August 17, 2010

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 2010 Groundwater Monitoring Report**" are true and correct to the best of my knowledge at the present time.

Submitted by:

Jeffery W. Johnson

Jeffery Johnson
Chevron Pipe Line Company

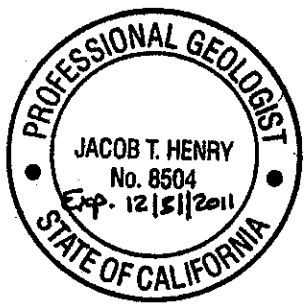
This letter report ("**Second Quarter 2010 Groundwater Monitoring Report**") was prepared under my direct supervision. The information presented in this report is based on our review of available data obtained during our quarterly sampling activities and our previous subsurface investigation efforts. 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 Second Quarter 2010 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.



REPORT

SECOND QUARTER 2010 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 2010

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URS

August 17, 2010

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 2010 Groundwater Monitoring Report

Dear Mr. Wickham:

A December 30, 2005 letter provided by the Alameda County Environmental Health Department staff (ACEHD) requested the initiation of a quarterly groundwater monitoring program for the Chevron Pipeline Company (CPL) Sunol Spill Site (Site). In response to this request and on behalf of CPL, URS has prepared the Site groundwater monitoring report for the second quarter 2010.

If you have any questions on this report, please call Mr. Joe Morgan or Mr. Jacob Henry of URS at 510-874-3201 or 510-874-3252, respectively.

Sincerely yours,

URS Corporation

PROFESSIONAL GEOLOGIST
JACOB T. HENRY
No. 8504
Exp. 12/31/2011
STATE OF CALIFORNIA

Jacob Henry, P.G.
Senior Geologist

Joe Morgan III
Senior Project Manager

cc: Mr. Jeff Johnson, Chevron Pipeline Company
Ms. Rachel Naccarati, URS Oakland

Tables:

Table 1 – Monitoring Well Groundwater Levels
Table 2 – Monitoring Well Groundwater Elevations
Table 3 – Summary of Groundwater Analytical Results – Gasoline Compounds
Table 4 – Summary of Groundwater Analytical Results – Geochemical Indicators and Other Parameters

Figures:

Figure 1 – Site Vicinity Map
Figure 2 – SVE and Groundwater Monitoring Well Locations
Figure 3 – Unconfined Water-Bearing Zone and Bedrock Elevations Map

Appendices:

Appendix A – Groundwater Sampling Forms
Appendix B – Laboratory Analytical Results

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On June 23 and 24, 2010, URS conducted field activities to assess the groundwater conditions at the Site. A Site vicinity map is included as Figure 1. URS gauged the depth to groundwater at groundwater monitoring wells MW-1 through MW-4 and MW-8 through MW-11. URS collected groundwater samples for laboratory analysis from groundwater monitoring wells MW-2, MW-4, and MW-8 through MW-11. The groundwater elevations in monitoring wells MW-1 and MW-3 were below bedrock and hydraulically disconnected from the unconfined water bearing zone, therefore they were not sampled as part of this sampling event. URS also collected a surface water sample from the very small stream, located northwest of the release location. Monitoring well and surface water sampling locations are provided on Figure 2. Monitoring wells MW-5 through MW-7 were abandoned on June 23, 2008, and are no longer part of the groundwater monitoring program.

1.1 SITE HYDROGEOLOGY

Prior to collecting groundwater samples, depth to groundwater measurements were recorded from monitoring wells MW-1 through MW-4 and MW-8 through MW-11 from the top of casing using an electronic oil/water interface probe. Product was not detected in any Site wells during the second quarter 2010. Depth to groundwater measurements are presented in Table 1 and calculated groundwater elevations above mean sea level are presented in Table 2.

Unconfined Water Bearing Zone

The groundwater surface elevation decreased in all monitoring wells (MW-1 through MW-4 and MW-8 through MW-11) relative to the last sampling event in March 2010. The groundwater surface elevation change at MW-1 and MW-3 resulted in hydraulic disconnection. The groundwater elevations for monitoring wells MW-1 through MW-4 and MW-9 through MW-11 were 290.55, 291.49, 291.71, 292.26, 291.13, 291.37, and 292.17 feet above average mean sea level (msl), respectively. The groundwater elevation for MW-8, which is screened in an apparent hillside groundwater recharge source for the Valley Crest Tree Company's (nursery) unconfined water-bearing zone, was 314.11 feet above msl.

Based on water level data from MW-2, MW-4, and MW-9 through MW-11, the local groundwater flow direction within the nursery's unconfined water-bearing zone is in a northeast direction with a calculated hydraulic gradient of 0.02 feet/feet. The seasonal groundwater recharge from the hillside appears to flow into the unconfined nursery water-bearing zone on a limited basis. Monitoring wells MW-1, MW-3, and MW-8 were not included with the groundwater contours because the groundwater elevations in monitoring wells MW-1 and MW-3 below bedrock indicating the wells were hydraulically disconnected from the water bearing zone and MW-8 is screened in a different water bearing zone.

Figure 3 provides groundwater contours for the unconfined water-bearing zone as well as bedrock surface elevations for the gravel-siltstone contact for comparison.

2.1 QUARTERLY MONITORING ACTIVITIES

After measuring the depth to groundwater at each monitoring well, URS conducted groundwater sampling on June 23 and 24, 2010. The rationale for the method used at each monitoring well is described below:

- MW-2, MW-4 and MW-9 through MW-11 were sampled using low-flow methods.
- MW-8 was sampled using a disposable bailer.
- A surface water sample was collected using a clean disposable cup from the very small stream northwest of the release location.

2.1.1 MW-1 and MW-9 Sorbent Booms

From the March 2007 until May 2009, URS placed sorbent booms (booms) in MW-1 and MW-9 as an interim remedial measure. The booms were effective in passively collecting and facilitating degradation of petroleum hydrocarbons within the monitoring wells and allowed for quarterly groundwater sample collection. Since May 2009, MW-1 and MW-9 have been gauged monthly, including during the second quarter 2010 groundwater monitoring event, with no measurable product observed. URS will continue to monitor MW-1 and MW-9 during the monthly groundwater gauging events for product.

2.1.2 MW-2, MW-4 and MW-9 through MW-11

Low-flow purging rates of 300-500 milliliters per minute (mL/min) were used dependent on the rate of recharge at each monitoring well. The low-flow groundwater sampling forms are included in Appendix A.

In addition to monitoring the water level at each monitoring well during low-flow sampling, 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-22XD. The multi-parameter device was calibrated prior the sampling event. 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 tubing.

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 current sampling location, the very small stream fans out into the floodplain and surface flow terminates within floodplain grasses. A stream sample was collected on June 24, 2010 using a clean disposable cup.

3.1 ANALYTICAL PROGRAM

The groundwater samples from monitoring wells MW-2, MW-4, and MW-8 through MW-11 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.

Monitoring wells MW-1 and MW-3 were not sampled because groundwater levels were below the bedrock indicating the monitoring wells were hydraulically disconnected from the water bearing zone.

Groundwater samples collected during quarterly sampling activities were 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 products by USEPA Method 310.1
- Total dissolved solids (TDS) by USEPA Method 160.1

3.2 GROUNDWATER ANALYTICAL RESULTS DISCUSSION

A tabulated summary of the analytical results for the gasoline compounds and associated environmental screening levels (ESLs), for groundwater as a current or potential source of drinking water, developed by the Regional Water Quality Control Board (RWQCB 2008) are presented in Table 3. Complete laboratory analytical results and chain of custody forms are presented as Appendix B.

3.2.1 Unconfined Water-Bearing Zone Monitoring Wells

The unconfined water bearing zone wells sampled during the fourth quarter sampling event included MW-2 through MW-4 and MW-8 through MW-11. The second quarter 2010 groundwater sample results are as follows:

- The MW-8 sample contained TPH-GRO at 14,000 µg/L, benzene at 630 µg/L, toluene at 680 µg/L, ethylbenzene at 870 µg/L, and total xylenes at 2,500 µg/L. Samples results slightly increased since the sampling event in March 2010.
- The MW-9 sample contained TPH-GRO at 16,000 µg/L, benzene at 0.9 µg/L, toluene at 7 µg/L, ethylbenzene at 210 µg/L, and total xylenes at 1,300 µg/L. With the exception of benzene, sample results slightly decreased since the March 2010 sampling event.
- The analytical results from MW-2, MW-3 MW-4, MW-10, and MW-11 were below laboratory method detection limits for TPH-GRO and BTEX.

Groundwater analytical results are presented in Table 3.

3.2.2 Surface Water Sample

A surface water sample was collected on June 24, 2010. TPH-GRO and BTEX were below method detection limits in the sample collected from the stream (Table 3).

3.2.3 Analytical Result Comparison to ESLs

The TPH-GRO analytical results for monitoring wells MW-8 and MW-9 exceeded the TPH-GRO ESL of 100 µg/L with concentrations of 14,000 µg/L, and 16,000 µg/L, respectively.

The benzene analytical result for monitoring well MW-8 exceeded the benzene ESL of 1 µg/L with a concentration of 630 µg/L.

The toluene analytical result for monitoring well MW-8 exceeded the toluene ESL of 40 µg/L with a concentration of 680 µg/L.

The ethylbenzene analytical results for monitoring wells MW-8 and MW-9 exceeded the ethylbenzene ESL of 30 µg/L with concentrations of 870 µg/L and 210 µg/L, respectively.

The total xylenes analytical results for monitoring wells MW-8 and MW-9 exceeded the total xylenes ESL of 20 µg/L with concentrations of 2,500 µg/L and 1,300 µg/L, respectively.

