CLOSURE REQUEST

CHEVRON SUNOL PIPELINE SITE SUNOL, CALIFORNIA

Prepared for

Chevron Pipe Line Company
4800 Fournace Place, E320C
Bellaire, Texas 77401

August 2013

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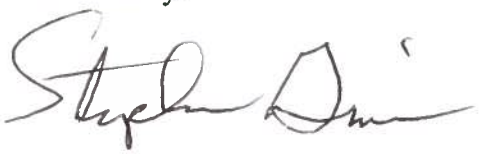
August 23, 2012

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 – Closure Request**" are true and correct to the best of my knowledge at the present time.

Submitted by:



Stephen Gwin
Chevron Pipe Line Company

URS

August 23, 2013

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, Closure Request

Dear Mr. Wickham:

URS Corporation (URS), on behalf of the Chevron Pipe Line Company, has completed this case closure request for the Sunol Spill Site, located at 2793 Calaveras Rd, Sunol, CA.

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

Sincerely,

URS CORPORATION

Robert Horwath, P.G.
Senior Geologist

Joe Morgan III
Project Manager

cc: Mr. Stephen Gwin, Chevron Pipeline Company
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URS

This closure request ("**Closure Request**") was prepared under my direct supervision. The information presented in this request 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 Closure Request discussed herein was developed in accordance with the standard of care used to develop this type of request. The assumptions that were made were based on our professional experience and protocols reported in the literature for similar investigations.

Approved by:
URS CORPORATION

Robert Horwath, P.G.
Senior Geologist

Joe Morgan III
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Acronyms

ACBD	Alameda County Building Permit
ACFD	Alameda County Fire Department
ACEH	Alameda County Department of Environmental Health
bgs	below ground surface
booms	sorbent booms
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CPL	Chevron Pipe Line Company
CSM	Conceptual Site Model
DO	dissolved oxygen
EPA	Environmental Protection Agency
ESL	Environmental Screening Level
GORE™	W.L. Gore & Associates
HASP	Health and Safety Plan
LNAPL	light non-aqueous phase liquid
mg/kg	milligram(s) per kilogram
msl	mean sea level
MTBE	methyl tertiary butyl ether
ORP	oxidation reduction potential
PAH	polycyclic aromatic hydrocarbons
psi	pounds per square inch
SFPUC	San Francisco Public Utilities Commission
Site	Chevron Pipeline Sunol site
SVE	soil vapor extraction
SWRCB	State Water Resources Control Board
TPH-GRO	total petroleum hydrocarbons
URS	URS Corporation
UST	underground storage tank
WQOs	water quality objectives
Zone 7	Zone 7 Alameda County Flood Control and Water Conservation District

On behalf of the Chevron Pipe Line Company (CPL), URS Corporation (URS) is submitting this Closure Request to the Alameda County Department of Environmental Health (ACEH) for the Chevron Sunol Pipeline Site (Site) located at mile post 2.7 along Calaveras Road in Sunol, California (Figure 1). Based on our review of the Site background and current conditions, URS believes this Site meets the general and media-specific criteria for closure presented in the State Water Resources Control Board's (SWRCB's) Low-Threat Underground Storage Tank (UST) Case Closure Policy (Low-Threat Policy 2012), which was adopted into law on August 17, 2012 as Title 23, 2923(Office of Administrative Law File No. 2012-0618-02-S).

The release of unleaded gasoline occurred on August 14, 2005 during the grading of the dirt road used by the cattle rancher on the eastern side of Calaveras Road. The cattle rancher leases the property from the San Francisco Public Utilities Commission (SFPUC). The grading equipment struck and damaged the CPL pipeline causing the release. CPL initially estimated that approximately 700 barrels (29,400 gallons) of unleaded gasoline were released. Approximately 85 barrels of gasoline were recovered while draining and repairing the pipeline with approximately 615 barrels (25,830 gallons) released as a spray down slope of the pipeline onto the adjacent hillside and Calaveras Road. The high volatility of gasoline and the ambient temperature at the Site at the time of the release, approximately 90 degrees Fahrenheit, contributed to gasoline vaporization from the soil immediately after and in the days following the release.

Environmental investigation, remediation, and groundwater monitoring has been ongoing since 2005. To date, 15 monitoring wells and 9 soil vapor extraction (SVE) wells have been installed and 33 soil borings have been advanced. Total petroleum hydrocarbons as gasoline (TPH-GRO), benzene, ethylbenzene, toluene, and xylenes (BTEX) concentrations in groundwater were monitored quarterly from 2006 to 2010 and semiannually since 2011. Site remediation activities included excavation and off-site disposal of contaminated soil, 4 rounds of SVE system operation, and passive absorbent booms in monitoring wells with sheen in 2007.

As the Low-Threat UST Closure policy states, "While this policy does not specifically address other petroleum release scenarios such as pipelines or above ground storage tanks, if a particular site with a different petroleum release scenario exhibits attributes similar to those which this policy addresses, the criteria for closure evaluation of these non-UST sites should be similar to those in this policy" (SWRCB 2012). The Site exhibits attributes similar to those addressed by the policy and the criteria from the policy is used for closure evaluation. The Site meets the general criteria in the Low-Threat UST Closure Policy as follows:

- The groundwater affected by the CPL spill is within the unconfined aquifer which is unlikely to be used for domestic water.
- Site monitoring wells show that there is low recovery of groundwater from the wells and that the Site wells are not hydraulically connected due to seasonal fluctuations.
- The most recent local well survey results show that there are no domestic or supply wells within the CPL site, or within a ½-mile radius.
- The hydrocarbon plume is horizontally defined to the north by MW-10, to the west by MW-3, MW-4, and MW-11, and to the south by MW-2 and grab groundwater sample from MW-15 and to the east by the hillside bedrock. The release consists only of gasoline.

- The release has been stopped.
- Free product has been removed to the maximum extent practical.
- The Conceptual Site Model (CSM) was developed (URS 2010).
- Soil samples have been analyzed for methyl tertiary butyl ether (MTBE), and determined to not be a constituent of concern at this Site.
- Nuisance as defined by Water Code Section 13050 does not exist at the Site.

The Site meets the media-specific criteria in the Low-Threat UST Closure Policy by the following:

Groundwater

- The hydrocarbon plume that exceeds water quality objectives (WQOs) is approximately 175 feet in length.
- There is no free product in the Site's groundwater as shown by the Site wells.
- TPH-GRO and associated BTEX concentrations have steadily decreased since the pipeline release in all wells including MW-8, which increased to a maximum TPH-GRO concentration of 78,000 µg/L in December 2010 and has decreased to 41,000 µg/L in March 2013.
- No supply or domestic wells are within ½ mile of the Site.
- Initial soil excavation and off-site disposal as part of the emergency remedial activities.
- The dissolved concentration of benzene is less than 3,000 µg/L (under historic maximum as well as current conditions) and MTBE is not a gasoline constituent at this Site. Remediation completed at the Site to date includes four rounds of SVE, and passive booms placed in MW-1 and MW-9 to remove light non-aqueous phase liquid (LNAPL).
- The Site's groundwater monitoring program shows the hydrocarbon plume is horizontally defined to the north by MW-10, to the west by MW-3, MW-4, and MW-11, and to the south by MW-2 and grab groundwater sample from MW-15.
- A small stream that is a tributary of Alameda Creek, the nearest surface water body, runs east-west approximately 150 to 200 feet north of the Site. The surface water in the creek has been sampled quarterly or semiannually for since 2006, and no concentrations of TPH-GRO or BTEX have been reported. Also, gasoline constituents in monitoring wells MW-10 and MW-11 are below the respective laboratory detection limits and located between the Site's impacted wells and the stream. The stream is unlikely to be impacted by the 2005 unauthorized release at the Site in the future.

Indoor Air

The Site to the east of Calaveras Road is a steep hillside and to the west of Calaveras Road is an open-to-the-air and above-ground tree nursery. The closest structure is a portable office trailer on the nursery site approximately 2,450 feet southwest of the Site, and there are no permanent buildings within half a mile of the Site. SFPUC does not allow permanent residential or commercial buildings on the property. Therefore, there is no indoor air risk related to the vapor

intrusion pathway because indoor air exposure pathways are incomplete under current and reasonably likely future conditions. It is unlikely for a building to be built in this area as it is a watershed for the SFPUC and therefore soil vapor in the subsurface at the Site does not pose an unacceptable health risk.

If a building was to be built on Site, it would most likely be located on the nursery side as the hillside is too steep and unstable, and therefore unsuitable for a building. On the nursery property, Site-specific conditions satisfy all of the characteristics and criteria of scenarios 1 through 3 of the Low-Threat UST Closure Policy.

Direct Contact and Outdoor Air Inhalation

From 2005 through December 2012, a total of 131 soil samples were collected from depths of 0 to 10 feet below ground surface (bgs), and only four soil samples exceeded the maximum allowable concentrations of benzene and/or ethylbenzene for commercial land use outlined in the Low-Threat UST Closure Policy. Soil samples have been collected from this area on the hillside in 2005 and 2006. Soil samples have not been analyzed for naphthalene or other poly-aromatic hydrocarbons (PAHs) at this Site as they are not present in gasoline and therefore are not a Site contaminant.

The four soil samples that exceeded the maximum allowable concentrations of benzene and/or ethylbenzene for commercial land use were collected from two soil borings, SB-19 and SVE 7 in 2005 and 2006, prior to remediation activities. The soil exceedances appear to be localized as the surrounding soil samples collected at similar depths have concentrations of benzene and ethylbenzene below the maximum allowable concentrations outlined in the Low-Threat UST Closure Policy. Furthermore, the risk levels associated with these exceedances are quite low, ranging from 1.1×10^{-6} to 3.9×10^{-6}, only slightly higher than the Low-Threat Closure UST Policy's target risk level of 1.0×10^{-6}. Because these samples were collected before the operation of the SVE system and are located directly adjacent to the SVE system, it is likely that the concentrations of benzene and ethylbenzene have decreased since the samples were collected in 2006 due to the operation of the SVE system and natural attenuation. In addition, direct contact exposure is unlikely as dense vegetation limits contact with the soil.

Due to the limited number of exceedances even under worst-case, pre-remediation conditions, low risk levels, and limited likelihood of exposure, these few soil samples do not indicate a significant risk of adversely affecting human health.

In conclusion, the Site meets the general and media-specific criteria described in the Low-Threat UST Closure Policy, does not pose a threat to human health, safety, or the environment, and is appropriate for case closure.

On behalf of the Chevron Pipe Line Company (CPL), URS Corporation (URS) is submitting this Closure Request to the Alameda County Department of Environmental Health (ACEH) for the Chevron Sunol Pipeline Site (Site) in Sunol, California located at mile post 2.7 along Calaveras Road in Sunol, California (Figure 1). The Site is on land owned by the San Francisco Public Utilities Commission (SFPUC). Based on our review of the Site background and current conditions, URS believes this Site meets the general and media-specific criteria for closure presented in the State Water Resources Control Board's (SWRCB's) Low-Threat Underground Storage Tank Case Closure Policy (Low-Threat Policy 2012), which was adopted into law on August 17, 2012 as Title 23, 2923(Office of Administrative Law File No. 2012-0618-02-S).

This section provides a summary of the Site, the regional and local geology at the Site, release history, previous investigation and remediation activities.

2.1 SITE HISTORY

The subject pipeline is an 8-inch diameter, active pipeline that is part of CPL's Bay Area Products Pipeline. The buried pipeline has been in place since at least 1963. The subject pipeline carries unleaded gasoline from the Chevron Richmond Refinery to San Jose, California.

The location of the pipeline release is approximately 2.7 miles south of the intersection of Interstate 680 and Calaveras Road, between mileposts 2.7 and 2.8 of Calaveras Road, Sunol, California (Figure 1). The pipeline extends along the east side of Calaveras Road and traverses a steep hillside above the east side of Calaveras Road (hillside). The SFPUC owns the property where the release occurred and leases it to a cattle rancher. Immediately to the west of Calaveras Road at the location of the release is an above-ground tree nursery, the nursery also leases the property from the SFPUC (Figure 2).

Aerial photographs in 1939 show the Site and surrounding land as undeveloped and/or farmland. Aerial photographs from 1958 and 1965 show some development of the surrounding land into what appears to be tree nurseries. After 1965, the San Antonio Reservoir is visible to the northeast with associated pumping station facilities approximately 1.5 miles to the north of the Site. The Site and surrounding land have remained mainly unchanged since 1965.

The release of unleaded gasoline occurred on August 14, 2005 during the grading of the dirt road used by the cattle rancher on the eastern side of Calaveras Road. The grading equipment struck and cut a slit in the pipeline causing the release. CPL initially estimated that approximately 700 barrels (29,400 gallons) of unleaded gasoline were released. Approximately 85 barrels of gasoline were recovered while draining and repairing the pipeline with approximately 615 barrels (25,830 gallons) released as a spray down slope of the pipeline onto the adjacent hillside and Calaveras Road.

A sizeable portion of the release was removed from the Site when 152 tons (~100 cubic yards) of gasoline-impacted soil and debris were excavated and disposed of off-site as part of the emergency remedial activities. An additional large portion of the product evaporated immediately after and in the days following the release. The following facts support this assumption:

- The product was released as a spray at approximately 750 pounds per square inch (psi) pressure from a hole in the top of the pipeline, allowing for rapid volatilization. The condition of Site vegetation after the release indicated that the gasoline spray reached as high as 50 feet in the air.
- The down slope portion of Calaveras Road was impacted with product, most of which evaporated or was removed when the roadway was replaced.
- The dense vegetation on the hillside provided a large amount of surface area for evaporation.
- The high volatility of gasoline and the ambient temperature at the Site at the time of the release, approximately 90 degrees Fahrenheit, contributed to gasoline vaporization from the soil immediately after and in the days following the release.

2.2 PRIMARY SOURCE AND RELEASE MECHANISM

The primary source and release mechanism for the total petroleum hydrocarbons as gasoline (TPH-GRO) and associated benzene, toluene, ethylbenzene, and total xylenes (BTEX) was the unleaded gasoline pipeline unauthorized release. During the August 14, 2005 release, unleaded gasoline sprayed approximately 50 feet into the air, affecting several trees, and spilled down slope to the west of the pipeline break. CPL conducted emergency remedial activities immediately following the identification of the release. The pipeline rupture was repaired and shallow soil surrounding the release location was excavated. Twelve roll-off bins of soil were removed and disposed of off-site at an appropriate landfill by CPL's emergency response contractor. Currently, no active primary sources of TPH-GRO and associated BTEX are located at the Site.

2.3 SECONDARY SOURCE AND RELEASE MECHANISMS

The primary release resulted in a secondary source of TPH-GRO and associated BTEX in shallow soils. Although CPL removed a significant amount of the impacted shallow soils, secondary releases occurred as infiltration to deep soils, leaching to groundwater, and volatilization to ambient air.

A small stream, a tributary to Alameda Creek, runs east to west along the Site's northern border. Alameda Creek is located approximately 830 feet to the west of the primary pipeline release location. URS has sampled surface water from the small stream quarterly for TPH-GRO and associated BTEX impacts since 2006. To date, no impacts have been observed or detected by laboratory analysis. No secondary release as a discharge to surface water or groundwater supply well has occurred.

2.4 LAND AND WATER USE

2.4.1 Land Use

The Site is located on land that is designated as Water Management Land, which includes watershed lands, by Alameda County. As previously mentioned, the Site is part of an SFPUC watershed. As it is on watershed land, the Site and surrounding land is not open to the public, serves as passive open space, and is protected from development (Alameda County 2000). The land is currently being used for cattle ranching and by an above-ground nursery with no foreseeable development in the future.

2.4.2 Water Use

The existing groundwater beneficial uses for the Sunol Valley Basin are municipal and domestic water supply, industrial process water supply, industrial service water supply, agricultural water supply, and freshwater replenishment (RWQCB 2011). However, the Site does not directly supply water, and is unlikely to do so in the future.

URS conducted a local well survey by contacting DWR–Central District in Sacramento via Well Completion Report Release Agreement- Environmental Cleanup Study Form, cosigned by URS and ACEH. Two wells were determined to be within the ½-mile search radius. The two wells are

piezometer wells owned by SFPUC. The wells range in depth from 24 to 26 feet below ground surface (bgs).

URS also contacted Alameda County Zone 7 Water Agency (Zone 7) to identify wells within a half mile radius of the Site. Zone 7 also identified the two piezometer wells previously identified by DWR, and identified no water supply wells within ½-mile of the Site vicinity. Based on coordinates provided by Zone 7, the piezometer wells are located approximately 0.30 miles west and 0.43 miles southwest (on the other side of Alameda Creek) of the Site.

2.5 REGIONAL GEOLOGY AND HYDROGEOLOGY

The pipeline release Site is located on a steep hillside above the east side of Calaveras Road. Bedrock is present on the hillside at shallow depths and is exposed in numerous outcrops up slope. The bedrock geology of the hillside consists of Miocene age marine sandstone and/or siltstone of the Briones Formation, the bedding of which dips steeply to the east as part of the western limb of a syncline. The axis of the syncline is located upslope a few hundred feet east of Calaveras Road and trends northwest paralleling the ridge line. Farther up the hillside east of the synclinal axis, the bedding reverses dip direction toward the west. According to the California Division of Mines and Geology, the Calaveras Fault, which is located approximately 300 feet west of Calaveras Road, lies near the bottom of the hillside along the east edge of an alluvial plain that makes up the floor of Sunol Valley (California Division of Mines and Geology 1966; Dibblee 1980). However, URS soil investigation data indicates that a fault zone is located at the base of the hillside on the eastern side of Calaveras Road and it is assumed to be a part of the Calaveras fault zone. Immediately to the west of Calaveras Road is the nursery, which is located on what appears to be a terrace. The Alameda Creek floodplain is located about 500 feet to the west of the nursery and is about 35 feet lower in elevation.

2.6 LOCAL GEOLOGY AND HYDROGEOLOGY

2.6.1 Local Geology

Local lithology on the hillside above Calaveras Road consists of sandy silt to silty sand colluvium extending to depths ranging from approximately 3 to 32 feet bgs (Figure 4). The silty sand colluvium is underlain by gravelly fine sand and fine sandy gravel to total depths ranging from approximately 10 to 40 feet bgs. Beneath the sand and gravel layer (observed in the borings that reached the greatest depth below ground surface) a thin silty/clayey weathered zone was encountered just before refusal on what appeared to be the sandstone/siltstone bedrock. Sandstone bedrock overlain by a gravel bed is exposed in the dirt road cut at the pipeline release Site.

Local lithology along Calaveras Road and in the nursery indicates the base of the hillside consists of sandy to clayey silt and silty sand to a depth of about 17 to 35 feet bgs, underlain by sandy to silty gravel to a depth of about 29 to 43 feet bgs. Highly weathered sandy siltstone bedrock (with the consistency of sandy clay) is encountered at depths ranging from 29 to 47 feet bgs, underlain by progressively less weathered sandy siltstone, clayey siltstone, and silty claystone.

A weathered and sheared clay layer was encountered that appears to be fault gouge in boring AR-2 at 95 feet bgs (URS 2005). At approximately 105 feet bgs, hard, dark ultramafic igneous rock, which appeared to be basalt or gabbro (possibly of the Franciscan Formation), was encountered at the total explored depth of 108 feet bgs. It is possible that the clay layer could be fault gouge marking the contact with the Calaveras Fault. However, the depth to the alluvium/bedrock contact does not increase with distance west from the hillside, unlike what the angle of the slope suggests.

2.6.2 Unconfined Water Bearing Zone

The groundwater elevation data was collected during the March 2013 semiannual monitoring event and ranged on the nursery from 290.96 feet above mean sea level (msl) (MW-10) to 293.57 feet above msl (MW-3). The groundwater elevation for MW-8 was 315.05 feet above msl, which is considerably higher than the groundwater elevations in MW-1 through MW-4 and MW-9 though MW-11. The higher groundwater elevation in MW-8 is likely due to the well being screened in a perched zone in colluvial and fractured bedrock. In addition, splays of Calaveras Fault which runs along the base of the hill likely inhibit the hydraulic connection between the hillside water bearing zone and that of the valley fringe and floor colluvial/alluvial system. As such, there are at least two different water bearing zones at the Site; the perched hillside water-bearing zone and the valley floor water-bearing zone with the hillside water bearing zone acting as a partial recharge source to the valley floor.

Since installation in December 2012, monitoring wells MW-12 through MW-15 (screened in the perched hillside water bearing zone east of Calaveras Road) have been gauged on a monthly basis. The weathered bedrock is not consistently impermeable along Calaveras Road presumably because of fractures and pulverized sandstone within the general fault zone. Groundwater elevations levels in MW-8, MW-12 and MW-15 suggest that those monitoring well locations are part of a perched water zone on top of impermeable to semi-impermeable weathered bedrock. The absence of groundwater in MW-13 and MW-14 implies that groundwater is seeping through the gravel zone to the weathered bedrock zone which makes up the unconfined water zone that was formerly monitored by MW-5, MW-6 and MW-7.

Based on historical water level data from wells MW-1 through MW-4, and MW-9 through MW-11, the local groundwater flow direction within the nursery's unconfined water bearing has historically been in a north-northeast direction. The groundwater gradient in March 2013 was 0.03 feet/feet to the northeast. The seasonal groundwater recharge from the hillside appears to flow west into the unconfined water bearing zone on a limited basis (Figure 3). Well construction details can be found in Table 1. Historical groundwater elevations are included in Table 3.

2.6.3 Confined Sandstone Water Bearing Zone

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

2.7 PREVIOUS INVESTIGATIONS AND REMEDIATION SUMMARY

2.7.1 Initial Response

CPL conducted emergency remedial activities immediately following the identification of the release on August 14, 2005. The pipeline rupture was repaired and the soil surrounding the release location were excavated, placed in a total of 12 roll-off bins, and disposed of off Site by CPL's emergency response contractor at an appropriate off-site landfill.

2.7.2 Previous Investigations

A number of iterative investigations have been conducted since the initial release in August 2005. These investigations assessed the geology, hydrology, the extent and nature of environmental impacts to soil, groundwater and soil gas, and resulted in multiple rounds of soil vapor extraction (SVE) remediation.

URS advanced 33 borings between August 25 and November 10, 2005 to collect soil and groundwater samples. Three of these borings were completed as groundwater monitoring wells (MW-1 through MW-3, see Figure 2). The investigation results were presented in the Subsurface Investigation Report (URS 2005), which was submitted to ACEH on December 15, 2005. All boring logs for the Site are located in Appendix A. Soil analytical data collected from the soil borings are presented in Table 2.

In January 2006, URS advanced four borings, and completed the borings as groundwater monitoring wells MW-4 through MW-7 (Figure 2) to evaluate the extent of contamination in soil and groundwater at the Site. The investigation results were presented in the Additional Subsurface Investigation Report (URS 2006a), which was submitted to ACEH on May 22, 2006.

2.7.3 Monitoring Well Network

During the course of the remedial investigations, a monitoring well network was installed to assess the nature and extent of groundwater contamination and the direction of groundwater flow at the Site. Monitoring wells MW-1 through MW-4 are shallow with total depths ranging from 37.0 feet bgs to 41.0 feet bgs. Monitoring wells MW-5 through MW-7 were deep with total depths ranging from 49.8 feet bgs to 50.0 feet bgs. Quarterly groundwater monitoring was conducted from the first quarter of 2006 through 2010. Semiannual groundwater monitoring has been conducted since the second quarter of 2011. The location of the former and existing well network is presented on Figure 2. Details of the well construction can be found in Table 1. Historical groundwater elevations are included in Table 3. Historical analytes and bio-parameter data is included in Tables 4 and 5, respectively.

Wells MW-8 and MW-9 were installed in August 2006, approximately 160 feet northwest west of the release location, as shown on Figure 2 (URS 2006b). MW-9 was intended to define the northern extent of the petroleum hydrocarbon plume. However, measurable light non-aqueous phase liquid (LNAPL) was observed in MW-9 during the third quarter of 2006, and the first three quarters of 2007. LNAPL has not been observed in MW-9 since September 2007.

On September 4 through 6, 2007 URS installed two additional groundwater monitoring wells (MW-10 and MW-11) to the north and northwest of monitoring wells MW-9 to assess the down gradient edge of the groundwater plume (URS 2007c).

On June 23, 2008, monitoring wells MW-5 through MW-7 were abandoned with ACEH approval because there was no history of contamination.

On November 26 through December 5, 2012, URS advanced four soil borings along the east side of Calaveras Road to assess the shallow soil to a maximum depth of 30 feet bgs. The first two soil borings (MW-12 and MW-13) were advanced along Calaveras Road, one 25 feet north and one 25 feet south of the existing well MW-8. The third and fourth borings (MW-14 and MW-15) were advanced 50 feet north and 50 feet south of MW-8, respectively. Soil borings MW-14 and MW-15 were based on the soil analytical results of MW-12 and MW-14 containing TPH-GRO concentrations above the 2008 Environmental Screening Level (ESL) for deep soil where groundwater is a current or potential drinking source (RWQCB). The four soil borings were completed as monitoring wells, with screen intervals based on field observations, soil lithology, and the geologic cross-section to assess the shallow groundwater zone cross gradient of monitoring well MW-8 (URS 2013b).

In conclusion, existing wells within the current nursery groundwater monitoring network include seven monitoring wells (MW-1 through MW-4 and MW-9 through MW-11) screened in the unconfined water bearing zone. Monitoring wells MW-8 and MW-12 through MW-15 are considered part of a separate network as they are screened in a perched water zone. Three monitoring wells (MW-5 through MW-7) were installed in the confined sandstone water bearing zone but were abandoned after four consecutive quarters of non-detect concentrations (Figures 2 and 4).

2.7.4 July 2013 Gauging Anomaly

The Site's regular monthly gauging event was conducted on July 30, 2013. During this event, a light non-aqueous phase liquid (LNAPL) was detected by the interface meter in 8 wells (MW-1 through MW-4, MW-8 through MW-11, and MW-15), though LNAPL is typically detected only in MW-8. The LNAPL was not of measurable thickness while using the meter; rather, the meter briefly sounded the LNAPL tone. No hydrocarbon odor was noted at any of the wells nor was there sheen on the probe, except at MW-8 where a hydrocarbon odor was detected on the interface probe after gauging, which is typical for MW-8. Due to the lack of olfactory and visual confirmation, and the questionable nature of interface probe equipment's accuracy, the data collected on July 30 was deemed inconclusive, and the wells were gauged again at the next earliest date.

On August 5, 2013, the confirmation gauging event was conducted at the Site. During this event, LNAPL was detected by the interface probe in 5 wells (MW-3, MW-10 through MW-12, and MW-15). This interface meter was from another vendor and manufactured by a different company. The LNAPL was not of measurable thickness; rather, the meter briefly sounded the LNAPL tone. A new bailer was used at each of these wells to visually inspect the groundwater to physically confirm the interface meter results. No odor, staining, or sheen was observed on the bailers or in the groundwater drawn from any of the five wells. Due to the lack of these and other indicators, it is assumed that the interface meter gave false positive results with regards to LNAPL detection.

After the August 5 gauging event, URS contacted rental equipment vendors and manufacturers for more information on false positives. According to the vendors and manufacturers, a number of conditions affecting the interface meter could produce a false positive. These conditions include sunlight reflecting into the white poly vinyl chloride well casing affecting the optical sensor, low battery power, biological buildup on the conductivity sensors, damaged sensors, and/or inadequate cleaning.

In response to the false positives on the two previous gauging events, the second semi-annual 2013 groundwater sampling event was conducted on an earlier date than per usual, and completed on August 14 and 15, 2013. The samples analyzed for TPH-GRO, BTEX, and bioparameters. During this sampling event, all wells were gauged on August 14, 2013 prior to sampling, and no LNAPL was detected by the interface meter in any of the monitoring wells. Monitoring well MW-8 dewatered during purging on August 14 and was gauged again on August 15 after a 24-hour recharge period, and recorded 0.02 feet of LNAPL. Preliminary analytical data from the second semi-annual 2013 sampling event has been reviewed and found to be within historical ranges, providing further confirmation that the interface meters falsely identified LNAPL during the July 30 and August 5 gauging events. Groundwater analysis results from the sampling event will be presented in the Second Semi-Annual 2013 Groundwater Monitoring Report.

2.7.5 Soil Vapor Extraction and Treatment

2.7.5.1 First SVE System Operational Period

URS installed four SVE wells (SVE-1D, SVE-2S, SVE-3S, and SVE-4D) on the dirt road in November 2005, as shown in Figure 2. URS also installed an SVE system to collect the gasoline in the soil vapor for on-site combustion. The system operated for 3 months and removed an estimated 7,294 pounds of gasoline (approximately 1,042 gallons) during the period from November 8, 2005 through February 13, 2006 (URS 2006c). Historical soil vapor data is tabulated in Table 6.

2.7.5.2 Second SVE System Operational Period

URS installed five additional SVE wells (SVE-5 through SVE 9) below the dirt road on the steep hillside in November 2006. To ensure safe operations on the steep hillside, URS installed stairs and a sampling platform (Figure 2). The updated SVE system, including the earlier SVE wells, was restarted on November 28, 2006. The updated system operated for approximately 9 months and removed an estimated total of 9,742 pounds of gasoline (approximately 1,597 gallons) during the period from November 28, 2006 through August 17, 2007.

The updated system was disconnected and removed from the Site on August 17, 2007, due to the safety issues with the Site's dead trees as a result of the 2005 release. CPL and URS were concerned that the trees, which were losing limbs on a daily basis, would damage the SVE wells and piping and/or injure URS/subcontractor personnel (URS 2007b).

2.7.5.3 Third SVE System Operational Period

CPL's contractor removed the dead trees in June 2008. Also at this time, an electrical power system was installed to provide power to the SVE system's future operations under an Alameda County Building Department (ACBD) permit. Conditions of the ACBD permit included implementing several Alameda County Fire Department (ACFD) requirements: vegetation removal, construction of an all-purpose road for fire truck access, and the installation of a 2,500 gallon fire water tank. All ACBD and ACFD requirements were met by December 2008. The updated system was operated for approximately 2 months and removed an estimated total of 2,329 pounds of gasoline (approximately 382 gallons) during the period from December 22, 2008 through February 17, 2009.

Operation of the SVE system was discontinued February 17, 2009 when Pacific Gas and Electric disconnected the power from the electrical power system. During this time, the SVE system subcontractor, Stratus, Inc., contract ended and the SVE system was removed from the Site on March 13, 2009.

2.7.5.4 Fourth SVE System Operational Period

URS contracted with Mako Industries to provide SVE system operation for an additional three month period. The system operated for approximately 3 months and removed an estimated total of 1,390 pounds of gasoline (approximately 228 gallons) during the period from April 30, 2009 through July 23, 2009. (URS 2009).

The recovery rate from the SVE wells during the last operating period was mostly less than 2 pounds/day, and it was not considered cost effective to continue the SVE system operation. Operation of the SVE system was discontinued July 23, 2009 when the contract with Mako ended and the system was removed from the Site.

2.7.5.5 Cumulative Petroleum Hydrocarbon Removal

SVE system operations (17 total months) removed a total 77 barrels of gasoline (approximately 3,249 gallons). Historical data from the SVE system are presented in Table 6.

2.7.6 MW-1 and MW-9 Sorbent Booms

From March 2007 until May 2009, URS placed sorbent booms (booms) in MW-1 and MW-9 as an interim remedial measure for the measurable LNAPL found in those wells. 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 August 2011, MW-1 and MW-9 have been gauged monthly with no measurable product observed.

2.7.7 GORE™ Module Passive Soil Gas Surveys

Due to the complex subsurface conditions, URS collected additional subsurface data utilizing W.L. Gore & Associates (GORE™) Modules during April and May 2007. The 2007 GORE™ survey was used to passively collect soil gas samples in the area north of MW-9 within the nursery and the adjacent cattle grazing land. Based on the survey results, URS identified two

GORE™ survey module locations approximately 50 feet northwest and 100 feet west of MW-9 with low level TPH-GRO concentrations (URS 2007a).

In December 2009, URS conducted another passive soil gas survey using GORE™ modules (URS 2009a). The purpose of this GORE™ survey was to further evaluate residual impacts remaining in the source area, to evaluate the performance of the previously operated SVE system, the migration pathways from the source area, and migration pathways within the nursery.

The module analytical results represented a qualitative view of the subsurface soil gas at the Site. A general comparison of the module analytical results and SVE well recovery rates (April through July 2009) were made, providing confirmation of the performance of specific SVE wells. In addition to this important comparison, the module analytical results did not indicate significant petroleum hydrocarbon migration pathways from the original hillside source area. Lastly, the GORE™ survey confirmed that monitoring wells MW-10 and MW-11 are located appropriately along the northern perimeter of the Site as down gradient wells, and that no significant petroleum hydrocarbon migration pathways or concentrations past these wells are present (URS 2009b).

Site characterization, including distribution of hydrocarbons in soil and groundwater, and biodegradation, is presented in this section.

3.1 HYDROCARBON DISTRIBUTION IN SOIL

Soil samples have been collected and analyzed during Site investigations and well installations conducted from 2005 through 2012. The primary Site contaminants in soil at the Site are TPH-GRO and associated BTEX. Soil samples at the Site were also analyzed for lead and methyl tertiary butyl ether (MTBE) in 2005. Historical analytical data for soil at the Site is tabulated in Table 2. The maximum petroleum hydrocarbon concentrations in soil before and after soil remediation are listed below.

Table A. Maximum Contaminant Concentrations in Soil Before and After Remediation

Contaminant	Maximum Concentrations in Soil Before Remediation (mg/kg)	Concentrations in Soil, After Remediation (mg/kg)
TPH-g	23,000 (SVE-9, 4 feet bgs, 11/10/2006)	1,100 (MW-12, 24.5 feet bgs, 11/27/2012)
Benzene	26 (SVE-7, 8 feet bgs, 11/8/2006)	0.081 (MW-13, 23 feet bgs, 11/26/2012)
Toluene	1,200 (SB-19, 1 foot bgs, 10/13/2005)	0.025 (MW-13, 25 feet bgs, 11/26/2012)
Ethylbenzene	420 (SVE-7, 8 feet bgs, 10/13/2005)	0.62 (MW-13, 23 feet bgs, 11/26/2012)
Xylenes	3,800 (SVE-7, 8 feet bgs, 11/8/2006)	3.4 (MW-13, 23 feet bgs, 11/26/2012)

Forty eight (48) soil borings (including monitoring wells) were advanced at the Site, and 242 soil samples were collected:

- 9 samples had elevated concentrations of TPH-GRO; one of these samples was collected in 2012 (MW-12 at 24.5 feet bgs) and the other 8 samples were collected in 2005 and 2006.
- 2 samples collected in 2005 and 2006 had concentrations that exceeded the maximum allowable concentrations for commercial land use outlined in the Low-Threat closure policy. See section 4.2.3 for further discussion.
- 6 soil samples had elevated concentrations of toluene; all samples were collected in 2005 and 2006.
- 4 soil samples collected in 2005 and 2006 had concentrations that exceeded the maximum allowable concentrations for commercial land use outlined in the Low-Threat closure policy. See section 4.2.3 for further discussion.
- 12 soil samples had elevated concentrations of total xylenes; all samples were collected in 2005 and 2006.

All samples analyzed for MTBE had concentrations below the laboratory detection limits. Soil has been remediated through four rounds of SVE removal.

Soil impacts are confined to the hillside and delineated by soil boring samples to the north by MW-14 and SB-17, to the east by SB-20 through SB-24, to the south by MW-15 and SB-25 and to the west by SB-1 through SB-5.

3.2 HYDROCARBON DISTRIBUTION IN GROUNDWATER

Groundwater samples have been collected and analyzed during Site investigations and regular groundwater monitoring events conducted from 2005 through 2013. The primary constituents in groundwater at the Site are TPH-GRO and associated BTEX.

Monitoring wells MW-8 and MW-12 through MW-15 are screened along the base of the hill in a perched water zone composed of colluvial and fractured bedrock while monitoring wells MW-1 through MW-4 and MW-9 through MW-11 are screened in the colluvial/alluvial system in the adjacent Alameda Creek valley. Splays of Calaveras Fault which runs along the base of the hill likely inhibit the hydraulic connection between the hillside water bearing zone and that of the valley fringe and floor colluvial/alluvial system. Therefore, there are at least two different water bearing zones at the Site; the perched hillside water bearing zone and the valley floor water bearing zone with the hillside water bearing zone acting as a partial recharge source to the valley floor.

Current and historical analytical data from the groundwater monitoring program at the Site is presented in Table 4. The -maximum current concentrations from groundwater samples and the maximum historical petroleum hydrocarbon concentrations from grab-groundwater samples collected in 2013 are listed below.

Table B. Historical and Current Contaminant Concentrations in Groundwater in Unconfined Water Bearing Zone

	TPH-GRO			Benzene		
Well ID	**Historical Maximum Concentration (µg/L)**	**Current Concentration (µg/L)**	**Percent Decrease* (%)**	**Historical Maximum Concentration (µg/L)**	**Current Concentration (µg/L)**	**Percent Decrease* (%)**
MW-1	57,000 (2/22/2006)	710 (3/25/2013)	99%	38 (2/22/2006)	<0.5 (3/25/2013)	93%
MW-2	<50 (2/21/2006)	<50 (3/26/13)	NA	0.7 (11/14/2006)	<0.5 (3/26/2013)	64%
MW-3	170 (8/23/2006)	<50 (3/26/13)	85%	<0.5 (2/21/2006)	<0.5 (3/26/2013	NA
MW-4	70 (8/23/2006)	<50 (3/26/2013	64%	0.6 (8/23/2006)	<0.5 (3/26/2013	58%
MW-9	74,000 (11/15/2006)	2,100 (3/25/2013)	97%	480 (11/15/2006)	<0.5 (3/25/2013)	99%
MW-10	540 (12/10/2009)	<50 (3/25/2013)	95%	0.9 (3/20/2008)	<0.5 (3/25/2013)	72%
MW-11	66 (12/10/2009)	<50 (3/25/2013)	62%	<0.5 (12/14/2007)	<0.5 (3/25/2013)	NA

*In percent decrease calculations, concentrations below the laboratory detection limit were considered to be half the concentration of the laboratory detection limit.
NA – not applicable

Within the unconfined water bearing zone, the hydrocarbon plume is limited to MW-1 and MW-9. Monitoring wells MW-2 through MW-4, MW-10, and MW-11 have shown minimal impacts in the past but are currently below laboratory detection limits for TPH-GRO and associated BTEX. Concentrations of TPH-GRO and benzene have decreased in all wells showing any impact.

Table C. Historical and Current Contaminant Concentrations in Groundwater in Perched Zone

	TPH-GRO			Benzene		
Well ID	**Historical Maximum Concentration (µg/L)**	**Current Concentration (µg/L)**	**Percent Decrease* (%)**	**Historical Maximum Concentration (µg/L)**	**Current Concentration (µg/L)**	**Percent Decrease* (%)**
MW-8	78,000 (12/15/2010)	41,000 (3/25/2013)	47%	2,000 (12/15/2010)	760 (3/25/2013)	62%
MW-12	520 (3/25/2013)	520 (3/25/2013)	NA	2 (3/25/2013)	2 (3/25/2013)	NA
MW-15	<50 (3/25/2013)	<50 (3/25/2013)	NA	<0.5 (3/25/2013)	<0.5 (3/25/2013)	NA

*In percent decrease calculations, concentrations below the laboratory detection limit were considered to be half the concentration of the laboratory detection limit.
NA – not applicable

Within the perched zone, the hydrocarbon plume is currently limited to MW-8 and MW-12. The concentrations of TPH-GRO and benzene in the perched zone have decreased. Grab groundwater samples were collected in March 2013 from the recently installed monitoring wells (MW-12 and MW-15). The -grab groundwater sample from MW-12 contained concentrations of TPH-GRO at 520 µg/L, benzene at 2 µg /L, and toluene at 5 µg /L. All analytical results from the MW-15 grab groundwater sample were below their respective laboratory reporting method detection limits. Monitoring wells MW-13 and MW-14 have been dry since installation, and no grab groundwater samples have been collected. All current concentrations of benzene in groundwater are below 3,000 µg/L, which is the maximum concentration of dissolved benzene outlined in the Low-Threat UST Closure Policy. Groundwater analytical results from the monitoring wells show the hydrocarbon plume is stable, immobile, and decreasing concentrations in all wells.

3.3 BIODEGRADATION PROCESSES AND PARAMETERS

A biodegradation assessment was completed to evaluate whether the gasoline compounds in groundwater are being decreased by aerobic and/or anaerobic biodegradation. Observations from the March 2013 monitoring event are discussed below to provide an overview of the biodegradation.

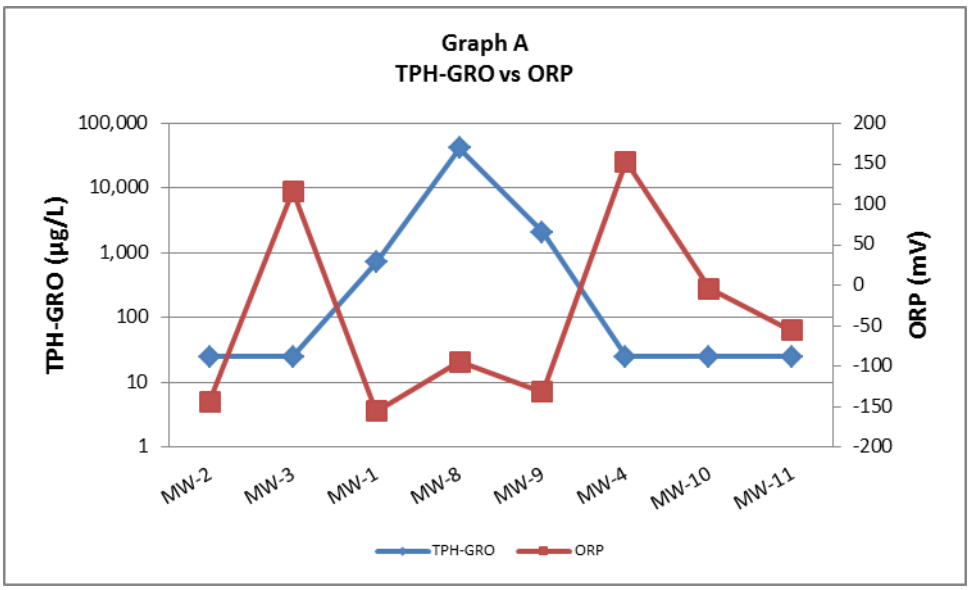
A brief summary of pre-purge oxidation reduction potential (ORP) measurements is provided below, followed by a discussion of the bioremediation parameters in order of the five stages of biodegradation: aerobic respiration [pre-purge dissolved oxygen (DO)]; denitrification (nitrate); iron (III) reduction (ferric to ferrous); sulfate reduction (sulfate); and methanogenesis (methane). To illustrate how geochemical parameters change when coming in contact with dissolved hydrocarbons, graphs are presented showing the variation from up-gradient of impacted wells to

down-gradient (MW-2, MW-3, MW-1, MW-8, MW-9, MW-4, MW-10 and MW-11). Bioparameters are also tabulated in Table 5.

3.3.1 Oxidation Reduction Potential

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

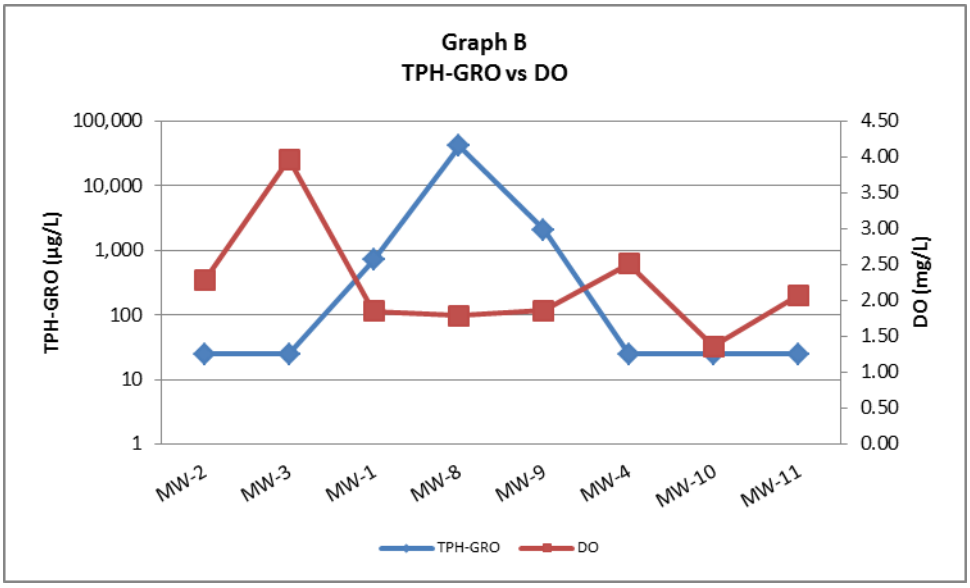
As shown in Graph A, ORP concentrations vary inversely with respect to hydrocarbon concentrations at the Site. Pre-purge ORP levels during the March 2013 event ranged from -156 mV (MW-1) to +153 mV (MW-4), indicating that anaerobic biodegradation is occurring within the residual hydrocarbon plume (monitoring wells MW-1, MW-8 and MW-9).



3.3.2 Dissolved Oxygen

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

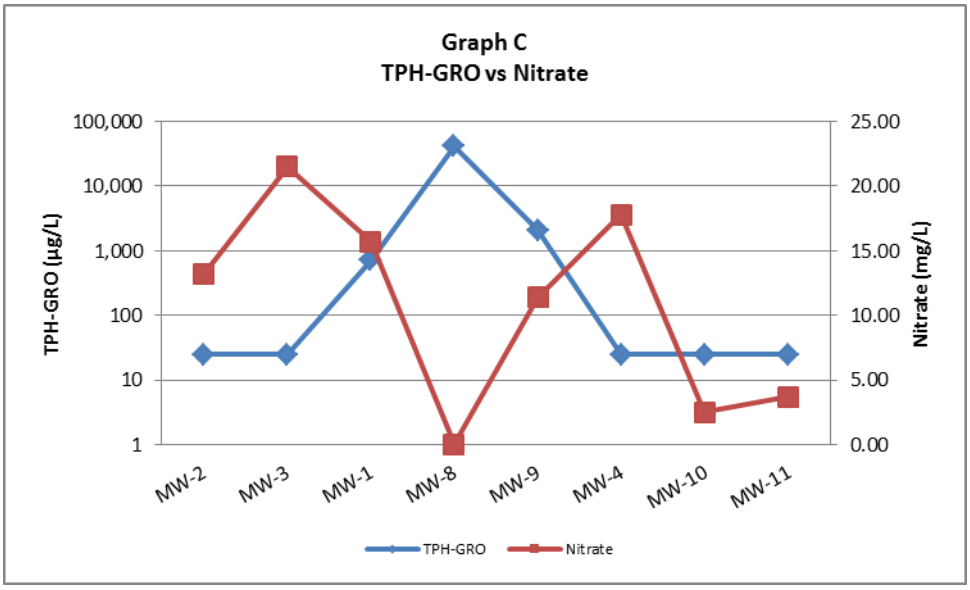
As shown in Graph B, DO concentrations vary inversely with respect to residual hydrocarbon concentrations in all wells across the Site, except for MW-10. However, DO concentrations in the residual hydrocarbon plume are low (below 2 mg/L) suggesting that DO is being depleted. Pre-purge DO concentrations for this sampling event, measured as milligrams per liter (mg/L) in the field ranged in concentrations from 1.79 mg/L in MW-8 to 3.97 mg/L in MW-3 indicating anaerobic conditions are occurring within the residual hydrocarbon plume (monitoring wells MW-1, MW-8, and MW-9).



3.3.3 Nitrates

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

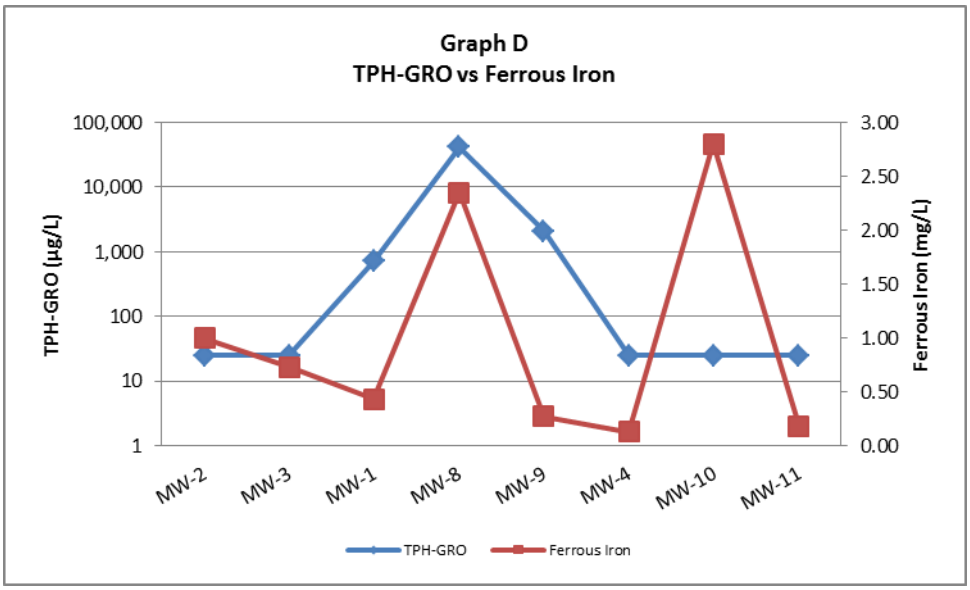
As shown in Graph C, an inverse relationship is observed at this Site. Nitrate concentrations for this sampling event, measured by the analytical laboratory, ranged in concentration from 2.5 mg/L in MW-10 to 21.5 mg/L in MW-3. The nitrate concentration was below the laboratory detection limit in MW-8, the well with the highest TPH-GRO concentration, which suggests that anaerobic biodegradation is occurring at the Site within the residual hydrocarbon plume.



3.3.4 Ferrous Iron

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

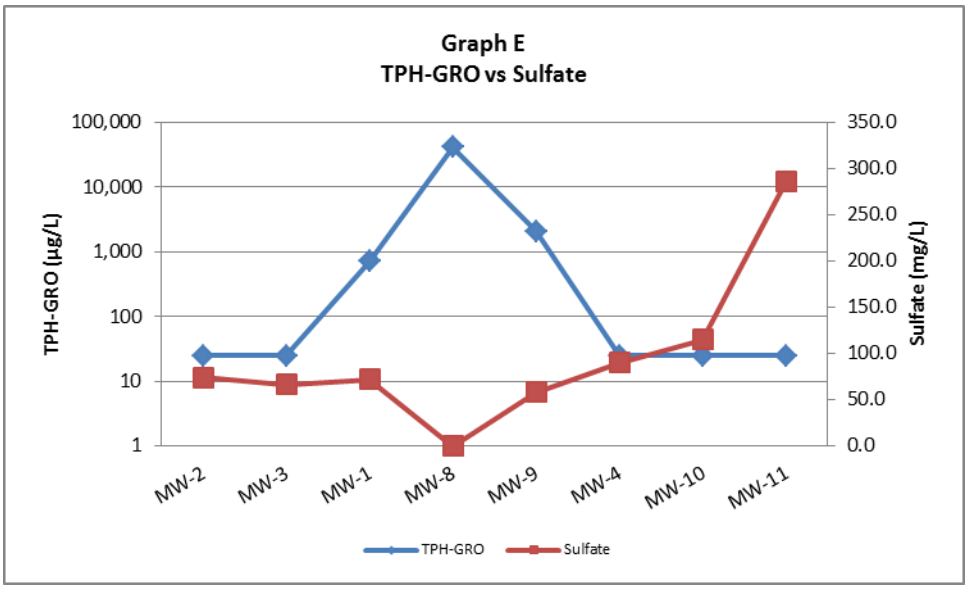
Ferrous iron concentrations for this sampling event, measured by the analytical laboratory ranged in concentrations from 0.13 in MW-4 to 2.8 in MW-10. As shown in Graph D, ferrous iron concentrations are generally highest in wells with higher hydrocarbon concentrations with the exceptions of MW-2, MW-3, and MW-10, indicating anaerobic hydrocarbon biodegradation may be occurring within the residual hydrocarbon plume.



3.3.5 Sulfate

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

As shown in Graph E, sulfate concentrations vary inversely with hydrocarbon concentrations indicating that anaerobic biodegradation is occurring within the residual hydrocarbon plume. Sulfate results for this sampling event, measured by the analytical laboratory ranged from 58 mg/L in MW-9 to 286 mg/L in MW-11. Sulfate concentration was below the laboratory detection limit in MW-8 which suggests that anaerobic biodegradation is occurring within the residual plume.

