Additional Investigation at the Asphalt Plant
Hanson Aggregates Mission Valley Rock Facility
7999 Athenour Way
Sunol, Alameda County, California

July 10, 2006
001-09480-00

Prepared for
Hanson Aggregates Northern California
3000 Busch Road
Pleasanton, California 94566

Prepared by
LFR Inc.
1900 Powell Street, 12th Floor
Emeryville, California 94608

July 10, 2006

Hanson Aggregates
Mid-Pacific, Inc.
681 Aspen Circle
Oxnard, CA 93030

Tel. 805 985-2191

Mr. Jerry Wickham
Alameda County Health Care Services
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Additional Investigation at the Asphalt Plant, Hanson Aggregates Mission Valley Rock Facility, 7999 Athenour Way, Sunol, Alameda County, California

Dear Mr. Wickham:

This report presenting the results of additional investigation, including the installation of new groundwater monitoring wells, was prepared by LFR Inc. (LFR) on behalf of Hanson Aggregates Northern California ("Hanson") for the Asphalt Plant Site at the Mission Valley Rock Facility, located at 7999 Athenour Way in Sunol, Alameda County, California ("the Site"). The additional investigation work was conducted in accordance with a Work Plan entitled "Work Plan for Additional Investigation at the Asphalt Plant, Hanson Aggregates Mission Valley Rack Facility, 7999 Athenour Way, Sunol, Alameda County, California."

The Work Plan was submitted on January 17, 2006 in response to your comment letter to Mr. Calvert of Mission Valley Rock Company, entitled "Fuel Leak Case No. RO0000207, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, California," dated November 3, 2005, and was approved, with comment, in a letter to Mr. Calvert, entitled "Fuel Leak Case No. RO0000207, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, California – Work Plan Approval," dated February 3, 2006.

The purpose of the additional investigation was to further characterize the lateral and vertical extent of petroleum hydrocarbon–affected groundwater beneath the Asphalt Plant. The work included drilling and installing 12 new groundwater monitoring wells located in four well clusters of three wells each, to the north, east, south, and west of the previously known area of affected groundwater. Included in the report are geologic cross-sections, a survey of monitoring and supply wells located within approximately one-half mile of the Site, and a site conceptual model (SCM) updated from the initial SCM submitted with the Work Plan.

As requested, this report will be submitted electronically via the Alameda County Environmental Cleanup Oversight Program FTP website, and via the Regional Water Quality Control Board's GeoTracker electronic submittal system.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report are true and correct to the best of my knowledge.

If you have any questions or comments concerning this Work Plan, please call Lee Cover at (925) 426-4170 or Bill Carson at (510) 652-4500.

Sincerely,

Steven Zacks
Environmental Manager
Hanson Aggregates Mid-Pacific Inc.

for
Lee W. Cover
Environmental Manager
Hanson Aggregates Northern California

Attachment

CONTENTS

TABLES

FIGURES

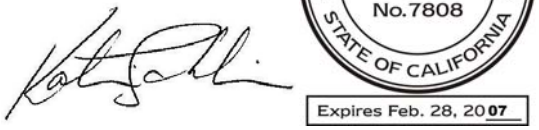
APPENDICES

CERTIFICATIONS

LFR Inc. has prepared this Asphalt Plant Area Investigation Report on behalf of Hanson Aggregates Northern California in a manner consistent with the level of care and skill ordinarily exercised by professional geologists and environmental scientists. This investigation was prepared under the technical direction of the undersigned California Professional Engineer and California Professional Geologist.

July 10, 2006

William L. Carson, P.E. — Date
Principal Engineer
California Professional Engineer No. C60735



July 10, 2006

Katrin M. Schliewen, P.G. — Date
Senior Project Hydrogeologist
California Professional Geologist No. 7808

1.0 INTRODUCTION

LFR Inc. (LFR) has prepared this report for Additional Investigation at the Asphalt Plant on behalf of Hanson Aggregates Northern California ("Hanson") for the facility located at 7999 Athenour Way in Sunol, Alameda County, California ("the Site"; Figure 1). The purpose of the additional investigation was to better define the lateral and vertical extent of affected groundwater in the vicinity of the Asphalt Plant and to evaluate the groundwater flow conditions.

This report summarizes field activities performed in accordance with the Work Plan for Additional Investigation at the Asphalt Plant ("Work Plan"), dated January 17, 2006. Field investigation activities consisted of the installation, development, and initial sampling of 12 new groundwater monitoring wells installed in four well clusters (MW-9 through MW-12). The Work Plan was conditionally approved by Alameda County Environmental Health (ACEH) in a letter dated February 3, 2006.

1.1 Site Description

The Asphalt Plant is located within the approximately 588-acre Site owned and operated by Mission Valley Rock Company since the 1950s, and recently purchased by Hanson. The Site is operated as a sand and gravel quarry with an asphalt manufacturing facility and ready mix concrete plant. Additionally, various areas throughout the Site are leased for industrial, agricultural, and storage purposes. The Site was acquired by Hanson from Mission Valley Rock Company in early 2005. The Asphalt Plant has been in operation at the Site since approximately 1980. From 1980 to 1996, the Asphalt Plant was fueled by two 10,000-gallon diesel fuel underground storage tanks (USTs), and a 2,000-gallon gasoline UST with fuel dispenser was used to fuel company vehicles. During the removal of these three USTs in June 1996, an impact to soil and groundwater was found. Several subsurface investigations have been completed by multiple consultants from 1996 through 2005 in the vicinity of the Asphalt Plant.

1.2 Previous Investigations and Known Impacts to Groundwater

1.2.1 Removal of USTs

Three USTs, including two 10,000-gallon diesel USTs and one 2,000-gallon gasoline UST, and associated pump island(s) and piping were removed in 1996 (TPE 1996). A fourth 10,000-gallon diesel UST removed earlier is not believed to have released significant quantities of petroleum hydrocarbons to the environment (located approximately 150 feet southeast of the Asphalt Plant). The USTs reportedly were in good condition with no holes evident; however, a hole was observed in a fuel line. The approximate locations of the former USTs are shown on Figure 2.

As further described in the site conceptual model (SCM; Section 6.0), incidental releases of diesel fuel and gasoline (including gasoline containing methyl tertiary-butyl ether [MtBE]) likely occurred at the Site and have affected the subsurface beneath the Asphalt Plant.

1.2.2 Groundwater Monitoring History

Groundwater monitoring of wells MW-1 through MW-3 was performed approximately quarterly from June 1998 through December 2003. Tait Environmental Management, Inc. ("Tait") conducted a Site Assessment in December 2002 and has conducted Quarterly Groundwater Monitoring and Reporting at the Site under the oversight of the ACEH. Groundwater monitoring at the Asphalt Plant resumed in January 2005, at which time monitoring well MW-2 was abandoned and replaced with three nested monitoring wells of different depths (MW-2S/2M/2D). Also in January 2005, existing nested groundwater monitoring wells MW-4 through MW-7, and single-completion well MW-8, were installed. Additionally, grab groundwater samples were collected from 10 soil boring locations in December 2002 (Tait 2003). The existing groundwater monitoring wells and grab groundwater collection point locations are shown on Figure 2.

1.2.3 Known Impacts to Groundwater

Results of previous investigations and routine quarterly groundwater monitoring have revealed that the groundwater beneath the Asphalt Plant is affected by total petroleum hydrocarbons (TPH) as gasoline (TPHg), TPH as diesel (TPHd), volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, and xylenes (collectively referred to as BTEX compounds), and MtBE. A summary of historical analytical data from the routine groundwater monitoring and from the grab groundwater sampling conducted by Tait is included in Appendix A.

As further described in the SCM, the TPHg and MtBE concentrations likely are associated with the former gasoline UST, while the TPHd likely is associated with the two former diesel USTs. Free product was measured in former monitoring well MW-2 beginning in June 1998 through June 2002, and sheen and/or odor were observed in monitoring wells MW-1 and MW-3 during 1999 and 2000. The presence of free product has not been observed since September 2002. Historically, the highest TPHg and TPHd concentrations have been detected in former monitoring well MW-2, in conjunction with the free product observed. More recently, the highest TPHg and TPHd concentrations by far have been detected in monitoring wells MW-7S and MW-7D. MtBE has been detected in each monitoring well except MW-4 and MW-8.

The extent of impact to groundwater has not been fully delineated in lateral or vertical directions. As further described in the SCM, the petroleum hydrocarbons and associated compounds detected in groundwater samples likely were carried in a number

of directions by the changing groundwater gradients across the Site. Residual free product (source material) left in the site subsurface likely is trapped in isolated pockets.

1.3 Agency Determination

The lead agency overseeing the site cleanup is the ACEH (Fuel Leak Case No. RO0000207). On November 3, 2005, the ACEH issued a comment letter based on its review of Tait's first and second quarter 2005 groundwater monitoring reports (Tait 2005a and 2005b). In this letter, the ACEH requested additional investigative work at the Site to further delineate the lateral and vertical extent of affected groundwater in the Asphalt Plant area. In addition, the ACEH requested that an initial SCM be developed to better understand the site conditions and fate and transport of the petroleum hydrocarbons and associated MtBE detected in groundwater beneath the Asphalt Plant.

On February 3, 2006, the ACEH conditionally approved the January 17, 2006 Work Plan, requesting that proposed well cluster MW-10 be moved to a location just northeast of the former USTs, and that proposed well cluster MW-12 be moved to a location approximately west of the Asphalt Plant. The ACEH requested that a more detailed review of all wells located within approximately ½ mile of the Site be conducted to identify potential receptors to the groundwater impact identified at the Asphalt Plant. In addition, based on observations made by LFR, the ACEH requested that the surface completion of wells MW-7S/D be repaired to better prevent surface water from entering the well.

Before the new well installations proposed by LFR were conducted, a series of verbal and written communications between LFR and the ACEH clarified that although existing wells MW-2 through MW-7 were constructed as nested well completions, the ACEH does not approve of nested well completions as proposed in the Work Plan (LFR 2006b, ACEH 2006b). As such, the proposed well completions for new wells MW-9 through MW-12 were modified from nested wells to clusters of single completion wells. The findings and results from this investigation and groundwater samples collected are reported in the following sections.

1.4 Limitations

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by LFR and the party for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty, or guarantee, express or implied, is intended or given. To the extent that LFR relied upon any information prepared by other parties not under contract to LFR, LFR makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive

use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

Results of any investigations or testing and any findings presented in this report apply solely to conditions existing at the time when LFR's investigative work was performed. It must be recognized that any such investigative or testing activities are inherently limited and do not represent a conclusive or complete characterization. Conditions in other parts of the Site may vary from those at the locations where data were collected. LFR's ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100 percent confidence in environmental investigation conclusions cannot reasonably be achieved.

LFR, therefore, does not provide any guarantees, certifications, or warranties regarding any conclusions regarding environmental contamination of any such property. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.

2.0 ADDITIONAL INVESTIGATION METHODOLOGY

2.1 Pre-Field Activities

Permitting

LFR acquired the necessary well permits from the Alameda County Zone 7 Water Agency for installation of the monitoring well clusters.

Subsurface Utility Clearance

Prior to intrusive fieldwork, subsurface utility clearance was obtained by utilizing historical utility records, Underground Service Alert, and geophysical resources. LFR subcontracted C. Cruz Subsurface Locators Inc. of Milpitas, California, to perform subsurface utility locating at the Site to identify possible subsurface obstructions and utilities. Proposed monitoring well locations were cleared. A copy of the applicable clearance forms were maintained in the field during investigation activities.

Efforts were made to install the new monitoring wells in areas that would minimize interference with plant operations and protect the integrity of the wells over time (for example, not in a topographically low spot or in a high traffic area). The proposed well locations were reviewed with site personnel prior to commencing the drilling.

Health and Safety Plan

A site-specific Health and Safety Plan (HSP) was prepared to document potential hazards to worker health and safety at the Site during the field activities and to specify the appropriate means to mitigate or control hazards. The HSP addressed the potential for exposure to hazardous constituents and described general safety procedures. A health and safety meeting was conducted before beginning fieldwork, and applicable activities were completed according to the HSP. A copy of the HSP was made available to personnel involved in investigation activities. In addition, Hanson conducted its own on-site health and safety briefing for new personnel prior to performing activities within the Site.

2.2 Groundwater Monitoring Well Installation

2.2.1 Monitoring Well Locations

The monitoring well locations shown on Figure 2 were strategically selected to further define the lateral and vertical extent of soil and groundwater contamination. A total of four monitoring well clusters was installed in specific locations to fill data gaps, in concurrence with the ACEH letters dated November 3, 2005 and February 3, 2006. Each new monitoring well cluster contains three individual monitoring wells completed to three different depths. The four new monitoring well clusters were located to further characterize the lateral and vertical extent of petroleum hydrocarbon impact to the north, east, south, and west of the Site.

Monitoring well cluster MW-9 was installed northwest of existing monitoring wells MW-7S/D where historically the highest TPHg concentrations have been detected in groundwater samples. Monitoring well cluster MW-10 was installed approximately east of the former 2,000-gallon gasoline UST. Monitoring well cluster MW-11 was installed south of existing nested wells MW-2S/M/D and MW-6S/D, locations where MtBE has been detected during routine quarterly monitoring events. Monitoring well cluster MW-12 was installed approximately southwest of existing monitoring wells MW-2S/M/D and MW-8 to provide better characterization of petroleum hydrocarbon impact west and southwest of the Site.

2.2.2 Monitoring Well Installation and Construction Details

LFR subcontracted Gregg Drilling and Testing of Martinez, California, a licensed drilling contractor, to drill the soil borings and install the 12 new monitoring wells during April 26 through May 1, 2006. Each soil boring was drilled using an 8-inch-diameter hollow-stem auger drill rig. Soil borings were started by hand augering to approximately 5 feet below ground surface (bgs) as a precautionary measure for unidentified underground utilities, then were advanced to total depths. Total depths were targeted based on previous soil boring information, and modified in the field based on soil types encountered and potential impacts identified in the field.