3.2.4 Geochemical Analytical Results

The groundwater samples collected from MW-2, MW-4 and MW-8 through MW-11 were also analyzed for geochemical parameters. Overall, the geochemical parameters indicate a low oxygen (anaerobic) environment. A preliminary assessment of the lower sulfate level in impacted monitoring well MW-8, indicate a potential for anaerobic biodegradation of the hydrocarbon plume by the sulfate reduction process. URS will continue to collect geochemical parameters when possible from all monitoring wells. 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 a 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. All samples were analyzed within the appropriate 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. Iron was detected at a concentration of 80.3 µg/L in the method blank from Batch 101791848005. The iron detections in samples MW-8_Filtered Grab Water and MW-9_Filtered Grab Water were qualified with a "J+", indicating evidence of laboratory contamination, and that the sample results may be biased high. No other 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. 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.

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. A field duplicate sample is collected and analyzed during the first and third quarters.

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. There were no surrogate recoveries outside laboratory control limits in any of the samples.

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.

Iron was detected at a concentration of 80.3 µg/L in the method blank from Batch 101791848005. The iron detections in samples MW-8_Filtered Grab Water and MW-9_Filtered Grab Water were qualified with a “J+”, indicating evidence of laboratory contamination, and that the sample results may be biased high.

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. 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.

Quarterly groundwater monitoring field activities conducted on June 23 and 24, 2010 included measuring the depth to groundwater at monitoring wells MW-1 through MW-4 and MW-8 through MW-11 and collecting analytical samples from groundwater monitoring wells MW-2, MW-4, MW-8 through MW-11, and the stream. The findings are as follows:

- Free product was not observed in monitoring wells MW-1 through MW-4, and MW-8 through MW-11 during the second quarter 2010 groundwater monitoring activities.
- Groundwater elevations collected on June 23, 2010 indicate the local groundwater flow direction within the nursery's unconfined water bearing zone is to the northeast at a hydraulic gradient of 0.02 feet/foot.
- The groundwater surface elevations decreased in all monitoring wells since the last sampling event in March 2010. The groundwater surface elevation change resulted in hydraulic disconnection of monitoring wells MW-1 and MW-3.
- The MW-8 sample contained TPH-GRO at 14,000 µg/L, benzene at 630 µg/L, toluene at 680 µg/L, ethylbenzene at 870 µg/L, and total xylenes at 2,500 µg/L. The sample results for all petroleum constituents analyzed exceeded their respective ESL. Sample results increased slightly since the sampling event in March 2010.
- The MW-9 sample contained TPH-GRO at 16,000 µg/L, benzene at 0.9 µg/L, toluene at 7 µg/L, ethylbenzene at 210 µg/L, and total xylenes at 1,300 µg/L. The sample results for TPH-GRO, ethylbenzene, and total xylenes exceeded their respective ESL. Overall, with the exception of benzene, sample results decreased slightly since the sampling event in March 2010.
- Groundwater samples collected from monitoring wells MW-2, MW-4, MW-10 and MW-11 have remained non-detect since the sampling event in March 2010.
- Other than the initial spray release (August 2005) to the nursery, the known petroleum hydrocarbon plume within the hillside has had limited contact with groundwater which is the transportation mechanism for petroleum hydrocarbons to the nursery.

Based on the June 23 and 24, 2010 field observations and analytical results URS makes the following recommendations:

- Continue quarterly groundwater monitoring to further assess the effect of seasonal and long-term groundwater elevation fluctuations and contaminant concentration trends within the unconfined water-bearing zone; and,
- Continue development of a Conceptual Site Model to identify any potential data gaps that may require additional data collection.

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.

TABLE 1
Monitoring Well Groundwater Levels
Second Quarter 2010 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	--	--
		9/28/2009	37.61	--	--
		12/9/2009	37.56	--	--
		3/9/2010	34.41	--	--
		6/23/2010	37.49	--	--
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	--	--
		9/28/2009	33.62	--	--
		12/9/2009	33.61	--	--
		3/9/2010	30.36	--	--
		6/23/2010	32.66	--	--
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	--	--
		9/28/2009	34.82	--	--
		12/9/2009	34.83	--	--
		3/9/2010	30.60	--	--

TABLE 1
Monitoring Well Groundwater Levels
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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-3		6/23/2010	33.94	--	--
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	--	--
		9/28/2009	39.04	--	--
		12/9/2009	39.09	--	--
		3/9/2010	35.69	--	--
		6/23/2010	37.41	--	--
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	--	--
		9/28/2009	22.58	--	--
		12/9/2009	20.66	20.65	0.01
		3/9/2010	18.97	--	--
		6/23/2010	19.82	--	--
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	--	--
		9/28/2009	43.02	--	--
		12/9/2009	42.99	--	--
		3/9/2010	39.97	--	--
		6/23/2010	41.94	--	--

TABLE 1
Monitoring Well Groundwater Levels
Second Quarter 2010 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-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	--	--
		9/28/2009	45.94	--	--
		12/9/2009	46.02	--	--
		3/9/2010	42.62	--	--
		6/23/2010	44.52	--	--
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	--	--
		9/28/2009	39.21	--	--
		12/9/2009	39.73	--	--
		3/9/2010	36.28	--	--
		6/23/2010	37.72	--	--

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 2010 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	--	--
				9/28/2009	290.43	--	--
				12/9/2009	290.48	--	--
				3/9/2010	293.63	--	--
				6/23/2010	290.55	--	--
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	--	--
				9/28/2009	290.53	--	--
				12/9/2009	290.54	--	--
				3/9/2010	293.79	--	--
				6/23/2010	291.49	--	--
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	--	--

TABLE 2
Monitoring Well Groundwater Elevations
Second Quarter 2010 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-3				6/9/2009	291.17	--	--
				9/28/2009	290.83	--	--
				12/9/2009	290.82	--	--
				3/9/2010	295.05	--	--
				6/23/2010	291.71	--	--
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	--	--
				9/28/2009	290.63	--	--
				12/9/2009	290.58	--	--
				3/9/2010	293.98	--	--
				6/23/2010	292.26	--	--
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	--	--
				9/28/2009	311.35	--	--
				12/9/2009	313.27	313.28	0.01
				3/9/2010	314.96	--	--
				6/23/2010	314.11	--	--
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	--	--

TABLE 2
Monitoring Well Groundwater Elevations
Second Quarter 2010 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-9				9/28/2009	290.05	--	--
				12/9/2009	290.08	--	--
				3/9/2010	293.10	--	--
				6/23/2010	291.13	--	--
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	--	--
				9/28/2009	289.95	--	--
				12/9/2009	289.87	--	--
				3/9/2010	293.27	--	--
				6/23/2010	291.37	--	--
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	--	--
				9/28/2009	290.68	--	--
				12/9/2009	290.16	--	--
				3/9/2010	293.61	--	--
				6/23/2010	292.17	--	--

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 2010 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Date	Gasoline Compounds				
		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**
	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**
	Q3 2009 [4)]	NS	NS	NS	NS	NS
	Q4 2009 [4)]	NS	NS	NS	NS	NS
	3/10/2010	**3,800**	<0.5	<0.5	<0.5	**4**
	Q2 2010 [4)]	NS	NS	NS	NS	NS
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
	Q3 2009 [4)]	NS	NS	NS	NS	NS
	Q4 2009 [4)]	NS	NS	NS	NS	NS
	3/10/2010	<50	<0.5	<0.5	<0.5	**2**
	6/23/2010	<50	<0.5	<0.5	<0.5	<0.5
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
	Q3 2009 [4)]	NS	NS	NS	NS	NS
	Q4 2009 [4)]	NS	NS	NS	NS	NS
	3/9/2010	<50	<0.5	<0.5	<0.5	<0.5
	Q2 2010 [4)]	NS	NS	NS	NS	NS

TABLE 3
Summary of Groundwater Analytical Results
Gasoline Compounds
Second Quarter 2010 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-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
	Q3 2009 [4)]	NS	NS	NS	NS	NS
	Q4 2009 [4)]	NS	NS	NS	NS	NS
	3/9/2010	<50	<0.5	<0.5	<0.5	<0.5
	6/23/2010	<50	<0.5	<0.5	<0.5	<0.5
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
	Q3 2009 [4)]	NS	NS	NS	NS	NS
	12/10/2009	**19,000**	**930**	**1,600**	**1,200**	**3,800**
	3/10/2010	**10,000 / 10,000**	**570 / 580**	**500 / 500**	**730 / 730**	**1,800 / 1,800**
	6/24/2010	**14,000**	**630**	**680**	**870**	**2,500**
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**
	Q3 2009[3)]	NS	NS	NS	NS	NS
	12/10/2009	**20,000**	**3**	**85**	**460**	**2,800**
	3/10/2010	**18,000**	<3	**17**	**250**	**1,700**
	6/24/2010	**16,000**	**0.9**	**7**	**210**	**1,300**

TABLE 3
Summary of Groundwater Analytical Results
Gasoline Compounds
Second Quarter 2010 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Date	Gasoline Compounds				
		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/MW-X [7)]	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
	9/28/2009	<50/<50	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5
	12/10/2009	**540**	**1**	**2**	**5**	**23**
	3/9/2010	<50	<0.5	<0.5	<0.5	<0.5
	6/23/2010	<50	<0.5	<0.5	<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**
	9/29/2009	<50	<0.5	<0.5	<0.5	<0.5
	12/10/2009	**66**	<0.5	<0.5	<0.5	**3**
	3/9/2010	<50	<0.5	<0.5	<0.5	<0.5
	6/23/2010	<50	<0.5	<0.5	<0.5	<0.5
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
	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
	Q3 2009[6)]	NS	NS	NS	NS	NS
	Q4 2009[6)]	NS	NS	NS	NS	NS
	3/9/2010	<50	<0.5	<0.5	<0.5	<0.5
	6/24/2010	<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 -
NS - Not
TPH-GRO -

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.

