August 7, 2009

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 – Second Quarter 2009 Groundwater Monitoring Report**" are true and correct to the best of my knowledge at the present time.

Submitted by:

Jeffery W. Johnson

Jeffery W. Johnson
Chevron Pipe Line Company

REPORT

SECOND QUARTER 2009 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

August 2009

URS Corporation
1333 Broadway, Suite 800
Oakland, CA 94612

26815217

URS

August 18, 2009

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

Subject: SLIC Case No. RO0002892, Chevron Pipeline Company, Sunol Spill, 2793 Calaveras Rd, Sunol, CA, Second Quarter 2009 Groundwater Monitoring Report

Dear Mr. Wickham:

A December 30, 2005 letter provided by the Alameda County Environmental Health staff (ACEH) requested the initiation of a Quarterly Groundwater Monitoring Program. In response to this request, URS, on behalf of Chevron Pipe Line Company (CPL), has prepared this groundwater monitoring report for the CPL Sunol site (Site) for the second quarter of 2009.

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

Sincerely yours,

URS Corporation

PROFESSIONAL GEOLOGIST
JACOB T. HENRY
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URS

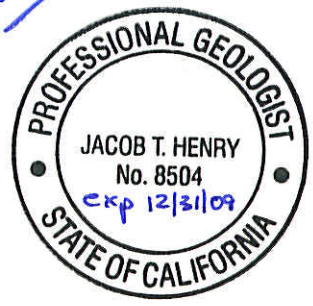
This letter report ("**Second Quarter 2009 Groundwater Monitoring Report**") was prepared under my direct supervision. The information presented in this report is based on our review of available data obtained during our quarterly sampling activities and our previous subsurface investigation efforts. To the best of our knowledge, we have incorporated into our recommendations all relevant data pertaining to the Chevron Pipeline Release site in Sunol, California.

The second quarter 2009 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.

URS Corporation
Approved by:

Joe Morgan III

Jacob Henry, P.G.



On June 9, 2009 and June 10, 2009, URS conducted field activities to assess the groundwater conditions at the Site. A Site vicinity map is included as Figure 1. URS measured the fluid levels at groundwater monitoring wells MW-1 through MW-4 and MW-8 through MW-11 and collected samples to be analyzed from groundwater monitoring wells MW-1 and MW-9 through MW-11. URS collected a surface water sample for analysis from the very small stream, located northwest of the release location, at the Site. The monitoring wells and surface water sampling location are provided on Figure 2. Monitoring wells MW-5 through MW-7 were abandoned on June 23, 2008.

1.1 SITE HYDROGEOLOGY

Prior to collecting groundwater samples, the water levels were measured at MW-1 through MW-4 and MW-8 through MW-11 from the top of casing using an electronic oil/water interface probe. No sheen was observed during purging activities at any monitoring well sampled. Product was not measured in any of the wells during the quarterly monitoring activities. The measured groundwater levels are displayed in Table 1 and the calculated groundwater elevations are displayed in Table 2.

Unconfined Water Bearing Zone

The water table elevation decreased since the last sampling event in March 2009, hydraulically disconnecting MW-2 through MW-4 and MW-8. The standing water levels in MW-2, MW-3, and MW-4 were 291.07, 291.17, and 291.05 feet above average mean sea level (msl), respectively. The groundwater elevation for MW-8, which screens an apparent hillside groundwater recharge source for the Valley Crest Tree Company's (nursery) unconfined water-bearing zone, was 310.62 feet above msl. The groundwater elevations for monitoring wells MW-1, MW-9, MW-10, and MW-11 ranged from a high of 291.59 feet above msl at MW-11 to a low of 290.54 feet msl at MW-9.

The data from MW-1 through MW-4 and MW-9 through MW-11 was insufficient to accurately calculate the groundwater flow direction and gradient. Groundwater measured in MW-2 through MW-4, the south-southeast portion of the site, was below the bedrock and therefore stagnant. The remaining wells, though groundwater was above the bedrock, may not accurately represent the groundwater flow and gradient at the site due to the complex geology and minimal groundwater within the system. The seasonal groundwater recharge from the hillside appears to flow into the unconfined nursery water-bearing zone in a northwesterly direction with a steep hydraulic gradient. However, the groundwater measured in MW-8 was below the bedrock and therefore stagnant. Figure 3 provides measured groundwater elevations for the unconfined water-bearing zone as well as bedrock surface elevations for the gravel-siltstone contact for comparison.

Confined Water Bearing Zone

As stated before (MW-5 through MW-7), are no longer a part of the groundwater monitoring program. After four quarters of non-detect analytical results, ACEH agreed, in a letter dated February 1, 2008, that further groundwater monitoring of the confined sandstone water-bearing zone was unnecessary. The wells were abandoned according to Alameda County Zone 7 Water Agency (Zone 7) standards on June 23, 2008.

2.1 QUARTERLY MONITORING ACTIVITIES

After measuring the fluid levels at each well, URS conducted groundwater sampling. Second quarter sampling efforts were influenced by the seasonally low groundwater levels. The rationale for the method used at each well is described below:

- MW-1 and MW-9 through MW-11 were sampled using low-flow methods.
- A surface water sample was also collected from the very small stream northwest of the release location (Figure 2) on June 9, 2009.
- MW-2 through MW-4 and MW-8 were not sampled because measured groundwater elevations were below the bedrock elevations and therefore stagnant.

2.1.1 MW-1 and MW-9 Sorbent Booms

Up until May 2009, URS placed sorbent booms (booms) in MW-1 and MW-9 as an interim remedial measure. The booms had been successful in passively collecting and facilitating degradation of hydrocarbons within the wells and allowed for quarterly groundwater sample collection. Since May 2009, MW-1 and MW-9 have been gauged monthly, including the second quarter 2009 groundwater monitoring event, with no measurable product observed. URS will continue to monitor MW-1 and MW-9 during the monthly groundwater gauging events. If measurable product is observed in either MW-1 or MW-9, URS will reinstall booms in one or both wells, if needed.

2.1.2 MW-1 and MW-9 through MW-11

Low-flow purging rates were between 200 to 500 milliliters per minute (mL/min) depending on the rate of recharge at each well. The low-flow groundwater sampling forms are included in Appendix A.

In addition to monitoring the water level at each well during low-flow sampling, parameters such as temperature, pH, conductivity, oxidation reduction potential (ORP), dissolved oxygen (DO) and turbidity of the groundwater were monitored using an in-line flow-through cell and multi-parameter U-10 manufactured by Horiba. The multi-parameter device was calibrated before sampling was started. During purging, the parameter readings described above were recorded every 3 minutes until the parameters stabilized.

In all of the wells where low-flow purging was conducted, the 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), turbidity +/- 1.0 nephelometric turbidity units (NTU).

After monitoring all field parameters, the flow through cell was detached from the pump and tubing assembly. Groundwater samples were collected directly from the pump tubing. Tubing, where practical, was dedicated for future groundwater monitoring events.

2.1.3 Surface Water Sample

The sampling location along the very 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 sampling location, the very small stream fans out into the floodplain and surface flow terminates within floodplain grasses.

3.1 ANALYTICAL PROGRAM

The groundwater samples from each monitoring well and the very small stream were collected in clean laboratory provided containers, the containers were labeled with unique project specific identification, packed to prevent breakage, and placed on ice in a cooler with a trip blank 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.

The groundwater and surface water samples collected during quarterly sampling activities are analyzed for the following parameters:

Gasoline Compounds

- Total petroleum hydrocarbons – gasoline range organics (TPH-GRO) by N. CA LUFT GRO
- Benzene, toluene, ethylbenzene, xylenes (BTEX) by USEPA Method 8260B

Geochemical Indicator Parameters

- Nitrate and sulfate by USEPA Method 300.0
- Total manganese and dissolved iron by USEPA Method 6010B
- Ferrous iron by SM20 Method 3500-FE B Modified
- Methane by USEPA Method 8015B Modified
- Alkalinity including breakdown by USEPA Method 310.1
- Total dissolved solids (TDS) by USEPA Method 160.1

The surface water sample was analyzed for TPH-GRO and BTEX.

3.2 GROUNDWATER ANALYTICAL RESULTS DISCUSSION

A tabulated summary of the analytical results for the gasoline compounds and associated environmental screening levels (ESLs) developed by Regional Water Quality Control Board (RWQCB 2008) are presented in Table 3 and the complete laboratory analytical results and chain of custody forms are included as Appendix B.

3.2.1 Unconfined Water-Bearing Zone Wells

The unconfined water bearing zone wells sampled during second quarter field activities include MW-1 and MW-9 through MW-11. The second quarter groundwater sample results are as follows:

- The MW-1 sample contained TPH-GRO at 5,000 micrograms per liter (µg/L), ethylbenzene at 0.7 µg/L, and total xylenes at 13 µg/L. Benzene and toluene were below laboratory reporting limits.
- The MW-9 sample contained TPH-GRO at 27,000 µg/L, toluene at 66 µg/L, ethylbenzene at 610 µg/L, and total xylenes at 4,100 µg/L. Benzene was below laboratory reporting limits.

- The MW-10 sample contained toluene at 1 µg/L. TPH-GRO, benzene, ethylbenzene, and total xylenes were below laboratory reporting limits.
- The MW-11 sample contained TPH-GRO at 59 µg/L, toluene at 2 µg/L, and total xylenes at 3 µg/L. Benzene and ethylbenzene were below laboratory reporting limits.

All groundwater analytical results are presented in Table 3.

3.2.2 MW-10 and MW-11

Analytical results indicating new low level hydrocarbon concentrations at MW-10 (1Q and 2Q 2009) and MW-11 (2Q 2009) will be further assessed quarterly, based on each subsequent quarters analytical results.

3.2.3 Confined Water-Bearing Zone Wells

Wells MW-5 through MW-7 were abandoned June 23, 2008 as approved by ACEH in the November 29, 2007 ACEH letter.

3.2.4 Surface Water Sample

The surface water sampling location is shown on Figure 2. The surface water sample was below laboratory reporting limits for all constituents analyzed.