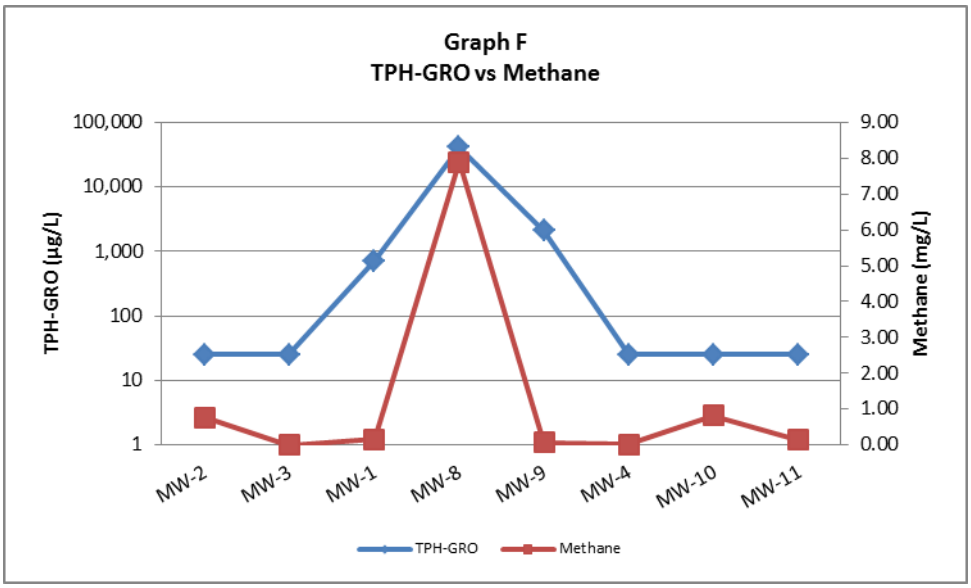


3.3.6

Methane

The final step in the anaerobic biodegradation process is methanogenesis. When all soluble electron acceptors such as DO, nitrate, ferric iron, and sulfate are depleted, groundwater conditions become conducive to fermentation, and methane is generated by methanogenesis. The only electron acceptor available for the methanogenesis is carbon from carbon dioxide. This source of carbon dioxide is primarily from the by-products of previous stages of anaerobic biodegradation. Without methanogenesis, a great deal of carbon (in the form of fermentation products) would accumulate in anaerobic environments. As shown on Graph F, there is a direct relationship of methane to TPH-GRO, especially observed in MW-8. These results suggest anaerobic biodegradation is occurring within the residual hydrocarbon plume.

Methane results for this sampling event, measured by the analytical laboratory ranged from 0.057 mg/L in MW-9 to 8.1 mg/L in MW-8. Methane concentrations were below the laboratory detection limit in MW-3 and MW-4.



3.3.7 TPH-GRO and Associated BTEX Concentration Trends

TPH-GRO and associated BTEX concentrations have steadily decreased since the pipeline release in all wells including MW-8, which increased to a maximum TPH-GRO concentration of 78,000 µg/L in December 2010 and has decreased to 41,000 µg/L in March 2013. The residual hydrocarbon plume is horizontally defined to the north by MW-10, to the west by MW-3, MW-4, and MW-11, and to the south by MW-2 and grab groundwater sample from MW-15. The east is delineated by the bedrock hillside. Select hydrocarbon analytes and groundwater elevations with respect to time graphs are presented in Appendix B.

On August 17, 2012, the SWRCB adopted into law its Low-Threat Underground Storage Tank Case Closure Policy as CCR Title 23, 2923 (OAL File No. 2012-0618-02 S). The intent of this policy is to increase UST cleanup process efficiency, and a benefit of improved efficiency is the preservation of limited resources for mitigation of releases posing the greatest threat to human and environmental health. As the Low-Threat UST Closure policy states, "While this policy does not specifically address other petroleum release scenarios such as pipelines or above ground storage tanks, if a particular site with a different petroleum release scenario exhibits attributes similar to those which this policy addresses, the criteria for closure evaluation of these non-UST sites should be similar to those in this policy" (2012). The Site exhibits attributes similar to those addressed by the policy and the criteria from the policy is used for closure evaluation. Per the policy, sites that meet the general and media-specific criteria described in the policy do not pose a threat to human health, safety, or the environment and are appropriate for UST case closure pursuant to Health and Safety Code section 25296.10. The policy further states that sites meeting the stated criteria for low-threat closure should be issued a closure letter if the Site is determined to be low-threat based upon a site-specific analysis. Based on the criteria below, the Site is a candidate for closure under the new policy.

A comparison of the Site conditions to the criteria listed in the policy is presented below.

4.1 GENERAL CRITERIA

The general criteria in the Low-Threat UST Closure Policy is listed below:

- The unauthorized release is located within the service area of a public water system;
- The unauthorized release consists only of petroleum;
- The unauthorized ("primary") release from the UST system has been stopped;
- Free product has been removed to the maximum extent practicable;
- A Conceptual Site Model that assesses the nature, extent, and mobility of the release has been developed;
- Secondary source has been removed to the extent practicable;
- Soil or groundwater has been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15; and
- Nuisance as defined by Water Code Section 13050 does not exist at the site.

A comparison of the Site conditions to each criterion is presented below.

4.1.1 The Unauthorized Release is Located within the Service Area of a Public Water System

The Site is not located within a public water system, however, the Site and neighboring properties are currently owned by SFPUC as part of their watershed and are unlikely to be developed in the foreseeable future, as the Water Management land use designation protects against development.

- The groundwater affected by the CPL spill is within the unconfined aquifer which is unlikely to be used for domestic water.
- Site monitoring wells show that there is low recovery of groundwater from the wells and that the Site wells are not hydraulically connected due to seasonal fluctuations.
- The most recent local well survey results show that there are no domestic or supply wells within the Site, or within a ½-mile radius.
- The hydrocarbon plume is horizontally defined to the north by MW-10, to the west by MW-3, MW-4, and MW-11, and to the south by MW-2 and grab groundwater sample from MW-15 and to the east by the hillside bedrock.

4.1.2 The Unauthorized Release Consists Only of Petroleum

The unauthorized release was from an 8-inch diameter active pipeline that carries unleaded gasoline from the Chevron Richmond Refinery to San Jose, California. Additional information of the 2005 unauthorized release is described in Section 2.1 of this report.

4.1.3 The Unauthorized ("primary") Release from the UST System Has Been Stopped

The CPL pipeline was immediately repaired in 2005 after the spill.

4.1.4 Free Product Has Been Removed to the Maximum Extent Practicable

Measurable LNAPL has been observed in monitoring wells MW-1and MW-9. Sorbent booms were placed in MW-1 and MW-9 to passively remove LNAPL from 2007 to 2009. LNAPL has not been observed in any Site wells since August 2011.

4.1.5 A Conceptual Site Model that Assesses the Nature, Extent, and Mobility of the Release Has Been Developed

A Conceptual Site Model (CSM) was developed and submitted in 2010.

4.1.6 Secondary Source Has Been Removed to the Extent Practicable

The secondary source, contaminated soil, was removed to the extent practicable through remedial activities including excavation, and several stages of SVE operations. Soil removal was limited by hillside stability and the highly traffic on Calaveras Roadway.

4.1.7 Soil or Groundwater Has Been Tested for MTBE and Results Reported in Accordance with Health and Safety Code Section 25296.15

Soil samples were analyzed for MTBE during investigations in 2005. MTBE concentrations were below laboratory detection limits for all samples, and therefore not a concern at this Site. The MTBE results in soil are included in Table1.

4.1.8 Nuisance as Defined by Water Code Section 13050 Does not Exist at the Site

California Water Code Section 13050 (m) defines nuisance as anything which meets all of the following requirements:

a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.

b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.

c. Occurs during, or as a result of, the treatment or disposal of wastes.

Nuisance as defined by Water Code Section 13050 does not exist at the Site as there is neither a community to be affected nor the treatment or disposal of wastes.

4.1.9 General Criteria Met

Based on the evaluation of the Site data as discussed in Sections 4.1.1 through 4.1.8 above, the Site meets the general criteria in the Low-Threat UST Closure Policy.

4.2 MEDIA-SPECIFIC CRITERIA

This section compares the Site conditions to the criteria listed in the policy for groundwater, vapor intrusion to indoor air, and direct contact and outdoor air exposure.

4.2.1 Groundwater

It is a fundamental tenet of the Low-Threat Policy that if the closure criteria described in the policy are satisfied at a release site, applicable water quality objectives (WQOs) will be attained through natural attenuation within a reasonable amount of time, prior to the need for use of any affected groundwater. If a site has groundwater with a designated beneficial use which is affected by an unauthorized release, to satisfy the media-specific criteria for groundwater stated in the Low-Threat UST Policy, the contaminant plume that exceeds WQOs must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites listed in the policy.

The Site falls under Class 5 (based on an analysis of Site specific conditions that under current and reasonable anticipated near-term future scenarios, the contaminant plume poses a low threat to human health and safety and to the environment and water quality objectives will be achieved within a reasonable time frame). A review of Site specific conditions has determined that the Site under current and reasonable anticipated near-term future scenarios poses a low threat to human health and safety and to the environment, based on the following.

- The hydrocarbon plume that exceeds WQOs is approximately 175 feet in length.
- There is no free product LNAPL at the Site.
- TPH-GRO and associated BTEX concentrations have steadily decreased since the pipeline release in all wells including MW-8, which increased to a maximum TPH-GRO

concentration of 78,000 µg/L in December 2010 and has decreased to 41,000 µg/L in March 2013 (Table B).

- No supply or domestic wells are located within ½ mile of the Site.
- Initial soil excavation and off-site disposal were conducted as part of the emergency remedial activities
- The dissolved concentration of benzene is less than 3,000 µg/L and MTBE is not a gasoline constituent at this Site. In fact, maximum concentrations of benzene were below 3,000 ug/L even immediately after the spill (Table B). Remediation completed at the Site to date includes four rounds of SVE, and passive booms placed in MW-1 and MW-9 to remove LNAPL.
- The hydrocarbon plume is horizontally defined to the north by MW-10, to the west by MW-3, MW-4, and MW-11, and to the south by MW-2 and grab groundwater sample from MW-15 and to the east by the hillside bedrock.
- A small stream that is a tributary of Alameda Creek, the nearest surface water body, runs east-west approximately 150 to 200 feet north of the Site. The creek has been sampled quarterly or semiannually since 2006, and no concentrations of TPH-GRO or BTEX have been detected as part of the groundwater monitoring program from 2006-2013 (Table 4). Also, gasoline constituents in monitoring wells MW-10 and MW-11 are below the respective laboratory detection limits and located between the Site's impacted wells and the stream. The stream is unlikely to be impacted by the 2005 unauthorized release at the Site.

Based on these facts, URS believes the criteria for a Class 5 low threat fuel site have been satisfied.

4.2.2 Petroleum Vapor Intrusion to Indoor Air

The Site to the east of Calaveras Road is a steep hillside and to the west of Calaveras Road is an open-to-the-air nursery. The closest structure is a portable office trailer approximately 2,450 feet southwest of the Site on the Valley Crest Nursery site. There are no permanent buildings within half a mile of the Site. SFPUC does not allow permanent residential or commercial buildings on the property. Therefore, there is no indoor air risk. It is unlikely for a building to be built in this area as it is a watershed for the SFPUC and therefore soil vapor in the subsurface at the Site does not pose an unacceptable indoor health risk.

If a building was to be constructed at the Site, it would most likely be located on the nursery side as the hillside is too steep and unstable, and therefore unsuitable for a building. On the nursery property, Site-specific conditions satisfy all of the characteristics and criteria of scenarios 1 through 3.

4.2.3 Direct Contact and Outdoor Air Exposure

The Low-Threat UST Closure Policy describes conditions where direct contact with contaminated soil or inhalation of contaminants volatized to outdoor air poses an insignificant

threat to human health. Release sites where human exposure may occur satisfy media-specific criteria for direct contact and outdoor air exposure and shall be considered low-threat if they meet any of the following three criteria:

a. Maximum concentrations of petroleum constituents in soil are less than or equal to those listed in the table below for the specified depth below ground surface. The limits from 0 to 5 feet bgs protect from ingestion, dermal contact, and outdoor inhalation of volatile and particulate emissions. The 5 to 10 feet bgs limits protect inhalation of volatile emissions only; ingestion and dermal contact pathways not considered significant.

Table C. Maximum Allowable Concentrations of Petroleum Constituents in Soil

	Residential		Commercial		Utility Worker
Chemical	0 to 5 feet bgs (mg/kg)	Volatilization to outdoor air (5 to 10 feet bgs) (mg/kg)	0 to 5 feet bgs (mg/kg)	Volatilization to outdoor air (5 to 10 feet bgs) (mg/kg)	0-10 feet bgs (mg/kg)
Benzene	1.9	2.8	8.2	12	14
Ethylbenzene	21	32	89	134	314
Naphthalene	9.7	9.7	45	219	0.063
PAH [1]	0.063	NA	0.68	NA	4.5

Notes:
1. Based on the seven carcinogenic PAHs as benzo(a)pyrene toxicity equivalent [BaPe]. Sampling and analysis for PAH is only necessary where soil as affected by either waste oil or Bunker C fuel.
2. The area of impacted soil where a particular exposure occurs is 25 by 25 meters (approximately 82 by 82 feet) or less.
3. NA = not applicable
4. mg/kg = milligrams per kilogram

b. Concentrations of petroleum constituents in soil are less than levels that a site-specific risk assessment demonstrates will have no significant risk of adversely affecting human health.

c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, the regulatory agency determines that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health.

The Site meets the characteristics of Site class (b), as described below.

From when investigation began in 2005 through December 2012, a total of 88 soil samples were collected at depths between 0 to 5 feet bgs and a total of 43 soil samples were collected at depths between 5 to 10 feet bgs. Of the total of 131 samples collected from depths of 0 to 10 feet bgs, only four soil samples exceeded the maximum allowable concentrations of benzene and/or ethylbenzene for commercial land use (Table C). These four soil samples were collected on the hillside on the east side of Calaveras Road in 2005 (for SB-19) or 2006 (SVE-7). No recent soil samples have been collected from this area on the hillside. Soil samples have not been analyzed for naphthalene and PAHs at this Site as they are not present in gasoline and therefore are not a gasoline constituent.

Table D. Soil Samples Exceeding Maximum Allowable Concentrations and Associated Risk Levels

Utility Workers

Sample Location	Date	Sample Depth (ft bgs)	Benzene Concentration (mg/kg)	Risk Level[1]	Ethylbenzene Concentration (mg/kg)	Risk Level[1]
Maximum Allowable Concentration – Utility Worker		0 - 10	14	1×10^{-6}	314	1×10^{-6}
SB-19	10/13/2005	0.5	3.9	$<1 \times 10^{-6}$	250	$<1 \times 10^{-6}$
SB-19	10/13/2005	1	9.4	$<1 \times 10^{-6}$	**350**	1.1×10^{-6}
SB-19	10/13/2005	2	6	$<1 \times 10^{-6}$	260	$<1 \times 10^{-6}$
SVE-7	11/8/2006	8	**26**	1.9×10^{-6}	**420**	1.3×10^{-6}

Bolded values indicate a concentration greater than the maximum allowable concentration of the respective petroleum constituent.

1. EPA guidance (1989) generally recommends that excess cancer risk be reported to one significant digit. Risk levels are reported here to two significant digits to aid transparency in the comparison to the target risk levels used in the Low-Threat Closure Policy.

While a utility worker may be a possible receptor (Table D), The Site will be discussed in relation to the allowable concentrations for commercial land use (Table E), which are more conservative than those used for utility workers.

Table E. Soil Samples Exceeding Maximum Allowable Concentrations and Associated Risk Levels

Commercial Land Use

Sample Location	Date	Sample Depth (ft bgs)	Benzene Concentration (mg/kg)	Risk Level[1]	Ethylbenzene Concentration (mg/kg)	Risk Level[1]
Maximum Allowable Concentration - Commercial Land Use		0 - 5	8.2	1×10^{-6}	12	1×10^{-6}
		5 - 10	89	1×10^{-6}	134	1×10^{-6}
SB-19	10/13/2005	0.5	3.9	$<1 \times 10^{-6}$	**250**	2.8×10^{-6}
SB-19	10/13/2005	1	**9.4**	1.1×10^{-6}	**350**	3.9×10^{-6}
SB-19	10/13/2005	2	6	$<1 \times 10^{-6}$	**260**	2.9×10^{-6}
SVE-7	11/8/2006	8	**26**	2.2×10^{-6}	**420**	3.1×10^{-6}

Bolded values indicate a concentration greater than the maximum allowable concentration of the respective petroleum constituent.

1. EPA guidance (1989) generally recommends that excess cancer risk be reported to one significant digit. Risk levels are reported here to two significant digits to aid transparency in the comparison to the target risk levels used in the Low-Threat Closure Policy.

As shown on Table E, exceedances of the allowable concentrations and the associated risk levels were low, even under worst-case conditions represented by the pre-remediation data from 2005 and 2006. Three soil samples with benzene and ethylbenzene concentrations exceedances between 0 through 5 feet bgs are located in soil boring, SB-19. The exceedance in soil boring SB-19 is delineated by SB-18 to the north, SB-24 to the east, SVE-7 to the south, and MW-13 to the west. The concentrations of benzene and ethylbenzene in soil samples SB-18, SB-24, SVE-18, and MW-13 for depths of 0 through 5 feet are three orders of magnitude below the maximum allowable concentrations in the Low-Threat closure policy. The only soil sample with benzene and ethylbenzene concentrations that exceeded the maximum allowable concentrations in soil between 5 and 10 feet bgs was located in soil boring SVE-7. The exceedance in soil boring SVE-7 is bounded by SVE-8 to the north, SB-23 to the east, SB-20 to the south, and SB-8 to the west (Figure 5). The concentrations of benzene and ethylbenzene in soil for depths of 5-10 feet in SVE-8, SB-23, CB-SB-20, and SB-8 are below laboratory reporting limits, and therefore, below the maximum allowable concentrations. Due to concentrations of benzene and ethylbenzene in surrounding soil borings being below the maximum allowable concentrations in the Low-Threat UST Closure Policy, the area of exceedance appears to be localized even as far back as 2006.

Soil samples collected in 2005 and 2006 represent conditions prior to Site remedial activities. Soil vapor extraction well SVE-8 was adjacent to SB-19, and soil boring SVE-7 was finished as a soil vapor extraction well; therefore, the SVE system removed hydrocarbons from the area of exceedance. The current concentrations of benzene and ethylbenzene are likely to be far less than those collected in 2005 and 2006 due to the removal activities and biodegradation.

The maximum allowable concentrations in the Low-Threat UST Closure Policy were developed using standard United States Environmental Protection Agency (EPA) equations, and a target risk level of 1×10^{-6} was assumed for carcinogens, including benzene and ethylbenzene

(SWRCB 2011). EPA defines the $1x10^{-6}$ risk level as the point of departure for determining remediation goals and considers risk levels in the range of 1×10^{-6} to 1×10^{-4} as the risk management range (EPA 1991). EPA guidance (1989) generally recommends that excess cancer risk be reported to one significant digit. Risk levels are reported here to two significant digits to aid transparency in the comparison to the target risk levels used in the Low-Threat Closure Policy.

The risk levels associated with samples with elevated benzene and ethylbenzene concentrations are within an order of magnitude of the target level of 1×10^{-6} and well within the risk management range (Tables D and E). This indicates that the risk at the Site was only slightly higher than a site meeting the target risk level during the worst-case conditions represented by the pre-remediation data, and is likely to be well within the risk-management range under current conditions. Further, the soil concentrations reported at the 1 ft depth at SB-19 are J-flagged results. This means that the compound was positively identified but the numeric concentration value is an estimated value. The risk-screening maintains a level of conservatism by treating these values as legitimate detected concentrations, when in reality, there is uncertainty related to whether the "true" concentration would be as high as the estimated concentration.

Further, the likelihood of exposure to any residual concentrations in soil is limited by access and land use. The isolated location with exceedances in 2005-2006 is located on a steep, densely vegetated hillside on SFPUC property, which is bounded by a fence. It is unlikely that any workers would be at this location for extended periods of time as the land is currently undeveloped, and not likely to be developed in foreseeable future. In addition, it is unlikely that workers at this location would ingest soil or come into dermal contact because of the dense vegetation.

Due to the limited number of exceedances, low risk levels under worst-case pre-remediation conditions, and limited likelihood of exposure, these few soil samples do not indicate a significant risk of adversely affecting human health.

4.2.4 Media-Specific Criteria Met

Based on the evaluation of the Site data as discussed in Sections 4.2.1 through 4.2.3 above, the Site meets the media-specific criteria in the Low-Threat UST Closure Policy.

4.3 LOW-THREAT CASE CLOSURE

As discussed above, the Site meets the general and media-specific criteria established in the Low-Threat UST Closure Policy.

Based on this review, Site conditions meet the general and media-specific criteria established in the Low-Threat UST Policy and therefore pose a low threat to human health, safety and the environment. The Site satisfies the case-closure requirements of Health and Safety Code section 25296.10, and case closure is consistent with Resolution 92-49 that requires that cleanup goals be met within a reasonable time frame. Groundwater data, as presented in this Closure Request, support a conclusion that the Site and the impacted groundwater pose no significant threat to human health or the environment. Therefore, no further action and case closure are requested for this Site.

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

The 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 additional field activities were based on our professional experience and protocols reported in the literature for similar investigations.

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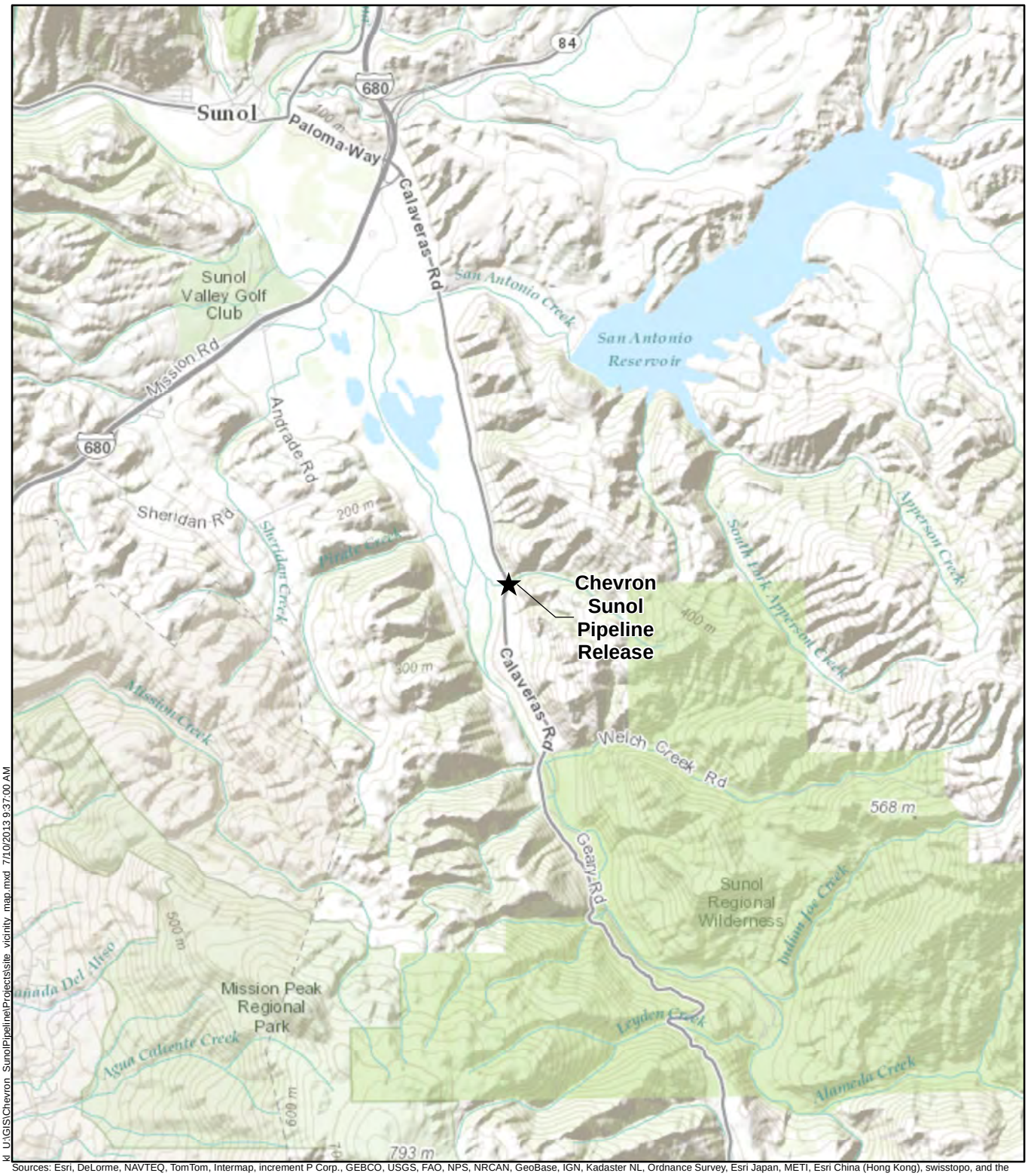
Figures



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

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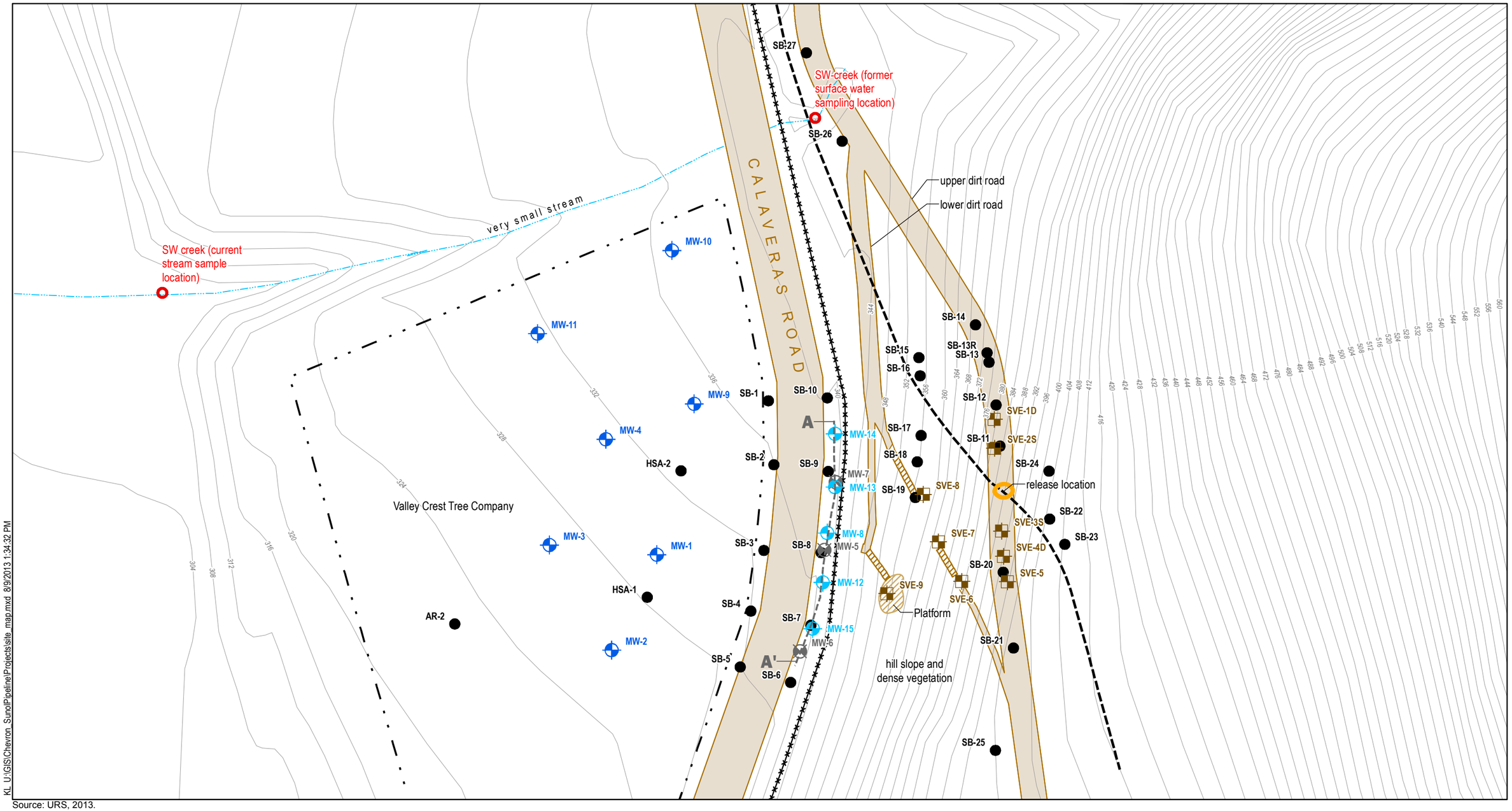
SITE VICINITY MAP

August 2013
26818679

Chevron Sunol Pipeline
Sunol, California

URS

FIGURE 1



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Source: URS, 2013.

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

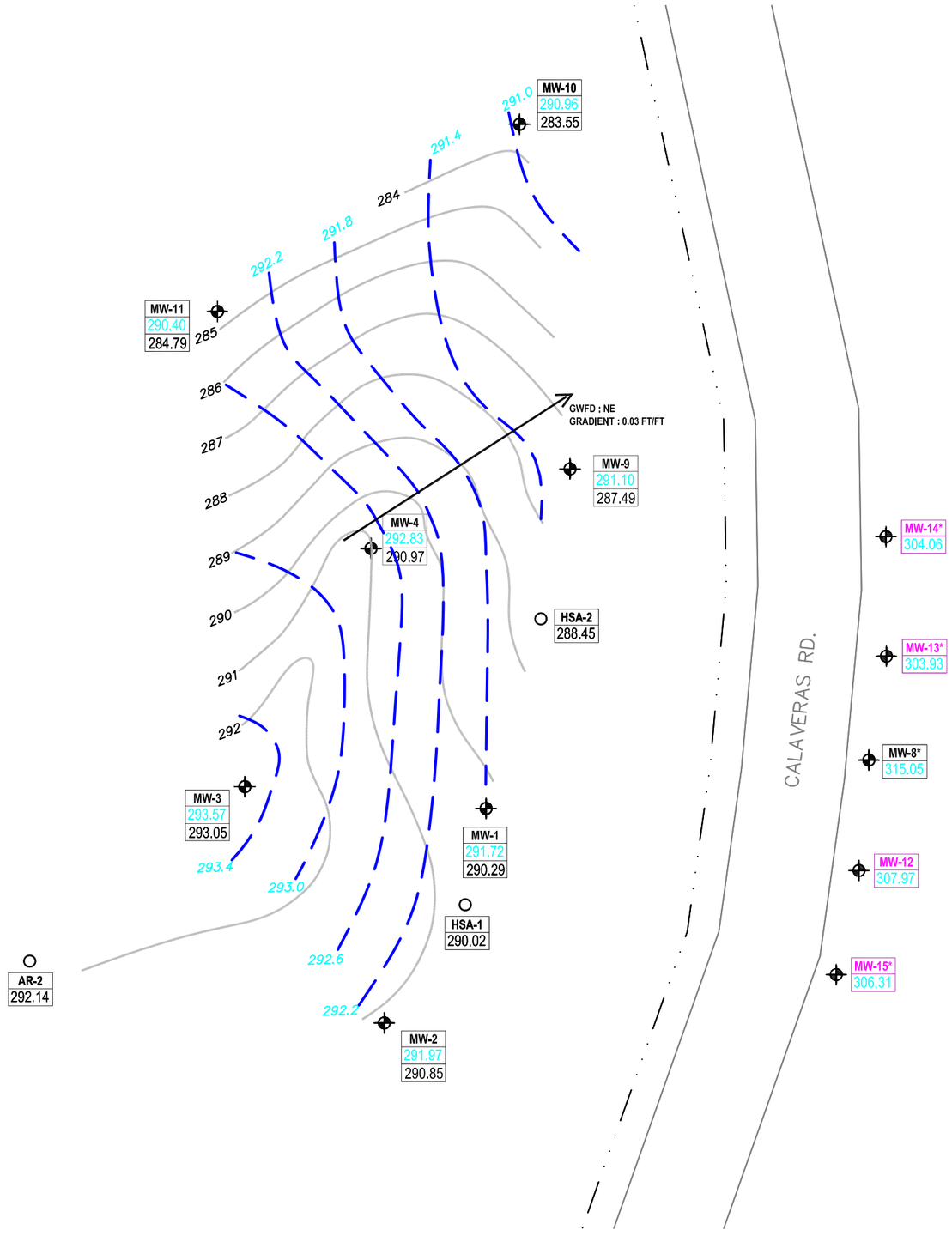
SITE MAP

August 2013
26818679

Chevron Sunol Pipeline
Sunol, California

URS

FIGURE 2



LEGEND:

- MONITORING WELL
- MW-1 / 291.36 / 290.29 — MONITORING WELL LABEL; GROUNDWATER ELEVATION; BEDROCK CONTACT ELEVATION
- SOIL BORING
- HSA-2 / 288.45 — SOIL BORING LABEL; BEDROCK CONTACT ELEVATION
- 292 — BEDROCK SURFACE ELEVATION
- GWFD — GROUNDWATER FLOW DIRECTION
- GROUNDWATER ELEVATION
- MW-12 / 307.97 — NOT PART OF THE MONITORING WELL NETWORK.

NOTES:

1. ELEVATIONS IN FEET ABOVE AVERAGE MEAN SEA LEVEL (msl).
2. GROUNDWATER ELEVATIONS FOR MW-1 THROUGH MW-4 AND MW-8 THROUGH MW-15, AS MEASURED ON MARCH 25, 2013.
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 = 0.03 ft/ft.
6. MW-12 THROUGH MW-15 INSTALLED IN DECEMBER 2012. WELLS NOT YET DEVELOPED DUE TO INSUFFICIENT WATER AT THE TIME OF MARCH 2013 GAUGING EVENT, AND THEREFORE NOT YET PART OF THE MONITORING WELL NETWORK.

* NOT USED IN GROUNDWATER CONTOURS.

NORTH

0 30' 60'

SCALE 1"= 30'

URS	CHEVRON PIPELINE COMPANY Project No. 26818679	UNCONFINED WATER-BEARING ZONE GROUNDWATER AND BEDROCK ELEVATIONS MAP CHEVRON SUNOL PIPLINE	Figure 3

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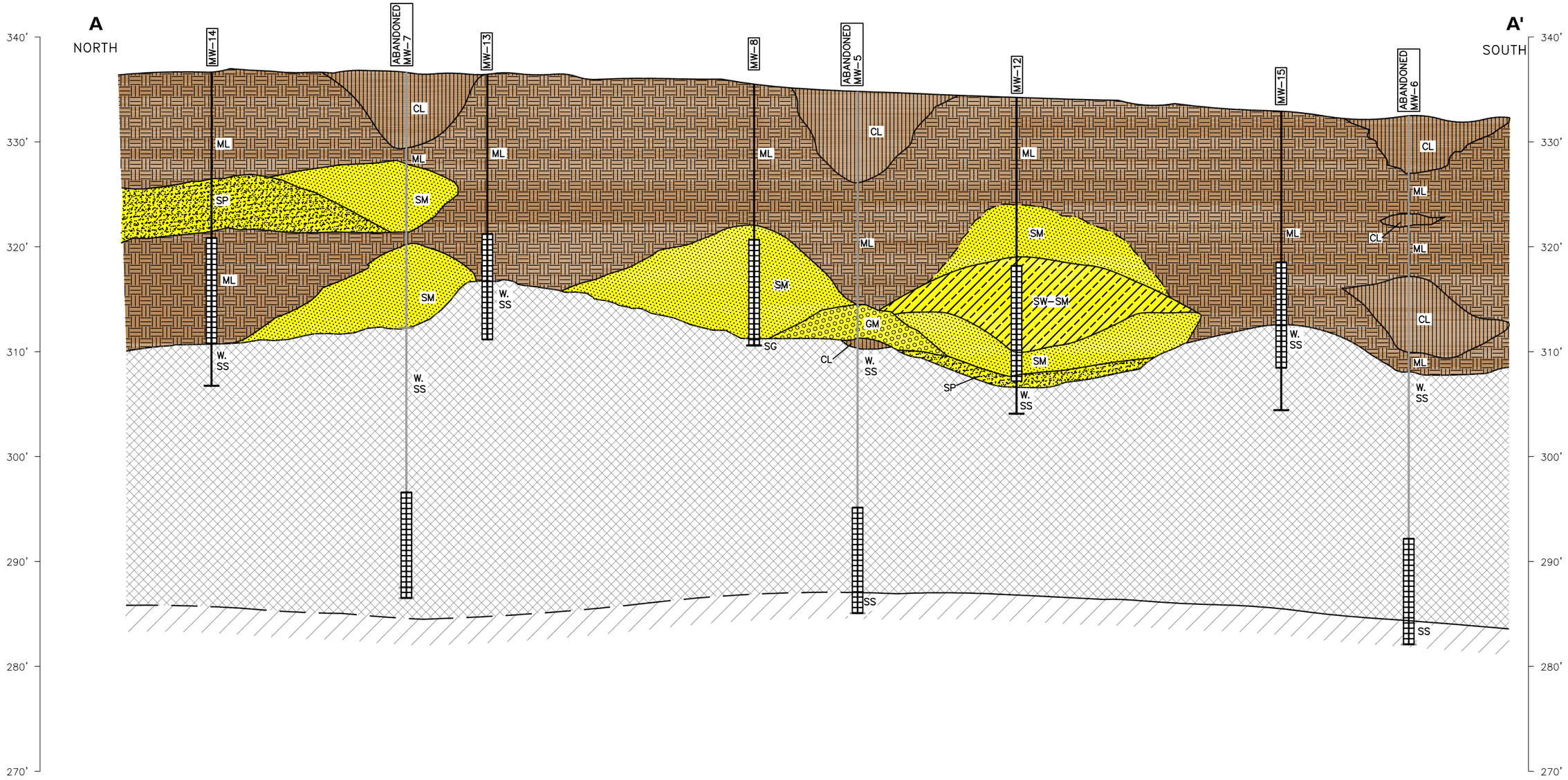

LEGEND:

- MW-14 — WELL DESIGNATION
- GROUND SURFACE
- STRATIGRAPHIC BOUNDARY
- ML — TYPICAL SOIL CLASSIFICATION
- SCREENED INTERVAL
- BOTTOM OF BORING

- CL — GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
- ML — SILT WITH SAND, SANDY SILTS, SANDY SILTS WITH GRAVEL, CLAY
- SM — SILTY SANDS, SAND–SILT MIXTURES
- SP — POORLY GRADED SANDS
- SW–SM — WELL GRADED SAND WITH SILT
- GM — SILTY GRAVEL, SILTY GRAVEL W/ SAND
- W. SS — WEATHERED SANDSTONE
- SS — SANDSTONE
- INFERRED CONTACT
- LOW PERMEABILITY
- MODERATE TO HIGH PERMEABILITY

0 10 20
SCALE IN FEET

URS

CHEVRON PIPELINE COMPANY

Project No. 26818679

GEOLOGIC CROSS SECTION A–A'
CHEVRON SUNOL PIPELINE
SUNOL, CA

Figure 4

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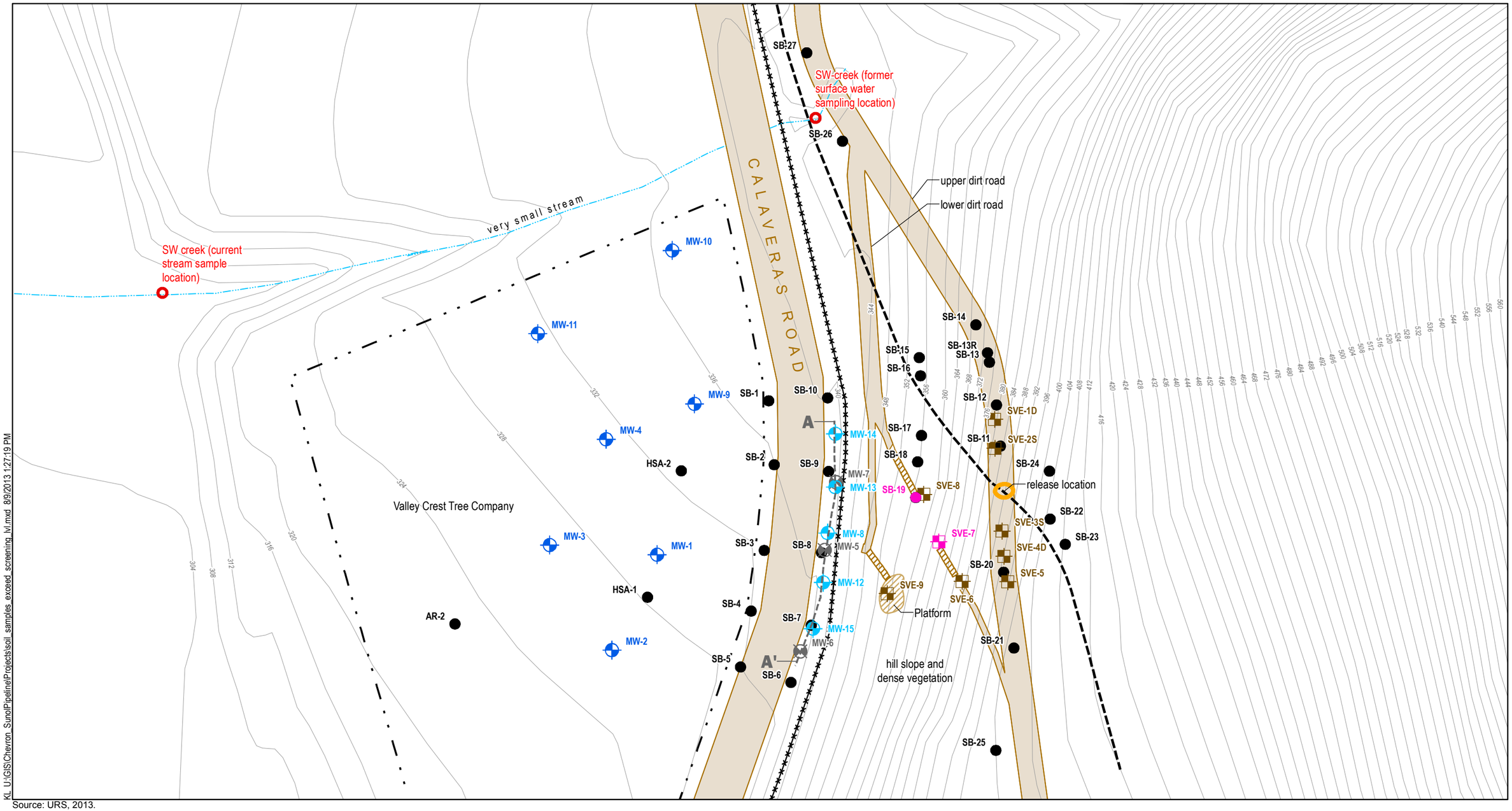
T:\SFPUC Sunol Pipeline\Figures\TRANSECT\FIGURE 4.dwg



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Source: URS, 2013.

- Monitoring well in unconfined water bearing zone
- Monitoring well in perched zone
- Monitoring well - abandoned
- SVE well
- Sample exceeds soil screening levels at depths 0-10' bgs
- Soil boring
- Stream sample location
- Location of slit in pipeline causing release
- 4-foot contour line
- Fence
- Pipeline
- Property line/fence
- Stream
- Geologic cross-section A - A'
- Road
- Stairs

SOIL SAMPLE LOCATIONS EXCEEDING SCREENING LEVEL AT DEPTHS 0-10' BGS

August 2013 — Chevron Sunol Pipeline
26818679 — Sunol, California

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FIGURE 5

Tables

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Table 1
Monitoring Well Construction Details
Closure Request
Chevron Sunol Pipeline

Well ID	Date Completed	Easting	Northing	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Top (feet bgs)	Screen Bottom (feet bgs)	Total Depth (feet bgs)	Well Diameter
MW-1	10/20/2005	6168139.39	2025761.69	328.49	328.04	29.3	39.3	40.0	4" PVC
MW-2	10/21/2005	6168115.96	2025712.04	324.85	324.15	23.3	38.3	39.0	4" PVC
MW-3	10/21/2005	6168083.90	2025767.15	326.05	325.65	21.3	36.3	37.0	4" PVC
MW-4	1/31/2006	6168112.65	2025821.72	329.97	329.67	30.7	40.7	41.0	4" PVC
MW-5	*1/27/2006*	*6168225.98*	*2025764.36*	*335.14*	*334.81*	*39.5*	*49.5*	*49.8*	*4" PVC*
MW-6	*1/27/2006*	*6168213.24*	*2025711.81*	*332.61*	*332.38*	*34.7*	*49.7*	*50.0*	*4" PVC*
MW-7	*1/27/2006*	*6168231.84*	*2025799.52*	*336.46*	*336.22*	*34.7*	*49.7*	*50.0*	*4" PVC*
MW-8	8/15/2006	6168227.45	2025772.92	335.23	333.93	14.5	24.5	25.0	2" PVC
MW-9	8/16/2006	6168158.53	2025840.07	333.49	333.07	36.0	46.0	46.5	2" PVC
MW-10	9/5/2007	6168146.88	2025919.55	336.55	335.89	40.3	55.3	55.7	2" PVC
MW-11	9/6/2007	6168077.24	2025876.37	330.29	329.89	37.0	47.0	47.3	2" PVC
MW-12	12/4/2012	6168225.17	2025747.46	334.90	334.58	16.7	26.7	27.0	4" PVC
MW-13	12/5/2012	6168231.49	2025796.87	336.79	336.79	15.7	25.7	26.0	4" PVC
MW-14	12/3/2012	6168231.40	2025824.44	338.15	337.94	16.0	26.0	26.4	4" PVC
MW-15	12/4/2012	6168219.93	2025723.45	333.38	333.43	14.0	24.0	24.4	4" PVC

Notes:
Northing and Easting coordinates based on the California Coordinate System Zone 3 NAD83 Datum.
msl - Elevation values displayed in feet above average mean sea level surveyed to NAVD88 datum
bgs - Below ground surface.
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 were abandoned on June 23, 2008 (depicted in light gray).
MW-12 through MW-15 surveyed on December 7, 2012.

