [ft] 26.69 | Calculated Sample Rate | NM |
| Depth to top of screen | [ft] 16.7 | Sample rate | NM |
| Screen length | [ft] 10 | Stabilized drawdown | NM |
| Depth to Water | [ft] 24.34 | | |

**Low-Flow Sampling Stabilization Summary**

| | Time | Temp [°C] | pH [pH] | Cond. [mS/cm] | Turb [NTU] | DO [mg/L] | ORP [mV] |
|---|---|---|---|---|---|---|---|
| Stabilization Settings | | | +/-0.2 | +/-3% | +/-10% | +/-0.20 | +/-20 |
| Multi-parameter Readings | 10:47 | 18.23 | 7.84 | 1.20 | 21.0 | 12.07 | -51 |
| | 10:50 | 18.35 | 7.84 | 1.23 | 13.7 | 6.58 | -69 |
| | 10:53 | 18.69 | 7.81 | 1.22 | 12.0 | 5.15 | -70 |
| | 10:56 | 18.86 | 7.78 | 1.22 | 11.9 | 4.65 | -67 |
| | 10:59 | 18.92 | 7.74 | 1.22 | 11.0 | 4.34 | -63 |
| | 11:02 | 18.80 | 7.71 | 1.23 | 7.6 | 4.24 | -57 |
| | 11:05 | 19.11 | 7.67 | 1.22 | 7.6 | 4.07 | -53 |
| | 11:08 | 19.27 | 7.65 | 1.22 | 8.3 | 4.04 | -49 |
| | Sample collected from MW-11 at 11:22 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Variance in last 3 readings | | -0.31 | 0.04 | 0.01 | 0.00 | 0.17 | -4.00 |
| | | -0.16 | 0.02 | 0.00 | -0.70 | 0.03 | -4.00 |

**Notes:**

Starting pumping at 10:47
Initial depth to water = 24.34 ft
Total Volume Purged = 1.0 gal
Sample collected at 11:22

# Appendix C
# Laboratory Analytical Results

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

# ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

April 02, 2014

Project: Sunol, CA

Submittal Date: 03/25/2014
Group Number: 1461943
PO Number: 0015075159
Release Number: GWIN
State of Sample Origin: CA

| Client Sample Description | Lancaster Labs (LL) # |
|---|---|
| MW-2 Grab Groundwater | 7406138 |
| MW-9 Grab Groundwater | 7406139 |
| MW-12 Grab Groundwater | 7406140 |
| MW-8 Grab Groundwater | 7406141 |
| MW-X Grab Groundwater | 7406142 |
| Trip Blank 2 NA Water | 7406143 |

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

| | | |
|---|---|---|
| ELECTRONIC COPY TO | URS | Attn: Rachel Naccarati |
| ELECTRONIC COPY TO | URS Corporation | Attn: Christine Pilachowski |
| ELECTRONIC COPY TO | URS | Attn: Jeremy Quick |

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

**Sample Description:** MW-2 Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7406138**
**LL Group # 1461943**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/21/2014 08:36 by JQ

Submitted: 03/25/2014 09:50
Reported: 04/02/2014 20:27

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUN-2

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **GC/MS Volatiles** | **SW-846 8260B** | | **ug/l** | **ug/l** | |
| 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 |
| **GC Volatiles** | **SW-846 8015B** | | **ug/l** | **ug/l** | |
| 01728 | TPH-GRO N. CA water C6-C12 | n.a. | N.D. | 50 | 1 |
| **GC Miscellaneous** | **SW-846 8015B modified** | | **ug/l** | **ug/l** | |
| 07105 | Methane | 74-82-8 | N.D. | 3.0 | 1 |
| **Wet Chemistry** | **EPA 300.0** | | **ug/l** | **ug/l** | |
| 00368 | Nitrate Nitrogen | 14797-55-8 | 11,100 | 250 | 5 |
| | The holding time was not met. The sample was submitted to the laboratory outside of the holding time. | | | | |
| 00228 | Sulfate | 14808-79-8 | 73,500 | 1,500 | 5 |

## 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 | Z140861AA | 03/27/2014 23:10 | Brett W Kenyon | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | Z140861AA | 03/27/2014 23:10 | Brett W Kenyon | 1 |
| 01728 | TPH-GRO N. CA water C6-C12 | SW-846 8015B | 1 | 14087A20A | 03/31/2014 15:52 | Laura M Krieger | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14087A20A | 03/31/2014 15:52 | Laura M Krieger | 1 |
| 07105 | Volatile Headspace Hydrocarbon | SW-846 8015B modified | 1 | 140870022A | 03/28/2014 18:39 | Nicholas R Rossi | 1 |
| 00368 | Nitrate Nitrogen | EPA 300.0 | 1 | 14085347901A | 03/26/2014 08:47 | Sandra J Miller | 5 |
| 00228 | Sulfate | EPA 300.0 | 1 | 14085347901A | 03/26/2014 08:47 | Sandra J Miller | 5 |

**Sample Description:** MW-9 Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7406139**
**LL Group # 1461943**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/21/2014 09:43 by JQ

Submitted: 03/25/2014 09:50
Reported: 04/02/2014 20:27

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUN-9

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **GC/MS Volatiles** | **SW-846 8260B** | | **ug/l** | **ug/l** | |
| 10943 | Benzene | 71-43-2 | N.D. | 0.5 | 1 |
| 10943 | Ethylbenzene | 100-41-4 | 9 | 0.5 | 1 |
| 10943 | Toluene | 108-88-3 | 0.7 | 0.5 | 1 |
| 10943 | Xylene (Total) | 1330-20-7 | 28 | 0.5 | 1 |
| **GC Volatiles** | **SW-846 8015B** | | **ug/l** | **ug/l** | |
| 01728 | TPH-GRO N. CA water C6-C12 | n.a. | 2,300 | 50 | 1 |
| **GC Miscellaneous** | **SW-846 8015B modified** | | **ug/l** | **ug/l** | |
| 07105 | Methane | 74-82-8 | 43 | 3.0 | 1 |
| **Wet Chemistry** | **EPA 300.0** | | **ug/l** | **ug/l** | |
| 00368 | Nitrate Nitrogen | 14797-55-8 | 10,900 | 250 | 5 |
| | The holding time was not met. The sample was submitted to the laboratory outside of the holding time. | | | | |
| 00228 | Sulfate | 14808-79-8 | 58,600 | 1,500 | 5 |

## 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 | F140872AA | 03/28/2014 15:42 | Anita M Dale | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | F140872AA | 03/28/2014 15:42 | Anita M Dale | 1 |
| 01728 | TPH-GRO N. CA water C6-C12 | SW-846 8015B | 1 | 14087A20A | 03/31/2014 16:17 | Laura M Krieger | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14087A20A | 03/31/2014 16:17 | Laura M Krieger | 1 |
| 07105 | Volatile Headspace Hydrocarbon | SW-846 8015B modified | 1 | 140870022A | 03/28/2014 18:57 | Nicholas R Rossi | 1 |
| 00368 | Nitrate Nitrogen | EPA 300.0 | 1 | 14085347901A | 03/26/2014 09:03 | Sandra J Miller | 5 |
| 00228 | Sulfate | EPA 300.0 | 1 | 14085347901A | 03/26/2014 09:03 | Sandra J Miller | 5 |

**Sample Description:** MW-12 Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7406140**
**LL Group # 1461943**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/21/2014 11:22 by JQ

Submitted: 03/25/2014 09:50
Reported: 04/02/2014 20:27

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUN12

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **GC/MS Volatiles** | **SW-846 8260B** | | **ug/l** | **ug/l** | |
| 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 |
| **GC Volatiles** | **SW-846 8015B** | | **ug/l** | **ug/l** | |
| 01728 | TPH-GRO N. CA water C6-C12 | n.a. | N.D. | 50 | 1 |
| **GC Miscellaneous** | **SW-846 8015B modified** | | **ug/l** | **ug/l** | |
| 07105 | Methane | 74-82-8 | 15 | 3.0 | 1 |
| **Wet Chemistry** | **EPA 300.0** | | **ug/l** | **ug/l** | |
| 00368 | Nitrate Nitrogen | 14797-55-8 | N.D. | 250 | 5 |
| | The holding time was not met. The sample was submitted to the laboratory outside of the holding time. | | | | |
| 00228 | Sulfate | 14808-79-8 | 44,400 | 1,500 | 5 |

## 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 | F140872AA | 03/28/2014 16:04 | Anita M Dale | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | F140872AA | 03/28/2014 16:04 | Anita M Dale | 1 |
| 01728 | TPH-GRO N. CA water C6-C12 | SW-846 8015B | 1 | 14087A20A | 03/31/2014 16:41 | Laura M Krieger | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14087A20A | 03/31/2014 16:41 | Laura M Krieger | 1 |
| 07105 | Volatile Headspace Hydrocarbon | SW-846 8015B modified | 1 | 140870022A | 03/28/2014 19:15 | Nicholas R Rossi | 1 |
| 00368 | Nitrate Nitrogen | EPA 300.0 | 1 | 14085347901B | 03/26/2014 13:55 | Sandra J Miller | 5 |
| 00228 | Sulfate | EPA 300.0 | 1 | 14085347901B | 03/26/2014 13:55 | Sandra J Miller | 5 |

**Sample Description:** MW-8 Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7406141**
**LL Group # 1461943**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/21/2014 12:48 by JQ

Submitted: 03/25/2014 09:50
Reported: 04/02/2014 20:27

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUN-8

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **GC/MS Volatiles** | **SW-846 8260B** | | ug/l | ug/l | |
| 10943 | Benzene | 71-43-2 | 490 | 10 | 20 |
| 10943 | Ethylbenzene | 100-41-4 | 1,600 | 10 | 20 |
| 10943 | Toluene | 108-88-3 | 130 | 1 | 2 |
| 10943 | Xylene (Total) | 1330-20-7 | 4,200 | 10 | 20 |
| **GC Volatiles** | **SW-846 8015B** | | ug/l | ug/l | |
| 01728 | TPH-GRO N. CA water C6-C12 | n.a. | 23,000 | 500 | 10 |
| **GC Miscellaneous** | **SW-846 8015B modified** | | ug/l | ug/l | |
| 07105 | Methane | 74-82-8 | 5,600 | 60 | 20 |
| **Wet Chemistry** | **EPA 300.0** | | ug/l | ug/l | |
| 00368 | Nitrate Nitrogen | 14797-55-8 | N.D. | 250 | 5 |
| | The holding time was not met. The sample was submitted to the laboratory outside of the holding time. | | | | |
| 00228 | Sulfate | 14808-79-8 | N.D. | 1,500 | 5 |

## 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 | Z140861AA | 03/28/2014 00:23 | Brett W Kenyon | 2 |
| 10943 | BTEX 8260B Water | SW-846 8260B | 1 | Z140861AA | 03/28/2014 00:48 | Brett W Kenyon | 20 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | Z140861AA | 03/28/2014 00:23 | Brett W Kenyon | 2 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 2 | Z140861AA | 03/28/2014 00:48 | Brett W Kenyon | 20 |
| 01728 | TPH-GRO N. CA water C6-C12 | SW-846 8015B | 1 | 14087A20A | 03/31/2014 17:54 | Laura M Krieger | 10 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14087A20A | 03/31/2014 17:54 | Laura M Krieger | 10 |
| 07105 | Volatile Headspace Hydrocarbon | SW-846 8015B modified | 1 | 140870022A | 03/29/2014 00:34 | Nicholas R Rossi | 20 |
| 00368 | Nitrate Nitrogen | EPA 300.0 | 1 | 14085347901B | 03/26/2014 14:11 | Sandra J Miller | 5 |
| 00228 | Sulfate | EPA 300.0 | 1 | 14085347901B | 03/26/2014 14:11 | Sandra J Miller | 5 |

**Sample Description:** MW-X Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7406142**
**LL Group # 1461943**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/21/2014 09:48 by JQ