TABLE 3
Summary of Groundwater Analytical Results
Gasoline Compounds
Second Quarter 2010 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

5) Sample not collected due to extreme overhead hazards posed by dead trees on the 80-90% grade directly uphill from the sampling location.
6) Sample not collected during quarterly monitoring due to the stream sample location being dry.
7) Duplicate sampled collected from MW-10 during the third quarter 2009 sampling event because MW-8 was not hydraulically connected to the water bearing zone.

TABLE 4
Summary of Groundwater Analytical Results
Geochemical Indicators and Other Parameters
Second Quarter 2010 Groundwater Monitoring Report
Chevron Sunol Pipeline

		Geochemical Indicators and Other Parameters											
Well ID	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 $CaCO_3$	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	0.42	0.576	0.2	<0.052	72.6	<0.005	7.07	614	422	<0.46
	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]
	3/10/2010	0.00	-118	4 J	0.431	<0.01	<0.0522	56.9	0.067	6.79	551	347	<0.46
	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-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]
	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]
	3/10/2010	2.81	38	13 J	0.0182	0.35	<0.0522	54.9	<0.005	6.89	532	322	<0.46
	6/23/2010	2.18	173	13.2	0.103	4	<0.0522	50.9	<0.005	11.51	524	319	<0.46
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	6.6	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]
	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]
	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
	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-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]
	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]
	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
	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-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]
	12/10/2009	0.04	-165	<0.25 UJ	0.549 J	<2.5	0.06	2 J	<0.2	6.94	576	445	<0.46
	3/10/2010	0.00	-85	<0.25	0.334	3	<0.0522	1.7	0.33	6.89	587	453	<0.46
	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-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	1.7	<0.052	46.4	<0.005	6.98	622	468	<0.46
	12/10/2009	1.43	-188	<0.25 UJ	4.39 J	3.3	2.54	4.5 J	<0.2	6.6	734	620	<0.46
	3/10/2010	0.00	-197	<0.25	2.94	1.7	<0.0522	40.9	0.046	6.84	596	448	<0.46
	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-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	0.8	<0.052	133	2.30	7.20	1,100	623	<0.46
	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
	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
	6/23/2010	0.00	79	0.68	0.265	0.2	<0.0522	136	0.94	6.76	1,000	604	<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	0.12	7.16	NM	NM	NM
	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
	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
	6/23/2010	0.45	-2	0.42	0.242	0.15	<0.0522	437	0.29	6.7	1,300	479	<0.46

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
J+ = Estimated high value

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 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.

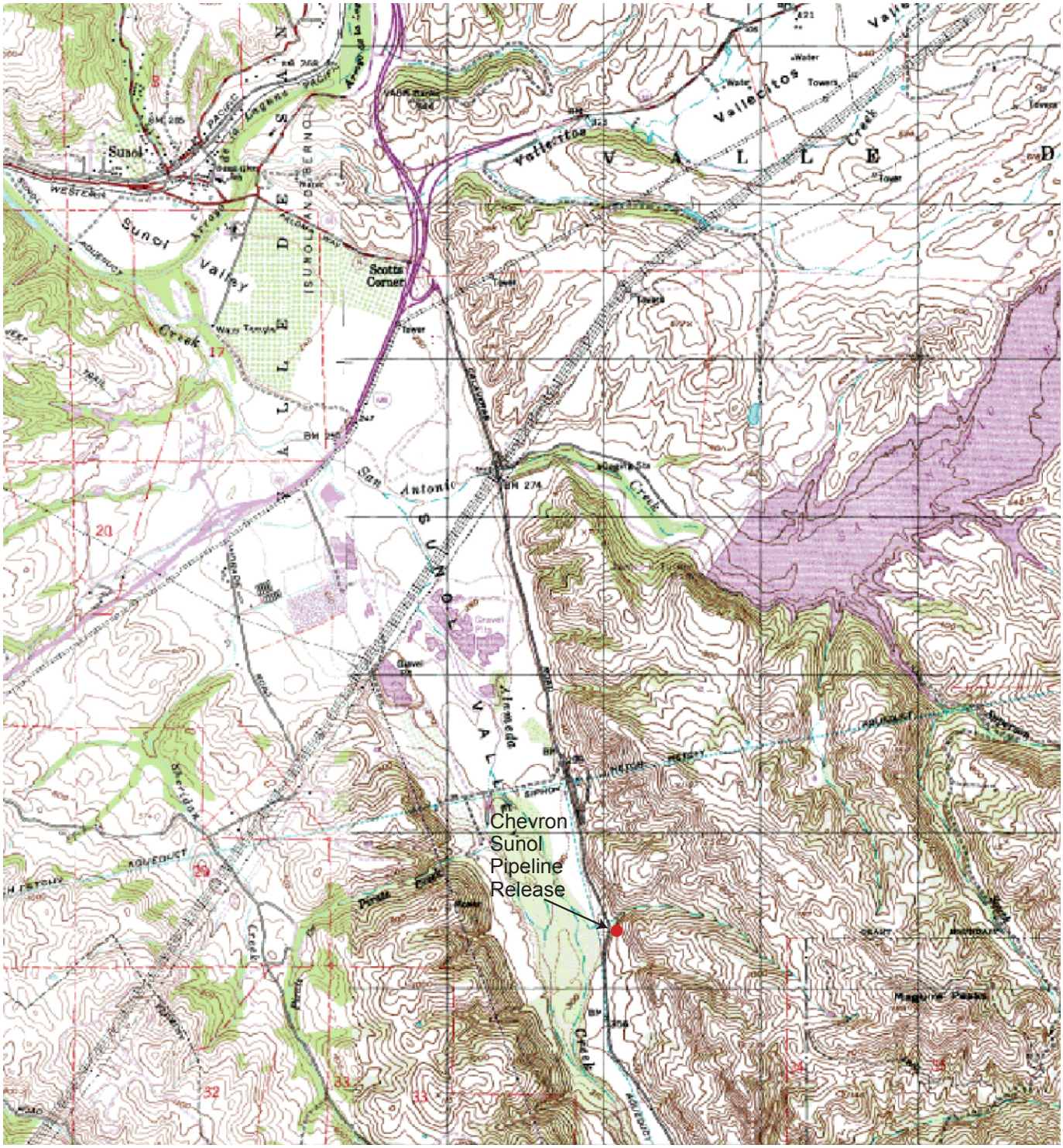


Image obtained from topozone.com

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

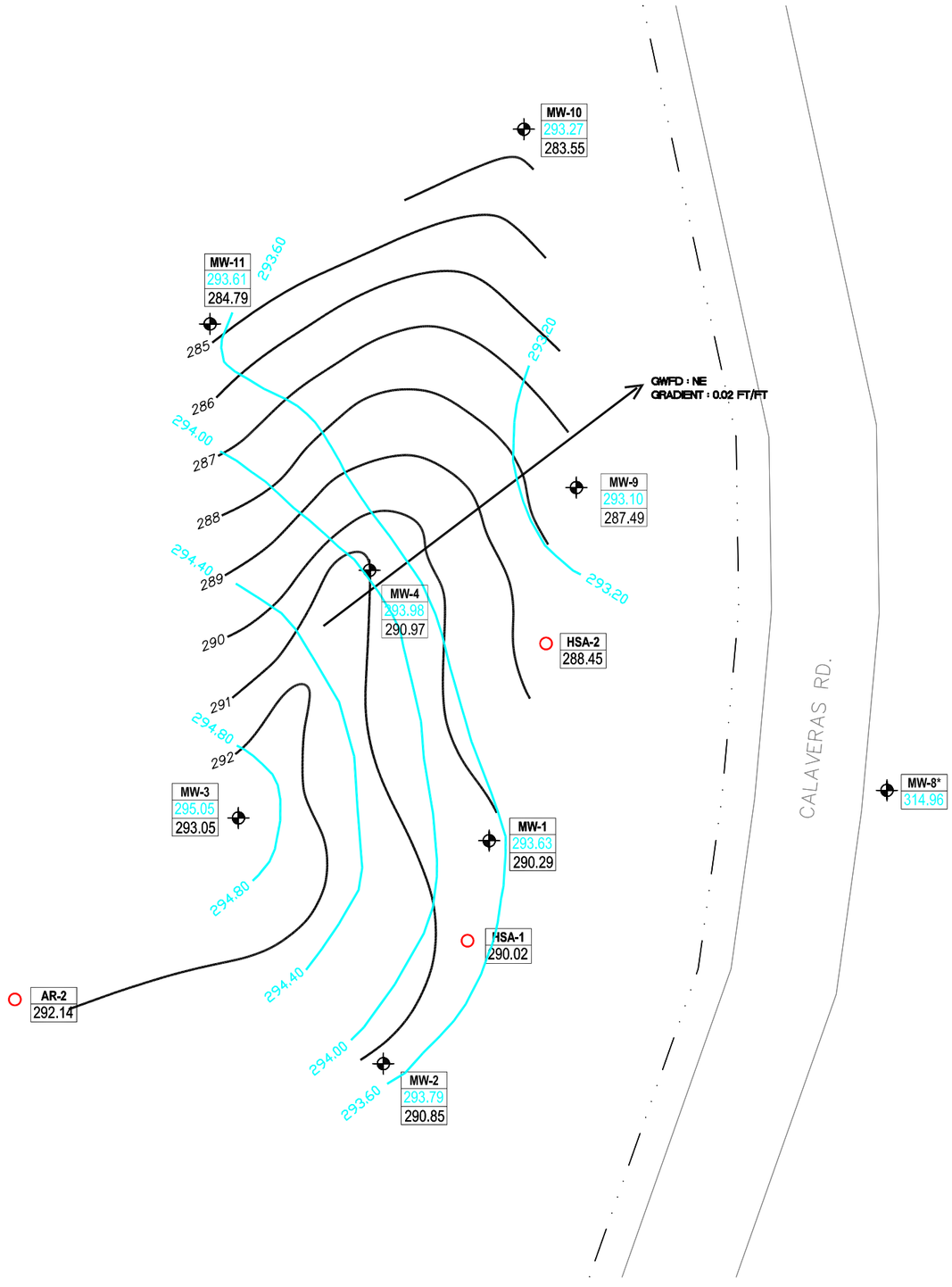
HILL SLOPE AND DENSE VEGETATION

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-1 / 293.63 / 290.29 — MONITORING WELL LABEL / GROUNDWATER ELEVATION / BEDROCK CONTACT ELEVATION
- SOIL BORING
- HSA-2 / 288.45 — SOIL BORING LABEL / BEDROCK CONTACT ELEVATION
- 293.20 — INFERRED GROUNDWATER CONTOUR
- 285 — BEDROCK SURFACE ELVATION
- GWFD — GROUNDWATER FLOW DIRECTION