The 12 new monitoring wells were installed in four well clusters and were completed to total depths ranging approximately from 10 to 40 feet bgs. The three single-completion wells located within each well cluster were screened at approximately 5 to 10 feet bgs, 20 to 25 feet bgs, and 35 to 40 feet bgs, for soil intervals identified as shallow (S), deep (D), and Livermore Formation (LF), respectively. Screened intervals were chosen based on lithologic conditions encountered at the time of drilling. The eight wells completed in the shallow and deep soil intervals further delineated the lateral extent of impact to groundwater identified in existing wells completed within the shallow and deep intervals. The four wells completed in the Livermore Formation were installed to further delineate the impact to groundwater vertically, as they were installed deeper than the deepest well previously installed at the Asphalt Plant.

Each new monitoring well was constructed using 2-inch-diameter Schedule 40 polyvinyl chloride (PVC) well casing and machine-slotted Schedule 40 PVC well screens with a 0.020-inch slot size. Well screen filter packs consisting of #2/16 clean silica sand were placed in the borehole annular space around each well screen interval and extended to approximately 2 feet above the top of the screen. Bentonite pellet chips were placed in the annular space above the filter packs. Typically, an approximately 2- to 3-foot-thick bentonite seal is placed above the filter pack before filling the remaining annular space with cement grout. This was the well completion method used for the shallowest wells. In the case of the wells completed in the deep soil interval and in the Livermore Formation, the bentonite seal was extended to within approximately 5 feet of the ground surface. Because of the coarse nature of the deep soil interval, the bentonite seal was extended to prevent cement grout from migrating through the coarse-grained materials to an adjacent monitoring well screen installed within the same well cluster. The annular space above the bentonite seal was filled with cement grout to just below the ground surface.

Each monitoring well is equipped with a locking well cap. The surface completions consist of 8-inch–diameter, flush-mounted metal well vaults secured in concrete and equipped with a traffic-rated bolted cover. The flush-mounted well vaults were installed in concrete raised approximately 1 to 2 inches above the soil ground surface to further protect the wells from surface water entering the well vaults. Well completion details are presented on the lithologic logs included in Appendix B and are summarized in Table 1.

2.2.3 Lithologic Logging

Soils encountered during drilling were logged by an LFR field geologist under the supervision of a State of California Professional Geologist. The soil lithologic changes were classified using the Unified Soil Classification System and a Munsell color chart. Soils were sampled during drilling at approximately every 5 feet using split-spoon sampling techniques, for both soil logging and field screening purposes. Lithologic information is included on soil boring logs provided in Appendix B. Soils encountered during drilling ranged from fine-grained soil consisting of clay or silt to clean gravels.

Three somewhat distinct soil zones were described. The shallowest interval, consisting of grayish-brown sands, silty sands, and sandy silts with fine to coarse subangular gravel, was encountered from ground surface to approximately 10 feet bgs. Underlying the shallow zone, a clean dark grayish-brown subangular gravel with fine to medium sand was encountered to a depth of approximately 25 feet bgs. The clean gravel is believed to be underlain by the Livermore Formation described on the soil boring logs as a dark gray to brown subrounded gravel with a significant silt component. The bottom of the Livermore Formation was not reached in any of the deepest soil borings advanced to approximately 40 feet bgs. The four deepest soil borings (LF) were terminated approximately 10 feet within the Livermore Formation.

Soil cores were reviewed for visible or olfactory indications of the presence of petroleum hydrocarbons, and also were field screened using a portable photoionization detector (PID) to assess the presence of VOCs. PID readings are included on the monitoring well lithologic logs. During drilling, field observations identified the likely presence of elevated TPH in soils from soil borings MW-9D/LF, MW-10D, and MW-11D/LF locations. The possible presence of pure phase TPH was identified in soils sampled from soil borings MW-9D and MW-11D.

Field soil boring logs were transcribed into report-quality boring logs, and were reviewed, edited, and signed by a California Professional Geologist. Soil boring logs are included in Appendix B.

Two geologic cross sections were prepared based on the lithologic logs and are presented on Figures 5 and 6. Cross section A-A' extends from wells MW-9S/D/LF south to wells MW-11S/D/LF while cross section B-B' extends from wells MW-12S/D/LF east to wells MW-10S/D/LF. Where appropriate, lithologic information from soil borings advanced by previous consultants were included on the geologic cross sections. Interpretations of the soil types and possible soil intervals encountered beneath the Asphalt Plant are indicated on the cross sections.

2.2.4 Well Development

Following installation, the new well completions were allowed to set before being developed during May 3 and 4, 2006. The primary purposes of the well development activities were to remove fine materials from each well and maximize the well's hydraulic efficiency. Well development involved a combination of surging (using a surge block) and pumping (using a submersible pump and/or disposable bailer) each monitoring well to remove at least three well-casing volumes of groundwater and/or until the well dewatered. Water quality parameters, including pH, temperature, and specific conductance, were recorded during well development activities, and groundwater purging continued until parameters stabilized. Depth to water before, during, and after well development also was measured. Water generated during well development activities was contained in 55-gallon steel drums temporarily stored on site pending wastewater removal coordination.

During well development activities, free-phase hydrocarbon was identified in two wells (MW-9D and MW-11D).

2.2.5 Initial Groundwater Sampling and Laboratory Analyses

Groundwater samples were collected from each new monitoring well on May 5, 2006, the day after well development activities were completed. Prior to collection of groundwater samples, each well was purged of approximately three casing volumes, or until the well(s) went dry, in accordance with routine quarterly sampling methods. Water levels were measured on May 5, 2006 after the wells were developed and before they were purged for sampling. Water levels and calculated groundwater elevations are summarized in Table 2.

Groundwater samples were placed in laboratory-provided sample containers and stored on ice in a cooler for transportation to the laboratory under chain-of-custody control. Groundwater samples were sent to SunStar Laboratories (SunStar) in Tustin, California. All groundwater samples were analyzed for TPHg and TPHd by Environmental Protection Agency (EPA) Method 8015m; and BTEX, fuel oxygenates, and lead scavengers by EPA Method 8260, as requested by the ACEH and as described in the Work Plan. Analytical results are summarized in Table 3, based on the laboratory-certified analytical report included in Appendix C.

2.2.6 Data Validation Summary

LFR performed a level III data validation evaluation of the analytical data collected during this investigation. The data validation evaluation was conducted in accordance with the U.S. EPA Data Validation Functional Guidelines for Evaluating Environmental Analyses, entitled "U.S. EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," dated October 1999. The following is a summary of the evaluation of analytical data for the initial groundwater samples collected on May 5, 2006 from the 12 new monitoring wells. Groundwater samples were submitted to SunStar.

The data were evaluated based on the following parameters:

- data completeness
- holding times
- blanks
- system monitoring compound spike recoveries (surrogates)
- matrix spike/matrix spike duplicate recoveries (MS/MSD)
- laboratory control spike/laboratory control spike duplicate recoveries (LCS/LCSDs)
- field duplicates

The analytical data was accepted without qualification except for the TPHd results reported for the primary and duplicate samples collected from well MW-9D. The

relative percent difference (RPD) of the two TPHd concentrations reported for the sample collected from well MW-9D was out of compliance as discussed below.

Duplicate results are assessed using RPD between duplicate measurements. If the RPD between primary and duplicate field samples exceeds 30 percent for groundwater, data will be qualified as described in the applicable validation procedure. The RPD was calculated as follows:

$$RPD = 100 \times \frac{|X_2 - X_1|}{\frac{X_2 + X_1}{2}}$$

where: X_1 and X_2 are the two observed values.

The primary and duplicate samples collected from well MW-9D were analyzed for TPHg, TPHd, BTEX, fuel oxygenates, and lead scavenger compounds. TPHd was the only detected target compound with a non-compliant RPD (74 percent).

2.2.7 Equipment Decontamination

Drilling and sampling equipment were properly decontaminated prior to use and between each location. The down-hole drilling equipment, such as augers, drill rods, drill bits, and soil sampling equipment, were steam cleaned within a portable containment unit. Down well development and sampling equipment were decontaminated by washing in non-phosphate detergent solution, deionized (DI) water rinse, and final DI water rinse before each use. Groundwater samples were collected using single-use disposable bailers and tubing.

2.2.8 Waste Characterization, Handling, and Disposal

Soil cuttings generated during the drilling activities were placed in a clean 20-cubic yard metal bin temporarily located at the Asphalt Plant. Wastewater generated during the well development and purging of the new wells was temporarily stored at the Site in six 55-gallon steel drums. Waste storage containers were properly covered and/or sealed and clearly labeled, identified, and dated, pending disposal coordination.

The purge water was properly disposed of under an existing wastewater profile used for the disposal of purge water generated during routine quarterly groundwater sampling events conducted by Tait. The six drums containing the well development and purge water were removed from the Site on June 8, 2006, by Integrated WasteStream Management, Inc., of Milpitas, California and properly disposed of as non-hazardous waste and brought to Seaport R&E waste disposal facility located in Redwood City, California. A four-point composite soil sample was collected on June 8, 2006, from the soil cuttings stored in the 20-yard bin for laboratory analysis of metals, BTEX

constituents, and total hydrocarbons, per the requirements of the chosen soil waste disposal transportation company, Den Beste Transportation Inc. of Windsor, California. The soil bin will be removed from the Site in July 2006 for proper disposal at the Altamont Landfill located in Livermore, California.

2.2.9 Field Documentation

Field activities were documented using appropriate field forms, including: field log of soil borings, well completion details, well development forms, sample labels, chain-of-custody forms, groundwater sampling forms, cooler receipt forms, and waste management labels. The standardized field documentation helps maintain integrity of field procedures and sample collection during the field investigation activities. Completed field forms are kept on file at LFR and will be available upon request.

2.2.10 Well Location and Elevation Survey

The 12 new groundwater monitoring well clusters MW-9 through MW-12, and newly repaired nested well MW-7, were surveyed by Kier & Wright Engineers Surveyors, Inc., of Santa Clara, California, on June 9, 2006. Horizontal locations and vertical elevations were surveyed using NAD83 and NAVD 88, respectively, and survey data were recorded in accordance with the Regional Water Quality Control Board's (RWQCB's) GeoTracker data requirements. The top of casing elevations were surveyed at approximately the northern point of each new well casing, as identified by a mark placed on the top of the well casing. Well survey data will be uploaded to the GeoTracker electronic submittal system along with an electronic copy of this report, per report submittal requirements by the ACEH.

The locations of the new groundwater monitoring wells shown on the base map used for Figures 2 through 4 are based on the survey date. Top of casing elevation data were used to calculate groundwater elevations based on depths to water measured during the initial well sampling activities. Calculated groundwater elevations for water levels measured on May 5, 2006 are summarized in Table 2 and are presented on Figure 3. Well survey data were provided to Tait for the preparation of future quarterly groundwater monitoring report preparation.

3.0 LABORATORY ANALYTICAL RESULTS

Groundwater samples were collected from each of the 12 new groundwater monitoring wells (wells MW-9S/9D/9LF through MW-12S/12D/12LF) on May 5, 2006. Duplicate samples were collected from well MW-9D. Samples were analyzed for TPHg, TPHd, and selected VOCs, namely BTEX compounds, five common fuel oxygenates (di-isopropyl ether [DIPE], ethyl tert-butyl ether [EtBE], MtBE, tert-amyl methyl ether [TAME], and tert-butyl alcohol [TBA]), and lead scavengers (1,2-dichloroethane [1,2-DCA] and 1,2-dibromoethane [EDB]). Analytical results are summarized in Table

3 and presented on Figure 4, based on values reported in the laboratory-certified analytical report included in Appendix C. Analytical results were compared to RWQCB Environmental Screening Levels (ESLs) for groundwater for soil beneath industrial/commercial and/or residential areas where groundwater is a current or potential source of drinking water (Table 3).

Below is a discussion of groundwater analytical results from the 12 new monitoring wells. These recent analytical results also are evaluated in the context of recent and historical analytical results from existing monitoring wells MW-1 through MW-8.

3.1 Total Petroleum Hydrocarbons

TPHg was detected in samples collected from eight of the nine new monitoring wells located in three of the four well clusters (MW-9, MW-10, and MW-11); TPHg was not detected in the sample collected from well MW-10S nor in any samples from wells within the MW-12 well cluster (Table 3). Detected TPHg concentrations ranged from 860 to 88,000 micrograms per liter (μg/l), with the highest concentrations detected in the samples collected from MW-9D (88,000 μg/l), MW-11S (11,000 μg/l), and MW-11D (13,000 μg/l). Relatively lower TPHg concentrations were detected in samples collected from the wells completed in the Livermore Formation (860 to 5,400 μg/l). Detected TPHg concentrations exceeded the ESL for TPHg (100 μg/l).

The highest TPHg concentrations were detected in the groundwater samples collected from the two wells in which free product was identified during well development activities (MW-9D and MW-11D). Well MW-9D is located nearest well MW-7D, which has contained relatively elevated TPHg concentrations since the well was installed in January 2005. Considering results from recent quarterly sampling events and from the initial sampling of the new monitoring wells, there appears to be an area of elevated TPHg concentrations in groundwater beneath the northern portion of the Asphalt Plant, in the clean gravel soil interval encountered approximately between 20 and 30 feet bgs (wells MW-7D and MW-9D).

TPHd was detected only in the primary and duplicate groundwater samples collected from new monitoring well MW-9D, at concentrations of 13 and 6.0 μg/l, respectively. However, in reporting these results, the laboratory flagged these two TPHd detections as being in the diesel organics range though primarily due to overlap from a gasoline range product. Therefore, the only reported TPHd detections may be false positive results. In addition, these two possible TPHd results are well below the ESL for TPHd (100 μg/l). TPHd was not detected in any other initial groundwater samples collected from the new monitoring wells.