Submitted: 03/25/2014 09:50
Reported: 04/02/2014 20:27

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUN-X

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **GC/MS Volatiles** | **SW-846 8260B** | | **ug/l** | **ug/l** | |
| 10943 | Benzene | 71-43-2 | N.D. | 0.5 | 1 |
| 10943 | Ethylbenzene | 100-41-4 | 9 | 0.5 | 1 |
| 10943 | Toluene | 108-88-3 | 0.7 | 0.5 | 1 |
| 10943 | Xylene (Total) | 1330-20-7 | 30 | 0.5 | 1 |
| **GC Volatiles** | **SW-846 8015B** | | **ug/l** | **ug/l** | |
| 01728 | TPH-GRO N. CA water C6-C12 | n.a. | 2,300 | 50 | 1 |
| **GC Miscellaneous** | **SW-846 8015B modified** | | **ug/l** | **ug/l** | |
| 07105 | Methane | 74-82-8 | 48 | 3.0 | 1 |
| **Wet Chemistry** | **EPA 300.0** | | **ug/l** | **ug/l** | |
| 00368 | Nitrate Nitrogen | 14797-55-8 | 10,400 | 250 | 5 |
| | The holding time was not met. The sample was submitted to the laboratory outside of the holding time. | | | | |
| 00228 | Sulfate | 14808-79-8 | 56,200 | 1,500 | 5 |

## 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 | Z140861AA | 03/28/2014 01:12 | Brett W Kenyon | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | Z140861AA | 03/28/2014 01:12 | Brett W Kenyon | 1 |
| 01728 | TPH-GRO N. CA water C6-C12 | SW-846 8015B | 1 | 14087A20A | 03/31/2014 17:05 | Laura M Krieger | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14087A20A | 03/31/2014 17:05 | Laura M Krieger | 1 |
| 07105 | Volatile Headspace Hydrocarbon | SW-846 8015B modified | 1 | 140870022A | 03/28/2014 20:08 | Nicholas R Rossi | 1 |
| 00368 | Nitrate Nitrogen | EPA 300.0 | 1 | 14085347901B | 03/26/2014 13:06 | Sandra J Miller | 5 |
| 00228 | Sulfate | EPA 300.0 | 1 | 14085347901B | 03/26/2014 13:06 | Sandra J Miller | 5 |

**Sample Description:** Trip Blank 2 NA Water
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7406143**
**LL Group # 1461943**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/21/2014

Submitted: 03/25/2014 09:50
Reported: 04/02/2014 20:27

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUN-T

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **GC/MS Volatiles** | **SW-846 8260B** | | **ug/l** | **ug/l** | |
| 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 |
| **GC Volatiles** | **SW-846 8015B** | | **ug/l** | **ug/l** | |
| 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 | Z140861AA | 03/27/2014 19:07 | Brett W Kenyon | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | Z140861AA | 03/27/2014 19:07 | Brett W Kenyon | 1 |
| 01728 | TPH-GRO N. CA water C6-C12 | SW-846 8015B | 1 | 14087A20A | 03/31/2014 10:12 | Laura M Krieger | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14087A20A | 03/31/2014 10:12 | Laura M Krieger | 1 |

# Quality Control Summary

Client Name: Chevron Pipeline Co. Group Number: 1461943
Reported: 04/02/14 at 08:27 PM

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

| Analysis Name | Blank Result | Blank MDL | Report Units | LCS %REC | LCSD %REC | LCS/LCSD Limits | RPD | RPD Max |
|---|---|---|---|---|---|---|---|---|
| Batch number: F140872AA | Sample number(s): 7406139-7406140 | | | | | | | |
| Benzene | N.D. | 0.5 | ug/l | 101 | | 78-120 | | |
| Ethylbenzene | N.D. | 0.5 | ug/l | 105 | | 79-120 | | |
| Toluene | N.D. | 0.5 | ug/l | 111 | | 80-120 | | |
| Xylene (Total) | N.D. | 0.5 | ug/l | 100 | | 80-120 | | |
| Batch number: Z140861AA | Sample number(s): 7406138,7406141-7406143 | | | | | | | |
| Benzene | N.D. | 0.5 | ug/l | 97 | | 78-120 | | |
| Ethylbenzene | N.D. | 0.5 | ug/l | 100 | | 79-120 | | |
| Toluene | N.D. | 0.5 | ug/l | 99 | | 80-120 | | |
| Xylene (Total) | N.D. | 0.5 | ug/l | 100 | | 80-120 | | |
| Batch number: 14087A20A | Sample number(s): 7406138-7406143 | | | | | | | |
| TPH-GRO N. CA water C6-C12 | N.D. | 50. | ug/l | 113 | 117 | 80-139 | 3 | 30 |
| Batch number: 140870022A | Sample number(s): 7406138-7406142 | | | | | | | |
| Methane | N.D. | 3.0 | ug/l | 102 | | 80-120 | | |
| Batch number: 14085347901A | Sample number(s): 7406138-7406139 | | | | | | | |
| Nitrate Nitrogen | N.D. | 50. | ug/l | 104 | | 90-110 | | |
| Sulfate | N.D. | 300. | ug/l | 101 | | 90-110 | | |
| Batch number: 14085347901B | Sample number(s): 7406140-7406142 | | | | | | | |
| Nitrate Nitrogen | N.D. | 50. | ug/l | 104 | | 90-110 | | |
| Sulfate | N.D. | 300. | ug/l | 101 | | 90-110 | | |

## 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

| Analysis Name | MS %REC | MSD %REC | MS/MSD Limits | RPD | RPD MAX | BKG Conc | DUP Conc | DUP RPD | Dup RPD Max |
|---|---|---|---|---|---|---|---|---|---|
| Batch number: F140872AA | Sample number(s): 7406139-7406140 UNSPK: P405700 | | | | | | | | |
| Benzene | 107 | 104 | 72-134 | 3 | 30 | | | | |
| Ethylbenzene | 109 | 108 | 71-134 | 0 | 30 | | | | |
| Toluene | 111 | 109 | 80-125 | 2 | 30 | | | | |
| Xylene (Total) | 101 | 101 | 79-125 | 0 | 30 | | | | |
| Batch number: Z140861AA | Sample number(s): 7406138,7406141-7406143 UNSPK: P405709 | | | | | | | | |
| Benzene | 106 | 106 | 72-134 | 0 | 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 Pipeline Co. Group Number: 1461943
Reported: 04/02/14 at 08:27 PM

## 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

| Analysis Name | MS %REC | MSD %REC | MS/MSD Limits | RPD | RPD MAX | BKG Conc | DUP Conc | DUP RPD | Dup RPD Max |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 106 | 108 | 71-134 | 2 | 30 | | | | |
| Toluene | 106 | 107 | 80-125 | 1 | 30 | | | | |
| Xylene (Total) | 107 | 107 | 79-125 | 0 | 30 | | | | |
| Batch number: 140870022A | Sample number(s): 7406138-7406142 UNSPK: P406554 | | | | | | | | |
| Methane | 87 | 81 | 35-157 | 7 | 20 | | | | |
| Batch number: 14085347901A | Sample number(s): 7406138-7406139 UNSPK: P406186 BKG: P406186 | | | | | | | | |
| Nitrate Nitrogen | 102 | | 90-110 | | | 1,500 | 1,400 | 7 (1) | 20 |
| Sulfate | 102 | | 90-110 | | | 13,600 | 14,400 | 5 (1) | 20 |
| Batch number: 14085347901B | Sample number(s): 7406140-7406142 UNSPK: 7406142 BKG: 7406142 | | | | | | | | |
| Nitrate Nitrogen | 100 | | 90-110 | | | 10,400 | 10,400 | 0 | 20 |
| Sulfate | 101 | | 90-110 | | | 56,200 | 56,500 | 1 | 20 |

## 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: F140872AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---|---|---|---|---|
| 7406139 | 90 | 95 | 108 | 106 |
| 7406140 | 91 | 97 | 109 | 105 |
| Blank | 89 | 95 | 109 | 104 |
| LCS | 90 | 98 | 109 | 107 |
| MS | 89 | 99 | 110 | 106 |
| MSD | 90 | 98 | 108 | 107 |
| Limits: | 80-116 | 77-113 | 80-113 | 78-113 |

Analysis Name: UST VOCs by 8260B - Water
Batch number: Z140861AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---|---|---|---|---|
| 7406138 | 101 | 100 | 100 | 102 |
| 7406141 | 101 | 98 | 100 | 103 |
| 7406142 | 100 | 97 | 99 | 101 |
| 7406143 | 100 | 99 | 100 | 101 |
| Blank | 99 | 98 | 99 | 100 |
| LCS | 99 | 99 | 101 | 102 |
| MS | 100 | 101 | 100 | 101 |
| MSD | 99 | 101 | 100 | 100 |
| Limits: | 80-116 | 77-113 | 80-113 | 78-113 |

Analysis Name: TPH-GRO N. CA water C6-C12

*- 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.

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# Quality Control Summary

Client Name: Chevron Pipeline Co. Group Number: 1461943
Reported: 04/02/14 at 08:27 PM

## Surrogate Quality Control

Batch number: 14087A20A

| | Trifluorotoluene-F |
|---|---|
| 7406138 | 91 |
| 7406139 | 99 |
| 7406140 | 91 |
| 7406141 | 100 |
| 7406142 | 98 |
| 7406143 | 92 |
| Blank | 92 |
| LCS | 94 |
| LCSD | 92 |
| Limits: | 63-135 |

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 140870022A

| | Propene |
|---|---|
| 7406138 | 74 |
| 7406139 | 73 |
| 7406140 | 71 |
| 7406141 | 89 |
| 7406142 | 78 |
| Blank | 93 |
| LCS | 96 |
| MS | 86 |
| MSD | 82 |
| Limits: | 42-131 |

*- 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 Generic Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories #3 24MAR14

Ø32414-Ø2

Acct. # 11875 | For Lancaster Laboratories use only Group # 1461943 Sample # 7406138-43

Instructions on reverse side correspond with circled numbers.

**1 Client Information**

Facility # | WBS

Site Address: Milepost 2.7 Calaveras Rd Sunol CA

Chevron PM: Steve Gwin | Lead Consultant: URS ~~Consultant~~ Corp

Consultant/Office: Oakland, CA

Consultant Project Mgr.: Jee Morgan

Consultant Phone #: 510-874-3201

Sampler: Jeremy Quick, Vicky Wiraatmadja

**2 Sample Identification**

**3** Collected (Date / Time) | Grab | Composite

**4 Matrix**: Soil | Sediment | Water: Potable, Ground, NPDES, Surface | Oil | Air

**5 Analyses Requested**

Total Number of Containers | BTEX + ~~MTBE~~ | 8021 | 8260 | Naphth | 8260 full scan | Oxygenates ____ | TPHG ____ | TPHD ____ | Silica Gel Cleanup | Lead | Total | Diss. | Method ____ | VPH/EPH Method ____ | Methane SW-846 8015 B | Nitrate and sulfate EPA method 3910

| Sample Identification | Collected Date | Collected Time | Grab | Composite | Soil | Sediment | Water: Potable | Water: Ground | Water: NPDES | Water: Surface | Oil | Air | Total Number of Containers | BTEX + ~~MTBE~~ | 8021 | 8260 | Naphth | 8260 full scan | Oxygenates | TPHG | TPHD | Silica Gel Cleanup | Lead | Total | Diss. | Method | VPH/EPH Method | Methane SW-846 8015 B | Nitrate and sulfate EPA method 3910 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-2 | 3/21/14 ~~3/20/14~~ | 0836 | X | | | | | X | | | | 10 | X | | | X | | | | X | | | | | | | X | X |
| MW-9 | | 0943 | X | | | | | X | | | | 10 | X | | | X | | | | X | | | | | | | X | X |
| MW-12 | | 1122 | X | | | | | X | | | | 10 | X | | | X | | | | X | | | | | | | X | X |
| MW-8 | | 1248 | X | | | | | X | | | | 10 | X | | | X | | | | X | | | | | | | X | X |
| MW-X | | 0948 | X | | | | | X | | | | 10 | X | | | X | | | | X | | | | | | | X | X |
| Trip Blank 2 | — | — | | | | | | | | | | 2 | X | | | X | | | | | | | | | | | | |