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 MARCH 9, 2010.
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 = 0.02 ft/ft.

* GROUNDWATER ELEVATION DATA NOT USED TO CALCULATE GROUNDWATER CONTOURS

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

Apr 05, 2010 - 9:15am
X:\x_env_waste\Chevron Pipeline Company\Sunol Spill\Quarterly Groundwater Report\102010\Report\Figures\FIGURE 3_040510.dwg

Appendix A
Groundwater Sampling Forms

URS

Horiba U-22XD

06/23/10

ISI Low-Flow Log

Project Information:		**Pump Information:**	
Operator Name	Rachel Naccarati/ Kim Morris	Pump Model/Type	Mega Monsoon
Company Name	URS	Tubing Type	Polyethylene
Project Name	Chevron Sunol Pipeline	Tubing Diameter	3/8 [in]
Site Name	Sunol	Tubing Length	45 [ft]
		Pump placement from TOC	35 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-2	Final pumping rate	350 mL/min
Well diameter	4 [in]	Flowcell volume	1000 mL
Well total depth	38.3 [ft]	Calculated Sample Rate	NM
Depth to top of screen	23.5 [ft]	Sample rate	NM
Screen length	15 [ft]	Stabilized drawdown	NM
Depth to Water	32.66 [ft]		

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond. [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-3%	+/-10	+/-0.2	+/-20
Multi-parameter Readings	13:55	17.8	7.92	97	29.4	2.46	167
	13:58	17.8	9.57	97	47.5	2.39	166
	14:01	17.8	10.69	97	53.0	2.29	168
	14:04	17.8	11.23	97	43.0	2.22	170
	14:07	17.8	11.52	97	39.7	2.21	171
	14:10	17.8	11.51	97	37.7	2.18	173
	Sample collected from MW-2 at 14:15 on 6/23/10						
Variance in last 4 readings		0.0	0.54	0	-10.0	-0.07	2
		0.0	0.29	0	-3.3	-0.01	1
		0.0	-0.01	0	-2.0	-0.03	2

Notes:

Starting Pumping at 13:50
Initial Depth to Water = 32.66 ft
Total Volume Purged = 3 gallons
Sample collected at 14:15 on 6/23/10

URS

06/23/10

Horiba U-22XD
ISI Low-Flow Log

Project Information:		**Pump Information:**	
Operator Name	Rachel Naccarati/Kim Morris	Pump Model/Type	Mega Monsoon
Company Name	URS	Tubing Type	Polyethylene
Project Name	Chevron Sunol Pipeline	Tubing Diameter	3/8 [in]
Site Name	Sunol	Tubing Length	43 [ft]
		Pump placement from TOC	39.7 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-4	Final pumping rate	500 mL/min
Well diameter	4 [in]	Flowcell volume	1000 mL
Well total depth	40.7 [ft]	Calculated Sample Rate	NM
Depth to top of screen	30.7 [ft]	Sample rate	NM
Screen length	10 [ft]	Stabilized drawdown	NM
Depth to Water	37.41 [ft]		

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond. [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-3%	+/-10	+/-0.2	+/-20
Multi-parameter Readings	14:57	17.0	7.33	98	36.4	0.05	201
	15:00	16.9	6.68	96	31.8	0.00	194
	15:03	16.7	6.65	95	31.1	0.00	182
	15:06	16.7	10.28	95	34.1	0.02	165
	15:09	16.5	10.31	95	33.7	0.01	165
	15:12	16.6	11.03	95	33.9	0.03	164
	Sample collected from MW-4 at 15:20 on 6/23/10						
Variance in last 4 readings		0.0	3.63	0	3.0	0.02	-17
		-0.2	0.03	0	-0.4	-0.01	0
		0.1	0.72	0	0.2	0.02	-1

Notes: Starting Pumping at 14:55
Initial Depth to Water = 37.41 ft
Total Volume Purged = 4.5 gallons
Sample collected at 15:20 on 6/23/10

URS

06/24/10

Horiba U-22XD
ISI Low-Flow Log

Project Information:		**Pump Information:**	
Operator Name	Rachel Naccarati/ Jacob Henry	Pump Model/Type	Disposable Bailer
Company Name	URS	Tubing Type	NA
Project Name	Chevron Sunol Pipeline	Tubing Diameter	1 [in]
Site Name	Sunol	Tubing Length	[ft]
		Pump placement from TOC	[ft]

Well Information:		**Pumping information:**	
Well Id	MW-8	Final pumping rate	NA
Well diameter	2 [in]	Flowcell volume	NA
Well total depth	24.5 [ft]	Calculated Sample Rate	NA
Depth to top of screen	14.5 [ft]	Sample rate	NA
Screen length	10 [ft]	Stabilized drawdown	NA
Depth to Water	19.82 [ft]		

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond. [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-3%	+/-10	+/-0.2	+/-20
Multi-parameter Readings	1 well volume						
	11:20	20.5	6.84	109	138.0	13.46	-43
	2 well volumes						
	11:23	19.5	6.65	117	553.0	8.07	-74
	3 well volumes						
	11:26	19.4	6.72	123	882.0	5.83	-84
	Sample collected from MW-8 at 11:30 on 6/24/10						

Notes:

Starting Pumping at 11:15
Initial Depth to Water = 19.82 ft
Total Volume Purged = 2.5 gallons
Sample collected at 11:30 on 6/24/10
Slight odor
Clear water

URS

06/24/10

Horiba U-22XD
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	Mega Monsoon
Tubing Type	Polyethylene
Tubing Diameter	3/8 [in]
Tubing Length	50.0 [ft]
Pump placement from TOC	43.0 [ft]

Well Information:

Well Id	MW-9
Well diameter	2 [in]
Well total depth	46.0 [ft]
Depth to top of screen	36.0 [ft]
Screen length	10 [ft]
Depth to Water	41.94 [ft]

Pumping information:

Final pumping rate	300 mL/min
Flowcell volume	1000 mL
Calculated Sample Rate	NM
Sample rate	NM
Stabilized drawdown	NM

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond. [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-3%	+/-10	+/-0.2	+/-20
Multi-parameter Readings	9:47	17.5	6.63	102	97.7	0.16	-71
	9:50	17.0	6.59	102	54.3	0.00	-78
	9:53	17.8	6.60	101	21.1	0.00	-94
	9:56	17.7	6.58	100	15.6	0.00	-98
	9:59	17.9	6.60	100	16.0	0.00	-102
	10:02	18.4	6.61	100	15.4	0.00	-108
	Sample collected from MW-9 at 10:10 on 6/24/10						
Variance in last 4 readings		-0.1	-0.02	-1	-5.5	0.00	-4
		0.2	0.02	0	0.4	0.00	-4
		0.5	0.01	0	-0.6	0.00	-6

Notes:
Starting Pumping at 09:45
Initial Depth to Water = 41.94 ft
Total Volume Purged = 2.5 gallons
Sample collected at 10:10
Slight odor observed
Water dark color

URS

06/23/10

Horiba U-22XD
ISI Low-Flow Log

Project Information:		**Pump Information:**	
Operator Name	Rachel Naccarati/ Kim Morris	Pump Model/Type	Mega Monsoon
Company Name	URS	Tubing Type	Polyethylene
Project Name	Chevron Sunol Pipeline	Tubing Diameter	3/8 [in]
Site Name	Sunol	Tubing Length	56 [ft]
		Pump placement from TOC	54.3 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-10	Final pumping rate	200 mL/min
Well diameter	2 [in]	Flowcell volume	1000 mL
Well total depth	55.3 [ft]	Calculated Sample Rate	NM
Depth to top of screen	40.3 [ft]	Sample rate	NM
Screen length	15 [ft]	Stabilized drawdown	NM
Depth to Water	44.52 [ft]		

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond. [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-3%	+/-10	+/-0.2	+/-20
Multi-parameter Readings	10:58	18.3	6.73	176	130.0	0.17	242
	11:01	18.0	6.74	170	83.6	0.00	166
	11:04	18.0	6.76	171	80.4	0.00	156
	11:07	18.1	6.77	172	61.4	0.00	131
	11:10	18.6	6.77	173	53.9	0.00	112
	11:13	18.8	6.76	172	49.2	0.00	95
	11:16	18.3	6.76	172	45.8	0.00	79
	Sample collected from MW-10 at 11:20 on 6/23/10						
Variance in last 4 readings		0.5	0.00	1	-7.5	0.00	-19
		0.2	-0.01	-1	-4.7	0.00	-17
		-0.5	0.00	0	-3.4	0.00	-16