3.2.5 Analytical Result Comparison to ESLs

The analytical results for the groundwater samples collected from MW-10 and MW-11 were less than the most stringent ESLs for all constituents analyzed. The surface water sample analytical results were also below their respective ESLs. The sample collected from MW-1 exceeded the ESLs for TPH-GRO. The samples from MW-9 exceeded the ESLs for TPH-GRO, toluene, ethylbenzene, and total xylenes.

3.2.6 Geochemical Analytical Results

The groundwater samples collected from MW-1 and MW-9 through MW-11 were also analyzed for geochemical parameters. However, due to laboratory error, the samples from MW-11 were not analyzed this quarter. Overall, the geochemical parameters indicate a low oxygen (anaerobic) environment that does not favor biodegradation of the hydrocarbon plume. Furthermore, the lack of significant groundwater flow through the Site limits the possibility of the development of beneficial organisms. The geochemical results are presented in Table 4.

3.3 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 review of:

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

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 QA/QC review identifies results with exceeded method holding times. Three samples (MW-1, MW-9, and MW-10) were analyzed for nitrate nitrogen outside of the method holding time of 48 hours. All other samples were analyzed within hold times.

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. None of the method blanks had detections of target analytes.

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. One trip blank was analyzed during this sampling event. The trip blank did not have detections of any target analytes, indicating no evidence of contamination during shipment of the laboratory samples.

Matrix Spikes and Laboratory Control Samples

Matrix spikes (MS), matrix spike duplicates (MSD), laboratory control samples (LCS), laboratory control sample duplicates (LCSD), blank spikes (BS) and blank spike duplicates (BSD) 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, LCSD, BS and BSD 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, LCSD, BS and BSD 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.

Laboratory Duplicate Analyses

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

Field Duplicate Analyses

Field duplicate samples are collected in the field and analyzed to evaluate the heterogeneity of the matrices. No field duplicate samples were collected during this sampling event.

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.

EXPLANATION OF ANALYTICAL DATA QUALIFIERS

The analytical data were reviewed and qualified following USEPA guidelines for organic data review (USEPA, 1999). 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 "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.

SUMMARY OF QA/QC REVIEW FINDINGS

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

Samples MW-1, MW-9, and MW-10 were analyzed outside of the method specific holding time for nitrate nitrogen. The nitrate nitrogen detection in MW-1 was qualified with a J and the nondetections in samples MW-9 and MW-10 were qualified with a UJ.

All reported laboratory control sample (LCS), matrix control sample (MS) and surrogate spike recoveries were within laboratory QC limits, with the exception of the following:

- Low iron MS/MSD recovery and high RPD recovery was observed in the MS/MSD of batch 091671848001. The iron nondetections in samples MW-1, MW-9, and MW-10 were qualified with a UJ.
- High manganese RPD recovery was observed in the MS/MSD of batch 091707848002. The manganese detection in sample MW-11 was qualified with a J.
- High nitrate nitrogen MS recovery was observed in the MS/MSD of batch 09163201301A. The nitrate nitrogen detection in sample MW-1 was qualified with a J.
- High sulfate MS recovery was observed in the MS/MSD of batch 09163201301A. The sulfate detection in sample MW-1 was qualified with a J.
- High nitrate nitrogen MS was observed in the MS/MSD of batch 09171196602B. The nitrate nitrogen nondetections in samples MW-9 and MW-10 were qualified with a UJ.

- High TDS RPD recovery was observed in the MS/MSD of batch 09166021201A. The TDS detections in samples MW-1, MW-9, and MW-10 were qualified 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 where noted above. 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 field activities conducted on June 9 and June 10, 2009, included assessing the groundwater conditions at the Site and measuring the fluid levels and collecting analytical samples from groundwater monitoring wells MW-1 and MW-9 through MW-11 and one surface water sample. The findings are as follows:

- Free product was not observed in any of the monitoring wells during the second quarter 2009 groundwater monitoring activities.
- The water table elevation decreased since the last sampling event in March 2009, hydraulically disconnecting MW-2 through MW-4 and MW-8.
- The MW-1 sample contained TPH-GRO at 5,000 µg/L, ethylbenzene at 0.7 µg/L, and total xylenes at 13 µg/L.
- The MW-9 sample contained TPH-GRO at 27,000 µg/L, toluene at 66 µg/L, ethylbenzene at 610 µg/L, and total xylenes at 4,100 µg/L.
- The MW-10 sample contained toluene at 1 µg/L which is equivalent to the first quarter 2009 result of 0.7 µg/L. No ESLs were exceeded.
- For the first time, the MW-11 sample contained TPH-GRO at 59 µg/L, toluene at 2 µg/L, and total xylenes at 3 µg/L. No ESLs were exceeded.
- The analytical results for the surface water sample collected from the very small stream continue to be less than laboratory reporting limits for all constituents.
- The analytical results for the groundwater samples collected from MW-10 and MW-11 were less than the most stringent ESLs for all constituents analyzed. The surface water sample analytical results were also less than the respective ESLs. The analytical results from the sample collected from MW-1 exceeded the ESLs for TPH-GRO. The analytical results from the MW-9 sample exceeded the ESLs for TPH-GRO, toluene, ethylbenzene, and total xylenes.

Based on the June 9 and June 10, 2009 field observations and analytical results URS makes the following recommendations:

- Continue quarterly groundwater monitoring to further assess the effect of seasonal groundwater fluctuations on groundwater behavior and contaminant transport within the unconfined water-bearing zone.
- URS will continue to monitor the analytical results for MW-10 and MW-11. If hydrocarbon concentrations continue to rise, URS will assess the need for interim remedial measures such as the installation of sorbent booms.
- Though MW-8 was not sampled this quarter, the increase in TPH-GRO and BTEX concentrations from previous quarters may indicate the migration of hydrocarbons. URS will install a sorbent boom in MW-8 as an interim remedial measure.
- Due to the continued decline in hydrocarbon concentrations at several soil vapor extraction (SVE) wells, URS will request the closure of wells SVE-1D, SVE-2S, SVE-3S, SVE-4D, and SVE-8.
- URS is planning an investigation to evaluate the extent of hydrocarbon impacts at the base of the hill on the eastern and western side of Calaveras road using GORE Modules ™, a passive soil gas collection methodology. URS will evaluate investigation results and develop further recommendations for additional investigation and/or remedial action, if needed. URS will submit a work plan to ACEH detailing the proposed investigation under separate cover.

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. Because 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 CPL's use, and reliance on this report by third parties will be at such party's sole risk.

TABLE 1
Monitoring Well Groundwater Levels
Second Quarter 2009 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Screen Interval (feet bgs)[1]	Date	Depth to Groundwater (feet TOC-N)[2]	Depth to Product (feet TOC-N)	Product Thickness (feet)
MW-1	29.3-39.3	2/21/2006	36.34	--	--
		6/7/2006	34.28	--	--
		8/22/2006	37.11	37.08	0.03
		11/14/2006	37.05	--	--
		2/20/2007	36.14	--	--
		6/5/2007	37.21	--	--
		9/12/2007	37.67	37.55	0.12
		12/11/2007	37.49	37.46	0.03
		3/19/2008	35.94	--	--
		5/20/2008	35.51	--	--
		6/5/2008	35.69	--	--
		9/18/2008	37.62	37.61	0.01
		12/15/2008	37.53	37.52	0.01
		3/27/2009	35.24	--	--
		6/9/2009	37.05	--	--
MW-2	23.3-38.3	2/21/2006	32.19	--	--
		6/7/2006	30.23	--	--
		8/22/2006	33.11	--	--
		11/14/2006	33.01	--	--
		2/20/2007	31.93	--	--
		6/5/2007	33.23	--	--
		9/12/2007	33.62	--	--
		12/5/2007	33.52	--	--
		3/19/2008	31.76	--	--
		5/20/2008	31.41	--	--
		6/5/2008	31.56	--	--
		9/18/2008	33.65	--	--
		12/15/2008	33.59	--	--
		3/27/2009	31.14	--	--
		6/9/2009	33.08	--	--
MW-3	21.3-36.3	2/21/2006	31.97	--	--
		6/7/2006	30.91	--	--
		8/22/2006	34.66	--	--
		11/14/2006	34.71	--	--
		2/20/2007	31.66	--	--
		6/5/2007	34.63	--	--
		9/12/2007	34.71	--	--
		12/11/2007	34.77	--	--
		3/19/2008	31.64	--	--
		5/20/2008	31.26	--	--
		6/5/2008	31.45	--	--
		9/18/2008	34.81	--	--
		12/15/2008	34.79	--	--
		3/27/2009	30.87	--	--
		6/9/2009	34.48	--	--
MW-4	30.7-40.7	2/21/2006	36.72	--	--
		6/7/2006	35.76	--	--
		8/22/2006	38.79	--	--
		11/14/2006	38.84	--	--
		2/20/2007	36.54	--	--
		6/5/2007	38.77	--	--
		9/12/2007	38.93	--	--
		12/11/2008	39.00	--	--
		3/19/2008	36.29	--	--
		5/20/2008	36.27	--	--
		6/5/2008	36.38	--	--
		9/18/2008	39.03	--	--
		12/15/2008	39.03	--	--
		3/27/2009	36.10	--	--
		6/9/2009	38.62	--	--

TABLE 1
Monitoring Well Groundwater Levels
Second Quarter 2009 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Screen Interval (feet bgs)[1]	Date	Depth to Groundwater (feet TOC-N)[2]	Depth to Product (feet TOC-N)	Product Thickness (feet)
MW-8	14.5-24.5	8/22/2006	18.71	--	--
		11/14/2006	18.73	--	--
		2/20/2007	19.23	--	--
		6/5/2007	20.48	--	--
		9/12/2007	21.47	--	--
		12/11/2007	19.58	--	--
		Q1 2008	NM	--	--
		Q2 2008	NM	--	--
		9/18/2008	21.67	--	--
		12/15/2008	20.73	--	--
		3/27/2009	19.54	--	--
		6/9/2009	23.31	--	--
MW-9	36.0-46.0	8/22/2006	42.59	42.55	0.04
		11/14/2006	42.62	42.54	0.08
		2/20/2007	41.91	41.86	0.05
		6/5/2007	42.71	42.69	0.02
		9/12/2007	43.09	43.01	0.08
		12/11/2007	42.91	--	--
		3/20/2007	41.76	41.75	0.01
		12/11/2007	42.91	--	--
		5/20/2008	41.33	--	--
		6/5/2008	41.57	--	--
		9/18/2008	43.07	--	--
		12/15/2008	43.00	--	--
		3/27/2009	41.02	--	--
		6/9/2009	42.53	--	--
MW-10	40.3-55.3	9/5/2007	54.86	--	--
		12/12/2007	46.84	--	--
		3/20/2008	44.41	--	--
		5/20/2008	44.09	--	--
		6/5/2008	43.67	--	--
		9/18/2008	45.89	--	--
		12/15/2008	45.91	--	--
		3/27/2009	43.82	--	--
		6/9/2009	45.19	--	--
MW-11	37.0-47.0	9/6/2007	Dry	--	--
		12/12/2007	42.73	--	--
		3/20/2008	37.29	--	--
		5/20/2008	37.06	--	--
		6/4/2008	37.18	--	--
		9/18/2008	38.97	--	--
		12/15/2008	39.36	--	--
		3/27/2009	36.87	--	--
		6/9/2009	38.30	--	--

Notes:
NM - Not measured
1. Screen intervals measured from feet below ground surface (feet bgs)
2. Groundwater and product levels measured from top of casing - north (TOC-N).
3. MW-5 through MW-7 abandoned 6/23/08.