These results indicate that the extent of TPHg in groundwater has not been adequately characterized to the north, east, and south of the Asphalt Plant. In particular, the possible presence of free-phase product, and the highest TPHg concentrations, were detected in two wells located farthest north and south of the Site.

3.2 BTEX Compounds

BTEX compounds were detected above laboratory reporting limits in samples collected from seven of the 12 new monitoring wells (Table 3). The highest BTEX concentrations by far were detected in the two field duplicate samples collected from well MW-9D; the highest reported BTEX concentrations were 5,500 µg/l benzene, 15,000 µg/l toluene, 4,200 µg/l ethylbenzene, and 15,000 µg/l xylenes. BTEX compounds were not detected in wells within the MW-12 well cluster. The groundwater samples collected from the shallow wells in the MW-10 and MW-11 well clusters also did not contain any reportable BTEX concentrations.

The ESLs for BTEX compounds (1, 40, 30, and 20 µg/l, respectively) were exceeded in groundwater samples collected from monitoring wells MW-9S/D/LF, MW-10D, and MW-11D. These wells also contained the highest TPHg concentrations.

Benzene was detected in groundwater samples at concentrations ranging from 8.6 µg/l (MW-9S) to 5,500 µg/l (MW-9D). Toluene was detected in groundwater samples at concentrations ranging from 9.0 µg/l (MW-10D) to 15,000 µg/l (MW-9D). Ethylbenzene was detected in groundwater samples at concentrations ranging from 1.1 µg/l (MW-11LF) to 4,200 µg/l (MW-9D). m,p-Xylene was detected in groundwater samples at concentrations ranging from 1.9 µg/l (MW-11LF) to 11,000 µg/l (MW-9D). o-Xylene was detected in well clusters MW-9 and MW-11 at concentrations ranging from 7.8 µg/l (MW-9S) to 4,000 µg/l (MW-9D).

3.3 Fuel Oxygenates and Lead Scavengers

Two fuel oxygenates were detected in samples collected from the 12 new monitoring wells, namely MtBE and TBA. MtBE was detected in only one of the four well clusters (MW-11), at concentrations ranging from 8.4 µg/l in the sample collected from the shallow well to 250 µg/l in the sample collected from the well completed in the Livermore Formation (Table 3). The ESL for MtBE (5 µg/l) was exceeded in all three wells within well cluster MW-11. The single TBA detection (450 µg/l in the sample from well MW-12S) is suspect because TBA was not detected in any other groundwater sample and because it was the only compound reported above the laboratory reporting limits for samples collected from the MW-12 well cluster. LFR requested that the laboratory review the TBA detection; the laboratory did not report any problems with the quality assurance and quality control for that particular result.

Fuel oxygenates TAME, DIPE, and ETBE were not detected in any of the initial groundwater samples collected from the 12 new monitoring wells. Historically, MtBE has been detected regularly in groundwater samples collected from wells MW-2S/M/D, MW-3, and MW-6S/D, at concentrations ranging approximately up to 360 µg/l. Wells MW-11S/D/LF are located approximately south of wells in which MtBE has been detected previously.

The lead scavenger EDC was not detected in any sample collected from the new monitoring wells during this initial sampling round.

4.0 MONITORING WELL MW-7 REPAIR

During a site reconnaissance visit conducted by LFR on April 26, 2006, it was observed that the surface completion of well MW-7S/D appeared to be compromised, likely due to occasional heavy truck traffic. In agreement with the ACEH, LFR conducted a repair of the well box for nested wells MW-7S/D on June 8, 2006. The repair to the well box consisted of cleaning the silt out of the existing well box and cutting the top of the PVC casings down by approximately 2 inches to allow new well caps to fit beneath the new well box cover. The soil around the existing 8-inch-diameter well vault was excavated to allow for the placement of a new, larger diameter protective well vault box. A 24-inch-diameter, heavy-traffic rated, leak-resistant, bolted-down, and flush-mounted well box/manhole was installed in a concrete footing placed around the existing well box. It is anticipated that the new manhole cover will be more resistant to damage so that the well caps can properly fit on the well casings.

5.0 AREA WELL SURVEY

As requested by the ACEH in its November 3, 2005 and February 3, 2006 letters, a detailed well survey was performed to identify all wells within an approximately ½-mile radius of the Site. Monitoring and production wells, active and inactive, were identified based on information provided by the Alameda County Zone 7 Water Agency ("Zone 7"). Appendix C contains a map showing the approximate location of wells within ½ mile of the site and a table summarizing the well survey information requested by the ACEH. It should be noted that the apparent location of the Site on the map provided by Zone 7 is incorrect; the Site actually is approximately 500 feet southwest of where the site monitoring wells are shown. Despite this error, the ½-mile radius from the proper location of the Site encompasses the wells included in the survey summary provided in this report. The well survey summary table contains the following information for wells grouped by use: state well identification number (county and range), common well name where available, date constructed, well completion details (well diameter, total depth, and screen interval), well location, and well owner.

Five supply wells were identified (water, irrigation, and domestic supply wells). These five wells are located northwest of the Site approximately ¼ to ½ mile from the Site. For one of the five supply wells (4S/1E 20B1) identified as a water supply well, no well construction or date of completion information was available. The current status and use of this well is not known. Nineteen groundwater monitoring wells were identified outside of wells located at the Site. With one exception, all of these monitoring wells are located at, or adjacent to, a gasoline station located at the corner of Andrade Road and Athenour Way, approximately ½ mile northwest of the Site. Six

of these groundwater monitoring wells appear to have been completed as three pairs of nested wells, while the remaining 12 wells appear to have been completed as continuous multi-channel tubing (CMT) wells where up to seven depths may be monitored. The available construction details do not reveal the precise well construction details of these CMT wells. The one groundwater monitoring well within ½ mile of the Site, but not located at the gasoline station, is located southeast of the Site. No information other than its approximate location was available.

The well survey summary table includes details of the wells previously and newly installed at the Site. Only one well included in the summary table is known to have been abandoned, namely well MW-2, which was previously located at the Asphalt Plant and abandoned in January 2005.

6.0 UPDATED SITE CONCEPTUAL MODEL

At the request of the ACEH, an initial SCM was prepared for the former fuel dispensing facility located at the Asphalt Plant and was included in an appendix to the January 17, 2006 Work Plan. Based on the results of the additional subsurface investigation completed during April and May 2006 and summarized in this report, only minor changes to the initial SCM are necessary. A brief summary of the SCM is provided below, based on the more detailed SCM included in Appendix E of this report.

In the past, incidental releases of gasoline (some containing MtBE) and diesel fuel during fueling and tank filling operations over a 17-year period likely released petroleum hydrocarbons into the site subsurface. The subsurface consists of approximately 10 to 20 feet of relatively less pervious silts, clays, and clayey gravels overlying an interval of relatively clean gravels encountered approximately between 20 to 30 feet bgs. The underlying Livermore Formation is somewhat less permeable than the overlying gravel water-bearing stratum. Although the Livermore Formation contains relatively more fine-grained material than the overlying clean gravel, contamination appears to have migrated vertically into the top of the Livermore Formation. However, TPHg concentrations detected in the top 10 feet of the Livermore Formation are significantly lower than were detected in the overlying water-bearing stratum (at least one order of magnitude), indicating that the Livermore Formation acts as a partial barrier to vertical downward flow and contaminant migration.

Historically, groundwater gradients likely were influenced by the presence of open gravel pits, which would have acted as groundwater sinks. The groundwater flow regime in the vicinity of the former USTs continues to be affected by the presence of former gravel pits, now filled with low permeability silts. These silt-filled pits act as groundwater barriers and also concentrate surface-water recharge into areas of the Site that have not been mined, possibly causing groundwater mounding in native soil areas that are adjacent to filled pits, including the area of the Asphalt Plant. The edge of the

silt-filled pit located directly east of the Site was encountered during the recent well installation activities.

During the 10 years since the USTs were removed from the Site, residual petroleum hydrocarbons likely have been smeared across the upper 20 feet of the site subsurface where some remains in discontinuous pockets of free product. At least one area of free product appears to have been intercepted by nested wells MW-7S/D and well cluster MW-9S/D/LF, as well as possibly well cluster MW-11S/D/LF.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Work was completed in compliance with the LFR Work Plan dated January 17, 2006 and comments put forth in the ACEH Work Plan approval letter dated February 3, 2006. Twelve new single completion groundwater monitoring wells were installed at the Site to further characterize the vertical and lateral extent of impact to the subsurface beneath the Asphalt Plant. The investigation results showed that TPHg and BTEX are present in groundwater beneath the Site at concentrations in excess of the ESLs for TPHg (100 μg/l) and BTEX compounds (1, 40, 30, and 20 μg/l, respectively; RWQCB 2005). Free product was observed in two locations (wells MW-9D and MW-11D).

The lateral and vertical extent of hydrocarbon impact to the subsurface has not been fully characterized and appears to extend laterally farther north and south from the currently monitored area at the Site, and vertically into the top of the Livermore Formation.

The SCM has been updated based on these results. Based on the results of this investigation, LFR's initial recommendations are as follows:

1. Incorporate the new monitoring wells into the existing quarterly monitoring program,

2. Incorporate the results of this investigation and updates to the SCM into future submittals for the Site, and

3. Continue to refine the SCM based on results of future quarterly sampling events.

8.0 REFERENCES

Alameda County Environmental Health (ACEH). 2005. Letter to Mr. W.M. Calvert, Mission Valley Rock Company from Jerry Wickham. Fuel Leak Case No. RO0000207, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, California. November 3.

———. 2006a. Fuel Leak Case No. RO0000207, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, California – Work Plan Approval. February 3.

———. 2006b. Fuel Leak Case No. RO0000207, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, California – Schedule Extension. May 17.

LFR Inc. (LFR). 2006a. Work Plan for Additional Investigation at the Asphalt Plant, Hanson Aggregates Mission Valley Rock Facility, 7999 Athenour Way, Sunol, Alameda County, California. January 17.

———. 2006b. Request for Extension to Well Installation Report Due Date, Former Mission Valley Rock Facility, Sunol, California. May 15.

Regional Water Quality Control Board, San Francisco Bay Region (RWQCB). 2005. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater (4th Edition). February.

Tait Environmental Management, Inc. (Tait). 2003. Site Assessment and Fourth Quarter 2002 Groundwater Monitoring Report, Mission Valley Rock Company, 7999 Athenour Way, Sunol, California. March 23.

———. 2004a. Fourth Quarter 2005 Groundwater Monitoring Report, Mission Valley Rock Company, 7999 Athenour Way, Sunol, California. February 15.

———. 2004b. Workplan to Perform Additional Subsurface Site Assessment for the Mission Valley Rock Company Facility Located at 7999 Athenour Way, Sunol, California. September 30.

———. 2005a. Site Assessment and First Quarter 2005 Groundwater Monitoring and Sampling Report, Mission Valley Rock Company, 7999 Athenour Way, Sunol, California. April 1.

———. 2005b. Second Quarter 2005 Groundwater Monitoring and Sampling Report, Mission Valley Rock Company, 7999 Athenour Way, Sunol, California. July 29.

———. 2005c. Third Quarter 2005 Groundwater Monitoring and Sampling Report, Mission Valley Rock Company, 7999 Athenour Way, Sunol, California. October 14.

———. 2006a. Fourth Quarter 2005 Groundwater Monitoring and Sampling Report, Mission Valley Rock Company, 7999 Athenour Way, Sunol, California. January 23.

———. 2006b. Summary Report, Environmental Activities, Mission Valley Rock Company, 7999 Athenour Way, Sunol, California. May 16.

Tank Protect Engineering (TPE). 1996. Tank Closure Report, Mission Valley Rock. August 12.

———. 1998. Preliminary Site Assessment Report, Mission Valley Rock, 7999 Athenour Way, Sunol, California. October 30.

Treadwell & Rollo. 1991. Geotechnical and Geologic Investigation, North Quarry, Sunol, California. August 9.

U.S. Environmental Protection Agency (U.S. EPA). 1999. U.S. EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review. October.