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Table 2
Cumulative Soil Analytical Results
Closure Request
Chevron Sunol Pipeline

Sample Location	Date	Sample Depth (ft bgs)	TPH-GRO (mg/kg)	Benzene (mg/kg	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (Total) (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
SB-1	8/25/2005	0.5	<1.0 R	<0.0005	**0.002**	**0.001**	**0.009**	<0.0005	**23.9**
SB-1	8/25/2005	1	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	**4.66**
SB-1	8/25/2005	2	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-1	8/25/2005	5.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-1	8/25/2005	9.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-1	8/25/2005	15.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-1	8/25/2005	19.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-1	8/25/2005	25	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-1	8/25/2005	30	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-2	8/25/2005	0.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	**13.9**
SB-2	8/25/2005	1	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	**8.69**
SB-2	8/25/2005	2	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-2	8/25/2005	5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-2	8/25/2005	10	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-2	8/25/2005	15	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-2	8/25/2005	20	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-2	8/25/2005	25	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-2	8/25/2005	30	<1.0	<0.0005	<0.001	<0.001	**0.003**	<0.0005	--
SB-3	10/13/2005	0.5	**3.0**	<0.0005	<0.001	<0.001	<0.001	<0.0005	**29.1**
SB-3	10/13/2005	2	<1.0	<0.0005	**0.004**	<0.001	**0.002**	<0.0005	--
SB-3	10/13/2005	5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-3	10/13/2005	9.5	**1.7**	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-3	10/13/2005	15	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-3	10/13/2005	19.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-3	10/13/2005	24.5	<1.0	<0.0005	<0.001	<0.001	**0.001**	<0.0005	--
SB-4	10/13/2005	0.5	<1.0	<0.0005	**0.003**	<0.001	**0.001**	<0.0005	**11.9**
SB-4	10/13/2005	1	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-4	10/13/2005	2	<1.0	<0.0005	**0.004**	<0.001	**0.002**	<0.0005	--
SB-4	10/13/2005	5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-4	10/13/2005	9.5	<1.0	<0.0005	<0.001	<0.001	**0.002**	<0.0005	--
SB-4	10/13/2005	14.5	<1.0	<0.0005	<0.001	<0.001	**0.002**	<0.0005	--

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Table 2
Cumulative Soil Analytical Results
Closure Request
Chevron Sunol Pipeline

Sample Location	Date	Sample Depth (ft bgs)	TPH-GRO (mg/kg)	Benzene (mg/kg	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (Total) (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
SB-4	10/13/2005	19.5	<1.0	<0.0005	<0.001	<0.001	**0.001**	<0.0005	--
SB-4	10/13/2005	24.5	<1.0	<0.0005	<0.001	<0.001	**0.002**	<0.0005	--
SB-5	8/25/2005	0.5	<1.0	<0.0005	<0.001	<0.001	**0.002**	<0.0005	**8.93**
SB-5	8/25/2005	1	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	**6.98**
SB-5	8/25/2005	2	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-5	8/25/2005	5	<1.0	<0.0005	<0.001	<0.001	**0.005**	<0.0005	--
SB-5	8/25/2005	9.5	<1.0	<0.0005	<0.001	<0.001	**0.003**	<0.0005	--
SB-5	8/25/2005	15	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-5	8/25/2005	19.5	<1.0	<0.0005	<0.001	<0.001	**0.001**	<0.0005	--
SB-5	8/25/2005	25	<1.0	<0.0005	**0.003**	<0.001	**0.005**	<0.0005	--
SB-6	10/13/2005	0.5	<1.0	<0.0005	**0.003**	<0.001	**0.001**	<0.0005	**5.74**
SB-6	10/13/2005	1	<1.0	**0.0007**	**0.003**	<0.001	<0.001	<0.0005	**3.93**
SB-6	10/13/2005	2	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-6	10/13/2005	5.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-6	10/13/2005	9.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-6	10/13/2005	15	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-6	10/13/2005	19.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-6	10/13/2005	25	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-7	10/13/2005	0.5	<1.0	<0.0005	**0.003**	<0.001	**0.001**	<0.0005	**12.1**
SB-7	10/13/2005	1	<1.0	<0.0005	**0.004**	<0.001	**0.002**	<0.0005	**5.29**
SB-7	10/13/2005	2	<1.0	<0.0005	**0.003**	<0.001	**0.002**	<0.0005	--
SB-7	10/13/2005	5.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-7	10/13/2005	9.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-7	10/13/2005	15	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-7	10/13/2005	19.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-7	10/13/2005	25	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-8	8/26/2005	0.5	**180 J**	<0.0005	<0.001	**0.01**	**0.29**	<0.0005	**6.39**
SB-8	8/26/2005	1	**4.8**	**0.001**	**0.001**	<0.001	**0.017**	<0.0005	**4.54**
SB-8	8/26/2005	2	<1.0	**0.001**	**0.013**	<0.001	**0.004**	<0.0005	--
SB-8	8/26/2005	5.5	<1.0	<0.0005	**0.002**	<0.001	<0.001	<0.0005	--

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Table 2
Cumulative Soil Analytical Results
Closure Request
Chevron Sunol Pipeline

Sample Location	Date	Sample Depth (ft bgs)	TPH-GRO (mg/kg)	Benzene (mg/kg	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (Total) (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
SB-8	8/26/2005	9.5	<1.0	<0.0005	**0.002**	<0.001	**0.001**	<0.0005	--
SB-8	8/26/2005	15	<1.0	<0.0005	**0.002**	<0.001	**0.002**	<0.0005	--
SB-8	8/26/2005	19.5	**8.5**	**0.008**	**0.011**	**0.003**	**0.030**	<0.0005	--
SB-9	10/13/2005	0.5	**1.4**	<0.0005	<0.001	<0.001	**0.003**	<0.0005	**6.4**
SB-9	10/13/2005	1	<1.0	**0.0007**	**0.001**	<0.001	**0.004**	<0.0005	**5.25**
SB-9	10/13/2005	2	<1.0	<0.005	**0.004**	<0.001	**0.009**	<0.0005	--
SB-9	10/13/2005	5	<1.0	**0.002**	**0.027**	<0.001	**0.01**	<0.0005	--
SB-9	10/13/2005	9.5	<1.0	**0.009**	**0.029**	<0.001	**0.001**	<0.0005	--
SB-9	10/13/2005	15.5	<1.0	**0.001**	**0.003**	<0.001	**0.001**	<0.0005	--
SB-9	10/13/2005	19.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-9	10/13/2005	25.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-10	8/29/2005	0.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	**6.13**
SB-10	8/29/2005	1	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	**0.757**
SB-10	8/29/2005	2.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-10	8/29/2005	5.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-10	8/29/2005	9.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-10	8/29/2005	15.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-10	8/29/2005	19.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-10	8/29/2005	25	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-10	8/29/2005	29.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-10	8/29/2005	35	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-10	8/29/2005	39	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-11	10/11/2005	0.5	<1.0	<0.0005	<0.001	<0.001	**0.015**	<0.0005	--
SB-11	10/11/2005	1	<1.0	<0.0005	<0.001	<0.001	**0.013**	<0.0005	--
SB-11	10/11/2005	2.5	<1.0	<0.0005	<0.001	<0.001	**0.013**	<0.0005	--
SB-11	10/11/2005	5.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-11	10/11/2005	10	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-11	10/11/2005	15.5	<1.0	**0.0008**	**0.011**	**0.001**	**0.011**	<0.0005	--
SB-11	10/11/2005	19.5	**2.4**	**0.002**	**0.030**	**0.007**	**0.057**	<0.0005	--

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Table 2
Cumulative Soil Analytical Results
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Sample Location	Date	Sample Depth (ft bgs)	TPH-GRO (mg/kg)	Benzene (mg/kg	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (Total) (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
SB-12	10/11/2005	0.5	<1.0	<0.0005	<0.001	<0.001	**0.001**	<0.0005	--
SB-12	10/11/2005	1	<1.0	<0.0005	<0.001	<0.001	**0.001**	<0.0005	--
SB-12	10/11/2005	2	<1.0	<0.0005	<0.001	<0.001	**0.005**	<0.0005	--
SB-12	10/11/2005	5	<1.0	<0.0005	<0.001	<0.001	**0.002**	<0.0005	--
SB-12	10/11/2005	10	<1.0	<0.0005	**0.003**	<0.001	**0.008**	<0.0005	--
SB-12	10/11/2005	15	**3.7**	**0.001**	**0.017**	**0.003**	**0.069**	<0.0005	--
SB-12	10/11/2005	19.5	**1.0**	<0.0005	<0.001	<0.001	**0.005**	<0.0005	--
SB-13	10/12/2005	0.5	<1.0	<0.0005	<0.001	<0.001	**0.003**	<0.0005	--
SB-13	10/12/2005	1	<1.0	<0.0005	<0.001	<0.001	**0.008**	<0.0005	--
SB-13	10/12/2005	2	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-13	10/12/2005	5	<1.0	<0.0005	**0.006**	<0.001	**0.012**	<0.0005	--
SB-13	10/12/2005	10	<1.0	<0.0005	**0.008**	<0.001	**0.017**	<0.0005	--
SB-14	10/12/2005	0.5	<1.0	<0.0005	**0.009**	<0.001	**0.016**	<0.0005	--
SB-14	10/12/2005	1	<1.0	<0.0005	<0.001	<0.001	**0.005**	<0.0005	--
SB-14	10/12/2005	2	<1.0	<0.0005	**0.01**	**0.001**	**0.028**	<0.0005	--
SB-15	10/12/2005	0.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-15	10/12/2005	1	<1.0 UJ	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-15	10/12/2005	2.5	<1.0	**0.0005**	**0.009**	<0.001	**0.005**	<0.0005	--
SB-15	10/12/2005	5	<1.0	<0.0005	**0.002**	<0.001	<0.001	<0.0005	--
SB-15	10/12/2005	10	<1.0	<0.0005	**0.005**	<0.001	**0.002**	<0.0005	--
SB-16	10/13/2005	0.5	<4.0 UJ	**0.0006**	**0.01**	**0.001**	**0.005**	<0.0005	--
SB-16	10/13/2005	1	<1.0	**0.001**	**0.017**	**0.001**	**0.007**	<0.0005	--
SB-16	10/13/2005	2	**1.1**	**0.002**	**0.028**	**0.001**	**0.007**	<0.0005	--
SB-16	10/13/2005	5	**1.4**	**0.0007**	**0.011**	<0.001	**0.004**	<0.0005	--
SB-16	10/13/2005	9	**6.6**	**0.003**	**0.043**	<0.001	**0.017**	<0.0005	--
SB-17	10/13/2005	0.5	**7.7**	**0.003**	**0.049**	<0.001	**0.4**	<0.0005	--
SB-17	10/13/2005	1	**16 J**	**0.002**	**0.075**	**0.002**	**1.7**	<0.0005	--
SB-17	10/13/2005	2	**17**	**0.002**	**0.059**	<0.001	**1.7**	<0.0005	--
SB-17	10/13/2005	5	**15**	**0.001**	**0.019**	<0.001	**0.22**	<0.0005	--

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Table 2
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Sample Location	Date	Sample Depth (ft bgs)	TPH-GRO (mg/kg)	Benzene (mg/kg	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (Total) (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
SB-18	10/13/2005	0.5	**180 J**	**0.004**	**0.027**	<0.005	**0.47**	<0.003	--
SB-18	10/13/2005	1	**21 J**	**0.004**	**0.027**	<0.005	**0.81**	<0.003	--
SB-18	10/13/2005	2	**30 J**	<0.063	**0.45**	<0.13	**4.1**	<0.063	--
SB-18	10/13/2005	5	**25 J**	**0.001**	**0.006**	**0.001**	**0.071**	<0.001	--
SB-18	10/13/2005	8.5	**36 J**	**0.096**	**1.3**	<0.13	**2.9**	<0.063	--
SB-19	10/13/2005	0.5	**11,000 J**	**3.9**	**420**	**250**	**950**	<0.62	--
SB-19	10/13/2005	1	**17,000 J**	**9.4 J**	**1200 J**	**350 J**	**2,700 J**	<0.62	--
SB-19	10/13/2005	2	**11,000 J**	**6**	**560**	**260**	**1,200**	<0.62	--
SB-20	10/17/2005	0.5	**5.8**	<0.0005	**0.004**	<0.001	**0.027**	<0.0005	--
SB-20	10/17/2005	1	**10**	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-20	10/17/2005	2	**3.5**	<0.0005	**0.003**	<0.001	**0.008**	<0.0005	--
SB-20	10/17/2005	5	**8.3**	<0.0005	**0.003**	<0.001	**0.012**	<0.0005	--
SB-20	10/17/2005	10	<1.0	<0.0005	**0.001**	<0.001	**0.001**	<0.0005	--
SB-20	10/17/2005	15	<1.0	**0.0009**	**0.009**	<0.001	**0.003**	<0.0005	--
SB-20	10/17/2005	19.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-20	10/17/2005	25	<1.0	<0.0005	**0.001**	<0.001	<0.001	<0.0005	--
SB-20	10/17/2005	30	<1.0	<0.0005	**0.001**	<0.001	<0.001	<0.0005	--
SB-21	10/17/2005	0.5	<1.0	<0.0005	**0.009**	**0.001**	**0.006**	<0.0005	--
SB-21	10/17/2005	1.5	<1.0	<0.0005	**0.002**	<0.001	<0.001	<0.0005	--
SB-21	10/17/2005	2.5	<1.0	<0.0005	**0.001**	<0.001	<0.001	<0.0005	--
SB-21	10/17/2005	5	<1.0	<0.0005	**0.002**	<0.001	<0.001	<0.0005	--
SB-21	10/17/2005	10	<1.0	<0.0005	**0.002**	<0.001	<0.001	<0.0005	--
SB-21	10/17/2005	15	<1.0	<0.0005	**0.002**	<0.001	<0.001	<0.0005	--
SB-21	10/17/2005	19.5	<1.0	<0.0005	**0.002**	<0.001	<0.001	<0.0005	--
SB-21	10/17/2005	25	<1.0	<0.0005	**0.001**	<0.001	<0.001	<0.0005	--
SB-21	10/17/2005	38	**4.1**	**0.001**	**0.025**	**0.006**	**0.047**	<0.0005	--
SB-22	10/13/2005	0.5	<1.0	**0.0007**	**0.017**	**0.002**	**0.009**	<0.0005	--
SB-22	10/13/2005	1	<1.0	**0.0008**	**0.018**	**0.002**	**0.009**	<0.0005	--
SB-22	10/13/2005	2	<1.0	<0.0005	**0.006**	<0.001	**0.004**	<0.0005	--
SB-22	10/13/2005	5.5	<1.0	<0.0005	**0.001**	<0.001	<0.001	<0.0005	--

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Table 2
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Sample Location	Date	Sample Depth (ft bgs)	TPH-GRO (mg/kg)	Benzene (mg/kg	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (Total) (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
SB-23	10/13/2005	0.5	<1.0	<0.0005	**0.006**	<0.001	**0.002**	<0.0005	--
SB-23	10/13/2005	1	<1.0	<0.0005	**0.009**	<0.001	**0.005**	<0.0005	--
SB-23	10/13/2005	2	<1.0	<0.0005	**0.003**	<0.001	**0.001**	<0.0005	--
SB-23	10/13/2005	5	<1.0	<0.0005	**0.003**	<0.001	**0.002**	<0.0005	--
SB-23	10/13/2005	8.5	<1.0	<0.0005	**0.004**	<0.001	**0.002**	<0.0005	--
SB-24	10/13/2005	0.5	<1.0	**0.002**	**0.052**	**0.007**	**0.046**	<0.0005	--
SB-24	10/13/2005	1	<1.0	**0.001**	**0.029**	**0.004**	**0.024**	<0.0005	--
SB-24	10/13/2005	2	<1.0	**0.0006**	**0.017**	**0.002**	**0.013**	<0.0005	--
SB-25	10/17/2005	0.5	<1.0	<0.0005	**0.022**	**0.001**	**0.006**	<0.0005	--
SB-25	10/17/2005	1.5	<1.0	<0.0005	**0.02**	**0.002**	**0.008**	<0.0005	--
SB-25	10/17/2005	2.5	<1.0	<0.0005	**0.009**	**0.001**	**0.006**	<0.0005	--
SB-25	10/17/2005	5	<1.0	<0.0005	**0.002**	<0.001	<0.001	<0.0005	--
SB-25	10/17/2005	10	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-25	10/17/2005	15	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-25	10/17/2005	19.5	<1.0	<0.0005	**0.001**	<0.001	<0.001	<0.0005	--
SB-25	10/17/2005	25	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-25	10/17/2005	35	<1.0	<0.0005	**0.008**	<0.001	**0.003**	<0.0005	--
SB-26	10/25/2005	0.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-26	10/25/2005	1.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-26	10/25/2005	2.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-26	10/25/2005	5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-26	10/25/2005	10	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-26	10/25/2005	15	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-26	10/25/2005	20	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-26	10/25/2005	25	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-26	10/25/2005	30	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
SB-27	10/25/2005	37.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
HSA-1	10/11/2005	0.5	<1.0	<0.0005	**0.001**	<0.001	**0.001**	<0.0005	--
HSA-1	10/11/2005	1	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--

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Table 2
Cumulative Soil Analytical Results
Closure Request
Chevron Sunol Pipeline

Sample Location	Date	Sample Depth (ft bgs)	TPH-GRO (mg/kg)	Benzene (mg/kg	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (Total) (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
HSA-1	10/11/2005	2	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
HSA-1	10/11/2005	9.8	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
HSA-1	10/11/2005	20	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
HSA-2	10/11/2005	0.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
HSA-2	10/11/2005	1	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
HSA-2	10/11/2005	2	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
HSA-2	10/11/2005	9.5	<4.0 UJ	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
HSA-2	10/11/2005	20	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
HSA-2	10/11/2005	45	<1.0	<0.0005	**0.002**	<0.001	**0.002**	<0.0005	--
HSA-2	10/11/2005	50	<1.0	<0.0005 UJ	**0.003 J**	<0.001 UJ	**0.002 J**	<0.0005 UJ	--
AR-2	10/19/2005	18.5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--
AR-2	10/19/2005	28.5	<1.0	<0.0005	**0.002**	<0.001	<0.001	<0.0005	--
SVE-6	11/7/2006	3.2	**2.2**	<0.022	<0.045	<0.045	<0.045	--	--
SVE-6	11/7/2006	10	<0.9	<0.024	<0.048	<0.048	<0.048	--	--
SVE-6	11/7/2006	14	<1	<0.026	<0.051	<0.051	<0.051	--	--
SVE-7	11/8/2006	1	**4,800 J**	<0.23	**1.7**	<0.45	**210**	--	--
SVE-7	11/8/2006	8	**17,000 J**	**26 J**	**1,100 J**	**420 J**	**3,800 J**	--	--
SVE-8	11/9/2006	2.5	**2,300 J**	<0.019	**0.93**	**0.56**	**47**	--	--
SVE-8	11/9/2006	4	**3.1**	<0.023	<0.045	<0.045	<0.045	--	--
SVE-8	11/9/2006	6.5	<1	<0.022	<0.045	<0.045	<0.045	--	--
SVE-9	11/10/2006	4	**23,000 J**	**0.38 J**	**47 J**	**20 J**	**2,100 J**	--	--
MW-1	10/18/2005	38.5	<1.0	**0.003**	**0.025**	**0.003**	**0.017**	<0.0005	--
MW-4	1/30/2006	21.5	<1.0	<0.019	<0.038	<0.038	<0.038	--	--
MW-4	1/30/2006	33	<1.0 UJ	<0.024	<0.049	<0.049	<0.049	--	--
MW-4	1/30/2006	36.5	<1.0 UJ	<0.018	<0.037	<0.037	<0.037	--	--

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Table 2
Cumulative Soil Analytical Results
Closure Request
Chevron Sunol Pipeline

Sample Location	Date	Sample Depth (ft bgs)	TPH-GRO (mg/kg)	Benzene (mg/kg	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (Total) (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
MW-5	1/24/2006	10	**1.1**	**0.13**	**0.69**	<0.050	**1.3**	<0.025	--
MW-5	1/24/2006	20	**1.5**	**0.089**	**0.16**	<0.042	**0.78**	<0.021	--
MW-5	1/24/2006	46	**10**	**0.15**	**2.8**	**0.64**	**3.8**	<0.022	--
MW-5	1/25/2006	48	**3**	<0.019	<0.038	<0.038	**0.11**	<0.019	--
MW-6	1/26/2006	17	<1.0	<0.021	<0.042	<0.042	<0.042	<0.021	--
MW-6	1/26/2006	46	<1.0	<0.022	<0.044	<0.044	<0.044	<0.022	--
MW-7	1/27/2006	18	<1.0	<0.023	**0.065**	<0.047	**0.068**	<0.023	--
MW-7	1/27/2006	22.5	**9.1**	**0.087**	**1.1**	**0.33**	**2.1**	<0.021	--
MW-8	8/15/2006	16.5	**1,100 J**	**1.7**	**52**	**16**	**170**	--	--
MW-8	8/15/2006	20.5	**50 J**	**0.45**	**2.4**	**0.21**	**1.2**	--	--
MW-9	8/16/2006	11.5	<1.0	<0.025	<0.050	<0.050	<0.050	--	--
MW-10	9/5/2007	36.5	<0.8	<0.021	<0.042	0.083	0.062	--	--
MW-10	9/5/2007	43	<0.8	<0.015	<0.030	<0.030	<0.030	--	--
MW-10	9/5/2007	52.5	8.3	<0.019	0.049	0.044	0.12	--	--
MW-11	9/6/2007	26.5	<0.8	<0.016	<0.031	<0.031	<0.031	--	--
MW-11	9/6/2007	46	<0.9	<0.024	<0.047	<0.047	<0.047	--	--
MW-12	11/27/2012	5	<1.4	<0.0006	<0.001	<0.001	<0.001	--	--
MW-12	11/27/2012	10	<1.3	<0.0006	<0.001	<0.001	<0.001	--	--
MW-12	11/27/2012	15	<1.3	<0.0006	<0.001	<0.001	<0.001	--	--
MW-12	11/27/2012	20	<4.5	<0.0006	<0.001	<0.001	<0.001	--	--
MW-12	11/27/2012	24.5	**1,100 J**	<0.023	<0.046	0.6	<0.046	--	--
MW-12	11/27/2012	29.5	<1	<0.0005	<0.001	<0.001	<0.001	--	--
MW-13	11/26/2012	5	<1.0	<0.0006	<0.001	<0.001	<0.001	--	--
MW-13	11/26/2012	10	<1.0	<0.0006	<0.001	<0.001	<0.001	--	--
MW-13	11/26/2012	15	<1.1	<0.0006	<0.001	<0.001	<0.001	--	--
MW-13	11/26/2012	20	<1.0	<0.0006	<0.001	<0.001	<0.001	--	--

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Table 2
Cumulative Soil Analytical Results
Closure Request
Chevron Sunol Pipeline

Sample Location	Date	Sample Depth (ft bgs)	TPH-GRO (mg/kg)	Benzene (mg/kg	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (Total) (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
MW-13	11/26/2012	23	**120**	**0.081**	<0.062	**0.62**	**3.4**	--	--
MW-13	11/26/2012	25	<1	**0.012**	**0.025**	**0.019**	**0.1**	--	--
MW-14	11/29/2012	5	<1.2	<0.0006	<0.001	<0.001	<0.001	--	--
MW-14	11/29/2012	10	<1.1	<0.0006	<0.001	<0.001	<0.001	--	--
MW-14	11/29/2012	15	<1.3	<0.0006	<0.001	<0.001	<0.001	--	--
MW-14	11/29/2012	20	<1.1	<0.0005	<0.001	<0.001	<0.001	--	--
MW-14	11/29/2012	25	<1	<0.0005	<0.001	<0.001	<0.001	--	--
MW-14	11/29/2012	29.5	<1.1	<0.0006	<0.001	<0.001	<0.001	--	--
MW-15	11/29/2012	5	<1	<0.0005	<0.001	<0.001	<0.001	--	--
MW-15	11/29/2012	10	<1	<0.0006	<0.001	<0.001	<0.001	--	--
MW-15	11/29/2012	15	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--
MW-15	11/29/2012	20	<1.1	<0.0006	<0.001	<0.001	<0.001	--	--
MW-15	11/29/2012	20	<1.1	<0.0006	<0.001	<0.001	<0.001	--	--
MW-15	11/29/2012	27.5	<1.1	<0.0005	<0.001	<0.001	<0.001	--	--

Abbbreviations

Bold values exceed laboratory reporting limits.

TPH-GRO - total petroleum hydrocarbons quantified as gasoline range organics

MTBE - methyl tert-butyl ether
ft bgs - feet below ground surface
mg/kg - milligrams per kilogram

Notes

J - 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.

UJ - 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.

R - 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.

URS

Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

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

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-1	10/20/2005	328.49	328.04	29.3-39.3	7/18/2008	36.88	291.16	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	9/5/2008	37.57	290.47	37.56	290.48	0.01
MW-1	10/20/2005	328.49	328.04	29.3-39.3	9/18/2008	37.62	290.42	37.61	290.43	0.01
MW-1	10/20/2005	328.49	328.04	29.3-39.3	10/31/2008	37.67	290.37	37.65	290.39	0.02
MW-1	10/20/2005	328.49	328.04	29.3-39.3	11/24/2008	37.62	290.42	37.59	290.45	0.03
MW-1	10/20/2005	328.49	328.04	29.3-39.3	12/15/2008	37.53	290.51	37.52	290.52	0.01
MW-1	10/20/2005	328.49	328.04	29.3-39.3	1/22/2009	37.44	290.60	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	2/25/2009	36.28	291.76	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	3/27/2009	35.24	292.80	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	4/23/2009	35.59	292.45	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	5/28/2009	36.74	291.30	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	6/9/2009	37.05	290.99	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	8/25/2009	37.60	290.44	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	9/28/2009	37.61	290.43	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	10/21/2009	37.63	290.41	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	11/10/2009	37.62	290.42	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	12/9/2009	37.56	290.48	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	1/25/2010	35.47	292.57	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	2/19/2010	35.15	292.89	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	3/9/2010	34.41	293.63	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	4/22/2010	35.07	292.97	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	5/27/2010	35.41	292.63	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	6/23/2010	37.49	290.55	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-1	10/20/2005	328.49	328.04	29.3-39.3	7/27/2010	37.18	290.86	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	8/31/2010	37.40	290.64	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	9/29/2010	37.36	290.68	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	10/27/2010	37.21	290.83	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	11/23/2010	37.17	290.87	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	12/14/2010	37.11	290.93	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	1/31/2011	35.42	292.62	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	2/28/2011	34.79	293.25	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	3/28/2011	32.19	295.85	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	4/28/2011	34.34	293.70	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	5/26/2011	35.52	292.52	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	6/27/2011	36.03	292.01	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	8/22/2011	37.04	291.00	37.03	291.01	0.01
MW-1	10/20/2005	328.49	328.04	29.3-39.3	9/19/2011	37.23	290.81	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	10/24/2011	37.18	290.86	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	11/21/2011	37.14	290.90	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	12/19/2011	36.98	291.06	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	1/30/2012	36.92	291.12	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	2/20/2012	36.92	291.12	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	3/20/2012	36.68	291.36	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	4/24/2012	35.60	292.44	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	5/30/2012	36.52	291.52	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	6/12/2012	36.76	291.28	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-1	10/20/2005	328.49	328.04	29.3-39.3	7/25/2012	37.02	291.02	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	8/28/2012	37.09	290.95	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	9/24/2012	37.16	290.88	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	10/30/2012	37.16	290.88	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	11/20/2012	37.24	290.80	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	12/7/2012	36.04	292.00	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	1/29/2013	35.53	292.51	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	2/28/2013	36.27	291.77	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	3/25/2013	36.32	291.72	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	4/29/2013	36.79	291.25	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	5/31/2013	36.83	291.21	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	6/28/2013	36.93	291.11	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	7/30/2013	37.04	291.00	~~37.04~~[4]	~~291~~[4]	~~sheen~~[4]
MW-1	10/20/2005	328.49	328.04	29.3-39.3	8/6/2013	37.00	291.04	--	--	--
MW-1	10/20/2005	328.49	328.04	29.3-39.3	8/14/2013	37.02	291.02	--	--	--
										--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	11/17/2005	33.74	290.41	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	12/13/2005	33.67	290.48	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	1/17/2006	31.51	292.64	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	2/21/2006	32.19	291.96	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	5/10/2006	29.71	294.44	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	6/7/2006	30.23	293.92	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	8/22/2006	33.11	291.04	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-2	10/21/2005	324.85	324.15	23.3-38.3	11/14/2006	33.01	291.14	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	12/8/2006	32.85	291.30	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	1/10/2007	32.09	292.06	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	2/20/2007	31.93	292.22	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	6/5/2007	33.23	290.92	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	7/13/2007	33.49	290.66	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	8/17/2007	33.58	290.57	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	9/5/2007	33.61	290.54	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	9/12/2007	33.62	290.53	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	10/31/2007	33.61	290.54	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	12/5/2007	33.52	290.63	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	3/4/2008	31.41	292.74	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	3/19/2008	31.76	292.39	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	5/20/2008	31.41	292.74	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	6/5/2008	31.56	292.59	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	7/18/2008	32.88	291.27	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	9/5/2008	33.60	290.55	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	9/18/2008	33.65	290.50	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	10/31/2008	33.70	290.45	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	11/24/2008	33.62	290.53	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	12/15/2008	33.59	290.56	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	1/22/2009	33.46	290.69	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	2/25/2009	32.11	292.04	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

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

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-2	10/21/2005	324.85	324.15	23.3-38.3	3/28/2011	28.10	296.05	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	4/28/2011	30.24	293.91	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	5/26/2011	31.37	292.78	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	6/27/2011	31.87	292.28	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	7/25/2011	32.95	291.20	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	8/22/2011	33.07	291.08	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	9/19/2011	33.27	290.88	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	10/24/2011	33.21	290.94	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	11/21/2011	33.17	290.98	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	12/19/2011	33.03	291.12	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	1/30/2012	32.95	291.20	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	2/20/2012	32.92	291.23	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	3/20/2012	32.65	291.50	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	3/24/2012	31.43	292.72	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	5/30/2012	32.47	291.68	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	6/12/2012	32.78	291.37	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	7/25/2012	33.06	291.09	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	8/28/2012	33.13	291.02	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	9/24/2012	33.20	290.95	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	10/30/2012	33.20	290.95	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	11/20/2012	33.29	290.86	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	12/7/2012	31.84	292.31	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	1/29/2013	31.37	292.78	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-2	10/21/2005	324.85	324.15	23.3-38.3	2/28/2013	32.09	292.06	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	3/25/2013	32.18	291.97	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	4/29/2013	32.79	291.36	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	5/31/2013	32.90	291.25	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	6/28/2013	23.97	300.18	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	7/30/2013	33.07	291.08	~~33.07~~[4]	~~291.08~~[4]	~~sheen~~[4]
MW-2	10/21/2005	324.85	324.15	23.3-38.3	8/6/2013	33.05	291.10	--	--	--
MW-2	10/21/2005	324.85	324.15	23.3-38.3	8/14/2013	33.07	291.08	--	--	--
										--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	11/17/2005	35.93	289.72	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	12/13/2005	34.80	290.85	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	1/17/2006	30.88	294.77	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	2/21/2006	31.97	293.68	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	5/10/2006	30.38	295.27	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	6/7/2006	30.91	294.74	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	8/22/2006	34.66	290.99	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	11/14/2006	34.71	290.94	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	12/8/2006	34.65	291.00	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	1/10/2007	31.68	293.97	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	2/20/2007	31.66	293.99	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	6/5/2007	34.63	291.02	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	7/13/2007	34.75	290.90	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	8/17/2007	34.78	290.87	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-3	10/21/2005	326.05	325.65	21.3-36.3	9/5/2007	34.70	290.95	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	9/12/2007	34.71	290.94	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	10/31/2007	34.63	291.02	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	12/5/2007	34.79	290.86	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	12/11/2007	34.77	290.88	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	3/4/2008	30.97	294.68	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	3/19/2008	31.64	294.01	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	5/20/2008	31.26	294.39	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	6/5/2008	31.45	294.20	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	7/18/2008	34.11	291.54	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	9/5/2008	34.77	290.88	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	9/18/2008	34.81	290.84	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	10/31/2008	34.85	290.80	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	11/24/2008	34.79	290.86	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	12/15/2008	34.79	290.86	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	1/22/2009	34.71	290.94	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	2/25/2009	31.35	294.30	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	3/27/2009	30.87	294.78	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	4/23/2009	31.39	294.26	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	5/28/2009	33.97	291.68	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	6/9/2009	34.48	291.17	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	8/25/2009	34.83	290.82	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	9/28/2009	34.82	290.83	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-3	10/21/2005	326.05	325.65	21.3-36.3	10/21/2009	34.79	290.86	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	11/10/2009	34.85	290.80	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	12/9/2009	34.83	290.82	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	1/25/2010	30.49	295.16	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	2/19/2010	30.92	294.73	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	3/9/2010	30.60	295.05	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	4/22/2010	31.03	294.62	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	5/27/2010	31.29	294.36	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	6/23/2010	33.94	291.71	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	7/27/2010	34.59	291.06	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	8/31/2010	34.70	290.95	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	9/29/2010	34.80	290.85	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	10/27/2010	34.82	290.83	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	11/23/2010	34.79	290.86	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	12/14/2010	33.05	292.60	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	1/31/2011	30.99	294.66	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	2/28/2011	30.69	294.96	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	3/28/2011	28.78	296.87	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	4/28/2011	30.55	295.10	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	5/26/2011	31.35	294.30	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	6/27/2011	32.13	293.52	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	7/25/2011	34.49	291.16	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	8/22/2011	34.70	290.95	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

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

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-3	10/21/2005	326.05	325.65	21.3-36.3	8/6/2013	34.79	290.86	--	--	--
MW-3	10/21/2005	326.05	325.65	21.3-36.3	8/14/2013	34.82	290.83	--	--	--
										--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	2/21/2006	36.72	292.95	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	5/10/2006	35.30	294.37	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	6/7/2006	35.76	293.91	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	8/22/2006	38.79	290.88	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	11/14/2006	38.84	290.83	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	12/8/2006	38.78	290.89	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	1/10/2007	36.54	293.13	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	2/20/2007	36.54	293.13	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	6/5/2007	38.77	290.90	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	7/13/2007	38.94	290.73	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	8/17/2007	39.00	290.67	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	9/5/2007	38.92	290.75	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	9/12/2007	38.93	290.74	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	10/31/2007	38.87	290.80	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	12/5/2007	38.97	290.70	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	12/11/2007	39.00	290.67	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	3/4/2008	36.15	293.52	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	3/19/2008	36.29	293.38	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	5/20/2008	36.27	293.40	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	6/5/2008	36.38	293.29	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-4	1/31/2006	329.97	329.67	30.7-40.7	7/18/2008	38.31	291.36	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	9/5/2008	38.95	290.72	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	9/18/2008	39.03	290.64	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	10/31/2008	39.11	290.56	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	11/24/2008	39.03	290.64	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	12/11/2008	39.00	290.67	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	12/15/2008	39.03	290.64	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	1/22/2009	38.91	290.76	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	2/25/2009	36.35	293.32	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	3/27/2009	36.10	293.57	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	4/23/2009	36.36	293.31	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	5/28/2009	38.21	291.46	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	6/9/2009	38.62	291.05	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	8/25/2009	39.05	290.62	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	9/28/2009	39.04	290.63	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	10/21/2009	39.02	290.65	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	11/10/2009	39.09	290.58	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	12/9/2009	39.09	290.58	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	1/25/2010	35.96	293.71	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	2/19/2010	36.09	293.58	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	3/9/2010	35.69	293.98	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	4/22/2010	36.13	293.54	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	5/27/2010	36.27	293.40	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-4	1/31/2006	329.97	329.67	30.7-40.7	6/23/2010	37.41	292.26	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	7/27/2010	38.75	290.92	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	8/31/2010	38.89	290.78	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	9/29/2010	38.98	290.69	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	10/27/2010	39.02	290.65	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	11/23/2010	38.99	290.68	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	12/14/2010	37.61	292.06	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	1/31/2011	36.16	293.51	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	2/28/2011	35.93	293.74	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	3/28/2011	33.63	296.04	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	4/28/2011	35.65	294.02	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	5/26/2011	36.32	293.35	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	6/27/2011	36.84	292.83	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	7/25/2011	38.63	291.04	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	8/22/2011	38.88	290.79	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	9/19/2011	38.89	290.78	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	10/24/2011	38.89	290.78	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	11/21/2011	38.98	290.69	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	12/19/2011	34.75	294.92	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	1/30/2012	38.91	290.76	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	2/20/2012	38.94	290.73	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	3/20/2012	37.07	292.60	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	4/24/2012	36.21	293.46	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-4	1/31/2006	329.97	329.67	30.7-40.7	5/30/2012	37.45	292.22	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	6/12/2012	37.94	291.73	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	7/25/2012	38.97	290.70	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	8/28/2012	39.02	290.65	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	9/24/2012	39.06	290.61	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	10/30/2012	39.08	290.59	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	11/20/2012	39.14	290.53	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	12/7/2012	36.21	293.46	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	1/29/2013	36.24	293.43	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	2/28/2013	36.67	293.00	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	3/25/2013	36.84	292.83	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	4/29/2013	38.19	291.48	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	5/31/2013	38.80	290.87	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	6/28/2013	38.86	290.81	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	7/30/2013	39.03	290.64	~~39.03~~[4]	~~290.64~~[4]	~~sheen~~[4]
MW-4	1/31/2006	329.97	329.67	30.7-40.7	8/6/2013	39.00	290.67	--	--	--
MW-4	1/31/2006	329.97	329.67	30.7-40.7	8/14/2013	39.03	290.64			
										--
MW-5	1/27/2006	335.14	334.81	39.5-49.5	2/21/2006	11.48	318.19	--	--	--
MW-5	1/27/2006	335.14	334.81	39.5-49.5	6/7/2006	10.61	319.06	--	--	--
MW-5	1/27/2006	335.14	334.81	39.5-49.5	8/22/2006	11.93	317.74	--	--	--
MW-5	1/27/2006	335.14	334.81	39.5-49.5	11/14/2006	11.37	318.30	--	--	--
MW-5	1/27/2006	335.14	334.81	39.5-49.5	2/20/2007	11.41	318.26	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-5	1/27/2006	335.14	334.81	39.5-49.5	6/5/2007	13.59	316.08	--	--	--
MW-5	1/27/2006	335.14	334.81	39.5-49.5	9/12/2007	15.65	314.02	--	--	--
MW-5	1/27/2006	335.14	334.81	39.5-49.5	12/11/2008	--	--	--	--	--
MW-5	1/27/2006	335.14	334.81	39.5-49.5	Q1 2008	--	--	--	--	--
MW-5	1/27/2006	335.14	334.81	39.5-49.5	Q2 2008	Abandoned[(1)]	Abandoned[(1)]	--	--	--
										--
MW-6	1/27/2006	332.61	332.38	34.7-49.7	2/21/2006	18.02	311.65	--	--	--
MW-6	1/27/2006	332.61	332.38	34.7-49.7	6/7/2006	16.83	312.84	--	--	--
MW-6	1/27/2006	332.61	332.38	34.7-49.7	8/22/2006	18.66	311.01	--	--	--
MW-6	1/27/2006	332.61	332.38	34.7-49.7	11/14/2006	17.37	312.30	--	--	--
MW-6	1/27/2006	332.61	332.38	34.7-49.7	2/20/2007	17.51	312.16	--	--	--
MW-6	1/27/2006	332.61	332.38	34.7-49.7	6/5/2007	19.44	310.23	--	--	--
MW-6	1/27/2006	332.61	332.38	34.7-49.7	9/12/2007	23.46	306.21	--	--	--
MW-6	1/27/2006	332.61	332.38	34.7-49.7	12/11/2008	--	--	--	--	--
MW-6	1/27/2006	332.61	332.38	34.7-49.7	Q1 2008	--	--	--	--	--
MW-6	1/27/2006	332.61	332.38	34.7-49.7	Q2 2008	Abandoned[(1)]	Abandoned[(1)]	--	--	--
										--
MW-7	1/27/2006	336.46	336.22	34.7-49.7	2/21/2006	15.43	314.24	--	--	--
MW-7	1/27/2006	336.46	336.22	34.7-49.7	6/7/2006	16.68	312.99	--	--	--
MW-7	1/27/2006	336.46	336.22	34.7-49.7	8/22/2006	16.77	312.90	--	--	--
MW-7	1/27/2006	336.46	336.22	34.7-49.7	11/14/2006	16.99	312.68	--	--	--
MW-7	1/27/2006	336.46	336.22	34.7-49.7	2/20/2007	18.34	311.33	--	--	--
MW-7	1/27/2006	336.46	336.22	34.7-49.7	6/5/2007	19.88	309.79	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-7	1/27/2006	336.46	336.22	34.7-49.7	9/12/2007	21.76	307.91	--	--	--
MW-7	1/27/2006	336.46	336.22	34.7-49.7	12/11/2008	--	--	--	--	--
MW-7	1/27/2006	336.46	336.22	34.7-49.7	Q1 2008	--	--	--	--	--
MW-7	1/27/2006	336.46	336.22	34.7-49.7	Q2 2008	Abandoned[(1)]	Abandoned[(1)]	--	--	--
										--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	8/22/2006	18.71	315.22	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	11/14/2006	18.73	315.20	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	12/8/2006	19.15	314.78	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	1/10/2007	19.19	314.74	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	2/20/2007	19.23	314.70	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	6/5/2007	20.48	313.45	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	7/13/2007	21.21	312.72	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	8/17/2007	21.45	312.48	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	9/5/2007	21.55	312.38	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	9/12/2007	21.47	312.46	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	10/31/2007	20.33	313.60	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	12/5/2007	19.55	314.38	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	12/11/2007	19.58	314.35	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	3/4/2008	--	--	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	3/19/2008	--	--	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	5/20/2008	--	--	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	6/5/2008	--	--	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	7/18/2008	22.44	311.49	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-8	8/15/2006	335.23	333.93	14.5-24.5	9/5/2008	21.76	312.17	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	9/18/2008	21.67	312.26	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	10/31/2008	21.87	312.06	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	11/24/2008	21.26	312.67	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	12/15/2008	20.73	313.20	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	1/22/2009	20.25	313.68	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	2/25/2009	19.50	314.43	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	3/27/2009	19.54	314.39	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	4/23/2009	20.24	313.69	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	5/28/2009	20.96	312.97	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	6/9/2009	23.31	310.62	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	8/25/2009	22.50	311.43	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	9/28/2009	22.58	311.35	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	10/21/2009	21.61	312.32	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	11/10/2009	21.15	312.78	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	12/9/2009	20.66	313.27	20.65	313.28	0.01
MW-8	8/15/2006	335.23	333.93	14.5-24.5	1/25/2010	19.19	314.74	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	2/19/2010	19.13	314.80	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	3/9/2010	18.97	314.96	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	4/22/2010	19.15	314.78	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	5/27/2010	19.29	314.64	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	6/23/2010	19.82	314.11	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	7/27/2010	21.40	312.53	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
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Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-8	8/15/2006	335.23	333.93	14.5-24.5	8/31/2010	21.65	312.28	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	9/29/2010	22.23	311.70	22.22	311.71	0.01
MW-8	8/15/2006	335.23	333.93	14.5-24.5	10/27/2010	21.81	312.12	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	11/23/2010	22.31	311.62	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	12/14/2010	20.26	313.67	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	1/31/2011	19.43	314.50	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	2/28/2011	18.90	315.03	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	3/28/2011	18.40	315.53	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	4/28/2011	18.46	315.47	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	5/26/2011	18.45	315.48	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	6/27/2011	18.88	315.05	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	7/25/2011	19.42	314.51	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	8/22/2011	19.97	313.96	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	9/19/2011	20.52	313.41	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	10/24/2011	19.78	314.15	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	11/21/2011	19.03	314.90	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	12/19/2011	18.84	315.09	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	1/30/2012	18.88	315.05	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	2/20/2012	18.66	315.27	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	3/20/2012	18.72	315.21	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	4/24/2012	18.69	315.24	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	5/30/2012	19.73	314.20	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	6/12/2012	20.29	313.64	--	--	--

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Table 3
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Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-8	8/15/2006	335.23	333.93	14.5-24.5	7/25/2012	21.67	312.26	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	8/28/2012	22.08	311.85	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	9/24/2012	22.11	311.82	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	10/30/2012	21.80	312.13	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	11/20/2012	21.24	312.69	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	12/7/2012	20.12	313.81	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	1/29/2013	18.91	315.02	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	2/28/2013	18.95	314.98	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	3/25/2013	18.88	315.05	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	4/29/2013	19.56	314.37	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	5/31/2013	20.78	313.15	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	6/28/2013	21.53	312.40	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	7/30/2013	22.22	311.71	~~22.22~~[4]	~~311.71~~[4]	~~sheen~~[4]
MW-8	8/15/2006	335.23	333.93	14.5-24.5	8/6/2013	22.31	311.62	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	8/14/2013	22.34	311.59	--	--	--
MW-8	8/15/2006	335.23	333.93	14.5-24.5	8/15/2013[3]	23.05	310.88	23.03	310.90	0.02
MW-9	8/16/2006	333.49	333.07	36.0-46.0	8/22/2006	42.59	290.48	42.55	290.52	0.04
MW-9	8/16/2006	333.49	333.07	36.0-46.0	11/14/2006	42.62	290.45	42.54	290.53	0.08
MW-9	8/16/2006	333.49	333.07	36.0-46.0	12/8/2006	42.56	290.51	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	1/10/2007	42.01	291.06	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	2/20/2007	41.91	291.16	41.86	291.21	0.05
MW-9	8/16/2006	333.49	333.07	36.0-46.0	3/20/2007	41.76	291.31	41.75	291.32	0.01

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Table 3
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Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-9	8/16/2006	333.49	333.07	36.0-46.0	6/5/2007	42.71	290.36	42.69	290.38	0.02
MW-9	8/16/2006	333.49	333.07	36.0-46.0	7/13/2007	43.08	289.99	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	8/17/2007	43.14	289.93	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	9/5/2007	43.16	289.91	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	9/12/2007	43.09	289.98	43.01	290.06	0.08
MW-9	8/16/2006	333.49	333.07	36.0-46.0	10/31/2007	43.17	289.90	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	12/5/2007	43.10	289.97	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	12/11/2007	42.91	290.16	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	3/4/2008	41.31	291.76	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	3/19/2008	--	--	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	5/20/2008	41.33	291.74	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	6/5/2008	41.57	291.50	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	7/18/2008	42.52	290.55	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	9/5/2008	43.02	290.05	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	9/18/2008	43.07	290.00	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	10/31/2008	43.09	289.98	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	11/24/2008	43.02	290.05	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	12/15/2008	43.00	290.07	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	1/22/2009	42.90	290.17	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	2/25/2009	41.97	291.10	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	3/27/2009	41.02	292.05	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	4/23/2009	41.42	291.65	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	5/28/2009	42.31	290.76	--	--	--

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Table 3
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Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-9	8/16/2006	333.49	333.07	36.0-46.0	6/9/2009	42.53	290.54	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	8/25/2009	43.03	290.04	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	9/28/2009	43.02	290.05	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	10/21/2009	43.06	290.01	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	11/10/2009	43.06	290.01	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	12/9/2009	42.99	290.08	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	1/25/2010	41.18	291.89	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	2/19/2010	40.79	292.28	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	3/9/2010	39.97	293.10	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	4/22/2010	40.78	292.29	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	5/27/2010	41.21	291.86	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	6/23/2010	41.94	291.13	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	7/27/2010	42.64	290.43	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	8/31/2010	42.84	290.23	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	9/29/2010	42.81	290.26	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	10/27/2010	42.65	290.42	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	11/23/2010	42.63	290.44	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	12/14/2010	42.60	290.47	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	1/31/2011	41.09	291.98	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	2/28/2011	41.09	291.98	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	3/28/2011	37.70	295.37	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	4/28/2011	39.97	293.10	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	5/26/2011	41.28	291.79	--	--	--

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

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Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-9	8/16/2006	333.49	333.07	36.0-46.0	5/31/2013	42.31	290.76	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	6/28/2013	42.36	290.71	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	7/30/2013	42.46	290.61	~~42.46~~[4]	~~290.61~~[4]	~~sheen~~[4]
MW-9	8/16/2006	333.49	333.07	36.0-46.0	8/6/2013	42.41	290.66	--	--	--
MW-9	8/16/2006	333.49	333.07	36.0-46.0	8/14/2013	42.44	290.63	--	--	--
										--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	9/5/2007	54.86	281.03	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	10/31/2007	46.34	289.55	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	12/5/2007	45.84	290.05	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	12/12/2007	46.84	289.05	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	3/4/2008	43.31	292.58	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	3/20/2008	44.41	291.48	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	5/20/2008	44.09	291.80	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	6/5/2008	43.67	292.22	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	7/18/2008	45.32	290.57	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	9/5/2008	45.79	290.10	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	9/18/2008	45.89	290.00	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	10/31/2008	46.50	289.39	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	11/24/2008	46.02	289.87	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	12/15/2008	45.91	289.98	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	1/22/2009	48.34	287.55	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	2/25/2009	45.21	290.68	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	3/27/2009	43.82	292.07	--	--	--

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Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-10	9/5/2007	336.55	335.89	40.3-55.3	4/23/2009	44.13	291.76	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	5/28/2009	44.96	290.93	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	6/9/2009	45.19	290.70	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	8/25/2009	46.01	289.88	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	9/28/2009	45.94	289.95	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	10/21/2009	47.09	288.80	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	11/10/2009	46.29	289.60	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	12/9/2009	46.02	289.87	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	1/25/2010	45.74	290.15	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	2/19/2010	43.44	292.45	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	3/9/2010	42.62	293.27	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	4/22/2010	43.51	292.38	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	5/27/2010	44.03	291.86	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	6/23/2010	44.52	291.37	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	7/27/2010	46.11	289.78	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	8/31/2010	45.85	290.04	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	9/29/2010	45.89	290.00	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	10/27/2010	47.09	288.80	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	11/23/2010	44.99	290.90	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	12/14/2010	45.77	290.12	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	1/31/2011	43.92	291.97	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	2/28/2011	43.20	292.69	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	3/28/2011	40.41	295.48	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-10	9/5/2007	336.55	335.89	40.3-55.3	4/28/2011	42.68	293.21	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	5/26/2011	43.97	291.92	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	6/27/2011	44.51	291.38	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	7/25/2011	45.18	290.71	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	8/22/2011	45.57	290.32	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	9/19/2011	47.13	288.76	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	10/24/2011	45.97	289.92	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	11/21/2011	45.83	290.06	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	12/19/2011	45.72	290.17	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	1/30/2012	45.66	290.23	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	2/20/2012	45.64	290.25	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	3/20/2012	45.48	290.41	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	4/24/2012	43.94	291.95	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	5/30/2012	44.87	291.02	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	6/12/2012	45.16	290.73	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	7/25/2012	45.71	290.18	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	8/28/2012	45.85	290.04	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	9/24/2012	45.91	289.98	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	10/30/2012	46.65	289.24	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	11/20/2012	46.23	289.66	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	12/7/2012	45.79	290.10	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	1/29/2013	43.78	292.11	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	2/28/2013	44.82	291.07	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-10	9/5/2007	336.55	335.89	40.3-55.3	3/25/2013	44.93	290.96	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	4/29/2013	45.65	290.24	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	5/31/2013	45.53	290.36	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	6/28/2013	45.61	290.28	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	7/30/2013	45.76	290.13	~~45.76~~[4]	~~290.13~~[4]	~~sheen~~[4]
MW-10	9/5/2007	336.55	335.89	40.3-55.3	8/6/2013	45.71	290.18	--	--	--
MW-10	9/5/2007	336.55	335.89	40.3-55.3	8/14/2013	45.76	290.13	--	--	--
										--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	9/6/2007	Dry	Dry	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	10/31/2007	45.05	284.84	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	12/5/2007	43.04	286.85	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	12/12/2007	42.73	287.16	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	3/4/2008	36.91	292.98	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	3/20/2008	37.29	292.60	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	5/20/2008	37.06	292.83	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	6/4/2008	37.18	292.71	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	7/18/2008	37.97	291.92	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	9/5/2008	38.86	291.03	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	9/18/2008	38.97	290.92	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	10/31/2008	41.02	288.87	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	11/24/2008	39.85	290.04	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	12/15/2008	39.36	290.53	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	1/22/2009	41.73	288.16	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-11	9/6/2007	330.29	329.89	37.0-47.0	2/25/2009	37.12	292.77	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	3/27/2009	36.87	293.02	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	4/23/2009	37.13	292.76	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	5/28/2009	37.99	291.90	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	6/9/2009	38.30	291.59	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	8/25/2009	39.78	290.11	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	9/28/2009	39.21	290.68	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	10/21/2009	42.22	287.67	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	11/10/2009	40.93	288.96	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	12/9/2009	39.73	290.16	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	1/25/2010	36.77	293.12	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	2/19/2010	36.78	293.11	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	3/9/2010	36.28	293.61	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	4/22/2010	36.87	293.02	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	5/27/2010	37.03	292.86	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	6/23/2010	37.72	292.17	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	7/27/2010	40.66	289.23	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	8/31/2010	39.34	290.55	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	9/29/2010	44.84	285.05	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	10/27/2010	42.23	287.66	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	11/23/2010	40.53	289.36	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	12/14/2010	39.56	290.33	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	1/31/2011	36.93	292.96	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

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

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-11	9/6/2007	330.29	329.89	37.0-47.0	12/7/2012	37.00	292.89	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	1/29/2013	36.99	292.90	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	2/28/2013	37.40	292.49	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	3/25/2013	37.49	292.40	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	4/29/2013	38.06	291.83	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	5/31/2013	38.62	291.27	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	6/28/2013	38.80	291.09	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	7/30/2013	39.02	290.87	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	8/6/2013	38.98	290.91	--	--	--
MW-11	9/6/2007	330.29	329.89	37.0-47.0	8/14/2013	39.02	290.87	--	--	--
										--
MW-12	12/4/2012	334.90	334.58	16.7-26.7	1/29/2013	25.53	309.05	--	--	--
MW-12	12/4/2012	334.90	334.58	16.7-26.7	1/29/2013	22.26	312.32	--	--	--
MW-12	12/6/2012	334.90	334.58	16.7-26.9	2/28/2013	22.14	312.44	--	--	--
MW-12	12/7/2012	334.90	334.58	16.7-26.10	3/25/2013	21.92	312.66	--	--	--
MW-12	12/8/2012	334.90	334.58	16.7-26.11	3/26/2013[(2)]	23.92	310.66	--	--	--
MW-12	12/9/2012	334.90	334.58	16.7-26.12	4/29/2013	23.08	311.50	--	--	--
MW-12	12/10/2012	334.90	334.58	16.7-26.13	5/31/2013	24.91	309.67	--	--	--
MW-12	12/11/2012	334.90	334.58	16.7-26.14	6/28/2013	26.05	308.53	--	--	--
MW-12	12/12/2012	334.90	334.58	16.7-26.15	7/30/2013	26.23	308.35	--	--	--
MW-12	12/13/2012	334.90	334.58	16.7-26.16	8/6/2013	26.20	308.38	--	--	--
MW-12	12/13/2012	334.90	334.58	16.7-26.16	8/14/2013	26.28	308.30	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-13	12/5/2012	336.79	336.79	15.7-25.7	1/29/2013	Dry	Dry	--	--	--
MW-13	12/5/2012	336.79	336.79	15.7-25.7	1/29/2013	25.98	310.81	--	--	--
MW-13	12/5/2012	336.79	336.79	15.7-25.7	2/28/2013	26.00	310.79	--	--	--
MW-13	12/5/2012	336.79	336.79	15.7-25.7	3/25/2013	25.96	310.83	--	--	--
MW-13	12/5/2012	336.79	336.79	15.7-25.7	3/26/2013[(2)]	Dry	Dry	--	--	--
MW-13	12/5/2012	336.79	336.79	15.7-25.7	4/29/2013	26.00	310.79	--	--	--
MW-13	12/5/2012	336.79	336.79	15.7-25.7	5/31/2013	25.96	310.83	--	--	--
MW-13	12/5/2012	336.79	336.79	15.7-25.7	6/28/2013	25.96	310.83	--	--	--
MW-13	12/5/2012	336.79	336.79	15.7-25.7	7/30/2013	25.98	310.81	--	--	--
MW-13	12/5/2012	336.79	336.79	15.7-25.7	8/6/2013	25.96	310.83	--	--	--
MW-13	12/5/2012	336.79	336.79	15.7-25.7	8/14/2013	25.97	310.82	--	--	--
										--
MW-14	12/3/2012	338.15	337.94	16.0-26.0	1/29/2013	25.76	312.18	--	--	--
MW-14	12/3/2012	338.15	337.94	16.0-26.0	1/29/2013	25.85	312.09	--	--	--
MW-14	12/3/2012	338.15	337.94	16.0-26.0	2/28/2013	25.88	312.06	--	--	--
MW-14	12/3/2012	338.15	337.94	16.0-26.0	3/25/2013	25.83	312.11	--	--	--
MW-14	12/3/2012	338.15	337.94	16.0-26.0	3/26/2013[(2)]	Dry	Dry	--	--	--
MW-14	12/3/2012	338.15	337.94	16.0-26.0	4/29/2013	25.95	311.99	--	--	--
MW-14	12/3/2012	338.15	337.94	16.0-26.0	5/31/2013	25.93	312.01	--	--	--
MW-14	12/3/2012	338.15	337.94	16.0-26.0	6/28/2013	25.91	312.03	--	--	--
MW-14	12/3/2012	338.15	337.94	16.0-26.0	7/30/2013	25.94	312.00	--	--	--
MW-14	12/3/2012	338.15	337.94	16.0-26.0	8/6/2013	25.91	312.03	--	--	--
MW-14	12/3/2012	338.15	337.94	16.0-26.0	8/14/2013	25.92	312.02	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)
MW-15	12/4/2012	333.38	333.43	14.0-24.0	1/29/2013	Dry	Dry	--	--	--
MW-15	12/4/2012	333.38	333.43	14.0-24.0	1/29/2013	23.57	309.86	--	--	--
MW-15	12/4/2012	333.38	333.43	14.0-24.0	2/28/2013	23.63	309.80	--	--	--
MW-15	12/4/2012	333.38	333.43	14.0-24.0	3/25/2013	23.58	309.85	--	--	--
MW-15	12/4/2012	333.38	333.43	14.0-24.0	3/26/2013(2)	23.61	309.82	--	--	--
MW-15	12/4/2012	333.38	333.43	14.0-24.0	4/29/2013	23.94	309.49	--	--	--
MW-15	12/4/2012	333.38	333.43	14.0-24.0	5/31/2013	23.89	309.54	--	--	--
MW-15	12/4/2012	333.38	333.43	14.0-24.0	6/28/2013	23.91	309.52	--	--	
MW-15	12/4/2012	333.38	333.43	14.0-24.0	7/30/2013	23.92	309.51	~~23.93~~(4)	~~309.5~~(4)	~~sheen~~(4)
MW-15	12/4/2012	333.38	333.43	14.0-24.0	8/6/2013	23.90	309.53	--	--	--
MW-15	12/4/2012	333.38	333.43	14.0-24.0	8/14/2013	23.95	309.48	--	--	--

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Table 3
Monitoring Well Groundwater Elevations
Closure Request
Chevron Sunol Pipeline

Well ID	Date Installed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet msl)	Depth to Product (feet below TOC)	Product Elevation (feet msl)	Product Thickness (feet)

Notes/Abbreviations:

-- = Not present/not measured
TOC = top of casing
feet-msl = feet above average mean sea level (msl).
feet bs - feet below ground surface (bgs)
~~34.07~~ = false positive

(1) MW-5 through MW-7 abandoned June 23, 2008.
(2) MW-12 through MW-15 results from 24 hour recharge period after purging well on March 25, 2013.
(3) MW-8 results from 24 hour recharge period after well dewatered during purging on August 14, 2013.
(4) Results from July 30, 2013 determined to be false positive detections of light non-aqueous phase liquid. Subsequent gauging event recorded no detection of LNAPL on August 14, 2013. Analytical confirmation results currently pending.