TABLE 2
Monitoring Well Groundwater Elevations
Second Quarter 2009 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Date Completed	Ground Surface Elevation (feet msl)[1]	Top of Casing Elevation (feet msl)[1, 2]	Date Measured	Groundwater Elevation (feet msl)[1]	Product Elevation (feet msl)[1]	Product Thickness (feet)
MW-1	10/20/2005	328.49	328.04	2/21/2006	291.70	--	--
				6/7/2006	293.76	--	--
				8/22/2006	290.93	290.96	0.03
				11/14/2006	290.99	--	--
				2/20/2007	291.90	--	--
				6/5/2007	290.83	--	--
				9/12/2007	290.37	--	--
				12/11/2007	290.55	290.58	0.03
				3/19/2008	292.10	--	--
				5/20/2008	292.53	--	--
				6/5/2008	292.35	--	--
				9/18/2008	290.42	290.43	0.01
				12/15/2008	290.51	290.52	0.01
				3/27/2009	292.80	--	--
				6/9/2009	290.99	--	--
MW-2	10/21/2005	324.85	324.15	2/21/2006	291.96	--	--
				6/7/2006	293.92	--	--
				8/22/2006	291.04	--	--
				11/14/2006	291.14	--	--
				2/20/2007	292.22	--	--
				6/5/2007	290.92	--	--
				9/12/2007	290.53	--	--
				12/5/2007	290.63	--	--
				3/19/2008	292.39	--	--
				5/20/2008	292.74	--	--
				6/5/2008	292.59	--	--
				9/18/2008	290.50	--	--
				12/15/2008	290.56	--	--
				3/27/2009	293.01	--	--
				6/9/2009	291.07	--	--
MW-3	10/21/2005	326.05	325.65	2/21/2006	293.68	--	--
				6/7/2006	294.74	--	--
				8/22/2006	290.99	--	--
				11/14/2006	290.94	--	--
				2/20/2007	293.99	--	--
				6/5/2007	291.02	--	--
				9/12/2007	290.94	--	--
				12/11/2007	290.88	--	--
				3/19/2008	294.01	--	--
				5/20/2008	294.39	--	--
				6/5/2008	294.20	--	--
				9/18/2008	290.84	--	--
				12/15/2008	290.86	--	--
				3/27/2009	294.78	--	--
				6/9/2009	291.17	--	--
MW-4	1/31/2006	329.97	329.67	2/21/2006	292.95	--	--
				6/7/2006	293.91	--	--
				8/22/2006	290.88	--	--
				11/14/2006	290.83	--	--
				2/20/2007	293.13	--	--
				6/5/2007	290.90	--	--
				9/12/2007	290.74	--	--
				12/11/2007	290.67	--	--
				3/19/2008	293.38	--	--
				5/20/2008	293.40	--	--
				6/5/2008	293.29	--	--
				9/18/2008	290.64	--	--
				12/15/2008	290.64	--	--
				3/27/2009	293.57	--	--
				6/9/2009	291.05	--	--

TABLE 2
Monitoring Well Groundwater Elevations
Second Quarter 2009 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Date Completed	Ground Surface Elevation (feet msl)[1]	Top of Casing Elevation (feet msl)[1, 2]	Date Measured	Groundwater Elevation (feet msl)[1]	Product Elevation (feet msl)[1]	Product Thickness (feet)
MW-8	8/15/2006	335.23	333.93	8/22/2006	315.22	--	--
				11/14/2006	315.20	--	--
				2/20/2007	314.70	--	--
				6/5/2007	313.45	--	--
				9/12/2007	312.46	--	--
				12/11/2007	314.35	--	--
				Q1 2008	NM	--	--
				Q2 2008	NM	--	--
				9/18/2008	312.26	--	--
				12/15/2008	313.20	--	--
				3/27/2009	314.39	--	--
				6/9/2009	310.62	--	--
MW-9	8/16/2006	333.49	333.07	8/22/2006	290.48	290.52	0.04
				11/14/2006	290.45	290.53	0.08
				2/20/2007	291.16	291.21	0.05
				6/5/2007	290.36	290.38	0.02
				9/12/2007	289.98	290.06	0.08
				12/11/2007	290.16	--	--
				3/20/2007	291.31	--	--
				12/11/2007	290.16	--	--
				5/20/2008	291.74	--	--
				6/5/2008	291.50	--	--
				9/18/2008	290.00	--	--
				12/15/2008	290.07	--	--
				3/27/2009	292.05	--	--
				6/9/2009	290.54		
MW-10	9/5/2007	336.55	335.89	9/12/2007	281.03	--	--
				12/12/2007	289.05	--	--
				3/20/2008	291.48	--	--
				5/20/2008	291.80	--	--
				6/5/2008	292.22	--	--
				9/18/2008	290.00	--	--
				12/15/2008	289.98	--	--
				3/27/2009	292.07	--	--
				6/9/2009	290.70	--	--
MW-11	9/6/2007	330.29	329.89	9/12/2007	Dry	--	--
				12/12/2007	287.16	--	--
				3/20/2008	292.60	--	--
				5/20/2008	292.83	--	--
				6/5/2008	292.71	--	--
				9/18/2008	290.92	--	--
				12/15/2008	290.53	--	--
				3/27/2009	293.02	--	--
				6/9/2009	291.59	--	--

Notes:
NM - Not measured
1. All elevations displayed in feet above average mean sea level (msl).
2. Groundwater and product elevations calculated from depths as measured from top of casing - north.
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-5 through MW-7 abandoned 6/23/08.

TABLE 3
Summary of Groundwater Analytical Results
Gasoline Compounds
Second Quarter 2009 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Date	Gasoline Compounds				
		TPH-GRO	Benzene	Toluene	Ethylbenzene	Xylenes
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
ESL[1)]		100	1	40	30	20
MW-1	2/22/2006	**57,000**	**38**	**2,700**	**3,000**	**8,700**
	6/8/2006	**37,000**	**10**	**330**	**120**	**8,200**
	Q3 2006[3)]	NS	NS	NS	NS	NS
	11/15/2006	**38,000**	**14**	**110**	**38**	**5,900**
	2/21/2007	**18,000**	**4**	**7**	**8**	**1,600**
	6/5/2007	**17,000**	**3**	**7**	**4**	**1,100**
	Q3 2007[3)]	NS	NS	NS	NS	NS
	Q4 2007[3)]	NS	NS	NS	NS	NS
	3/19/2008	**12,000**	**0.8**	**1**	**1**	**320**
	6/6/2008	**8,200**	**1**	**2**	**3**	**150**
	Q3 2008[4)]	NS	NS	NS	NS	NS
	Q4 2008[4)]	NS	NS	NS	NS	NS
	3/31/2009	**3,700**	<0.5	**1**	**1**	**44**
	6/10/2009	**5,000**	<0.5	<0.5	**0.7**	**13**
MW-2	2/21/2006[2)]	<50 / <50	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5
	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5
	8/23/2006	<50	0.5	<0.5	<0.5	<0.5
	11/14/2006	<50	**0.7**	<0.5	<0.5	<0.5
	2/21/2007	<50	<0.5	<0.5	<0.5	<0.5
	6/5/2007	<50	<0.5	<0.5	<0.5	<0.5
	Q3 2007[4)]	NS	NS	NS	NS	NS
	Q4 2007[4)]	NS	NS	NS	NS	NS
	3/19/2008	<50	<0.5	<0.5	<0.5	<0.5
	6/5/2008 [2)]	<50 / <50	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5
	Q3 2008[4)]	NS	NS	NS	NS	NS
	Q4 2008[4)]	NS	NS	NS	NS	NS
	3/27/2009	<50	<0.5	<0.5	<0.5	<0.5
	Q2 2009 [4)]	NS	NS	NS	NS	NS
MW-3	2/21/2006	<50	<0.5	<0.5	<0.5	<0.5
	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5
	8/23/2006	**170**	<0.5	<0.5	<0.5	<0.5
	11/14/2006	**86**	<0.5	**1**	<0.5	<0.5
	2/21/2007	<50	<0.5	<0.5	<0.5	<0.5
	Q2 2007[4)]	NS	NS	NS	NS	NS
	Q3 2007[4)]	NS	NS	NS	NS	NS
	Q4 2007[4)]	NS	NS	NS	NS	NS
	3/19/2008	<50	<0.5	<0.5	<0.5	<0.5
	6/5/2008	<50	<0.5	<0.5	<0.5	<0.5
	Q3 2008[4)]	NS	NS	NS	NS	NS
	Q4 2008[4)]	NS	NS	NS	NS	NS
	3/31/2009	<50	<0.5	<0.5	<0.5	<0.5
	Q2 2009 [4)]	NS	NS	NS	NS	NS
MW-4	2/21/2006	<50	<0.5	<0.5	<0.5	<0.5
	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5
	8/23/2006	**70**	**0.6**	<0.5	<0.5	**1**
	11/15/2006	<50	<0.5	<0.5	<0.5	0.5
	2/21/2007	<50	<0.5	<0.5	<0.5	<0.5
	Q2 2007[4)]	NS	NS	NS	NS	NS
	Q3 2007[4)]	NS	NS	NS	NS	NS
	Q4 2007[4)]	NS	NS	NS	NS	NS
	3/19/2008	<50	<0.5	<0.5	<0.5	<0.5
	6/6/2008	<50	<0.5	<0.5	<0.5	<0.5
	Q3 2008[4)]	NS	NS	NS	NS	NS
	Q4 2008[4)]	NS	NS	NS	NS	NS
	3/31/2009	<50	<0.5	<0.5	<0.5	<0.5
	Q2 2009 [4)]	NS	NS	NS	NS	NS