Table 1
Groundwater Monitoring Well Construction Details
Mission Valley Rock and Asphalt
7999 Athenour Way, Sunol, California

Monitoring Well ID	Installation Date	Casing Diameter (inches)	Total Well Depth (feet TOC)	Approximate Screened Interval (feet TOC)
MW-9-S	4/26/06	2.0	12.3	5.3 - 12.3
MW-9-D	4/26/06	2.0	24.4	18.9 - 23.9
MW-9-LF	4/26/06	2.0	38.6	33.3 - 38.3
MW-10-S	5/1/06	2.0	9.8	4.8 - 9.8
MW-10-D	5/1/06	2.0	21.0	15.5 - 20.5
MW-10-LF	5/1/06	2.0	39.9	34.4 - 39.4
MW-11-S	4/28/06	2.0	9.8	4.8 - 9.8
MW-11-D	4/28/06	2.0	20.8	15.3 - 20.3
MW-11-LF	4/27/06	2.0	38.3	32.8 - 37.8
MW-12-S	4/27/06	2.0	11.6	4.6 - 11.6
MW-12-D	4/27/06	2.0	21.5	16.0 - 21.0
MW-12-LF	4/27/06	2.0	39.2	33.7 - 38.7

Notes:
ID = identification; monitoring well identification number
feet TOC = feet below top of casing

Table 2
Groundwater Elevations, Initial Water Levels Following Well Development (May 5, 2006)
Mission Valley Rock and Asphalt
7999 Athenour Way, Sunol, California

Monitoring Well ID	Date Measured	Screened Interval (feet TOC)	Measured Depth to Bottom (feet TOC)	Top of Casing Elevation (feet MSL)	Depth to Water (feet TOC)	Groundwater Elevation (feet MSL)	Product Thickness [1] (inches)
MW-9-S	5/5/06	5.3 - 12.3	12.3	258.41	1.55	256.86	-
MW-9-D	5/5/06	18.9 - 23.9	24.4	258.86	2.58	256.28	0.1
MW-9-LF	5/5/06	33.3 - 38.3	38.6	258.94	4.70	254.24	-
MW-10-S	5/5/06	4.8 - 9.8	9.8	260.58	5.00	255.58	-
MW-10-D	5/5/06	15.5 - 20.5	21.0	260.67	4.90	255.77	-
MW-10-LF	5/5/06	34.4 - 39.4	39.9	260.64	5.38	255.26	-
MW-11-S	5/5/06	4.8 - 9.8	9.8	259.01	3.05	255.96	-
MW-11-D	5/5/06	15.3 - 20.3	20.8	258.96	3.11	255.85	0.25
MW-11-LF	5/5/06	32.8 - 37.8	38.3	258.98	4.95	254.03	-
MW-12-S	5/5/06	4.6 - 11.6	11.6	262.9	5.02	257.88	-
MW-12-D	5/5/06	16.0 - 21.0	21.5	262.7	5.10	257.60	-
MW-12-LF	5/5/06	33.7 - 38.7	39.2	262.69	4.15	258.54	-

Notes:
ID = identification; monitoring well identification number
feet TOC = feet below top of casing
feet MSL = feet relative to mean sea level
[1] approximate thickness of free product measured in the well

Table 3
Groundwater Analytical Results, Initial Sampling of New Monitoring Wells (May 5, 2006)
Mission Valley Rock and Asphalt
7999 Athenour Way, Sunol, California

Monitoring Well ID	Date Sampled	Sample Type	TPHg (μug/l)	TPHd (μg/l)	Benzene (μg/l)	Toluene (μg/l)	Ethylbenzene (μg/l)	m,p-Xylene (μg/l)	o-Xylene (μg/l)	MTBE (μg/l)	TBA (μg/l)
MW-9-S	5/5/06	Water	**1,300**	< 50	**8.6**	**24**	**40**	**22**	**7.8**	< 1.0	< 10
MW-9-D	5/5/06	Water	**88,000**	**13** [1]	**5,500**	**15,000**	**4,200**	**11,000**	**4,000**	< 1.0	< 10
MW-9-D-dup	5/5/06	Water	**85,000**	**6.0** [1]	**4,900**	**14,000**	**3,700**	**10,000**	**3,700**	< 1.0	< 10
MW-9-LF	5/5/06	Water	**5,400**	< 50	**12**	**17**	**190**	**130**	**20**	< 1.0	< 10
MW-10-S	5/5/06	Water	< 50	< 50	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 1.0	< 10
MW-10-D	5/5/06	Water	**5,900**	< 50	**24**	**9.0**	**260**	**23**	< 0.50	< 1.0	< 10
MW-10-LF	5/5/06	Water	**860**	< 50	< 0.50	**11**	ND	**4.2**	< 0.50	< 1.0	< 10
MW-11-S	5/5/06	Water	**11,000**	< 50	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	**8.4**	< 10
MW-11-D	5/5/06	Water	**13,000**	< 50	**20**	**20**	**26**	**43**	**34**	**47**	< 10
MW-11-LF	5/5/06	Water	**1,300**	< 50	< 0.50	< 0.50	**1.1**	**1.9**	< 0.50	**250**	< 10
MW-12-S	5/5/06	Water	< 50	< 50	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 1.0	**450** [2]
MW-12-D	5/5/06	Water	< 50	< 50	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 1.0	< 10
MW-12-LF	5/5/06	Water	< 50	< 50	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 1.0	< 10
ESLs	-	-	*100*	*100*	*1*	*40*	*30*	*20*	*20*	*5*	*12*
MCLs	-	-	-	-	*1*	*150*	*300*	*1,750*	*1,750*	*13*	*12 **

Notes:

All other compounds were not detected above the laboratory reporting limit(s).

ID = identification; monitoring well identification number

μg/l = micrograms per liter; parts per billion (ppb)

"<" = analyte not detected at or above the noted laboratory reporting limit

Bold = analyte detected at or above the laboratory reporting limit

Concentrations above the ESLs are shown in boxes.

TPHg = total petroleum hydrocarbons as gasoline

TPHd = total petroleum hydrocarbons as diesel

MtBE = methyl tert-butyl ether

TBA = tert-butyl alcohol

[1] Results in the diesel organics range are primarily due to overlap from a gasoline range product.

[2] Result suspect but laboratory did not report any problems with the quality assurance and quality control of this result.

ESLs = Environmental Screening Levels by San Francisco Bay Regional Water Quality Control Board, February 2005, for Shallow or Deep Soils where Groundwater is a Current or Potential Source of Drinking Water beneath Residential and/or Industrial/Commercial Land Use Areas.

MCLs = Maximum Contaminant Level by California Department of Health Services (DHS), California Code of Regulations Title 22, September 12, 2003. MCLs are health-protective drinking water standards to be met by public water systems. * No MCL exists for TBA; DHS instead has published a Notification Level (health-based advisory level for unregulated contaminants in drinking water).

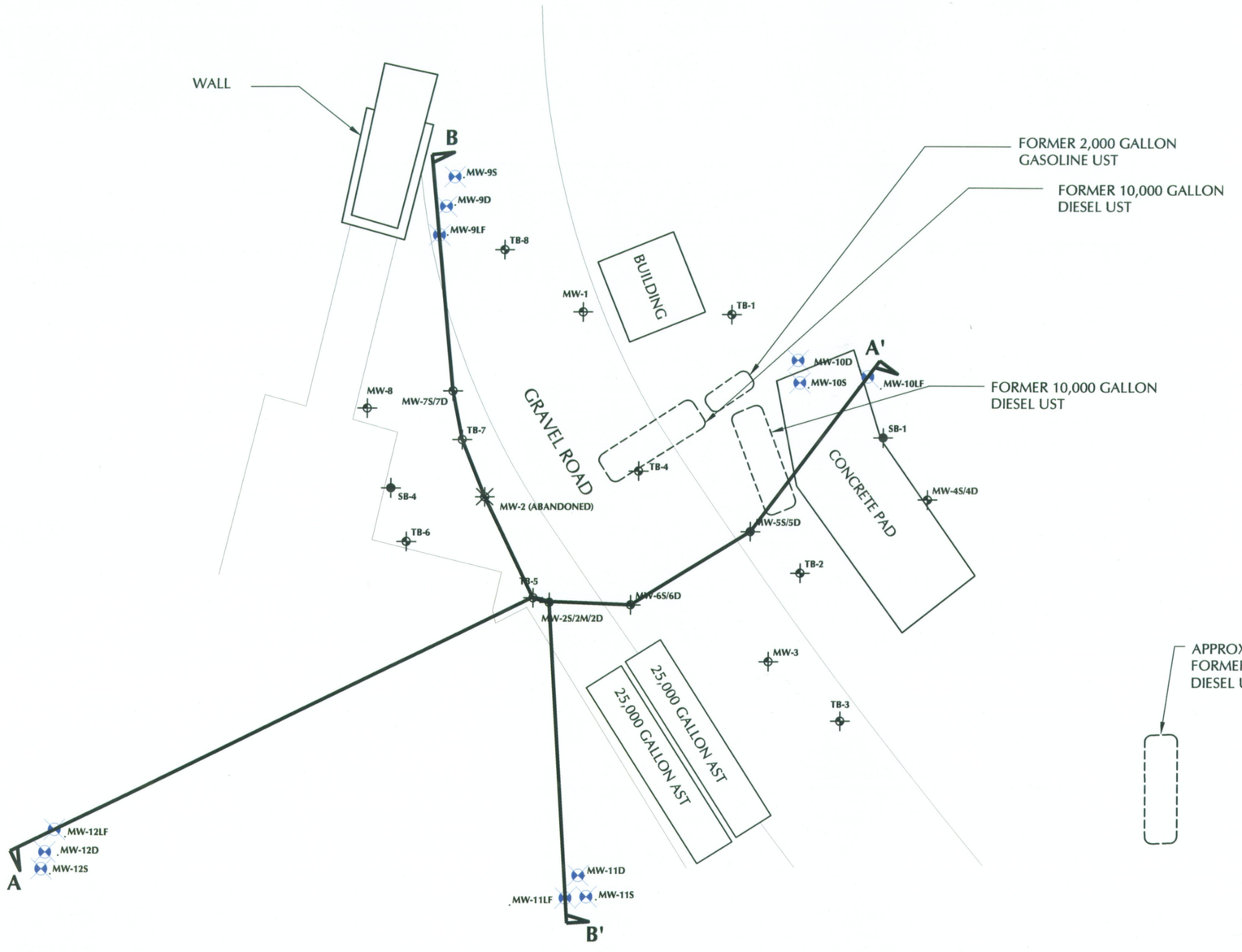
K:\001_EMV\P00000_PROPOSALS\Hanson_sunol\HansonSunolProp2.mxd

Site Location Map

Hanson Aggregates, 7999 Athenour Way, Sunol, CA

LFR

Figure 1



EXPLANATION:

- MW-9S — New groundwater monitoring well - single completion
- MW-1 — Existing groundwater monitoring well - single completion
- MW-7S/7D — Existing groundwater monitoring well - dual nested
- MW-2S/SM/2D — Existing groundwater monitoring well - triple nested
- MW-2 — Abandoned groundwater monitoring well
- TB-1 — Grab groundwater sample location
- SB-1 — Temporary soil boring location
- ATS = Aboveground storage tank
- UTS = underground storage tank
- A — A' — Geologic profile location

APPROXIMATE LOCATION OF FORMER 10,000 GALLON DIESEL UST/AST (D-4)

N

0 30 FEET

APPROXIMATE SCALE

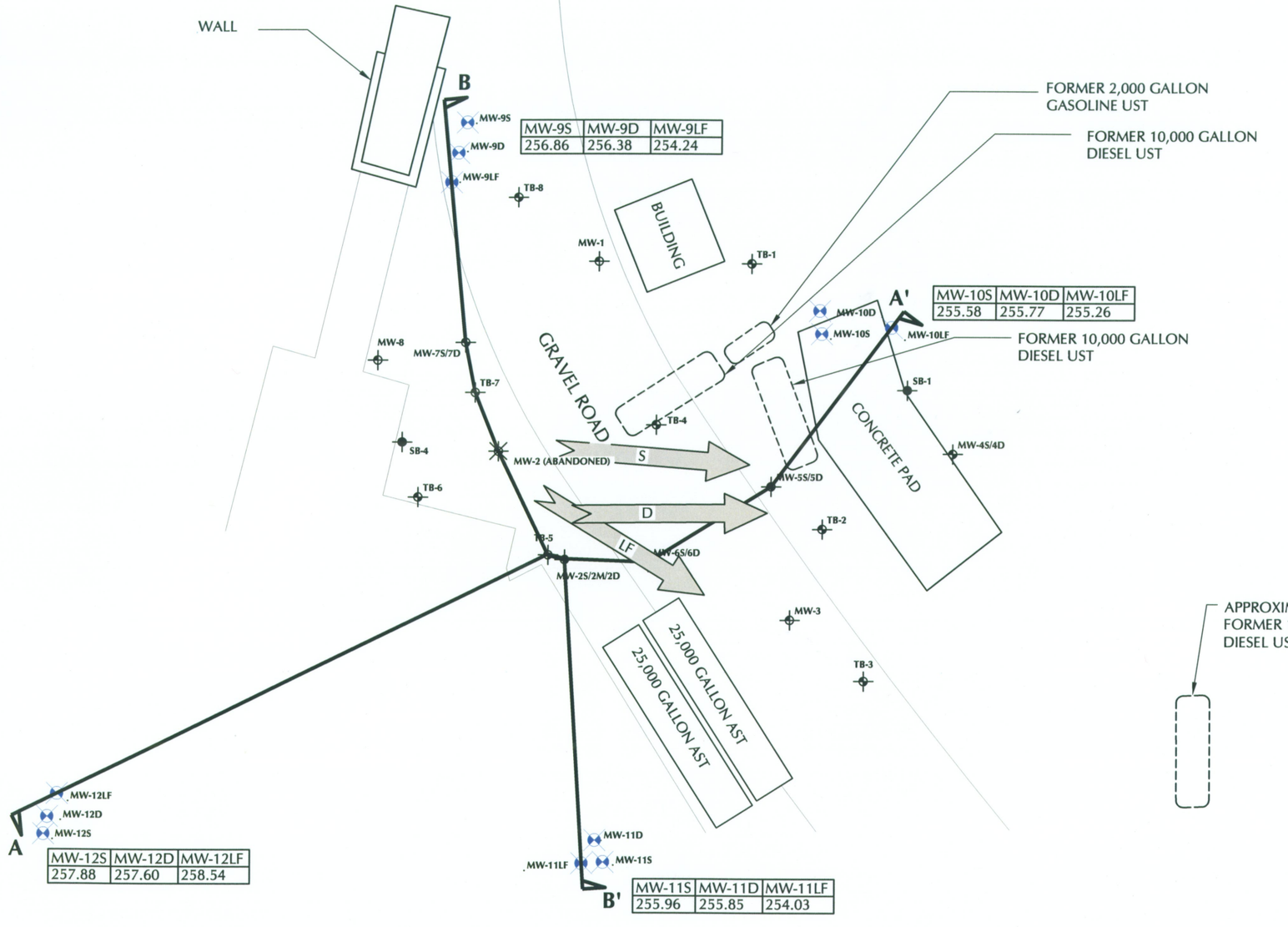
Site Plan

Hanson Aggregates, Sunol, California

LFR

Figure 2

I:\Design\001\09480\00\003\DWG\Site Plan - Geo Profile.dwg, 7/10/2006 5:35:49 PM



MW-9S	MW-9D	MW-9LF
256.86	256.38	254.24

MW-10S	MW-10D	MW-10LF
255.58	255.77	255.26

MW-12S	MW-12D	MW-12LF
257.88	257.60	258.54

MW-11S	MW-11D	MW-11LF
255.96	255.85	254.03

EXPLANATION:

- MW-9S — New groundwater monitoring well - single completion
- MW-1 — Existing groundwater monitoring well - single completion
- MW-7S/7D — Existing groundwater monitoring well - dual nested
- MW-2S/SM/2D — Existing groundwater monitoring well - triple nested
- MW-2 — Abandoned groundwater monitoring well
- TB-1 — Grab groundwater sample location
- SB-1 — Temporary soil boring location
- ATS = Aboveground storage tank
- UTS = underground storage tank
- A — A' — Geologic profile location

MW-10S	MW-10D	MW-10LF
255.58	255.77	255.26

Groundwater elevation measured on May 5, 2006 (Feet above mean sea level)

Approximate groundwater flow direction inferred by groundwater elevations measured in the shallow (S), deep (D), or Livermore Formation (LF) monitoring wells.