MW-1 through MW-3 surveyed on October 31, 2005.

MW-4 through MW-7 surveyed on February 14, 2006.

MW-8 and MW-9 surveyed on November 10, 2006.

MW-10 and MW-11 surveyed on September 13, 2007.

MW-12 through MW-15 surveyed on December 7, 2012

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Table 4
Summary of Groundwater Analytical Results, Gasoline Compounds
Closure Request
Chevron Sunol Pipeline

Well ID	Date	TPH-GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
ESL[1] Groundwater is a potential drinking resource		**100**	**1**	**40**	**30**	**20**
MW-1	2/22/2006	**57,000**	**38**	**2,700**	**3,000**	**8,700**
MW-1	6/8/2006	**37,000**	**10**	**330**	**120**	**8,200**
MW-1	Q3 2006 [2]	NS	NS	NS	NS	NS
MW-1	11/15/2006	**38,000**	**14**	**110**	**38**	**5,900**
MW-1	2/21/2007	**18,000**	**4**	**7**	**8**	**1,600**
MW-1	6/5/2007	**17,000**	**3**	**7**	**4**	**1,100**
MW-1	Q3 2007 [2]	NS	NS	NS	NS	NS
MW-1	Q4 2007 [2]	NS	NS	NS	NS	NS
MW-1	3/19/2008	**12,000**	**0.8**	**1**	**1**	**320**
MW-1	6/6/2008	**8,200**	**1**	**2**	**3**	**150**
MW-1	Q3 2008 [3]	NS	NS	NS	NS	NS
MW-1	Q4 2008 [3]	NS	NS	NS	NS	NS
MW-1	3/31/2009	**3,700**	<0.5	**1**	**1**	**44**
MW-1	6/10/2009	**5,000**	<0.5	<0.5	**0.7**	**13**
MW-1	Q3 2009 [3]	NS	NS	NS	NS	NS
MW-1	Q4 2009 [3]	NS	NS	NS	NS	NS
MW-1	3/10/2010	**3,800**	<0.5	<0.5	<0.5	**4**
MW-1	Q2 2010 [3]	NS	NS	NS	NS	NS
MW-1	Q3 2010 [3]	NS	NS	NS	NS	NS
MW-1	12/14/2010	**1,900**	**0.8**	**1**	**0.7**	**3**
MW-1	3/29/2011	**1,200**	<0.5	<0.5	<0.5	<0.5
MW-1	8/23/2011	**960**	<0.5	**1**	<0.5	**2**
MW-1	3/21/2012	**880**	<0.5	<0.5	<0.5	**0.7**
MW-1	9/25/2012	**1,100 J**	<0.5	**7**	**5**	**29**
MW-1	3/26/2013	**710**	<0.5	<0.5	<0.5	<0.5

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Table 4
Summary of Groundwater Analytical Results, Gasoline Compounds
Closure Request
Chevron Sunol Pipeline

Well ID	Date	TPH-GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
ESL[(1)] Groundwater is a potential drinking resource		**100**	**1**	**40**	**30**	**20**
MW-2	2/21/2006 [(1)]	<50 / <50	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5
MW-2	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5
MW-2	8/23/2006	<50	0.5	<0.5	<0.5	<0.5
MW-2	11/14/2006	<50	**0.7**	<0.5	<0.5	<0.5
MW-2	2/21/2007	<50	<0.5	<0.5	<0.5	<0.5
MW-2	6/5/2007	<50	<0.5	<0.5	<0.5	<0.5
MW-2	Q3 2007 [(3)]	NS	NS	NS	NS	NS
MW-2	Q4 2007 [(3)]	NS	NS	NS	NS	NS
MW-2	3/19/2008	<50	<0.5	<0.5	<0.5	<0.5
MW-2	6/5/2008 [(1)]	<50 / <50	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5
MW-2	Q3 2008 [(3)]	NS	NS	NS	NS	NS
MW-2	Q4 2008 [(3)]	NS	NS	NS	NS	NS
MW-2	3/27/2009	<50	<0.5	<0.5	<0.5	<0.5
MW-2	Q2 2009 [(3)]	NS	NS	NS	NS	NS
MW-2	Q3 2009 [(3)]	NS	NS	NS	NS	NS
MW-2	Q4 2009 [(3)]	NS	NS	NS	NS	NS
MW-2	3/10/2010	<50	<0.5	<0.5	<0.5	**2**
MW-2	6/23/2010	<50	<0.5	<0.5	<0.5	<0.5
MW-2	Q3 2010 [(3)]	NS	NS	NS	NS	NS
MW-2	Q4 2010 [(3)]	NS	NS	NS	NS	NS
MW-2	3/28/2011	<50	<0.5	<0.5	<0.5	<0.5
MW-2	Q3 2011 [(3)]	NS	NS	NS	NS	NS
MW-2	3/21/2012	<50	<0.5	<0.5	<0.5	**0.6**
MW-2	Q3 2012 [(3)]	NS	NS	NS	NS	NS
MW-2	3/26/2013	<50	<0.5	<0.5	<0.5	**1**

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Table 4
Summary of Groundwater Analytical Results, Gasoline Compounds
Closure Request
Chevron Sunol Pipeline

Well ID	Date	TPH-GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
ESL[1] Groundwater is a potential drinking resource		**100**	**1**	**40**	**30**	**20**
MW-3	2/21/2006	<50	<0.5	<0.5	<0.5	<0.5
MW-3	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5
MW-3	8/23/2006	**170**	<0.5	<0.5	<0.5	<0.5
MW-3	11/14/2006	**86**	<0.5	**1**	<0.5	<0.5
MW-3	2/21/2007	<50	<0.5	<0.5	<0.5	<0.5
MW-3	Q2 2007 [3]	NS	NS	NS	NS	NS
MW-3	Q3 2007 [3]	NS	NS	NS	NS	NS
MW-3	Q4 2007 [3]	NS	NS	NS	NS	NS
MW-3	3/19/2008	<50	<0.5	<0.5	<0.5	<0.5
MW-3	6/5/2008	<50	<0.5	<0.5	<0.5	<0.5
MW-3	Q3 2008 [3]	NS	NS	NS	NS	NS
MW-3	Q4 2008 [3]	NS	NS	NS	NS	NS
MW-3	3/31/2009	<50	<0.5	<0.5	<0.5	<0.5
MW-3	Q2 2009 [3]	NS	NS	NS	NS	NS
MW-3	Q3 2009 [3]	NS	NS	NS	NS	NS
MW-3	Q4 2009 [3]	NS	NS	NS	NS	NS
MW-3	3/9/2010	<50	<0.5	<0.5	<0.5	<0.5
MW-3	Q2 2010 [3]	NS	NS	NS	NS	NS
MW-3	Q3 2010 [3]	NS	NS	NS	NS	NS
MW-3	Q4 2010 [3]	NS	NS	NS	NS	NS
MW-3	3/28/2011	<50	<0.5	<0.5	<0.5	<0.5
MW-3	8/23/2011	<50	<0.5	**2**	**1**	**5**
MW-3	3/20/2012	<50	<0.5	<0.5	<0.5	<0.5
MW-3	Q3 2012 [3]	NS	NS	NS	NS	NS
MW-3	3/26/2013	<50	<0.5	<0.5	<0.5	**1**

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Table 4
Summary of Groundwater Analytical Results, Gasoline Compounds
Closure Request
Chevron Sunol Pipeline

Well ID	Date	TPH-GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
ESL[1] Groundwater is a potential drinking resource		**100**	**1**	**40**	**30**	**20**
MW-4	2/21/2006	<50	<0.5	<0.5	<0.5	<0.5
MW-4	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5
MW-4	8/23/2006	**70**	**0.6**	<0.5	<0.5	**1**
MW-4	11/15/2006	<50	<0.5	<0.5	<0.5	0.5
MW-4	2/21/2007	<50	<0.5	<0.5	<0.5	<0.5
MW-4	Q2 2007 [3]	NS	NS	NS	NS	NS
MW-4	Q3 2007 [3]	NS	NS	NS	NS	NS
MW-4	Q4 2007 [3]	NS	NS	NS	NS	NS
MW-4	3/19/2008	<50	<0.5	<0.5	<0.5	<0.5
MW-4	6/6/2008	<50	<0.5	<0.5	<0.5	<0.5
MW-4	Q3 2008 [3]	NS	NS	NS	NS	NS
MW-4	Q4 2008 [3]	NS	NS	NS	NS	NS
MW-4	3/31/2009	<50	<0.5	<0.5	<0.5	<0.5
MW-4	Q2 2009 [3]	NS	NS	NS	NS	NS
MW-4	Q3 2009 [3]	NS	NS	NS	NS	NS
MW-4	Q4 2009 [3]	NS	NS	NS	NS	NS
MW-4	3/9/2010	<50	<0.5	<0.5	<0.5	<0.5
MW-4	6/23/2010	<50	<0.5	<0.5	<0.5	<0.5
MW-4	Q3 2010 [3]	NS	NS	NS	NS	NS
MW-4	12/14/2010	<50	<0.5	<0.5	<0.5	**0.8**
MW-4	3/29/2011	<50	<0.5	<0.5	<0.5	<0.5
MW-4	Q3 2011 [3]	NS	NS	NS	NS	NS
MW-4	3/21/2012	<50	<0.5	<0.5	<0.5	**1**
MW-4	Q3 2012 [3]	NS	NS	NS	NS	NS
MW-4	3/26/2013	<50	<0.5	<0.5	**1**	**5**

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Table 4
Summary of Groundwater Analytical Results, Gasoline Compounds
Closure Request
Chevron Sunol Pipeline

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

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Table 4
Summary of Groundwater Analytical Results, Gasoline Compounds
Closure Request
Chevron Sunol Pipeline

Well ID	Date	TPH-GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
ESL[1] Groundwater is a potential drinking resource		**100**	**1**	**40**	**30**	**20**
MW-7	11/16/2006	<50	**0.7**	**2**	**0.6**	**2**
MW-7	2/20/2007	<50 / <50	**0.7 / 0.6**	**1 / 0.9**	**0.9 / 0.6 J**	**3 / 2 J**
MW-7	6/6/2007	<50	**0.7**	**0.8**	**0.8**	**2**
MW-7	9/12/2007	<50 / <50	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5
MW-7	Q4 2007	NS	NS	NS	NS	NS
MW-7	Q1 2008	NS	NS	NS	NS	NS
MW-7	Q2 2008	Well Abandoned				
MW-8	8/24/2006	**18,000**	**190**	**2,600**	**590**	**2,800**
MW-8	11/16/2006	**990**	**76**	**80**	**69**	**190**
MW-8	2/20/2007	**2,000**	**180**	**57**	**170**	**74**
MW-8	6/6/2007	**3,600**	**340**	**92**	**370**	**210**
MW-8	9/12/2007	**4,200**	**470**	**230**	**630**	**320**
MW-8	12/11/2007	**4,900**	**350**	**300**	**490**	**650**
MW-8	Q1 2008 [4]	NS	NS	NS	NS	NS
MW-8	Q2 2008 [4]	NS	NS	NS	NS	NS
MW-8	9/18/2008 [1]	**11,000 / 9,200**	**740 / 690**	**320 / 290**	**790 / 720**	**2,600 / 2,100**
MW-8	12/15/2008	**12,000**	**810**	**920**	**880**	**3,300**
MW-8	3/27/2009	**29,000/29,000J**	**1,500/1,200**	**7,200/4,500**	**1,200/1,100**	**4,700/4,100**
MW-8	Q2 2009 [3]	NS	NS	NS	NS	NS
MW-8	Q3 2009 [3]	NS	NS	NS	NS	NS
MW-8	12/10/2009	**19,000**	**930**	**1,600**	**1,200**	**3,800**
MW-8	3/10/2010	**10,000 / 10,000**	**570 / 580**	**500 / 500**	**730 / 730**	**1,800 / 1,800**
MW-8	6/24/2010	**14,000**	**630**	**680**	**870**	**2,500**
MW-8	9/29/2010	**74,000 / 170,000 J**	**1,400 / 1,500 J**	**16,000 / 23,000 J**	**3,200 / 4,300 J**	**16,000 / 25,000 J**

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Table 4
Summary of Groundwater Analytical Results, Gasoline Compounds
Closure Request
Chevron Sunol Pipeline

Well ID	Date	TPH-GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
ESL[1] Groundwater is a potential drinking resource		**100**	**1**	**40**	**30**	**20**
MW-8	12/15/2010	**78,000**	**2,000**	**15,000**	**2,800**	**15,000**
MW-8	3/29/2011	**49,000**	**1,600**	**7,500**	**2,000**	**11,000**
MW-8	8/23/2011	**72,000**	**1,200**	**15,000**	**3,200**	**15,000**
MW-8	3/21/2012	**52,000/55,000**	**1,000/1,000**	**2,300 J/2,900 J**	**2,600/2,600**	**8,500/9,700**
MW-8	Q3 2012 [3]	NS	NS	NS	NS	NS
MW-8	3/25/2013	**41,000/42,000**	**760/770**	**3,100/3,100**	**820/820**	**12,000/12,000**
MW-9[7]	Q3 2006 [2]	NS	NS	NS	NS	NS
MW-9[7]	11/15/2006	**74,000**	**480**	**12,000**	**2,200**	**17,000**
MW-9[7]	Q1 2007 [2]	NS	NS	NS	NS	NS
MW-9[7]	Q2 2007 [2]	NS	NS	NS	NS	NS
MW-9[7]	Q3 2007 [2]	NS	NS	NS	NS	NS
MW-9[7]	12/11/2007	**48,000**	**62**	**5,400**	**1,700**	**12,000**
MW-9[7]	Q1 2008 [2]	NS	NS	NS	NS	NS
MW-9[7]	6/6/2008	**31,000**	**5**	**1,000**	**1,300**	**9,000**
MW-9[7]	9/18/2008	**25,000**	**6**	**610**	**800**	**4,800**
MW-9[7]	12/16/2008	**34,000**	**6**	**750**	**930**	**6,000**
MW-9[7]	3/31/2009	**20,000**	**3**	**100**	**460**	**3,200**
MW-9[7]	6/10/2009	**27,000**	<3	**66**	**610**	**4,100**
MW-9[7]	Q3 2009 [2]	NS	NS	NS	NS	NS
MW-9[7]	12/10/2009	**20,000**	**3**	**85**	**460**	**2,800**
MW-9[7]	3/10/2010	**18,000**	<3	**17**	**250**	**1,700**
MW-9[7]	6/24/2010	**16,000**	**0.9**	**7**	**210**	**1,300**
MW-9[7]	9/29/2010	**24,000**	<10	<10	**440**	**2,100**
MW-9[7]	12/14/2010	**9,100**	**6**	**2**	**80**	**340**

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Table 4
Summary of Groundwater Analytical Results, Gasoline Compounds
Closure Request
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Well ID	Date	TPH-GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
ESL[1] Groundwater is a potential drinking resource		**100**	**1**	**40**	**30**	**20**
MW-9[7]	3/29/2011	**7,100**	**0.8**	**0.9**	**44**	**190**
MW-9[7]	8/23/2011	**7900/ 8,300**	<0.5/<1.0	**2/ 2**	**46/ 47**	**200/ 220**
MW-9[7]	3/21/2012	**2,500**	<0.5	<0.5	**3**	**4**
MW-9[7]	9/25/2012	**3,900/ 4,100 J**	<1/ <1	**2/ 2**	**6/ 7**	**18/ 19**
MW-9[7]	3/26/2013	**2,100**	<0.5	**43**	**2**	**71**
MW-10[6]	Q3 2007[3]	NS	NS	NS	NS	NS
MW-10[6]	12/14/2007	<50	<0.5	<0.5	<0.5	<0.5
MW-10[6]	3/20/2008	<50	**0.9**	<0.5	<0.5	<0.5
MW-10[6]	6/6/2008	<50	<0.5	<0.5	<0.5	<0.5
MW-10[6]	9/18/2008	<50	<0.5	<0.5	<0.5	<0.5
MW-10[6]	12/15/2008	<50	<0.5	<0.5	<0.5	<0.5
MW-10[6]	3/27/2009	**52**	<0.5	**0.7**	<0.5	<0.5
MW-10[6]	6/10/2009	<50	<0.5	**1**	<0.5	<0.5
MW-10[6]	9/28/2009	<50/<50	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5
MW-10[6]	12/10/2009	**540**	**0.6**	**2**	**5**	**23**
MW-10[6]	3/9/2010	<50	<0.5	<0.5	<0.5	<0.5
MW-10[6]	6/23/2010	<50	<0.5	<0.5	<0.5	<0.5
MW-10[6]	9/29/2010	<50	<0.5	<0.5	<0.5	<0.5
MW-10[6]	12/15/2010	<50	<0.5	**1**	<0.5	<0.5
MW-10[6]	3/28/2011	<50	<0.5	<0.5	<0.5	<0.5
MW-10[6]	8/23/2011	<50	<0.5	<0.5	<0.5	0.6
MW-10[6]	3/20/2012	<50	<0.5	<0.5	<0.5	<0.5
MW-10[6]	9/24/2012	<50	<0.5	<0.5	<0.5	<0.5
MW-10[6]	3/25/2013	<50	<0.5	<0.5	<0.5	<0.5

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Table 4
Summary of Groundwater Analytical Results, Gasoline Compounds
Closure Request
Chevron Sunol Pipeline

Well ID	Date	TPH-GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
ESL[(1)] Groundwater is a potential drinking resource		**100**	**1**	**40**	**30**	**20**
MW-11	Q3 2007 [(3)]	NS	NS	NS	NS	NS
MW-11	12/14/2007	<50	<0.5	<0.5	<0.5	<0.5
MW-11	3/20/2008 [(1)]	<50 / <50	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5
MW-11	6/6/2008	<50	<0.5	<0.5	<0.5	<0.5
MW-11	9/24/2008	<50	<0.5	<0.5	<0.5	<0.5
MW-11	12/15/2008	<50	<0.5	<0.5	<0.5	<0.5
MW-11	3/27/2009	<50	<0.5	<0.5	<0.5	<0.5
MW-11	6/10/2009	**59**	<0.5	**2**	<0.5	**3**
MW-11	9/29/2009	<50	<0.5	<0.5	<0.5	<0.5
MW-11	12/10/2009	**66**	<0.5	<0.5	<0.5	**3**
MW-11	3/9/2010	<50	<0.5	<0.5	<0.5	<0.5
MW-11	6/23/2010	<50	<0.5	<0.5	<0.5	<0.5
MW-11	9/29/2010	<50	<0.5	<0.5	<0.5	<0.5
MW-11	12/15/2010	<50	<0.5	<0.5	<0.5	<0.5
MW-11	3/28/2011	<50	<0.5	<0.5	<0.5	<0.5
MW-11	8/23/2011	<50	<0.5	<0.5	<0.5	<0.5
MW-11	3/20/2012	<50	<0.5	<0.5	<0.5	<0.5
MW-11	9/24/2012	<50	<0.5	<0.5	<0.5	<0.5
MW-11	3/25/2013	<50	<0.5	<0.5	<0.5	<0.5
MW-12	3/26/2013	**520**	**2**	**1**	<0.5	<0.5
MW-13	3/26/2013	NS[(8)]	NS[(8)]	NS[(8)]	NS[(8)]	NS[(8)]
MW-14	3/26/2013	NS[(8)]	NS[(8)]	NS[(8)]	NS[(8)]	NS[(8)]

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Table 4
Summary of Groundwater Analytical Results, Gasoline Compounds
Closure Request
Chevron Sunol Pipeline

Well ID	Date	TPH-GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
ESL[(1)] Groundwater is a potential drinking resource		**100**	**1**	**40**	**30**	**20**
MW-15	3/26/2013	<50	<0.5	<0.5	<0.5	<0.5
SW-Creek	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5
SW-Creek	8/22/2006	<50	<0.5	<0.5	<0.5	<0.5
SW-Creek	11/15/2006	<50	<0.5	<0.5	<0.5	<0.5
SW-Creek	11/15/2006	<50	<0.5	<0.5	<0.5	<0.5
Stream	2/21/2007	<50	<0.5	<0.5	<0.5	<0.5
Stream	6/5/2007	<50	<0.5	<0.5	<0.5	<0.5
Stream	9/12/2007	<50	<0.5	<0.5	<0.5	<0.5
Stream	1/25/2008	<50	<0.5	<0.5	<0.5	<0.5
Stream	3/20/2008	<50	<0.5	<0.5	<0.5	<0.5
Stream	6/5/2008	<50	<0.5	<0.5	<0.5	<0.5
Stream	9/18/2008	<50	<0.5	<0.5	<0.5	<0.5
Stream	12/15/2008	<50	<0.5	<0.5	<0.5	<0.5
Stream	3/31/2009	<50	<0.5	<0.5	<0.5	<0.5
Stream	6/9/2009	<50	<0.5	<0.5	<0.5	<0.5
Stream	Q3 2009 [(5)]	NS	NS	NS	NS	NS
Stream	Q4 2009 [(5)]	NS	NS	NS	NS	NS
Stream	3/9/2010	<50	<0.5	<0.5	<0.5	<0.5
Stream	6/24/2010	<50	<0.5	<0.5	<0.5	<0.5
Stream	9/28/2010	<50	<0.5	<0.5	<0.5	<0.5
Stream	12/15/2010	<50	<0.5	<0.5	<0.5	<0.5
Stream	3/29/2011	<50	<0.5	<0.5	<0.5	<0.5
Stream	8/23/2011	<50	<0.5	<0.5	<0.5	<0.5

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Table 4
Summary of Groundwater Analytical Results, Gasoline Compounds
Closure Request
Chevron Sunol Pipeline

Well ID	Date	TPH-GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
ESL[(1)] Groundwater is a potential drinking resource		**100**	**1**	**40**	**30**	**20**
Stream	3/20/2012	<50	<0.5	<0.5	<0.5	<0.5
Stream	9/24/2012	<50	<0.5	<0.5	<0.5	<0.5
Stream	3/26/2013	<50	<0.5	<0.5	<0.5	<0.5

Notes:

TPH-GRO - Total Petroleum Hydrocarbons as Gasoline Range Organics

µg/L - micrograms per liter

ESL - Environmental Screening Level

#.##/#.## - Sample result and duplicate result

J - The reported value is the approximate concentration of the analyte in the sample due to sample heterogeneity.

Bold values exceed laboratory reporting limits.

Shaded values exceed the ESL

NS - Not Sampled

(1) Final Groundwater ESL, Groundwater is a Current or Potential Drinking Water Resource (Regional Water Quality Control Board, Final Interim May 2013)

(2) Sample not collected during quarterly monitoring due to the presence of measurable free product.

(3) Sample not collected during quarterly monitoring because well is not hydraulically connected to unconfined water-bearing zone.

(4) Sample not collected due to extreme overhead hazards posed by dead trees on the 80-90% grade directly uphill from the sampling location.

(5) Sample not collected during quarterly monitoring due to the stream sample location being dry.

(6) Duplicate sampled collected from MW-10 during the third quarter 2009 sampling event because MW-8 was not hydraulically connected to the water bearing zone.

(7) Duplicate sample collected from MW-9 during the third quarter 2011 and 2012 sampling event.

(8) Sample not collected due to insufficient water measured in the monitoring well.

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Table 5
Summary of Groundwater Analytical Results, Geochemical Indicators, and Other Parameters
Closre Request
Chevron Sunol Pipeline

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 CaCO3	Alkalinity to pH 8.3 (mg/L) as CaCO3
MW-1	6/8/2006	0.28	88.15	2.6	0.116	<0.008	<0.052	48.3	<0.002	6.62	494	317	<0.46
MW-1	Q3 2006	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]
MW-1	11/15/2006	4.87[6]	25	0.37 J	1	0.22	0.079	108	<0.002	6.67	882	597	<0.46
MW-1	3/31/2009	2.45	-147	10.3J	0.534	0.12	<0.052	62.4	0.051	6.61	650	343	<0.46
MW-1	6/10/2009	0.00	-115	0.42	0.576	0.2	<0.052	72.6	<0.005	7.07	614	422	<0.46
MW-1	Q4 2009	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-1	3/10/2010	0.00	-118	NM[7]	0.431	<0.01	<0.0522	56.9	0.067	6.79	551	347	<0.46
MW-1	Q2 2010	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-1	Q3 2010	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-1	12/14/2010	1.97	-193	<0.25	1.07	1.5 J	0.538	26.4	0.017	6.55	647	495	<0.46
MW-1	3/29/2011	2.84	-5	9J	0.21	<0.01J-	<0.052	49.4	0.012	7.01	532	327	<0.46
MW-1	8/22/2011	2.34	-276	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	6.88	NM[9]	NM[9]	NM[9]
MW-1	3/21/2012	0.31	-54	1	0	0.58 J-	0	106	<0.005	6.93	868	574	<0.46
MW-1	9/25/2012	2.93	-108	<0.25	0.872	3.7 J-	<0.0333	45.9	0.0096	6.80	740	530	<0.7
MW-1	3/26/2013	1.85	-156	15.7	0.198	0.43	<0.0333	71.8	0.15	8.29	596	366	<0.7
MW-2	6/7/2006	NR[3]	36.43	11.9	0.003	<0.008	<0.052	47.5	<0.002	6.56	465	286	<0.46
MW-2	8/23/2006	0.32	25.69	7	0.024	0.015	<0.052	121	0.005	6.63	811	470	<0.46
MW-2	11/14/2006	0.2	220.84	4	0.021	0.021	<0.052 UJ	126 J	0.004	6.72	867	530	<0.46
MW-2	3/27/2009	5.47	-86	18.2	0.017	0.036J	<0.052	65	<0.01	6.62	642	347	<0.46
MW-2	Q2 2009	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-2	Q4 2009	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-2	3/10/2010	2.81	38	13 J	0.0182	0.35	<0.0522	54.9	<0.005	6.89	532	322	<0.46
MW-2	6/23/2010	2.18	173	13.2	0.103	4	<0.0522	50.9	<0.005	11.51	524	319	<0.46
MW-2	Q3 2010	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-2	Q4 2010	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-2	3/28/2011	6.11	168	16.600	0.001	0.021J-	<0.052	53.8	<0.01	7.04	529	304	<0.46
MW-2	Q3 2011	NM[7]	NM[7]	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	NM[7]	NM[9]	NM[9]	NM[9]
MW-2	3/21/2012	1.22	134	4	0	<0.010 R	0	159	<0.005	7.01	874	568	<0.46
MW-2	Q3 2012	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-2	3/26/2013	2.28	-144	13.2	0.13	1	0.568	74	0.77	7.98	597	383	<0.7
MW-3	6/7/2006	0.37	31.23	10.9	0.005	<0.008	<0.052	45.1	<0.002	6.56	446	274	<0.46
MW-3	8/23/2006	0.3	-1.8	<0.25	0.368	0.24	<0.052	26.3	1.5	6.6	711	421	<0.46
MW-3	11/14/2006	0.12	-17.57	NM[5]	NM[5]	NM[5]	NM[5]	NM[5]	0.42	6.95	NM[5]	NM[5]	NM[5]
MW-3	3/31/2009	0.00	48	22.2J	0.0017	0.08	<0.052	57.7	<0.01	6.75	688	320	<0.46
MW-3	Q2 2009	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-3	Q4 2009	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-3	3/9/2010	1.75	182	12.6 J	0.0093	0.064	<0.0522	54.4	<0.005	6.78	496	293	<0.46

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Table 5
Summary of Groundwater Analytical Results, Geochemical Indicators, and Other Parameters
Closre Request
Chevron Sunol Pipeline

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 CaCO3	Alkalinity to pH 8.3 (mg/L) as CaCO3
MW-3	Q2 2010	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-3	Q3 2010	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-3	Q4 2010	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-3	3/28/2011	5.32	185	12.8	<0.0084	0.026J-	<0.052	46.3	<0.01	7.06	454	269	<0.46
MW-3	8/22/2011	2.15	-183	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	7.02	NM[9]	NM[9]	NM[9]
MW-3	3/20/2012	4.40	37	15	0	0.054 J-	0.0219 J+	65	0	6.66	686	396	<0.46
MW-3	Q3 2012	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-3	3/26/2013	3.97	116	21.5	0.0095	0.73	<0.0333	66.4	<0.003	8.07	546	313	<0.7
MW-4	6/7/2006	0.28	29.57	9.2	0.02	0.059	<0.052	60.2	<0.002	6.65	423	282	<0.46
MW-4	8/23/2006	NR[3]	-22.49	<0.25	0.226	0.7	<0.052	78.4	0.003	6.62	590	396	<0.46
MW-4	11/15/2006	3.46[6]	106	0.34 J	0.137	0.47	<0.052	90.3	0.003	6.74	672	490	<0.46
MW-4	3/31/2009	3.96	5	19.5J	0.0406	0.14	<0.052	83.7	<0.01	6.64	631	323	<0.46
MW-4	Q2 2009	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-4	Q4 2009	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-4	3/9/2010	0.05	123	10.5 J	0.0343	0.13	<0.0522	89.8	<0.005	6.74	560	312	<0.46
MW-4	6/23/2010	0.03	164	9.4	0.0295	0.034	<0.0522	62.5	<0.005	11.03	491	297	<0.46
MW-4	Q3 2010	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-4	12/14/2010	1.24	162	6.6	0.084	0.021 J	<0.052	213	<0.010	6.51	771	354	<0.46
MW-4	3/29/2011	3.81	220	12J	0.018	0.032J-	<0.052	59.5	<0.010	6.98	488	290	<0.46
MW-4	Q3 2011	NM[7]	NM[7]	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	NM[7]	NM[9]	NM[9]	NM[9]
MW-4	3/21/2012	2.69	107	13	0	0.021 J-	0	119	0	6.85	672	384	<0.46
MW-4	Q3 2012	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-4	3/26/2013	2.51	153	17.8	0.221	0.13	<0.0333	89.7	0.00	6.85	560	306	<0.7
MW-5	6/8/2006	0.19	12.05	<0.25	0.029	0.120	<0.052	71.30	0.004	7.24	502.00	313.00	2.60
MW-5	8/24/2006	NR[3]	-151.92	<0.25	0.021	0.280	<0.052	72.20	0.0054 J	7.32	506.00	320.00	<0.46
MW-5	11/16/2006	0.08	-48.11	<0.25	0.020 J	0.280	<0.052	73.80 J	0.005	7.45	513.00	320.00	<0.46
MW-6	6/7/2006	NM[2]	NM[2]	<0.25	0.599	12.600	<0.052	41.60	<0.002	NM[2]	531.00	364.00	3.70
MW-6	8/22/2006	NM[2]	NM[2]	<0.25	0.600	5.500	<0.052	36.90	5.800	NM[2]	553.00	375.00	<0.46
MW-6	11/16/2006	0.04	-71.00	<0.25	0.203 J	0.700	<0.052	38.30 J	5.700	7.92	541.00	366.00	<0.46
MW-7	6/8/2006	NM[2]	NM[2]	<0.25	0.706	13.400	<0.052	70.40	0.022	NM[2]	542.00	310.00	5.90
MW-7	8/22/2006	NM[2]	NM[2]	<0.25	0.160	0.910	<0.052	75.70	0.094	NM[2]	534.00	335.00	<0.46
MW-7	11/16/2006	0.06	-24.00	<0.25	0.376	5.800	<0.052	77.60 J	0.061	7.42	533.00	358.00	<0.46
MW-8	8/24/2006	NM[2]	NM[2]	<0.25	0.171	0.14	<0.052	90.2	<0.002 UJ	NM[2]	563	362	<0.46
MW-8	11/16/2006	0.05	-74	<0.25	0.123	0.8	<0.052	78.6 J	0.002	7.22	564	350	<0.46

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Table 5
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Closre Request
Chevron Sunol Pipeline

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 CaCO3	Alkalinity to pH 8.3 (mg/L) as CaCO3
MW-8	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
MW-8	Q2 2009	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]	NM[7]
MW-8	12/10/2009	0.04	-165	<0.25 UJ	0.549 J	<2.5	0.06	2 J	<0.2	6.94	576	445	<0.46
MW-8	3/10/2010	0.00	-85	<0.25	0.334	3	<0.0522	1.7	0.33	6.89	587	453	<0.46
MW-8	6/24/2010	5.83[6]	-84	<0.25	1.08	7.8	0.0949 J+	6.1	0.65	6.72	679	502	<0.46
MW-8	Q3 2010	NM[8]	NM[8]	NM[8]	NM[8]	NM[8]	NM[8]	NM[8]	NM[8]	NM[8]	NM[8]	NM[8]	NM[8]
MW-8	12/15/2010	NM[8]	NM[8]	<0.25	1.57	1.2 J	0.0693	23	0.59	NM[8]	803.00	536	<0.46
MW-8	3/29/2011	NM[8]	NM[8]	<0.25UJ	2.29	1.2J-	0.413	84.1	0.39J	NM[8]	1210.00	680	<0.46
MW-8	8/23/2011	1.18	-261	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	6.94	NM[9]	NM[9]	NM[9]
MW-8	3/21/2012	8.75[6]	-103	0.29/ <0.25	0.383 J/ 0.590 J	2.6 J-/ 3.0 J-	0.017 J/ 0.385 J	<1.5 J/ 3.9 J	67/ 58	7.43	599/ 674	473/ 507	<0.46/ <0.46
MW-8	Q3 2012	NM[5]	NM[5]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[5]	NM[4]	NM[4]	NM[4]
MW-8	3/25/2013	1.79	-95	<0.25/<0.25	0.869 J/0.593 J	2.3/2.4	0.161 J/0.515 J	<0.25/<0.25	8.1/7.7	8.15	607/610	518/518	<0.7/<0.7
MW-9	Q3 2006	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]
MW-9	11/15/2006	3.01[6]	4	<0.25 UJ	4.41	1.2	0.496	29.5	0.009	6.92	836	657	<0.46
MW-9	3/31/2009	3.35	-179	0.39J	3.2	0.099	<0.052	60.5	0.012	6.59	632	419	<0.46
MW-9	6/10/2009	0.00	-141	<0.25	3.01	1.7	<0.052	46.4	<0.005	6.98	622	468	<0.46
MW-9	12/10/2009	1.43	-188	<0.25 UJ	4.39 J	3.3	2.54	4.5 J	<0.2	6.6	734	620	<0.46
MW-9	3/10/2010	0.00	-197	<0.25	2.94	1.7	<0.0522	40.9	0.046	6.84	596	448	<0.46
MW-9	6/24/2010	0.00	-108	<0.25	2.46	1.5	0.131 J+	33.5	0.012	6.61	489	380	<0.46
MW-9	9/29/2010	0.70	-231	<0.25	3.83	2.2 J	0.082	4.5	0.018	6.68	627	549	<0.46
MW-9	12/14/2010	3.37	-181	0.89	2.98	2.8 J	1.48	25	0.025	6.46	666	523	<0.46
MW-9	3/29/2011	2.78	-140	6.40J	1.58	0.043	<0.052	63	0.018	7.09	608	396	<0.46
MW-9	8/22/2011	2.32	-451	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	7.08	NM[9]	NM[9]	NM[9]
MW-9	3/21/2012	0.48	-147	2	0.154	0.18 J-	0.146	103	<0.005	6.91	784	552	<0.046
MW-9	9/25/2012	2.67	-156	<0.25	0.401	0.58 J-	<0.0333	32.3	0.028	6.79	742	529	<0.7
MW-9	3/26/2013	1.86	-132	11.4	0.506	0.27	0.248	58	0.057	8.19	569	379	<0.7
MW-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
MW-10	6/10/2009	0.37	109	<0.25	0.767	0.8	<0.052	133	2.30	7.20	1,100	623	<0.46
MW-10	12/10/2009	0.06	-74	0.33 J	0.964 J	10.90	<0.052	640 J	<0.2	6.85	1,580	512	<0.46
MW-10	3/9/2010	1.52	105	13.9 J	0.0357	0.054	<0.052	63.6	0.19	6.89	596	349	<0.46
MW-10	6/23/2010	0.00	79	0.68	0.2650	0.200	<0.0522	136.0	0.94	6.76	1000	604	<0.46
MW-10	9/29/2010	0.87	22	<0.25	0.384	5.0 J	<0.0522	148	0.550	6.89	998	610	<0.46
MW-10	12/15/2010	2.28	61	0.41	0.581	0.29 J	<0.0522	155	0.74	6.78	1,070	606	<0.46
MW-10	3/28/2011	5.56	48	18.00	0.101	0.39J-	<0.052	57	0.03	7.00	652	392	<0.46
MW-10	8/22/2011	0.00	9	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	7.09	NM[9]	NM[9]	NM[9]
MW-10	3/20/2012	0.56	-34	3	0	0.280 J-	0.0743 J+	256	0.54	7.03	960	592	<0.46
MW-10	9/24/2012	2.44	-28	1.5	0.210	0.29 J-	<0.0333	112	1.30	6.91	970	567	<0.7

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Table 5
Summary of Groundwater Analytical Results, Geochemical Indicators, and Other Parameters
Closre Request
Chevron Sunol Pipeline

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 CaCO3	Alkalinity to pH 8.3 (mg/L) as CaCO3
MW-10	3/25/2013	1.36	-4	2.5	0.282	2.800	<0.0333	115	0.81	7.59	930	573	<0.7
MW-11	3/27/2009	5.86	53	15.3	0.114	0.058J	<0.052	134	0.06	6.61	742	365	<0.46
MW-11	6/10/2009	0.37	44	NM	0.415	NM	NM	NM	0.12	7.16	NM	NM	NM
MW-11	12/10/2009	1.01	-50	0.48 J	0.804 J	3.6	<0.052	151 J	<0.2	6.84	1720	556	<0.46
MW-11	3/9/2010	3.68	133	11.9 J	0.0176	0.087	<0.0522	91.7	0.039	6.73	615	314	<0.46
MW-11	6/23/2010	0.45	-2	0.4	0.2420	0.150	<0.0522	437	0.29	6.70	1,300	479	<0.46
MW-11	9/28/2010	1.16	7	<0.25	0.320	0.3 J	<0.0522	457	0.350	6.99	1,310	458	<0.46
MW-11	12/15/2010	NM[8]	NM[8]	<0.25	0.245	0.84 J	<0.0522	451	0.23	NM[8]	1,320	494	<0.46
MW-11	2/28/2011	5.25	91.00	17.50	0.022	0.03J-	<0.052	76	0.06	6.98	602	319	<0.46
MW-11	8/22/2011	2.89	-38.00	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	NM[9]	6.53	NM[9]	NM[9]	NM[9]
MW-11	3/20/2012	0.38	-16.00	0	0	0.20 J-	0.025 J+	134	0	7.02	954	455	<0.46
MW-11	9/24/2012	2.28	-3.00	<0.25	0.195	0.028 J-	<0.0333	216	0.380	6.87	876	469	<0.7
MW-11	3/25/2013	2.08	-56	3.7	0.166	0.18	<0.0333	286	0.130	7.97	922	419	<0.7
MW-12	3/26/2013	NM[10]	NM[10]	<0.25	0.842	0.580	0.042	44.3	0.13	NM[10]	571	441	<0.7
MW-13	3/26/2013	NM[10]	NM[10]	NM[11]	NM[11]	NM[11]	NM[11]	NM[11]	NM[11]	NM[10]	NM[11]	NM[11]	NM[11]
MW-14	3/26/2013	NM[10]	NM[10]	NM[11]	NM[11]	NM[11]	NM[11]	NM[11]	NM[11]	NM[10]	NM[11]	NM[11]	NM[11]
MW-15	3/26/2013	NM[10]	NM[10]	NM[11]	NM[11]	NM[11]	NM[11]	NM[11]	NM[11]	NM[10]	NM[11]	NM[11]	NM[11]

Notes:

DO = Dissolved oxygen
ORP = Oxygen reduction potential
TDS = Total dissolved solids
$CaCO_3$ = Calcium Carbonate
mg/L = milligram/L
mV = millivolt
NM = Not measured
NR = Not Reported
J = Estimated result
UJ = Estimated result
J- = Biased low value
R = Rejected

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.
(8) Parameters not collected because well dewatered before 1 well volume was collected.
(9) Geochemical parameters were not collected because the sampling crew could not collect enough sample from at least 4 of the monitoring wells for analysis.
(10) Field data was not collected for DO, ORP, and pH because groundwater was purged using a disposable bailer.
(11) Monitoring wells MW-13 through MW-15 had insufficient water to collect geochemical samples.

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Table 6
Cumulative Soil Vapor Data
Operation Parameters, Sampling Results, and Mass Removal Calculations
Closure Request
Chevron Sunol Pipeline

Well ID	Sample Date	Flowrate (fpm)	Temp (°F)	Vacuum (inches water)	Flowrate (scfm)	Total Operation Time (days)	TPH-GRO Concentration (ppm)	Field TPH-GRO Concentration (mg/m3)	Lab TPH-GRO Concentration (ppm)	Lab TPH-GRO Concentration (mg/m3)	Mass Removal Rate (lbs/day)	Cumulative Mass Removal (lbs)
SVE-1D	11/8/2005	678	65	3.33	14.75	0.1	19,000	--	--	--	116.64	9.72
SVE-1D	11/10/2005	621	62	3.15	13.6	1.9	7,300	--	--	--	74.4	145.77
SVE-1D	11/12/2005	526	58	3.04	11.61	3.7	3,100	--	--	--	25.2	191.81
SVE-1D	11/15/2005	1001	73	3.64	21.44	6.8	3,100	--	--	--	27.6	277.05
SVE-1D	11/23/2005	830	57	4.65	18.28	14.5	2,200	--	--	--	20.16	431.6
SVE-1D	11/29/2005	1750	65	9.86	37.47	20.4	2,800	--	--	--	38.88	660.8
SVE-1D	12/6/2005	510	48	3.6	11.46	24.4	3,000	--	--	--	13.92	716.7
SVE-1D	12/13/2005	1120	60	6.6	24.41	26.8	2,900	--	--	--	30	789.3
SVE-1D	12/22/2005	1305	65	7.53	28.1	33.0	4,100	--	--	--	40.8	1041.1
SVE-1D	1/4/2006	1184	62	7.54	25.64	45.6	2,900	--	--	--	37.44	1513.1
SVE-1D	1/11/2006	1035	60	7.01	22.53	52.5	2,700	--	--	--	26.16	1692.4
SVE-1D	1/17/2006	935	57	7.66	20.44	58.3	2,700	--	--	--	23.04	1826.2
SVE-1D	1/24/2006	1045	58	6.35	22.88	65.1	2,200	--	--	--	23.28	1985.5
SVE-1D	2/1/2006	1386	66	6.2	29.89	73.1	2,700	--	--	--	30.48	2227.8
SVE-1D	2/13/2006	1060	60	6.31	23.12	84.7	1,900	--	--	--	22.08	2483.9
SVE-1D	11/28/2006	465	54	3.4	10.33	0.1	1,120	4,435	2,000	7,000	4.12	0.41
SVE-1D	11/30/2006	808	61	6.85	17.56	1.9	803	3,180	--	--	6.01	11.59
SVE-1D	12/4/2006	864	58	8.08	18.83	5.8	422	1,671	400	1,400	4.11	34.93
SVE-1D	12/8/2006	854	62	7.4	18.5	9.8	1,793	7,100	--	--	7.3	64.05
SVE-1D	12/15/2006	1180	64	11.05	25.24	16.8	163	645	--	--	8.79	125.81
SVE-1D	12/19/2006	82	42	0.47	1.88	20.8	155	614	100	350	0.11	126.24
SVE-1D	12/19/2006	1022	62	11.02	21.94	21	325	1,287	--	--	1.87	126.59
SVE-1D	12/28/2006	974	59	10.46	21.06	29.8	150	594	--	--	1.78	142.29
SVE-1D	1/4/2007	1035	60	10.56	22.33	36.9	61	242	42	150	0.84	148.2
SVE-1D	1/12/2007	693	57	10	15.06	44.8	100	396	--	--	0.43	151.64
SVE-1D	1/19/2007	536	48	12	11.8	51.7	145	574	--	--	0.51	155.19
SVE-1D	1/26/2007	0	--	--	0	56.8	--	0	--	--	0	155.19
SVE-1D	2/2/2007	0	--	--	0	63.7	--	0	--	--	0	155.19
SVE-1D	2/9/2007	0	--	--	0	70.7	--	0	--	--	0	155.19
SVE-1D	2/16/2007	0	--	--	0	77.7	--	0	--	--	0	155.19
SVE-1D	2/23/2007	0	--	--	0	84.7	--	0	--	--	0	155.19
SVE-1D	3/1/2007	0	--	--	0	90.7	--	0	--	--	0	155.19
SVE-1D	3/8/2007	0	--	--	0	97.8	--	0	--	--	0	155.19
SVE-1D	3/15/2007	0	--	--	0	104.7	--	0	--	--	0	155.19
SVE-1D	3/22/2007	0	--	--	0	111.8	--	0	--	--	0	155.19
SVE-1D	3/22/2007	1398	80	6.8	29.32	111.9	17	67	--	--	0.089	155.193
SVE-1D	3/30/2007	512	52	8.3	11.28	119.7	42	166	--	--	0.119	156.121
SVE-1D	4/5/2007	775	64	7.8	16.71	125.7	62	246	--	--	0.309	157.984
SVE-1D	4/20/2007	637	59	6.9	13.9	136.8	475	1,881	19	67	1.329	172.72
SVE-1D	4/27/2007	0	--	--	0	143.8	--	0	--	--	0	172.72
SVE-1D	5/3/2007	0	--	--	0	149.8	--	0	--	--	0	172.72
SVE-1D	5/11/2007	0	--	--	0	157.8	--	0	--	--	0	172.72
SVE-1D	5/18/2007	0	--	--	0	164.8	--	0	--	--	0	172.72
SVE-1D	5/25/2007	0	--	--	0	166.8	--	0	--	--	0	172.72
SVE-1D	6/1/2007	0	--	--	0	172.9	--	0	--	--	0	172.72
SVE-1D	6/8/2007	0	--	--	0	179.8	--	0	--	--	0	172.72

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Table 6
Cumulative Soil Vapor Data
Operation Parameters, Sampling Results, and Mass Removal Calculations
Closure Request
Chevron Sunol Pipeline

Well ID	Sample Date	Flowrate (fpm)	Temp (°F)	Vacuum (inches water)	Flowrate (scfm)	Total Operation Time (days)	TPH-GRO Concentration (ppm)	Field TPH-GRO Concentration (mg/m3)	Lab TPH-GRO Concentration (ppm)	Lab TPH-GRO Concentration (mg/m3)	Mass Removal Rate (lbs/day)	Cumulative Mass Removal (lbs)
SVE-1D	6/14/2007	0	--	--	0	185.9	--	0	--	--	0	172.72
SVE-1D	6/21/2007	0	--	--	0	186.2	--	0	--	--	0	172.72
SVE-1D	6/29/2007	0	--	--	0	194.2	--	0	--	--	0	172.72
SVE-1D	7/5/2007	0	--	--	0	197	--	0	--	--	0	172.72
SVE-1D	7/13/2007	835	67	3.1	18.11	205	37.9	150	--	--	0.122	173.7
SVE-1D	7/18/2007	1276	68	4.4	27.54	210.1	156	618	120	420	0.951	178.489
SVE-1D	7/26/2007	1220	68	4.5	26.32	215.4	299	1,184	--	--	2.132	189.895
SVE-1D	8/2/2007	1250	68	4.3	26.98	222.5	201	796	--	--	2.402	206.777
SVE-1D	8/10/2007	1340	69	4.8	28.84	223.8	355	1,406	--	--	2.854	210.594
SVE-1D	8/17/2007	972	62	4.8	21.2	227.8	234	927	220	780	2.222	219.493
SVE-1D	12/12/2008	1,060	60	154	14.6	0	154	610	180	630	0.4	0
SVE-1D	12/22/2008	1,060	59	3.1	23.35	0.1	415	1,643	--	--	2.365	0.197
SVE-1D	12/30/2008	1,157	62	3.7	25.3	8.1	434	1,719	--	--	3.824	30.755
SVE-1D	1/15/2009	905	58	2.5	20	24.1	5	20	--	--	1.563	55.764
SVE-1D	1/22/2009	1,011	59	3.4	22.25	31.1	171	677	140	490	0.697	60.653
SVE-1D	1/29/2009	915	59	3.5	20.13	38.1	111	440	--	--	1.011	67.724
SVE-1D	2/3/2009	1,036	60	3.6	22.75	43.1	4.6	18	--	--	0.468	70.074
SVE-1D	2/10/2009	880	55	6	19.39	50.1	19.4	77	--	--	0.083	70.652
SVE-1D	Mako System Installed											
SVE-1D	4/30/2009	2,170	66.8	11.5	46.11	0	64	253	57	200	0.525	0
SVE-1D	5/7/2009	955	67	3.4	20.7	7	64	253	--	--	0.472	3.286
SVE-1D	5/21/2009	1,000	75	3.2	21.36	18.2	21	83	--	--	0.323	6.909
SVE-1D	6/11/2009	1,652	66.6	6	35.6	26.6	6	24	--	--	0.171	8.346
SVE-1D	6/18/2009	775	69.1	3	16.75	32.5	3	12	--	--	0.027	8.505
SVE-1D	7/2/2009	450	65.5	2	9.82	39.8	7	28	--	--	0.017	8.632
SVE-1D	7/9/2009	0	0	0	0	46.7	0	0	--	--	0	8.632
SVE-1D	7/16/2009	1,580	74.6	4	33.71	53.7	4	16	--	--	0.024	8.8
SVE-1D	7/23/2009	742	67.6	2.5	16.1	60.7	8	32	--	--	0.034	9.041
SVE-2S	11/8/2005	467	67	16.33	9.8	0.08	3,300	--	--	--	13.128	1.09
SVE-2S	11/10/2005	532	63	11	11.4	1.91	32	--	--	--	7.704	15.2
SVE-2S	11/12/2005	366	58	10.22	7.93	3.75	31	--	--	--	0.096	15.39
SVE-2S	11/15/2005	785	74	12	16.43	6.83	26	--	--	--	0.192	15.98
SVE-2S	11/23/2005	576	50	12.5	12.61	14.50	130	--	--	--	0.408	19.04
SVE-2S	11/29/2005	1702	61	27.2	35.12	20.38	17	--	--	--	1.056	25.2
SVE-2S	12/6/2005	521	45	9.85	11.6	24.42	390	--	--	--	0.96	29.08
SVE-2S	12/13/2005	864	57	16.8	18.46	26.85	19	--	--	--	1.536	32.79
SVE-2S	12/22/2005	1029	65	17.66	21.6	33.00	83	--	--	--	0.456	35.55
SVE-2S	1/4/2006	905	61	19.45	19.05	45.64	100	--	--	--	0.696	44.5
SVE-2S	1/11/2006	793	59	18.77	16.79	52.48	120	--	--	--	0.744	49.62
SVE-2S	1/17/2006	633	51	13.6	13.79	58.30	180	--	--	--	0.84	54.52
SVE-2S	1/24/2006	621	55	20.4	13.19	65.14	130	--	--	--	0.84	60.19
SVE-2S	2/1/2006	1034	65	20.4	21.55	73.09	120	--	--	--	1.104	68.9
SVE-2S	2/13/2006	720	58	20.4	15.21	84.67	82	--	--	--	0.624	76.12
SVE-2S	11/28/2006	475	53	3.2	10.58	0.1	239	946	27	95	0.9	0.09
SVE-2S	11/30/2006	1056	60	6.74	23.01	1.9	417	1,651	--	--	2.69	5.08

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Table 6
Cumulative Soil Vapor Data
Operation Parameters, Sampling Results, and Mass Removal Calculations
Closure Request
Chevron Sunol Pipeline