Notes: Starting Pumping at 10:55
Initial Depth to Water = 44.52 ft
Total Volume Purged = 2.5 gallons
Sample collected at 11:20 on 6/23/10

URS

06/23/10

Horiba U-22XD
ISI Low-Flow Log

Project Information:		**Pump Information:**	
Operator Name	Rachel Naccarati/ Kim Morris	Pump Model/Type	Mega Monsoon
Company Name	URS	Tubing Type	Polyethylene
Project Name	Chevron Sunol Pipeline	Tubing Diameter	3/8 [in]
Site Name	Sunol	Tubing Length	50 [ft]
		Pump placement from TOC	46 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-11	Final pumping rate	400 mL/min
Well diameter	2 [in]	Flowcell volume	1000 mL
Well total depth	47.0 [ft]	Calculated Sample Rate	NM
Depth to top of screen	37.0 [ft]	Sample rate	NM
Screen length	10 [ft]	Stabilized drawdown	NM
Depth to Water	37.72 [ft]		

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond. [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-3%	+/-10	+/-0.2	+/-20
Multi-parameter Readings	12:48	19.4	6.94	196	180.0	2.20	-31
	12:51	19.9	10.59	184	147.0	1.25	-28
	12:54	19.7	6.73	173	106.0	1.03	-19
	12:57	19.5	7.55	163	75.9	0.95	-12
	13:00	19.3	9.12	159	70.5	0.81	-10
	13:03	19.4	6.67	155	69.1	0.69	-5
	13:06	19.5	6.71	157	57.0	0.57	-2
	13:09	20.0	6.70	159	55.0	0.45	-2
	Sample collected from MW-11 at 13:15 on 6/23/10						
Variance in last 4 readings		0.1	-2.45	-4	-1.4	-0.12	5
		0.1	0.04	2	-12.1	-0.12	3
		0.5	-0.01	2	-2.0	-0.12	0

Notes:
Starting Pumping at 12:45
Initial Depth to Water = 37.72 ft
Total Volume Purged = 3 gallons
Sample collected at 13:15 on 6/23/10
Well purged dry

Appendix B
Laboratory Analytical Results

Lancaster Laboratories

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

July 07, 2010

Project: Sunol, CA

Submittal Date: 06/24/2010
Group Number: 1200469
PO Number: 0015041168
Release Number: JOHNSON
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
MW-4 NA Water	6016708
MW-4_Filtered NA Water	6016709
MW-2 NA Water	6016710
MW-2_Filtered NA Water	6016711
MW-10 NA Water	6016712
MW-10_Filtered NA Water	6016713
MW-11 NA Water	6016714
MW-11_Filtered NA Water	6016715
TB-1 NA Water	6016716

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

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

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Analysis Report

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

Respectfully Submitted,

Sarah M. Snyder
Senior Specialist

Lancaster Laboratories

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Analysis Report

Sample Description: MW-4 NA Water
NA URSO
Sunol Pipeline SL0600100443 MW-4

LLI Sample # WW 6016708
LLI Group # 1200469
Account # 11875

Project Name: Sunol, CA

Collected: 06/23/2010 15:20 by KM

Submitted: 06/24/2010 09:15
Reported: 07/07/2010 08:34
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

PIPM4

CAT No.		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.	5.0	1
Metals	**SW-846 6010B**		**ug/l**	**ug/l**	
07058	Manganese	7439-96-5	29.5	0.84	1
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	9,400	250	5
00228	Sulfate	14808-79-8	62,500	1,500	5
	EPA 160.1		**ug/l**	**ug/l**	
00212	Total Dissolved Solids	n.a.	491,000	9,700	1
	EPA 310.1		**ug/l as CaCO3**	**ug/l as CaCO3**	
00202	Alkalinity to pH 4.5	n.a.	297,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1
	SM20 3500 Fe B modified		**ug/l**	**ug/l**	
08344	Ferrous Iron	n.a.	34	10	1

General Sample Comments

State of California Lab Certification No. 2501

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	Z101792AA	06/28/2010 17:48	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z101792AA	06/28/2010 17:48	Ginelle L Feister	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10183A20A	07/02/2010 15:14	Carrie E Miller	1

Lancaster Laboratories

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Analysis Report

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

LLI Sample # WW 6016708
LLI Group # 1200469
Account # 11875

Project Name: Sunol, CA

Collected: 06/23/2010 15:20 by KM

Submitted: 06/24/2010 09:15
Reported: 07/07/2010 08:34
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

PIPM4

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	10183A20A	07/02/2010 15:14	Carrie E Miller	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	101760020A	06/29/2010 03:16	Elizabeth J Marin	1
07058	Manganese	SW-846 6010B	1	101791848003	06/29/2010 09:28	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	101791848003	06/28/2010 21:00	Annamaria Stipkovits	1
00368	Nitrate Nitrogen	EPA 300.0	1	10176196601B	06/25/2010 13:36	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	10176196601B	06/25/2010 13:36	Ashley M Adams	5
00212	Total Dissolved Solids	EPA 160.1	1	10180021201A	06/29/2010 09:28	Hannah M Royer	1
00202	Alkalinity to pH 4.5	EPA 310.1	1	10179020201A	06/28/2010 08:36	Susan A Engle	1
00201	Alkalinity to pH 8.3	EPA 310.1	1	10179020201A	06/28/2010 08:36	Susan A Engle	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	10177834401A	06/26/2010 06:20	Daniel S Smith	1

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Analysis Report

Sample Description: MW-4_Filtered NA Water
NA URSO
Sunol Pipeline SL0600100443 MW-4

LLI Sample # WW 6016709
LLI Group # 1200469
Account # 11875

Project Name: Sunol, CA

Collected: 06/23/2010 15:20 by KM

Submitted: 06/24/2010 09:15
Reported: 07/07/2010 08:34
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

CAT No.		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.	52.2	1

General Sample Comments

State of California Lab Certification No. 2501
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	101791848003	06/29/2010 09:32	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	101791848003	06/28/2010 21:00	Annamaria Stipkovits	1

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Analysis Report

Sample Description: MW-2 NA Water
NA URSO
Sunol Pipeline SL0600100443 MW-2

LLI Sample # WW 6016710
LLI Group # 1200469
Account # 11875

Project Name: Sunol, CA

Collected: 06/23/2010 14:15 by KM

Submitted: 06/24/2010 09:15
Reported: 07/07/2010 08:34
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

PIPM2

CAT No.		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.	5.0	1
Metals	**SW-846 6010B**		**ug/l**	**ug/l**	
07058	Manganese	7439-96-5	103	0.84	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	50,900	1,500	5
	EPA 160.1		**ug/l**	**ug/l**	
00212	Total Dissolved Solids	n.a.	524,000	19,400	1
	EPA 310.1		**ug/l as CaCO3**	**ug/l as CaCO3**	
00202	Alkalinity to pH 4.5	n.a.	319,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1
	SM20 3500 Fe B modified		**ug/l**	**ug/l**	
08344	Ferrous Iron	n.a.	4,000	200	20

General Sample Comments

State of California Lab Certification No. 2501

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	Z101792AA	06/28/2010 18:13	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z101792AA	06/28/2010 18:13	Ginelle L Feister	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10183A20A	07/02/2010 14:52	Carrie E Miller	1

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Analysis Report

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

LLI Sample # WW 6016710
LLI Group # 1200469
Account # 11875

Project Name: Sunol, CA

Collected: 06/23/2010 14:15 by KM

Submitted: 06/24/2010 09:15
Reported: 07/07/2010 08:34
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

PIPM2

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	10183A20A	07/02/2010 14:52	Carrie E Miller	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	101760020A	06/29/2010 03:32	Elizabeth J Marin	1
07058	Manganese	SW-846 6010B	1	101791848003	06/29/2010 09:35	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	101791848003	06/28/2010 21:00	Annamaria Stipkovits	1
00368	Nitrate Nitrogen	EPA 300.0	1	10176196601B	06/25/2010 13:21	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	10176196601B	06/25/2010 13:21	Ashley M Adams	5
00212	Total Dissolved Solids	EPA 160.1	1	10180021201A	06/29/2010 09:28	Hannah M Royer	1
00202	Alkalinity to pH 4.5	EPA 310.1	1	10179020201A	06/28/2010 08:36	Susan A Engle	1
00201	Alkalinity to pH 8.3	EPA 310.1	1	10179020201A	06/28/2010 08:36	Susan A Engle	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	10177834401A	06/26/2010 06:20	Daniel S Smith	20

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Analysis Report

Sample Description: MW-2_Filtered NA Water
NA URSO
Sunol Pipeline SL0600100443 MW-2

LLI Sample # WW 6016711
LLI Group # 1200469
Account # 11875

Project Name: Sunol, CA

Collected: 06/23/2010 14:15 by KM

Submitted: 06/24/2010 09:15
Reported: 07/07/2010 08:34
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

CAT No.		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.	52.2	1

General Sample Comments

State of California Lab Certification No. 2501
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	101791848003	06/29/2010 09:38	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	101791848003	06/28/2010 21:00	Annamaria Stipkovits	1

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Analysis Report

Sample Description: MW-10 NA Water
NA URSO
Sunol Pipeline SL0600100443 MW-10

LLI Sample # WW 6016712
LLI Group # 1200469
Account # 11875

Project Name: Sunol, CA

Collected: 06/23/2010 11:20 by KM

Submitted: 06/24/2010 09:15
Reported: 07/07/2010 08:34
Discard: 08/07/2010

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100 Northpark Blvd
Covington LA 70433