APPROXIMATE LOCATION OF FORMER 10,000 GALLON DIESEL UST/AST (D-4)

N

0 30 FEET

APPROXIMATE SCALE

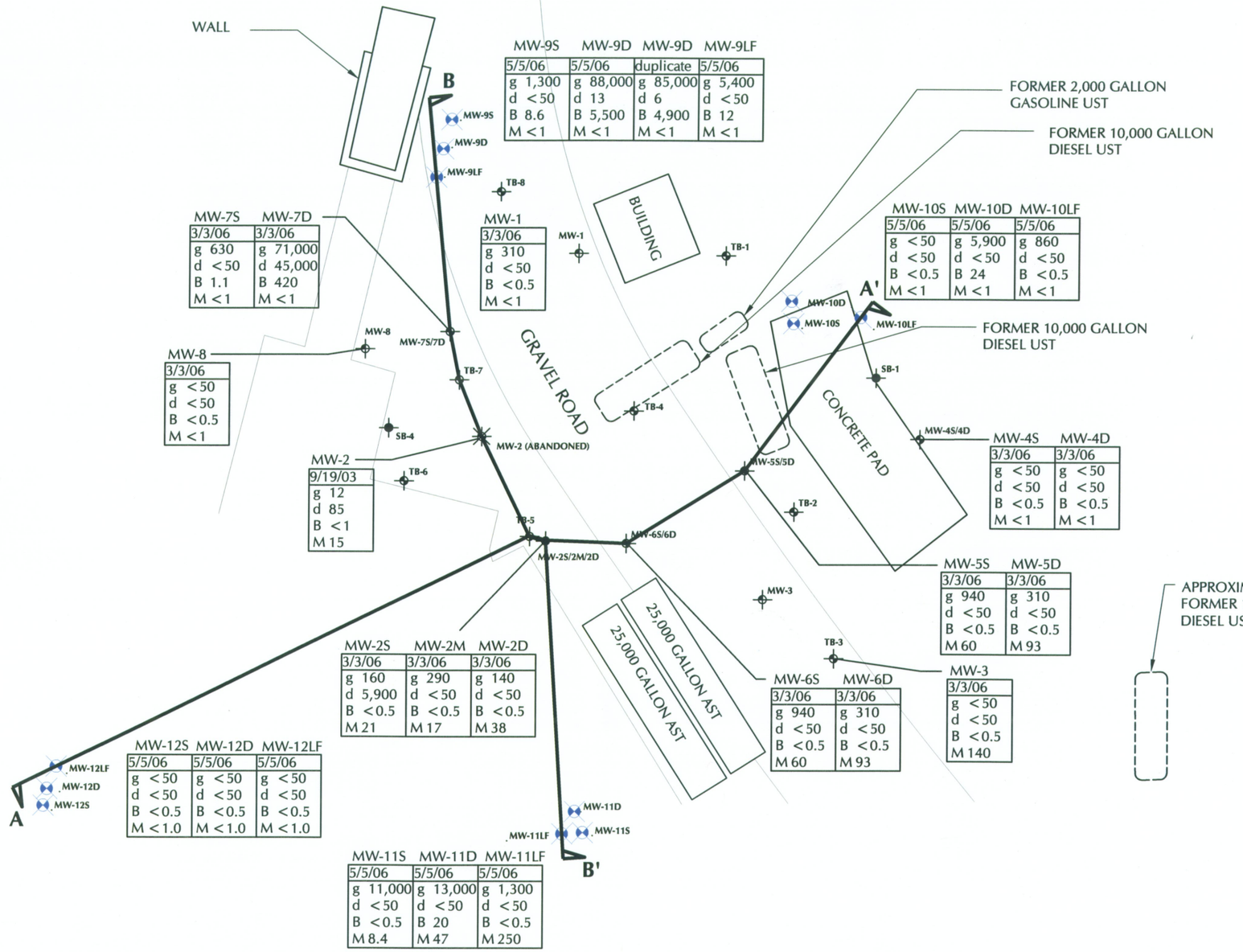
Site Plan Showing Groundwater Elevation in New Monitoring Wells May 5, 2006

Hanson Aggregates, Sunol, California

LFR

Figure 3

I:\Design\001\09480\00\003\DWG\Site Plan - Geo Profile.dwg, 7/10/2006 5:35:44 PM



MW-9S	MW-9D	MW-9D	MW-9LF
5/5/06	5/5/06	duplicate	5/5/06
g 1,300	g 88,000	g 85,000	g 5,400
d <50	d 13	d 6	d <50
B 8.6	B 5,500	B 4,900	B 12
M <1	M <1	M <1	M <1

MW-7S	MW-7D
3/3/06	3/3/06
g 630	g 71,000
d <50	d 45,000
B 1.1	B 420
M <1	M <1

MW-1
3/3/06
g 310
d <50
B <0.5
M <1

MW-10S	MW-10D	MW-10LF
5/5/06	5/5/06	5/5/06
g <50	g 5,900	g 860
d <50	d <50	d <50
B <0.5	B 24	B <0.5
M <1	M <1	M <1

MW-8
3/3/06
g <50
d <50
B <0.5
M <1

MW-2
9/19/03
g 12
d 85
B <1
M 15

MW-4S	MW-4D
3/3/06	3/3/06
g <50	g <50
d <50	d <50
B <0.5	B <0.5
M <1	M <1

MW-5S	MW-5D
3/3/06	3/3/06
g 940	g 310
d <50	d <50
B <0.5	B <0.5
M 60	M 93

MW-2S	MW-2M	MW-2D
3/3/06	3/3/06	3/3/06
g 160	g 290	g 140
d 5,900	d <50	d <50
B <0.5	B <0.5	B <0.5
M 21	M 17	M 38

MW-6S	MW-6D
3/3/06	3/3/06
g 940	g 310
d <50	d <50
B <0.5	B <0.5
M 60	M 93

MW-3
3/3/06
g <50
d <50
B <0.5
M 140

MW-12S	MW-12D	MW-12LF
5/5/06	5/5/06	5/5/06
g <50	g <50	g <50
d <50	d <50	d <50
B <0.5	B <0.5	B <0.5
M <1.0	M <1.0	M <1.0

MW-11S	MW-11D	MW-11LF
5/5/06	5/5/06	5/5/06
g 11,000	g 13,000	g 1,300
d <50	d <50	d <50
B <0.5	B 20	B <0.5
M 8.4	M 47	M 250

EXPLANATION:

- MW-9S — New groundwater monitoring well - single completion
- MW-1 — Existing groundwater monitoring well - single completion
- MW-7S/7D — Existing groundwater monitoring well - dual nested
- MW-2S/SM/2D — Existing groundwater monitoring well - triple nested
- MW-2 — Abandoned groundwater monitoring well
- TB-1 — Grab groundwater sample location
- SB-1 — Temporary soil boring location
- ATS = Aboveground storage tank
- UTS = underground storage tank
- A — A' — Geologic profile location

5/5/06	Date sampled
g <50	Concentration in micrograms per liter (µg/L)
d <50	
B <0.5	
M <1.0	

Constituent
- g Total petroleum hydrocarbons as Gas (TPHg)
- d Total petroleum hydrocarbons as Diesel (TPHd)
- B Benzene
- M Methyl tert-butyl ether

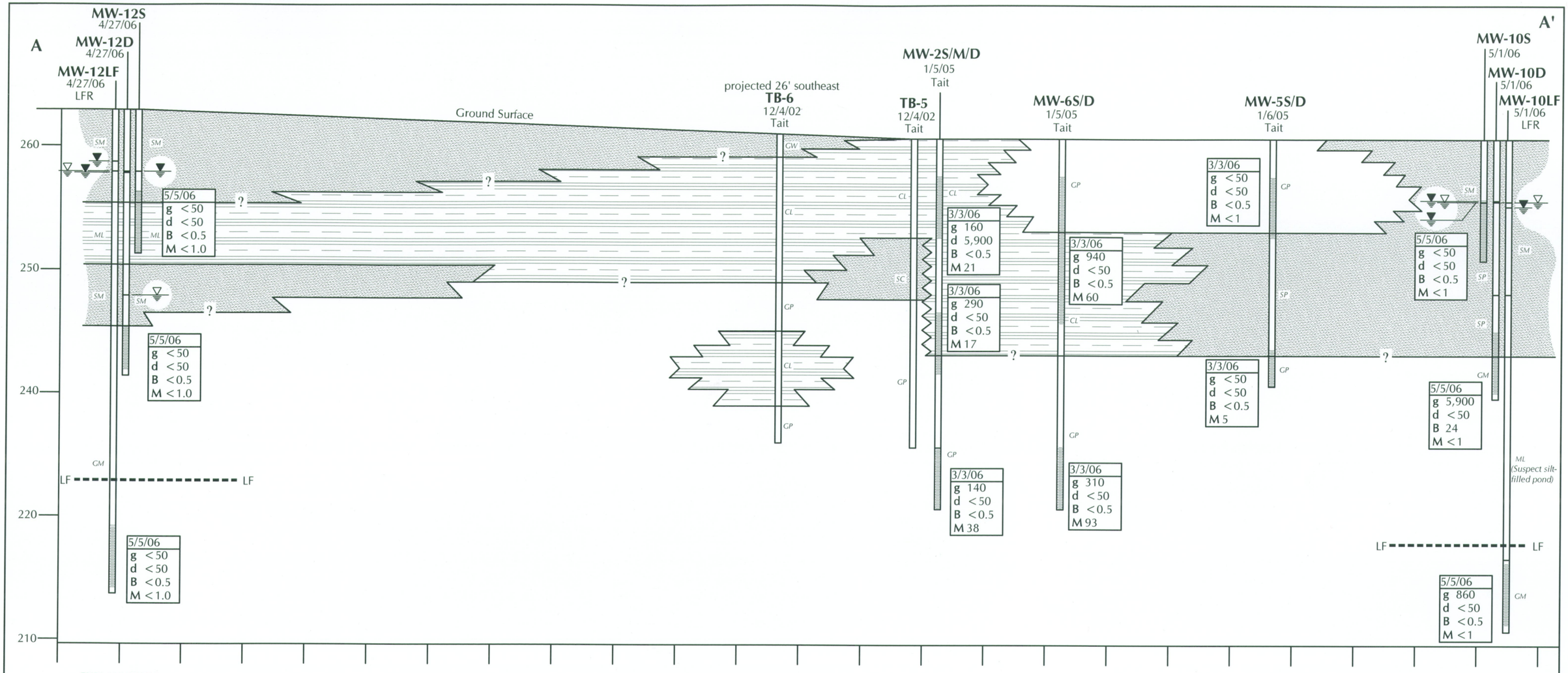
Site Plan Showing Most Recent Analytical Results for TPHg, TPHd, Benzene, and MTBE in Groundwater Samples

Hanson Aggregates, Sunol, California

LFR

Figure 4

I:\Design\001\09480\00\003\DWG\Site Plan - Geo Profile.dwg, 7/10/2006 5:35:54 PM



EXPLANATION:

CL, CH	Clean clay with (sand or gravel), (sandy or gravelly) lean clay, fat clay
ML	Silt, silt with (sand or gravel), (sandy or gravelly) silt
SP, SM, SC	Poorly graded sand (with gravel), silty sand (with gravel), clayey sand (with gravel)
GP, GW, GM	Poorly graded gravel (with sand), well graded gravel (with sand), silty gravel (with sand)

Fine grained material (primarily clay and silt)

Coarser grained material (primarily sand)

Coarse grained material (primarily gravel)

0 8'
APPROXIMATE VERTICAL SCALE

0 16'
APPROXIMATE HORIZONTAL SCALE

MW-12LF -- Well ID
4/27/06 -- Date drilled/installed
LFR -- Consultant; NA where not available

Boring description

- Free product level on May 5, 2006
- Water first encountered during drilling
- Groundwater elevation on May 5, 2006
- Presence of hydrocarbons likely based on field screening of core
- Screened interval
- LF -- Interpreted top of the Livermore Formation (LF)

5/5/06
g <50
d <50
B <0.5
M <1.0

- Date sampled
- Concentration in micrograms per liter (µg/L)
- Constitutant:
  - g Total petroleum hydrocarbons as Gas (TPHg)
  - d Total petroleum hydrocarbons as Diesel (TPHd)
  - B Benzene
  - M Methyl tert-butyl ether