Well ID	Sample Date	Flowrate (fpm)	Temp (°F)	Vacuum (inches water)	Flowrate (scfm)	Total Operation Time (days)	TPH-GRO Concentration (ppm)	Field TPH-GRO Concentration (mg/m3)	Lab TPH-GRO Concentration (ppm)	Lab TPH-GRO Concentration (mg/m3)	Mass Removal Rate (lbs/day)	Cumulative Mass Removal (lbs)
SVE-2S	12/4/2006	1377	56	7.82	30.15	5.8	104	412	17	60	2.8	20.97
SVE-2S	12/8/2006	1453	57	7.1	31.81	9.8	953	3,774	--	--	5.99	44.87
SVE-2S	12/15/2006	317	62	11.5	6.8	16.8	177	701	--	--	1.37	54.48
SVE-2S	12/19/2006	0	62	0.6	0	20.8	63	249	14	49	0	54.48
SVE-2S	12/19/2006	455	62	11.49	9.76	21	705	2,792	--	--	1.33	54.73
SVE-2S	12/28/2006	555	55	10.83	12.08	29.8	200	792	--	--	1.95	71.88
SVE-2S	1/4/2007	579	58	11.03	12.53	36.9	61	242	13	46	0.58	75.98
SVE-2S	1/12/2007	226	56	10	4.92	44.8	208	824	--	--	0.24	77.86
SVE-2S	1/19/2007	473	45	13	10.44	51.7	183	725	--	--	0.73	82.88
SVE-2S	1/26/2007	0	--	--	0	56.8	--	0	--	--	0	82.88
SVE-2S	2/2/2007	0	--	--	0	63.7	--	0	--	--	0	82.88
SVE-2S	2/9/2007	0	--	--	0	70.7	--	0	--	--	0	82.88
SVE-2S	2/16/2007	0	--	--	0	77.7	--	0	--	--	0	82.88
SVE-2S	2/23/2007	0	--	--	0	84.7	--	0	--	--	0	82.88
SVE-2S	3/1/2007	0	--	--	0	90.7	--	0	--	--	0	82.88
SVE-2S	3/8/2007	0	--	--	0	97.8	--	0	--	--	0	82.88
SVE-2S	3/15/2007	0	--	--	0	104.7	--	0	--	--	0	82.88
SVE-2S	3/22/2007	0	--	--	0	111.8	--	0	--	--	0	82.88
SVE-2S	3/22/2007	299	81	6.9	6.26	111.9	2.3	9	--	--	0.003	82.882
SVE-2S	3/30/2007	314	50	8.5	6.94	119.7	57	226	--	--	0.073	83.457
SVE-2S	4/5/2007	312	62	8	6.75	125.7	50	198	--	--	0.129	84.231
SVE-2S	4/20/2007	364	57	7	7.97	136.8	210	832	1	5	0.369	88.323
SVE-2S	4/27/2007	0	--	--	0	143.8	--	0	--	--	0	88.323
SVE-2S	5/3/2007	0	--	--	0	149.8	--	0	--	--	0	88.323
SVE-2S	5/11/2007	0	--	--	0	157.8	--	0	--	--	0	88.323
SVE-2S	5/18/2007	0	--	--	0	164.8	--	0	--	--	0	88.323
SVE-2S	5/25/2007	0	--	--	0	166.8	--	0	--	--	0	88.323
SVE-2S	6/1/2007	0	--	--	0	172.9	--	0	--	--	0	88.323
SVE-2S	6/8/2007	0	--	--	0	179.8	--	0	--	--	0	88.323
SVE-2S	6/14/2007	0	--	--	0	185.9	--	0	--	--	0	88.323
SVE-2S	6/21/2007	0	--	--	0	186.2	--	0	--	--	0	88.323
SVE-2S	6/29/2007	0	--	--	0	194.2	--	0	--	--	0	88.323
SVE-2S	7/5/2007	0	--	--	0	197	--	0	--	--	0	88.323
SVE-2S	7/13/2007	575	67.9	3.2	12.45	205	0.5	2	--	--	0.001	88.331
SVE-2S	7/18/2007	0	--	--	--	210.1	--	--	--	--	--	88.331
SVE-2S	7/26/2007	0	--	--	--	215.4	--	--	--	--	--	88.331
SVE-2S	8/2/2007	0	--	--	--	222.5	--	--	--	--	--	88.331
SVE-2S	8/10/2007	0	--	--	--	223.8	--	--	--	--	--	88.331
SVE-2S	8/17/2007	0	--	--	--	227.8	--	--	--	--	--	88.331
SVE-2S	12/12/2008	720	57	4.3	15.87	0	21	83	11	39	0.059	0
SVE-2S	12/22/2008	596	50	3.4	13.35	0.1	56	222	--	--	0.183	0.015
SVE-2S	12/30/2008	772	55	3.9	17.1	8.1	163	645	--	--	0.667	5.344
SVE-2S	1/15/2009	610	49	2.5	13.72	24.1	5	20	--	--	0.41	11.909
SVE-2S	1/22/2009	739	54	3.6	16.42	31.1	68	269	19	67	0.213	13.405
SVE-2S	1/29/2009	771	53	3.6	17.16	38.1	90	356	--	--	0.483	16.781
SVE-2S	2/3/2009	845	53	4.6	18.76	43.1	67.7	268	--	--	0.527	19.425

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Table 6
Cumulative Soil Vapor Data
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Closure Request
Chevron Sunol Pipeline

Well ID	Sample Date	Flowrate (fpm)	Temp (°F)	Vacuum (inches water)	Flowrate (scfm)	Total Operation Time (days)	TPH-GRO Concentration (ppm)	Field TPH-GRO Concentration (mg/m3)	Lab TPH-GRO Concentration (ppm)	Lab TPH-GRO Concentration (mg/m3)	Mass Removal Rate (lbs/day)	Cumulative Mass Removal (lbs)
SVE-2S	2/10/2009	486	44	5	10.97	50.1	47.2	187	--	--	0.224	20.99
SVE-2S	Mako System Installed											
SVE-2S	4/30/2009	580	67.9	12	12.28	0	9	36	2.5	8.7	0.02	0
SVE-2S	5/7/2009	68	70	4	1.46	7	1	4	--	--	0.003	0.018
SVE-2S	5/21/2009	0	0	0	0	18.2	0	0	--	--	0	0.018
SVE-2S	6/11/2009	518	66.7	6	11.16	26.6	5	20	--	--	0.01	0.102
SVE-2S	6/18/2009	281	69.3	3	6.07	32.5	2	8	--	--	0.008	0.146
SVE-2S	7/2/2009	220	69.2	2	4.77	39.8	3	12	--	--	0.004	0.177
SVE-2S	7/9/2009	0	0	0	0	46.7	0	0	--	--	0	0.177
SVE-2S	7/16/2009	810	77.5	4	17.19	53.7	1	4	--	--	0.003	0.199
SVE-2S	7/23/2009	376	67.6	2	8.17	60.7	9	36	--	--	0.015	0.3
SVE-3S	11/8/2005	510	70	9.55	11	0.1	28,000	--	--	--	123.12	10.26
SVE-3S	11/10/2005	530	65	7.6	11	1.9	4,600	--	--	--	75.6	148.43
SVE-3S	11/12/2005	638	57	7.91	14	3.7	3,000	--	--	--	21.6	187.86
SVE-3S	11/15/2005	942	76	9.92	20	6.8	7,800	--	--	--	43.2	321.41
SVE-3S	11/23/2005	706	52	12.25	15	14.5	3,900	--	--	--	36.48	602
SVE-3S	11/29/2005	1230	62	34	25	20.4	4,400	--	--	--	42	848.65
SVE-3S	12/6/2005	626	43	13.6	14	24.4	1,900	--	--	--	17.76	920.29
SVE-3S	12/13/2005	750	54	16.09	16	26.8	5,500	--	--	--	24.24	979.11
SVE-3S	12/22/2005	1192	65	17.15	25	33.0	9,400	--	--	--	75.84	1445.55
SVE-3S	1/4/2006	796	57	20.4	17	45.6	7,400	--	--	--	57.36	2172.03
SVE-3S	1/11/2006	783	58	20.4	17	52.5	4,100	--	--	--	38.64	2435.94
SVE-3S	1/17/2006	626	50	20.4	13	58.3	4,300	--	--	--	22.8	2569.47
SVE-3S	1/24/2006	672	49	20.4	14	65.1	3,900	--	--	--	24	2733.83
SVE-3S	2/1/2006	900	61	20.4	19	73.1	4,400	--	--	--	31.92	2987.2
SVE-3S	2/13/2006	647	54	20.4	14	84.7	2,100	--	--	--	18.24	3197.69
SVE-3S	11/28/2006	180	52	3.3	4.02	0.1	3,170	12,553	3,100	11,000	4.53	0.45
SVE-3S	11/30/2006	325	60	7.1	7.07	1.9	3,694	14,628	--	--	8.64	16.52
SVE-3S	12/4/2006	547	55	8.47	11.98	5.8	2,971	11,765	6,800	24,000	14.21	97.3
SVE-3S	12/8/2006	474	56	7.8	10.38	9.8	4,754	18,826	--	--	14.27	154.27
SVE-3S	12/15/2006	726	60	11.5	15.63	16.8	3,270	12,949	--	--	22.32	311.19
SVE-3S	12/19/2006	0	--	0.62	0	20.8	3,705	14,672	3,700	13,000	0	311.19
SVE-3S	12/19/2006	359	63	11.47	7.68	21.0	4,060	16,078	--	--	10.62	313.18
SVE-3S	12/28/2006	495	52	10.81	10.84	29.8	1,844	7,302	--	--	11.39	413.59
SVE-3S	1/4/2007	700	57	11.01	15.17	36.9	1,791	7,092	2,200	7,800	9.82	482.77
SVE-3S	1/12/2007	297	56	10	6.47	44.8	1,974	7,817	--	--	4.33	517.33
SVE-3S	1/19/2007	510	45	13	11.26	51.7	2,045	8,098	--	--	8.06	572.95
SVE-3S	1/26/2007	648	63	15	13.75	56.8	1,700	6,732	2,900	10,000	9.16	619.62
SVE-3S	2/2/2007	435	49	18	9.41	63.7	1,825	7,227	--	--	5.9	660.16
SVE-3S	2/9/2007	463	60	16.5	9.84	70.7	2,700	10,692	--	--	7.93	715.81
SVE-3S	2/16/2007	625	56	17.6	13.35	77.7	1,373	5,437	5,000	18,000	9.68	783.85
SVE-3S	2/23/2007	550	45	18.8	11.97	84.7	1,775	7,029	--	--	6.71	830.68
SVE-3S	3/1/2007	473	50	18.2	10.21	90.7	1,975	7,821	--	--	6.81	871.73
SVE-3S	3/8/2007	510	53	16.5	10.99	97.8	1,990	7,880	--	--	7.76	926.11
SVE-3S	3/15/2007	545	49	15.8	11.86	104.7	2,169	8,589	4,100	14,000	8.78	986.89

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Closure Request
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Well ID	Sample Date	Flowrate (fpm)	Temp (°F)	Vacuum (inches water)	Flowrate (scfm)	Total Operation Time (days)	TPH-GRO Concentration (ppm)	Field TPH-GRO Concentration (mg/m3)	Lab TPH-GRO Concentration (ppm)	Lab TPH-GRO Concentration (mg/m3)	Mass Removal Rate (lbs/day)	Cumulative Mass Removal (lbs)
SVE-3S	3/22/2007	486	80	14.2	10.01	111.8	1,511	5,984	--	--	6.55	1033.82
SVE-3S	3/22/2007	300	81	6.8	6.28	111.9	1,496	5,924	--	--	3.36	1033.91
SVE-3S	3/30/2007	320	49	8.4	7.09	119.7	1,937	7,671	--	--	4.33	1067.87
SVE-3S	4/5/2007	316	61	7.9	6.85	125.7	1,751	6,934	--	--	4.5	1094.95
SVE-3S	4/20/2007	288	57	7.1	6.3	136.8	2,061	8,162	3,000	11,000	4.28	1142.4
SVE-3S	4/27/2007	559	57	15.9	11.97	143.8	1,765	6,989	--	--	8.15	1199.4
SVE-3S	5/3/2007	502	54	15.4	10.82	149.8	1,782	7,057	--	--	6.83	1240.52
SVE-3S	5/11/2007	1364	59	13	29.31	157.8	1,572	6,225	--	--	17.5	1380.58
SVE-3S	5/18/2007	825	59	12.8	17.74	164.8	1,347	5,334	1,400	4,900	9.22	1445.01
SVE-3S	5/25/2007	894	63	15.8	18.93	166.8	1,303	5,160	--	--	8.93	1463.06
SVE-3S	6/1/2007	0	--	--	--	172.9	0	0	--	--	0	1463.06
SVE-3S	6/8/2007	673	56	12.5	14.56	179.8	909	3,600	--	--	2.36	1479.38
SVE-3S	6/14/2007	874	81	11	18.11	185.9	787	3,117	870	3,100	5.47	1512.34
SVE-3S	6/21/2007	701	59	14.2	15.02	186.2	1,146	4,538	--	--	5.17	1513.96
SVE-3S	6/29/2007	1022	72	12	21.48	194.2	806	3,192	--	--	7.46	1573.65
SVE-3S	7/5/2007	905	72	12.4	19	197.0	764	3,025	--	--	5.31	1588.72
SVE-3S	7/13/2007	388	67.6	3.3	8.4	205.0	816	3,231	--	--	2.36	1607.68
SVE-3S	7/18/2007	299	67	4.5	6.46	210.1	848	3,358	720	2,500	1.91	1617.33
SVE-3S	7/26/2007	483	68	4.7	10.42	215.4	850	3,366	--	--	3.15	1634.17
SVE-3S	8/2/2007	508	68	4.5	10.96	222.5	705	2,792	--	--	3.03	1655.5
SVE-3S	8/10/2007	499	69	5	10.73	223.8	779	3,085	--	--	2.84	1659.29
SVE-3S	8/17/2007	456	62	5	9.94	227.8	848	3,358	780	2,700	2.88	1670.81
SVE-3S	12/12/2008	585	56	4.5	12.92	0.0	588	2,328	860	3,000	1.35	0
SVE-3S	12/22/2008	416	47	3.5	9.37	0.1	1,800	7,128	--	--	3.98	0.33
SVE-3S	12/30/2008	440	54	4.1	9.76	8.1	2,657	10,522	--	--	7.74	62.23
SVE-3S	1/15/2009	455	48	2.7	10.25	24.1	450	1,782	--	--	5.67	152.92
SVE-3S	1/22/2009	438	54	3.8	9.72	31.1	1,350	5,346	1,200	4,200	3.12	174.78
SVE-3S	1/29/2009	446	53	3.9	9.92	38.1	1,567	6,205	--	--	5.15	210.81
SVE-3S	2/3/2009	438	51	4.9	9.75	43.1	927	3,671	--	--	4.33	232.55
SVE-3S	2/10/2009	465	43	7	10.47	50.1	250	990	--	--	2.19	247.85
SVE-3S	Mako System Installed											
SVE-3S	4/30/2009	350	68.2	12	7.41	0	2,780	11,009	2,400	8,500	3.67	0
SVE-3S	5/7/2009	2030	71.3	3	43.69	7.0	4	16	--	--	21.65	150.84
SVE-3S	5/21/2009	1780	88	3	37.14	18.2	0	0	--	--	0.03	151.14
SVE-3S	6/11/2009	315	66.5	6.1	6.79	26.6	16	63	--	--	0.02	151.3
SVE-3S	6/18/2009	196	69.4	3	4.23	32.5	66	261	--	--	0.06	151.66
SVE-3S	7/2/2009	110	71	2	2.37	39.8	218	863	--	--	0.12	152.54
SVE-3S	7/9/2009	0	0	0	0	46.7	0	0	--	--	0	152.54
SVE-3S	7/16/2009	430	80.6	4	9.07	53.7	39	154	--	--	0.06	152.98
SVE-3S	7/23/2009	204	67.5	2	4.43	60.7	240	950	--	--	0.22	154.52
SVE-4D	11/8/2005		--	--		0.0	1,700	--	--	--	--	0
SVE-4D	11/10/2005	814	65	27.4	16.66	0.1	1,700	--	--	--	--	0.96
SVE-4D	11/12/2005	891	60	13.6	19.08	1.9	4,900	--	--	--	25.68	47.83
SVE-4D	11/15/2005	935	72	20.4	19.23	5.0	5,600	--	--	--	41.04	174.25
SVE-4D	11/23/2005	1388	49	40.8	28.26	12.7	1,500	--	--	--	40.8	486.63

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SVE-4D	11/29/2005	2254	64	108.8	36.31	18.6	1	--	--	--	11.04	551.74
SVE-4D	12/6/2005	950	39	40.8	19.73	22.6	410	--	--	--	1.68	558.4
SVE-4D	12/13/2005	1232	56	40.8	24.75	25.0	3,200	--	--	--	18.24	602.38
SVE-4D	12/22/2005	1016	68	40.8	19.94	31.2	2,400	--	--	--	22.56	741.95
SVE-4D	1/4/2006	1195	60	27.2	24.7	43.8	1,900	--	--	--	21.6	1014.61
SVE-4D	1/11/2006	1088	58	27.2	22.58	56.5	1,500	--	--	--	15.6	1211.98
SVE-4D	1/17/2006	1035	52	27.2	21.73	56.5	1,800	--	--	--	14.64	1211.98
SVE-4D	1/24/2006	742	52	27.2	15.58	63.3	1,500	--	--	--	10.32	1283.31
SVE-4D	2/1/2006	1135	64	27.2	23.28	71.3	1,800	--	--	--	15.6	1407.41
SVE-4D	2/13/2006	685	57	27.2	14.24	82.8	1,800	--	--	--	10.32	1527.96
SVE-4D	11/28/2006	190	51	3.3	4.25	0.1	1,857	7,354	5,100	18,000	2.81	0.28
SVE-4D	11/30/2006	327	57	7.16	7.16	1.9	2,602	10,304	--	--	5.68	10.84
SVE-4D	12/4/2006	316	48	8.54	7.02	5.8	2,088	8,268	2,100	7,400	5.86	44.71
SVE-4D	12/8/2006	296	53	7.9	6.52	9.8	2,921	11,567	--	--	5.81	67.91
SVE-4D	12/15/2006	354	56	11.5	7.68	16.8	1,540	6,098	--	--	6.1	110.78
SVE-4D	12/19/2006	82	38	0.66	1.89	20.8	1,830.00	7,247	2,000	7,000	1.14	115.33
SVE-4D	12/19/2006	421	64	11.54	8.99	21.0	1,770.00	7,009.20	--	--	5.76	116.41
SVE-4D	12/28/2006	410	51	10.89	9	29.8	1,908	7,556	--	--	5.89	168.31
SVE-4D	1/4/2007	427	55	11.06	9.29	36.9	1,202	4,760	1,500	5,300	5.14	204.55
SVE-4D	1/12/2007	260	55	10	5.67	44.8	1,308	5,180	--	--	2.53	224.75
SVE-4D	1/19/2007	418	44	12	9.27	51.7	1,555	6,158	--	--	4.73	257.38
SVE-4D	1/26/2007	640	62	15	13.6	56.8	1,049	4,154	1,300	4,600	6.31	289.49
SVE-4D	2/2/2007	467	49	18	10.1	63.7	606	2,400	--	--	2.98	309.92
SVE-4D	2/9/2007	373	59	16.5	7.94	70.7	736	2,915	--	--	1.9	323.25
SVE-4D	2/16/2007	640	55	17.7	13.69	77.7	620	2,455	720	2,500	3.31	346.48
SVE-4D	2/23/2007	512	45	18.7	11.14	84.7	635	2,515	--	--	2.49	363.86
SVE-4D	3/1/2007	410	49	18.1	8.87	90.7	575	2,277	--	--	1.91	375.37
SVE-4D	3/8/2007	435	52	16.6	9.39	97.8	630	2,495	--	--	2.01	389.49
SVE-4D	3/15/2007	527	48	15.8	11.49	104.7	786	3,113	650	2,300	2.9	409.54
SVE-4D	3/22/2007	672	80	14.2	13.84	111.8	567	2,245	--	--	3.33	433.39
SVE-4D	3/22/2007	358	81	6.8	7.5	111.9	570	2,257	--	--	1.52	433.44
SVE-4D	3/30/2007	333	48	8.5	7.39	119.7	934	3,699	--	--	1.98	448.94
SVE-4D	4/5/2007	326	60	8	7.08	125.7	900	3,564	--	--	2.31	462.86
SVE-4D	4/20/2007	297	57	7.1	6.5	136.8	1,129	4,471	950	3,300	2.35	488.91
SVE-4D	4/27/2007	564	56	15.9	12.1	143.8	768	3,041	--	--	4.09	517.48
SVE-4D	5/3/2007	536	54	15.4	11.56	149.8	686	2,717	--	--	2.99	535.47
SVE-4D	5/11/2007	708	58	13	15.24	157.8	658	2,606	--	--	3.65	564.66
SVE-4D	5/18/2007	658	59	13	14.14	164.8	587	2,325	460	1,600	3.13	586.57
SVE-4D	5/25/2007	807	62	15.9	17.11	166.8	663	2,625	--	--	3.81	594.27
SVE-4D	6/1/2007	0	--	--	--	172.9	0	0	--	--	0	594.27
SVE-4D	6/8/2007	514	55	12.7	11.14	179.8	505	2,000	--	--	1	601.2
SVE-4D	6/14/2007	526	81	11	10.9	185.9	492	1,948	460	1,600	1.93	612.86
SVE-4D	6/21/2007	804	58	14.2	17.26	186.2	733	2,903	--	--	3.76	614.04
SVE-4D	6/29/2007	926	71	12	19.5	194.2	490	1,940	--	--	4.24	647.99
SVE-4D	7/5/2007	841	71	12.5	17.68	197.0	525	2,079	--	--	3.2	657.06
SVE-4D	7/13/2007	200	67.9	3.4	4.33	205.0	615	2,435	--	--	0.88	664.11

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Table 6
Cumulative Soil Vapor Data
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Closure Request
Chevron Sunol Pipeline

Well ID	Sample Date	Flowrate (fpm)	Temp (°F)	Vacuum (inches water)	Flowrate (scfm)	Total Operation Time (days)	TPH-GRO Concentration (ppm)	Field TPH-GRO Concentration (mg/m3)	Lab TPH-GRO Concentration (ppm)	Lab TPH-GRO Concentration (mg/m3)	Mass Removal Rate (lbs/day)	Cumulative Mass Removal (lbs)
SVE-4D	7/18/2007	292	67	4.6	6.31	210.1	875	3,465	880	3,100	1.67	672.54
SVE-4D	7/26/2007	404	68	4.7	8.71	215.4	908	3,596	--	--	2.77	687.33
SVE-4D	8/2/2007	360	67	4.5	7.78	222.5	751	2,974	--	--	2.3	703.49
SVE-4D	8/10/2007	387	68	5.1	8.34	223.8	897	3,552	--	--	2.45	706.76
SVE-4D	8/17/2007	387	68	5.1	8.34	223.8	897	3,552	1,100	3,900	2.45	710.03
SVE-4D	12/12/2008	715	55	4.7	15.81	0.0	82	325	120	420	0.23	0
SVE-4D	12/22/2008	521	46	3.6	11.76	0.1	284	1,125	--	--	2.47	0.21
SVE-4D	12/30/2008	636	52	4.4	14.15	8.1	111	440	--	--	0.49	4.13
SVE-4D	1/15/2009	570	48	2.9	12.83	24.1	12	48	--	--	0.68	20.41
SVE-4D	1/22/2009	615	54	4.1	13.64	31.1	45	178	40	140	0.38	32.19
SVE-4D	1/29/2009	680	52	4.2	15.14	38.1	75	297	--	--	0.23	41.12
SVE-4D	2/3/2009	615	51	5.2	13.69	43.1	72	285	--	--	0.28	53.4
SVE-4D	2/10/2009	532	43	8	11.94	50.1	45	180	--	--	0.26	66.22
SVE-4D	Mako System Installed											
SVE-4D	4/30/2009	284	66.7	12.5	6.02	0	1,094	4,332	980	3,500	1.22	0
SVE-4D	5/7/2009	123	70.9	5	2.64	7.0	1,068	4,229	--	--	0.5	3.49
SVE-4D	5/21/2009	107	87	4	2.23	18.2	744	2,946	--	--	0.73	16.76
SVE-4D	6/11/2009	394	66.3	6.5	8.49	26.6	198	784	--	--	1.91	67.58
SVE-4D	6/18/2009	85	69.7	3	1.83	32.5	863	3,417	--	--	0.52	84.63
SVE-4D	7/2/2009	250	70.6	2	5.4	39.8	21	83	--	--	0.21	93
SVE-4D	7/9/2009	0	0	0	0	46.7	0	0	--	--	0	93
SVE-4D	7/16/2009	252	79.2	4	5.33	53.7	11	44	--	--	0.03	94.63
SVE-4D	7/23/2009	2015	67.5	2	43.79	60.7	2	8	--	--	0.02	95.58
SVE-5	11/28/2006	500	50	3.1	11.21	0.1	1,499	5,936	12,000	42,000	5.98	0.6
SVE-5	11/30/2006	734	54	6.63	16.18	1.9	2,292	9,076	--	--	10.92	20.89
SVE-5	12/4/2006	835	47	7.83	18.61	5.8	2,172	8,601	3,500	12,000	14.79	106.4
SVE-5	12/8/2006	807	51	7.2	17.87	9.8	2,307	9,136	--	--	14.25	163.28
SVE-5	12/15/2006	1177	55	10.4	25.65	16.8	1,132	4,483	--	--	15.71	273.67
SVE-5	12/19/2006	310	35	0.66	7.2	20.8	1,350.00	5,346	1,100	3,900	3.18	286.41
SVE-5	12/19/2006	1622	63	10.44	34.81	21.0	1,407.00	5,571.70	--	--	17.08	289.62
SVE-5	12/28/2006	1133	48	9.82	25.07	29.8	973	3,853	--	--	10.62	383.23
SVE-5	1/4/2007	1149	53	9.92	25.17	36.9	789	3,124	690	2,400	7.9	438.86
SVE-5	1/12/2007	1060	55	8	23.24	44.8	882	3,493	--	--	6.91	493.97
SVE-5	1/19/2007	1067	43	12	23.72	51.7	1,278	5,061	--	--	9.12	556.93
SVE-5	1/26/2007	1064	60	14	22.76	56.8	1,020	4,039	1,800	6,300	9.31	604.33
SVE-5	2/2/2007	996	48	18	21.59	63.7	214	847	--	--	4.74	636.89
SVE-5	2/9/2007	1327	59	16.2	28.28	70.7	380	1,505	--	--	2.99	657.89
SVE-5	2/16/2007	1215	56	17.4	25.96	77.7	304	1,204	260	920	3.16	680.11
SVE-5	2/23/2007	814	44	18.7	17.75	84.7	285	1,129	--	--	1.86	693.11
SVE-5	3/1/2007	846	48	17.9	18.34	90.7	245	970	--	--	1.73	703.53
SVE-5	3/8/2007	756	51	16.3	16.36	97.8	230	911	--	--	1.38	713.23
SVE-5	3/15/2007	755	47	15.6	16.5	104.7	315	1,247	190	670	1.6	724.32
SVE-5	3/22/2007	1966	80	14.1	40.49	111.8	221	875	--	--	3.86	751.97
SVE-5	3/22/2007	1314	81	6.8	27.51	111.9	222	879	--	--	2.17	752.03
SVE-5	3/30/2007	648	47	8.5	14.42	119.7	387	1,533	--	--	1.56	764.28

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Closure Request
Chevron Sunol Pipeline

Well ID	Sample Date	Flowrate (fpm)	Temp (°F)	Vacuum (inches water)	Flowrate (scfm)	Total Operation Time (days)	TPH-GRO Concentration (ppm)	Field TPH-GRO Concentration (mg/m3)	Lab TPH-GRO Concentration (ppm)	Lab TPH-GRO Concentration (mg/m3)	Mass Removal Rate (lbs/day)	Cumulative Mass Removal (lbs)
SVE-5	4/5/2007	709	59	7.9	15.43	125.7	475	1,881	--	--	2.37	778.53
SVE-5	4/20/2007	695	56	7	15.25	136.8	701	2,776	360	1,300	3.19	813.94
SVE-5	4/27/2007	871	55	15.9	18.72	143.8	450	1,782	--	--	3.84	840.76
SVE-5	5/3/2007	836	54	15.1	18.04	149.8	388	1,536	--	--	2.69	856.95
SVE-5	5/11/2007	1678	57	13	36.19	157.8	375	1,485	--	--	4.92	896.3
SVE-5	5/18/2007	1127	59	12.8	24.23	164.8	330	1,307	200	700	3.04	917.56
SVE-5	5/25/2007	1117	61	15.7	23.74	166.8	943	3,734	--	--	5.38	928.43
SVE-5	6/1/2007	0	--	--	--	172.9	0	0	--	--	0	928.43
SVE-5	6/8/2007	856	56	12.5	18.52	179.8	270	1,069	--	--	0.89	934.6
SVE-5	6/14/2007	1333	81	11	27.62	185.9	309	1,224	250	880	2.85	951.76
SVE-5	6/21/2007	1064	58	14.1	22.84	186.2	1,061	4,202	--	--	5.57	953.5
SVE-5	6/29/2007	1351	65	12	28.77	194.2	369	1,461	--	--	7.32	1012.07
SVE-5	7/5/2007	1368	70	12.4	28.83	197.0	657	2,602	--	--	5.27	1027.03
SVE-5	7/13/2007	540	68.3	3.4	11.68	205.0	396	1,568	--	--	2.19	1044.58
SVE-5	7/18/2007	708	68	4.6	15.27	210.1	430	1,703	360	1,300	2.25	1055.89
SVE-5	7/26/2007	715	67	4.7	15.45	215.4	789	3,124	--	--	3.35	1073.83
SVE-5	8/2/2007	722	67	4.5	15.61	222.5	451	1,786	--	--	3.45	1098.04
SVE-5	8/10/2007	799	68	5	17.22	223.8	779	3,085	--	--	3.77	1103.09
SVE-5	8/17/2007	729	64	5.1	15.82	227.8	579	2,293	540	1,900	3.83	1118.4
SVE-5	12/12/2008	790	55	4.6	17.47	0.0	1,447	5,730	4,000	14,000	4.5	0
SVE-5	12/22/2008	463	46	3.7	10.44	0.1	3,801	15,052	--	--	9.76	0.81
SVE-5	12/30/2008	684	53	4.4	15.19	8.1	865	3,425	--	--	12.62	102.72
SVE-5	1/15/2009	615	48	3	13.84	24.1	310	1,228	--	--	2.9	172.42
SVE-5	1/22/2009	673	54	4.1	14.93	31.1	319	1,263	300	1,100	1.67	224.4
SVE-5	1/29/2009	819	52	4.1	18.24	38.1	266	1,053	--	--	1.9	296.74
SVE-5	2/3/2009	713	50	5.3	15.89	43.1	198	784	--	--	1.31	353.33
SVE-5	2/10/2009	713	50	5.3	15.89	50.1	198	784	--	--	1.12	409.44
SVE-5	Mako System Installed											
SVE-5	4/30/2009	1,310	68.1	12	27.73	0	441	1,746	260	920	2.18	0
SVE-5	5/7/2009	670	70.7	4.6	14.38	7	348	1,378	--	--	2.02	14.07
SVE-5	5/21/2009	480	86.4	4	10.02	18.2	267	1,057	--	--	1.1	34.01
SVE-5	6/11/2009	875	66	6.5	18.86	26.6	52	206	--	--	1.07	62.46
SVE-5	6/18/2009	426	69.9	3	9.19	32.5	116	459	--	--	0.27	71.39
SVE-5	7/2/2009	255	70.1	2	5.51	39.8	53	210	--	--	0.17	77.99
SVE-5	7/9/2009	0	0	0	0	46.7	0	0	--	--	0	77.99
SVE-5	7/16/2009	815	81.6	4	17.16	53.7	66	261	--	--	0.2	88.83
SVE-5	7/23/2009	476	66.8	3	10.33	60.7	89	352	--	--	0.29	106.14
SVE-6	11/28/2006	640	53	9.6	14.03	0.1	1,908	7,556	3,500	12,000	9.53	0.95
SVE-6	11/30/2006	987	54	14.2	21.35	1.9	2,800	11,088	--	--	17.89	34.2
SVE-6	12/4/2006	935	46	17.84	20.35	5.8	2,514	9,955	3,400	12,000	19.25	145.55
SVE-6	12/8/2006	808	47	17.1	17.59	9.8	3,619	14,331	--	--	19.2	222.19
SVE-6	12/15/2006	1060	55	16.8	22.73	16.8	2,542	10,066	--	--	24.93	397.43
SVE-6	12/19/2006	169	33	2.43	3.93	20.8	3,316.00	13,131	560	2,000	4.09	413.82
SVE-6	12/19/2006	714	62	15.08	15.17	21	3,210.00	12,711.60	--	--	17.63	417.13
SVE-6	12/28/2006	1006	47	15.23	22	29.8	1,906	7,548	--	--	20.04	593.71

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Closure Request
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SVE-6	1/4/2007	1042	54	14.97	22.49	36.9	1,619	6,411	1,400	4,900	14.11	693.16
SVE-6	1/12/2007	359	49	11	7.91	44.8	2,062	8,166	--	--	5.18	734.45
SVE-6	1/19/2007	360	43	5	8.14	51.7	2,339	9,262	--	--	6.38	778.49
SVE-6	1/26/2007	505	64	12	10.77	56.8	1,732	6,859	2,400	8,500	7.81	818.25
SVE-6	2/2/2007	383	45	14	8.44	63.7	1,700	6,732	--	--	5.15	853.64
SVE-6	2/9/2007	500	58	13.7	10.74	70.7	1,782	7,057	--	--	6.66	900.4
SVE-6	2/16/2007	410	57	15.5	8.79	77.7	1,440	5,702	1,700	6,000	5.04	935.83
SVE-6	2/23/2007	785	46	17	17.12	84.7	1,460	5,782	--	--	8.84	997.57
SVE-6	3/1/2007	580	51	17.5	12.51	90.7	1,475	5,841	--	--	6.54	1036.95
SVE-6	3/8/2007	455	54	17	9.77	97.8	1,250	4,950	--	--	4.74	1070.19
SVE-6	3/15/2007	686	50	16.7	14.86	104.7	1,550	6,138	930	3,300	7.41	1121.48
SVE-6	3/22/2007	686	80	15	14.09	111.8	1,007	3,988	--	--	6.42	1167.41
SVE-6	3/22/2007	431	79	13	8.92	111.9	1,056	4,182	--	--	3.27	1167.5
SVE-6	3/30/2007	502	50	15.4	10.91	119.7	1,411	5,588	--	--	4.79	1205.03
SVE-6	4/5/2007	483	62	14.7	10.27	125.7	1,181	4,677	--	--	4.74	1233.57
SVE-6	4/20/2007	471	58	14.5	10.1	136.8	1,457	5,770	910	3,200	4.74	1286.19
SVE-6	4/27/2007	576	57	16.1	12.33	143.8	1,340	5,306	--	--	6.14	1329.1
SVE-6	5/3/2007	448	54	15.1	9.67	149.8	1,362	5,394	--	--	4.65	1357.08
SVE-6	5/11/2007	592	59	13.2	12.71	157.8	1,327	5,255	--	--	6.09	1405.79
SVE-6	5/18/2007	524	58	13.9	11.25	164.8	1,102	4,364	850	3,000	4.87	1439.81
SVE-6	5/25/2007	684	62	16.3	14.49	166.8	1,155	4,574	--	--	5.82	1451.58
SVE-6	6/1/2007	0	--	--	--	172.9	0	0	--	--	0	1451.58
SVE-6	6/8/2007	666	56	15	14.32	179.8	999	3,956	--	--	2.55	1469.22
SVE-6	6/14/2007	525	80	12.2	10.86	185.9	936	3,707	970	3,400	3.74	1491.79
SVE-6	6/21/2007	639	58	15.5	13.67	186.2	1,333	5,279	--	--	5.52	1493.51
SVE-6	6/29/2007	706	70	13.4	14.84	194.2	981	3,885	--	--	6.11	1542.4
SVE-6	7/5/2007	578	71	13.9	12.11	197	918	3,635	--	--	4.09	1554.03
SVE-6	7/13/2007	231	73.3	11.1	4.85	205	1,071	4,241	--	--	1.72	1567.81
SVE-6	7/18/2007	656	67	9.9	13.99	210.1	1,068	4,229	760	2,700	5.33	1594.64
SVE-6	7/26/2007	900	67	10.5	19.16	215.4	1,154	4,570	--	--	7.58	1635.2
SVE-6	8/2/2007	678	70	10.5	14.36	222.5	942	3,730	--	--	5.36	1672.85
SVE-6	8/10/2007	775	69	11.5	16.4	223.8	1,077	4,265	--	--	5.89	1680.74
SVE-6	8/17/2007	1071	64	12	22.85	227.8	1,063	4,209	730	2,600	8.7	1715.59
SVE-6	12/12/2008	1,060	56	13.1	22.9	0	545	2,158	1,200	4,200	2.22	0
SVE-6	12/22/2008	383	48	11.9	8.43	0.1	1,680	6,653	--	--	3.34	0.28
SVE-6	12/30/2008	617	52	14.6	13.38	8.1	1,230	4,871	--	--	6.93	55.69
SVE-6	1/15/2009	450	47	0.8	10.2	24.1	712	2,820	--	--	3.53	112.13
SVE-6	1/22/2009	438	54	14.3	9.47	31.1	650	2,574	540	1,900	2.3	128.23
SVE-6	1/29/2009	362	51	16	7.84	38.1	712	2,820	--	--	1.9	141.53
SVE-6	2/3/2009	696	53	17	14.98	43.1	408	1,616	--	--	2.99	156.52
SVE-6	2/10/2009	533	43	21	11.58	50.1	98	388	--	--	1.04	163.79
SVE-6	Mako System Installed											
SVE-6	4/30/2009	318	72.8	10.5	6.7	0	900	3,564	840	3,000	1.07	0
SVE-6	5/7/2009	265	76	20	5.42	7	862	3,414	--	--	1.7	11.83
SVE-6	5/21/2009	560	96.5	20	11.02	18.2	46	180	--	--	1.78	31.79
SVE-6	6/11/2009	625	66.5	14	13.2	26.6	89	352	--	--	0.32	34.45

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SVE-6	6/18/2009	670	72.2	22	13.72	32.5	559	2,214	--	--	1.58	43.79
SVE-6	7/2/2009	790	72.8	23	16.12	39.8	368	1,457	--	--	2.66	63.16
SVE-6	7/9/2009	910	69.3	25	18.59	46.7	335	1,327	--	--	2.33	79.39
SVE-6	7/16/2009	510	90	12	10.37	53.7	268	1,061	--	--	1.11	87.19
SVE-6	7/23/2009	470	67.4	14	9.91	60.7	280	1,109	--	--	0.97	93.96
SVE-7	11/28/2006	500	54	9.5	10.94	0.1	2,057	8,146	16,000	56,000	8.01	0.8
SVE-7	11/30/2006	647	50	14.08	14.11	1.9	2,760	10,930	--	--	12.1	23.28
SVE-7	12/4/2006	720	45	17.6	15.71	5.8	2,727	10,799	11,000	39,000	15.35	112.05
SVE-7	12/8/2006	833	50	16.8	18.04	9.8	4,351	17,230	--	--	22.73	202.77
SVE-7	12/15/2006	762	52	16.5	16.45	16.8	4,417	17,491	--	--	25.67	383.24
SVE-7	12/19/2006	266	33	2.45	6.18	20.8	4,460.00	17,662	4,100	14,000	9.76	422.33
SVE-7	12/19/2006	849	60	14.75	18.13	21	4,767.00	18,877.30	--	--	29.77	427.91
SVE-7	12/28/2006	641	44	15.01	14.11	29.8	2,033	8,051	--	--	17.08	578.44
SVE-7	1/4/2007	765	52	14.69	16.59	36.9	1,871	7,409	3,300	12,000	11.53	659.67
SVE-7	1/12/2007	610	50	11	13.41	44.8	2,448	9,694	--	--	10.31	741.83
SVE-7	1/19/2007	560	42	5	12.69	51.7	2,315	9,167	--	--	10.76	816.13
SVE-7	1/26/2007	707	62	12	15.14	56.8	1,894	7,500	4,600	16,000	11.35	873.89
SVE-7	2/2/2007	394	46	14	8.66	63.7	2,224	8,807	--	--	6.35	917.49
SVE-7	2/9/2007	564	58	13.6	12.12	70.7	2,154	8,530	--	--	9.45	983.83
SVE-7	2/16/2007	665	58	15.5	14.23	77.7	1,607	6,364	4,000	14,000	9.52	1050.77
SVE-7	2/23/2007	1208	45	17.1	26.4	84.7	1,870	7,405	--	--	16.34	1164.87
SVE-7	3/1/2007	833	50	17.4	18.01	90.7	2,345	9,286	--	--	13.51	1246.29
SVE-7	3/8/2007	585	53	16.8	12.59	97.8	1,925	7,623	--	--	9.57	1313.43
SVE-7	3/15/2007	1306	50	16.6	28.3	104.7	2,848	11,278	2,200	7,800	24.04	1479.91
SVE-7	3/22/2007	1075	82	14.8	22.02	111.8	1,687	6,681	--	--	17.77	1607.15
SVE-7	3/22/2007	878	80	13	18.13	111.9	1,756	6,954	--	--	11.11	1607.47
SVE-7	3/30/2007	724	50	15.6	15.73	119.7	2,427	9,611	--	--	11.71	1699.2
SVE-7	4/5/2007	668	62	14	14.23	125.7	2,044	8,094	--	--	11.33	1767.41
SVE-7	4/20/2007	1093	58	14.2	23.46	136.8	2,736	10,835	2,000	7,000	19.96	1988.81
SVE-7	4/27/2007	1453	57	16	31.10191	143.8	1,993	7,892	--	--	26.18	2171.87
SVE-7	5/3/2007	1373	55	15.1	29.57149	149.8	2,220	8,791	--	--	22.18	2305.31
SVE-7	5/11/2007	928	58	13.2	19.96768	157.8	2,160	8,554	--	--	15.57	2429.93
SVE-7	5/18/2007	629	58	13.8	13.51352	164.8	1,875	7,425	1,600	5,600	9.71	2497.79
SVE-7	5/25/2007	854	62	16.3	18.09115	166.8	1,729	6,847	--	--	11.61	2521.25
SVE-7	6/1/2007	0	--	--	--	172.9	0	0	--	--	0	2521.25
SVE-7	6/8/2007	621	56	15	13.3525	179.8	1,636	6,479	--	--	3.89	2548.19
SVE-7	6/14/2007	626	80	12.2	12.95361	185.9	1,553	6,150	1,900	6,700	7.35	2592.53
SVE-7	6/21/2007	750	58	15.5	16.04347	186.2	1,898	7,516	--	--	9.86	2595.61
SVE-7	6/29/2007	819	70	13.3	17.21897	194.2	1,744	6,906	--	--	11.16	2684.89
SVE-7	7/5/2007	913	71	13.9	19.12993	197	1,530	6,059	--	--	11.15	2716.55
SVE-7	7/13/2007	374	73	7.4	7.935979	205	1,792	7,096	--	--	4.69	2754.2
SVE-7	7/18/2007	772	67	10	16.45998	210.1	2,070	8,197	1,900	6,700	11.32	2811.2
SVE-7	7/26/2007	798	68	10.4	16.965	215.4	1,965	7,781	--	--	12.19	2876.4
SVE-7	8/2/2007	720	68	10.5	15.30291	222.5	1,701	6,736	--	--	9.99	2946.59
SVE-7	8/10/2007	739	71	11.5	15.57863	223.8	1,780	7,049	--	--	9.65	2959.51
SVE-7	8/17/2007	740	65	12	15.75805	227.8	2,077	8,225	2,200	7,800	10.82	3002.83

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Closure Request
Chevron Sunol Pipeline

Well ID	Sample Date	Flowrate (fpm)	Temp (°F)	Vacuum (inches water)	Flowrate (scfm)	Total Operation Time (days)	TPH-GRO Concentration (ppm)	Field TPH-GRO Concentration (mg/m3)	Lab TPH-GRO Concentration (ppm)	Lab TPH-GRO Concentration (mg/m3)	Mass Removal Rate (lbs/day)	Cumulative Mass Removal (lbs)
SVE-7	12/12/2008	885	57	13	19.08897	0	1,794	7,104	4,400	15,000	6.1	0
SVE-7	12/22/2008	799	48	11.7	17.59717	0.1	5,754	22,786	--	--	23.64	1.97
SVE-7	12/30/2008	510	52	14.4	11.0684	8.1	4,400	17,424	--	--	20.01	161.86
SVE-7	1/15/2009	1175	47	0.9	26.6373	24.1	3,245	12,850	--	--	36.25	741.88
SVE-7	1/22/2009	972	54	14.2	21.02369	31.1	2,715	10,751	1,800	6,300	22.31	898.3
SVE-7	1/29/2009	665	51	16	14.40166	38.1	1,980	7,841	--	--	12.04	982.5
SVE-7	2/3/2009	893	54	14.8	19.28548	43.1	1,348	5,338	--	--	11.43	1039.87
SVE-7	2/10/2009	772	44	12	17.12446	50.1	277	1,097	--	--	4.95	1074.42
SVE-7	Mako System Installed											
SVE-7	4/30/2009	2,430	72	11	51.259	0	26	103	4.1	14	0.24	0
SVE-7	5/7/2009	900	79	20	18.28951	7	1,610	6,376	--	--	5.33	37.11
SVE-7	5/21/2009	630	99	20	12.3446	18.2	1,500	5,940	--	--	6.83	113.71
SVE-7	6/11/2009	850	66	14	17.96438	26.6	198	784	--	--	5.43	159.32
SVE-7	6/18/2009	910	72	22	18.63227	32.5	1,044	4,134	--	--	4.12	183.64
SVE-7	7/2/2009	1,070	73	23	21.8145	39.8	1,129	4,471	--	--	8.44	245.1
SVE-7	7/9/2009	1,090	69	26	22.23195	46.7	924	3,659	--	--	8.13	301.81
SVE-7	7/16/2009	690	90	12	14.03054	53.7	710	2,812	--	--	4.08	330.39
SVE-7	7/23/2009	763	68	14	16.08594	60.7	772	3,057	--	--	4.24	360.1
SVE-8	11/28/2006	300	53	10	6.57	0.1	1,923	7,615	2,800	9,900	4.5	0.45
SVE-8	11/30/2006	0	--	--	0	1.9	--	0	--	--	0	0.45
SVE-8	12/4/2006	0	--	--	0	5.8	--	0	--	--	0	0.45
SVE-8	12/8/2006	0	--	--	0	9.8	--	0	--	--	0	0.45
SVE-8	12/15/2006	0	--	--	0	16.8	--	0	--	--	0	0.45
SVE-8	12/19/2006	0	--	--	0	20.8	--	0	--	--	0	0.45
SVE-8	12/19/2006	0	--	--	0	21	--	0	--	--	0	0.45
SVE-8	12/28/2006	0	--	--	0	29.8	--	0	--	--	0	0.45
SVE-8	1/4/2007	0	--	--	0	36.9	--	0	--	--	0	0.45
SVE-8	1/12/2007	0	--	--	0	44.8	--	0	--	--	0	0.45
SVE-8	1/19/2007	0	--	--	0	51.7	--	0	--	--	0	0.45
SVE-8	1/26/2007	0	--	--	0	56.8	--	0	--	--	0	0.45
SVE-8	2/2/2007	0	--	--	0	63.7	--	0	--	--	0	0.45
SVE-8	2/9/2007	0	--	--	0	70.7	--	0	--	--	0	0.45
SVE-8	2/16/2007	0	--	--	0	77.7	--	0	--	--	0	0.45
SVE-8	2/23/2007	0	--	--	0	84.7	--	0	--	--	0	0.45
SVE-8	3/1/2007	0	--	--	0	90.7	--	0	--	--	0	0.45
SVE-8	3/8/2007	0	--	--	0	97.8	--	0	--	--	0	0.45
SVE-8	3/15/2007	0	--	--	0	104.7	--	0	--	--	0	0.45
SVE-8	3/22/2007	0	--	--	0	111.8	--	0	--	--	0	0.45
SVE-8	3/22/2007	0	--	--	0	111.9	--	0	--	--	0	0.45
SVE-8	3/30/2007	0	--	--	0	119.7	--	0	--	--	0	0.45
SVE-8	4/5/2007	0	--	--	0	125.7	--	0	--	--	0	0.45
SVE-8	4/20/2007	0	--	--	0	136.8	--	0	--	--	0	0.45
SVE-8	4/27/2007	0	--	--	0	143.8	--	0	--	--	0	0.45
SVE-8	5/3/2007	0	--	--	0	149.8	--	0	--	--	0	0.45
SVE-8	5/11/2007	0	--	--	0	157.8	--	0	--	--	0	0.45

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Closure Request
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Well ID	Sample Date	Flowrate (fpm)	Temp (°F)	Vacuum (inches water)	Flowrate (scfm)	Total Operation Time (days)	TPH-GRO Concentration (ppm)	Field TPH-GRO Concentration (mg/m3)	Lab TPH-GRO Concentration (ppm)	Lab TPH-GRO Concentration (mg/m3)	Mass Removal Rate (lbs/day)	Cumulative Mass Removal (lbs)
SVE-8	5/18/2007	0	--	--	0	164.8	--	0	--	--	0	0.45
SVE-8	5/25/2007	0	--	--	0	166.8	--	0	--	--	0	0.45
SVE-8	6/1/2007	0	--	--	0	172.9	--	0	--	--	0	0.45
SVE-8	6/8/2007	0	--	--	0	179.83	--	0	--	--	0	0.45
SVE-8	6/14/2007	0	--	--	0	185.86	--	0	--	--	0	0.45
SVE-8	6/21/2007	0	--	--	0	186.18	--	0	--	--	0	0.45
SVE-8	6/29/2007	0	--	--	0	194.17	--	0	--	--	0	0.45
SVE-8	7/5/2007	0	--	--	0	197.01	--	0	--	--	0	0.45
SVE-8	7/13/2007	0	--	--	0	205.03	--	0	--	--	0	0.45
SVE-8	7/18/2007	0	--	--	0	210.07	--	0	--	--	0	0.45
SVE-8	7/26/2007	0	--	--	0	215.42	--	0	--	--	0	0.45
SVE-8	8/2/2007	0	--	--	0	222.45	--	0	--	--	0	0.45
SVE-8	8/10/2007	0	--	--	0	223.79	--	0	--	--	0	0.45
SVE-8	8/17/2007	0	--	--	0	227.79	--	0	--	--	0	0.45
SVE-8	12/12/2008	475	55	13.4	10.27	0	21	83	19	67	0.04	0
SVE-8	12/22/2008	340	48	11.9	7.48	0.08	17	67	--	--	0.05	0.0042
SVE-8	12/30/2008	489	51	14.8	10.62	8.08	22	87	--	--	0.07	0.5997
SVE-8	1/15/2009	350	50	0.8	7.89	24.08	9.4	37	--	--	0.04	1.6615
SVE-8	1/22/2009	511	55	14.5	11.02	31.09	9	36	4	13	0.04	2.7839
SVE-8	1/29/2009	700	52	16	15.13	38.08	32	127	--	--	0.11	6.9894
SVE-8	2/3/2009	900	0	25	21.15	43.1	15	60	--	--	0.18	14.6345
SVE-8	2/10/2009	694	44	32	14.62	50.08	51	200	--	--	0.17	23.1817
SVE-8	Mako System Installed											
SVE-8	4/30/2009	300	71.9	11.5	6.31	0	10	40	15	53	0.01	0
SVE-8	5/7/2009	78	79	20	1.59	6.97	60	238	--	--	0.02	0.1376
SVE-8	5/21/2009	170	99	20	3.33	18.18	865	3,425	--	--	0.55	10.1068
SVE-8	6/11/2009	650	66.1	14	13.74	26.58	78	309	--	--	2.31	71.4143
SVE-8	6/18/2009	1050	73	23	21.41	32.48	43	170	--	--	0.46	86.3931
SVE-8	7/2/2009	375	71.9	23	7.66	39.76	170	673	--	--	0.29	97.9458
SVE-8	7/9/2009	385	69.6	26	7.84	46.74	55	218	--	--	0.31	112.6223
SVE-8	7/16/2009	135	90	8	2.77	53.75	52	206	--	--	0.05	115.4599
SVE-8	7/23/2009	615	68	14	12.96	60.75	30	119	--	--	0.19	126.9482
SVE-9	11/28/2006	610	53	10	13.36	0.1	3,623	14,347	3,600	13,000	17.23	1.72
SVE-9	11/30/2006	1,010	55	13.3	21.85	1.9	3,747	14,838	--	--	28.67	55
SVE-9	12/4/2006	1,357	52	15.5	29.37	5.8	2,443	9,674	1,900	6,700	32.36	242.16
SVE-9	12/8/2006	1,179	53	15	25.5	9.8	2,612	10,344	--	--	22.95	333.75
SVE-9	12/15/2006	1,386	57	15.2	29.73	16.8	1,223	4,843	--	--	20.3	476.41
SVE-9	12/19/2006	362	31	2.15	8.45	20.8	1,170.00	4,633	590	2,100	3.6	490.82
SVE-9	12/19/2006	1,717	63	13.9	36.53	21	1,378.00	5,456.90	--	--	16.57	493.92
SVE-9	12/28/2006	1,325	50	13.86	28.91	29.8	924	3,659	--	--	11.85	598.32
SVE-9	1/4/2007	1,353	55	13.7	29.24	36.9	685	2,713	420	1,500	8.38	657.34
SVE-9	1/12/2007	865	48	10	19.13	44.8	848	3,358	--	--	5.22	698.96
SVE-9	1/19/2007	677	44	10	15.09	51.7	1,521	6,023	--	--	6.37	742.9
SVE-9	1/26/2007	900	65	12	19.17	56.8	783	3,101	620	2,200	7.86	782.93
SVE-9	2/2/2007	632	45	13	13.96	63.7	480	1,901	--	--	3.14	804.47

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SVE-9	2/9/2007	1,060	58	13.5	22.79	70.7	436	1,727	--	--	3.72	830.56
SVE-9	2/16/2007	1,020	58	15	21.85	77.7	416	1,647	290	1,000	3.31	853.85
SVE-9	2/23/2007	628	45	17.1	13.72	84.7	380	1,505	--	--	1.94	867.43
SVE-9	3/1/2007	664	52	17.5	14.3	90.7	378	1,497	--	--	1.93	879.06
SVE-9	3/8/2007	448	45	17.1	9.79	97.8	405	1,604	--	--	1.36	888.63
SVE-9	3/15/2007	621	52	16.9	13.39	104.7	515	2,039	240	850	2.19	903.81
SVE-9	3/22/2007	1,410	80	14.9	28.98	111.8	371	1,469	--	--	4.57	936.53
SVE-9	3/22/2007	1,160	77	13.1	24.08	111.9	476	1,885	--	--	3.63	936.64
SVE-9	3/30/2007	614	50	15.6	13.34	119.7	460	1,822	--	--	2.22	954.04
SVE-9	4/5/2007	744	62	14.2	15.85	125.7	418	1,655	--	--	2.48	968.96
SVE-9	4/20/2007	693	58	14.2	14.87	136.8	701	2,776	230	810	2.96	1001.82
SVE-9	4/27/2007	709	58	16	15.15	143.8	416	1,647	--	--	3.01	1022.88
SVE-9	5/3/2007	659	55	15	14.2	149.8	390	1,544	--	--	2.04	1035.13
SVE-9	5/11/2007	905	59	13.2	19.44	157.8	411	1,628	--	--	2.77	1057.31
SVE-9	5/18/2007	856	59	13.7	18.36	164.8	317	1,255	180	630	2.38	1073.95
SVE-9	5/25/2007	979	62	16.2	20.74	166.8	548	2,170	--	--	3.19	1080.4
SVE-9	6/1/2007	0	--	--	--	172.9	0	0	--	--	0	1080.4
SVE-9	6/8/2007	900	57	15	19.31	179.8	265	1,049	--	--	0.91	1086.72
SVE-9	6/14/2007	1,226	80	12.3	25.36	185.9	259	1,026	140	490	2.37	1100.98
SVE-9	6/21/2007	886	59	15.5	18.92	186.2	516	2,043	--	--	2.61	1101.8
SVE-9	6/29/2007	1,353	71	13.3	28.39	194.2	322	1,275	--	--	4.24	1135.67
SVE-9	7/5/2007	1,280	72	13.9	26.77	197	358	1,418	--	--	3.24	1144.87
SVE-9	7/13/2007	685	71.4	5.3	14.66	205	239	946	--	--	1.56	1157.37
SVE-9	7/18/2007	996	67	10	21.24	210.1	245	970	120	420	1.83	1166.58
SVE-9	7/26/2007	1,008	68	10.4	21.43	215.4	356	1,410	--	--	2.29	1178.85
SVE-9	8/2/2007	1,090	69	8.4	23.25	222.5	207	820	--	--	2.33	1195.22
SVE-9	8/10/2007	1,149	71	11.5	24.22	223.8	351	1,390	--	--	2.41	1198.44
SVE-9	8/17/2007	1,133	66	11.8	24.09	227.8	206	816	120	420	2.39	1208.01
SVE-9	12/12/2008	2,100	55	12.9	45.48	0	282	1,117	330	1,200	2.28	0
SVE-9	12/22/2008	1,560	49	11.6	34.3	0.1	494	1,956	--	--	4.74	0.39
SVE-9	12/30/2008	1,751	52	14.3	38.01	8.1	195	772	--	--	4.66	38.04
SVE-9	1/15/2009	900	48	2.5	20.28	24.1	144	570	--	--	1.22	67.51
SVE-9	1/22/2009	1,620	54	14	35.06	31.1	90	357	54	190	1.46	112.95
SVE-9	1/29/2009	1,650	53	11.2	36.03	38.1	116	459	--	--	1.32	163.31
SVE-9	2/3/2009	1,614	52	15	34.97	43.1	98	386	--	--	1.33	220.61
SVE-9	2/10/2009	1,060	43	16	23.32	50.1	19	75	--	--	0.48	244.81
SVE-9	Mako System Installed											
SVE-9	4/30/2009	1,010	71	12	21.26	0	89	352	57	200	0.34	0
SVE-9	5/7/2009	1,050	72	20	21.64	7	72	285	--	--	0.62	4.32
SVE-9	5/21/2009	1,590	94	20	31.44	18.2	121	479	--	--	1.08	23.95
SVE-9	6/11/2009	1,750	66	14	37	26.6	11	44	--	--	0.87	47.06
SVE-9	6/18/2009	2,700	73	23	55.01	32.5	45	178	--	--	0.55	64.87
SVE-9	7/2/2009	2,700	71	24	55.12	39.8	246	974	--	--	2.86	178.4
SVE-9	7/9/2009	2,700	64	25	55.68	46.7	58	230	--	--	3.01	319.24
SVE-9	7/16/2009	1,750	86	14	35.65	53.7	110	436	--	--	1.07	376.55
SVE-9	7/23/2009	1,851	69	14	38.94	60.7	49	194	--	--	1.1	443.49

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Table 6
Cumulative Soil Vapor Data
Operation Parameters, Sampling Results, and Mass Removal Calculations
Closure Request
Chevron Sunol Pipeline

Well ID	Sample Date	Flowrate (fpm)	Temp (°F)	Vacuum (inches water)	Flowrate (scfm)	Total Operation Time (days)	TPH-GRO Concentration (ppm)	Field TPH-GRO Concentration (mg/m3)	Lab TPH-GRO Concentration (ppm)	Lab TPH-GRO Concentration (mg/m3)	Mass Removal Rate (lbs/day)	Cumulative Mass Removal (lbs)

Abbreviations
fpm = feet per minute
°F = degrees Farenheit
scfm = standard cubic feet per meter
TPH-g = total petroleum hydrocarbons as gasoline
ppm = parts per million
mg/m3 = milligrams per meter cubed
lbs/day = pounds per day
lbs = pounds

Note
1. Inlet pipe diameter is 2".