**6 Remarks**

* The collection date was updated per JM. NM 3/27/14

SCR #: ____

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

**7 Turnaround Time Requested (TAT)** (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

**8 Data Package Options (please circle if required)**

Type I - Full | Type VI (Raw Data) | Alaska/Type III

Same as prior

| | Relinquished by | Date | Time | Received by | Date | Time |
|---|---|---|---|---|---|---|
| 1 | Jeremy Quick | 3/21/2014 | 16:00 | A. Galyan | 24MAR14 | |
| 2 | A. Galyan | 24MAR14 | 1638 | UPS | | |
| 3 | | | | Brian Blue | 3.25.14 | 950 |

Relinquished by Commerical Carrier: UPS X | FedEx ____ | Other ____

Temperature Upon Receipt 0.3.1.2 °C

Custody Seals Intact? Yes | No

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# Explanation of Symbols and Abbreviations

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

| | | | |
|---|---|---|---|
| **RL** | Reporting Limit | **BMQL** | Below Minimum Quantitation Level |
| **N.D.** | none detected | **MPN** | Most Probable Number |
| **TNTC** | Too Numerous To Count | **CP Units** | cobalt-chloroplatinate units |
| **IU** | International Units | **NTU** | nephelometric turbidity units |
| **umhos/cm** | micromhos/cm | **ng** | nanogram(s) |
| **C** | degrees Celsius | **F** | degrees Fahrenheit |
| **meq** | milliequivalents | **lb.** | pound(s) |
| **g** | gram(s) | **kg** | kilogram(s) |
| **µg** | microgram(s) | **mg** | milligram(s) |
| **mL** | milliliter(s) | **L** | liter(s) |
| **m3** | cubic meter(s) | **µL** | microliter(s) |
| | | **pg/L** | 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 ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

*U.S. EPA CLP Data Qualifiers:*

| Organic Qualifiers | | Inorganic Qualifiers | |
|---|---|---|---|
| **A** | TIC is a possible aldol-condensation product | **B** | Value is <CRDL, but ≥IDL |
| **B** | Analyte was also detected in the blank | **E** | Estimated due to interference |
| **C** | Pesticide result confirmed by GC/MS | **M** | Duplicate injection precision not met |
| **D** | Compound quantitated on a diluted sample | **N** | Spike sample not within control limits |
| **E** | Concentration exceeds the calibration range of the instrument | **S** | Method of standard additions (MSA) used for calculation |
| **N** | Presumptive evidence of a compound (TICs only) | **U** | Compound was not detected |
| **P** | Concentration difference between primary and confirmation columns >25% | **W** | Post digestion spike out of control limits |
| **U** | Compound was not detected | ***** | Duplicate analysis not within control limits |
| **X,Y,Z** | Defined in case narrative | **+** | 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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

April 02, 2014

Project: MP 2.7

Submittal Date: 03/22/2014
Group Number: 1461411
PO Number: 0015075159
Release Number: GWIN
State of Sample Origin: CA

| Client Sample Description | Lancaster Labs (LL) # |
|---|---|
| MW-2 Grab Groundwater | 7403887 |
| MW-2 Filtered Grab Groundwater | 7403888 |
| MW-9 Grab Groundwater | 7403889 |
| MW-9 Filtered Grab Groundwater | 7403890 |
| MW-12 Grab Groundwater | 7403891 |
| MW-12 Filtered Grab Groundwater | 7403892 |
| MW-8 Grab Groundwater | 7403893 |
| MW-8 Filtered Grab Groundwater | 7403894 |
| MW-X Grab Groundwater | 7403895 |
| MW-X Filtered Grab Groundwater | 7403896 |

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

| | | |
|---|---|---|
| ELECTRONIC COPY TO | URS | Attn: Rachel Naccarati |
| ELECTRONIC COPY TO | URS Corporation | Attn: Christine Pilachowski |
| ELECTRONIC COPY TO | URS | Attn: Jeremy Quick |

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

**Sample Description:** MW-2 Grab Groundwater
NA URSO
MP 2.7 SL0600100443

**LL Sample # WW 7403887**
**LL Group # 1461411**
**Account # 11875**

**Project Name: MP 2.7**

Collected: 03/20/2014 08:36 by JQ

Submitted: 03/22/2014 09:30
Reported: 04/02/2014 15:23

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals** | **SW-846 6010B** | | **ug/l** | **ug/l** | |
| 07058 | Manganese | 7439-96-5 | 177 | 0.83 | 1 |
| **Wet Chemistry** | **SM 2320 B-1997** | | **ug/l as CaCO3** | **ug/l as CaCO3** | |
| 12150 | Total Alkalinity | n.a. | 417,000 | 700 | 1 |
| 12707 | Phenolphthalein Alkalinity | n.a. | N.D. | 700 | 1 |
| | **SM 2540 C-1997** | | **ug/l** | **ug/l** | |
| 00212 | Total Dissolved Solids | n.a. | 685,000 | 19,400 | 1 |
| | **SM 3500-Fe B modified-1997** | | **ug/l** | **ug/l** | |
| 08344 | Ferrous Iron | n.a. | 860 | 20 | 2 |

## 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 |
|---|---|---|---|---|---|---|---|
| 07058 | Manganese | SW-846 6010B | 1 | 140861848004 | 04/01/2014 06:10 | Tara L Snyder | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140861848004 | 03/28/2014 11:18 | Micaela L Dishong | 1 |
| 12150 | Total Alkalinity | SM 2320 B-1997 | 1 | 14083003206A | 03/25/2014 06:14 | Michele L Graham | 1 |
| 12707 | Phenolphthalein Alkalinity | SM 2320 B-1997 | 1 | 14083003206A | 03/25/2014 06:14 | Michele L Graham | 1 |
| 00212 | Total Dissolved Solids | SM 2540 C-1997 | 1 | 14085021202B | 03/26/2014 07:50 | Noah M Rainbow | 1 |
| 08344 | Ferrous Iron | SM 3500-Fe B modified-1997 | 1 | 14085834401A | 03/26/2014 18:50 | Daniel S Smith | 2 |

**Sample Description:** MW-2 Filtered Grab Groundwater
NA URSO
MP 2.7 SL0600100443

**LL Sample # WW 7403888**
**LL Group # 1461411**
**Account # 11875**

**Project Name: MP 2.7**

Collected: 03/20/2014 08:36 by JQ

Submitted: 03/22/2014 09:30
Reported: 04/02/2014 15:23

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals Dissolved** | **SW-846 6010B** | | ug/l | ug/l | |
| 01754 | Iron | 7439-89-6 | N.D. | 43.0 | 1 |

## General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
This sample was filtered in the lab for dissolved metals.

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 |
|---|---|---|---|---|---|---|---|
| 01754 | Iron | SW-846 6010B | 1 | 140861848004 | 04/01/2014 05:47 | Tara L Snyder | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140861848004 | 03/28/2014 11:18 | Micaela L Dishong | 1 |

**Sample Description:** MW-9 Grab Groundwater
NA URSO
MP 2.7 SL0600100443

**LL Sample # WW 7403889**
**LL Group # 1461411**
**Account # 11875**

**Project Name: MP 2.7**

Collected: 03/20/2014 09:43 by JQ

Submitted: 03/22/2014 09:30
Reported: 04/02/2014 15:23

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals** | **SW-846 6010B** | | **ug/l** | **ug/l** | |
| 07058 | Manganese | 7439-96-5 | 178 | 0.83 | 1 |
| **Wet Chemistry** | **SM 2320 B-1997** | | **ug/l as CaCO3** | **ug/l as CaCO3** | |
| 12150 | Total Alkalinity | n.a. | 409,000 | 700 | 1 |
| 12707 | Phenolphthalein Alkalinity | n.a. | N.D. | 700 | 1 |
| | **SM 2540 C-1997** | | **ug/l** | **ug/l** | |
| 00212 | Total Dissolved Solids | n.a. | 646,000 | 19,400 | 1 |
| | **SM 3500-Fe B modified-1997** | | **ug/l** | **ug/l** | |
| 08344 | Ferrous Iron | n.a. | 150 | 10 | 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 |
|---|---|---|---|---|---|---|---|
| 07058 | Manganese | SW-846 6010B | 1 | 140861848004 | 04/01/2014 06:14 | Tara L Snyder | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140861848004 | 03/28/2014 11:18 | Micaela L Dishong | 1 |
| 12150 | Total Alkalinity | SM 2320 B-1997 | 1 | 14083003206A | 03/25/2014 06:06 | Michele L Graham | 1 |
| 12707 | Phenolphthalein Alkalinity | SM 2320 B-1997 | 1 | 14083003206A | 03/25/2014 06:06 | Michele L Graham | 1 |
| 00212 | Total Dissolved Solids | SM 2540 C-1997 | 1 | 14085021202B | 03/26/2014 07:50 | Noah M Rainbow | 1 |
| 08344 | Ferrous Iron | SM 3500-Fe B modified-1997 | 1 | 14085834401A | 03/26/2014 18:50 | Daniel S Smith | 1 |

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# Analysis Report

**Sample Description:** MW-9 Filtered Grab Groundwater
NA URSO
MP 2.7 SL0600100443

**LL Sample # WW 7403890**
**LL Group # 1461411**
**Account # 11875**

**Project Name: MP 2.7**

Collected: 03/20/2014 09:43 by JQ

Submitted: 03/22/2014 09:30
Reported: 04/02/2014 15:23

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals Dissolved** | **SW-846 6010B** | | ug/l | ug/l | |
| 01754 | Iron | 7439-89-6 | 86.8 | 43.0 | 1 |

## General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
This sample was filtered in the lab for dissolved metals.

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 |
|---|---|---|---|---|---|---|---|
| 01754 | Iron | SW-846 6010B | 1 | 140861848004 | 04/01/2014 06:25 | Tara L Snyder | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140861848004 | 03/28/2014 11:18 | Micaela L Dishong | 1 |

**Sample Description:** MW-12 Grab Groundwater
NA URSO
MP 2.7 SL0600100443

**LL Sample # WW 7403891**
**LL Group # 1461411**
**Account # 11875**

**Project Name: MP 2.7**

Collected: 03/20/2014 11:22 by JQ

Submitted: 03/22/2014 09:30
Reported: 04/02/2014 15:23

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals** | **SW-846 6010B** | | **ug/l** | **ug/l** | |
| 07058 | Manganese | 7439-96-5 | 244 | 0.83 | 1 |
| **Wet Chemistry** | **SM 2320 B-1997** | | **ug/l as CaCO3** | **ug/l as CaCO3** | |
| 12150 | Total Alkalinity | n.a. | 392,000 | 700 | 1 |
| 12707 | Phenolphthalein Alkalinity | n.a. | N.D. | 700 | 1 |
| | **SM 2540 C-1997** | | **ug/l** | **ug/l** | |
| 00212 | Total Dissolved Solids | n.a. | 560,000 | 38,800 | 1 |
| | **SM 3500-Fe B modified-1997** | | **ug/l** | **ug/l** | |
| 08344 | Ferrous Iron | n.a. | 240 | 10 | 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 |
|---|---|---|---|---|---|---|---|
| 07058 | Manganese | SW-846 6010B | 1 | 140861848004 | 04/01/2014 06:29 | Tara L Snyder | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140861848004 | 03/28/2014 11:18 | Micaela L Dishong | 1 |
| 12150 | Total Alkalinity | SM 2320 B-1997 | 1 | 14083003206A | 03/25/2014 03:49 | Michele L Graham | 1 |
| 12707 | Phenolphthalein Alkalinity | SM 2320 B-1997 | 1 | 14083003206A | 03/25/2014 03:49 | Michele L Graham | 1 |
| 00212 | Total Dissolved Solids | SM 2540 C-1997 | 1 | 14085021202B | 03/26/2014 07:50 | Noah M Rainbow | 1 |
| 08344 | Ferrous Iron | SM 3500-Fe B modified-1997 | 1 | 14085834401A | 03/26/2014 18:50 | Daniel S Smith | 1 |

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# Analysis Report

**Sample Description:** MW-12 Filtered Grab Groundwater
NA URSO
MP 2.7 SL0600100443

**LL Sample # WW 7403892**
**LL Group # 1461411**
**Account # 11875**

**Project Name: MP 2.7**

Collected: 03/20/2014 11:22 by JQ

Submitted: 03/22/2014 09:30
Reported: 04/02/2014 15:23

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals Dissolved** | **SW-846 6010B** | | ug/l | ug/l | |
| 01754 | Iron | 7439-89-6 | N.D. | 43.0 | 1 |

## General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
This sample was filtered in the lab for dissolved metals.