TABLE 3
Summary of Groundwater Analytical Results
Gasoline Compounds
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Well ID	Date	Gasoline Compounds				
		TPH-GRO	Benzene	Toluene	Ethylbenzene	Xylenes
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
ESL[1]		100	1	40	30	20
MW-8/MW-X	8/24/2006	**18,000**	**190**	**2,600**	**590**	**2,800**
	11/16/2006	**990**	**76**	**80**	**69**	**190**
	2/20/2007	**2,000**	**180**	**57**	**170**	**74**
	6/6/2007	**3,600**	**340**	**92**	**370**	**210**
	9/12/2007	**4,200**	**470**	**230**	**630**	**320**
	12/11/2007	**4,900**	**350**	**300**	**490**	**650**
	Q1 2008[5]	NS	NS	NS	NS	NS
	Q2 2008[5]	NS	NS	NS	NS	NS
	9/18/2008[2]	**11,000 / 9,200**	**740 / 690**	**320 / 290**	**790 / 720**	**2,600 / 2,100**
	12/15/2008	**12,000**	**810**	**920**	**880**	**3,300**
	3/27/2009	**29,000/29,000J**	**1,500/1,200**	**7,200/4,500**	**1,200/1,100**	**4,700/4,100**
	Q2 2009[4]	NS	NS	NS	NS	NS
MW-9	Q3 2006[3]	NS	NS	NS	NS	NS
	11/15/2006	**74,000**	**480**	**12,000**	**2,200**	**17,000**
	Q1 2007[3]	NS	NS	NS	NS	NS
	Q2 2007[3]	NS	NS	NS	NS	NS
	Q3 2007[3]	NS	NS	NS	NS	NS
	12/11/2007	**48,000**	**62**	**5,400**	**1,700**	**12,000**
	Q1 2008[3]	NS	NS	NS	NS	NS
	6/6/2008	**31,000**	**5**	**1,000**	**1,300**	**9,000**
	9/18/2008	**25,000**	**6**	**610**	**800**	**4,800**
	12/16/2008	**34,000**	**6**	**750**	**930**	**6,000**
	3/31/2009	**20,000**	**3**	**100**	**460**	**3,200**
	6/10/2009	**27,000**	<3	**66**	**610**	**4,100**
MW-10	Q3 2007[4]	NS	NS	NS	NS	NS
	12/14/2007	<50	<0.5	<0.5	<0.5	<0.5
	3/20/2008	<50	**0.9**	<0.5	<0.5	<0.5
	6/6/2008	<50	<0.5	<0.5	<0.5	<0.5
	9/18/2008	<50	<0.5	<0.5	<0.5	<0.5
	12/15/2008	<50	<0.5	<0.5	<0.5	<0.5
	3/27/2009	**52**	<0.5	**0.7**	<0.5	<0.5
	6/10/2009	<50	<0.5	**1**	<0.5	<0.5
MW-11	Q3 2007[4]	NS	NS	NS	NS	NS
	12/14/2007	<50	<0.5	<0.5	<0.5	<0.5
	3/20/2008[2]	<50 / <50	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5
	6/6/2008	<50	<0.5	<0.5	<0.5	<0.5
	9/18/2008	<50	<0.5	<0.5	<0.5	<0.5
	12/15/2008	<50	<0.5	<0.5	<0.5	<0.5
	3/27/2009	<50	<0.5	<0.5	<0.5	<0.5
	6/10/2009	**59**	<0.5	**2**	<0.5	**3**
SW-Creek	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5
	8/22/2006	<50	<0.5	<0.5	<0.5	<0.5
	11/15/2006	<50	<0.5	<0.5	<0.5	<0.5
	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
	6/5/2007	<50	<0.5	<0.5	<0.5	<0.5
	9/12/2007	<50	<0.5	<0.5	<0.5	<0.5
	1/25/2008	<50	<0.5	<0.5	<0.5	<0.5

TABLE 3
Summary of Groundwater Analytical Results
Gasoline Compounds
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Chevron Sunol Pipeline

Well ID	Date	Gasoline Compounds				
		TPH-GRO	Benzene	Toluene	Ethylbenzene	Xylenes
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
ESL[1)]		100	1	40	30	20
	3/20/2008	<50	<0.5	<0.5	<0.5	<0.5
	6/5/2008	<50	<0.5	<0.5	<0.5	<0.5
	9/18/2008	<50	<0.5	<0.5	<0.5	<0.5
	12/15/2008	<50	<0.5	<0.5	<0.5	<0.5
	3/31/2009	<50	<0.5	<0.5	<0.5	<0.5
	6/9/2009	<50	<0.5	<0.5	<0.5	<0.5

Notes:
Bold values exceed laboratory reporting limits.
J qualifier - The reported value is the approximate concentration of the analyte in the sample due to sample heterogeneity.
µg/L - micrograms per liter
NS - Not Sampled
TPH-GRO - Total Petroleum Hydrocarbons as Gasoline Range Organics

1) Environmental Screening Levels (ESLs) for groundwater as a current or potential source of drinking water were obtained from the San Francisco Regional Water Quality Control Board (RWQCB) Interim Final: Table A, May 2008.
2) Both sample and duplicate concentrations from well location are displayed.
3) Sample not collected during quarterly monitoring due to the presence of measurable free product.
4) Sample not collected during quarterly monitoring because well is not hydraulically connected to unconfined water-bearing zone.
5) Sample not collected due to extreme overhead hazards posed by dead trees on the 80-90% grade directly uphill from the sampling location.

TABLE 4
Summary of Groundwater Analytical Results
Geochemical Indicators and Other Parameters
Second Quarter 2009 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Date	Geochemical Indicators and Other Parameters											
		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 $CaCO_3$	Alkalinity to pH 8.3 (mg/L) as $CaCO_3$
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
	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]
	11/15/2006	4.87[6]	25	0.37 J	1	0.22	0.079	108	<0.002	6.67	882	597	<0.46
	3/31/2009	2.45	-147	10.3J	0.534	0.12	<0.052	62.4	0.051	6.61	650	343	<0.46
	6/10/2009	0.00	-115	0.420	0.576	0.20	<0.052	72.6	<0.005	7.07	614	422	<0.46
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
	8/23/2006	0.32	25.69	7	0.024	0.015	<0.052	121	0.005	6.63	811	470	<0.46
	11/14/2006	0.2	220.84	4	0.021	0.021	<0.052 UJ	126 J	0.004	6.72	867	530	<0.46
	3/27/2009	5.47	-86	18.2	0.017	0.036J	<0.052	65	<0.01	6.62	642	347	<0.46
	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	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
	8/23/2006	0.3	-1.8	<0.25	0.368	0.24	<0.052	26.3	1.5	6.60	711	421	<0.46
	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]
	3/31/2009	0.00	48	22.2J	0.0017	0.08	<0.052	57.7	<0.01	6.75	688	320	<0.46
	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	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
	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
	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
	3/31/2009	3.96	5	19.5J	0.0406	0.14	<0.052	83.7	<0.01	6.64	631	323	<0.46
	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	8/24/2006	NM[2]	NM[2]	<0.25	0.171	0.14	<0.052	90.2	<0.002 UJ	NM[2]	563	362	<0.46
	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
	3/27/2009	6.88[6]	-113	0.27	0.553	2.5J	<0.052	15.5	0.13	6.74	639	467	<0.46
	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-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]
	11/15/2006	3.01[6]	4	<0.25 UJ	4.41	1.2	0.496	29.5	0.009	6.92	836	657	<0.46
	3/31/2009	3.35	-179	0.39J	3.2	0.099	<0.052	60.5	0.012	6.59	632	419	<0.46
	6/10/2009	0.00	-141	<0.25	3.01	1.70	<0.052	46.4	<0.005	6.98	622	468	<0.46
MW-10	3/27/2009	3.65	48	8.2	0.367	0.21J	<0.052	155	0.28	6.69	1,200	645	<0.46
	6/10/2009	0.37	109	<0.25	0.767	0.80	<0.052	133	2.30	7.20	1,100	623	<0.46
MW-11	3/27/2009	5.86	53	15.3	0.114	0.058J	<0.052	134	0.06	6.61	742	365	<0.46
	6/10/2009	0.37	44	NM	0.415	NM	NM	NM	0.120	7.16	NM	NM	NM

Notes:
DO = Dissolved oxygen
ORP = Oxygen reduction potential
TDS = Total dissolved solids
$CaCO_3$ = Calcium Carbonate
NM = Not measured
NR = Not Reported
J = Estimated result
UJ = Estimated result

Note: MW-5, MW-6, and MW-7 were destroyed on 6/23/08

1) 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 free product at this loaction.
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-paramter meter from a bailer.
7) Sample not collected during quarterly monitoring because well is not hydraulically connected to unconfined water-bearing zone.