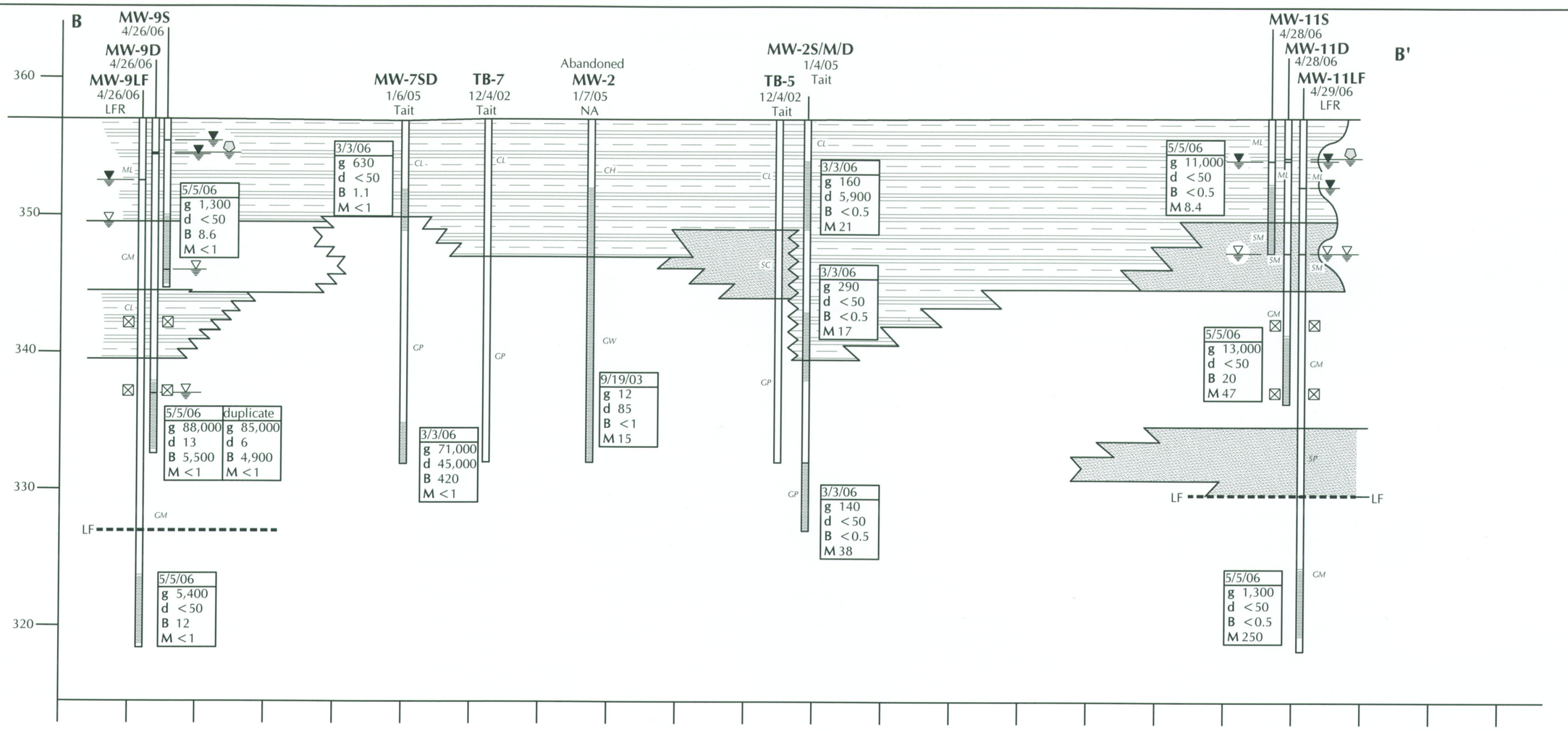
Geologic Cross Section
A - A'

Hanson Aggregates, Sunol, California

LFR

Figure 5

I:\Design\001\09480\00\003\DWG\Site Plan - Geo Profile.dwg, 7/10/2006 2:35:30 PM



EXPLANATION:

CL, CH	Clean clay with (sand or gravel), (sandy or gravelly) lean clay, fat clay
ML	Silt, silt with (sand or gravel), (sandy or gravelly) silt
SP, SM, SC	Poorly graded sand (with gravel), silty sand (with gravel), clayey sand (with gravel)
GP, GW, GM	Poorly graded gravel (with sand), well graded gravel (with sand), silty gravel (with sand)

Fine grained material (primarily clay and silt)

Coarser grained material (primarily sand)

Coarse grained material (primarily gravel)

0 8'
APPROXIMATE VERTICAL SCALE

0 16'
APPROXIMATE HORIZONTAL SCALE

MW-12LF – Well ID
4/27/06 – Date drilled/installed
LFR – Consultant; NA where not available

Boring description

- Free product level on May 5, 2006
- Water first encountered during drilling
- Groundwater elevation on May 5, 2006
- Presence of hydrocarbons likely based on field screening of core
- Screened interval
- LF – Interpreted top of the Livermore Formation (LF)

5/5/06 – Date sampled
g <50
d <50
B <0.5
M <1.0 – Concentration in micrograms per liter (µg/L)

Constitutant:
- g Total petroleum hydrocarbons as Gas (TPHg)
- d Total petroleum hydrocarbons as Diesel (TPHd)
- B Benzene
- M Methyl tert-butyl ether

Geologic Cross Section
B - B'

Hanson Aggregates, Sunol, California

LFR

Figure 6

I:\Design\001\09480\00\003\DWG\Site Plan - Geo Profile.dwg, 7/10/2006 2:35:41 PM

APPENDIX A

Selected Tables from Site Assessment and Quarterly Groundwater Monitoring and Sampling Reports by Tait Environmental Management, Inc. (Tait 2003 and 2005a)

Summary Report
Environmental Activities

Mission Valley Rock Company
7999 Athenour Way
Sunol, California

Prepared by:
Tait Environmental Management, Inc.

May 16, 2006

May 16, 2006

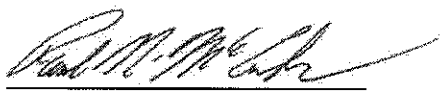
Summary Report
Environmental Activities

Mission Valley Rock Company
7999 Athenour Way
Sunol, California

Prepared for:

Mr. Lee Cover
Hanson Aggregates Northern California
3000 Busch Road
Pleasanton, California 94566

Prepared by:



Paul N. McCarter, PG, CHG, REAII
Senior Project Manager

Tait Environmental Management
701 North Parkcenter Drive
Santa Ana, California 92705

Project No. EM-5009A

TABLES

Table 1
Well Construction Details and Groundwater Elevation Data
First Quarter 2006
Mission Valley Rock Company
Sunol, California

Well ID	Casing Diameter (inches)	Screened Interval (feet bgs)
MW-1	2	5.0 - 20.0
MW-2S	2	3.0-8.0
MW-2M	2	14.0-19.0
MW-2D	2	25.0-30.0
MW-3	2	5.0-20.0
MW-4S	2	3.0-8.0
MW-4D	2	17.0-22.0
MW-5S	2	3.0-8.0
MW-5D	2	17.0-22.0
MW-6S	2	5.0-15.0
MW-6D	2	24.5-29.5
MW-7S	2	5.0-8.0
MW-7D	2	20.0-25.0
MW-8	2	5.0-15.0

bgs = Below Ground Surface

Table 2
Historical Groundwater Gauging Data
Mission Valley Rock Company
Sunol, California

Well	Top of Casing Elevation (Feet)	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)	LPH Thickness (feet)
MW-1	256.51	06/23/98	1.32	255.19	ND
		01/05/99	2.28	254.23	ND
		03/29/99	1.88	254.63	ND
		06/10/99	3.35	253.16	ND
		09/17/99	3.66	252.85	ND
		12/27/99	2.94	253.57	ND
		03/22/00	2.72	253.79	Odor
		06/30/00	4.01	252.50	Slight Odor
		09/14/00	5.11	251.40	Slight Odor
		12/20/00	4.95	251.56	ND
		03/22/01	2.28	254.23	ND
		06/27/01	3.60	252.91	ND
		09/21/01	6.50	250.01	ND
		12/27/01	1.29	255.22	ND
		03/29/02	2.91	253.60	ND
		06/13/02	3.95	252.56	ND
		09/27/02	5.18	251.33	ND
		12/03/02	3.90	252.61	ND
		03/31/03	1.40	255.11	ND
		06/27/03	2.65	253.86	ND
		09/19/03	4.67	251.84	ND
		12/22/03	4.60	251.91	ND
	258.68	01/17/05	3.41	255.27	ND
		05/04/05	1.20	257.48	ND
		08/12/05	4.52	254.16	ND
		12/12/05	6.44	252.24	ND
		03/02/06	0.71	257.97	ND
MW-2	256.7	06/23/98	1.72	254.98	0.005
		01/05/99	2.69	254.01	4.00
		03/29/99	2.50	254.20	ND
		06/10/99	4.00	252.70	Sheen
		09/17/99	4.54	252.16	0.50
		12/27/99	3.85	252.85	0.13
		03/22/00	3.20	253.50	0.03
		06/30/00	4.62	252.08	0.02
		09/14/00	5.95	250.75	>0.01
		12/20/00	5.65	251.05	0.07
		03/22/01	3.21	253.49	0.10
		06/27/01	3.31	253.39	0.06
		09/21/01	7.08	249.62	0.34
		12/27/01	2.18	254.52	0.26
		03/29/02	3.40	253.30	0.90
		06/13/02	4.35	252.35	0.08
		09/27/02	5.54	251.16	ND
		12/03/02	4.30	252.40	ND
		03/31/03	1.78	254.92	ND
		06/27/03	3.10	253.60	ND
		09/19/03	5.02	251.68	ND
		12/22/03	NM	NM	NM
		01/05/05	Abandoned		

Table 2
Historical Groundwater Gauging Data
Mission Valley Rock Company
Sunol, California

Well	Top of Casing Elevation (Feet)	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)	LPH Thickness (feet)
MW-2S	258.84	01/17/05	4.25	254.59	ND
		05/04/05	1.98	256.86	ND
		08/12/05	5.46	253.38	ND
		12/12/05	7.38	251.46	ND
		03/02/06	2.24	256.60	ND
MW-2M	258.99	01/17/05	4.68	254.31	ND
		05/04/05	2.32	256.67	ND
		08/12/05	5.77	253.22	ND
		12/12/05	7.78	251.21	ND
		03/02/06	2.1	256.89	ND
MW-2D	258.91	01/17/05	4.75	254.16	ND
		05/04/05	2.38	256.53	ND
		08/12/05	5.90	253.01	ND
		12/12/05	7.85	251.06	ND
		03/02/06	2.16	256.75	ND
MW-3	256.72	06/23/98	2.66	254.06	ND
		01/05/99	4.47	252.25	Slight Odor
		03/29/99	3.96	252.76	Sheen
		06/10/99	5.54	251.18	ND
		09/17/99	6.18	250.54	Sheen
		12/27/99	5.52	251.20	Odor
		03/22/00	4.61	252.11	Odor
		06/30/00	6.35	250.37	Very Slight Odor
		09/14/00	7.30	249.42	Very Slight Odor
		12/20/00	7.29	249.43	ND
		03/22/01	4.73	251.99	ND
		06/27/01	NM	NM	NM
		09/21/01	7.89	248.83	ND
		12/27/01	3.77	252.95	ND
		03/29/02	5.12	251.60	ND
		06/13/02	6.52	250.20	ND
		09/27/02	7.28	249.44	ND
		12/03/02	6.40	250.32	ND
		03/31/03	4.01	252.71	ND
		06/27/03	5.13	251.59	ND
		09/19/03	5.13	251.59	ND
		12/22/03	7.20	249.52	ND
	259.08	01/17/05	5.81	253.27	ND
		05/04/05	3.50	255.58	ND
		08/12/05	6.01	253.07	ND
		12/12/05	8.45	250.63	ND
		03/02/06	3.42	255.66	ND
MW-4S	259.14	01/17/05	4.62	254.52	ND
		05/04/05	3.73	255.41	ND
		08/12/05	3.45	255.69	ND
		12/12/05	5.48	253.66	ND
		03/02/06	3.1	256.04	ND
MW-4D	259.22	01/17/05	5.96	253.26	ND
		05/04/05	3.93	255.29	ND
		08/12/05	5.60	253.62	ND

Table 2
Historical Groundwater Gauging Data
Mission Valley Rock Company
Sunol, California

Well	Top of Casing Elevation (Feet)	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)	LPH Thickness (feet)
		12/12/05	8.50	250.72	ND
		03/02/06	3.63	255.59	ND
MW-5S	259.43	01/17/05	4.57	254.86	ND
		05/04/05	2.50	256.93	ND
		08/12/05	5.30	254.13	ND
		12/12/05	7.68	251.75	ND
		03/02/06	1.42	258.01	ND
MW-5D	259.40	01/17/05	5.15	254.25	ND
		05/04/05	2.75	256.65	ND
		08/12/05	5.60	253.80	ND
		12/12/05	7.92	251.48	ND
		03/02/06	1.98	257.42	ND
MW-6S	258.75	01/17/05	4.30	254.45	ND
		05/04/05	1.96	256.79	ND
		08/12/05	5.17	253.58	ND
		12/12/05	7.48	251.27	ND
		03/02/06	1.95	256.80	ND
MW-6D	259.27	01/17/05	5.17	254.10	ND
		05/04/05	2.80	256.47	ND
		08/12/05	6.30	252.97	ND
		12/12/05	8.32	250.95	ND
		03/02/06	2.7	256.57	ND
MW-7S	258.82	01/17/05	3.42	255.40	ND
		05/04/05	1.44	257.38	ND
		08/12/05	4.80	254.02	ND
		12/12/05	6.64	252.18	ND
		03/02/06	0.95	257.87	ND
MW-7D	258.07	01/17/05	5.50	252.57	ND
		05/04/05	1.45	256.62	ND
		08/12/05	4.70	253.37	ND
		12/12/05	7.40	250.67	ND
		03/02/06	5.10	252.97	Gasoline odor
MW-8	258.84	01/17/05	3.45	255.39	ND
		05/04/05	1.25	257.59	ND
		08/12/05	4.92	253.92	ND
		12/12/05	6.67	252.17	ND
		03/02/06	0.78	258.06	ND