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 |
|---|---|---|---|---|---|---|---|
| 01754 | Iron | SW-846 6010B | 1 | 140861848004 | 04/01/2014 06:33 | Tara L Snyder | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140861848004 | 03/28/2014 11:18 | Micaela L Dishong | 1 |

**Sample Description:** MW-8 Grab Groundwater
NA URSO
MP 2.7 SL0600100443

**LL Sample # WW 7403893**
**LL Group # 1461411**
**Account # 11875**

**Project Name: MP 2.7**

Collected: 03/20/2014 12:48 by JQ

Submitted: 03/22/2014 09:30
Reported: 04/02/2014 15:23

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals** | **SW-846 6010B** | | **ug/l** | **ug/l** | |
| 07058 | Manganese | 7439-96-5 | 404 | 0.83 | 1 |
| **Wet Chemistry** | **SM 2320 B-1997** | | **ug/l as CaCO3** | **ug/l as CaCO3** | |
| 12150 | Total Alkalinity | n.a. | 512,000 | 700 | 1 |
| 12707 | Phenolphthalein Alkalinity | n.a. | N.D. | 700 | 1 |
| | **SM 2540 C-1997** | | **ug/l** | **ug/l** | |
| 00212 | Total Dissolved Solids | n.a. | 628,000 | 19,400 | 1 |
| | **SM 3500-Fe B modified-1997** | | **ug/l** | **ug/l** | |
| 08344 | Ferrous Iron | n.a. | 2,000 | 50 | 5 |

## 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 |
|---|---|---|---|---|---|---|---|
| 07058 | Manganese | SW-846 6010B | 1 | 140861848004 | 04/01/2014 06:37 | Tara L Snyder | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140861848004 | 03/28/2014 11:18 | Micaela L Dishong | 1 |
| 12150 | Total Alkalinity | SM 2320 B-1997 | 1 | 14087003101A | 03/28/2014 13:59 | Kenneth A Bell | 1 |
| 12707 | Phenolphthalein Alkalinity | SM 2320 B-1997 | 1 | 14087003101A | 03/28/2014 13:59 | Kenneth A Bell | 1 |
| 00212 | Total Dissolved Solids | SM 2540 C-1997 | 1 | 14085021202B | 03/26/2014 07:50 | Noah M Rainbow | 1 |
| 08344 | Ferrous Iron | SM 3500-Fe B modified-1997 | 1 | 14085834401A | 03/26/2014 18:50 | Daniel S Smith | 5 |

**Sample Description:** MW-8 Filtered Grab Groundwater
NA URSO
MP 2.7 SL0600100443

**LL Sample # WW 7403894**
**LL Group # 1461411**
**Account # 11875**

**Project Name: MP 2.7**

Collected: 03/20/2014 12:48 by JQ

Submitted: 03/22/2014 09:30
Reported: 04/02/2014 15:23

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals Dissolved** | **SW-846 6010B** | | ug/l | ug/l | |
| 01754 | Iron | 7439-89-6 | 78.7 | 43.0 | 1 |

## General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
This sample was filtered in the lab for dissolved metals.

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 |
|---|---|---|---|---|---|---|---|
| 01754 | Iron | SW-846 6010B | 1 | 140861848004 | 04/01/2014 06:41 | Tara L Snyder | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140861848004 | 03/28/2014 11:18 | Micaela L Dishong | 1 |

**Sample Description:** MW-X Grab Groundwater
NA URSO
MP 2.7 SL0600100443

**LL Sample # WW 7403895**
**LL Group # 1461411**
**Account # 11875**

**Project Name: MP 2.7**

Collected: 03/20/2014 09:48 by JQ

Submitted: 03/22/2014 09:30
Reported: 04/02/2014 15:23

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals** | **SW-846 6010B** | | **ug/l** | **ug/l** | |
| 07058 | Manganese | 7439-96-5 | 173 | 0.83 | 1 |
| **Wet Chemistry** | **SM 2320 B-1997** | | **ug/l as CaCO3** | **ug/l as CaCO3** | |
| 12150 | Total Alkalinity | n.a. | 409,000 | 700 | 1 |
| 12707 | Phenolphthalein Alkalinity | n.a. | N.D. | 700 | 1 |
| | **SM 2540 C-1997** | | **ug/l** | **ug/l** | |
| 00212 | Total Dissolved Solids | n.a. | 628,000 | 19,400 | 1 |
| | **SM 3500-Fe B modified-1997** | | **ug/l** | **ug/l** | |
| 08344 | Ferrous Iron | n.a. | 150 | 10 | 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 |
|---|---|---|---|---|---|---|---|
| 07058 | Manganese | SW-846 6010B | 1 | 140861848004 | 04/01/2014 06:44 | Tara L Snyder | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140861848004 | 03/28/2014 11:18 | Micaela L Dishong | 1 |
| 12150 | Total Alkalinity | SM 2320 B-1997 | 1 | 14083003206A | 03/25/2014 03:56 | Michele L Graham | 1 |
| 12707 | Phenolphthalein Alkalinity | SM 2320 B-1997 | 1 | 14083003206A | 03/25/2014 03:56 | Michele L Graham | 1 |
| 00212 | Total Dissolved Solids | SM 2540 C-1997 | 1 | 14085021202B | 03/26/2014 07:50 | Noah M Rainbow | 1 |
| 08344 | Ferrous Iron | SM 3500-Fe B modified-1997 | 1 | 14085834401A | 03/26/2014 18:50 | Daniel S Smith | 1 |

**Sample Description:** MW-X Filtered Grab Groundwater
NA URSO
MP 2.7 SL0600100443

**LL Sample # WW 7403896**
**LL Group # 1461411**
**Account # 11875**

**Project Name: MP 2.7**

Collected: 03/20/2014 09:48 by JQ

Submitted: 03/22/2014 09:30
Reported: 04/02/2014 15:23

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals Dissolved** | **SW-846 6010B** | | ug/l | ug/l | |
| 01754 | Iron | 7439-89-6 | 80.1 | 43.0 | 1 |

## General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
This sample was filtered in the lab for dissolved metals.

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 |
|---|---|---|---|---|---|---|---|
| 01754 | Iron | SW-846 6010B | 1 | 140861848004 | 04/01/2014 06:48 | Tara L Snyder | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140861848004 | 03/28/2014 11:18 | Micaela L Dishong | 1 |

# Quality Control Summary

Client Name: Chevron Pipeline Co. Group Number: 1461411
Reported: 04/02/14 at 03:23 PM

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

| Analysis Name | Blank Result | Blank MDL | Report Units | LCS %REC | LCSD %REC | LCS/LCSD Limits | RPD | RPD Max |
|---|---|---|---|---|---|---|---|---|
| Batch number: 140861848004 | Sample number(s): 7403887-7403896 | | | | | | | |
| Iron | N.D. | 43.0 | ug/l | 106 | | 90-112 | | |
| Manganese | 2.4 | 0.83 | ug/l | 103 | | 90-110 | | |
| Batch number: 14083003206A | Sample number(s): 7403887,7403889,7403891,7403895 | | | | | | | |
| Total Alkalinity | N.D. | 700. | ug/l as CaCO3 | 100 | | 90-110 | | |
| Batch number: 14085021202B | Sample number(s): 7403887,7403889,7403891,7403893,7403895 | | | | | | | |
| Total Dissolved Solids | N.D. | 9,700. | ug/l | 100 | | 80-120 | | |
| Batch number: 14085834401A | Sample number(s): 7403887,7403889,7403891,7403893,7403895 | | | | | | | |
| Ferrous Iron | N.D. | 10. | ug/l | 100 | | 93-105 | | |
| Batch number: 14087003101A | Sample number(s): 7403893 | | | | | | | |
| Total Alkalinity | N.D. | 700. | ug/l as CaCO3 | 97 | | 90-110 | | |

## 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

| Analysis Name | MS %REC | MSD %REC | MS/MSD Limits | RPD | RPD MAX | BKG Conc | DUP Conc | DUP RPD | Dup RPD Max |
|---|---|---|---|---|---|---|---|---|---|
| Batch number: 140861848004 | Sample number(s): 7403887-7403896 UNSPK: 7403888 BKG: 7403888 | | | | | | | | |
| Iron | 113 | 106 | 75-125 | 6 | 20 | N.D. | N.D. | 0 (1) | 20 |
| Manganese | 104 | 103 | 75-125 | 0 | 20 | 66.8 | 69.6 | 4 | 20 |
| Batch number: 14083003206A | Sample number(s): 7403887,7403889,7403891,7403895 UNSPK: P399801 BKG: P399801 | | | | | | | | |
| Total Alkalinity | 95 | 99 | 10-159 | 2 | 5 | 211,000 | 211,000 | 0 | 5 |
| Phenolphthalein Alkalinity | | | | | | N.D. | N.D. | 0 (1) | 5 |
| Batch number: 14085021202B | Sample number(s): 7403887,7403889,7403891,7403893,7403895 UNSPK: P403270 BKG: 7403891 | | | | | | | | |
| Total Dissolved Solids | 104 | | 51-144 | | | 560,000 | 580,000 | 4 (1) | 5 |
| Batch number: 14085834401A | Sample number(s): 7403887,7403889,7403891,7403893,7403895 UNSPK: P403911 BKG: P403911 | | | | | | | | |
| Ferrous Iron | 94 | 96 | 81-112 | 1 | 6 | 21,800 | 22,600 | 4 (1) | 5 |

*- 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.

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# Quality Control Summary

Client Name: Chevron Pipeline Co. Group Number: 1461411
Reported: 04/02/14 at 03:23 PM

## 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

| Analysis Name | MS %REC | MSD %REC | MS/MSD Limits | RPD | RPD MAX | BKG Conc | DUP Conc | DUP RPD | Dup RPD Max |
|---|---|---|---|---|---|---|---|---|---|
| Batch number: 14087003101A | Sample number(s): 7403893 | | | UNSPK: P407396 | | BKG: P407396 | | | |
| Total Alkalinity | 87 | 87 | 10-159 | 0 | 5 | 119,000 | 118,000 | 1 | 5 |
| Phenolphthalein Alkalinity | | | | | | N.D. | N.D. | 0 (1) | 5 |

*- 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 Generic Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11875 Group # 1461411 Sample # 7403887-96

For Lancaster Laboratories use only

Instructions on reverse side correspond with circled numbers.