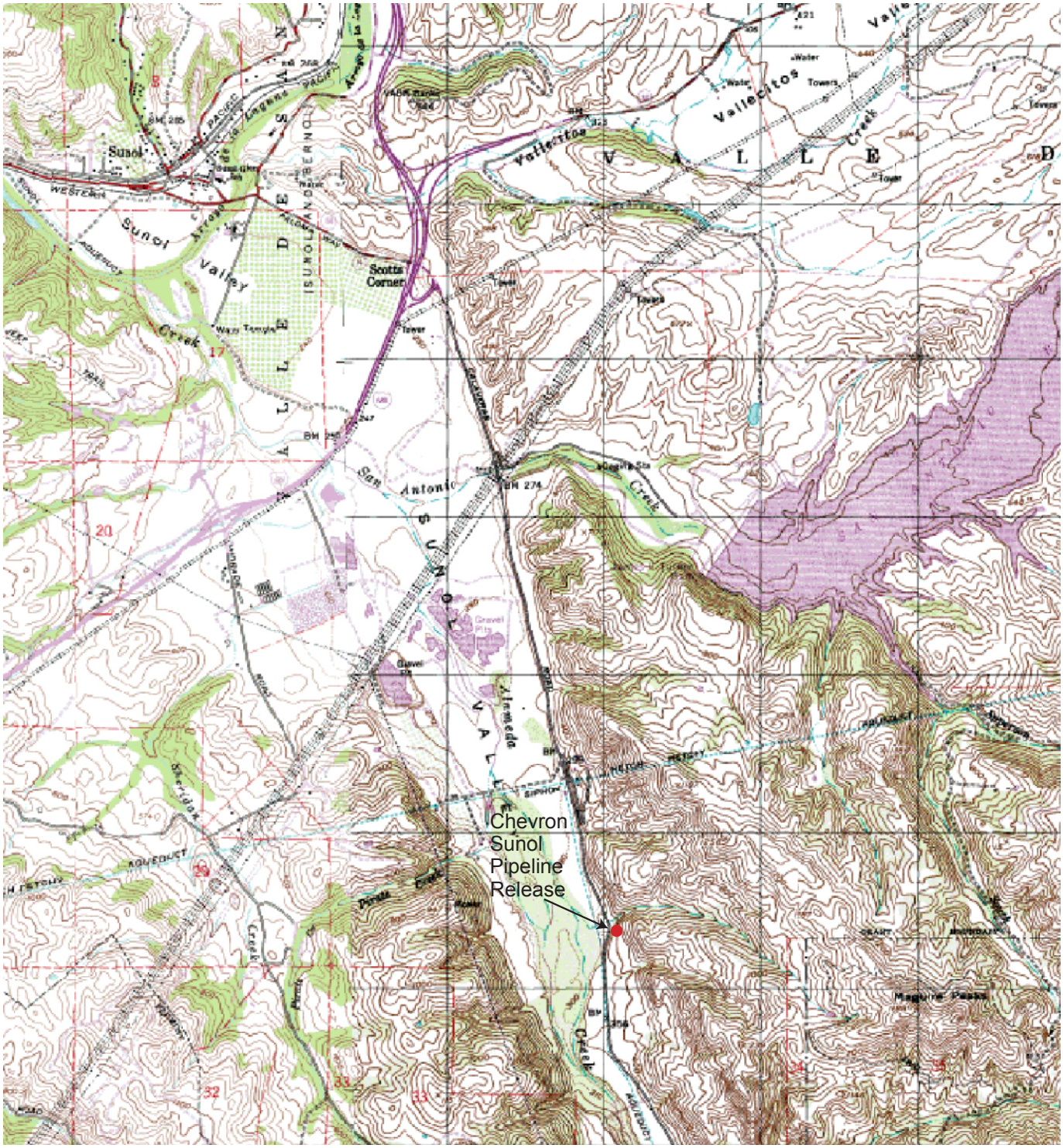


Image obtained from topozone.com

N

MAP REFERENCE:

PORTION OF U.S.G.S. QUANDRANGLE MAP
7 1/2 MINUTE SERIES (TOPOGRAPHIC)
LA COSTA VALLEY QUADRANGLE

URS	Chevron Pipeline Company Project No. 26815217	SITE VICINITY MAP CHEVRON SUNOL PIPELINE SUNOL, CALIFORNIA	Figure 1

NORTH

0 50 100

SCALE IN FEET

CURRENT STREAM SAMPLE LOCATION

VERY SMALL STREAM

SW–CREEK
(Former Surface Water Sampling Location)

UPPER DIRT ROAD

LOWER DIRT ROAD

PIPELINE

CALAVERAS ROAD

MW–10

PROPERTY LINE/FENCE

MW–11

MW–9

MW–4

MW–3

MW–1

MW–2

MW–7

MW–8

MW–5

MW–6

SVE–1D

SVE–2S

SVE–8

SVE–3S

SVE–7

SVE–4D

SVE–5

SVE–6

SVE–9

RELEASE LOCATION

HILL SLOPE

HILL SLOPE

HILL SLOPE

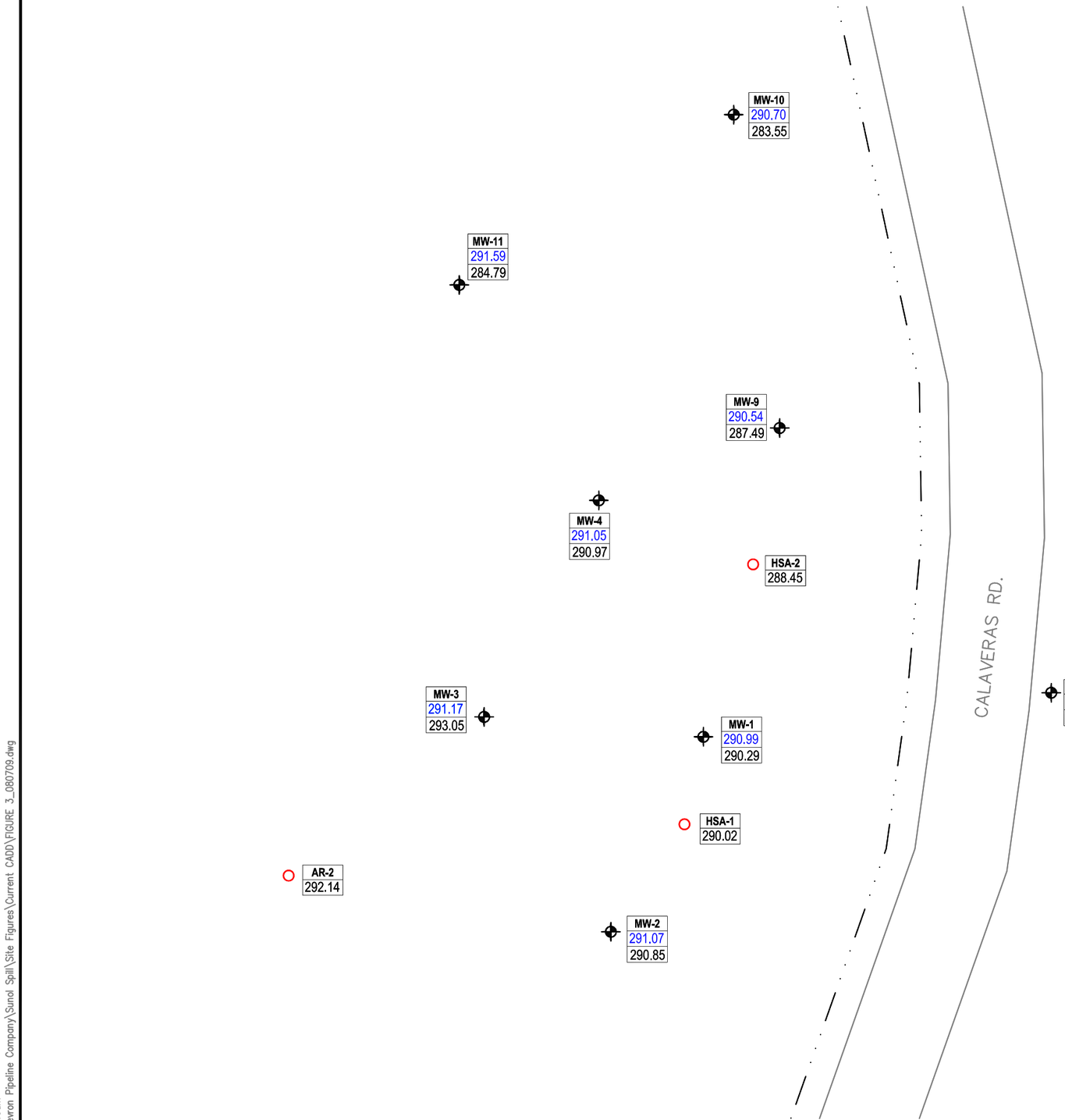
HILL SLOPE AND DENSE VEGETATION

LEGEND:

- SURFACE WATER SAMPLE LOCATIONS
- MONITORING WELL
- ABANDONED MONITORING WELLS
- SVE WELL
- SHELF
- STAIRS
- FENCE
- PIPELINE
- SMALL STREAM
- PROPERTY LINE/FENCE
- HILL SLOPE 80–90% GRADE

URS	CHEVRON PIPELINE COMPANY Project No. 26815217	SVE AND GROUNDWATER MONITORING WELL LOCATIONS CHEVRON SUNOL PIPELINE	Figure 2

Jul 16, 2008 – 4:49pm
X:\x_env_waste\Chevron Pipeline Company\Sunol Spill\Site Figures\Current CADD\FIGURE 2.dwg



LEGEND:

- MONITORING WELL
- MW-11 / 291.59 / 284.79 — MONITORING WELL LABEL; GROUNDWATER ELEVATION; BEDROCK CONTACT ELEVATION
- SOIL BORING
- HSA-2 / 288.45 — SOIL BORING LABEL; BEDROCK CONTACT ELEVATION
- NM — NOT MEASURED

NOTES:

1. ELEVATIONS IN FEET ABOVE AVERAGE MEAN SEA LEVEL (msl).
2. GROUNDWATER ELEVATIONS FOR MW-1 THROUGH MW-4 AND MW-9 THROUGH MW-11, AS MEASURED ON JUNE 9, 2009.
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).