Depth to water and liquid phase hydrocarbon (LPH) thickness reported in feet below measurement point.
Groundwater elevations reported in feet above mean sea level (msl).
Adjusted groundwater elevation = Measurement Point Elevation - Depth to Water + (LPH Thickness x 0.75)
NM = Not Measured
ND = Not Detected
TOC = Top of Casing
MSL = Mean Sea Level
LPH = Liquid-Phase Hydrocarbon

Table 3
Historical Groundwater Analytical Results
Mission Valley Rock Company
Sunol, California

Well	Date	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)
MW-1	06/23/98	0.1	3,100	19	2.3	91	48	110
	10/01/98	0.1	2,300	3.1	4.2	5.0	15	ND<0.50
	01/05/99	350	ND<50	12	7.5	20	6.2	ND<5.0
	03/29/99	190	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/10/99	210	1,800	1.2	0.9	1.5	4.6	ND<0.5
	09/17/99	62	180	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5
	12/27/99	290	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	03/22/00	86	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/30/00	70	450	2.1	ND<0.5	2.1	1.4	7.6
	09/14/00	ND<50	850	5.4	ND<0.50	9.4	2.6	9.8
	12/20/00	ND<1,000	370	5.3	ND<1.0	2.7	ND<3.0	55
	03/22/01	ND<1,000	700	ND<1.0	ND<1.0	1.4	ND<1.0	ND<1.0
	06/27/01	ND<1,000	170	ND<1.0	ND<1.0	1.2	ND<1.0	ND<1.0
	09/21/01	ND<1,000	730	1.4	ND<1.0	7.6	1.2	ND<1.0
	12/27/01	1000	500	15	ND<1.0	27	5.5	ND<1.0
	03/29/02	12000	29000	50	ND<25	960	290	ND<25
	06/13/02	ND<1,000	1400	3.5	ND<1.0	42	7.9	ND<1.0
	09/27/02	1400	760	ND<1.0	ND<1.0	4.3	1.1	ND<1.0
	12/03/02	ND<1,000	1600	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	03/31/03	ND<1,000	620	1.2	ND<1.0	12	ND<1.0	ND<1.0
	06/27/03	ND<1,000	0.61	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	09/19/03	ND<1,000	1.2	ND<1.0	ND<1.0	6.4	ND<1.0	ND<1.0
	12/22/03	ND<1,000	0.49	ND<1.0	ND<1.0	3.0	ND<1.0	ND<1.0
	01/17/05	ND<50	63	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
	05/04/05	ND<50	1200	ND<0.5	ND<0.5	8.5	1.2	ND<1.0
	08/12/05	ND<50	410	ND<0.5	ND<0.5	2.4	ND<0.5	ND<1.0
	12/13/05	ND<50	750	3.8	ND<0.5	4.2	ND<1.0	ND<1.0
	03/03/06	ND<50	310	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<1.0
MW-2	06/23/98	12,000	2,500	0.68	ND<0.50	1.2	0.57	14
	10/01/98	4,300	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	01/05/99	38,000	ND<5,000	ND<50	ND<50	51	190	ND<500
	03/29/99	580	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/10/99	4,500	24,000	38	27	41	98	ND<0.5
	09/17/99	24,000	1,400	ND<0.50	ND<0.50	ND<0.50	ND<0.50	27
	12/27/99	2,300	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	03/22/00	620	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/30/00	1,700	270	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17
	09/14/00	5,800	130	ND<0.50	ND<0.50	ND<0.50	0.94	12
	12/20/00	19,000	1700	ND<50	ND<50	ND<50	ND<150	ND<250
	03/22/01	610000	3300	ND<1.0	ND<1.0	ND<1.0	ND<1.0	9.0
	06/27/01	8800	1800	ND<1.0	ND<1.0	ND<1.0	ND<1.0	6.7
	09/21/01	530000	7000	ND<50	ND<50	ND<50	ND<50	ND<50
	12/27/01	27000	310	ND<1.0	ND<1.0	ND<1.0	ND<1.0	62
	03/29/02	65000	130	ND<1.0	ND<1.0	ND<1.0	ND<1.0	30
	06/13/02	130000	460	ND<1.0	ND<1.0	ND<1.0	ND<1.0	24
	09/27/02	480000	290	ND<1.0	ND<1.0	ND<1.0	ND<1.0	16
	12/03/02	61000	1800	ND<1.0	ND<1.0	ND<1.0	ND<1.0	10
	03/31/03	5000	ND<100	ND<1.0	ND<1.0	ND<1.0	ND<1.0	14
	06/27/03	8.1	360	ND<1.0	ND<1.0	ND<1.0	ND<1.0	20
	09/19/03	85	12	ND<1.0	ND<1.0	ND<1.0	ND<1.0	15
	12/22/03	NS						
	01/17/05	Abandoned						
MW-2S	01/17/05	1100	730	ND<0.50	ND<0.50	1.0	3.5	50
	05/04/05	8200	190	ND<0.5	ND<0.5	ND<0.5	ND<0.5	44
	08/12/05	6100	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	77
	12/12/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	26
	03/03/06	5900	160	ND<0.5	ND<0.5	ND<0.5	ND<1.0	21
MW-2M	01/17/05	4100	3300	6.5	1.7	89	82.2	38
	05/04/05	ND<50	610	ND<0.5	ND<0.5	16	10.6	32
	08/12/05	ND<50	460	ND<0.5	ND<0.5	2.5	1.2	56
	12/12/05	ND<50	410	ND<0.5	ND<0.5	ND<0.5	ND<1.0	28
	03/03/06	ND<50	290	ND<0.5	ND<0.5	0.5	ND<1.0	17
MW-2D	01/17/05	1800	1000	6.5	ND<0.50	80	71	62
	05/04/05	ND<50	250	ND<0.5	ND<0.5	4.6	1.6	72
	08/12/05	ND<50	ND<50	ND<0.5	ND<0.5	2.8	1.1	51
	12/12/05	ND<50	200	ND<0.5	ND<0.5	ND<0.5	ND<1.0	39
	03/03/06	ND<50	140	ND<0.5	ND<0.5	ND<0.5	ND<1.0	38
MW-3	06/23/98	12,000	300	0.80	ND<0.50	ND<0.50	ND<0.50	150
	10/01/98	6400	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	01/05/99	5,600	ND<100	1.6	1.4	ND<1.0	ND<1.0	110
	03/29/99	150	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/10/99	620	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	09/17/99	1,500	230		ND<0.50	ND<0.50	ND<0.50	89
	12/27/99	58	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	03/22/00	94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/30/00	240	170	ND<0.5	0.52	ND<0.5	ND<0.5	100
	09/14/00	850	170	0.81	ND<0.50	ND<0.50	ND<0.50	68
	12/20/00	1600	230	ND<1.0	ND<1.0	ND<1.0	ND<3.0	80
	03/22/01	1100	140	ND<1.0	ND<1.0	ND<1.0	ND<1.0	83
	06/27/01	NS	NS	NS	NS	NS	NS	NS

Table 3
Historical Groundwater Analytical Results
Mission Valley Rock Company
Sunol, California

Well	Date	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)
	09/21/01	3800	ND<100	ND<1.0	ND<1.0	ND<1.0	ND<1.0	45
	12/27/01	3100	340	1.4	1.1	10	3.8	45
	03/29/02	1500	ND<100	ND<1.0	ND<1.0	ND<1.0	ND<1.0	50
	06/13/02	ND<1000	160	ND<1.0	ND<1.0	ND<1.0	ND<1.0	36
	09/27/02	ND<1000	ND<1000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	43
	12/03/02	ND<1000	ND<100	ND<1.0	ND<1.0	ND<1.0	ND<1.0	41
	03/31/03	ND<1000	ND<100	ND<2.5	ND<2.5	ND<2.5	ND<2.5	92
	06/27/03	1200.0	ND<100	ND<2.0	ND<2.0	ND<2.0	ND<2.0	93
	09/19/03	ND<1000	ND<100	ND<2.0	ND<2.0	ND<2.0	ND<2.0	65
	12/22/03	5700	190	ND<2.0	ND<2.0	ND<2.0	ND<2.0	56
	01/17/05	ND<50	590	ND<0.50	ND<0.50	ND<0.50	ND<0.50	47
	05/04/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	190
	08/11/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	110
	12/13/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	75
	03/03/06	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	140
MW-4S	01/17/05	ND<50	65	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
	05/04/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0
	08/12/05	ND<50	ND<50	ND<0.5	ND<0.5	2.2	5.8	ND<1.0
	12/12/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<1.0
	03/03/06	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<1.0
MW-4D	01/17/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
	05/04/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
	08/12/05	ND<50	410	ND<0.5	2.20	10.0	25.5	ND<1.0
	12/12/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0
	03/03/06	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0
MW-5S	01/17/05	ND<50	ND<50	ND<0.50	4.5	ND<0.50	ND<0.50	ND<1.0
	05/04/05	ND<50	ND<50	ND<0.50	ND<0.5	ND<0.50	ND<0.50	ND<1.0
	08/11/05	ND<50	ND<50	ND<0.50	ND<0.5	ND<0.50	ND<0.50	6
	12/12/05	ND<50	ND<50	3.4	1.3	ND<0.50	ND<1.0	ND<1.0
	03/03/06	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0
MW-5D	01/17/05	ND<50	210	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
	05/04/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	10
	08/11/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6
	12/12/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0
	03/03/06	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	5
MW-6S	01/17/05	2800	1600	6.1	ND<0.50	3.6	2.3	160
	05/04/05	ND<50	750	ND<0.5	ND<0.5	3.0	ND<0.5	160
	08/12/05	1300	1100	ND<0.50	ND<0.50	ND<0.50	ND<0.50	410
	12/12/05	ND<50	1000	ND<0.50	ND<0.50	1.4	ND<1.0	190
	03/03/06	ND<50	940	ND<0.50	ND<0.50	4.9	ND<1.0	60
MW-6D	01/17/05	2100	1200	10	ND<0.50	1.6	2.2	180
	05/04/05	ND<50	360	2	ND<0.5	ND<0.5	ND<0.5	360
	08/12/05	ND<50	480	2	ND<0.5	ND<0.5	ND<0.5	270
	12/12/05	ND<50	240	ND<0.50	ND<0.5	ND<0.5	ND<1.0	92
	03/03/06	ND<50	310	ND<0.50	ND<0.5	ND<0.5	ND<1.0	93
MW-7S	01/17/05	ND<50	12000	10	89	590	1670	ND<1.0
	05/04/05	520	1600	ND<0.5	ND<0.5	31	18.4	ND<1.0
	08/12/05	ND<50	660	ND<0.5	ND<0.5	5.5	ND<0.5	ND<1.0
	12/12/05	ND<50	610	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<1.0
	03/03/06	ND<50	630	1.1	9.0	31.0	78	ND<1.0
MW-7D	01/17/05	ND<50	23000	350	1000	1800	5200	ND<1.0
	05/04/05	NS						
	08/12/05	37	83000	550	2200	4400	10600	ND<50
	12/12/05	150000	1300000	640	3100	21000	54800	ND<50
	03/03/06	45000	71000	420	2400	4400	11300	ND<1.0
MW-8	01/17/05	ND<50	120	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
	05/04/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
	08/12/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0
	12/12/05	830	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<1.0
	03/03/06	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<1.0

Concentrations reported in micrograms per Liter (ug/L)

MTBE = Methyl-tert-Butyl Ether

ND = Not Detected at or above corresponding reporting limit

NS = Not Sampled

TPHd = Total Petroleum Hydrocarbons as Diesel

TPHd = Total Petroleum Hydrocarbons as Gasoline

NM: Not Measured

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - DECEMBER 2002

MISSION VALLEY ROCK COMPANY
7999 ATHENOUR WAY
SUNOL, CALIFORNIA

Sample ID	Date Sampled	Total Petroleum Hydrocarbons as Gasoline (TPHg) and Diesel (TPHd) in ug/L		Volatile Organic Compounds (VOC's) in ug/L															Semi-Volatile Organic Compounds (SVOC's) in ug/L		
		TPHd	TPHg	Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Ethylbenzene	Isopropylbenzene	Methyl tert-butyl ether (MTBE)	Napthalene	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m-Xylene & p-Xylene	o-Xylene	bis (2-Ethylhexylphthalate)	2-Methylnapthalene	Napthalene
TB-1	12/3/2002	<1300	<100	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	<10
TB-2	12/3/2002	**1600**	**830**	**22**	<1.0	**28**	**20**	<1.0	**10**	**26**	<1.0	**26**	**97**	**3.8**	<1.0	**1.5**	**3.8**	**1.5**	<13	<13	<13
TB-3	12/4/2002	<2800	<100	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**26**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<22	<22	<22
TB-4	12/3/2002	<1000	**1100**	<50	**49**	**6.9**	<5.0	<5.0	**52**	**8.6**	**180**	**19**	**26**	<5.0	**35**	**14**	**32**	**7.1**	<10	**13**	**15**
TB-5	12/4/2002	**28000**	**35000**	<100	<10	**140**	**81**	<10	**180**	**99**	**150**	**65**	**400**	<10	**16**	<10	<10	<10	<330	**91**	**55**
TB-6	12/4/2002	**32000**	**27000**	<50	<5.0	**28**	**16**	<5.0	<5.0	**5.4**	**13**	<5.0	**15**	**29**	<5.0	<5.0	**13**	**5.5**	<29	**50**	<29
TB-7	12/4/2002	**28000**	**43000**	<50	<5.0	**53**	<5.0	<5.0	<5.0	**19**	<5.0	**80**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<24	<24	<24
TB-8	12/3/2002	**28000**	**44000**	<500	**190**	**140**	**63**	<50	**2,800**	**270**	<50	**750**	**830**	<50	**1,200**	**320**	**570**	<50	<40	**380**	**480**