Assumptions
1. Relative vapor density of gasoline is approximately 3.3.
2. Vapor density of pure, dry air is 1,200 g/m3 at 20C.
3. Vapor density of gasoline is calculated to be 3,960 g/m3 at 20C.
4. SCFM(at 14.7psia and 68°F) = CFM x([(Pg + Patm)/(Patm)] x [(68 +460)/(Tact +460)]).

Appendix A

Boring Logs and Well Construction Details

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1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING

Borehole ID: AR-1 (MW-1)

Total Depth: 41 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Test America Drilling
Site Location: 8501 Calaveras Rd., Sunol, CA	**Driller:** Mike Thomas
Project Manager: Joe Morgan	**Type of Drilling Rig:** Schramm T660W Rotadrill
RG: Leonard Niles	**Drilling Method:** Air Rotary Casing Hammer
Geologist: Leonard Niles	**Sampling Method:** 1.5" Standard Penetrometer, 2" Split Spoon
Job Number: 26815217.00500	**Date(s) Drilled:** 10/18/05, 10/20/05

BORING INFORMATION

Groundwater Depth: 37.9 feet bgs (initial), 38.2 feet bgs (static)	**Boring Location:** Valley Crest Tree Company
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 9"
Coordinates: X Y	**Boring Type:** Completed as groundwater monitoring well MW-1.

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		FILL: Thin gravel fill layer, 1" thick at surface	ML				Hand augered to 5 feet bgs.
2		SANDY SILT: Very dark gray (2.5 Y 3/1), 5% clay, 75% silt, 20% fine sand, very low plasticity, very stiff, damp, white caliche fragments					Well completion: 4" ID sch 40 PVC, screened at 29.3-39.3' bgs, see well diagram for details
4							
6				0			Begin rotary drilling at 5', drove 6" casing behind bit
8							
10		SANDY SILT: Dark grayish brown (10 YR 4/2), 10-20% clay, 15-20% fine grained sand, 60-75% silt, hard, damp to dry, <5% coarse grained sand	ML	0			
12							
14							
16							
18		as above, brown (10 YR 4/3)					
20				0			
22							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24		contact at 25' bgs, from cuttings					
26		SANDY GRAVEL: Grayish brown (10 YR 5/2), 10% silt, 30% fine to coarse sand, fine to coarse sub rounded gravel to 2" diameter, dry - logged from cuttings	GW				
28				0			
30		as above, subrounded to angular sandstone, chert and greenstone clasts					
32							
34							
36							PID reading collected from top of drive casing in open borehole
38				3	MW-1-38.5 -39 on 10/18/05		
40		SILTSTONE: very dark greenish gray (10 YR 3/1), 80-85% silt and clay, 15-20% very fine sand, soft, moist, hydrocarbon odor, weathered		1.6 70	Ground-water sample MW-1-GW @ 15:00 on 10/20/05		Depth to water = 37.9' @ 14:16, 0.6" water in the hole. 10/18/05 - drilled to 38 ft bgs with 6" casing.
42				650			10/20/05 overdrilled with 9" casing to 41 ft bgs, total depth of boring at 10:15.
44							
46							
48							
50							

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Oakland, California 94612

LOG OF BORING

Borehole ID: AR-2

Total Depth: 108 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Test America Drilling
Site Location: 8501 Calaveras Rd., Sunol, CA	**Driller:** Mike Thomas
Project Manager: Joe Morgan	**Type of Drilling Rig:** Schramm T660W Rotadrill
RG: Leonard Niles	**Drilling Method:** Air Rotary Casing Hammer
Geologist: Leonard Niles	**Sampling Method:** 1.5" Standard Penetrometer, 2" Split Spoon
Job Number: 26815217.00500	**Date(s) Drilled:** 10/18/05, 10/19/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Valley Crest Tree Company
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 6"
Coordinates: X Y	**Boring Type:** Exploratory, grouted to surface with cement/ 5% bentonite

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		FILL: Thin layer of gravel fill at the surface.	ML				Hand augered to 5 feet bgs.
2		SANDY SILT: Very dark gray (10 YR 3/1), 10% clay, 60-70% silt, 20-30% fine grained sand, very low plasticity, damp, caliche gragments and veins					Grouted boring to surface with cement/ 5% bentonite grout slurry on 10/19/05.
4							
6							Drilled with 6" rotary and drove casing to 8.5'
8							
10		SANDY SILT: as above except grayish brown (10 YR 5/2), 5-10% clay, 50-60% silt, 35-50% fine grained sand, hard, dry, no hydrocarbon odor, high estimated permeability	ML	0			
12							
14							
16		SANDY GRAVEL: Very dark gray (2.5 Y 3/1), 10% silt and clay, 25-30% fine to coarse sand, 60-65% fine to coarse, sub-rounded to sub-angular gravel, very dense, dry, sandstone and chert gravel clasts to 2" diameter, no hydrocarbon odor	GW				
18				0	CP-AR-2-18.5-19		
20							
22							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24							
26							
28		as above but moist (not wet)					
30		CLAYEY SILT: Very dark greenish gray (10 Y 3/1), 20-30% clay, 60-70% silt, 10% very fine grained sand, soft, dry, no hydrocarbon odor, low estimated permeability	ML	0	CP-AR-2-28.5-29		Drove 6" casing to 28.5'. Bedrock encountered at 29', no water found.
32		as above except numerous sandstone adn chert clasts in cuttings-slough falling from above?					Drilled below 30' with tri-cone rotary bit, 6" casing at 29'.
34							
36							
38							
40		Very dark greenish gray (10 Y 3/1), as above except increasing clay to 30-40%, 50-60% silt, 10-15% fine grained sand; about 2" of gravel slough at top of sampler; siltstone appears to be grading to claystone, no hydrocarbon odor		0			
42							
44							
46							
48							
50							
52							
54							
56							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
58		grading to silty claystone, contact approximate from cuttings					
60		SILTY CLAY: Very dark greenish gray (10 Y 3/1), 50-60% clay, 40-50% silt, <10% very fine grained sand, low estimated permeability, soft, dry-logged from cuttings	CL				
62							
64							
66							
68							
70							
72							
74							
76							
78		Silty claystone as above except dark greenish gray (10 Y 3/1), 50-60% clay, 40-50% silt, 5-10% fine grained sand, soft, damp, moderate plasticity (when wet), no hydrocarbon odor, low-very low est. k		0			
80							Drilled to 79' with tri-cone rotary bit, drove standard penetrometer to 79.5'.
82							
84							
86							
88							
90							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
92							
94		Contact approximately 95' bgs					
96		SILTY CLAY: dark greenish gray (10 Y 3/1) 50-60% clay, 40-50% silt, 10% very fine grained sand, hard, damp to moist, very low estimated permeability; appears to be highly weathered claystone, possibly fault gauge, disturbed structure	CL	0			
98							Rotary bit at 97', drove standard penetrometer 97-97.5'.
100							
102							
104		Contact approximately 105 ft bgs from drill rig behavior					
106		ULTRABASIC IGNEOUS ROCK: Basalt or Gabbro, very dark gray (2.5 Y 3/1), minor quartz, mostly dark minerals, hard, damp to dry, very low estimated permeability.	BAS or GAB				More difficult drilling at 105'
108							Borehole ends, no sample recovery at 108' bgs, total depth of borehole @ 14:45, 10/19/05.
110							
112							
114							

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LOG OF BORING

Borehole ID: AR-3 (MW-2)

Total Depth: 39 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Test America Drilling
Site Location: 8501 Calaveras Rd., Sunol, CA	**Driller:** Mike Thomas
Project Manager: Joe Morgan	**Type of Drilling Rig:** Schramm T660W Rotadrill
RG: Leonard Niles	**Drilling Method:** Air Rotary Casing Hammer
Geologist: Leonard Niles and Greg White	**Sampling Method:** 1.5" Standard Penetration Split Spoon
Job Number: 26815217.00500	**Date(s) Drilled:** 10/20/05 - 10/21/05

BORING INFORMATION

Groundwater Depth: 38.7 feet bgs (initial), 34.5 feet bgs (static)	**Boring Location:** Valley Crest Tree Company
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 9"
Coordinates: X Y	**Boring Type:** Completed as groundwater monitoring well MW-2

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		FILL: Thin gravel fill layer, 1" thick at surface	ML				Hand augered to 5' bgs.
2		SANDY SILT: Very dark gray to black (10 YR 3/1 - 2/1), < 10% clay, 50-60% silt, 40-50% fine to coarse grained sand, <5% gravel, damp, caliche fragments and veins					Moved location 2 ft after obstruction (gravel) encountered at 4.5 ft bgs. Encountered obstruction again at 4.5 ft but hand augered through to 5' bgs.
4		Encountered gravel clasts at 4.5' bgs					
6							Well completion: 4" ID sch 40 PVC, screened at 23.3-38.3 ft bgs, see well diagram for details.
8		Same as above except very dark grayish brown (10 YR 3/2), increased plasticity, hard, friable, damp, caliche veins, some fine to coarse gravel, trace roots		0.0			
10							
12		same as above, color change to brown (10 YR 4/3) from cuttings					
14							
16		same as above, dark grayish brown (10 YR 4/2), increasing coarse sand and fine gravel, damp					
18							drove 9" casing to 18.5'
20		SANDY GRAVEL: Dark grayish brown (10 YR 4/2) to dark gray (10 YR 4/1), 10-15% silt, 20-30% fine to coarse sand, 45-55% fine to coarse gravel, dry	GW/ GM				Resumed drilling on 10/21/05 from 10/20/05.
22							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24							
26		SANDY GRAVEL: Dark greenish gray (Y 4/1) to light olive brown (2.5 Y 5/3), fine to coarse gravel, moist	GW				
28							
30				0.0			Moisture content in cuttings is increasing at 32' bgs. Collect cuttings.
32		Color as above, fine to coarse sand and gravel, little fines, moist, logged from cuttings		0.0			Cuttings change color to a darker gray and become fined at ~34' bgs.
34		Bedrock contact at 34' bgs, from cuttings SILTSTONE: Dark greenish gray (5 G 4/1), moist					{Water level is 34.5 ' bgs at 09:20 on 10/27/05.}
36							
38							▼
40				0.0			Bedrock encountered in splitspoon collected from 39' bgs.
42							Brought casing up to ~34' and checked water level. Borehole open to total depth of 39' bgs and the water level is at 38.7' bgs, at 9:00 on 10/21/05.
44							
46							
48							

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LOG OF BORING

Borehole ID: AR-4 (MW-3)

Total Depth: 38 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Test America
Site Location: 8501 Calaveras Rd., Sunol, CA	**Driller:** Mike Thomas
Project Manager: Joe Morgan	**Type of Drilling Rig:** Schramm T660W Rotadrill
RG: Leonard Niles	**Drilling Method:** Air Rotary Casing Hammer
Geologist: Greg White	**Sampling Method:** 18" standard split spoon
Job Number: 26815217.00500	**Date(s) Drilled:** 10/21/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Valley Crest Tree Company
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 9"
Coordinates: X Y	**Boring Type:** Completed as groundwater monitoring well MW-3.

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		FILL	ML				Hand augered to 5' bgs.
2		SANDY SILT: Black (10 YR 2/1), soft, moist, track gravel, caliche veins, fine					Well completion: 4" ID sch 40 PVC screened at 21.3-36.3 ft bgs, see well diagram for details.
4							
6							
8		Very dark grayish brown (10 YR 3/2), increased fine sand content, stiff, moist, some gravel, chert nodules, caliche veins, poorly cemented sandstone fragments.					
10							
12							
14							
16							
18		Dark yellowish brown (10 YR 4/4), fine to medium sand, gravel and rock fragments increasing with depth					
20		SANDY GRAVEL: Gray to yellowish brown (10 YR 5/1 - 5/3), some fines, fine to coarse sand and gravel, moist	GW				
22							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24		SANDY GRAVEL as above, logged from cuttings					
26							
28							
30		as above except increased moisture content in cuttings		0.0			Logged cuttings from hopper at 29' bgs because split spoon recovery has been very poor in the gravel layer.
32							
34		SILTSTONE: Bedrock contact at 33' bgs, from cuttings					At 32' bgs moisture content in soil increased.
36							Cuttings changed to gray fines - bedrock contact at 33' bgs.
38							End of boring in siltstone layer at 38' bgs. Checked water level after pulling casing up to 33' bgs. No groundwater was encountered. Completed as monitoring well to 38' bgs in case groundwater rises into the well.
40							
42							
44							

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LOG OF BORING

Borehole ID: CP-SB-1

Total Depth: 34 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline, Sunol	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: Calaveras Ave., Sunol, CA	**Driller:** Vince
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe
RG: Leonard Niles	**Drilling Method:** Direct Push
Geologist: Steven Plunkett	**Sampling Method:** Micro Core
Job Number: 26815217.00500	**Date(s) Drilled:** 8/25/05

BORING INFORMATION

Groundwater Depth: not reached	**Boring Location:** Adjacent to Calaveras Ave.
Air Knife or Hand Auger Depth:	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SANDY SILT: Brown/black (2.5 YR 5/4), organic rich, 70% silt, 30% very fine sand, dry, non-plastic, soft, minor cobbles and gravel present <5%	ML	0.2	CP-SB-1 @ 0.5-1		Hand augered to 5' bgs
2					CP-SB-1 @ 1-1.5		
4				0.8	CP-SB-1 @ 2-2.5		
6		Same as above Same as above except (2.5 YR 5/4) 80% silt, 20% very fine sand, dry, slightly firm, non-plastic			CP-SB-1 @ 5.5-6		
8							
10					CP-SB-1 @ 9.5-10		
12		Same as above except brown (10 YR 4/3), sand content increases 25%, very fine to medium sand wtih minor gravel, distinct calcite veining present					
14							
16		SANDY CLAYEY SILT: content of fines increasing, very fine, (10 YR 4/3), dry/slightly damp, non-plastic, 70% silt, 20% clay, 10% sand, minor calcite staining	ML		CP-SB-1 @ 15.5-16		
18							
20					CP-SB-1 @ 19.5-20		
22							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24		SANDY SILT: dry sandy silt, gray, dry to slightly damp	ML/S		CP-SB-1 @ 25-25.5		
26							
28		SILTY SAND: (10 YR 4/3), 60% fine to medium sand with minor gravel, 30% silt, quartz rich, subangular to subrounded	SM				
30					CP-SB-1 @ 30-30.5		
32							
34							Refusal at 34' bgs, end of boring
36							

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LOG OF BORING

Borehole ID: CP-SB-10

Total Depth: 38 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline, Sunol	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: Calaveras Ave., Sunol, CA	**Driller:** Vince
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe
RG: Leonard Niles	**Drilling Method:** Direct Push
Geologist: Steven Plunkett	**Sampling Method:** Micro Core
Job Number: 26815217.00500	**Date(s) Drilled:** 8/29/05

BORING INFORMATION

Groundwater Depth: not reached	**Boring Location:** Adjacent to Calaveras Ave.
Air Knife or Hand Auger Depth: 5.0 feet bgs	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		CLAYEY SILT: (10 YR 2/2), dry, medium strength, calcite/caliche veining, some gravel, organic rich soil horizon A	ML		CP-SB-10 @ 0.5-1		Hand augered to 5' bgs
2					CP-SB-10 @ 1-1.5		
4					CP-SB-10 @ 2.5-3		
6					CP-SB-10 @ 5.5-6		
8							
10					CP-SB-10 @ 9.5-10		
12							
14							
16		SANDY SILT: (10 YR 6/8), dry, medium strength, caliche, very fine	ML/ SM		CP-SB-10 @ 15.5-16		
18							
20		CLAYEY SILT: (10 YR 4/3), <10% very fine sand, medium strength, non-plastic, dry	ML		CP-SB-10 @ 19.5-20		
22							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24							
26					CP-SB-10 @ 25-25.5		
28		SANDY SILT: 70% silt, 30% very fine sand, dry	ML				
30					CP-SB-10 @ 29.5-30		
32		SILTY CLAY: (10 YR 4/3), <10% very fine sand, slightly damp, soft, low plasticity	ML/ CL				
34							
36		SILTY SAND: moist, quartz rich, subangular to subrounded, medium density	SM/ MK		CP-SB-10 @ 35-35.5		
38					CP-SB-10 @ 39-39.5		Note: interval sample ID is incorrect, was 37.5'-38' Refusal on coarse cobbles at 38' bgs, end of boring.
40							

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LOG OF BORING

Borehole ID: CP-SB-11

Total Depth: 22.5 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Juan
Project Manager: Joe Morgan	**Type of Drilling Rig:** Power Probe 9630 Pro-D
RG: Leonard Niles	**Drilling Method:** Hand Auger and Direct Push
Geologist: Greg White	**Sampling Method:** 6" brass sleeve/4' acetate sleeve
Job Number: 26815217.00300	**Date(s) Drilled:** 10/11/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Dirt road on steep hillside
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILTY SAND: Brown, dry, loose, silty fine sand with some fine gravel and roots.	SM		10:00 CP-SB-11 @ 0.5 - 1		Hand auger from 0 - 5'
2					10:05 CP-SB-11 @ 1 - 1.5		
4					10:10 CP-SB-11 @ 2.5 - 3		Begin direct push drilling at 5'
6				0.0	10:30 CP-SB-11 @ 5.5 - 6		
8							
10					10:42 CP-SB-11 @ 10-10.5		Driller switched from dual tube to macro sleeve due to poor recovery
12		SANDY SILT: Brown, moist, loose fine sandy silt with fine gravel.	ML	0.0			Drilling resumes with macro sampler at 12' bgs
14		SAND: Light brown, dry, loose, very fine sand with a slight odor.	SP	21			
16		GRAVELLY SAND: Light brown, dry to wet (at 20 ft), loose, fine to coarse gravelly fine sand, some rock fragments.	SP/ GP		11:05 CP-SB-11 @ 15.5 - 16		
18				705			
20		SAND: Gray, moist, very dense, fine sand.	SP		11:16 CP-SB-11 @ 19.5 - 20		
22				0.0			Refusal at 22.5' bgs. Install 3/4" PVC to see if any groundwater will enter borehole.

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Oakland, California 94612

LOG OF BORING

Borehole ID: CP-SB-12

Total Depth: 27 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Juan
Project Manager: Joe Morgan	**Type of Drilling Rig:** Power Probe 9630 Pro-D
RG: Leonard Niles	**Drilling Method:** Direct push/hand auger
Geologist: Greg White	**Sampling Method:** 6" brass sleeve/4' acetate sleeve
Job Number: 26815217.00300	**Date(s) Drilled:** 10/11/05

BORING INFORMATION

Groundwater Depth: 24 feet bgs during drilling	**Boring Location:** Dirt road on steep hillside
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILTY SAND: Brown, dry, loose, silty fine sand with some fine gravel and roots.	SM		13:50 CP-SB-12 @ 0.5 - 1		Hand auger from 0 - 5'
2					13:57 CP-SB-12 @ 1 - 1.5		
4					14:00 CP-SB-12 @ 2 -2.5		
6				0	14:25 CP-SB-12 @ 5 - 5.5		Begin advancing borings with Geoprobe at 5'
8							
10		SILTY SAND: Light brown, moist, loose, silty very fine sand with some medium gravel.	SM	16	14:30 CP-SB-12 @ 10 - 10.5		
12		GRAVELLY SAND: Light brown, moist, loose, fine to coarse gravelly fine to medium sand that contains rock fragments. Gravel and rock fragments are increasing with depth.	GP/ SP				
14				3.0			
16		SAND: Light brown to gray, moist, dense, medium sand with trace amounts of gravel and some iron staining.	SP		14:38 CP-SB-12 @ 15 - 15.5		
18		same as above		0			
20				5.4	16:05 CP-SB-12 @ 19.5 - 20		Only able to recover 2' samples at a time due to sluff in borehole after removing micro sampler.
22							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24				0			▼
26		GRAVELLY CLAY: Brown, moist to wet, coarse gravelly, fine sandy clay.	GC/ CL				End borehole at 27' bgs. Groundwater encountered at ~24' bgs.
28							
30							

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LOG OF BORING

Borehole ID: CP-SB-13

Total Depth: 12 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Juan
Project Manager: Joe Morgan	**Type of Drilling Rig:** Power Probe 9630 Pro-D
RG: Leonard Niles	**Drilling Method:** Direct push/hand auger
Geologist: Greg White	**Sampling Method:** 6" brass tubes/4' acetate sleeve
Job Number: 26815217.00300	**Date(s) Drilled:** 10/12/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Dirt road on steep hillside
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILTY SAND: Brown, moist, loose, silty fine sand with roots and trace amounts of gravel.	SM	0	08:30 CP-SB-13 @ 0.5 - 1 08:35 CP-SB-13 @ 1 - 1.5		Hand auger from 0 - 5'.
2							
4					08:40 CP-SB-13 @ 2 - 2.5		
6		SANDY SILT: Yellow brown, moist, loose, fine sandy silt with roots. Large root at 7'.	ML	5.7			Begin advancing boring with Direct Push method at 5' bgs.
8		GRAVELLY SAND: Brown grading to gray, moist, fine to coase gravelly fine sand. Gravel content increasing with depth.	GP/ SP		08:50 CP-SB-13 @ 5 - 5.5		
10				2.7	09:00 CP-SB-13 @ 10 - 10.5		
12							Refusal at 12' on rock.
14							

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LOG OF BORING

Borehole ID: CP-SB-13R

Total Depth: 10 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Juan
Project Manager: Joe Morgan	**Type of Drilling Rig:** Power Probe 9630 Pro-D
RG: Leonard Niles	**Drilling Method:** Direct push/hand auger
Geologist: Greg White	**Sampling Method:** 6" brass sleeves/4' acetate sleeve
Job Number: 26815217.00300	**Date(s) Drilled:** 10/12/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** 5' downhill step-out boring of CP-SB-13
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		Blind drill to 10' bgs.			10:00 CP-SB-14 @ 0.5 - 1		Begin hand augering from 0 - 5'
2		(0 - 5' bgs with hand auger)			10:02 CP-SB-14@ 1 - 1.5		
4		(See CP-SB-13 log for Geology)			10:05 CP-SB-14 @ 2 - 2.5		
6							Begin drilling with Geoprobe at 5'
8							Refusal at 10' bgs on same rock obstruction at 12' as at CP-SB-13
10							End of boring at 10' bgs
12							

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LOG OF BORING

Borehole ID: CP-SB-14

Total Depth: 3.5 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Juan
Project Manager: Joe Morgan	**Type of Drilling Rig:** Power Probe 9630 Pro-D
RG: Leonard Niles	**Drilling Method:** Direct push/hand auger
Geologist: Greg White	**Sampling Method:** 6" brass sleeves/4' acetate sleeve
Job Number: 26815217.00300	**Date(s) Drilled:** 10/12/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Dirt road on steep hillside
Air Knife or Hand Auger Depth: 3.5 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILTY SAND: Brown, moist, loose, silty fine sand with roots and some gravel	SM		10:00 CP-SB-14 @ 0.5 - 1 10:02 CP-SB-14@ 1 - 1.5 10:05 CP-SB-14 @ 2 - 2.5		Begin hand augering from 0 - 5' Refusal at 3.5' with hand auger on coarse gravel and cobbles. The hole continues to collapse after pulling out the hand auger. Begin hand augering again approximately 2' up the dirt road and try to advance hand auger to 5'. Again refusal occurs on cobbles at 3.5'.
2							
4							
6							
8							
10							

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LOG OF BORING

Borehole ID: CP-SB-15

Total Depth: 10.5 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Juan
Project Manager: Joe Morgan	**Type of Drilling Rig:**
RG: Leonard Niles	**Drilling Method:** Hand auger
Geologist: Greg White	**Sampling Method:** 6" brass sleeves
Job Number: 26815217.00300	**Date(s) Drilled:** 10/12/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Steep hillside below dirt road
Air Knife or Hand Auger Depth: 10.5 feet bgs	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILTY SAND: Brown, dry to moist, loose, silty fine sand with roots and some gravel.	SM		15:00 CP-SB-15 @ 0.5 - 1		Begin hand augering.
2				18.3	15:05 CP-SB-15 @ 1 - 1.5		
4					15:15 CP-SB-15 @ 2.5 - 3		
6					15:35 CP-SB-15 @ 5 - 5.5		
8							
10		SANDY SILT: Brownish gray, moist sandy silt with gravel.	ML	31.4	16:30 CP-SB-15 @ 10 - 10.5		End of boring with hand auger at 10.5'.
12							

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LOG OF BORING

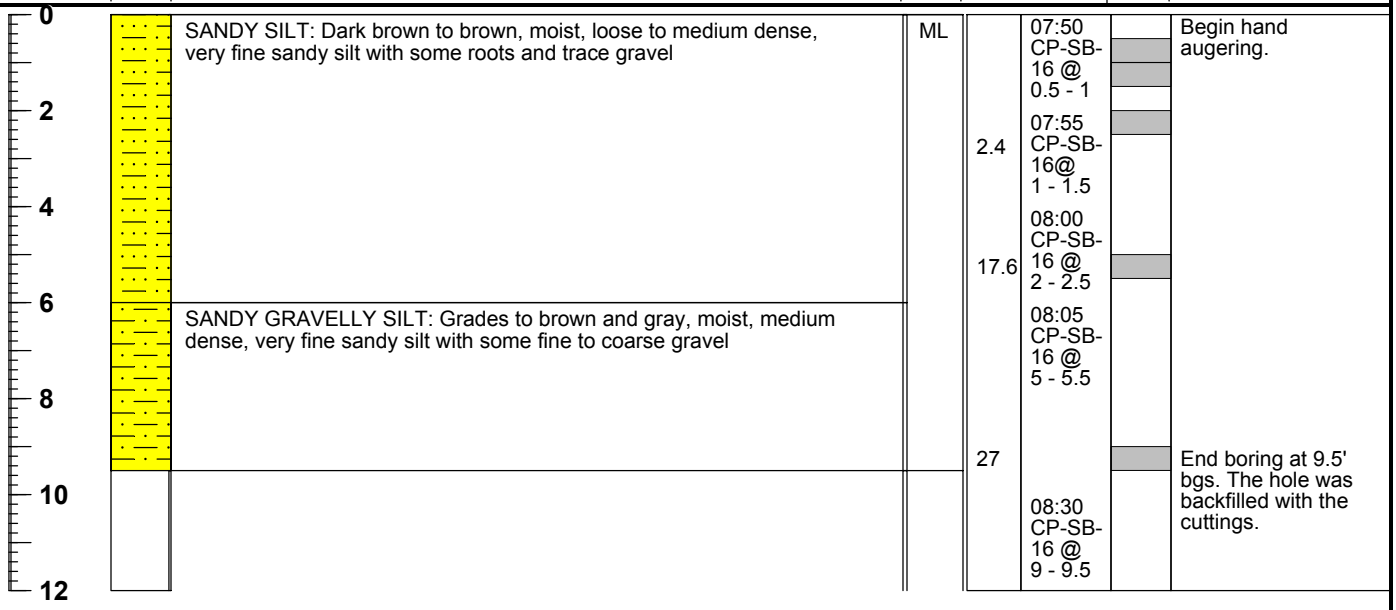
Borehole ID: CP-SB-16

Total Depth: 9.5 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Juan
Project Manager: Joe Morgan	**Type of Drilling Rig:**
RG: Leonard Niles	**Drilling Method:** Hand auger
Geologist: Greg White	**Sampling Method:** 6" brass tubes
Job Number: 26815217.00300	**Date(s) Drilled:** 10/13/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Steep hillside below dirt road
Air Knife or Hand Auger Depth: 9.5 feet bgs	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil



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LOG OF BORING

Borehole ID: CP-SB-17

Total Depth: 6 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Juan
Project Manager: Joe Morgan	**Type of Drilling Rig:**
RG: Leonard Niles	**Drilling Method:** Hand auger
Geologist: Greg White	**Sampling Method:** 6" brass sleeves
Job Number: 26815217.00300	**Date(s) Drilled:** 10/13/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Steep hillside below dirt road
Air Knife or Hand Auger Depth: 6.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SANDY SILT: Brown, moist, medium dense, very fine sandy silt with some roots and gravel	ML	1	09:00 CP-SB-17 @ 0.5 - 1		Begin hand augering
2				5.8	09:05 CP-SB-17@ 1 - 1.5		
4					09:10 CP-SB-17 @ 2 - 2.5		
6		GRAVELLY SILT: Gray, moist gravelly silt with some cobbles and roots	GM/ ML	15.5 75.3	09:15 CP-SB-17 @ 5 - 5.5		Refusal with hand auger at 6' bgs to end the boring. The hole was backfilled with the cuttings
8							
10							

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LOG OF BORING

Borehole ID: CP-SB-18

Total Depth: 9 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Juan
Project Manager: Joe Morgan	**Type of Drilling Rig:**
RG: Leonard Niles	**Drilling Method:** Hand auger
Geologist: Greg White	**Sampling Method:** 6" brass sleeves
Job Number: 26815217.00300	**Date(s) Drilled:** 10/13/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Steep hillside below dirt road
Air Knife or Hand Auger Depth: 9.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SANDY SILT: Brown, moist, loose to medium dense, very fine sandy silt with trace rocks and gravel. The rock content increases at 3', odor present	ML	5.0	10:05 CP-SB-18 @ 0.5 - 1		Begin hand augering.
2				13.7	10:10 CP-SB-18@ 1 - 1.5		odor present
4		SAND: Light brown, moist, loose, fine sand with some coarse gravel and cobbles	SP	5.8	10:25 CP-SB-18 @ 2 - 2.5		
6		SILT: Gray moist silt with some gravel	ML	4.5	10:40 CP-SB-18 @ 5 - 5.5		
8		SANDY SILT: Gray with some brown mottling, moist, medium dense sandy silt with some coarse gravel, odor present	ML	149	11:15 CP-SB-18 @ 8.5 - 9		odor present
10		SILT: Gray with some light brown mottling, moist, silt with some gravel and sand	ML	381			End of boring at 9' bgs.

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LOG OF BORING

Borehole ID: CP-SB-19

Total Depth: 3 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Juan
Project Manager: Joe Morgan	**Type of Drilling Rig:**
RG: Leonard Niles	**Drilling Method:** Hand auger
Geologist: Greg White	**Sampling Method:** 6" brass sleeves
Job Number: 26815217.00300	**Date(s) Drilled:** 10/13/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Steep hillside below dirt road
Air Knife or Hand Auger Depth: 3.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILTY SAND: Brown, moist, loose, silty fine sand with trace gravel and some roots	SM	478	11:40 CP-SB-19 @ 0.5 - 1		Begin hand augering
							Strong odor in soil
2		SANDY SILT: Light brown to gray, loose, fine sandy silt, gravel increasing with depth	ML	1085			
					11:45 CP-SB-19 @ 1 - 1.5		Strong odor in soil
				1178			Strong odor in soil
4					11:55 CP-SB-19 @ 2 - 2.5		Refusal of hand auger at 3' bgs on rock or large cobble. The steep slope conditions and high PID readings will end the boring. The hole was backfilled with the soil
6							
8							

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LOG OF BORING

Borehole ID: CP-SB-2

Total Depth: 31 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline, Sunol	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: Calaveras Ave., Sunol, CA	**Driller:** Vince
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe
RG: Leonard Niles	**Drilling Method:** Direct Push
Geologist: Steven Plunkett	**Sampling Method:** Micro Core
Job Number: 26815217.00500	**Date(s) Drilled:** 8/25/05

BORING INFORMATION

Groundwater Depth: not reached	**Boring Location:** Adjacent to Calaveras Ave.
Air Knife or Hand Auger Depth: 5.0 feet bgs	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		ROAD BASE: Road base material	ML		CP-SB-2 @ 0.5-1		Hand augered to 5' bgs
		SANDY SILT: Brown (10 YR 4/3), very fine, dry, <20% sand, soil horizon organic material present			CP-SB-2 @ 1-1.5		
2							
					CP-SB-2 @ 2-2.5		
4		Dark brown (10 YR 2/2), 80% silt, 20% very fine sand, dry, non-plastic, moderately stiff					
					CP-SB-2 @ 5-5.5		
6							
8		Caliche veining present, otherwise no change					
					CP-SB-2 @ 10-10.5		
10							
12		CLAYEY SILT: (10 YR 2/2), 70% silt, 20% clay, minor gravel, dry	ML/ CL				
14							
					CP-SB-2 @ 15-15.5		
16							
18							
20					CP-SB-2 @ 20-20.5		
22							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24							
26					CP-SB-2 @ 25-25.5		
28		SILTY SAND: (10 YR 4/3), very fine, moist, soft, low plasticity	SM				
30					CP-SB-2 @ 30-30.5		End of boring at 31' bgs, dry
32							

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LOG OF BORING

Borehole ID: CP-SB-20

Total Depth: 39 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Jose
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe 6620 DT
RG: Leonard Niles	**Drilling Method:** Hand auger and direct push
Geologist: Greg White	**Sampling Method:** 6" brass tube and 4" acetate sleeve
Job Number: 26815217.00300	**Date(s) Drilled:** 10/17/05

BORING INFORMATION

Groundwater Depth: 36' during driilling, 34.6' static	**Boring Location:** dirt road
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILTY SAND: Brown, dry to moist, silty fine sand	SM		09:40 CPSB20 @ 0.5-1		Begin hand augering to 5 feet bgs
2					09:45 CPSB20 @ 1.5-2		
4					09:50 CPSB20 @ 2.5-3		Begin direct push method
6		GRAVELLY SAND: Brown, moist, loose fine sand with gravel and trace roots	SP	22.6	10:25 CPSB20 @ 5-5.5		
8		SILTY SAND: Gray, moist, fine to coarse gravelly silt	ML				
10		GRAVELLY SILTY SAND: Brown, moist, silty fine sand with gravel	GM	8.6	10:35 CPSB20 @ 10-10.5		
12		SILTY GRAVELLY SAND: Light brown, moist, loose, silty gravelly fine sand	SM				
14		SAND: Light brown, moist, loose, fine sand	SP	18.6			
16		SILT: Brown, moist, friable, silt as above with trace sand and gravel	ML		11:00 CPSB20 @ 15-15.5		
18				2.5			
20		SILTY SAND: Brown, dry to moist, friable, silty fine sand with some gravel	SM		11:15 CPSB20 @ 19.5-20		
22				5.7			

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24		as above except light brown			12:00 CPSB20 @ 25-25.5		
26							
28		SANDY SILT: Brown with some yellow mottling, moist, very stiff, fine sandy silt with some calcite veins	ML				
		GRAVELLY SANDY SILT: Brownish gray, moist, very stiff, gravelly fine sandy silt	GM/ ML				
30		SAND: Light brown, moist, fine sand	SP				
32		GRAVELLY SAND: Light brown, moist, gravelly fine sand	GP/ SP				
34		SANDY GRAVEL: Brown, moist, sandy gravel with cobbles	SP/ GP	1236	12:15 CPSB20 @ 30-30.5		▼
36		GRAVELLY SILT: Brown and gray with some red staining, wet, stiff, gravelly silt	GM/ ML				Sample is wet at 36' bgs. No standing water in borehole. Will try to advance borehole in order to get a good groundwater sample.
38		SILT: Gray, moist, very hard silt	ML	1420			End of boring because groundwater was encountered. Set 3/4" PVC pipe well and take groundwater level with a WL meter. Groundwater level is 34.6' bgs.
40							
42							
44							
46							

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LOG OF BORING

Borehole ID: CP-SB-21

Total Depth: 39 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Jose
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe 6620 DT
PG: Barbara Jakub	**Drilling Method:** Hand auger and direct push
Geologist: Greg White	**Sampling Method:** 6" brass tube and acetate sleeve
Job Number: 26815217.00300	**Date(s) Drilled:** 10/17/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Dirt road on steep hillside
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILTY SAND: Brown, dry to moist, silty fine sand with trace gravel and roots	SM		10:05 CPSB21 @ 0.5-1		Begin hand augering to 5 feet bgs
2					10:10 CPSB21 @ 1.5-2		
4					10:15 CPSB21 @ 2-2.5		Begin direct push method
6				1.4	14:10 CPSB21 @ 5-5.5		
8							
10		SAND: Grades to brown, moist, fine sand as above except light brown	SP	1.8	14:15 CPSB21 @ 10-10.5		
12							
14		SILTY SAND: Grades to brown, moist, silty fine sand	SM	2.8			
16					14:20 CPSB21 @ 15-15.5		
18				2.4			
20					14:25 CPSB21 @ 19.5-20		
22				1.5			

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24							
		SANDY SILT: Brown, moist, very stiff to hard, fine sandy silt	ML				
26				6.1	14:30 CPSB21 @ 25-25.5		
28		SILTY SAND: Brown, moist, medium dense, silty fine sand	SM				
30				1.4			
		as above except, light brown, medium stiff, with gravel					
32							
34		GRAVELLY SAND: Gray and brown, moist, fine to coarse gravelly sand, some cobbles	SP/ GP	9.9			
36					15:15 CPSB21 @ 38-38.5		
38				316			Refusal on rock at 39' bgs. Insert 3/4" PVC well to see if groundwater enters the borehole.
40							
42							

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LOG OF BORING

Borehole ID: CP-SB-22

Total Depth: 9 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Juan
Project Manager: Joe Morgan	**Type of Drilling Rig:**
RG: Leonard Niles	**Drilling Method:** Hand auger
Geologist: Greg White	**Sampling Method:** 6" brass sleeves
Job Number: 26815217.00300	**Date(s) Drilled:** 10/13/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Above dirt road on steep hillside
Air Knife or Hand Auger Depth: 9.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILTY SAND: Brown, dry to moist, loose, silty fine sand with some gravel	SM	0.4	15:05 CPSB22 0.5 - 1		Begin hand augering
2				0.7			
				2.1	15:10 CPSB22 1 - 1.5		
4					15:30 CPSB22 2 - 2.5		
6					15:35 CPSB22 5.5 - 6		Soil will not stay in sampler at 5' bgs. Will try sampling 5.5-6' in more coherent soil.
8				0.3			Attempt to collect sample from 8.5-9' bgs. Soil was too loose and kept falling out of sleeve.
10							Terminate boring at 9' bgs. Backfill with cuttings.
12							

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LOG OF BORING

Borehole ID: CP-SB-23

Total Depth: 9 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Juan and Jorge
Project Manager: Joe Morgan	**Type of Drilling Rig:**
RG: Leonard Niles	**Drilling Method:** Hand auger
Geologist: Greg White	**Sampling Method:** 6" brass sleeves
Job Number: 26815217.00300	**Date(s) Drilled:** 10/13/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Above dirt road on steep hillside
Air Knife or Hand Auger Depth: 9.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILTY SAND: Brown, moist, silty very fine sand with some gravel and roots	SM	1.3	16:20 CP-SB-23 @ 0.5 - 1		Begin hand augering
2				0.1			
				0.0	16:25 CP-SB-23 @ 1 - 1.5		
4		As above except slightly moist (almost no cohesion)			16:35 CP-SB-23 @ 2 - 2.5		
6				0.0	16:45 CP-SB-23 @ 5 - 5.5		
8							End of borind at 9' bgs. Downhole PID: 1ppm. Backfill borehole with cuttings.
				1.0	17:00 CP-SB-23 @ 8.5 - 9		
10							

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LOG OF BORING

Borehole ID: CP-SB-24

Total Depth: 6 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Juan and Jorge
Project Manager: Joe Morgan	**Type of Drilling Rig:**
RG: Leonard Niles	**Drilling Method:** Hand auger
Geologist: Greg White	**Sampling Method:** 6" brass sleeves
Job Number: 26815217.00300	**Date(s) Drilled:** 10/13/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** hillside above dirt road
Air Knife or Hand Auger Depth: 6.0	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILTY SAND: Brown, moist, loose, silty fine sand with gravel	SM	2.5	14:25 CPSB24 @ 0.5 - 1		Begin hand augering
2				2.5			
				3.1	14:30 CPSB24 @ 1 - 1.5		
4					14:35 CPSB24 @ 2 - 2.5		
		As above except an increased gravel content from 0-5' bgs.					Cannot collect sample at 5-5.5' because soil is too loose to stay in sampling sleeve. Will try and advance past loose sediment.
6				0.9			Refusal on rock at 6' bgs so end of boring. Backfill hole with cuttings.
8							
10							
12							

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LOG OF BORING

Borehole ID: CP-SB-25
Total Depth: 40 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Jose
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe 6620
RG: Leonard Niles	**Drilling Method:** Hand auger and direct push
Geologist: Greg White	**Sampling Method:** 6" brass tubes and 4' acetate liners
Job Number: 26815217.00300	**Date(s) Drilled:** 10/17/05

BORING INFORMATION

Groundwater Depth: 39' bgs during drilling	**Boring Location:** Tog of dirt road above steep hillside
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILTY SAND: Brown, moist, silty fine sand with roots and some gravel	SM		15:25 CP-SB-25 @ 0.5-1		Begin hand augering to 5 feet bgs
2					15:30 CP-SB-25 @ 1.5-2		
4					15:35 CP-SB-25 @ 2.5-3		Begin direct push method from 5' bgs 09:45.
6				0	15:50 CP-SB-25 @ 5-5.5		
8							
10		GRAVELLY SAND: Grades to light brown, moist, loose, gravelly fine sand	GP/ SP	1.8	16:00 CP-SB-25 @ 10-10.5		
12		SAND: Grades to light brown, moist, loose to medium dense, fine sand As above except with some gravel	SP				
14				1.3			
16					16:05 CP-SB-25 @ 15-15.5		
18				0.7			
20		As above except brown			16:08 CP-SB-25 @ 19.5-20		
22				1.6			

LOG OF BORING

Borehole ID: CP-SB-25

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24							
26				2.2	16:50 CP-SB-25 @ 25-25.5		
28		SILTY SAND: Brown, moist, very dense grading to medium dense, silty fine sand	SM				
30				4.2			
32		GRAVELLY SAND: Brown and gray, dry to moist, loose, fine to coarse gravelly sand with some cobbles	GP/ SP				
34				14.5			
36					17:10 CP-SB-25 @ 35-35.5		
38							
40		SANDY GRAVEL: Brown, wet, loose, sandy gravel; red soil horizon at 39.5-39.8' bgs	GP				End of boring at 40' bgs. Groundwater encountered at 39' bgs and a 3/4" PVC well was set for groundwater sampling.
42							
44							

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LOG OF BORING

Borehole ID: CP-SB-26

Total Depth: 39 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Jose
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe 6600 - Truck Mounted
RG: Leonard Niles	**Drilling Method:** Hand auger and direct push
Geologist: Greg White	**Sampling Method:** 6" brass tubes and acetate sleeves
Job Number: 26815217.00300	**Date(s) Drilled:** 10/25/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Tog of dirt road above steep hillside
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILTY SAND: Dark grayish brown (10 YR 4/2), fine, loose, moist, with gravel, roots, adn caliche veining	SM		09:20 CP-SB-26 @ 0.5-1		Begin hand augering to 5 feet bgs
2					09:25 CP-SB-26 @ 1.5-2		
4				0.0	09:30 CP-SB-26 @ 2.5-3		Begin direct push method from 5' bgs 09:45.
6				0.0	09:55 CP-SB-26 @ 5-5.5		
8		Same as above but becoming medium dense		0.0			
10					10:00 CP-SB-26 @ 10-10.5		
12				0.0			
14							
16		Same as above but brown (10 YR 4/3) and very dense		0.0	10:05 CP-SB-26 @ 15-15.5		
18				0.0			
20		GRAVELLY SAND: Brown (10 YR 4/3), medium dense, moist, fine to coarse gravel, fine sand, some chert and sandstone fragments	SP		10:20 CP-SB-26 @ 20-20.5		
		SILTY SAND: Brown (10 YR 4/3), medium dense, moist, silty fine sand with some fine gravel	SM				
22				0.0			

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24		SANDSTONE: Sandstone fragment, poorly cemented, medium to coarse grained sandstone	SS				
		SILTY SAND: Brown (10 YR 4/3), very dense to dense, moist, silty fine sand with some fine gravel	SM				
26		SAND: Brown (10 YR 4/3), medium dense, moist, fine	SP	0.0	10:45 CP-SB-26 @ 25-25.5		
		SANDY SILT: Dark brown (10 YR 3/2), medium stiff, moist, fine sandy silt with some fine gravel	ML				
28		SILTY SAND: Olive brown (2.5 YR 4/3), dense, moist, some gavel, fine sand	SM				
		SANDY CLAY: Dark olive brown (2.5 Y 3/3), stiff, moist, fine sandy clay, with gravel and some cobbles	CL				
30				0.0			
32							
		SAND: Pale olive and light gray mottled (5 Y 6/4 - 7/1), very dense, moist, fine sand with some fine gravel. Some large sandstone clasts in sample sleeve from 36-39' bgs.	SP				
34				0.0			
36				0.0	10:50 CP-SB-26 @ 30-30.5		
38							
		SILTSTONE: Siltstone bedrock, gray (5 Y 6/1)					
40							End of boring at 39' bgs on siltstone bedrock at 11:20. Will install a temporary 3/4" PVC well to see if a groundwater sample can be taken.
42							
44							

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LOG OF BORING

Borehole ID: CP-SB-27

Total Depth: 38 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Resonant Sonic
Site Location: Calaveras Rd., Sunol, CA	**Driller:** Jose
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe 6600 - Truck Mounted
RG: Leonard Niles	**Drilling Method:** Hand auger and direct push
Geologist: Greg White	**Sampling Method:** Dual tube with 1.5" acetate sleeves
Job Number: 26815217.00300	**Date(s) Drilled:** 10/25/05

BORING INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** NW of creek downhill from the leak
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILTY SAND: Black (5 Y 2.5/2), loose, moist to dry, silty fine sand with some gravel and roots	SM	0.0			Begin hand augering to 5 feet bgs at 11:45.
6		SANDY SILT: Black (5 Y 2.5/2), medium stiff, moist, fine sandy silt with some gravel and caliche veining	ML	0.0			Begin direct push method from 5' bgs 13:00.
8		SILTY SAND: Dark brown (10 YR 3/2), medium dense, moist, fine, some gravel, roots, and caliche veining	SM	0.0			
12		SANDY SILT: Grades to sandy silt, dark brown (10 YR 3/2), medium stiff, moist, fine sandy silt with some gravel and caliche veining	ML	0.0			
16		SILTY SAND: Grades to silty sand, olive brown (2.5 Y 4/3), medium dense, moist, fine, caliche veining	SM	0.0			
20		SANDY CLAY: Olive brown (2.5 Y 4/3), medium stiff, moist, fine, caliche veins	CL				
22		SANDY SILT: Grades to sandy silt, olive brown (2.5 Y 4/3), medium stiff, moist, fine caliche veins	ML	0.0			

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24							
26		SILTY SAND: Grades to silty sand, olive brown (2.5 Y 4/4), medium dense, moist, fine	SM	0.0			
28		SANDY SILT: Grades to sandy silt, olive brown (2.5 Y 4/4), medium stiff, moist, fine	ML				
		SANDY SILT: Sa,e as above but with some clayey sandy zones	SM	0.0			
30							
32		GRAVELLY SAND: Olive brown (2.5 Y 4/4), loose, moist, fine to coarse gravelly fine sand	SP				
		SAND: Light olive brown (2.5 Y 5/4), with some light gray (2.5 Y 7/1) mottling, very dense, moist, fine sand, fine to coarse gravel	SP	0.0			
34							
36		SAND: Same as above with trace gravel	SP	0.0			
38		SILTSTONE: Siltstone bedrock			13:55 CP-SB-27 @ 37.5-38		End of boring at 38' bgs on siltstone bedrock.
40							

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LOG OF BORING

Borehole ID: CP-SB-3

Total Depth: 28.5 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline, Sunol	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: Calaveras Ave., Sunol, CA	**Driller:** Vince
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe
RG: Leonard Niles	**Drilling Method:** Direct Push
Geologist: Steven Plunkett	**Sampling Method:** Micro Core
Job Number: 26815217.00500	**Date(s) Drilled:** 8/25/05

BORING INFORMATION

Groundwater Depth: not reached	**Boring Location:** NW of creek downhill from the leak
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		ROAD BASE: Road base material, gravel			CP-SB- 3 @ 0.5-1		Hand augered to 5' bgs
2		SANDY SILT: Dark brown (10 YR 2/2), 80% silt, organic rich soil horizon, caliche veins throughout, moderately stiff, dry	ML				
4							
6					CP-SB-3 @ 5-5.5		
8							
10					CP-SB-3 @ 9.5-10		
12							
14		same as above except roots present and caliche veining throughout					
16					CP-SB-3 @ 15-15.5		
18							
20					CP-SB-3 @ 19.5-20		
22							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24		CLAYEY SILT: content of fines increases, clayey silt	ML/ CL		CP-SB-3 @ 24.5-25		
26		SILTY SAND: silty very fine sand lense, 0.3' thick, subangular to subrounded, quartz rich	SM				
		CLAYEY SILT: slightly damp	ML/ CL				
28							Refusal at 28.5' bgs, end of boring
30							

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LOG OF BORING

Borehole ID: CP-SB-4

Total Depth: 28 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline, Sunol	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: Calaveras Ave., Sunol, CA	**Driller:** Vince
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe
RG: Leonard Niles	**Drilling Method:** Direct Push
Geologist: Steven Plunkett	**Sampling Method:** Micro Core
Job Number: 26815217.00500	**Date(s) Drilled:** 8/25/05

BORING INFORMATION

Groundwater Depth: not reached	**Boring Location:** Adjacent to Calaveras Ave.
Air Knife or Hand Auger Depth: 5.0 feet bgs	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		ROAD BASE	ML				Hand augered to 5' bgs.
2		SANDY SILT: Dark brown (10 YR 2/2), very fine, 80% silt, 20% sand, rich in organics, dry			CP-SB-4 @ 1-1.5		
4							
6		Caliche veining present, otherwise same as above			CP-SB-4 @ 5-5.5		
8							
10					CP-SB-4 @ 9.5-10		
12							
14							
16		Dry, otherwise same as above			CP-SB-4 @ 14.5-15		
18							
20					CP-SB-4 @ 19.5-20		
22		Tree roots present, otherwise same as above					

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24		SANDY GRAVELLY SILT: (2.5 YR 3/6), some gravel present, sand content increasing	ML/ SM		CP-SB-4 @ 24.5-25		
26		Light gray, 30% sand, 30% gravel, 40% silt, coarse content increasing, dry, sub angular to subrounded, quartz rich					
28							Refusal at 28' bgs, end of boring.