NORTH

0 30' 60'

SCALE: 1" = 30'

URS	CHEVRON PIPELINE COMPANY Project No. 26815217	UNCONFINED WATER-BEARING ZONE GROUNDWATER AND BEDROCK ELEVATIONS MAP CHEVRON SUNOL PIPLINE	Figure 3

Aug 07, 2009 - 11:16am
X:\x_env_waste\Chevron Pipeline Company\Sunol Spill\Site Figures\Current CADD\FIGURE 3_080709.dwg

Appendix A
Groundwater Sampling Forms

URS

Horriba 06/10/09

Low-Flow System
ISI Low-Flow Log

Project Information:		**Pump Information:**	
Operator Name	Rachel Naccarati/ Jacob Henry	Pump Model/Type	
Company Name	URS	Tubing Type	PVC
Project Name	Chevron Sunol Pipeline	Tubing Diameter	0.38 [in]
Site Name	Sunol	Tubing Length	41.3 [ft]
		Pump placement from TOC	38.3 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-1	Final pumping rate	450 mL/min
Well diameter	4 [in]	Flowcell volume	NM
Well total depth	39.3 [ft]	Calculated Sample Rate	NM
Depth to top of screen	29.3 [ft]	Sample rate	NM
Screen length	10 [ft]	Stabilized drawdown	NM
Depth to Water	37.05 [ft]		

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond. [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-3%	+/-1	+/-0.2	+/-20
Last 5 Readings	14:41	17.9	6.71	0.112	162.0	0.16	-97
	14:44	17.4	6.91	0.111	135.0	0.00	-116
	14:47	17.3	6.99	0.111	120.0	0.00	-122
	14:50	17.3	7.05	0.111	113.0	0.00	-124
	14:53	17.2	7.04	0.111	113.0	0.00	-124
	14:56	17.3	7.07	0.111	112.0	0.00	-124
	14:59	17.3	7.09	0.111	115.0	0.00	-123
	15:02	17.3	7.09	0.111	114.0	0.00	-120
	15:05	17.3	7.07	0.111	114.0	0.00	-115
	15:10	Sample MW-1					
Variance in last 3 readings		0.0	-0.02	0.000	-3.0	0.00	-1
		0.0	0.00	0.000	1.0	0.00	-3
		0.0	0.02	0.000	0.0	0.00	-5

Notes:
Starting pumping at 14:35
Initial depth to water = 37.05 ft
Total Volume Purged = 4 gallons
Sample collected at 15:10
Slight odor

URS

Horriba 06/10/09

Low-Flow System
ISI Low-Flow Log

Project Information:		**Pump Information:**	
Operator Name	Rachel Naccarati/ Jacob Henry	Pump Model/Type	
Company Name	URS	Tubing Type	PVC
Project Name	Chevron Sunol Pipeline	Tubing Diameter	0.38 [in]
Site Name	Sunol	Tubing Length	48.0 [ft]
		Pump placement from TOC	45.0 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-9	Final pumping rate	450 mL/min
Well diameter	2 [in]	Flowcell volume	NM
Well total depth	46.0 [ft]	Calculated Sample Rate	NM
Depth to top of screen	36.0 [ft]	Sample rate	NM
Screen length	10 [ft]	Stabilized drawdown	NM
Depth to Water	42.53 [ft]		

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond. [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-3%	+/-1	+/-0.2	+/-20
Last 5 Readings	13:38	18.1	6.85	0.113	248.0	0.79	-94
	13:41	17.9	6.66	0.113	203.0	0.19	-98
	13:44	17.8	6.74	0.113	101.0	0.09	-111
	13:47	17.9	6.85	0.113	51.5	0.02	-119
	13:50	18.2	6.89	0.113	40.7	0.00	-128
	13:53	18.2	6.92	0.113	37.3	0.00	-132
	13:56	18.2	6.93	0.113	37.8	0.00	-135
	13:59	18.2	6.94	0.113	34.7	0.00	-136
	14:02	18.3	6.98	0.113	33.4	0.00	-139
	14:05	18.4	6.99	0.113	33.0	0.00	-141
	14:08	18.4	6.98	0.113	32.7	0.00	-141
	14:10	Sample MW-9					
Variance in last 3 readings		-0.1	-0.04	0.000	1.3	0.00	3
		-0.1	-0.01	0.000	0.4	0.00	2
		0.0	0.01	0.000	0.3	0.00	0

Notes:
Starting pumping at 13:30
Initial depth to water = 42.53 ft
Total Volume Purged = 4 gallons
Sample collected at 14:10
Slight odor observed
Slight sheen on purged water

URS

Horriba
06/10/09

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	Rachel Naccarati/ Jacob Henry
Company Name	URS
Project Name	Chevron Sunol Pipeline
Site Name	Sunol

Pump Information:

Pump Model/Type	
Tubing Type	PVC
Tubing Diameter	0.38 [in]
Tubing Length	57.3 [ft]
Pump placement from TOC	54.3 [ft]

Well Information:

Well Id	MW-10
Well diameter	2 [in]
Well total depth	55.3 [ft]
Depth to top of screen	40.3 [ft]
Screen length	15 [ft]
Depth to Water	45.29 [ft]

Pumping information:

Final pumping rate	400 mL/min
Flowcell volume	NM
Calculated Sample Rate	NM
Sample rate	NM
Stabilized drawdown	NM

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond. [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-3%	+/-1	+/-0.2	+/-20
Last 5 Readings	12:36	18.5	7.16	0.192	411.0	1.36	155
	12:39	18.0	7.00	0.191	414.0	0.86	156
	12:42	18.0	7.14	0.191	401.0	0.77	139
	12:45	18.6	7.18	0.189	375.0	0.81	123
	12:48	19.3	7.24	0.189	275.0	0.90	111
	12:51	18.4	7.27	0.188	506.0	0.89	109
	12:54	18.7	7.24	0.185	536.0	0.55	110
	12:57	18.8	7.22	0.183	445.0	0.39	108
	13:00	18.9	7.21	0.182	366.0	0.36	107
	13:03	19.1	7.20	0.182	359.0	0.37	109
	13:06	Sample MW-10					
Variance in last 3 readings		-0.1	0.02	0.002	91.0	0.16	2
		-0.1	0.01	0.001	79.0	0.03	1
		-0.2	0.01	0.000	7.0	-0.01	-2

Notes:
Starting pumping at 12:23
Initial depth to water = 45.29 ft
Total Volume Purged = 3 gallons
Sample collected at 13:06

URS

Horriba
06/10/09

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	Rachel Naccarati/ Jacob Henry
Company Name	URS
Project Name	Chevron Sunol Pipeline
Site Name	Sunol

Pump Information:

Pump Model/Type	
Tubing Type	PVC
Tubing Diameter	0.38 [in]
Tubing Length	49.0 [ft]
Pump placement from TOC	46.0 [ft]

Well Information:

Well Id	MW-11
Well diameter	2 [in]
Well total depth	47.0 [ft]
Depth to top of screen	37.0 [ft]
Screen length	10 [ft]
Depth to Water	38.30 [ft]

Pumping information:

Final pumping rate	300 mL/min
Flowcell volume	NM
Calculated Sample Rate	NM
Sample rate	NM
Stabilized drawdown	NM

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond. [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-3%	+/-1	+/-0.2	+/-20
Last 5 Readings	11:21	18.5	7.13	0.195	275.0	1.15	28
	11:24	18.7	7.14	0.194	273.0	1.15	29
	11:27	19.2	7.16	0.194	242.0	1.19	29
	11:30	19.6	7.19	0.192	221.0	1.27	27
	11:33	19.2	7.24	0.197	286.0	1.23	29
	11:36	18.5	7.21	0.193	124.0	0.78	35
	11:39	18.6	7.15	0.194	101.0	0.40	41
	11:42	18.7	7.15	0.194	99.1	0.38	43
	11:45	18.9	7.16	0.193	96.2	0.37	44
	11:50	Sample MW-11					
Variance in last 3 readings		-0.1	0.06	-0.001	23.0	0.38	-6
		-0.1	0.00	0.000	1.9	0.02	-2
		-0.2	-0.01	0.001	2.9	0.01	-1

Notes:
Starting pumping at 11:15
Initial depth to water = 38.30 ft
Total Volume Purged = 2.5 gallons
Sample collected at 11:50

Appendix B
Laboratory Analytical Results

Lancaster Laboratories

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Analysis Report

ANALYTICAL RESULTS

Prepared for:

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

713-432-3335

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

June 29, 2009

SAMPLE GROUP

The sample group for this submittal is 1148834. Samples arrived at the laboratory on Friday, June 12, 2009. The PO# for this group is 0015036686 and the release number is COSGRAY.

Client Description	Lancaster Labs Number
Stream Grab Water	5697531
MW-1 Grab Water	5697532
MW-1_Filtered Grab Water	5697533
MW-9 Grab Water	5697534
MW-9_Filtered Grab Water	5697535
MW-10 Grab Water	5697536
MW-10_Filtered Grab Water	5697537
MW-11 Grab Water	5697538
TB-1 NA Water	5697540

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Chronicle.

ELECTRONIC COPY TO	URS	Attn: Joe Morgan
ELECTRONIC COPY TO	URS	Attn: Rachel Naccarati
ELECTRONIC	URS	Attn: Jacob Henry

Lancaster Laboratories

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Analysis Report

COPY TO

Questions? Contact your Client Services Representative
Elizabeth A Leonhardt at (510) 232-8894

Respectfully Submitted,

Susan M. Goshert
Group Leader

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 5697531 **Group No. 1148834**
CA

Stream Grab Water
NA URSO
Sunol Pipeline SL0600100443 Stream

Collected: 06/09/2009 12:35 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/29/2009 at 13:14
Discard: 07/30/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUNST

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**ug/l**	**ug/l**	
06053	Benzene	71-43-2	N.D.	0.5	1
06053	Ethylbenzene	100-41-4	N.D.	0.5	1
06053	Toluene	108-88-3	N.D.	0.5	1
06053	Xylene (Total)	1330-20-7	N.D.	0.5	1
SW-846 8015B	**GC Volatiles**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

General Sample Comments

State of California Lab Certification No. 2116

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06053	BTEX by 8260B	SW-846 8260B	1	F091684AA	06/18/2009 01:51	Kelly E Brickley	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F091684AA	06/18/2009 01:51	Kelly E Brickley	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	09168A20A	06/18/2009 05:11	Carrie E Miller	1
01146	GC VOA Water Prep	SW-846 5030B	1	09168A20A	06/18/2009 05:11	Carrie E Miller	1