**1 Client Information**

Facility # | WBS

Site Address: Milepost 2.7 Calaveras Rd

Chevron PM: Steve Gwin | Lead Consultant: URS Corporation

Consultant/Office: Oakland, CA

Consultant Project Mgr.: Joe Morgan

Consultant Phone #: 510-874-~~3866~~ 3201 NW

Sampler: Jeremy Quick, Vicky Wiraatmadja

**4 Matrix**

Soil ☐ | Sediment ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Oil ☐ | Air ☐

**5 Analyses Requested**

| 2 Sample Identification | Collected Date | Collected Time | 3 Grab | Composite | Total Number of Containers | BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☐ | 8260 full scan | Oxygenates ___ | TPHG ___ | Silica Gel Cleanup ☐ TPHD ___ | Diss. ☐ Total ☐ Lead ☐ Method ___ | VPH/EPH Method ___ | Manganese SW-846 6010 B | TDS SM 2540 C | Alkalinity SM 2320B | dissolved iron SW-846 6010 B | ferrous iron SM 20 3500 Fe B mod |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-2 | 3/20/14 | 0836 | X | | 5 | | | | | | | | X | X | X | X | X |
| MW-9 | | 0943 | X | | 5 | | | | | | | | X | X | X | X | X |
| MW-12 | | 1122 | X | | 5 | | | | | | | | X | X | X | X | X |
| MW-8 | | 1248 | X | | 5 | | | | | | | | X | X | X | X | X |
| MW-X | | 0948 | X | | 5 | | | | | | | | X | X | X | X | X |

SCR #: ___

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

**6 Remarks**

**7 Turnaround Time Requested (TAT)** (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

**8 Data Package Options (please circle if required)**

Type I - Full | Type VI (Raw Data) | Alaska/Type III

Same as prior

| Relinquished by | Date | Time | Received by | Date | Time |
|---|---|---|---|---|---|
| Jeremy | 03/21/2014 | 16:00 | | | |
| | | | | | |

Relinquished by Commerical Carrier: UPS X FedEx ___ Other ___

Temperature Upon Receipt 10 °C

Received by | Date 3/22/14 | Time 0900 3/22/14 ~~0915~~ 0930

Custody Seals Intact? Yes No

**9**

# Explanation of Symbols and Abbreviations

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

| | | | |
|---|---|---|---|
| **RL** | Reporting Limit | **BMQL** | Below Minimum Quantitation Level |
| **N.D.** | none detected | **MPN** | Most Probable Number |
| **TNTC** | Too Numerous To Count | **CP Units** | cobalt-chloroplatinate units |
| **IU** | International Units | **NTU** | nephelometric turbidity units |
| **umhos/cm** | micromhos/cm | **ng** | nanogram(s) |
| **C** | degrees Celsius | **F** | degrees Fahrenheit |
| **meq** | milliequivalents | **lb.** | pound(s) |
| **g** | gram(s) | **kg** | kilogram(s) |
| **µg** | microgram(s) | **mg** | milligram(s) |
| **mL** | milliliter(s) | **L** | liter(s) |
| **m3** | cubic meter(s) | **µL** | microliter(s) |
| | | **pg/L** | 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 ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

*U.S. EPA CLP Data Qualifiers:*

| Organic Qualifiers | | Inorganic Qualifiers | |
|---|---|---|---|
| **A** | TIC is a possible aldol-condensation product | **B** | Value is <CRDL, but ≥IDL |
| **B** | Analyte was also detected in the blank | **E** | Estimated due to interference |
| **C** | Pesticide result confirmed by GC/MS | **M** | Duplicate injection precision not met |
| **D** | Compound quantitated on a diluted sample | **N** | Spike sample not within control limits |
| **E** | Concentration exceeds the calibration range of the instrument | **S** | Method of standard additions (MSA) used for calculation |
| **N** | Presumptive evidence of a compound (TICs only) | **U** | Compound was not detected |
| **P** | Concentration difference between primary and confirmation columns >25% | **W** | Post digestion spike out of control limits |
| **U** | Compound was not detected | ***** | Duplicate analysis not within control limits |
| **X,Y,Z** | Defined in case narrative | **+** | 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.

# ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

April 01, 2014

Project: Sunol, CA

Submittal Date: 03/21/2014
Group Number: 1461133
PO Number: 0015075159
Release Number: GWIN
State of Sample Origin: CA

| Client Sample Description | Lancaster Labs (LL) # |
|---|---|
| MW-1 Grab Groundwater | 7402100 |
| MW-1 Filtered Grab Groundwater | 7402101 |
| MW-4 Grab Groundwater | 7402102 |
| MW-4 Filtered Grab Groundwater | 7402103 |
| MW-3 Grab Groundwater | 7402104 |
| MW-3 Filtered Grab Groundwater | 7402105 |
| MW-10 Grab Groundwater | 7402106 |
| MW-10 Filtered Grab Groundwater | 7402107 |
| MW-11 Grab Groundwater | 7402108 |
| MW-11 Filtered Grab Groundwater | 7402109 |
| Equip Blank Grab Water | 7402110 |
| Trip Blank NA Water | 7402111 |
| Stream Grab Groundwater | 7402112 |

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

| | | |
|---|---|---|
| ELECTRONIC COPY TO | URS | Attn: Rachel Naccarati |
| ELECTRONIC COPY TO | URS Corporation | Attn: Christine Pilachowski |
| ELECTRONIC COPY TO | URS | Attn: Jeremy Quick |

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

**Sample Description:** MW-1 Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7402100**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 12:25 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUNM1

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **GC/MS Volatiles** | **SW-846 8260B** | | **ug/l** | **ug/l** | |
| 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 |
| **GC Volatiles** | **SW-846 8015B** | | **ug/l** | **ug/l** | |
| 01728 | TPH-GRO N. CA water C6-C12 | n.a. | 490 | 50 | 1 |
| **GC Miscellaneous** | **SW-846 8015B modified** | | **ug/l** | **ug/l** | |
| 07105 | Methane | 74-82-8 | 6.4 | 3.0 | 1 |
| **Metals** | **SW-846 6010B** | | **ug/l** | **ug/l** | |
| 07058 | Manganese | 7439-96-5 | 297 | 0.83 | 1 |
| **Wet Chemistry** | **EPA 300.0** | | **ug/l** | **ug/l** | |
| 00368 | Nitrate Nitrogen | 14797-55-8 | 13,200 | 250 | 5 |
| 00228 | Sulfate | 14808-79-8 | 72,000 | 1,500 | 5 |
| | **SM 2320 B-1997** | | **ug/l as CaCO3** | **ug/l as CaCO3** | |
| 12150 | Total Alkalinity | n.a. | 397,000 | 700 | 1 |
| 12707 | Phenolphthalein Alkalinity | n.a. | N.D. | 700 | 1 |
| | **SM 2540 C-1997** | | **ug/l** | **ug/l** | |
| 00212 | Total Dissolved Solids | n.a. | 638,000 | 19,400 | 1 |
| | **SM 3500-Fe B modified-1997** | | **ug/l** | **ug/l** | |
| 08344 | Ferrous Iron | n.a. | 140 | 10 | 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 | F140852AA | 03/26/2014 07:44 | Anita M Dale | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | F140852AA | 03/26/2014 07:44 | Anita M Dale | 1 |
| 01728 | TPH-GRO N. CA water C6-C12 | SW-846 8015B | 1 | 14084A20A | 03/26/2014 15:44 | Laura M Krieger | 1 |

**Sample Description:** **MW-1 Grab Groundwater**
**NA URSO**
**Sunol Pipeline SL0600100443**

**LL Sample # WW 7402100**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 12:25 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUNM1

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---|---|---|---|---|---|---|---|
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14084A20A | 03/26/2014 15:44 | Laura M Krieger | 1 |
| 07105 | Volatile Headspace Hydrocarbon | SW-846 8015B modified | 1 | 140860032A | 03/27/2014 17:33 | Elizabeth J Marin | 1 |
| 07058 | Manganese | SW-846 6010B | 1 | 140831848005 | 03/31/2014 10:06 | Eric L Eby | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140831848005 | 03/25/2014 12:20 | Micaela L Dishong | 1 |
| 00368 | Nitrate Nitrogen | EPA 300.0 | 1 | 14080347601B | 03/22/2014 01:25 | Sandra J Miller | 5 |
| 00228 | Sulfate | EPA 300.0 | 1 | 14080347601B | 03/22/2014 01:25 | Sandra J Miller | 5 |
| 12150 | Total Alkalinity | SM 2320 B-1997 | 1 | 14083003204A | 03/24/2014 21:34 | Michele L Graham | 1 |
| 12707 | Phenolphthalein Alkalinity | SM 2320 B-1997 | 1 | 14083003204A | 03/24/2014 21:34 | Michele L Graham | 1 |
| 00212 | Total Dissolved Solids | SM 2540 C-1997 | 1 | 14084021204A | 03/25/2014 10:37 | Yolunder Y Bunch | 1 |
| 08344 | Ferrous Iron | SM 3500-Fe B modified-1997 | 1 | 14083834401A | 03/24/2014 20:20 | Daniel S Smith | 1 |

**Sample Description:** MW-1 Filtered Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7402101**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 12:25 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals Dissolved** | **SW-846 6010B** | | ug/l | ug/l | |
| 01754 | Iron | 7439-89-6 | N.D. | 43.0 | 1 |

## General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
This sample was filtered in the lab for dissolved metals.

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 |
|---|---|---|---|---|---|---|---|
| 01754 | Iron | SW-846 6010B | 1 | 140831848005 | 03/31/2014 10:10 | Eric L Eby | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140831848005 | 03/25/2014 12:20 | Micaela L Dishong | 1 |

**Sample Description:** MW-4 Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7402102**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 13:46 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUNM4

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **GC/MS Volatiles** | **SW-846 8260B** | | **ug/l** | **ug/l** | |
| 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 |
| **GC Volatiles** | **SW-846 8015B** | | **ug/l** | **ug/l** | |
| 01728 | TPH-GRO N. CA water C6-C12 | n.a. | N.D. | 50 | 1 |
| **GC Miscellaneous** | **SW-846 8015B modified** | | **ug/l** | **ug/l** | |
| 07105 | Methane | 74-82-8 | N.D. | 3.0 | 1 |
| **Metals** | **SW-846 6010B** | | **ug/l** | **ug/l** | |
| 07058 | Manganese | 7439-96-5 | 63.9 | 0.83 | 1 |
| **Wet Chemistry** | **EPA 300.0** | | **ug/l** | **ug/l** | |
| 00368 | Nitrate Nitrogen | 14797-55-8 | 14,000 | 250 | 5 |
| 00228 | Sulfate | 14808-79-8 | 104,000 | 3,000 | 10 |
| | **SM 2320 B-1997** | | **ug/l as CaCO3** | **ug/l as CaCO3** | |
| 12150 | Total Alkalinity | n.a. | 310,000 | 700 | 1 |
| 12707 | Phenolphthalein Alkalinity | n.a. | N.D. | 700 | 1 |
| | **SM 2540 C-1997** | | **ug/l** | **ug/l** | |
| 00212 | Total Dissolved Solids | n.a. | 607,000 | 19,400 | 1 |
| | **SM 3500-Fe B modified-1997** | | **ug/l** | **ug/l** | |
| 08344 | Ferrous Iron | n.a. | 170 | 10 | 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 | F140852AA | 03/26/2014 08:06 | Anita M Dale | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | F140852AA | 03/26/2014 08:06 | Anita M Dale | 1 |
| 01728 | TPH-GRO N. CA water C6-C12 | SW-846 8015B | 1 | 14084A20A | 03/26/2014 16:06 | Laura M Krieger | 1 |

**Sample Description:** **MW-4 Grab Groundwater**
**NA URSO**
**Sunol Pipeline SL0600100443**

**LL Sample # WW 7402102**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 13:46 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUNM4

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---|---|---|---|---|---|---|---|
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14084A20A | 03/26/2014 16:06 | Laura M Krieger | 1 |
| 07105 | Volatile Headspace Hydrocarbon | SW-846 8015B modified | 1 | 140860032A | 03/27/2014 18:26 | Elizabeth J Marin | 1 |
| 07058 | Manganese | SW-846 6010B | 1 | 140831848005 | 03/31/2014 10:14 | Eric L Eby | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140831848005 | 03/25/2014 12:20 | Micaela L Dishong | 1 |
| 00368 | Nitrate Nitrogen | EPA 300.0 | 1 | 14080347902A | 03/21/2014 22:36 | Sandra J Miller | 5 |
| 00228 | Sulfate | EPA 300.0 | 1 | 14080347902A | 03/24/2014 08:39 | Sandra J Miller | 10 |
| 12150 | Total Alkalinity | SM 2320 B-1997 | 1 | 14083005101A | 03/24/2014 16:27 | Michele L Graham | 1 |
| 12707 | Phenolphthalein Alkalinity | SM 2320 B-1997 | 1 | 14083005101A | 03/24/2014 16:27 | Michele L Graham | 1 |
| 00212 | Total Dissolved Solids | SM 2540 C-1997 | 1 | 14084021204A | 03/25/2014 10:37 | Yolunder Y Bunch | 1 |
| 08344 | Ferrous Iron | SM 3500-Fe B modified-1997 | 1 | 14083834401A | 03/24/2014 20:20 | Daniel S Smith | 1 |

**Sample Description:** MW-4 Filtered Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7402103**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 13:46 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals Dissolved** | **SW-846 6010B** | | ug/l | ug/l | |
| 01754 | Iron | 7439-89-6 | N.D. | 43.0 | 1 |

## General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
This sample was filtered in the lab for dissolved metals.