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LOG OF BORING

Borehole ID: CP-SB-5

Total Depth: 27 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline, Sunol	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: Calaveras Ave., Sunol, CA	**Driller:** Vince
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe
RG: Leonard Niles	**Drilling Method:** Direct Push
Geologist: Steven Plunkett	**Sampling Method:** Micro Core
Job Number: 26815217.00500	**Date(s) Drilled:** 8/25/05

BORING INFORMATION

Groundwater Depth: not reached	**Boring Location:** Adjacent to Calaveras Ave.
Air Knife or Hand Auger Depth: 5.0 feet bgs	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		ROAD BASE	ML/ CL		CP-SB-5 @ 0.5-1		Hand augered to 5' bgs
		CLAYEY SILT: Dark brown (10 YR 2/2), 80% silt, 20% clay, non-plastic, slightly damp, organic rich A horizon			CP-SB-5 @ 1-1.5		
2					CP-SB-5 @ 2-2.5		
4							
6					CP-SB-5 @ 5.5-6		
8		Caliche veining present, minor gravel <5%, roots present, dry, otherwise no change					
10					CP-SB-5 @ 9.5-10		
12							
14							
16		Color change (10 YR 4/3) otherwise same as above			CP-SB-5 @ 15-15.5		
18							
20		SANDY SILT: (10 YR 6/8), 30% very fine sand, 80% silt, low strength, some oxidizer present, slightly damp	ML		CP-SB-5 @ 19.5-20		
22							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24		Some coarse cobbles in sandy silt matrix			CP-SB-5 @ 25-25.5		Very hard to push
26							Refusal, end of boring at 27' bgs
28							

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LOG OF BORING

Borehole ID: CP-SB-6

Total Depth: 27 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline, Sunol	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: Calaveras Ave., Sunol, CA	**Driller:** Vince
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe
RG: Leonard Niles	**Drilling Method:** Direct Push
Geologist: Steven Plunkett	**Sampling Method:** Micro Core
Job Number: 26815217.00500	**Date(s) Drilled:** 8/26/05

BORING INFORMATION

Groundwater Depth: not reached	**Boring Location:** Adjacent to Calaveras Ave.
Air Knife or Hand Auger Depth: 5.0 feet bgs	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		CLAYEY SILT: (10 YR 2/2), dry, firm roots throughout, organic rich	ML				Hand augered to 5' bgs
2					CP-SB-6 @ 1-1.5		
					CP-SB-6 @ 2-2.5		
4							
6					CP-SB-6 @ 5.5-6		
8							
		minor gravel, otherwise same as above					
10					CP-SB-6 @ 9.5-10		
12		SANDY SILT: Very fine, 60% silt, 40% sand, slightly damp	SM/ ML				
14							
16					CP-SB-6 @ 15-15.5		
18							
20					CP-SB-6 @ 19.5-20		
22							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24							
26		Color change- gray (5G 5/1), very fine			CP-SB-6 @ 25-25.5		
28							Refusal at 27' bgs, end of boring

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LOG OF BORING

Borehole ID: CP-SB-7

Total Depth: 28 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline, Sunol	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: Calaveras Ave., Sunol, CA	**Driller:** Vince
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe
PG: Barbara Jakub	**Drilling Method:** Direct Push
Geologist: Steven Plunkett	**Sampling Method:** Micro Core
Job Number: 26815217.00500	**Date(s) Drilled:** 8/26/05

BORING INFORMATION

Groundwater Depth: not reached	**Boring Location:** Adjacent to Calaveras Ave.
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		CLAYEY SILT: (10 YR 2/2), medium dense, dry, caliche rich, some roots present	ML				Hand augered to 5' bgs
12		same as above except sand content increasing					
14		SANDY SILT: Very fine sandy silt with < 10% clay	ML				
16		same as above except (2.5 YR 3/6), 70% silt, 20% sand, minor gravel <2%, dry, low density, loose, quartz rich			CP-SB-7 @ 15-15.5		
18		same as above except slightly moist					
20		same as above except (2.5 YR 3/6), oxidation staining present			CP-SB-7 @ 19.5-20		
22							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24							
26					CP-SB-7 @ 25-25.5		
28							Refusal at 28' bgs, end of boring

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LOG OF BORING

Borehole ID: CP-SB-8

Total Depth: 21 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline, Sunol	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: Calaveras Ave., Sunol, CA	**Driller:** Vince
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe
RG: Leonard Niles	**Drilling Method:** Direct Push
Geologist: Steven Plunkett	**Sampling Method:** Micro Core
Job Number: 26815217.00500	**Date(s) Drilled:** 8/26/05

BORING INFORMATION

Groundwater Depth: not reached	**Boring Location:** Adjacent to Calaveras Ave.
Air Knife or Hand Auger Depth: 5.0 feet bgs	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		CLAYEY SILT: (10 YR 2/2), slightly damp, organic rich, roots	ML		CP-SB-8 @ 0.5-1		Hand augered to 5' bgs
2					CP-SB-8 @ 1-1.5		
4					CP-SB-8 @ 2-2.5		
6		SANDY SILT: (10 YR 4/3), dry, soft, caliche rich, some roots, minor gravel	ML		CP-SB-8 @ 5.5-6		
8							
10		same as above except (10 YR 6/8), 40% very fine sand, 60% silt, dry, non-plastic, low strength			CP-SB-8 @ 9.5-10		
12							
14							
16					CP-SB-8 @ 15-15.5		
18		same as above except some oxidation staining present					very strong hydrocarbon odor
20					CP-SB-8 @ 19.5-20		Refusal at 21' bgs, end of boring
22							

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LOG OF BORING

Borehole ID: CP-SB-9

Total Depth: 28 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline, Sunol	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: Calaveras Ave., Sunol, CA	**Driller:** Vince
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe
RG: Leonard Niles	**Drilling Method:** Direct Push
Geologist: Steven Plunkett	**Sampling Method:** Micro Core
Job Number: 26815217.00500	**Date(s) Drilled:** 8/29/05

BORING INFORMATION

Groundwater Depth: not reached	**Boring Location:** Adjacent to Calaveras Ave.
Air Knife or Hand Auger Depth: 5.0 feet bgs	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Soil

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		SILT: (10 YR 2/2), slightly damp, low strength, organic rich A horizon	ML		CP-SB-9 @ 0.5-1		Hand augered to 5' bgs
2					CP-SB-9 @ 1-1.5		
4							
6					CP-SB-9 @ 5.5-6		
8		SANDY SILT: sand content increasing, dry, low strength, calcite veining throughout	ML				
10					CP-SB-9 @ 9.5-10		
12		Same as above except (10 YR 6/8), 30% very fine sand, 70% silt, <5% clay, slightly damp					
14							
16					CP-SB-9 @ 15.5-16		
18							
20					CP-SB-9 @ 19.5-20		
22							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24							becoming harder
26					CP-SB-9 @ 25.5-26		
28							Refusal at 28' bgs, end of boring

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LOG OF BORING

Borehole ID: HSA-1

Total Depth: 37 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Clear Heart Drilling, Inc.
Site Location: 8501 Calaveras Rd., Sunol, CA	**Driller:** Rick Schneider
Project Manager: Joe Morgan	**Type of Drilling Rig:** CME-75
PG: Barbara Jakub	**Drilling Method:** Hollow Stem Auger
Geologist: Leonard Niles	**Sampling Method:** Slide hammer to 2.5', split spoon (1.5 and 2" ID) below
Job Number: 26815217.00500	**Date(s) Drilled:** 10/11/05

BORING INFORMATION

Groundwater Depth:	**Boring Location:** Valley Crest Tree Company
Air Knife or Hand Auger Depth: 4.5 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Exploratory, grouted to surface with bentonite/cement

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		FILL: Thin layer of gravel fill at the surface.	ML		10:30 HSA-1-0.5-1		Begin hand augering to 4.5 feet.
2		SANDY SILT: Dark grayish brown, 15-20% fine grained sand, 60% silt, 20% clay, very low plasitcity, damp, root material, no odor		0	10:35 HSA-1-1-1.5		Collected samples with slide hammer to 2.5' bgs.
4					10:40 HSA-1-2-2.5		
6		as above except no root material, caliche veins		0			Grouted boring from 15 feet bgs to surface with cement slurry, and from 37' to 15' bgs with bentonite slurry.
8							
10		SANDY SILT: as above except dark yellowish brown, increasing fine grained sand, no odor	ML	0	11:03 HSA-1-9.8-10.4		
12							
14							
16				0			
18		SILTY GRAVEL: yellowish brown, 15-20% silt, 20-30% fine to coarse grained sand, 50-65% fine to coarse gravel, damp, no odor	GM				
20		SANDY GRAVEL: Sandy gravel with silt, olive gray, 10-15% silt, 25-35% fine to coarse sand, 50-65% fine to coarse gravel, dry no odor	GW/ GM	0	11:24 HSA-1-20-20.5		
22							

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24							
26							
28							
30		as above except 20-30% fine to coarse grained sand, 55-70% fine to coarse gravel		0			
32							
34							
36		Encountered cobbles at 35 feet bgs, sandstone clasts to 2-3" diameter in cuttings, strong gasoline odor	GW	305			Encounter refusal at total depth of 37' bgs, 2" of water/mud at bottom measured at 12:45 with WLP. Not enough water to sample.
38							
40							
42							

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LOG OF BORING

Borehole ID: HSA-2
Total Depth: 50.5 feet bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Chevron Pipeline	**Drilling Company:** Clear Heart Drilling, Inc.
Site Location: 8501 Calaveras Rd., Sunol, CA	**Driller:** Rick Schneider
Project Manager: Joe Morgan	**Type of Drilling Rig:** CME-75
RG: Leonard Niles	**Drilling Method:** Hollow Stem Auger
Geologist: Leonard Niles	**Sampling Method:** 2" slide hammer/core barrel to 2.5', 2"and 1.5" split spoon
Job Number: 26815217.00500	**Date(s) Drilled:** 10/11/05

BORING INFORMATION

Groundwater Depth:	**Boring Location:** Valley Crest Tree Company
Air Knife or Hand Auger Depth: 4.5 feet	**Boring Diameter:** 2"
Coordinates: X Y	**Boring Type:** Exploratory, grouted to surface with bentonite/cement

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		FILL: Thin layer of gravel fill at the surface.	ML		14:55 HSA-2-0.5-1		Hand augered to 4.5 feet. Collected samples with a slide hammer to 2.5 feet bgs.
2		SANDY SILT: Dark grayish brown, 15-20% fine sand, 20% clay, 60-65% silt, caliche veins, damp		0	15:00 HSA-2-1-1.5		
4					15:05 HSA-2-2-2.5		
6							Grouted boring with bentonite slurry to 15' bgs, then with cement slurry from 15' bgs to the surface.
8		as above with minor, <2%, coarse sand					
10				0	15:20 HSA-2-9.5-10		
12							
14		SANDY SILT: as above except color change to olive brown, increasing fine sand to 20-30%, 60-70% silt, 10-20% clay	ML	0			
16							
18							
20		as above, olive brown to yellowish brown, minor coarse sand to fine gravel		0	15:45 HSA-2-20-20.5		
22		Contact at 23' bgs, from drill rig behavior					
		SANDY GRAVEL: with silt, olive gray, 10-15% silt, 25-35% fine to	GW/				Driller encounters

LOG OF BORING

Borehole ID: HSA-2

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample I.D.	Recovery	Comments
24		coarse sand, fine to coarse gravel, dry, no odor, logged from cuttings	GM				gravel at 23' bgs.
26							
28							
30							
32							
34							
36							
38							
40							
42		Contact at 43' bgs - drill rig behavior					
44		SANDY CLAY: Dark greenish gray, highly weathered sandstone bedrock, dry, hard, no odor	CL				Accordingt to driller, out of gravel zone at 43' bgs, highly weathered bedrock below. No groundwater encountered.
46		SANDY SILT: Grades to sandy siltstone to silty sandstone at 45.2' bgs. Light bluish-green gray, weathered, soft, dry, no odor			16:25 HSA-2-45-45.5		
48		Grades to less weathered siltstone, approximate contact at 47' bgs from cuttings.					Weathered dark greenish gray siltstone in cuttings, dry
50		dark bluish-green gray, 20-30% very fine to fine sand, 70-80% silt and clay, weathered, soft, dry, no noticeable odor		189	16:55 HSA-2-50-50.5		Auger encountered refusal at 50' bgs, total depth is 50.5' bgs from split spoon sampler. PID reading downhole from top of auger is 189 ppm.
52							
54							

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1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING & WELL CONSTRUCTION

Borehole ID: MW-10

Total Depth: 55.7 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Cascade Drilling
Site Location: Sunol, California	**Driller:** Carl Treece
Project Manager: Joe Morgan	**Type of Drilling Rig:** Gus Pech equipped with Sonicor 50K head
PG: Gregory White	**Drilling Method:** Sonic
Geologist: Cliff Pearson	**Sampling Method:** 4-inch core barrel
Job Number: 26815217	**Date(s) Drilled:** September 4-5, 2007

BORING & WELL INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Valley Crest Tree Company, 8501 Calveras Road
Air Knife or Hand Auger Depth: 5 ft bgs	**Boring Diameter:** 6 inches
Coordinates: **X** 6168146.88 **Y** 2025919.55 **Z** 336.55	**Boring Type:** Monitoring Well Completion

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Drilling Comments
0	SM		SILTY SAND: Very dark brown (10YR 3/1), fine, very loose, low plasticity fines, dry, trace clay. 60% sand, 35% silt, 5% clay.				11:45 Begin hand augering to 5 ft bgs.
2						0-40.3 ft bgs: 2" sch 40 PVC blank well casing	
4							
6					0	0-37 ft bgs: Cement/ Bentonite grout	12:05 Begin advancing 4" core barrel.
8	ML		SILT: Very dark grayish brown (10YR 3/2), low plasticity, stiff, dry, trace clay and sand, caliche present. 95% silt, 5% clay and sand.		0		
10							
12			Decreased strength to medium stiff, friable.				
14					0.3		
16							
18			Grades to SANDY SILT, loose sand. 80% silt, 20% sand.		0.2		
20							

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Comments
22			Increased clay and sand content. Medium to low plasticity.				
24	SM		SILTY SAND: Very dark grayish brown (10YR 3/2), loose, low plasticity fines, dry, trace clay. 60% sand, 35-40% silt, <5% clay.		0		
26							
28	ML		SANDY SILT: Very dark grayish brown (10YR 3/2), low plasticity, very stiff, dry, trace clay, caliche present. 55% silt, 40-45% sand, <5% clay.		0		
30							
32							
34					0		
36			Increased clay content. Medium to low plasticity fines.				
38	GM		SILTY GRAVEL: Light gray (10YR 7/1), loose, rounded to sub-rounded gravel and cobbles up to 3-inches in diameter, dry, trace sand.		0	37-39 ft bgs: Hydrated Bentonite chips	13:05 Collect soil sample MW-10-36.5.
40						39-55.7 ft bgs: #3 sand	
42	SP		GRAVELLY SAND: Very dark brown (10YR 3/1), coarse, loose, sub-rounded sand, fine sub-rounded gravel, medium to low plasticity fines, moist, with clay. 90% sand and gravel, 10% clay.		0	40.3-55.3 ft bgs: 2" sch 40 PVC 0.02" slotted well screen	14:00 Collect soil sample MW-10-43.
44	GM		SILTY GRAVEL: Light gray (10YR 7/1), fine to coarse, loose, rounded to subrounded gravel and cobbles up to 3-inches in diameter, dry, trace sand.				15:30 Air line on rig breaks. Drillers need to order a new part. End of boring for day. Both 4-inch core barrel and 6-inch casing advanced to 48 ft bgs.
46							
48	ML		SANDY SILT: Very dark brown (10YR 3/1), low plasticity, medium stiff, dry, trace sub-rounded gravel and clay. 75% silt, 20% sand, <5% gravel, <5% clay.		2.1		
50			Increased sand and moisture content. Medium plasticity fines, coarse sands, moist. 65% silt, 30% sand, 5% clay.		0		9/5/2007 11:20 Air line repaired. Resume drilling from 48 ft bgs.

LOG OF BORING

Borehole ID: MW-10

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Comments
52			fines, coarse sands, moist. 65% silt, 30% sand, 5% clay.				
54			SILTSTONE: Dark greenish gray (GLEY 1 4/5G), slightly weathered bedrock, hard, dry. 95% silt, 5% clay.		0	55.3-55.7 ft bgs: 2" sch 40 PVC bottom cap	12:00 Collect soil sample MW-10-52.5.
56			**END OF BORING AT 55.7 FT BGS**				12:40 End of boring at 55.7 ft bgs. Begin well construction.
58							
60							

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LOG OF BORING & WELL CONSTRUCTION

Borehole ID: MW-11

Total Depth: 48 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Cascade Drilling
Site Location: Sunol, California	**Driller:** Carl Treece
Project Manager: Joe Morgan	**Type of Drilling Rig:** Gus Pech equipped with Sonicor 50K head
PG: Gregory White	**Drilling Method:** Sonic
Geologist: Cliff Pearson	**Sampling Method:** 4-inch core barrel
Job Number: 26815217	**Date(s) Drilled:** September 5-6, 2007

BORING & WELL INFORMATION

Groundwater Depth: Not Encountered	**Boring Location:** Valley Crest Tree Company, 8501 Calveras Road
Air Knife or Hand Auger Depth: 5 ft bgs	**Boring Diameter:** 6 inches
Coordinates: **X** 6168077.24 **Y** 2025876.37 **Z** 330.29	**Boring Type:** Monitoring Well Completion

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Drilling Comments
0	ML		SANDY SILT: Very dark brown (10YR 3/1), low plasticity, soft, loose sand, dry. 60% silt, 30-35% sand, 5-10% clay.				16:15 Begin hand augering to 5 ft bgs.
2						0-37 ft bgs: 2" sch 40 PVC blank well casing	
4			As above with caliche.		0		16:30 Begin advancing 4" core barrel.
6						0-34 ft bgs: Cement/ Bentonite grout	
8					0		
10							
12			Increased sand and clay content, very friable. 50% silt, 40% sand, 10% clay.		0		
14							
16			Grades to CLAYEY SILT, medium plasticity.				
18					0		
20			Increased silt content. Very dark grayish brown (10YR 3/2),				

LOG OF BORING

Borehole ID: MW-11

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Comments
22			Increased silt content. Very dark grayish brown (10YR 3/2), low plasticity, loose sand, dry. 70% silt, 30% sand, <5% clay.		0		
24							
26							
28	GM		SILTY SANDY GRAVEL: Light gray (10YR 7/1), loose, angular to sub-rounded gravel, dry. Cobbles present.		0		17:30 Collect soil sample MW-11-26.5. End of boring for day. 4-inch core barrel advanced to 38 ft bgs. Very difficult drilling from 37-38 ft (boulder?). 6-inch casing advanced to 28 ft bgs.
30							
32							
34					0	34-36 ft bgs: Hydrated Bentonite chips	
36						36-47.3 ft bgs: #3 sand	
38					0	37-47 ft bgs: 2" sch 40 PVC 0.02" slotted well screen	9/6/2007 07:40 Resume drilling. Begin advancing 6-inch casing to 38 ft bgs.
40							
42			As above, SILTY SANDY GRAVEL. 60% gravel and cobbles, 20% sand, 20% silt.				
44			Moist zone from 43-44 ft bgs.		0		
46			SILTSTONE: Reddish brown (5YR 4/3), weathered siltstone bedrock, friable, dry. Dark greenish gray (GLEY 1 4/1), semi-consolidated siltstone bedrock, hard, dry.			47-47.3 ft bgs: 2" sch 40 PVC bottom cap	08:30 Collect soil sample MW-11-46. End of boring at 48 ft bgs. Begin well installation.
48			**END OF BORING AT 48 FT BGS**		0	47.3-48 ft bgs: Slough	
50							

Project: Chevron Sunol Spill
Project Location: Sunol, CA
Project Number: 26817187.0405

Log of Boring MW-12

Sheet 1 of 1

Date(s) Drilled	**11/26/12 & 12/4/12**	Logged By	**Christine Pilachowski**	Checked By	**Robert Horwath, P.G.**
Drilling Method	**HA, DPT & HSA**	Drilling Contractor	**Gregg Drilling & Testing, Inc.**	Total Depth of Borehole	**30.0 feet**
Drill Rig Type	**Rhino Marl 5T**	Sampler Type	**Acetate Sleeve**	Surface Elevation	**334.90**
Groundwater Level(s)	**Not Encountered**	Hammer Weight and Drop	**N/A**	Top of PVC Elevation	**334.584**
Diameter of Hole (inches)	**2/10** Diameter of Well (inches) **4**	Type of Well Casing	**Schedule 40 PVC**	Screen Perforation	**0.010"**
Type of Sand Pack	**#2-16**	Type and Depth of Seal(s)	**Bentonite (13-15 ft.), Grout (1-13 ft.), Cement (0-1 ft.)**		
Comments	**Hand cleared to 8 feet below ground surface.**				

Elevation, feet	Depth, feet	SAMPLES Type	SAMPLES Number	PID	Percent Recovery	Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	REMARKS
	0						**SILT WITH SAND (ML)**: dark yellowish brown (10YR 3/4), soft, moist, 75% silt, 10% fine to medium grained sand, 10% fine grained gravel and 5% clay, low plasticity, subrounded gravels, roots and wood debris.		0'-14' bgs: neat cement/bentonite grout
330	5		MW-12-5-5.5	0			5' bgs: grades to grayish brown (10YR 5/2) and increased sand (15%).		0'-16' bgs: 4" sch. 40 PVC blank well casing
325	10		MW-12-10-10.5	0.3	80		**SILTY SAND (SM)**: pale yellow (5Y 7/3), firm, dry, 65% fine to coarse grained sand, 30% silt, 5 % fine to coarse grained gravel, nonplastic.		
320	15		MW-12-15-15.5	0	80		**WELL GRADED SAND WITH SILT (SW-SM)**: olive (5Y 5/4), loose, dry, 80% fine to coarse grained sand, 10% silt, 10% fine grained gravel, nonplastic.		14'-16' bgs: hydrated bentonite chips
315	20		MW-12-20-20.5	0.1	100		18' bgs: roots.		16'-27' bgs: #2-16 sand 17'-27' bgs: 4" sch. 40 PVC, 0.010" slotted screen casing
310	25		MW-12-24.5-25	1484	100		**SILTY SAND (SM)**: greenish gray (GLEY1 5/10GY), firm, moist, 75% fine to medium grained sand, 20% silt, 5% fine grained gravel, nonplastic.		
				1291	100		**POORLY GRADED SAND (SP)**: olive (5Y 5/3), moist, 85% fine to medium grained sand, 10% silt, 5% fine grained gravel, nonplastic.		27'-30' bgs: bentonite chips and slough
305	30			17.9	100		**WEATHERED SANDSTONE (SS)**: grey (5Y 6/1), dense, moist, 80% fine to medium grained sand, 20% silt, nonplastic.		
300	35						Note: End of DPT boring at 30' bgs. Refusal of HSA boring at 27' bgs.		

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Project: Chevron Sunol Spill
Project Location: Sunol, CA
Project Number: 26817187.0405

Log of Boring MW-13

Sheet 1 of 1

Date(s) Drilled	**11/26/12 & 12/5/12**	Logged By	**Christine Pilachowski**	Checked By	**Robert Horwath, P.G.**
Drilling Method	**HA, DPT & HSA**	Drilling Contractor	**Gregg Drilling & Testing, Inc.**	Total Depth of Borehole	**25.5 feet**
Drill Rig Type	**Rhino Marl 5T**	Sampler Type	**Acetate Sleeve**	Surface Elevation	**336.80**
Groundwater Level(s)	**Not Encountered**	Hammer Weight and Drop	**N/A**	Top of PVC Elevation	**336.791**
Diameter of Hole (inches)	**2/10** Diameter of Well (inches) **4**	Type of Well Casing	**Schedule 40 PVC**	Screen Perforation	**0.010"**
Type of Sand Pack	**#2-16**	Type and Depth of Seal(s)	**Bentonite (13-15 ft.), Grout (1-13 ft.), Cement (0-1 ft.)**		
Comments	**Hand cleared to 8 feet below ground surface.**				

Elevation, feet	Depth, feet	SAMPLES Type	SAMPLES Number	PID	Percent Recovery	Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	REMARKS
335	0						**SILT WITH SAND (ML)**: dark brown (7.5YR 3/2), soft, moist, 75% silt, 10% fine to medium grained sand, 10% fine grained gravel, 5% clay, low plasticity, organic debris.		0'-13' bgs: neat cement/bentonite grout
	5		MW-13-5-5.5	0			6' bgs: cobbles up to 6" in length.		0'-16' bgs: 4" sch. 40 PVC blank well casing
330	10		MW-13-10-10.5	0.1	80		**SANDY SILT (ML)**: dark brown (7.5YR 3/2), very firm, dry, 60% silt, 30% fine to medium grained sand, 10% fine to coarse gravel, low plasticity, cobbles up to 3" in length, roots & wood debris, caliche veins.		
							13' bgs: grades to brown (10YR 4/3).		13'-15' bgs: hydrated bentonite chips
325	15		MW-13-15-15.5	0.1	80				15'-26' bgs: #2-16 sand
							18' bgs: grades to light olive brown (2.5Y 5/3).		16'-26' bgs: 4" sch. 40 PVC, 0.010" slotted screen casing
320	20		MW-13-20-20.5	0.2	100		**WEATHERED SANDSTONE (SS)**: olive (5Y 5/3), dense, dry, 85% fine to medium grained sand, 10% silt, 5% fine grained gravel, non plastic, visual contamination.		
				0.4					
315				7			21.5-25' bgs: grades to greenish gray (GLEY 5/5GY).		
			MW-13-23-23.5		100				
	25		MW-13-25-25.5	108.8			25' bgs: grades to light olive brown (2.5Y 5/4), very dense.		
310				2.0			Note: Refusal at 25.5' bgs.		
	30								
305									
	35								

URS

Project: Chevron Sunol Spill
Project Location: Sunol, CA
Project Number: 26817187.0405

Log of Boring MW-14

Sheet 1 of 1

Date(s) Drilled	**11/29/12 & 12/3/12**	Logged By	**Christine Pilachowski**	Checked By	**Robert Horwath, P.G.**
Drilling Method	**HA, DPT & HSA**	Drilling Contractor	**Gregg Drilling & Testing, Inc.**	Total Depth of Borehole	**30.0 feet**
Drill Rig Type	**Rhino Marl 5T**	Sampler Type	**Acetate Sleeve**	Surface Elevation	**338.15**
Groundwater Level(s)	**Not Encountered**	Hammer Weight and Drop	**N/A**	Top of PVC Elevation	**337.935**
Diameter of Hole (inches)	**2/10** Diameter of Well (inches) **4**	Type of Well Casing	**Schedule 40 PVC**	Screen Perforation	**0.010"**
Type of Sand Pack	**#2-16**	Type and Depth of Seal(s)	**Bentonite (13-15 ft.), Grout (1-13 ft.), Cement (0-1 ft.)**		
Comments	**Hand cleared to 8 feet below ground surface.**				

Elevation, feet	Depth, feet	SAMPLES Type	SAMPLES Number	PID	Percent Recovery	Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	REMARKS
335	0						**SILT WITH SAND (ML)**: dark brown (7.5YR 3/4), soft, moist,75% silt, 10% fine to medium grained sand, 10% fine to coarse grained gravel, 5% clay, low plasticity, large cobbles up to 4" in length, organics, wood and root debris.		0'-13' bgs: neat cement/bentonite grout 0'-16' bgs: 4" sch. 40 PVC blank well casing
330	5		MW-14-5-5.5	0.1	75				
325	10		MW-14-10-10.5	0.1	75		**SILTY SAND WITH GRAVEL (SP)**: very dark grayish brown (10YR 3/2), loose, dry, 60% fine to coarse grained sand, 25% fine to coarse grained gravel, 15% silt, nonplastic, weathered cobbles up to 1-2" in length, burnt organic debris and leaves (unburnt).		13'-15' bgs: hydrated bentonite chips
320	15		MW-14-15-15.5	0.1	100		**SANDY SILT WITH GRAVEL (ML)**: brown (10YR 4/3), firm, moist, 55% silt, 30% fine to medium grained sand, 10% fine to coarse grained gravel, 5% clay, low plasticity, weathered gravels and cobbles, caliche veins.		15'-26' bgs: #2-16 sand 16'-26' bgs: 4" sch. 40 PVC, 0.010" slotted screen casing
315	20		MW-14-20-20.5	0.1	100		20' bgs: grades to dark grayish brown (10YR 4/2).		
310	25		MW-14-25-25.5	0.1			**WEATHERED SANDSTONE (SS)**: light olive brown (2.5Y 5/3), dense, dry, 85% medium grained sand, 15% fine to coarse grained gravel, nonplastic.		26'-30' bgs: bentonite chips and slough
305	30		MW-14-29.5-30	0.1	100		Note: End of boring at 30' bgs.		
	35								

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Project: Chevron Sunol Spill
Project Location: Sunol, CA
Project Number: 26817187.0405

Log of Boring MW-15

Sheet 1 of 1

Date(s) Drilled	**11/29/12 & 12/4/13**	Logged By	**Christine Pilachowski**	Checked By	**Robert Horwath, P.G.**
Drilling Method	**HA, DPT & HSA**	Drilling Contractor	**Gregg Drilling & Testing, Inc.**	Total Depth of Borehole	**28.0 feet**
Drill Rig Type	**Rhino Marl 5T**	Sampler Type	**Acetate Sleeve**	Surface Elevation	**333.40**
Groundwater Level(s)	**Not Encountered**	Hammer Weight and Drop	**N/A**	Top of PVC Elevation	**333.429**
Diameter of Hole (inches)	**2/10** Diameter of Well (inches) **4**	Type of Well Casing	**Schedule 40 PVC**	Screen Perforation	**0.010"**
Type of Sand Pack	**#2-16**	Type and Depth of Seal(s)	**Bentonite (13-15 ft.), Grout (1-13 ft.), Cement (0-1 ft.)**		
Comments	**Hand cleared to 8 feet below ground surface.**				

Elevation, feet	Depth, feet	SAMPLES Type	SAMPLES Number	PID	Percent Recovery	Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	REMARKS
	0						**SILT WITH SAND (ML)**: very dark grayish brown (2.5Y 3/2), soft, moist, 75% silt, 10% sand, 10% gravel, 5% clay, low plasticity, roots, rocks up to 6" in length.		0'-11' bgs: neat cement/bentonite grout
330									
	5		MW-15-5-5.5	0.1			5' bgs: grades to brown (10YR 4/3). 7' bgs: caliche veins.		
325									
	10		MW-15-10-10.5	0.2			**SILT WITH SAND (ML)**: brown (10YR 4/3), firm, dry, 75% silt, 10% fine to medium grained sand, 10% fine to coarse grained gravel, 5% clay, low plasticity.		11'-13' bgs: hydrated bentonite chips 13'-24' bgs: #2-16 sand 14'-24' bgs: 4" sch. 40 PVC, 0.010" slotted screen casing
320									
	15		MW-15-15-15.5	0.2					
315									
	20		MW-15-20-20.5	0.2			**WEATHERED SANDSTONE (SS)**: light olive brown (2.5Y 5/4), very dense, dry, 85% fine to medium grained sand, 15% silt, nonplastic.		
310									
	25								24'-28' bgs: bentonite chips and slough
			MW-15-27.5-28	0.2			27' bgs: dense		
305									
	30						Note: Refusal at 28' bgs.		
300									
	35								

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LOG OF BORING & WELL CONSTRUCTION

Borehole ID: MW-4

Total Depth: 47 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Resonant Sonic International
Site Location: Milepost 2.7 Calaveras Road, Sunol, California	**Driller:** Valentin Gudoy
Project Manager: Joe Morgan	**Type of Drilling Rig:** Sonic Continuous Core Rig
RG: Leonard Niles	**Drilling Method:** 8"x10' Core Barrel with water wash
Geologist: Gregory White & Renee McFarlan	**Sampling Method:** 4"x10' Core Barrel
Job Number: 26815217.03003	**Date(s) Drilled:** January 30-31, 2006
BORING & WELL INFORMATION	
Groundwater Depth: 36.72 ft from TOC-N (Static 2/21/06)	**Boring Location:** Valley Crest Tree Company, 8501 Calveras Road
Air Knife or Hand Auger Depth: 5 ft bgs	**Boring Diameter:** 8 inches
Coordinates: **X** 6168112.65 **Y** 2025821.72 **Z** 329.67 (TOC)	**Boring Type:** Monitoring Well Completion

Depth (ft bgs)	USCS	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Drilling Comments
0	ML	SANDY SILT: 0-5 Very dark brown (10YR2/2), soft, medium plasticity, moist, ~40% sand, ~10% clay, ~50% silt, some root material, trace fine gravel.		0.0	Well installed on January 30 and 31, 2006. Surface Completion: Flush-mounted cast iron well box.	09:30 Begin hand augering to 5 ft bgs. Ambient PID: 0.0 ppm.
6	ML	SANDY SILT: 5-10 Very dark brown to dark brown (10YR2/2), medium stiff, moist, ~40% fine sand, ~5% clay, ~60% silt, with caliche veining and fine to coarse subangular to subrounded gravel.		0.0		09:40 Begin coring with Sonic Rig from 5 ft bgs.
10	SM	SILTY SAND: 10-13 Dark brown, medium dense, moist, ~70% sand, ~30% silt, with fine to coarse angular to subrounded gravel.		0.0	0.3-30.7 ft bgs: 4" Sch. 40 PVC riser. 0.8-27 ft bgs: 95% cement / 5% bentonite grout.	09:45 PID not functioning correctly, will collect soil samples for headspace readings later.
14	ML	SANDY SILT: 13-18 Dark brown, stiff, moist, ~40% fine to very fine sand, ~60% silt, with fine subrounded gravel.		0.0 0.0		
18	NR	NO RECOVERY: 18-20 No recovery.				
20	SM	SILTY SAND: 20-22 Brown (10YR4/3), medium dense, moist, ~70-75% fine sand, ~25-30% silt, ~5% clay, with fine to coarse gravel and cobbles.		0.0		10:45 Collect soil sample MW-4-21.5'
22		SANDY GRAVEL: 22-32.5 Light gray, loose, dry, subangular to subrounded clasts, ~60-70% fine to coarse gravel and cobbles (some cobbles as large as 4" in diameter), ~30-35% sand, ~5% silt and clay.		0.0		
24						
26						

LOG OF BORING

Borehole ID : MW-4

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Comments
28	GW				0.0	27-29 ft bgs: Bentonite chip seal.	
30					0.0		
32	SW		GRAVELLY SAND: 32.5-33.5 Brown to light gray, loose, moist, ~80% fine to coarse sand, ~15-20% fine subrounded gravel, ~5% silt and clay.		0.0	30.7-40.7 ft bgs: 4" Sch 40 PVC 0.020" screen.	
34			GRAVELLY SANDY SILT: 33.5-39 Light brown, moist to wet at ~36.5, ~60% silt, ~20-25% fine to coarse subangular to subrounded gravel, ~15-20% fine sand.		0.0	29-41 ft bgs: #3 RMC sand.	
36 ▽	ML				0.0		10:45 Groundwater encountered during drilling at 36.5 ft bgs. (Static water level measured at 36.72 ft below TOC-N on 2/21/06)
38							
40			WEATHERED SILTSTONE: 39-47 Gray, moist to dry, hard, ~100% silt.		0.0	40.7-41 ft bgs: 4" PVC silt trap and well cap.	
42					0.0		
44							
46					0.0		
48			**END OF BORING AT 47 FT BGS**		0.0		10:50 End of boring at ~47 ft bgs on coherent bedrock. Hole collapsed ~5 ft, so will set well at ~42 ft bgs. 10:56 Collect soil sample MW-4-33'. 11:00 Collect grab groundwater sample MW-4-GW. 11:02 Collect soil sample MW-4-36.5'.
50							
52							
54							
56							
58							
60							

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Oakland, California 94612

LOG OF BORING & WELL CONSTRUCTION

Borehole ID: MW-5

Total Depth: 49.8 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Resonant Sonic International
Site Location: Milepost 2.7 Calaveras Road, Sunol, California	**Driller:** Valentin Gudoy
Project Manager: Joe Morgan	**Type of Drilling Rig:** Sonic Continuous Core Rig
RG: Leonard Niles	**Drilling Method:** 8"x10' Core Barrel with water wash
Geologist: Leonard Niles & Greg White	**Sampling Method:** 4"x10' Core Barrel
Job Number: 26815217.03003	**Date(s) Drilled:** January 24-27, 2006

BORING & WELL INFORMATION

Groundwater Depth: 11.48 ft from TOC-N (Static 2/21/06)	**Boring Location:** Along the east side of Calveras Road (near milepost 2.7)
Air Knife or Hand Auger Depth: 5 ft bgs	**Boring Diameter:** 8 inches
Coordinates: **X** 6168225.98 **Y** 2025764.36 **Z** 334.81 (TOC)	**Boring Type:** Monitoring/Remediation Well Completion

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Drilling Comments
0							
2			SANDY CLAY: 0-5 Very dark brown (10YR2/2), low to medium plasticity, damp to moist, soft, 15-20% fine sand, 5-10% coarse gravel (up to 2" in diameter), 70-80% clayey to silty fines, root material.			Well installed on January 25-27, 2006. Surface Completion: Flushed mounted cast-iron well box.	1/24 09:00 Begin hand augering to 5 ft bgs. Ambient PID: 0.0 ppm.
4							
6	CL		SANDY CLAY: 5-9 As above, except moist to wet on the outside of the core (due to rainwater infiltration) from 5-6.5 ft. No gravel, moist from 6.5-9 ft, grades to clayey silt from 7-9 ft.		10.2		1/24 09:30 Begin drilling with 4" core barrel.
8					49.3	0.33-39.5 ft bgs: 4" Sch. 40 PVC riser.	
10	ML		CLAYEY SILT: 9-10 Yellowish brown (10YR4/3), very low plasticity, hard, damp, 10-15% fine sand, <30% clay, > 50% silt, caliche veins, slight HC odor.		73.5	0.8-36 ft bgs: 95% cement / 5% bentonite grout.	1/24 11:20 Collect soil sample MW-5-10'.
12			NO RECOVERY: 10-15 No recovery.				
14							
16			SLOUGH: 15-16 Probable slough from above.		24.6		
18	ML		CLAYEY TO SANDY SILT: 16-19 Yellowish brown (10YR4/3), no plasticity, damp, increasing fine sand to 15-20%. decreasing clay, HC odor. 19-20.5 Color change to brownish yellow (10YR6/8), increasing sand and clay, 20% fine sand.		34.4		
20					2349		1/24 11:35 Collect soil sample MW-5-20'.
22			SILTY GRAVEL: 20.5-24.7 Light gray (N7/), 20% silt, 15% fine sand, 65% coarse gravel to cobbles (up to 4" in diameter), fine grained sandstone clasts, strong HC odor, dry, subangular to subrounded clasts.		2827		

LOG OF BORING

Borehole ID: MW-5

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Comments
24	GM				55.3		
	CL		CLAY: 24.7-25 Dark brown, medium to high plasticity, moist, < 10% fine sand.		75.3		
26	SP		SAND: 25-30 WEATHERED SANDSTONE bedrock, crumbles to sand, light gray (N7/), very soft, damp, 10-15% silt, 85-90% fine sand. Grades to weathered sandy siltstone at 30 ft bgs.		5.9		
28					3.2		
30	ML		SANDY SILT: 30-32 WEATHERED SANDY SILTSTONE bedrock, light gray (N7/) to dark gray (N4/), very soft, no plasticity, damp to moist, 50-60% silt, 40-50% fine sand, slight HC odor. Grades to weathered silty sandstone at 32 ft bgs.		2.0		1/24 12:45 4" Core barrel very warm, steam rising off of it.
32					4.1		
34	SM		SILTY SAND: 32-38 WEATHERED SILTY SANDSTONE bedrock, light to dark gray (N7/ to N4/), very soft, moist, 60-70% fine sand, 30-40% silt. Grades to weathered sandstone from 38-38.6 ft bgs.		4.3		1/24 13:30 Drilling difficult 40-45 ft bgs. 13:50 Collect soil sample MW-5-46'
36					4.8		
38	SP		SAND: 38-40 WEATHERED SANDSTONE bedrock, light gray (N7/), soft, moist, 10% silt, 90% fine sand, more consolidated and less weathered than above. Grades to silty sandstone at 40 ft bgs.		4.3		
40	SM		SILTY SAND: 40-45 WEATHERED SILTY SANDSTONE, light to dark gray (N7/ to N4), soft, moist, 10-15% silt, 85-90% fine sand, decreasing silt from 42-44 ft, then increasing at 44 ft to 15-20% silt. 45-48 As above except wet at 45-45.5 ft, moist 46-47 ft. Increasing silt content to 20-30% at 46 ft, then decreasing to 10% at 47 ft, strong HC odor. Grades to sandstone at 48 ft bgs.		4.9	36-38 ft bgs: Bentonite pellet seal.	13:55 Groundwater measured at 44.8 ft bgs during drilling. (Static water level 11.48 ft below TOC-N on 2/21/06)
42					4.8		
44					4.4		
46					5.0	39.5-49.5 ft bgs: 4" Sch 40 PVC 0.020" screen.	1/24 14:30 Broke 4" core barrel joint at ~30 ft bgs. 20 ft of 4" casing in bottom of boring from 30-50 ft bgs.
48					6.6	38-49.8 ft bgs: #3 RMC sand.	
50			SANDSTONE: 48-49.5 As above except increasingly unweathered and hard, wet, weathered to SANDY SILT (SM) along fractures, 10-15% silt, fractured disks by coring, harder and massive at 49.8 ft, quartz veins.		643		1/25 08:25 Drove fishing tool into broken casing stuck at 30 ft bgs.
52			**END OF BORING AT 49.8 FT BGS**		42		08:30 Install 12" surface casing to ~8 ft bgs. Begin reaming out boring with 8" casing.
54					4.3	49.5-49.8 ft bgs: 4" PVC silt trap and well cap.	10:30 Blow water fitting at 25 ft bgs. Shut down rig to repair fitting. 13:45 Resume drilling with 8" casing.