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Analysis Report

Lancaster Laboratories Sample No. WW 5697532 **Group No. 1148834**
CA

MW-1 Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-1

Collected: 06/10/2009 15:10 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/29/2009 at 13:14
Discard: 07/30/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUN01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**ug/l**	**ug/l**	
06053	Benzene	71-43-2	N.D.	0.5	1
06053	Ethylbenzene	100-41-4	0.7	0.5	1
06053	Toluene	108-88-3	N.D.	0.5	1
06053	Xylene (Total)	1330-20-7	13	0.5	1
SW-846 8015B	**GC Volatiles**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	5,000	250	5
SW-846 8015B modified	**GC Miscellaneous**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	5.0	1
SW-846 6010B	**Metals**		**ug/l**	**ug/l**	
07058	Manganese	7439-96-5	576	0.84	1
EPA 300.0	**Wet Chemistry**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen The holding time was not met.	14797-55-8	420	250	5
00228	Sulfate	14808-79-8	72,600	3,000	10
SM20 2320 B	**Wet Chemistry**		**ug/l as CaCO3**	**ug/l as CaCO3**	
00202	Alkalinity to pH 4.5	n.a.	422,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1
SM20 2540 C	**Wet Chemistry**		**ug/l**	**ug/l**	
00212	Total Dissolved Solids	n.a.	614,000	19,400	1
SM20 3500 Fe B modified	**Wet Chemistry**		**ug/l**	**ug/l**	
08344	Ferrous Iron	n.a.	200	10	1

General Sample Comments

State of California Lab Certification No. 2116

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06053	BTEX by 8260B	SW-846 8260B	1	F091684AA	06/18/2009 02:13	Kelly E Brickley	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F091684AA	06/18/2009 02:13	Kelly E Brickley	1

Lancaster Laboratories Sample No. WW 5697532

Group No. 1148834
CA

MW-1 Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-1

Collected: 06/10/2009 15:10 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/29/2009 at 13:14
Discard: 07/30/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUN01

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	09168A54A	06/18/2009 05:40	Marie D John	5
01146	GC VOA Water Prep	SW-846 5030B	1	09168A54A	06/18/2009 05:40	Marie D John	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	091660001A	06/16/2009 15:29	Dustin A Underkoffler	1
07058	Manganese	SW-846 6010B	1	091671848001	06/17/2009 19:55	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	091671848001	06/17/2009 13:58	James L Mertz	1
00368	Nitrate Nitrogen	EPA 300.0	2	09163201301A	06/26/2009 10:35	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	09163201301A	06/25/2009 02:47	Ashley M Adams	10
00202	Alkalinity to pH 4.5	SM20 2320 B	1	09173020201A	06/22/2009 08:38	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	09173020201A	06/22/2009 08:38	Susan A Engle	1
00212	Total Dissolved Solids	SM20 2540 C	1	09166021201A	06/15/2009 08:39	Susan E Hibner	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	09164834401A	06/13/2009 09:25	Daniel S Smith	1

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Analysis Report

Lancaster Laboratories Sample No. WW 5697533

Group No. 1148834
CA

MW-1_Filtered Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-1

Collected: 06/10/2009 15:10 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/29/2009 at 13:14
Discard: 07/30/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
SW-846 6010A	**Metals Dissolved**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	52.2	1

General Sample Comments

State of California Lab Certification No. 2116
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 Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010A	1	091671848001	06/17/2009 21:00	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	091671848001	06/17/2009 13:58	James L Mertz	1

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Analysis Report

Lancaster Laboratories Sample No. WW 5697534

Group No. 1148834
CA

MW-9 Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-9

Collected: 06/10/2009 14:10 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/29/2009 at 13:14
Discard: 07/30/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUN-9

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**ug/l**	**ug/l**	
06053	Benzene	71-43-2	N.D.	3	5
06053	Ethylbenzene	100-41-4	610	3	5
06053	Toluene	108-88-3	66	3	5
06053	Xylene (Total)	1330-20-7	4,100	25	50
SW-846 8015B	**GC Volatiles**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	27,000	500	10
SW-846 8015B modified	**GC Miscellaneous**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	5.0	1
SW-846 6010B	**Metals**		**ug/l**	**ug/l**	
07058	Manganese	7439-96-5	3,010	0.84	1
EPA 300.0	**Wet Chemistry**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen The holding time was not met.	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	46,400	1,500	5
SM20 2320 B	**Wet Chemistry**		**ug/l as CaCO3**	**ug/l as CaCO3**	
00202	Alkalinity to pH 4.5	n.a.	468,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1
SM20 2540 C	**Wet Chemistry**		**ug/l**	**ug/l**	
00212	Total Dissolved Solids	n.a.	622,000	19,400	1
SM20 3500 Fe B modified	**Wet Chemistry**		**ug/l**	**ug/l**	
08344	Ferrous Iron	n.a.	1,700	50	5

General Sample Comments

State of California Lab Certification No. 2116

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06053	BTEX by 8260B	SW-846 8260B	1	F091684AA	06/18/2009 02:34	Kelly E Brickley	5
06053	BTEX by 8260B	SW-846 8260B	1	F091684AA	06/18/2009 02:56	Kelly E Brickley	50

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Analysis Report

Lancaster Laboratories Sample No. WW 5697534

Group No. 1148834
CA

MW-9 Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-9

Collected: 06/10/2009 14:10 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/29/2009 at 13:14
Discard: 07/30/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUN-9

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F091684AA	06/18/2009 02:34	Kelly E Brickley	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F091684AA	06/18/2009 02:56	Kelly E Brickley	50
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	09168A54A	06/18/2009 03:19	Marie D John	10
01146	GC VOA Water Prep	SW-846 5030B	1	09168A54A	06/18/2009 03:19	Marie D John	10
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	091660001A	06/16/2009 15:48	Dustin A Underkoffler	1
07058	Manganese	SW-846 6010B	1	091671848001	06/17/2009 21:03	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	091671848001	06/17/2009 13:58	James L Mertz	1
00368	Nitrate Nitrogen	EPA 300.0	1	09171196602B	06/21/2009 22:47	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	09171196602B	06/21/2009 22:47	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	09173020201A	06/22/2009 08:38	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	09173020201A	06/22/2009 08:38	Susan A Engle	1
00212	Total Dissolved Solids	SM20 2540 C	1	09166021201A	06/15/2009 08:39	Susan E Hibner	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	09164834401A	06/13/2009 09:25	Daniel S Smith	5

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Analysis Report

Lancaster Laboratories Sample No. WW 5697535

Group No. 1148834
CA

MW-9_Filtered Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-9

Collected: 06/10/2009 14:10 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/29/2009 at 13:14
Discard: 07/30/2009

Chevron Pipeline Co.
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Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
SW-846 6010A	**Metals Dissolved**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	52.2	1

General Sample Comments

State of California Lab Certification No. 2116
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 Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010A	1	091671848001	06/17/2009 21:14	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	091671848001	06/17/2009 13:58	James L Mertz	1

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Analysis Report

Lancaster Laboratories Sample No. WW 5697536

Group No. 1148834
CA

MW-10 Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-10

Collected: 06/10/2009 13:06 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/29/2009 at 13:14
Discard: 07/30/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUN10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**ug/l**	**ug/l**	
06053	Benzene	71-43-2	N.D.	0.5	1
06053	Ethylbenzene	100-41-4	N.D.	0.5	1
06053	Toluene	108-88-3	1	0.5	1
06053	Xylene (Total)	1330-20-7	N.D.	0.5	1
SW-846 8015B	**GC Volatiles**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
SW-846 8015B modified	**GC Miscellaneous**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	2,300	50	10
SW-846 6010B	**Metals**		**ug/l**	**ug/l**	
07058	Manganese	7439-96-5	767	0.84	1
EPA 300.0	**Wet Chemistry**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen The holding time was not met.	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	133,000	6,000	20
SM20 2320 B	**Wet Chemistry**		**ug/l as CaCO3**	**ug/l as CaCO3**	
00202	Alkalinity to pH 4.5	n.a.	623,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1
SM20 2540 C	**Wet Chemistry**		**ug/l**	**ug/l**	
00212	Total Dissolved Solids	n.a.	1,100,000	38,800	1
SM20 3500 Fe B modified	**Wet Chemistry**		**ug/l**	**ug/l**	
08344	Ferrous Iron	n.a.	800	40	4

General Sample Comments

State of California Lab Certification No. 2116

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06053	BTEX by 8260B	SW-846 8260B	1	F091684AA	06/18/2009 03:18	Kelly E Brickley	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F091684AA	06/18/2009 03:18	Kelly E Brickley	1

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Analysis Report

Lancaster Laboratories Sample No. WW 5697536

Group No. 1148834
CA

MW-10 Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-10

Collected: 06/10/2009 13:06 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/29/2009 at 13:14
Discard: 07/30/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUN10

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	09168A54A	06/18/2009 06:27	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	09168A54A	06/18/2009 06:27	Marie D John	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	091660001A	06/17/2009 11:42	Dustin A Underkoffler	10
07058	Manganese	SW-846 6010B	1	091671848001	06/17/2009 21:18	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	091671848001	06/17/2009 13:58	James L Mertz	1
00368	Nitrate Nitrogen	EPA 300.0	1	09171196602B	06/21/2009 23:05	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	09171196602B	06/25/2009 02:32	Ashley M Adams	20
00202	Alkalinity to pH 4.5	SM20 2320 B	1	09173020201A	06/22/2009 08:38	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	09173020201A	06/22/2009 08:38	Susan A Engle	1
00212	Total Dissolved Solids	SM20 2540 C	1	09166021201A	06/15/2009 08:39	Susan E Hibner	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	09164834401A	06/13/2009 09:25	Daniel S Smith	4

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Analysis Report

Lancaster Laboratories Sample No. WW 5697537

Group No. 1148834
CA

MW-10_Filtered Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-10

Collected: 06/10/2009 13:06 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/29/2009 at 13:14
Discard: 07/30/2009

Chevron Pipeline Co.
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CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
SW-846 6010A	**Metals Dissolved**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	52.2	1

General Sample Comments

State of California Lab Certification No. 2116
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 Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010A	1	091671848001	06/17/2009 21:21	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	091671848001	06/17/2009 13:58	James L Mertz	1