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 |
|---|---|---|---|---|---|---|---|
| 01754 | Iron | SW-846 6010B | 1 | 140831848005 | 03/31/2014 10:25 | Eric L Eby | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140831848005 | 03/25/2014 12:20 | Micaela L Dishong | 1 |

**Sample Description:** MW-3 Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7402104**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 14:49 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUNM3

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **GC/MS Volatiles** | **SW-846 8260B** | | **ug/l** | **ug/l** | |
| 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 |
| **GC Volatiles** | **SW-846 8015B** | | **ug/l** | **ug/l** | |
| 01728 | TPH-GRO N. CA water C6-C12 | n.a. | N.D. | 50 | 1 |
| **GC Miscellaneous** | **SW-846 8015B modified** | | **ug/l** | **ug/l** | |
| 07105 | Methane | 74-82-8 | 8.9 | 3.0 | 1 |
| **Metals** | **SW-846 6010B** | | **ug/l** | **ug/l** | |
| 07058 | Manganese | 7439-96-5 | 27.0 | 0.83 | 1 |
| **Wet Chemistry** | **EPA 300.0** | | **ug/l** | **ug/l** | |
| 00368 | Nitrate Nitrogen | 14797-55-8 | 13,100 | 250 | 5 |
| 00228 | Sulfate | 14808-79-8 | 70,700 | 1,500 | 5 |
| | **SM 2320 B-1997** | | **ug/l as CaCO3** | **ug/l as CaCO3** | |
| 12150 | Total Alkalinity | n.a. | 324,000 | 700 | 1 |
| 12707 | Phenolphthalein Alkalinity | n.a. | N.D. | 700 | 1 |
| | **SM 2540 C-1997** | | **ug/l** | **ug/l** | |
| 00212 | Total Dissolved Solids | n.a. | 587,000 | 19,400 | 1 |
| | **SM 3500-Fe B modified-1997** | | **ug/l** | **ug/l** | |
| 08344 | Ferrous Iron | n.a. | 110 | 10 | 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 | F140851AA | 03/26/2014 07:34 | Anita M Dale | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | F140851AA | 03/26/2014 07:34 | Anita M Dale | 1 |
| 01728 | TPH-GRO N. CA water C6-C12 | SW-846 8015B | 1 | 14084A20A | 03/26/2014 16:28 | Laura M Krieger | 1 |

**Sample Description:** **MW-3 Grab Groundwater**
**NA URSO**
**Sunol Pipeline SL0600100443**

**LL Sample # WW 7402104**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 14:49 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUNM3

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---|---|---|---|---|---|---|---|
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14084A20A | 03/26/2014 16:28 | Laura M Krieger | 1 |
| 07105 | Volatile Headspace Hydrocarbon | SW-846 8015B modified | 1 | 140860032A | 03/27/2014 18:44 | Elizabeth J Marin | 1 |
| 07058 | Manganese | SW-846 6010B | 1 | 140831848005 | 03/31/2014 10:29 | Eric L Eby | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140831848005 | 03/25/2014 12:20 | Micaela L Dishong | 1 |
| 00368 | Nitrate Nitrogen | EPA 300.0 | 1 | 14080347902A | 03/21/2014 23:25 | Sandra J Miller | 5 |
| 00228 | Sulfate | EPA 300.0 | 1 | 14080347902A | 03/21/2014 23:25 | Sandra J Miller | 5 |
| 12150 | Total Alkalinity | SM 2320 B-1997 | 1 | 14083003204A | 03/24/2014 22:08 | Michele L Graham | 1 |
| 12707 | Phenolphthalein Alkalinity | SM 2320 B-1997 | 1 | 14083003204A | 03/24/2014 22:08 | Michele L Graham | 1 |
| 00212 | Total Dissolved Solids | SM 2540 C-1997 | 1 | 14084021204A | 03/25/2014 10:37 | Yolunder Y Bunch | 1 |
| 08344 | Ferrous Iron | SM 3500-Fe B modified-1997 | 1 | 14083834401A | 03/24/2014 20:20 | Daniel S Smith | 1 |

**Sample Description:** MW-3 Filtered Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7402105**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 14:49 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals Dissolved** | **SW-846 6010B** | | ug/l | ug/l | |
| 01754 | Iron | 7439-89-6 | N.D. | 43.0 | 1 |

## General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
This sample was filtered in the lab for dissolved metals.

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 |
|---|---|---|---|---|---|---|---|
| 01754 | Iron | SW-846 6010B | 1 | 140831848005 | 03/31/2014 10:33 | Eric L Eby | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140831848005 | 03/25/2014 12:20 | Micaela L Dishong | 1 |

**Sample Description:** MW-10 Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7402106**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 09:29 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUN10

| CAT No. | Analysis Name | | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | **SW-846 8260B** | | **ug/l** | **ug/l** | |
| 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 |
| **GC Volatiles** | | **SW-846 8015B** | | **ug/l** | **ug/l** | |
| 01728 | TPH-GRO N. CA water C6-C12 | | n.a. | N.D. | 50 | 1 |
| **GC Miscellaneous** | | **SW-846 8015B modified** | | **ug/l** | **ug/l** | |
| 07105 | Methane | | 74-82-8 | 540 | 15 | 5 |
| **Metals** | | **SW-846 6010B** | | **ug/l** | **ug/l** | |
| 07058 | Manganese | | 7439-96-5 | 179 | 0.83 | 1 |
| **Wet Chemistry** | | **EPA 300.0** | | **ug/l** | **ug/l** | |
| 00368 | Nitrate Nitrogen | | 14797-55-8 | 3,800 | 250 | 5 |
| 00228 | Sulfate | | 14808-79-8 | 95,300 | 3,000 | 10 |
| | | **SM 2320 B-1997** | | **ug/l as CaCO3** | **ug/l as CaCO3** | |
| 12150 | Total Alkalinity | | n.a. | 557,000 | 700 | 1 |
| 12707 | Phenolphthalein Alkalinity | | n.a. | N.D. | 700 | 1 |
| | | **SM 2540 C-1997** | | **ug/l** | **ug/l** | |
| 00212 | Total Dissolved Solids | | n.a. | 906,000 | 38,800 | 1 |
| | | **SM 3500-Fe B modified-1997** | | **ug/l** | **ug/l** | |
| 08344 | Ferrous Iron | | n.a. | 550 | 10 | 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 | F140851AA | 03/26/2014 07:56 | Anita M Dale | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | F140851AA | 03/26/2014 07:56 | Anita M Dale | 1 |
| 01728 | TPH-GRO N. CA water C6-C12 | SW-846 8015B | 1 | 14084A20A | 03/26/2014 16:50 | Laura M Krieger | 1 |

**Sample Description:** **MW-10 Grab Groundwater**
**NA URSO**
**Sunol Pipeline SL0600100443**

**LL Sample # WW 7402106**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 09:29 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUN10

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---|---|---|---|---|---|---|---|
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14084A20A | 03/26/2014 16:50 | Laura M Krieger | 1 |
| 07105 | Volatile Headspace Hydrocarbon | SW-846 8015B modified | 1 | 140860032A | 03/28/2014 10:27 | Elizabeth J Marin | 5 |
| 07058 | Manganese | SW-846 6010B | 1 | 140831848005 | 03/31/2014 10:37 | Eric L Eby | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140831848005 | 03/25/2014 12:20 | Micaela L Dishong | 1 |
| 00368 | Nitrate Nitrogen | EPA 300.0 | 1 | 14080347902A | 03/21/2014 23:41 | Sandra J Miller | 5 |
| 00228 | Sulfate | EPA 300.0 | 1 | 14080347902A | 03/24/2014 09:28 | Sandra J Miller | 10 |
| 12150 | Total Alkalinity | SM 2320 B-1997 | 1 | 14083003204A | 03/24/2014 23:04 | Michele L Graham | 1 |
| 12707 | Phenolphthalein Alkalinity | SM 2320 B-1997 | 1 | 14083003204A | 03/24/2014 23:04 | Michele L Graham | 1 |
| 00212 | Total Dissolved Solids | SM 2540 C-1997 | 1 | 14084021204A | 03/25/2014 10:37 | Yolunder Y Bunch | 1 |
| 08344 | Ferrous Iron | SM 3500-Fe B modified-1997 | 1 | 14083834401A | 03/24/2014 20:20 | Daniel S Smith | 1 |

**Sample Description:** MW-10 Filtered Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7402107**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 09:29 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals Dissolved** | **SW-846 6010B** | | ug/l | ug/l | |
| 01754 | Iron | 7439-89-6 | N.D. | 43.0 | 1 |

## General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
This sample was filtered in the lab for dissolved metals.

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 |
|---|---|---|---|---|---|---|---|
| 01754 | Iron | SW-846 6010B | 1 | 140831848005 | 03/31/2014 10:41 | Eric L Eby | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140831848005 | 03/25/2014 12:20 | Micaela L Dishong | 1 |

**Sample Description:** MW-11 Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7402108**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 11:13 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUN11

| CAT No. | Analysis Name | | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | **SW-846 8260B** | | **ug/l** | **ug/l** | |
| 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 |
| **GC Volatiles** | | **SW-846 8015B** | | **ug/l** | **ug/l** | |
| 01728 | TPH-GRO N. CA water C6-C12 | | n.a. | N.D. | 50 | 1 |
| **GC Miscellaneous** | | **SW-846 8015B modified** | | **ug/l** | **ug/l** | |
| 07105 | Methane | | 74-82-8 | 68 | 3.0 | 1 |
| **Metals** | | **SW-846 6010B** | | **ug/l** | **ug/l** | |
| 07058 | Manganese | | 7439-96-5 | 109 | 0.83 | 1 |
| **Wet Chemistry** | | **EPA 300.0** | | **ug/l** | **ug/l** | |
| 00368 | Nitrate Nitrogen | | 14797-55-8 | 6,000 | 250 | 5 |
| 00228 | Sulfate | | 14808-79-8 | 232,000 | 6,000 | 20 |
| | | **SM 2320 B-1997** | | **ug/l as CaCO3** | **ug/l as CaCO3** | |
| 12150 | Total Alkalinity | | n.a. | 389,000 | 700 | 1 |
| 12707 | Phenolphthalein Alkalinity | | n.a. | N.D. | 700 | 1 |
| | | **SM 2540 C-1997** | | **ug/l** | **ug/l** | |
| 00212 | Total Dissolved Solids | | n.a. | 787,000 | 19,400 | 1 |
| | | **SM 3500-Fe B modified-1997** | | **ug/l** | **ug/l** | |
| 08344 | Ferrous Iron | | n.a. | 380 | 10 | 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 | D140851AA | 03/26/2014 18:38 | Daniel H Heller | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | D140851AA | 03/26/2014 18:38 | Daniel H Heller | 1 |
| 01728 | TPH-GRO N. CA water C6-C12 | SW-846 8015B | 1 | 14084A20A | 03/26/2014 17:12 | Laura M Krieger | 1 |