PIP10

CAT No.		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	940	25	5
Metals	**SW-846 6010B**		**ug/l**	**ug/l**	
07058	Manganese	7439-96-5	265	0.84	1
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	680	250	5
00228	Sulfate	14808-79-8	136,000	6,000	20
	EPA 160.1		**ug/l**	**ug/l**	
00212	Total Dissolved Solids	n.a.	1,000,000	38,800	1
	EPA 310.1		**ug/l as CaCO3**	**ug/l as CaCO3**	
00202	Alkalinity to pH 4.5	n.a.	604,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1
	SM20 3500 Fe B modified		**ug/l**	**ug/l**	
08344	Ferrous Iron	n.a.	200	10	1

General Sample Comments

State of California Lab Certification No. 2501

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	Z101792AA	06/28/2010 18:38	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z101792AA	06/28/2010 18:38	Ginelle L Feister	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10183A20A	07/02/2010 15:35	Carrie E Miller	1

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Analysis Report

Sample Description: MW-10 NA Water
NA URSO
Sunol Pipeline SL0600100443 MW-10

LLI Sample # WW 6016712
LLI Group # 1200469
Account # 11875

Project Name: Sunol, CA

Collected: 06/23/2010 11:20 by KM

Submitted: 06/24/2010 09:15
Reported: 07/07/2010 08:34
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

PIP10

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	10183A20A	07/02/2010 15:35	Carrie E Miller	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	101760020A	06/29/2010 18:36	Elizabeth J Marin	5
07058	Manganese	SW-846 6010B	1	101791848003	06/29/2010 09:41	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	101791848003	06/28/2010 21:00	Annamaria Stipkovits	1
00368	Nitrate Nitrogen	EPA 300.0	1	10176196601B	06/25/2010 12:50	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	10176196601B	06/28/2010 17:58	Ashley M Adams	20
00212	Total Dissolved Solids	EPA 160.1	1	10180021201A	06/29/2010 09:28	Hannah M Royer	1
00202	Alkalinity to pH 4.5	EPA 310.1	1	10179020201A	06/28/2010 08:36	Susan A Engle	1
00201	Alkalinity to pH 8.3	EPA 310.1	1	10179020201A	06/28/2010 08:36	Susan A Engle	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	10177834401A	06/26/2010 06:20	Daniel S Smith	1

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Analysis Report

Sample Description: MW-10_Filtered NA Water
NA URSO
Sunol Pipeline SL0600100443 MW-10

LLI Sample # WW 6016713
LLI Group # 1200469
Account # 11875

Project Name: Sunol, CA

Collected: 06/23/2010 11:20 by KM

Submitted: 06/24/2010 09:15
Reported: 07/07/2010 08:34
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

CAT No.		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.	52.2	1

General Sample Comments

State of California Lab Certification No. 2501
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	101791848003	06/29/2010 09:44	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	101791848003	06/28/2010 21:00	Annamaria Stipkovits	1

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Analysis Report

Sample Description: MW-11 NA Water
NA URSO
Sunol Pipeline SL0600100443 MW-11

LLI Sample # WW 6016714
LLI Group # 1200469
Account # 11875

Project Name: Sunol, CA

Collected: 06/23/2010 13:15 by KM

Submitted: 06/24/2010 09:15
Reported: 07/07/2010 08:34
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

PIP11

CAT No.			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	290	5.0	1
Metals		**SW-846 6010B**		**ug/l**	**ug/l**	
07058	Manganese		7439-96-5	242	0.84	1
Wet Chemistry		**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen		14797-55-8	420	250	5
00228	Sulfate		14808-79-8	437,000	15,000	50
		EPA 160.1		**ug/l**	**ug/l**	
00212	Total Dissolved Solids		n.a.	1,300,000	38,800	1
		EPA 310.1		**ug/l as CaCO3**	**ug/l as CaCO3**	
00202	Alkalinity to pH 4.5		n.a.	479,000	460	1
00201	Alkalinity to pH 8.3		n.a.	N.D.	460	1
		SM20 3500 Fe B modified		**ug/l**	**ug/l**	
08344	Ferrous Iron		n.a.	150	10	1

General Sample Comments

State of California Lab Certification No. 2501

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	Z101792AA	06/28/2010 14:02	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z101792AA	06/28/2010 14:02	Ginelle L Feister	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10183A20A	07/02/2010 15:57	Carrie E Miller	1

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Analysis Report

Sample Description: MW-11 NA Water
NA URSO
Sunol Pipeline SL0600100443 MW-11

LLI Sample # WW 6016714
LLI Group # 1200469
Account # 11875

Project Name: Sunol, CA

Collected: 06/23/2010 13:15 by KM

Submitted: 06/24/2010 09:15
Reported: 07/07/2010 08:34
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

PIP11

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	10183A20A	07/02/2010 15:57	Carrie E Miller	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	101760020A	06/29/2010 04:05	Elizabeth J Marin	1
07058	Manganese	SW-846 6010B	1	101791848003	06/29/2010 09:47	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	101791848003	06/28/2010 21:00	Annamaria Stipkovits	1
00368	Nitrate Nitrogen	EPA 300.0	1	10176196601B	06/25/2010 13:05	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	10176196601B	06/28/2010 18:14	Ashley M Adams	50
00212	Total Dissolved Solids	EPA 160.1	1	10180021201A	06/29/2010 09:28	Hannah M Royer	1
00202	Alkalinity to pH 4.5	EPA 310.1	1	10179020201A	06/28/2010 08:36	Susan A Engle	1
00201	Alkalinity to pH 8.3	EPA 310.1	1	10179020201A	06/28/2010 08:36	Susan A Engle	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	10177834401A	06/26/2010 06:20	Daniel S Smith	1

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Analysis Report

Sample Description: MW-11_Filtered NA Water
NA URSO
Sunol Pipeline SL0600100443 MW-11

LLI Sample # WW 6016715
LLI Group # 1200469
Account # 11875

Project Name: Sunol, CA

Collected: 06/23/2010 13:15 by KM

Submitted: 06/24/2010 09:15
Reported: 07/07/2010 08:34
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

CAT No.		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.	52.2	1

General Sample Comments

State of California Lab Certification No. 2501
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	101791848003	06/29/2010 09:51	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	101791848003	06/28/2010 21:00	Annamaria Stipkovits	1

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Analysis Report

Sample Description: TB-1 NA Water
NA URSO
Sunol Pipeline SL0600100443 TB-1

LLI Sample # WW 6016716
LLI Group # 1200469
Account # 11875

Project Name: Sunol, CA

Collected: 06/23/2010

Submitted: 06/24/2010 09:15
Reported: 07/07/2010 08:34
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

PIPTB

CAT No.			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

State of California Lab Certification No. 2501

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	Z101792AA	06/28/2010 13:12	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z101792AA	06/28/2010 13:12	Ginelle L Feister	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10183A20A	07/02/2010 12:55	Carrie E Miller	1
01146	GC VOA Water Prep	SW-846 5030B	1	10183A20A	07/02/2010 12:55	Carrie E Miller	1

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Analysis Report

Quality Control Summary

Client Name: Chevron Pipeline Co. Group Number: 1200469
Reported: 07/07/10 at 08:34 AM

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: Z101792AA	Sample number(s): 6016708,6016710,6016712,6016714,6016716							
Benzene	N.D.	0.5	ug/l	86		79-120		
Ethylbenzene	N.D.	0.5	ug/l	88		79-120		
Toluene	N.D.	0.5	ug/l	88		79-120		
Xylene (Total)	N.D.	0.5	ug/l	90		80-120		
Batch number: 10183A20A	Sample number(s): 6016708,6016710,6016712,6016714,6016716							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	127	127	75-135	0	30
Batch number: 101760020A	Sample number(s): 6016708,6016710,6016712,6016714							
Methane	N.D.	5.0	ug/l	103		80-120		
Batch number: 101791848003	Sample number(s): 6016708-6016715							
Iron	N.D.	52.2	ug/l	98		90-112		
Manganese	N.D.	0.84	ug/l	98		90-110		
Batch number: 10176196601B	Sample number(s): 6016708,6016710,6016712,6016714							
Nitrate Nitrogen	N.D.	50.	ug/l	104		90-110		
Sulfate	N.D.	300.	ug/l	107		89-110		
Batch number: 10177834401A	Sample number(s): 6016708,6016710,6016712,6016714							
Ferrous Iron	N.D.	10.	ug/l	100		92-105		
Batch number: 10179020201A	Sample number(s): 6016708,6016710,6016712,6016714							
Alkalinity to pH 4.5	N.D.	460.	ug/l as CaCO3	99		98-103		
Batch number: 10180021201A	Sample number(s): 6016708,6016710,6016712,6016714							
Total Dissolved Solids	N.D.	9,700.	ug/l	103		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: Z101792AA	Sample number(s): 6016708,6016710,6016712,6016714,6016716 UNSPK: P015873								
Benzene	92	90	80-126	2	30				
Ethylbenzene	96	94	71-134	2	30				
Toluene	95	92	80-125	3	30				
Xylene (Total)	98	95	79-125	3	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: 1200469
Reported: 07/07/10 at 08:34 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: 10183A20A	Sample number(s): 6016708,6016710,6016712,6016714,6016716 UNSPK: 6016710								
TPH-GRO N. CA water C6-C12	118		63-154						
Batch number: 101760020A	Sample number(s): 6016708,6016710,6016712,6016714 UNSPK: P015864								
Methane	63	63	35-157	0	20				
Batch number: 101791848003	Sample number(s): 6016708-6016715 UNSPK: P018109 BKG: P018109								
Iron	100	100	75-125	0	20	N.D.	N.D.	0 (1)	20
Manganese	99	100	75-125	0	20	N.D.	N.D.	0 (1)	20
Batch number: 10176196601B	Sample number(s): 6016708,6016710,6016712,6016714 UNSPK: P016811 BKG: P016811								
Nitrate Nitrogen	114*		90-110			N.D.	N.D.	0 (1)	20
Sulfate	108		90-110			6,600	6,400	3 (1)	20
Batch number: 10177834401A	Sample number(s): 6016708,6016710,6016712,6016714 UNSPK: P016751 BKG: P016751								
Ferrous Iron	98	96	73-120	1	6	7,800	7,700	1 (1)	5
Batch number: 10179020201A	Sample number(s): 6016708,6016710,6016712,6016714 UNSPK: P015618 BKG: P015618								
Alkalinity to pH 4.5	95		73-121			97,500	97,500	0	5
Alkalinity to pH 8.3						N.D.	N.D.	0 (1)	5
Batch number: 10180021201A	Sample number(s): 6016708,6016710,6016712,6016714 UNSPK: P016499 BKG: P016499								
Total Dissolved Solids	102		62-135			4,150,000	4,100,000	1	9