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LOG OF BORING

Borehole ID: MW-5

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Comments
56							14:30 Reach 50 ft bgs with 8" casing. Pull 4" casing from inside 8" casing using fishing tool. End of boring at ~50 ft bgs. 15:00 Collect soil sample MW-5-48'.
58							
60							
62							
64							

URS

1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING & WELL CONSTRUCTION

Borehole ID: MW-6

Total Depth: 50 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Resonant Sonic International
Site Location: Milepost 2.7 Calaveras Road, Sunol, California	**Driller:** Valentin Gudoy
Project Manager: Joe Morgan	**Type of Drilling Rig:** Sonic Continuous Core Rig
RG: Leonard Niles	**Drilling Method:** 8"x10' Core Barrel with water wash
Geologist: Leonard Niles and Greg White	**Sampling Method:** 4"x10' Core Barrel
Job Number: 26815217.03003	**Date(s) Drilled:** January 26-27, 2006

BORING & WELL INFORMATION

Groundwater Depth: 18.02 from TOC-N (Static 2/21/06)	**Boring Location:** Along the east side of Calveras Road (near milepost 2.7)
Air Knife or Hand Auger Depth: 5 ft bgs	**Boring Diameter:** 8 inches
Coordinates: **X** 6168213.24 **Y** 2025711.81 **Z** 332.38 (TOC)	**Boring Type:** Monitoring/Remediation Well Completion

Depth (ft bgs)	USCS	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Drilling Comments
0	CL	SANDY CLAY: 0-5 Dark brown (10YR2/2), medium plasticity, moist, 15-20% fine to medium sand, 80-85% clayey to silty fines, ~5% coarse gravel at 1 foot, some root material.		1.5	Well installed on January 26-27, 2006 Surface Completion: Flushed mounted cast-iron well box.	10:00 Begin hand augering to 5 ft bgs. Ambient PID: 0.0 ppm.
5	ML	SANDY SILT: 5-9 Dark brown (10YR2/2), very low plasticity, damp, 15-20% fine sand, 80-85% silt and clay, minor gravel at 8-10 ft, increasing clay at 8-9 ft, some root material.		0.2	0.23-34.7 ft bgs: 4" Sch. 40 PVC riser.	10:25 Begin coring from 5 ft bgs.
10	CL	SANDY CLAY: 9-10 As above except %clay>%silt, low to moderate plasticity, 20% sand, 5% gravel.		2.3		
10	ML	SANDY SILT: 10-15 Yellowish brown (10YR4/3), no plasticity, damp, 20-30% fine grained sand, 5-10% fine to coarse subrounded gravel, some root material and caliche fragments.		0.6	0.8-31 ft bgs: 95% cement / 5% bentonite grout.	
15	CL	GRAVELLY CLAY: 15-18 Very dark brown (10YR2/2), moderate plasticity, damp, 10% fine sand, 20% coarse gravel to 3" in diameter. Color change at 16 ft to yellowish brown (10YR4/3), increasing fine to coarse sand to 15-25%, increasing fine to coarse gravel at 17-18 ft.		0.6 7.7 16.0		15:20 Collect soil sample MW-6-17'
20		NO RECOVERY: 18-20 No recovery.				
20	CL	SANDY CLAY: 20-22 Yellowish brown (10YR6/8) and dark olive gray (5Y3/2) mottled, low plasticity, damp, 10-20% fine sand.		6.5		11:00 Ambient PID: 0.0 ppm Advance a split spoon at 20 ft bgs to see if a pearched water zone exists within the gravel layer.
22	ML	SANDY SILT: 22-24 Yellowish brown (10YR6/8) and dark olive gray (5Y3/2) mottled, very low plasticity, damp, 15-20% fine sand, increasing sand at 23.6 ft.				
25		SILTY SAND: 24-46 Light gray (N7/), highly WEATHERED SILTY SANDSTONE, no plasticity, damp to moist at 35-40 ft, 40-50% silt, 50-60% very fine sand.		0.0		

LOG OF BORING

Borehole ID : MW-6

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Comments
28			As Above		0.0		
30					0.0		
32					0.0	31-33 ft bgs: Bentonite pellet seal.	12:00 Ambient PID: 0,0 ppm
34					0.0		
36	SM				0.0		
38					0.0		
40					0.0		
42					0.0	34.7-49.7 ft bgs: 4" Sch 40 PVC 0.020" screen.	
44					0.0		Groundwater encountered during drilling at 46 ft bgs.
46 ▽			SILTY SAND: 46-46.8 Light gray (N7/), increasing less WEATHERED SANDSTONE, wet, powdered and pulverized by coring bit.		0.0	33-50 ft bgs: #3 RMC sand.	
48			SILTY SANDSTONE: 46.8-50 Light gray (N7/), hard, well cemented, dry, 15-20% silt, 80-85% very fine to fine sand, fractured and pulverized by coring bit.				12:45 Groundwater measured at 49 ft bgs after removing 4" casing.
50			**END OF BORING AT 50 FT BGS**			49.7-50 ft bgs: 4" PVC silt trap and well cap.	13:30 Groundwater rises to 46.7 ft bgs. Begin overdrilling boring with 8" casing. (Static water level 18.02 ft below TOC-N on 2/21/06).
52							15:15 Collect soil sample MW-6-46'.
54							
56							
58							
60							
62							

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1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING & WELL CONSTRUCTION

Borehole ID: MW-7

Total Depth: 50 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Resonant Sonic International
Site Location: Milepost 2.7 Calaveras Road, Sunol, California	**Driller:** Valentin Gudoy
Project Manager: Joe Morgan	**Type of Drilling Rig:** Sonic Continuous Core Rig
RG: Leonard Niles	**Drilling Method:** 8"x10' Core Barrel with water wash
Geologist: Greg White & Leonard Niles	**Sampling Method:** 4"x10' Core Barrel
Job Number: 26815217.03003	**Date(s) Drilled:** January 27, 2006

BORING & WELL INFORMATION

Groundwater Depth: 15.43 ft from TOC-N (Static 2/21/06)	**Boring Location:** Along the east side of Calveras Road (near milepost 2.7)
Air Knife or Hand Auger Depth: 5 ft bgs	**Boring Diameter:** 8 inches
Coordinates: **X** 6168231.84 **Y** 2025799.52 **Z** 336.22 (TOC)	**Boring Type:** Monitoring/Remediation Well Completion

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Drilling Comments
0	CL		SILTY CLAY: 0-5 Very dark brown (10YR2/2), soft, medium plasticity, moist, some coarse sand and tree roots.		5.1	Well installed on January 27, 2006. Surface Completion: Flush mounted cast-iron well box.	08:15 Begin hand augering to 5 ft bgs. Ambient PID: 0.3 ppm.
6	GW		SILTY CLAY: 5-7 Same as above except medium stiff and wet from 5-5.5 ft.		5.0		08:35 Begin coring with 4" casing from 5 ft bgs.
8	ML		SANDY GRAVEL: 7-7.2 Brown to yellowish brown (10YR4/3 to 10YR6/8), loose, moist, fine to coarse sand and gravel, subangular to subrounded, some silt.		7.5	0.24-34.7 ft bgs: 4" Sch. 40 PVC riser.	08:40 Faint HC odor from 7-7.6 ft bgs.
10	NR		SILT: 7.2-7.5 Dark brown, hard, moist to dry, brittle, some caliche veins, with fine to coarse subrounded to rounded gravel, trace root material. NO RECOVERY: 7.5-10		25.8	0.8-31 ft bgs: 95% cement / 5% bentonite grout.	
12	SM		SILTY SAND: 10-15 Grayish brown, dry, with subangular to subrounded gravel, some caliche veins, trace root material, ~60% fine sand, 30-35% silt, 5-10% gravel.		30.7		
14					45.2		
16	ML		SANDY SILT: 15-16 Grayish brown, low plasticity, moist, with subangular to subrounded fine to medium gravel, trace root material, ~60% silt, ~30% sand, ~5% clay, ~5% gravel.		102		
18	SM		SILTY SAND: 16-18 Brownish yellow (10YR6/8), medium dense, moist, trace gravel, ~55-60% fine sand, ~40-45% silt.		174		
20	NR		NO RECOVERY: 18-20				
22			SILTY SAND: 20-24.5 Brownish yellow (10YR6/8), medium dense, moist, trace gravel, ~55-60% fine sand, ~40-45% silt.		137		

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LOG OF BORING

Borehole ID: MW-7

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Comments
24	SM				595		
26			SILTY SAND: 24.5-36 Gray, moist, WEATHERED SILTY SANDSTONE bedrock, ~60% fine sand, ~40% silt.		124		09:15 Sheer bolts break on rig head at 30 ft bgs.
28					1.7		09:20 Collect sample MW-7-18'.
30					4.2		09:55 Down-hole PID at 30 ft bgs is 0.4 ppm.
32	SM				2.0	31-32.9 ft bgs: Bentonite pellet seal.	10:00 Resume coring from 30 ft bgs.
34							10:10 20-25 foot sample has noticable odor.
36					2.0		10:28 Collect soil sample MW-7-22.5'.
38			SILTY SANDSTONE: 36-41 Gray to light gray, well cemented.		1.9		
40							11:10 End of boring at 50 ft bgs, lose 2 ft of core down hole. Inital water level 44.2 ft bgs.
42 ▽			SILTY SAND: 41-48 Gray, moist, WEATHERED SILTY SANDSTONE bedrock, ~60% fine sand, ~40% silt.		3.2	34.7-49.7 ft bgs: 4" Sch 40 PVC 0.020" screen.	11:30 Water level now 42 ft bgs. Collect grab groundwater sample MW-7-GW. (Static Water level 15.43 ft below TOC-N on 2/21/06).
44 ▽	SM						
46					5.9	32.9-50 ft bgs: #3 RMC sand.	Begin overdrilling with 8" casing to 50 ft bgs.
48							
50	NR		NO RECOVERY: 48-50 No Recovery.		7.1	49.7-50 ft bgs: 4" PVC silt trap and well cap.	
52			**END OF BORING AT 50 FT BGS**				
54							

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LOG OF BORING

Borehole ID: MW-7

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Comments
56							
58							
60							
62							
64							

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1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING & WELL CONSTRUCTION

Borehole ID: MW-8

Total Depth: 25 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Gregg Drilling
Site Location: Milepost 2.7 Calaveras Road, Sunol, California	**Driller:** Angel Salazar
Project Manager: Joe Morgan	**Type of Drilling Rig:** Mobile B-80
RG: Leonard Niles	**Drilling Method:** Hollow stem auger / Hand Auger
Geologist: Gregory White & Renee McFarlan	**Sampling Method:** Split Spoon (varying sizes)
Job Number: 26815217.03207	**Date(s) Drilled:** August 15, 2006

BORING & WELL INFORMATION

Groundwater Depth: Not Encountered During Drilling	**Boring Location:** Base of steep hillside, east side of Calaveras Road
Air Knife or Hand Auger Depth: 5 ft bgs	**Boring Diameter:** 8.25 inches
Coordinates: **X** 6168227.45 **Y** 2025772.92 **Z** 335.23 (TOC)	**Boring Type:** Monitoring Well Completion

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Drilling Comments
0	ML		SILT: 0-3: Brown, low plasticity fines, moist, some subrounded fine to coarse gravel and cobbles, trace sand.		7.6	0-12 ft bgs: Cement/ Bentonite grout.	10:05 Begin hand augering.
4			CLAYEY SILT: 3-5: Grades to brown, medium plasticity fines, moist, subrounded to rounded fine to coarse gravel and cobbles, trace sand.				
6			SILT: 5-10: Brown, low plasticity fines, moist, subrounded to rounded fine to coarse gravel and cobbles, occasional yellow sandy zones, caliche veins, trace roots.		7.5	0-14.5 ft bgs: 2" ID sch 40 PVC blank well casing	10:30 Begin HSA.
10			SANDY SILT: 10-13: Grades to light brown, very moist, low plasticity fines, fine sand, fine gravel, caliche veins, trace roots.		11.4		
12					15.1	12-14 ft bgs: Bentonite chips.	
14	SM		SILTY SAND: 13-16: Light brown, loose, moist, low plasticity fines, fine sand, trace medium to coarse sand. Increased clay content at 15 ft bgs, slight odor		14.7	14.5-24.5 ft bgs: 2" ID sch 40 PVC 0.02" slotted well screen	11:30 Collected sample MW-8-16.5-17.5.
16					41.9		
18			SILTY SAND: 16-24.5: Gray and tan, banded color, moist, medium to very dense, fine to medium sand, brittle and poorly cemented with increasing coherence with depth, odor. Iron staining at 18 ft bgs		520	14-24.5 ft bgs: #3 Sand.	11:35 Very difficult drilling at ~17.5 ft bgs. Augers advancing slowly.
20					18.7		
22					2197		12:30 Collected sample MW-8-20.5-21.
					378		
					84		

LOG OF BORING

Borehole ID : MW-8

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Comments
24			SANDSTONE: 24.5-25: Greenish gray to light gray weathered, moist to dry, medium to very dense, fine sand with silt.			24.5-25 ft bgs: Bentonite chips.	13:15 End of boring at 25' bgs, began well installation.
26			**END OF BORING AT 25 FT BGS**			24.5-25 ft bgs: 2" ID sch 40 bottom cap	
28							

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1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING & WELL CONSTRUCTION

Borehole ID: MW-9

Total Depth: 47 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Gregg Drilling
Site Location: Valley Crest Tree Nursery	**Driller:** Angel Salazar
Project Manager: Joe Morgan	**Type of Drilling Rig:** Mobile B-80
RG: Leonard Niles	**Drilling Method:** Mud rotary, Hand auger
Geologist: Gregory White	**Sampling Method:** Split Spoon (varying sizes)/Core barrel, 4.375" di
Job Number: 26815217.03207	**Date(s) Drilled:** August 15-16, 2006

BORING & WELL INFORMATION

Groundwater Depth: Not Observed Due To Drilling Fluid	**Boring Location:** Valley Crest Tree Company, 8501 Calveras Road
Air Knife or Hand Auger Depth: 5 ft bgs	**Boring Diameter:** 6.875 inches
Coordinates: **X** 6168158.53 **Y** 2025840.07 **Z** 333.49 (TOC)	**Boring Type:** Monitoring Well Completion

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Drilling Comments
0	ML		SANDY SILT: Brown, moist, low plasticity fines, fine sand, some clay, trace orange-brown sandy zones, caliche veins throughout. No caliche below 6.5 ft bgs.			0-36 ft bgs: 2" ID sch 40 PVC blank well casing	16:25 Begin mud rotary, soil samples are wet on outside due to split spoon sampling method, PID readings may be affected.
6					13.2		
8					13	0-33 ft bgs: Cement/ Bentonite grout	
10	SM		SILTY SAND: Brown, moist, non-plastic fines, medium dense, fine sand, some medium sand, caliche viens throughout.		13.4		
12	SM		SILTY SAND: Brown, moist, increased low-plasticity fines, medium density, fine sand, some medium sand, trace subrounded fine gravel.		20.5		
14	SM		SILTY SAND: Brown, moist to dry, non-plastic fines, medium density, fine sand, some medium sand.		15.7		
16	ML		SANDY SILT: Brown, moist to dry, low-plasticity fines, some fine to medium sand, very stiff.		14		
18			As above, except trace subangular fine gravel at 18 ft bgs.		16.9 12.9		
20	SM		SILTY SAND: Brown, moist to dry, low-plasticity fines, medium density, fine sand, some medium sand, trace subangular fine gravel..		15.2		
22			As above, except minor clay at 21.5 ft bgs.		15.8		

LOG OF BORING

Borehole ID : MW-9

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Comments
24					11.6		
26	SM		GRAVELLY SILTY SAND: Brown, moist, low-plasticity fines, fine sand matix, sub-angular to sub-rounded fine to coarse gravel and cobbles.		11.2		
					2.7		
28	GM		SILTY SANDY GRAVEL: Grayish brown, moist, non-plastic fines, fine to coarse sand, grayish subangular to subrounded fine to coarse gravel and cobbles.		10.2		
30	GP		GRAVEL: Gray, white, red, moist, subrounded to angular fine gravel with some coarse gravel and cobbles, trace coarse sand.				18:45 Cannot keep hole open to sample due to gravel and cobbles. Will increase bentonite content of mud and drill to 40' and re-evaluate.
32							
34						33-35 ft bgs: Bentonite chips	19:40 Bit will not advance past 30' bgs. Cobbles and rock fragments are too large and hard to advance though w/o core barrel.
36						35-46.5 ft bgs: #3 sand	
38						36-46 ft bgs: 2" ID sch 40 PVC 0.02" slotted well screen	19:45 End of boring at 30' bgs. Refusal in gravel/cobbles. Will drill to designated depth tomorrow with core barrel.
40			Logged from cuttings below 40 ft bgs.				8/16, 06:45 Begin coring at 30' bgs.
42							08:10 Reach 40' bgs. Pulled core barrel casing to overdrill with tri-core bit.
44						46.5-47 ft bgs: slough	08:30 Begin overdrilling with tri-core bit.
46	CL		CLAYEY SILT: Gray, mediuim plasticity fines, wet. (Completely weathered bedrock?)			46-46.5 ft bgs: 2" ID sch 40 PVC bottom cap	09:15 End of boring at 47' bgs. Cleared out hole to install well.
48			**END OF BORING AT 47 FT BGS**				

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1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING

Borehole ID: SVE-1D

Total Depth: 20 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Gregg Drilling & Testing
Site Location: Milepost 2.7 Calaveras Road, Sunol, California	**Driller:** Chris S.
Project Manager: Joe Morgan	**Type of Drilling Rig:** Marl M5T
RG: Leonard Niles	**Drilling Method:** Hollow Stem Auger
Geologist: Gregory White	**Sampling Method:** Blind Drilling - No Sampling
Job Number: 26815217.02400	**Date(s) Drilled:** November 5, 2005

BORING INFORMATION	
Groundwater Depth: 17 ft bgs (during drilling)	**Boring Location:** Dirt road on steep hillside above Calveras Road
Air Knife or Hand Auger Depth: 5 ft bgs	**Boring Diameter:** 10 inches
Coordinates: X 6168313.98 Y 2025831.92	**Boring Type:** Soil Vapor Extraction

Depth (ft bgs)	Symbol	Lithologic Description	USCS	Well Construction Details	Drilling Comments
0		HAND AUGER TO 5 FT BGS			10:30 Begin hand augering to 5 ft bgs. Ambient PID: 0.0 ppm
2					
4				1-12.6 ft bgs: 4" Sch. 40 PVC riser.	
6		BLIND DRILL WITH HSA RIG FROM 5-20 FT BGS. (SEE LOG OF CP-SB-12 FOR LITHOLOGY)		1.5-9.5 ft bgs: 95% cement / 5% bentonite grout.	10:35 Begin drilling with augers at 5 ft bgs.
8					
10				9.5-11.5 ft bgs: Baroid bentonite chip seal.	
12				12.6-19.6 ft bgs: 4" Sch 40 PVC 0.020" screen.	11:10 Drilling becomes very difficult at 12 ft bgs- into gravel, sand, and cobble zone.
14					
16	▽			11.5-20 ft bgs: #3 RMC sand.	17 ft bgs: Water encountered during drilling.
18					
20		**END OF BORING AT 20 FT BGS**		19.6-20 ft bgs: 4" PVC silt trap and well cap.	12:20 End of boring at 20 ft bgs. Begin well installation.
22					

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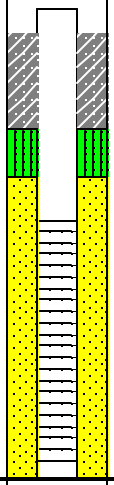
LOG OF BORING

Borehole ID: SVE-2S

Total Depth: 10.8 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Gregg Drilling & Testing
Site Location: Milepost 2.7 Calaveras Road, Sunol, California	**Driller:** Chris S.
Project Manager: Joe Morgan	**Type of Drilling Rig:** Marl M5T
RG: Leonard Niles	**Drilling Method:** Hollow Stem Auger
Geologist: Gregory White	**Sampling Method:** Blind Drilling - No Sampling
Job Number: 26815217.02400	**Date(s) Drilled:** November 5, 2005

BORING INFORMATION	
Groundwater Depth: Not Encountered	**Boring Location:** Dirt road on steep hillside above Calveras Road
Air Knife or Hand Auger Depth: 5 ft bgs	**Boring Diameter:** 10 inches
Coordinates: **X** 6168314.18 **Y** 2025817.01	**Boring Type:** Soil Vapor Extraction

Depth (ft bgs)	Symbol	Lithologic Description	USCS	Well Construction Details	Drilling Comments
0		HAND AUGER TO 5 FT BGS		 1.0-5.4 ft bgs: 4" Sch. 40 PVC riser. 1.5-3.5 ft bgs: 95% cement / 5% bentonite grout. 3.5-4.5 ft bgs: Baroid bentonite chip seal. 5.4-10.4 ft bgs: 4" Sch 40 PVC 0.020" screen. 4.5-10.8 ft bgs: #3 RMC sand. 10.4-10.8 ft bgs: 4" PVC silt trap and well cap.	09:20 Begin hand augering to 5 ft bgs. Ambient PID: 0.0 ppm
2					
4					
6		BLIND DRILL WITH HSA RIG FROM 5-10.8 FT BGS. (SEE LOG OF CP-SB-11 FOR LITHOLOGY)			09:35 Begin drilling with augers at 5 ft bgs.
8					
10					09:50 End of boring at 10.8 ft bgs. Begin well installation.
12		**END OF BORING AT 10.8 FT BGS**			
14					
16					
18					
20					
22					

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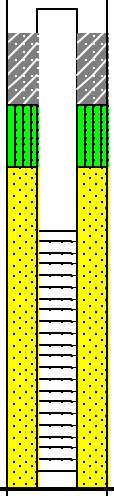
LOG OF BORING

Borehole ID: SVE-3S

Total Depth: 11 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Gregg Drilling & Testing
Site Location: Milepost 2.7 Calaveras Road, Sunol, California	**Driller:** Chris S.
Project Manager: Joe Morgan	**Type of Drilling Rig:** Marl M5T
RG: Leonard Niles	**Drilling Method:** Hollow Stem Auger
Geologist: Gregory White	**Sampling Method:** Blind Drilling - No Sampling
Job Number: 26815217.02400	**Date(s) Drilled:** November 5, 2005
BORING INFORMATION	
Groundwater Depth: Not Encountered	**Boring Location:** Dirt road on steep hillside above Calveras Road
Air Knife or Hand Auger Depth: 5 ft bgs	**Boring Diameter:** 10 inches
Coordinates: X 6168317.87 Y 2025774.02	**Boring Type:** Soil Vapor Extraction

Depth (ft bgs)	Symbol	Lithologic Description	USCS	Well Construction Details	Drilling Comments
0		HAND AUGER TO 5 FT BGS		 1.0-5.6 ft bgs: 4" Sch. 40 PVC riser. 1.5-3.0 ft bgs: 95% cement / 5% bentonite grout. 3.0-4.3 ft bgs: Baroid bentonite chip seal. 5.6-10.6 ft bgs: 4" Sch 40 PVC 0.020" screen. 4.3-11 ft bgs: #3 RMC sand. 10.6-11.0 ft bgs: 4" PVC silt trap and well cap.	15:00 Begin hand augering to 5 ft bgs. Ambient PID: 2.6 ppm
2					
4					
6		BLIND DRILL WITH HSA RIG FROM 5-11 FT BGS. (SEE LOG OF CP-SB-20 FOR LITHOLOGY)			15:45 Begin drilling with augers at 5 ft bgs.
8					
10					16:00 End of boring at 11 ft bgs. Begin well installation.
12		**END OF BORING AT 11.0 FT BGS**			
14					
16					
18					
20					
22					

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LOG OF BORING

Borehole ID: SVE-4D

Total Depth: 28 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Gregg Drilling & Testing
Site Location: Milepost 2.7 Calaveras Road, Sunol, California	**Driller:** Bob D.
Project Manager: Joe Morgan	**Type of Drilling Rig:** Marl M5T
RG: Leonard Niles	**Drilling Method:** Hollow Stem Auger
Geologist: Gregory White	**Sampling Method:** Blind Drilling - No Sampling
Job Number: 26815217.02400	**Date(s) Drilled:** November 8, 2005
BORING INFORMATION	
Groundwater Depth: Not Encountered	**Boring Location:** Dirt road on steep hillside above Calveras Road
Air Knife or Hand Auger Depth: 5 ft bgs	**Boring Diameter:** 10 inches
Coordinates: X 6168318.74 Y 2025761.01	**Boring Type:** Soil Vapor Extraction

Depth (ft bgs)	Symbol	Lithologic Description	USCS	Well Construction Details	Drilling Comments
0		HAND AUGER TO 5 FT BGS			09:05 Begin hand augering to 5 ft bgs. Ambient PID: 0.0 ppm
2					
4				1.0-17.6 ft bgs: 4" Sch. 40 PVC riser.	
6		BLIND DRILL WITH HSA RIG FROM 5-28 FT BGS. (SEE LOG OF CP-SB-21 FOR LITHOLOGY)			09:25 Begin drilling with augers at 5 ft bgs.
8				1.4-15.0 ft bgs: 95% cement / 5% bentonite grout.	
10					
12					
14					
16				15.0-16.0 ft bgs: Baroid bentonite chip seal.	
18					10:00 Drilling becomes very difficult at 18 ft bgs- through tight silt zone.
20				17.6-27.6 ft bgs: 4" Sch 40 PVC 0.020" screen.	
22				16.0-28.0 ft bgs: #3 RMC sand.	
24					
26				27.6-28.0 ft bgs: 4" PVC silt trap and well cap.	10:25 End of boring at 28 ft bgs. Begin well installation.
28		**END OF BORING AT 28 FT BGS**			

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LOG OF BORING & WELL CONSTRUCTION

Borehole ID: SVE-5

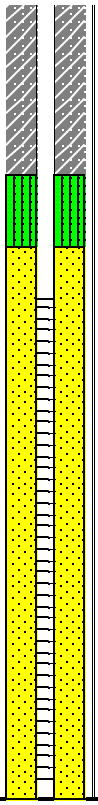
Total Depth: 40 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Resonant Sonic International
Site Location: Milepost 2.7 Calaveras Road, Sunol, California	**Driller:** George Morales
Project Manager: Joe Morgan	**Type of Drilling Rig:** Geoprobe 6620DT
RG: Leonard Niles	**Drilling Method:** Hollow Stem Auger
Geologist: Gregory White	**Sampling Method:** Blind Drilling - No Sampling
Job Number: 26815217.02400	**Date(s) Drilled:** November 9-10, 2006
BORING & WELL INFORMATION	
Groundwater Depth: Not Encountered	**Boring Location:** Above steep hillside east of Calaveras Road
Air Knife or Hand Auger Depth: 5 ft bgs	**Boring Diameter:** 8 inches
Coordinates: **X** 6168320.76 **Y** 2025747.84 **Z** 396.62 (TOC)	**Boring Type:** Soil Vapor Extraction Well

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Drilling Comments
0			BLIND DRILL WITH HSA RIG FROM 0-40 FT BGS. (SEE LOG OF CP-SB-20 FOR LITHOLOGY)			+0.1-29.6 ft bgs: 2" ID Sch. 40 PVC riser. 0-27 ft bgs: 5% bentonite-cement grout.	09:20 (11/9/06) Begin drilling. Ambient PID: 0.0 ppm 09:40 Auger grinding on gravel/coarse sediment at 19 ft bgs. 11:15 Refusal at `20 ft bgs in tight silt. 08:50 (11/10/06) Begin drilling pilot hole from 20 ft bgs with 4" SSA.
2							
4							
6							
8							
10							
12							
14							
16							
18							
20							
22							

LOG OF BORING

Borehole ID : SVE-5

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Comments
24 26 28 30 32 34 36 38 40			**END OF BORING AT 40 FT BGS**			 27-28.5 ft bgs: hydrated bentonite chips. 29.6-39.6 ft bgs: 2" ID PVC 0.02" slot screen. 28.5-40 ft bgs: #3 RMC sand. 39.6-40 ft bgs: 2" ID PVC silt trap.	09:10 Reach 40 ft bgs with solid stem augers. Pulled augers and advance 8" HSAs to 40 ft bgs. 15:45 End of boring at 40 ft bgs.

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LOG OF BORING & WELL CONSTRUCTION

Borehole ID: SVE-6

Total Depth: 14 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Resonant Sonic International
Site Location: Milepost 2.7 Calaveras Road, Sunol, California	**Driller:** George and Michael
Project Manager: Joe Morgan	**Type of Drilling Rig:**
RG: Leonard Niles	**Drilling Method:** Hand Auger
Geologist: Gregory White	**Sampling Method:** Auger Cuttings
Job Number: 26815217.02400	**Date(s) Drilled:** November 7, 2006
BORING & WELL INFORMATION	
Groundwater Depth: Not Encountered	**Boring Location:** Above steep hillside east of Calaveras Road
Air Knife or Hand Auger Depth:	**Boring Diameter:** 4"
Coordinates: **X** 6168297.14 **Y** 2025747.97 **Z** 385.49 (TOC)	**Boring Type:** Soil Vapor Extraction Well

Depth (ft bgs)	USCS	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Drilling Comments
0						
	ML	SANDY SILT: Very dark grayish brown (2.5YR3/2) moist, 85% soft, low plasticity silt, 15% fine sand, some roots and organic material		2.1		08:10 Begin hand augering. Ambient PID: 0.0 ppm
2		SANDY SILT: Olive brown (2.5YR4/3) moist, 80% soft, low- to non-plasticity silt, 20% fine sand, trace organic material		1.2		
4		SANDY SILT: Olive brown (2.5YR4/3) moist, 55% soft, low-plasticity silt, 45% fine sand, trace organic material		0.4	+0.98-9 ft bgs: 1" ID PVC riser	09:15 Collect SVE-6-3.2
	SM	SILTY SAND: Olive brown (2.5YR4/3) moist, loose fine sand, 45% low-plasticity silt		0.2	0-7 ft bgs: bentonite/ Portland cement grout	
6						
8					7-8 ft bgs: bentonite chips	
	ML	SANDY SILT: Olive brown (2.5YR4/3) moist, 60% soft, non-plastic silt, 35% fine sand, trace clay, trace caliche nodules		0.9		
10		Same as above, but 75% silt, 20% sand, 5% clay		13.2	8-14 ft bgs: #3 sand filter pack	09:30 Collect SVE-6-10
12		SILT: Olive brown (2.5YR4/3) dry, 95% non-plastic silt, trace fine sand and clay, very slight sweet odor		9.1	9-14 ft bgs: 1" ID (2" filter prepack) PVC 0.01" slot screen	09:50 Collect SVE-6-14
14		**END OF BORING AT 14 FT BGS**		54.8		09:45 End of boring at 14 ft bgs

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LOG OF BORING & WELL CONSTRUCTION

Borehole ID: SVE-7

Total Depth: 9.7 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Resonant Sonic International
Site Location: Milepost 2.7 Calaveras Road, Sunol, California	**Driller:** George and Michael
Project Manager: Joe Morgan	**Type of Drilling Rig:**
RG: Leonard Niles	**Drilling Method:** Hand Auger
Geologist: Gregory White	**Sampling Method:** Auger Cuttings
Job Number: 26815217.02400	**Date(s) Drilled:** November 7, 2006
BORING & WELL INFORMATION	
Groundwater Depth: Not Encountered	**Boring Location:** Above steep hillside east of Calaveras Road
Air Knife or Hand Auger Depth:	**Boring Diameter:** 4"
Coordinates: X 6168285.07 Y 2025768.50 Z 376.35 (TOC)	**Boring Type:** Soil Vapor Extraction Well

Depth (ft bgs)	USCS	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Drilling Comments
0	ML	SANDY SILT: Very dark grayish brown (2.5YR3/2) moist, 50% soft, low plasticity silt, 35% fine sand, some roots and organic material, trace clay, strong odor		1046	+0.94-4.7 ft bgs: 1" ID PVC riser	11:30 Begin hand augering. Ambient PID: 1.7 ppm Noticable odor
2					0-3.5 ft bgs: bentonite/ Portland cement grout	11:45 Collect SVE-7-1
4		SANDY SILT: Olive gray (5Y4/2) moist, 55% soft, low-plasticity silt, 45% fine sand, trace clay and organic material, strong odor		950	3.5-4.2 ft bgs: hydrated bentonite chips	
6	SM	SILTY SAND: Olive gray (5Y4/2) moist, 60% fine to medium sand (fine sand dominates), 40% low-plasticity silt, trace clay, strong odor		843	4.7-9.7 ft bgs: 1" ID (2" filter prepack) PVC 0.01" slot screen	12:00 Collect SVE-7-8
8		Increased sand at 8 ft; 70% fine to medium sand, 30% silt		875		12:50 End of boring at 9.7 ft bgs. Refusal on gravel
10	GM	SILTY SANDY GRAVEL: Gray, dark brown, and black, moist, fine to coarse rounded to well rounded gravels and cobbles, olive grey (5Y4/2) silty sandy matrix, strong odor			4.2-9.7 ft bgs: #3 sand pack	13:40 Install well
12		**END OF BORING AT 9.7 FT BGS**				

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LOG OF BORING & WELL CONSTRUCTION

Borehole ID: SVE-8

Total Depth: 7 ft bgs

PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Resonant Sonic International
Site Location: Milepost 2.7 Calaveras Road, Sunol, California	**Driller:** George and Michael
Project Manager: Joe Morgan	**Type of Drilling Rig:**
RG: Leonard Niles	**Drilling Method:** Hand Auger
Geologist: Gregory White	**Sampling Method:** Auger Cuttings
Job Number: 26815217.02400	**Date(s) Drilled:** November 8, 2006
BORING & WELL INFORMATION	
Groundwater Depth: 3.5 ft bgs, 7 ft bgs	**Boring Location:** Above steep hillside east of Calaveras Road
Air Knife or Hand Auger Depth:	**Boring Diameter:** 4"
Coordinates: **X** 6168277.22 **Y** 2025792.96 **Z** 362.30 (TOC)	**Boring Type:** Soil Vapor Extraction Well

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Drilling Comments
0	GM		SILTY SANDY GRAVEL: Pale olive, olive, and black (5Y6/3,4/3,2/2) silt and medium sand, white, black, dark brown, and red, fine to coarse rounded to subangular gravel and cobbles (cobbles reach 10" in diameter), trace clay, strong HC odor, product coating below 2.5 ft bgs, moist to wet below 3.5 ft bgs		274 698 606	+0.97-2 ft bgs: 1" ID PVC riser 0-1.25 ft bgs: bentonite/ Portland grout 1.25-1.75 ft bgs: hydrated bentonite chips 2-7 ft bgs: 1" ID (2" filter prepack) 0.01" slot PVC screen 1.75-7 ft bgs: #3 sand pack	08:00 Begin hand augering. Ambient PID: 0.3 ppm 08:40 Collect SVE-8-2.5 10:45 Encountered perched groundwater at 3.5 ft bgs 11:00 Collect SVE-8-4 11:15 End of boring at 7 ft bgs. Perched zone encountered at 7 ft bgs. 4" of water in boring after 15 min. 11:30 Collect SVE-8-6.5
2							
4	SM		SILTY SAND: Olive (5Y5/3) moist, 55% fine to medium sand, 45% non-plastic silt, faint HC odor		449 308		
6	ML		SANDY SILT: Olive gray (5Y5/2) moist, 60% low- to non-plastic silt, 40% fine to medium sand, trace clay, no noticable HC odor		90.7		
8			Same as above but dark gray (5Y4/1), moist to wet, 55% silt, 45% fine sand at 7 ft bgs **END OF BORING AT 7 FT BGS**		17.4		
10							
12							

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LOG OF BORING & WELL CONSTRUCTION

Borehole ID: SVE-9

Total Depth: 7.2 ft bgs

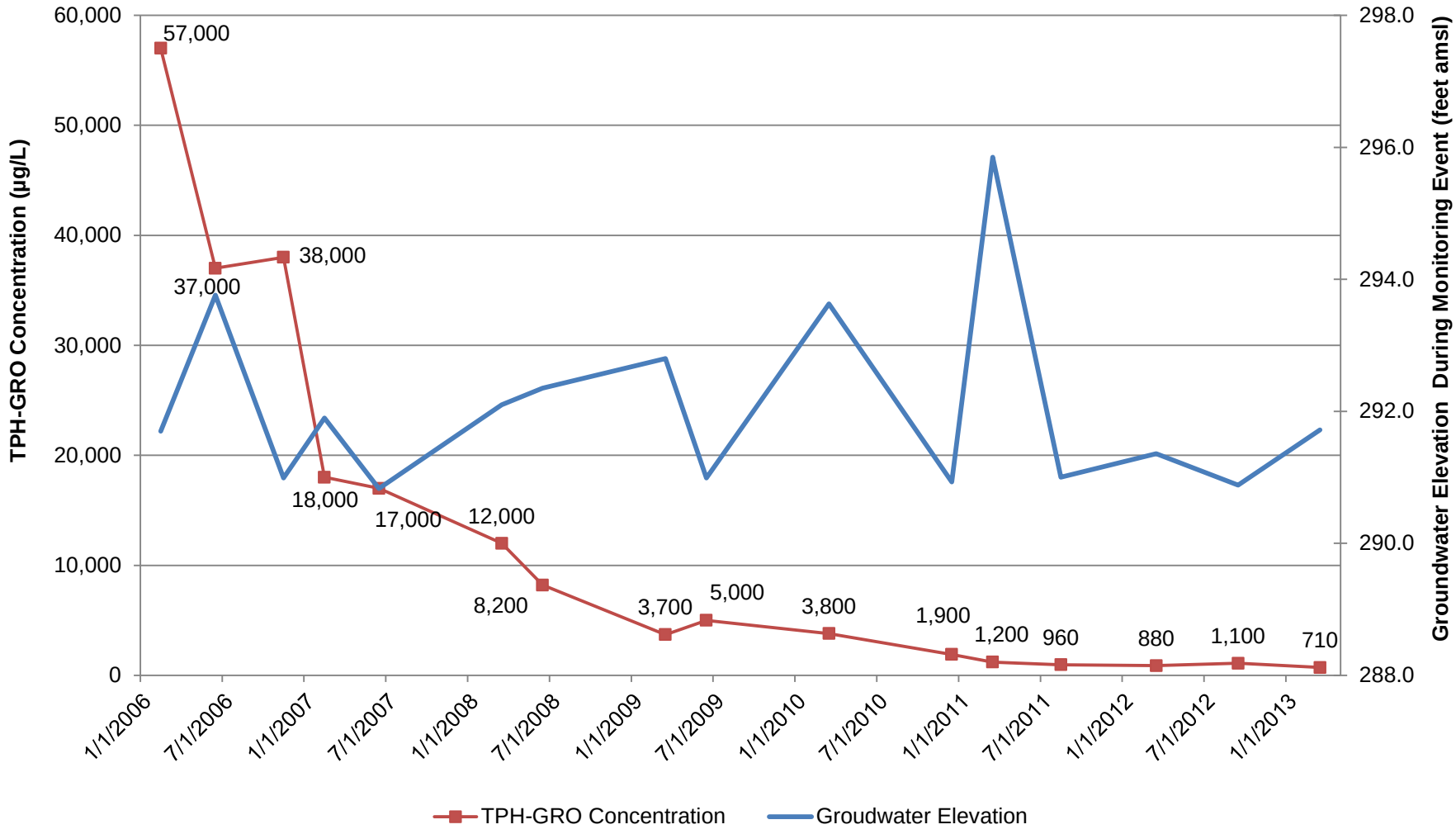
PROJECT INFORMATION	DRILLING INFORMATION
Client: Chevron Pipeline	**Drilling Company:** Resonant Sonic International
Site Location: Milepost 2.7 Calaveras Road, Sunol, California	**Driller:** George Morales
Project Manager: Joe Morgan	**Type of Drilling Rig:**
RG: Leonard Niles	**Drilling Method:** Hand Auger
Geologist: Gregory White	**Sampling Method:** Auger Cuttings
Job Number: 26815217.02400	**Date(s) Drilled:** November 8-9, 2006
BORING & WELL INFORMATION	
Groundwater Depth: Not Encountered	**Boring Location:** Above steep hillside east of Calaveras Road
Air Knife or Hand Auger Depth:	**Boring Diameter:** 4"
Coordinates: **X** 6168258.23 **Y** 2025741.67 **Z** 356.80 (TOC)	**Boring Type:** Soil Vapor Extraction Well

Depth (ft bgs)	USCS	Symbol	Lithologic Description	% Recovery	PID Reading	Well Construction Details	Drilling Comments
0	ML		SANDY SILT: Olive brown (2.5YR4/3), moist, 70% soft, medium plasticity silt, 30% fine to medium sand, trace clay, strong sweet odor		898	+1.5-2.2 ft bgs: 1" ID PVC riser 0-1.2 ft bgs: bentonite/ Portland cement grout 1.2-1.7 ft bgs: hydrated bentonite seal 2.2-7.2 ft bgs: 1" ID (2" filter prepack) 0.01" slot PVC screen 1.7-7.2 ft bgs: #3 sand pack	11:30 (11/8/06) Begin hand augering. Ambient PID: 2.2 ppm
2							
4	SM		SILTY SAND: Olive (5Y5/4) moist, 55% fine to medium sand, 45% low-plasticity silt, very strong odor		1097		12:00 Collect SVE-9-4 12:30 Refusal with hand auger at 6 ft bgs
6							
8	GM		Large cobble encountered at 7.2 ft bgs; refusal				13:10 (11/9/06) Step 1' to west and begin digging new boring. End of boring when large cobble encountered at 7.2 ft bgs
10			**END OF BORING AT 7.2 FT BGS**				
12							

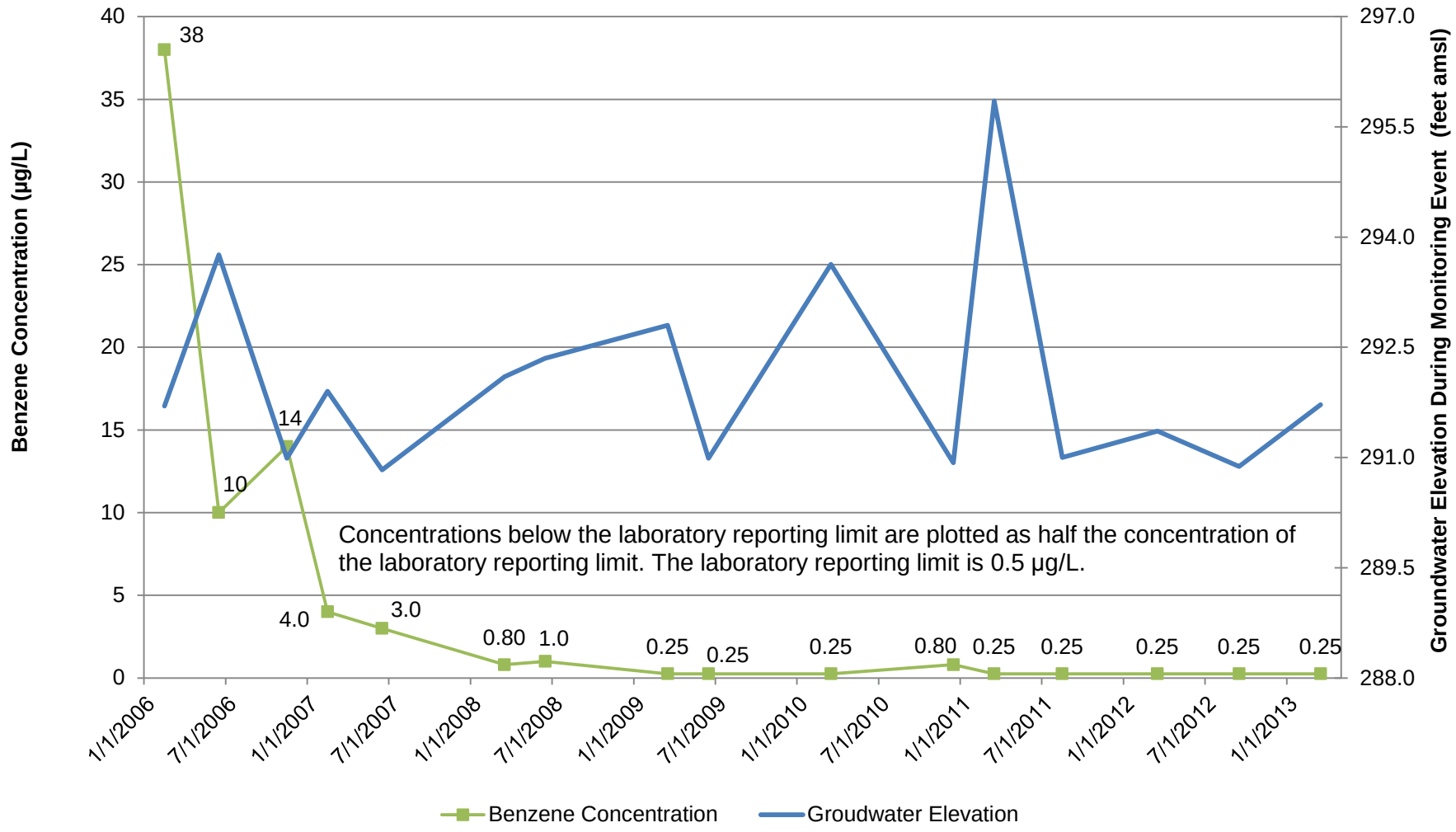
Appendix B

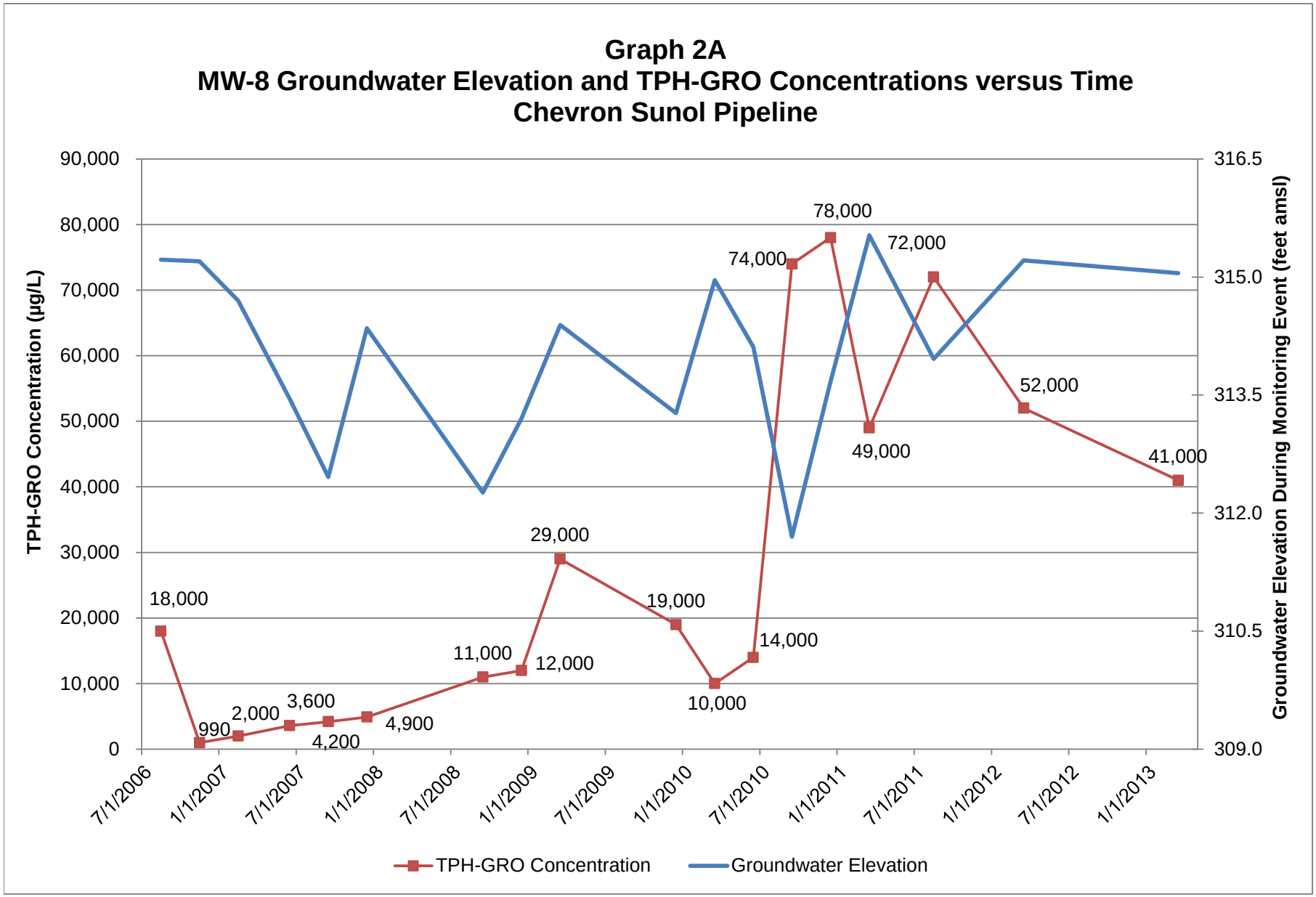
Total Petroleum Hydrocarbons as Gasoline, Benzene, and Groundwater Elevations over Time Graphs

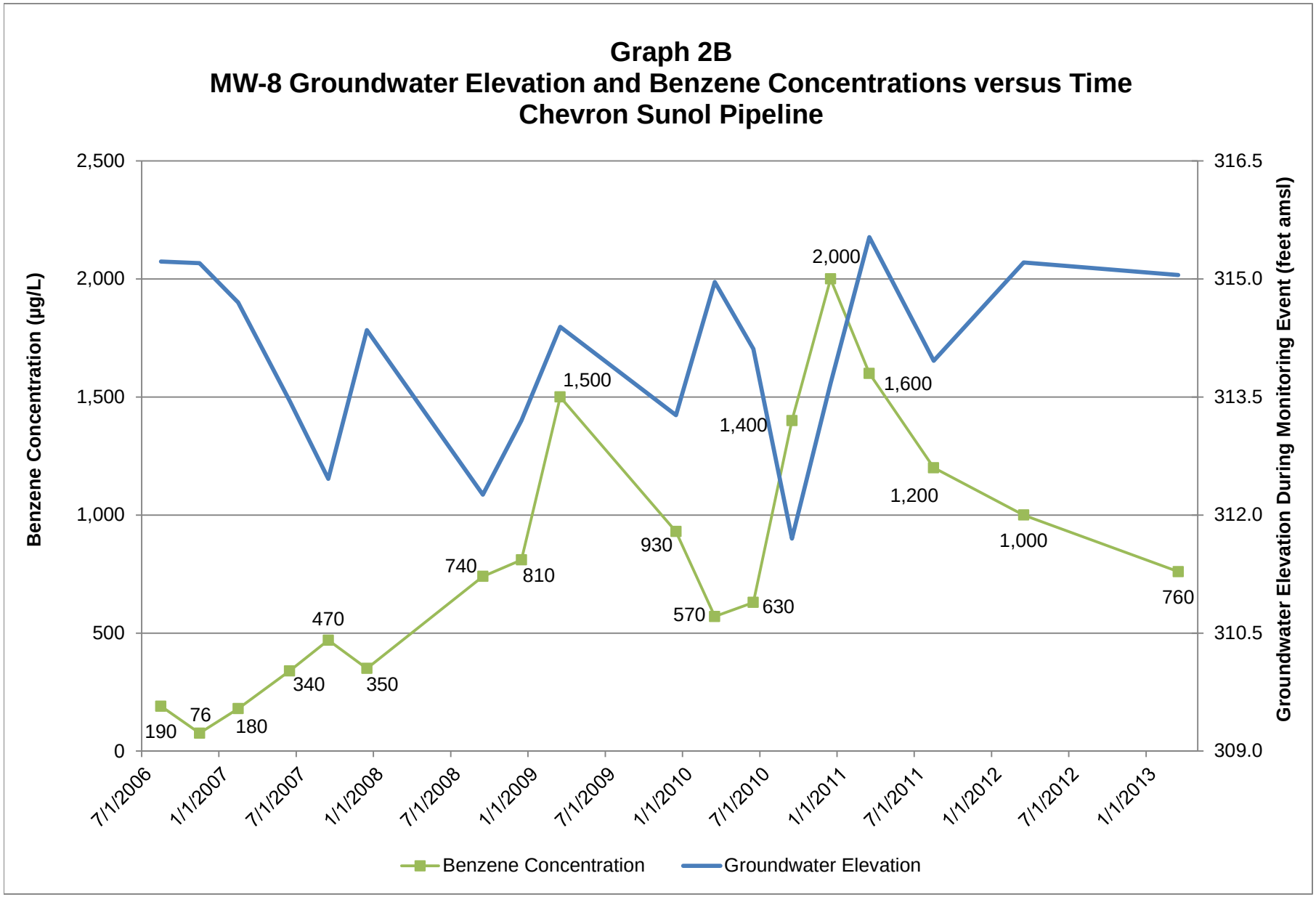
Graph 1A
MW-1 Groundwater Elevation and TPH-GRO Concentrations versus Time
Chevron Sunol Pipeline

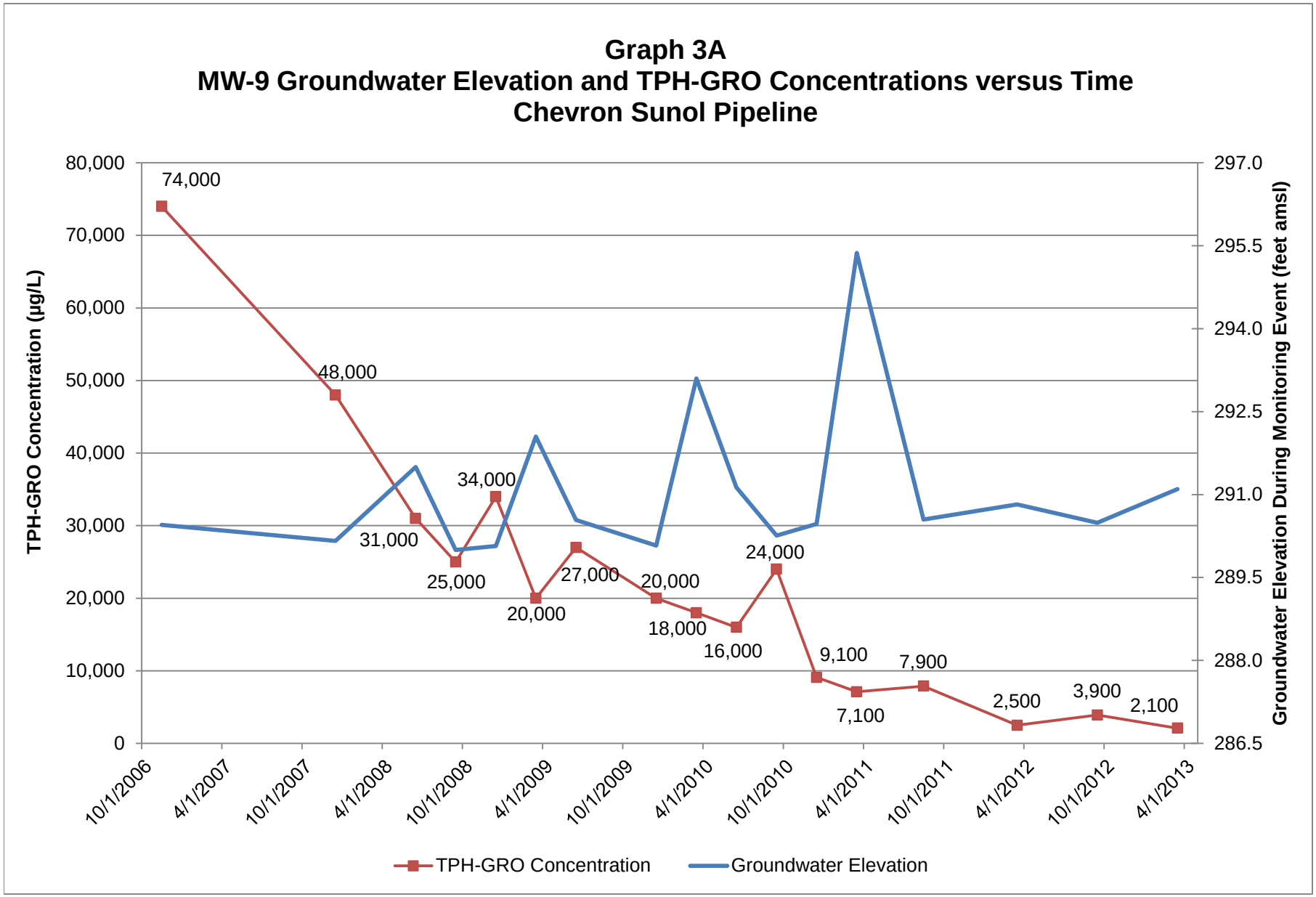


Graph 1B
MW-1 Groundwater Elevation and Benzene Concentrations Versus Time
Chevron Sunol Pipeline




Graph 2A
MW-8 Groundwater Elevation and TPH-GRO Concentrations versus Time
Chevron Sunol Pipeline
TPH-GRO Concentration (µg/L)
Groundwater Elevation During Monitoring Event (feet amsl)
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
316.5
315.0
313.5
312.0
310.5
309.0
18,000
990
2,000
3,600
4,200
4,900
11,000
12,000
29,000
19,000
10,000
14,000
74,000
78,000
72,000
49,000
52,000
41,000
7/1/2006
1/1/2007
7/1/2007
1/1/2008
7/1/2008
1/1/2009
7/1/2009
1/1/2010
7/1/2010
1/1/2011
7/1/2011
1/1/2012
7/1/2012
1/1/2013
TPH-GRO Concentration
Groundwater Elevation


Graph 2B
MW-8 Groundwater Elevation and Benzene Concentrations versus Time
Chevron Sunol Pipeline
Benzene Concentration (µg/L)
Groundwater Elevation During Monitoring Event (feet amsl)
2,500
2,000
1,500
1,000
500
0
316.5
315.0
313.5
312.0
310.5
309.0
190
76
180
340
470
350
740
810
1,500
930
570
630
1,400
2,000
1,600
1,200
1,000
760
7/1/2006
1/1/2007
7/1/2007
1/1/2008
7/1/2008
1/1/2009
7/1/2009
1/1/2010
7/1/2010
1/1/2011
7/1/2011
1/1/2012
7/1/2012
1/1/2013
Benzene Concentration
Groundwater Elevation


Graph 3A
MW-9 Groundwater Elevation and TPH-GRO Concentrations versus Time
Chevron Sunol Pipeline
TPH-GRO Concentration (µg/L)
Groundwater Elevation During Monitoring Event (feet amsl)
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
297.0
295.5
294.0
292.5
291.0
289.5
288.0
286.5
74,000
48,000
31,000
25,000
34,000
20,000
27,000
20,000
18,000
16,000
24,000
9,100
7,100
7,900
2,500
3,900
2,100
10/1/2006
4/1/2007
10/1/2007
4/1/2008
10/1/2008
4/1/2009
10/1/2009
4/1/2010
10/1/2010
4/1/2011
10/1/2011
4/1/2012
10/1/2012
4/1/2013
TPH-GRO Concentration
Groundwater Elevation

Graph 3B
MW-9 Groundwater Elevation and Benzene Concentrations versus Time
Chevron Sunol Pipeline