**Sample Description:** **MW-11 Grab Groundwater**
**NA URSO**
**Sunol Pipeline SL0600100443**

**LL Sample # WW 7402108**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 11:13 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUN11

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---|---|---|---|---|---|---|---|
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14084A20A | 03/26/2014 17:12 | Laura M Krieger | 1 |
| 07105 | Volatile Headspace Hydrocarbon | SW-846 8015B modified | 1 | 140860032A | 03/27/2014 19:19 | Elizabeth J Marin | 1 |
| 07058 | Manganese | SW-846 6010B | 1 | 140831848005 | 03/31/2014 10:45 | Eric L Eby | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140831848005 | 03/25/2014 12:20 | Micaela L Dishong | 1 |
| 00368 | Nitrate Nitrogen | EPA 300.0 | 1 | 14080347902A | 03/21/2014 23:57 | Sandra J Miller | 5 |
| 00228 | Sulfate | EPA 300.0 | 1 | 14080347902A | 03/24/2014 10:16 | Sandra J Miller | 20 |
| 12150 | Total Alkalinity | SM 2320 B-1997 | 1 | 14083003204A | 03/24/2014 22:34 | Michele L Graham | 1 |
| 12707 | Phenolphthalein Alkalinity | SM 2320 B-1997 | 1 | 14083003204A | 03/24/2014 22:34 | Michele L Graham | 1 |
| 00212 | Total Dissolved Solids | SM 2540 C-1997 | 1 | 14084021204A | 03/25/2014 10:37 | Yolunder Y Bunch | 1 |
| 08344 | Ferrous Iron | SM 3500-Fe B modified-1997 | 1 | 14083834401A | 03/24/2014 20:20 | Daniel S Smith | 1 |

**Sample Description:** MW-11 Filtered Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7402109**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 11:13 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **Metals Dissolved** | **SW-846 6010B** | | ug/l | ug/l | |
| 01754 | Iron | 7439-89-6 | N.D. | 43.0 | 1 |

## General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
This sample was filtered in the lab for dissolved metals.

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 |
|---|---|---|---|---|---|---|---|
| 01754 | Iron | SW-846 6010B | 1 | 140831848005 | 03/31/2014 10:49 | Eric L Eby | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 140831848005 | 03/25/2014 12:20 | Micaela L Dishong | 1 |

**Sample Description:** Equip Blank Grab Water
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7402110**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 09:48 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUNEB

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **GC/MS Volatiles** | **SW-846 8260B** | | **ug/l** | **ug/l** | |
| 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 |
| **GC Volatiles** | **SW-846 8015B** | | **ug/l** | **ug/l** | |
| 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 | D140851AA | 03/26/2014 19:01 | Daniel H Heller | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | D140851AA | 03/26/2014 19:01 | Daniel H Heller | 1 |
| 01728 | TPH-GRO N. CA water C6-C12 | SW-846 8015B | 1 | 14084A20A | 03/26/2014 11:41 | Laura M Krieger | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14084A20A | 03/26/2014 11:41 | Laura M Krieger | 1 |

**Sample Description:** Trip Blank NA Water
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7402111**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUNTB

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **GC/MS Volatiles** | **SW-846 8260B** | | **ug/l** | **ug/l** | |
| 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 |
| **GC Volatiles** | **SW-846 8015B** | | **ug/l** | **ug/l** | |
| 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 | D140851AA | 03/26/2014 12:07 | Daniel H Heller | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | D140851AA | 03/26/2014 12:07 | Daniel H Heller | 1 |
| 01728 | TPH-GRO N. CA water C6-C12 | SW-846 8015B | 1 | 14084A20A | 03/26/2014 12:03 | Laura M Krieger | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14084A20A | 03/26/2014 12:03 | Laura M Krieger | 1 |

**Sample Description:** Stream Grab Groundwater
NA URSO
Sunol Pipeline SL0600100443

**LL Sample # WW 7402112**
**LL Group # 1461133**
**Account # 11875**

**Project Name: Sunol, CA**

Collected: 03/20/2014 15:25 by JQ

Submitted: 03/21/2014 09:35
Reported: 04/01/2014 07:53

Chevron Pipeline Co.
100 Northpark Blvd.
Covington LA 70433

SUNST

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|---|---|---|---|---|---|
| **GC/MS Volatiles** | **SW-846 8260B** | | **ug/l** | **ug/l** | |
| 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 |
| **GC Volatiles** | **SW-846 8015B** | | **ug/l** | **ug/l** | |
| 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 | D140851AA | 03/26/2014 19:24 | Daniel H Heller | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | D140851AA | 03/26/2014 19:24 | Daniel H Heller | 1 |
| 01728 | TPH-GRO N. CA water C6-C12 | SW-846 8015B | 1 | 14084A20A | 03/26/2014 17:34 | Laura M Krieger | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 14084A20A | 03/26/2014 17:34 | Laura M Krieger | 1 |

# Quality Control Summary

Client Name: Chevron Pipeline Co. Group Number: 1461133
Reported: 04/01/14 at 07:53 AM

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

| Analysis Name | Blank Result | Blank MDL | Report Units | LCS %REC | LCSD %REC | LCS/LCSD Limits | RPD | RPD Max |
|---|---|---|---|---|---|---|---|---|
| Batch number: D140851AA | Sample number(s): 7402108,7402110-7402112 | | | | | | | |
| Benzene | N.D. | 0.5 | ug/l | 90 | | 78-120 | | |
| Ethylbenzene | N.D. | 0.5 | ug/l | 96 | | 79-120 | | |
| Toluene | N.D. | 0.5 | ug/l | 103 | | 80-120 | | |
| Xylene (Total) | N.D. | 0.5 | ug/l | 100 | | 80-120 | | |
| Batch number: F140851AA | Sample number(s): 7402104,7402106 | | | | | | | |
| Benzene | N.D. | 0.5 | ug/l | 97 | | 78-120 | | |
| Ethylbenzene | N.D. | 0.5 | ug/l | 97 | | 79-120 | | |
| Toluene | N.D. | 0.5 | ug/l | 99 | | 80-120 | | |
| Xylene (Total) | N.D. | 0.5 | ug/l | 91 | | 80-120 | | |
| Batch number: F140852AA | Sample number(s): 7402100,7402102 | | | | | | | |
| Benzene | N.D. | 0.5 | ug/l | 98 | | 78-120 | | |
| Ethylbenzene | N.D. | 0.5 | ug/l | 98 | | 79-120 | | |
| Toluene | N.D. | 0.5 | ug/l | 102 | | 80-120 | | |
| Xylene (Total) | N.D. | 0.5 | ug/l | 93 | | 80-120 | | |
| Batch number: 14084A20A | Sample number(s): 7402100,7402102,7402104,7402106,7402108,7402110-7402112 | | | | | | | |
| TPH-GRO N. CA water C6-C12 | N.D. | 50. | ug/l | 101 | 99 | 80-139 | 2 | 30 |
| Batch number: 140860032A | Sample number(s): 7402100,7402102,7402104,7402106,7402108 | | | | | | | |
| Methane | N.D. | 3.0 | ug/l | 101 | | 80-120 | | |
| Batch number: 140831848005 | Sample number(s): 7402100-7402109 | | | | | | | |
| Iron | 55.3 | 43.0 | ug/l | 109 | | 90-112 | | |
| Manganese | 0.98 | 0.83 | ug/l | 107 | | 90-110 | | |
| Batch number: 14080347601B | Sample number(s): 7402100 | | | | | | | |
| Nitrate Nitrogen | N.D. | 50. | ug/l | 99 | | 90-110 | | |
| Sulfate | N.D. | 300. | ug/l | 102 | | 90-110 | | |
| Batch number: 14080347902A | Sample number(s): 7402102,7402104,7402106,7402108 | | | | | | | |
| Nitrate Nitrogen | N.D. | 50. | ug/l | 104 | | 90-110 | | |
| Sulfate | N.D. | 300. | ug/l | 103 | | 90-110 | | |
| Batch number: 14083003204A | Sample number(s): 7402100,7402104,7402106,7402108 | | | | | | | |
| Total Alkalinity | N.D. | 700. | ug/l as CaCO3 | 98 | | 90-110 | | |
| Batch number: 14083005101A | Sample number(s): 7402102 | | | | | | | |
| Total Alkalinity | N.D. | 700. | ug/l as CaCO3 | 97 | | 90-110 | | |

*- 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 Pipeline Co. Group Number: 1461133
Reported: 04/01/14 at 07:53 AM

| Analysis Name | Blank Result | Blank MDL | Report Units | LCS %REC | LCSD %REC | LCS/LCSD Limits | RPD | RPD Max |
|---|---|---|---|---|---|---|---|---|
| Batch number: 14083834401A | Sample number(s): 7402100,7402102,7402104,7402106,7402108 | | | | | | | |
| Ferrous Iron | N.D. | 10. | ug/l | 99 | | 93-105 | | |
| Batch number: 14084021204A | Sample number(s): 7402100,7402102,7402104,7402106,7402108 | | | | | | | |
| Total Dissolved Solids | N.D. | 9,700. | ug/l | 101 | | 80-120 | | |

## 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

| Analysis Name | MS %REC | MSD %REC | MS/MSD Limits | RPD | RPD MAX | BKG Conc | DUP Conc | DUP RPD | Dup RPD Max |
|---|---|---|---|---|---|---|---|---|---|
| Batch number: D140851AA | Sample number(s): 7402108,7402110-7402112 UNSPK: P403305 | | | | | | | | |
| Benzene | 97 | 95 | 72-134 | 2 | 30 | | | | |
| Ethylbenzene | 101 | 102 | 71-134 | 1 | 30 | | | | |
| Toluene | 107 | 106 | 80-125 | 1 | 30 | | | | |
| Xylene (Total) | 106 | 106 | 79-125 | 0 | 30 | | | | |
| Batch number: F140851AA | Sample number(s): 7402104,7402106 UNSPK: 7402106 | | | | | | | | |
| Benzene | 109 | 111 | 72-134 | 2 | 30 | | | | |
| Ethylbenzene | 106 | 110 | 71-134 | 4 | 30 | | | | |
| Toluene | 109 | 112 | 80-125 | 3 | 30 | | | | |
| Xylene (Total) | 99 | 102 | 79-125 | 3 | 30 | | | | |
| Batch number: F140852AA | Sample number(s): 7402100,7402102 UNSPK: 7402102 | | | | | | | | |
| Benzene | 109 | 108 | 72-134 | 1 | 30 | | | | |
| Ethylbenzene | 110 | 109 | 71-134 | 1 | 30 | | | | |
| Toluene | 112 | 112 | 80-125 | 1 | 30 | | | | |
| Xylene (Total) | 102 | 101 | 79-125 | 1 | 30 | | | | |
| Batch number: 140860032A | Sample number(s): 7402100,7402102,7402104,7402106,7402108 UNSPK: 7402100 | | | | | | | | |
| Methane | 93 | 84 | 35-157 | 9 | 20 | | | | |
| Batch number: 140831848005 | Sample number(s): 7402100-7402109 UNSPK: P401492 BKG: P401492 | | | | | | | | |
| Iron | 104 | 105 | 75-125 | 1 | 20 | 295 | 290 | 2 (1) | 20 |
| Manganese | 98 | 105 | 75-125 | 3 | 20 | 825 | 821 | 0 | 20 |
| Batch number: 14080347601B | Sample number(s): 7402100 UNSPK: P401979 BKG: P401979 | | | | | | | | |
| Nitrate Nitrogen | 105 | | 90-110 | | | 1,700 | 1,700 | 0 (1) | 20 |
| Sulfate | 108 | | 90-110 | | | 14,100 | 14,000 | 1 (1) | 20 |
| Batch number: 14080347902A | Sample number(s): 7402102,7402104,7402106,7402108 UNSPK: 7402102 BKG: 7402102 | | | | | | | | |
| Nitrate Nitrogen | 132* | | 90-110 | | | 14,000 | 14,000 | 0 | 20 |
| Sulfate | 108 | | 90-110 | | | 104,000 | 104,000 | 0 | 20 |
| Batch number: 14083003204A | Sample number(s): 7402100,7402104,7402106,7402108 UNSPK: P399805 BKG: P399805 | | | | | | | | |
| Total Alkalinity | 66 | 67 | 10-159 | 1 | 5 | N.D. | N.D. | 0 (1) | 5 |
| Phenolphthalein Alkalinity | | | | | | N.D. | N.D. | 0 (1) | 5 |
| Batch number: 14083005101A | Sample number(s): 7402102 UNSPK: 7402102 BKG: 7402102 | | | | | | | | |
| Total Alkalinity | 92 | | 10-159 | | | 310,000 | 304,000 | 2 | 5 |
| Phenolphthalein Alkalinity | | | | | | N.D. | N.D. | 0 (1) | 5 |