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Analysis Report

Lancaster Laboratories Sample No. WW 5697538 **Group No. 1148834**
CA

MW-11 Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-11

Collected: 06/10/2009 11:50 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/29/2009 at 13:14
Discard: 07/30/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SU-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**ug/l**	**ug/l**	
06053	Benzene	71-43-2	N.D.	0.5	1
06053	Ethylbenzene	100-41-4	N.D.	0.5	1
06053	Toluene	108-88-3	2	0.5	1
06053	Xylene (Total)	1330-20-7	3	0.5	1
SW-846 8015B	**GC Volatiles**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	59	50	1
SW-846 8015B modified	**GC Miscellaneous**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	120	5.0	1
SW-846 6010B	**Metals**		**ug/l**	**ug/l**	
07058	Manganese	7439-96-5	415	0.84	1

General Sample Comments

State of California Lab Certification No. 2116

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06053	BTEX by 8260B	SW-846 8260B	1	F091684AA	06/18/2009 03:40	Kelly E Brickley	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F091684AA	06/18/2009 03:40	Kelly E Brickley	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	09168A54A	06/17/2009 22:36	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	09168A54A	06/17/2009 22:36	Marie D John	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	091660001A	06/16/2009 16:17	Dustin A Underkoffler	1
07058	Manganese	SW-846 6010B	1	091701848002	06/23/2009 03:18	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	091701848002	06/22/2009 13:10	James L Mertz	1

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Analysis Report

Lancaster Laboratories Sample No. WW 5697540

Group No. 1148834
CA

TB-1 NA Water
NA URSO
Sunol Pipeline SL0600100443 TB-1

Collected: 06/10/2009 16:30

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/29/2009 at 13:14
Discard: 07/30/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUNTR

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**ug/l**	**ug/l**	
06053	Benzene	71-43-2	N.D.	0.5	1
06053	Ethylbenzene	100-41-4	N.D.	0.5	1
06053	Toluene	108-88-3	N.D.	0.5	1
06053	Xylene (Total)	1330-20-7	N.D.	0.5	1
SW-846 8015B	**GC Volatiles**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

General Sample Comments

State of California Lab Certification No. 2116

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06053	BTEX by 8260B	SW-846 8260B	1	F091684AA	06/18/2009 04:01	Kelly E Brickley	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F091684AA	06/18/2009 04:01	Kelly E Brickley	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	09168A54A	06/17/2009 20:39	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	09168A54A	06/17/2009 20:39	Marie D John	1

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Analysis Report

Quality Control Summary

Client Name: Chevron Pipeline Co. Group Number: 1148834
Reported: 06/29/09 at 01:14 PM

Matrix QC may not be reported if 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.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F091684AA	Sample number(s): 5697531-5697532,5697534,5697536,5697538,5697540							
Benzene	N.D.	0.5	ug/l	91		80-116		
Ethylbenzene	N.D.	0.5	ug/l	93		80-113		
Toluene	N.D.	0.5	ug/l	94		80-115		
Xylene (Total)	N.D.	0.5	ug/l	93		81-114		
Batch number: 09168A20A	Sample number(s): 5697531							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	91	100	75-135	10	30
Batch number: 09168A54A	Sample number(s): 5697532,5697534,5697536,5697538,5697540							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	109	118	75-135	8	30
Batch number: 091660001A	Sample number(s): 5697532,5697534,5697536,5697538							
Methane	N.D.	5.0	ug/l	97		80-120		
Batch number: 091671848001	Sample number(s): 5697532-5697537							
Iron	N.D.	52.2	ug/l	92		90-112		
Manganese	N.D.	0.84	ug/l	100		90-110		
Batch number: 091701848002	Sample number(s): 5697538							
Manganese	N.D.	0.84	ug/l	96		90-110		
Batch number: 09163201301A	Sample number(s): 5697532							
Nitrate Nitrogen	N.D.	50.	ug/l	97		90-110		
Sulfate	N.D.	300.	ug/l	91		89-110		
Batch number: 09171196602B	Sample number(s): 5697534,5697536							
Nitrate Nitrogen	N.D.	50.	ug/l	106		90-110		
Sulfate	N.D.	300.	ug/l	102		89-110		
Batch number: 09164834401A	Sample number(s): 5697532,5697534,5697536							
Ferrous Iron	N.D.	10.	ug/l	101		92-105		
Batch number: 09166021201A	Sample number(s): 5697532,5697534,5697536							
Total Dissolved Solids	N.D.	9,700.	ug/l	95		80-120		
Batch number: 09173020201A	Sample number(s): 5697532,5697534,5697536							
Alkalinity to pH 4.5	N.D.	460.	ug/l as CaCO3	101		98-103		

Sample Matrix Quality Control

*- 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: 1148834
Reported: 06/29/09 at 01:14 PM
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: F091684AA	Sample number(s): 5697531-5697532,5697534,5697536,5697538,5697540 UNSPK: P696975								
Benzene	101	101	80-126	0	30				
Ethylbenzene	103	103	77-125	0	30				
Toluene	104	105	80-125	1	30				
Xylene (Total)	103	103	79-125	1	30				
Batch number: 09168A20A	Sample number(s): 5697531 UNSPK: P696811								
TPH-GRO N. CA water C6-C12	82		63-154						
Batch number: 09168A54A	Sample number(s): 5697532,5697534,5697536,5697538,5697540 UNSPK: P697660								
TPH-GRO N. CA water C6-C12	145		63-154						
Batch number: 091660001A	Sample number(s): 5697532,5697534,5697536,5697538 UNSPK: P697937								
Methane	-3000 (2)	-3000 (2)	35-157	0	20				
Batch number: 091671848001	Sample number(s): 5697532-5697537 UNSPK: 5697532 BKG: 5697532								
Iron	39*	39*	75-125	0	20	2,620	2,060	24*	20
Manganese	98	93	75-125	2	20	576	578	0	20
Batch number: 091701848002	Sample number(s): 5697538 UNSPK: 5697538 BKG: 5697538								
Manganese	125	118	75-125	4	20	415	533	25*	20
Batch number: 09163201301A	Sample number(s): 5697532 UNSPK: P697527 BKG: P697527								
Nitrate Nitrogen	121*		90-110			N.D.	N.D.	0 (1)	20
Sulfate	124*		90-110			217,000	214,000	1 (1)	20
Batch number: 09171196602B	Sample number(s): 5697534,5697536 UNSPK: P696471 BKG: P696471								
Nitrate Nitrogen	112*		90-110			N.D.	N.D.	0 (1)	20
Sulfate	109		90-110			9,700	9,700	1 (1)	20
Batch number: 09164834401A	Sample number(s): 5697532,5697534,5697536 UNSPK: P697655 BKG: P697655								
Ferrous Iron	92	90	66-130	1	6	28,000	27,500	2 (1)	10
Batch number: 09166021201A	Sample number(s): 5697532,5697534,5697536 UNSPK: P697979 BKG: P697979								
Total Dissolved Solids	78	131	54-143	18*	12	2,880,000	3,520,000	20*	9
Batch number: 09173020201A	Sample number(s): 5697532,5697534,5697536 UNSPK: P697369 BKG: P697369								
Alkalinity to pH 4.5	100	100	64-130	0	2	59,400	59,500	0	4
Alkalinity to pH 8.3						N.D.	N.D.	0 (1)	4

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: BTEX by 8260B
Batch number: F091684AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5697531	91	86	89	96

*- 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: 1148834
Reported: 06/29/09 at 01:14 PM

Surrogate Quality Control

5697532	90	86	82	95
5697534	92	90	89	104
5697536	91	87	89	99
5697538	92	87	91	101
5697540	90	86	89	98
Blank	91	86	90	99
LCS	92	86	89	101
MS	94	90	92	104
MSD	93	88	91	103
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 09168A20A

	Trifluorotoluene-F
5697531	89
Blank	86
LCS	115
LCSD	118
MS	109
Limits:	63-135

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 09168A54A

	Trifluorotoluene-F
5697532	107
5697534	118
5697536	105
5697538	112
5697540	115
Blank	104
LCS	122
LCSD	125
MS	109
Limits:	63-135

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 091660001A

	Propene
5697532	80
5697534	71
5697536	98
5697538	66
Blank	103
LCS	102
MS	77
MSD	83
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.

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Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 11815 Sample #: 569753-40 SCR#:

248382

G# 1148834

Facility #: Chevron Pipeline Co.
Site Address: MP 27 Calaveras Road, Sunol, CA
Chevron PM: Jeff Cosgray Lead Consultant: URS Corp
Consultant/Office: Oakland, CA
Consultant Prj. Mgr.: Joe Morgan
Consultant Phone #: 510-893-3600 Fax #: 510-874-3184
Sampler: J. Henry / F. Naccarati
Service Order #: ☐ Non SAR:

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX+MTBE 8260 ☒ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	Lead Scan, Nitrate, Sulfate by EPA Meth. 300.0	Dissolved Iron by EPA Meth. 6010B — Cryogenates Total Manganese by EPA Meth. 6010B ☐	Lead 7420 ☐ 7421 ☐ Ferrous Iron by Hach Method 8146	Methane, Ethane, Ethene by RSK-175 Mod.	MNA Parameters: Alkalinity by SM 2320B	TDS by EPA Meth. 160.1	Hardness by calculation by EPA Meth. 310.1
										H	H			N	H				
Stream	Water	Y	NA	2009/06/09	1235	N	X			X	X								
MW-1	↓	↓	↓	2009/06/10	1510	↓	X			X	X		X	X	X	X		X	X
MW-9				2009/06/10	1410		X			X	X		X	X	X	X		X	X
MW-10				2009/06/10	1306		X			X	X		X	X	X	X		X	X
MW-11				2009/06/10	1150		X			X	X		#2	X	#2	X		#2	#2
TB-1	Water	N	NA	2009/06/10	1630	N				X	X								

Comments / Remarks
*Please filter Dissolved Iron sample.

Turnaround Time Requested (TAT) (please circle)
(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by: J. Henry	6/11/09	1150	Received by:		
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by Commercial Carrier: UPS (FedEx) Other			Received by:	Date 6/12/09	Time 705
Temperature Upon Receipt 4.1 C°			Custody Seals Intact? (Yes) No		

Lancaster Laboratories
Explanation of Symbols and Abbreviations

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

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< 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 of gas 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.

U.S. EPA data qualifiers:

Organic Qualifiers

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

Inorganic Qualifiers

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

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

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.

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