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: Z101792AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6016708	99	97	97	94
6016710	99	95	97	94
6016712	98	96	97	94
6016714	100	97	97	94
6016716	99	97	97	95
Blank	100	96	97	94
LCS	99	99	97	95
MS	99	99	97	95
MSD	99	97	97	95
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 10183A20A

	Trifluorotoluene-F
6016708	83

*- 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: 1200469
Reported: 07/07/10 at 08:34 AM

Surrogate Quality Control

6016710	81
6016712	81
6016714	83
6016716	85
Blank	83
LCS	116
LCSD	118
MS	102
Limits:	63-135

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 101760020A
Propene

6016708	51
6016710	60
6016712	79
6016714	76
Blank	102
LCS	103
MS	56
MSD	56
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 California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

Acct. #: 11875 — For Lancaster Laboratories use only — Sample #: 601167 08 - 116 — SCR#: 246190

Group# 1200469

Facility #: Sunol Spill
Site Address: MP 2.7 Sunol, CA
Chevron PM: Jeff Johnson — Lead Consultant: URS
Consultant/Office: URS - Oakland
Consultant Prj. Mgr.: Joe Morgan
Consultant Phone #: (510) 893-3600 — Fax #: (510) 874-3268
Sampler: K. Morris R. Naccarati
Service Order #: ____ ☐ Non SAR: ____

Analyses Requested

Preservation Codes

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 ☐ ONLY (H)	TPH 8015 MOD. GRO (H)	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates ___	Lead 7420 ☐ 7421 ☐	EPA Meth 300.0 Nitrate/Sulfate	6010B Total Manganese Dissolved Iron (N)	SM20 3500-Fe B Mod Ferrous Iron (H)	Methane 8015B	Alkalinity by USEPA Meth 310.1 breakdown	TDS by EPA Method 160.1
MW-4	W			10-6-23	1520				17	X	X					X	X	X	X	X	X
MW-2	W			10-6-23	1415				17	X	X					X	X	X	X	X	X
MW-10	W			10-6-23	1120				17	X	X					X	X	X	X	X	X
MW-11	W			10-6-23	1315				17	X	X					X	X	X	X	X	X
TB-1	W			10-6-23					1	X	X										

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

Comments / Remarks
*Metals to be lab filtered

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

Relinquished by:	Date	Time	Received by:	Date	Time
Mary O'Brien	10-6-23	1700			
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: Mary Beth Reed	Date 6/25/10	Time 0900
Temperature Upon Receipt 1.6, 2.6 C°			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)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< 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

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

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. All other results are reported on an as-received basis.

U.S. EPA CLP 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 quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
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 sample 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 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.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

July 07, 2010

Project: Sunol, CA

Submittal Date: 06/25/2010
Group Number: 1200480
PO Number: 0015041168
Release Number: JOHNSON
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
MW-8 Grab Water	6016751
MW-8_Filtered Grab Water	6016752
MW-9 Grab Water	6016753
MW-9_Filtered Grab Water	6016754
STREAM Grab Water	6016755
TB-2 NA Water	6016756

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

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

Lancaster Laboratories

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Analysis Report

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

Respectfully Submitted,

Sarah M. Snyder
Senior Specialist

Lancaster Laboratories

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Analysis Report

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

LLI Sample # WW 6016751
LLI Group # 1200480
Account # 11875

Project Name: Sunol, CA

Collected: 06/24/2010 11:30 by JH

Submitted: 06/25/2010 09:00
Reported: 07/07/2010 10:50
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

SPMW8

CAT No.			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	630	13	25
10943	Ethylbenzene		100-41-4	870	13	25
10943	Toluene		108-88-3	680	13	25
10943	Xylene (Total)		1330-20-7	2,500	13	25
GC Volatiles		**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12		n.a.	14,000	250	5
GC Miscellaneous		**SW-846 8015B modified**		**ug/l**	**ug/l**	
07105	Methane		74-82-8	650	25	5
Metals		**SW-846 6010B**		**ug/l**	**ug/l**	
07058	Manganese		7439-96-5	1,080	0.84	1
Wet Chemistry		**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen		14797-55-8	N.D.	250	5
00228	Sulfate		14808-79-8	6,100	1,500	5
		EPA 160.1		**ug/l**	**ug/l**	
00212	Total Dissolved Solids		n.a.	679,000	19,400	1
		EPA 310.1		**ug/l as CaCO3**	**ug/l as CaCO3**	
00202	Alkalinity to pH 4.5		n.a.	502,000	460	1
00201	Alkalinity to pH 8.3		n.a.	N.D.	460	1
		SM20 3500 Fe B modified		**ug/l**	**ug/l**	
08344	Ferrous Iron		n.a.	7,800	250	25

General Sample Comments

State of California Lab Certification No. 2501

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	Z101792AA	06/28/2010 14:53	Ginelle L Feister	25
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z101792AA	06/28/2010 14:53	Ginelle L Feister	25
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10183A20A	07/02/2010 19:57	Carrie E Miller	5

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Analysis Report

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

LLI Sample # WW 6016751
LLI Group # 1200480
Account # 11875

Project Name: Sunol, CA

Collected: 06/24/2010 11:30 by JH

Submitted: 06/25/2010 09:00
Reported: 07/07/2010 10:50
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

SPMW8

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	10183A20A	07/02/2010 19:57	Carrie E Miller	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	101760020A	06/29/2010 18:52	Elizabeth J Marin	5
07058	Manganese	SW-846 6010B	1	101791848005	06/29/2010 10:50	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	101791848005	06/28/2010 21:00	Annamaria Stipkovits	1
00368	Nitrate Nitrogen	EPA 300.0	1	10176196601A	06/26/2010 01:57	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	10176196601A	06/26/2010 01:57	Ashley M Adams	5
00212	Total Dissolved Solids	EPA 160.1	1	10180021201B	06/29/2010 09:28	Hannah M Royer	1
00202	Alkalinity to pH 4.5	EPA 310.1	1	10180020201A	06/29/2010 10:13	Susan A Engle	1
00201	Alkalinity to pH 8.3	EPA 310.1	1	10180020201A	06/29/2010 10:13	Susan A Engle	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	10177834401A	06/26/2010 06:20	Daniel S Smith	25

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Analysis Report

Sample Description: MW-8_Filtered Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-8

LLI Sample # WW 6016752
LLI Group # 1200480
Account # 11875

Project Name: Sunol, CA

Collected: 06/24/2010 11:30 by JH

Submitted: 06/25/2010 09:00
Reported: 07/07/2010 10:50
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

CAT No.		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	94.9	52.2	1

General Sample Comments

State of California Lab Certification No. 2501
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	101791848005	06/29/2010 10:54	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	101791848005	06/28/2010 21:00	Annamaria Stipkovits	1

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Analysis Report

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

LLI Sample # WW 6016753
LLI Group # 1200480
Account # 11875

Project Name: Sunol, CA

Collected: 06/24/2010 10:10 by JH

Submitted: 06/25/2010 09:00
Reported: 07/07/2010 10:50
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

SPMW9

CAT No.			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	0.9	0.5	1
10943	Ethylbenzene		100-41-4	210	5	10
10943	Toluene		108-88-3	7	0.5	1
10943	Xylene (Total)		1330-20-7	1,300	5	10
GC Volatiles		**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water	C6-C12	n.a.	16,000	250	5
GC Miscellaneous		**SW-846 8015B modified**		**ug/l**	**ug/l**	
07105	Methane		74-82-8	12	5.0	1
Metals		**SW-846 6010B**		**ug/l**	**ug/l**	
07058	Manganese		7439-96-5	2,460	0.84	1
Wet Chemistry		**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen		14797-55-8	N.D.	250	5
00228	Sulfate		14808-79-8	33,500	1,500	5
		EPA 160.1		**ug/l**	**ug/l**	
00212	Total Dissolved Solids		n.a.	489,000	9,700	1
		EPA 310.1		**ug/l as CaCO3**	**ug/l as CaCO3**	
00202	Alkalinity to pH 4.5		n.a.	380,000	460	1
00201	Alkalinity to pH 8.3		n.a.	N.D.	460	1
		SM20 3500 Fe B modified		**ug/l**	**ug/l**	
08344	Ferrous Iron		n.a.	1,500	50	5