*- 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 Pipeline Co. Group Number: 1461133
Reported: 04/01/14 at 07:53 AM

## 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

| Analysis Name | MS %REC | MSD %REC | MS/MSD Limits | RPD | RPD MAX | BKG Conc | DUP Conc | DUP RPD | Dup RPD Max |
|---|---|---|---|---|---|---|---|---|---|
| Batch number: 14083834401A | Sample number(s): 7402100,7402102,7402104,7402106,7402108 UNSPK: P403073 BKG: P403073 | | | | | | | | |
| Ferrous Iron | 89 | 92 | 81-112 | 2 | 6 | 4,100 | 4,200 | 3 (1) | 5 |
| Batch number: 14084021204A | Sample number(s): 7402100,7402102,7402104,7402106,7402108 UNSPK: P402085 BKG: P402085 | | | | | | | | |
| Total Dissolved Solids | 100 | | 51-144 | | | 924,000 | 952,000 | 3 | 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: UST VOCs by 8260B - Water
Batch number: D140851AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---|---|---|---|---|
| 7402108 | 90 | 98 | 104 | 95 |
| 7402110 | 93 | 99 | 103 | 94 |
| 7402111 | 96 | 100 | 102 | 94 |
| 7402112 | 91 | 100 | 102 | 92 |
| Blank | 93 | 97 | 103 | 93 |
| LCS | 93 | 104 | 103 | 95 |
| MS | 94 | 98 | 103 | 94 |
| MSD | 94 | 102 | 102 | 95 |
| Limits: | 80-116 | 77-113 | 80-113 | 78-113 |

Analysis Name: UST VOCs by 8260B - Water
Batch number: F140851AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---|---|---|---|---|
| 7402104 | 85 | 95 | 108 | 107 |
| 7402106 | 84 | 95 | 108 | 104 |
| Blank | 85 | 93 | 108 | 105 |
| LCS | 87 | 97 | 108 | 108 |
| MS | 85 | 95 | 107 | 106 |
| MSD | 86 | 96 | 108 | 107 |
| Limits: | 80-116 | 77-113 | 80-113 | 78-113 |

Analysis Name: UST VOCs by 8260B - Water
Batch number: F140852AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---|---|---|---|---|
| 7402100 | 85 | 97 | 109 | 106 |
| 7402102 | 86 | 97 | 108 | 105 |
| Blank | 86 | 97 | 108 | 105 |

*- 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 Pipeline Co. Group Number: 1461133
Reported: 04/01/14 at 07:53 AM

## Surrogate Quality Control

| | | | | |
|---|---|---|---|---|
| LCS | 85 | 98 | 108 | 105 |
| MS | 84 | 95 | 108 | 107 |
| MSD | 86 | 95 | 108 | 107 |
| Limits: | 80-116 | 77-113 | 80-113 | 78-113 |

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 14084A20A

| | Trifluorotoluene-F |
|---|---|
| 7402100 | 80 |
| 7402102 | 80 |
| 7402104 | 79 |
| 7402106 | 78 |
| 7402108 | 79 |
| 7402110 | 78 |
| 7402111 | 70 |
| 7402112 | 80 |
| Blank | 80 |
| LCS | 83 |
| LCSD | 81 |
| Limits: | 63-135 |

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 140860032A

| | Propene |
|---|---|
| 7402100 | 77 |
| 7402102 | 81 |
| 7402104 | 72 |
| 7402106 | 80 |
| 7402108 | 78 |
| Blank | 91 |
| LCS | 92 |
| MS | 79 |
| MSD | 74 |
| Limits: | 42-131 |

*- 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 Generic Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Lancaster Laboratories use only
Acct. # 11875 Group # 1461133 Sample # 7402100-12
Instructions on reverse side correspond with circled numbers.

SCR #: _____

**1 Client Information**

Facility # _____ WBS _____

Site Address: Mile post 2.7 Calaveras Rd Sunol, CA

Chevron PM: Steve Gwin

Lead Consultant: URS Corporation

Consultant/Office: Oakland, CA

Consultant Project Mgr.: Joe Morgan

Consultant Phone #: 510-874-3201

Sampler: Jeremy Quick, Vicky Wiraatmadja

**4 Matrix**

**5 Analyses Requested**

| 2 Sample Identification | Collected Date | Collected Time | 3 Grab | Composite | Soil | Sediment | Water | Ground | Potable | NPDES | Surface | Oil | Air | Total Number of Containers | BTEX + ~~MTBE~~ 8021 | Naphth 8260 | 8260 full scan | Oxygenates | TPHG NCA LUFT | Silica Gel Cleanup | TPHD | Diss. Total | Method Lead | VPH/EPH Method | Methane SW-846 8015B | Nitrate and sulfate EPA method 300.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 3/20/14 | 1225 | X | | | | X | | | | | | | 10 | X | X | | | X | | | | | | X | X |
| MW-4 | 3/20/14 | 1346 | X | | | | X | | | | | | | 10 | X | X | | | X | | | | | | X | X |
| MW-3 | 3/20/14 | 1446 | X | | | | X | | | | | | | 10 | X | X | | | X | | | | | | X | X |
| MW-10 | 3/20/14 | 0929 | X | | | | X | | | | | | | 10 | X | X | | | X | | | | | | X | X |
| MW-11 | 3/20/14 | 1113 | X | | | | X | | | | | | | 10 | X | X | | | X | | | | | | X | X |
| Equip Blank | 3/20/14 | 0948 | X | | | | X | | | | | | | 6 | X | X | | | X | | | | | NA | X | X NA |
| Trip Blank NA | ~~3/20/14~~ | — NA | | | | | | | | | | | | 2 | X | X | | | X | | | | | | | |
| Stream | 3/20/14 | 1525 | X | | | | X | | | | | | | 6 | X | X | | | X | | | | | NA | X | X NA |

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

**6 Remarks**

2 trip blanks have bubbles

**7 Turnaround Time Requested (TAT)** (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

**8 Data Package Options (please circle if required)**

Type I - Full | Type VI (Raw Data) | Alaska/Type III

Same as prior

| Relinquished by | Date | Time | Received by | Date | Time |
|---|---|---|---|---|---|
| Jeremy Quick | 3/20/14 | 1645 | | | 9 |
| Relinquished by | Date | Time | Received by | Date | Time |
| | | | [signature] | 3.21.14 | 935 |

Relinquished by Commerical Carrier: UPS X FedEx _____ Other _____

Received by _____ Date _____ Time _____

Temperature Upon Receipt 0.2 0.5 °C

Custody Seals Intact? Yes No

# Chevron Generic Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Lancaster Laboratories use only
Acct. # 11875 Group # 1961133 Sample # 740 2100-12
Instructions on reverse side correspond with circled numbers.

SCR #: _____

## 1 Client Information

Facility # Milepost 2.7 Calaveras Rd Sunol WBS
Site Address: Milepost 2.7 Calaveras Rd Sunol, CA
Chevron PM: Steve Gwin
Lead Consultant: URS Corporation
Consultant/Office: Oakland, CA
Consultant Project Mgr.: Joe Morgan
Consultant Phone #: 510-874-3201
Sampler: Jeremy Quick, Vicky Wirantmadja

## 4 Matrix

Soil ☐ Sediment ☐ Water ☒ Ground ☐ Potable ☐ Surface ☐ NPDES ☐ Oil ☐ Air ☐

## 3 Grab / Composite

## 2 Sample Identification

| Sample Identification | Collected Date | Collected Time | Grab | Composite | Total Number of Containers | BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☐ | 8260 full scan | Oxygenates ____ | TPHG ____ | TPHD ____ Silica Gel Cleanup ☐ | Lead Total ☐ Diss. ☐ Method ____ | VPH/EPH Method ____ | Manganese SW-846 6010B | TDS SM 2540C | Alkalinity SM 2320B | dissolved iron SW-846 6010B | ferrous iron SM 20 3500 Fe B mod |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-1 + MS/MSD | 3/20/14 | 1225 | X | | 7 | | | | | | | | X | X | X | X | X |
| MW-3 | 3/20/14 | 1449 | X | | 5 | | | | | | | | X | X | X | X | X |
| MW-4 | 3/20/14 | 1346 | X | | 5 | | | | | | | | X | X | X | X | X |
| MW-10 | 3/20/14 | 0929 | X | | 5 | | | | | | | | X | X | X | X | X |
| MW-11 | 3/20/14 | 1113 | X | | 5 | | | | | | | | X | X | X | X | X |

## 5 Analyses Requested

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

## 6 Remarks

## 7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

## 8 Data Package Options (please circle if required)

Type I - Full | Type VI (Raw Data) | Alaska/Type III
Same as prior

| Relinquished by | Date | Time | Received by | Date | Time |
|---|---|---|---|---|---|
| Jeremy Quick | 3-20-14 | 1645 | | | 9 |
| Relinquished by | Date | Time | Received by | Date | Time |
| | | | | | |

Relinquished by Commerical Carrier: UPS X FedEx ____ Other ____
Temperature Upon Receipt 0.2-0.5 °C

Received by: [signature] Date 3.21.14 Time 935
Custody Seals Intact? Yes No

# Explanation of Symbols and Abbreviations

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

| | | | |
|---|---|---|---|
| **RL** | Reporting Limit | **BMQL** | Below Minimum Quantitation Level |
| **N.D.** | none detected | **MPN** | Most Probable Number |
| **TNTC** | Too Numerous To Count | **CP Units** | cobalt-chloroplatinate units |
| **IU** | International Units | **NTU** | nephelometric turbidity units |
| **umhos/cm** | micromhos/cm | **ng** | nanogram(s) |
| **C** | degrees Celsius | **F** | degrees Fahrenheit |
| **meq** | milliequivalents | **lb.** | pound(s) |
| **g** | gram(s) | **kg** | kilogram(s) |
| **µg** | microgram(s) | **mg** | milligram(s) |
| **mL** | milliliter(s) | **L** | liter(s) |
| **m3** | cubic meter(s) | **µL** | microliter(s) |
| | | **pg/L** | 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 ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

*U.S. EPA CLP Data Qualifiers:*

| Organic Qualifiers | | Inorganic Qualifiers | |
|---|---|---|---|
| **A** | TIC is a possible aldol-condensation product | **B** | Value is <CRDL, but ≥IDL |
| **B** | Analyte was also detected in the blank | **E** | Estimated due to interference |
| **C** | Pesticide result confirmed by GC/MS | **M** | Duplicate injection precision not met |
| **D** | Compound quantitated on a diluted sample | **N** | Spike sample not within control limits |
| **E** | Concentration exceeds the calibration range of the instrument | **S** | Method of standard additions (MSA) used for calculation |
| **N** | Presumptive evidence of a compound (TICs only) | **U** | Compound was not detected |
| **P** | Concentration difference between primary and confirmation columns >25% | **W** | Post digestion spike out of control limits |
| **U** | Compound was not detected | ***** | Duplicate analysis not within control limits |
| **X,Y,Z** | Defined in case narrative | **+** | 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.