General Sample Comments

State of California Lab Certification No. 2501

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	Z101792AA	06/28/2010 15:18	Ginelle L Feister	1
10943	BTEX 8260B Water	SW-846 8260B	1	Z101792AA	06/28/2010 15:42	Ginelle L Feister	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z101792AA	06/28/2010 15:18	Ginelle L Feister	1

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

LLI Sample # WW 6016753
LLI Group # 1200480
Account # 11875

Project Name: Sunol, CA

Collected: 06/24/2010 10:10 by JH

Submitted: 06/25/2010 09:00
Reported: 07/07/2010 10:50
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

SPMW9

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z101792AA	06/28/2010 15:42	Ginelle L Feister	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10183A20A	07/02/2010 20:18	Carrie E Miller	5
01146	GC VOA Water Prep	SW-846 5030B	1	10183A20A	07/02/2010 20:18	Carrie E Miller	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	101760020A	06/29/2010 04:38	Elizabeth J Marin	1
07058	Manganese	SW-846 6010B	1	101791848005	06/29/2010 11:05	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	101791848005	06/28/2010 21:00	Annamaria Stipkovits	1
00368	Nitrate Nitrogen	EPA 300.0	1	10176196601A	06/26/2010 02:13	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	10176196601A	06/26/2010 02:13	Ashley M Adams	5
00212	Total Dissolved Solids	EPA 160.1	1	10180021201B	06/29/2010 09:28	Hannah M Royer	1
00202	Alkalinity to pH 4.5	EPA 310.1	1	10180020201A	06/29/2010 10:13	Susan A Engle	1
00201	Alkalinity to pH 8.3	EPA 310.1	1	10180020201A	06/29/2010 10:13	Susan A Engle	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	10177834401A	06/26/2010 06:20	Daniel S Smith	5

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Analysis Report

Sample Description: MW-9_Filtered Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-9

LLI Sample # WW 6016754
LLI Group # 1200480
Account # 11875

Project Name: Sunol, CA

Collected: 06/24/2010 10:10 by JH

Submitted: 06/25/2010 09:00
Reported: 07/07/2010 10:50
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

CAT No.		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	131	52.2	1

General Sample Comments

State of California Lab Certification No. 2501
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	101791848005	06/29/2010 11:09	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	101791848005	06/28/2010 21:00	Annamaria Stipkovits	1

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Analysis Report

Sample Description: STREAM Grab Water
NA URSO
Sunol Pipeline SL0600100443 STREAM

LLI Sample # WW 6016755
LLI Group # 1200480
Account # 11875

Project Name: Sunol, CA

Collected: 06/24/2010 09:30 by JH

Submitted: 06/25/2010 09:00
Reported: 07/07/2010 10:50
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

SPSTR

CAT No.			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

State of California Lab Certification No. 2501

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	Z101792AA	06/28/2010 16:07	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z101792AA	06/28/2010 16:07	Ginelle L Feister	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10183A20A	07/02/2010 16:19	Carrie E Miller	1
01146	GC VOA Water Prep	SW-846 5030B	1	10183A20A	07/02/2010 16:19	Carrie E Miller	1

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Analysis Report

Sample Description: TB-2 NA Water
NA URSO
Sunol Pipeline SL0600100443 TB-2

LLI Sample # WW 6016756
LLI Group # 1200480
Account # 11875

Project Name: Sunol, CA

Collected: 06/24/2010

Submitted: 06/25/2010 09:00
Reported: 07/07/2010 10:50
Discard: 08/07/2010

Chevron Pipeline Co.
100 Northpark Blvd
Covington LA 70433

SPTB2

CAT No.			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

State of California Lab Certification No. 2501

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	Z101792AA	06/28/2010 13:37	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z101792AA	06/28/2010 13:37	Ginelle L Feister	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10183A20A	07/02/2010 13:47	Carrie E Miller	1
01146	GC VOA Water Prep	SW-846 5030B	1	10183A20A	07/02/2010 13:47	Carrie E Miller	1

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Analysis Report

Quality Control Summary

Client Name: Chevron Pipeline Co. Group Number: 1200480
Reported: 07/07/10 at 10:50 AM

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: Z101792AA	Sample number(s): 6016751,6016753,6016755-6016756							
Benzene	N.D.	0.5	ug/l	86		79-120		
Ethylbenzene	N.D.	0.5	ug/l	88		79-120		
Toluene	N.D.	0.5	ug/l	88		79-120		
Xylene (Total)	N.D.	0.5	ug/l	90		80-120		
Batch number: 10183A20A	Sample number(s): 6016751,6016753,6016755-6016756							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	127	127	75-135	0	30
Batch number: 101760020A	Sample number(s): 6016751,6016753							
Methane	N.D.	5.0	ug/l	103		80-120		
Batch number: 101791848005	Sample number(s): 6016751-6016754							
Iron	80.3	52.2	ug/l	106		90-112		
Manganese	N.D.	0.84	ug/l	101		90-110		
Batch number: 10176196601A	Sample number(s): 6016751,6016753							
Nitrate Nitrogen	N.D.	50.	ug/l	104		90-110		
Sulfate	N.D.	300.	ug/l	107		89-110		
Batch number: 10177834401A	Sample number(s): 6016751,6016753							
Ferrous Iron	N.D.	10.	ug/l	100		92-105		
Batch number: 10180020201A	Sample number(s): 6016751,6016753							
Alkalinity to pH 4.5	N.D.	460.	ug/l as CaCO3	99		98-103		
Batch number: 10180021201B	Sample number(s): 6016751,6016753							
Total Dissolved Solids	N.D.	9,700.	ug/l	103		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: Z101792AA	Sample number(s): 6016751,6016753,6016755-6016756 UNSPK: P015873								
Benzene	92	90	80-126	2	30				
Ethylbenzene	96	94	71-134	2	30				
Toluene	95	92	80-125	3	30				
Xylene (Total)	98	95	79-125	3	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: 1200480
Reported: 07/07/10 at 10:50 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: 10183A20A	Sample number(s): 6016751,6016753,6016755-6016756 UNSPK: P016710								
TPH-GRO N. CA water C6-C12	118		63-154						
Batch number: 101760020A	Sample number(s): 6016751,6016753 UNSPK: P015864								
Methane	63	63	35-157	0	20				
Batch number: 101791848005	Sample number(s): 6016751-6016754 UNSPK: P017117 BKG: P017117								
Iron	156 (2)	84 (2)	75-125	3	20	20,600	20,500	1	20
Manganese	85	90	75-125	1	20	1,160	1,150	1	20
Batch number: 10176196601A	Sample number(s): 6016751,6016753 UNSPK: P016728 BKG: P016728								
Nitrate Nitrogen	106		90-110			910	950	4 (1)	20
Sulfate	100		90-110			18,300	18,500	1 (1)	20
Batch number: 10177834401A	Sample number(s): 6016751,6016753 UNSPK: 6016751 BKG: 6016751								
Ferrous Iron	98	96	73-120	1	6	7,800	7,700	1 (1)	5
Batch number: 10180020201A	Sample number(s): 6016751,6016753 UNSPK: P017830 BKG: P017830								
Alkalinity to pH 4.5	85		73-121			102,000	104,000	2	5
Alkalinity to pH 8.3						N.D.	N.D.	0 (1)	5
Batch number: 10180021201B	Sample number(s): 6016751,6016753 UNSPK: P016499 BKG: P016721								
Total Dissolved Solids	102		62-135			25,000,000	26,400,000	5	9

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: Z101792AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6016751	98	96	97	95
6016753	98	96	98	97
6016755	99	95	97	95
6016756	99	97	97	93
Blank	100	96	97	94
LCS	99	99	97	95
MS	99	99	97	95
MSD	99	97	97	95
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 10183A20A

	Trifluorotoluene-F
6016751	92
6016753	108

*- 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: 1200480
Reported: 07/07/10 at 10:50 AM

Surrogate Quality Control

6016755	83
6016756	84
Blank	83
LCS	116
LCSD	118
MS	102
Limits:	63-135

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 101760020A
Propene

6016751	85
6016753	76
Blank	102
LCS	103
MS	56
MSD	56
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 California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 11875 Sample #: 6016751-56 SCR#: 246191

Grp #1200480

Analyses Requested

Facility #: Sunol Spill
Site Address: MP 2.7 Sunol, CA
Chevron PM: Jeff Johnson Lead Consultant: URS
Consultant/Office: URS-Oakland
Consultant Prj. Mgr.: Joe Morgan
Consultant Phone #: (510) 893-3600 Fax #: (510) 874-3268
Sampler: Jacob Henry / ~~Tim Morris~~ END Rachel Naccarati
Service Order #: ☐ Non SAR:

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 ☐ ONLY	TPH 8015 MOD (GRO) TPH-g by GC/FID	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420 ☐ 7421 ☐	Nitrate/Sulfate by EPA 300.0	Total Manganese by EPA 6010B Dissolved Iron by SM 3500 D Mod. EPA 6010B	Methane by RSK 175	Alkalinity by EPA Metn 310.1	TDS by EPA Method 160.1
MW-8	W			2010-06-24	1130	N	X		7	X	X					X	X	X	X	X
MW-9					1010	N	X		7	X	X					X	X	X	X	X
STREAM					930	N	X		6	X	X									
TB-2					--	N			2	X	X									

Preservation Codes

H	H									N	H			

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

Comments / Remarks
*Metals to be lab filtered

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

Relinquished by:	Date	Time	Received by:	Date	Time
	6/24/10	1300			
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:	6-25-10	0900
Temperature Upon Receipt 4.2 C°			Custody Seals Intact? Yes No	KM 6-25-10	

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)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< 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

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

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. All other results are reported on an as-received basis.

U.S. EPA CLP 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 quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
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 sample 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 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.