Notes:
ug/L = micrograms per Liter (parts per billion)

TABLE 5
SOIL ANALYTICAL RESULTS - DECEMBER 2002

MISSION VALLEY ROCK COMPANY
7999 ATHENOUR WAY
SUNOL, CALIFORNIA

Sample ID	Date Sampled	Sample Depth (ft-bgs)	Total Petroleum Hydrocarbons as Gasoline (TPHg) and Diesel (TPHd) in mg/kg		Volatile Organic Compounds (VOC's) in ug/kg																	Semi-Volatile Organic Compounds (SVOC's) in ug/kg		
			TPHd	TPHg	Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Ethylbenzene	Isopropylbenzene (Cumene)	p-Isopropyltoluene (Cymene)	Methylene chloride	Methyl tert-butyl ether	Naphthalene	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m-Xylene & p-Xylene	o-Xylene	2-Methylnaphthalene	Naphthalene	Phenanthrene
TB1-1	12/3/2002	15	45	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB1-2	12/3/2002	20	92	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<820	<820	<820
TB1-3	12/3/2002	25	130	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB1-4	12/3/2002	30.5	10	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB2-1	12/3/2002	8	57	93	<120	<25	640	430	<25	44	280	<25	<25	<25	85	1,500	<25	<25	<25	<25	<25	670	<330	<330
TB2-2	12/3/2002	16	10	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB2-3	12/3/2002	20	40	110	<120	<25	190	72	48	<25	<25	27	<25	<25	<25	110	<25	<25	<25	<25	<25	<330	<330	<330
TB2-4	12/3/2002	24	<10	<1.0	<25	<5.0	5.8	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	8.9	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB3-1	12/4/2002	4.5	<10	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB3-2	12/4/2002	10	12	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB3-3	12/4/2002	16	<10	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB3-4	12/4/2002	20	<10	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB3-5	12/4/2002	25	<10	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB4-1	12/3/2002	5	960	9.2	<120	<25	130	120	<25	<25	140	<25	<25	73	570	610	<25	<25	<25	<25	<25	<330	<330	330
TB4-2	12/3/2002	10	310	120	<1,200	<250	5,300	3,600	<250	1,300	3,600	<250	<250	<250	8,500	15,000	<250	<250	<250	<250	<250	1,600	<330	890
TB4-3	12/3/2002	15	280	280	<1200	<250	1,100	320	<250	1,300	350	<250	<250	<250	1,200	1,400	<250	4,400	1,400	1,700	450	390	<330	<330
TB4-4	12/3/2002	20	<10	<1.0	30	14	<5.0	<5.0	<5.0	5.5	<5.0	<5.0	<5.0	19	<5.0	<5.0	<5.0	7.5	<5.0	16	<5.0	<330	<330	<330
TB4-5	12/3/2002	25	<10	<1.0	<25	<5.0	6.7	<5.0	<5.0	22	<5.0	<5.0	<5.0	13	9	18	<5.0	61	22	27	5.1	<330	<330	<330
TB5-1	12/4/2002	5	26	<1.0	33	<5.0	29	24	<5.0	<5.0	23	<5.0	<5.0	11	<5.0	92	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB5-2	12/4/2002	10	760	49	<120	<25	470	250	<25	<25	190	<25	<25	<25	550	780	<25	<25	<25	<25	<25	2,000	330	500
TB5-3	12/4/2002	17	1,100	71	<100	<20	120	57	<20	59	51	<20	<20	<20	230	190	<20	280	30	<20	<20	590	<330	360
TB5-4	12/4/2002	20	140	17	<25	<5.0	11	5.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	14	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB5-5	12/4/2002	25	210	52	<100	<20	240	120	<20	36	55	<20	<20	<20	50	290	<20	<20	<20	<20	<20	<330	<330	<330
TB6-1	12/4/2002	5	1,400	22	<100	<20	200	150	<20	<20	77	<20	<20	<20	390	300	<20	<20	<20	<20	<20	410	<330	<330
TB6-2	12/4/2002	10	740	86	<120	<25	190	130	<25	<25	29	<25	<25	<25	43	76	<25	<25	<25	<25	<25	<330	<330	<330
TB6-3	12/4/2002	15	90	<1.0	<25	<5.0	14	8.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	9.8	7.8	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB6-4	12/4/2002	20	<10	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB6-5	12/4/2002	25	14	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB7-1	12/4/2002	5	890	19	<120	<25	<25	45	<25	<25	<25	<25	<25	<25	<25	31	<25	<25	<25	<25	<25	<330	<330	<330
TB7-2	12/4/2002	10	4,600	140	<1,200	<250	550	420	<250	<250	<250	<250	<250	<250	880	360	<250	<250	<250	<250	<250	3,300	<1,600	<1,600
TB7-3	12/4/2002	15	1,300	36	<25	<5.0	9.1	8.4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	15	9.3	5.8	<5.0	<5.0	5.2	<5.0	<330	<330	<330
TB7-4	12/4/2002	20	35	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB7-5	12/4/2002	25	<10	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB8-1	12/3/2002	5	<10	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB8-2	12/3/2002	10	<10	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB8-3	12/3/2002	16	<10	<1.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<330	<330	<330
TB8-4	12/3/2002	20	14	27	<120	<25	160	49	<25	410	78	33	<25	<25	250	350	<25	1,300	390	480	47	<300	<330	<330
TB8-5	12/3/2002	24	<10	25	<25	74	79	28	5.9	320	55	27	<5.0	<5.0	100	190	10	180	52	64	9.5	<300	<330	<330
EPA Region 9 Preliminary Remediation Goals (PRG's)				mg/kg	1500	6.5	240	220	390	5.9	160		91	47	56	240	520	52	21	270	270		56	
				ug/kg	1,500,000	6500	240,000	220,000	390,000	5,900	160,000		91,000	47,000	56,000	240,000	520,000	52,000	21,000	270,000	270,000		56,000	

Notes:
EPA Region 9 PRG's are for residential soils "Direct Contact Exposure Pathways" - October 2002.
Only the compounds detected at or above the laboratory reporting limit are shown.
ft-bgs = feet below ground surface
mg/kg = milligrams per kilogram (parts per million)
ug/kg = micrograms per kilogram (parts per billion)

TABLE 6
SOIL ANALYTICAL RESULTS - JANUARY 2005

MISSION VALLEY ROCK
7999 ATHENOUR WAY
SUNOL, CALIFORNIA

Sample ID	Date	Sample Depth (feet bgs)	Constituents (milligrams per kilogram)										
			TPH-D	TPH-G	Methyl-tert-Butyl Ether	Benzene	Toluene	Ethylbenzene	Total Xylenes	tert-Butanol	Di-isopropyl Ether	Ethyl-tert-Butyl Ether	tert-Amyl Methyl Ether
MW5-5	1/4/2005	5	ND<10	ND<1	ND<0.005	**0.0043**	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
MW5-10	1/4/2005	10	ND<10	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
MW5-20	1/4/2005	20	ND<10	ND<1	ND<0.005	**0.0038**	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
MW2-5	1/4/2005	5	**900**	**14**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	**0.002**	ND<0.10	ND<0.050	ND<0.050	ND<0.050
MW2-10	1/4/2005	10	**740**	**15**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
MW2-15	1/4/2005	15	**23**	**0.96**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
MW6-10	1/5/2005	10	**78**	**6.8**	**0.0077**	ND<0.005	ND<0.005	**0.0044**	**0.0094**	ND<0.10	ND<0.050	ND<0.050	ND<0.050
MW6-25	1/5/2005	25	**12**	**1.2**	**0.024**	**0.0041**	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
MW4-5	1/5/2005	5	ND<10	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
MW4-10	1/5/2005	10	ND<10	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
MW4-20	1/5/2005	20	ND<10	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
MW2-30	1/5/2005	30	ND<10	ND<1	**0.022**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
MW6-25	1/5/2005	25	**17**	**5.4**	**0.047**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB1-5	1/6/2005	5	ND<10	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB1-15	1/6/2005	15	ND<10	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB1-20	1/6/2005	20	ND<10	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB2-5	1/6/2005	5	ND<10	**0.67**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB2-10	1/6/2005	10	ND<10	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB2-15	1/6/2005	15	ND<10	**0.86**	ND<0.005	ND<0.005	ND<0.005	**0.012**	**0.0273**	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB2-23	1/6/2005	23	**16**	**510**	ND<0.005	ND<0.005	ND<0.005	**9.7**	**14.86**	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB2-26	1/6/2005	26	**39**	**840**	ND<0.005	ND<0.005	ND<0.005	**10**	**16.4**	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB3-5	1/6/2005	5	ND<10	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB3-15	1/6/2005	15	ND<10	ND<1	ND<0.005	ND<0.005	ND<0.005	**0.0049**	**0.0107**	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB3-20	1/6/2005	20	ND<10	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB3-25	1/6/2005	25	ND<10	**0.51**	ND<0.005	**0.03**	ND<0.005	ND<0.005	**0.0046**	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB4-5	1/6/2005	5	**190**	**42**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB4-10	1/6/2005	10	**14**	**2.7**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB4-15	1/6/2005	15	ND<10	**4.5**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB4-20	1/6/2005	20	**17**	**2.7**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050
SB4-25	1/6/2005	25	ND<10	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10	ND<0.050	ND<0.050	ND<0.050

Notes:

bgs = Below Ground Surface

ND = Not detected at or above the indicated laboratory reporting limit.

TPH-D = Total Petroleum Hydrocarbons as Diesel

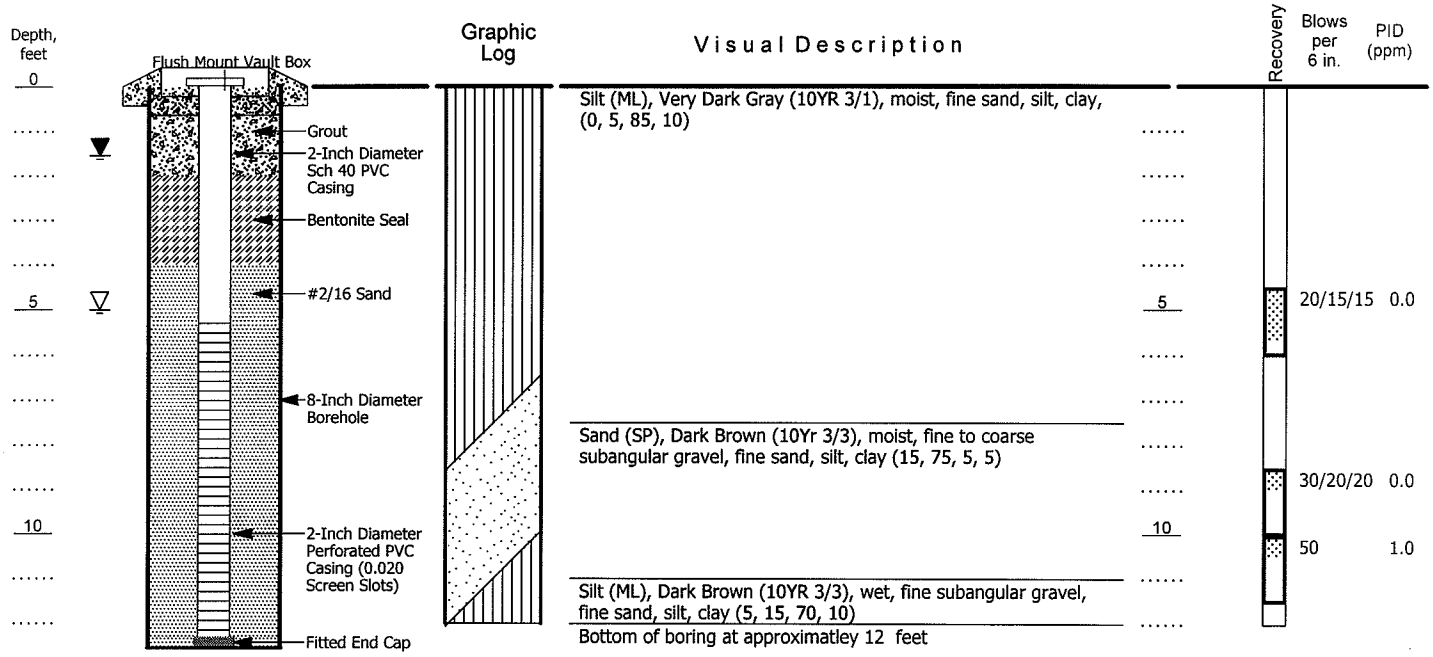
TPH-G = Total Petroleum Hydrocarbons as Gasoline

Concentrations of TPH-D and TPH-G reported using EPA Method No. 8015M.

Concentrations of Methyl-tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, Total Xylenes, tert-Butanol, Di-isopropyl Ether, Ethyl-tert-Butyl Ether, and tert-Amyl Methyl Ether reported using EPA Method No. 8260B.

APPENDIX B

Lithologic Soil Boring Logs



Well Permit Number: 26066
Date Well Drilled: 4/26/06
Drilling Company: Gregg Drilling
Driller: JT
Sampling Method: Split Spoon
LFR Geologist: Jason Triolo

EXPLANATION

- Clay (CL/CH)
- Silt (ML/MH)
- Sand (SP/SW)
- Gravel (GP/GW)
- Modified California Sampler
- Shading indicates sample recovery; black bar to left indicates sample collected for analytical purposes.
- Water level at time of drilling
- Static Water Level

(Gravel, Sand, Silt, Clay) (70, 15, 10, 5)

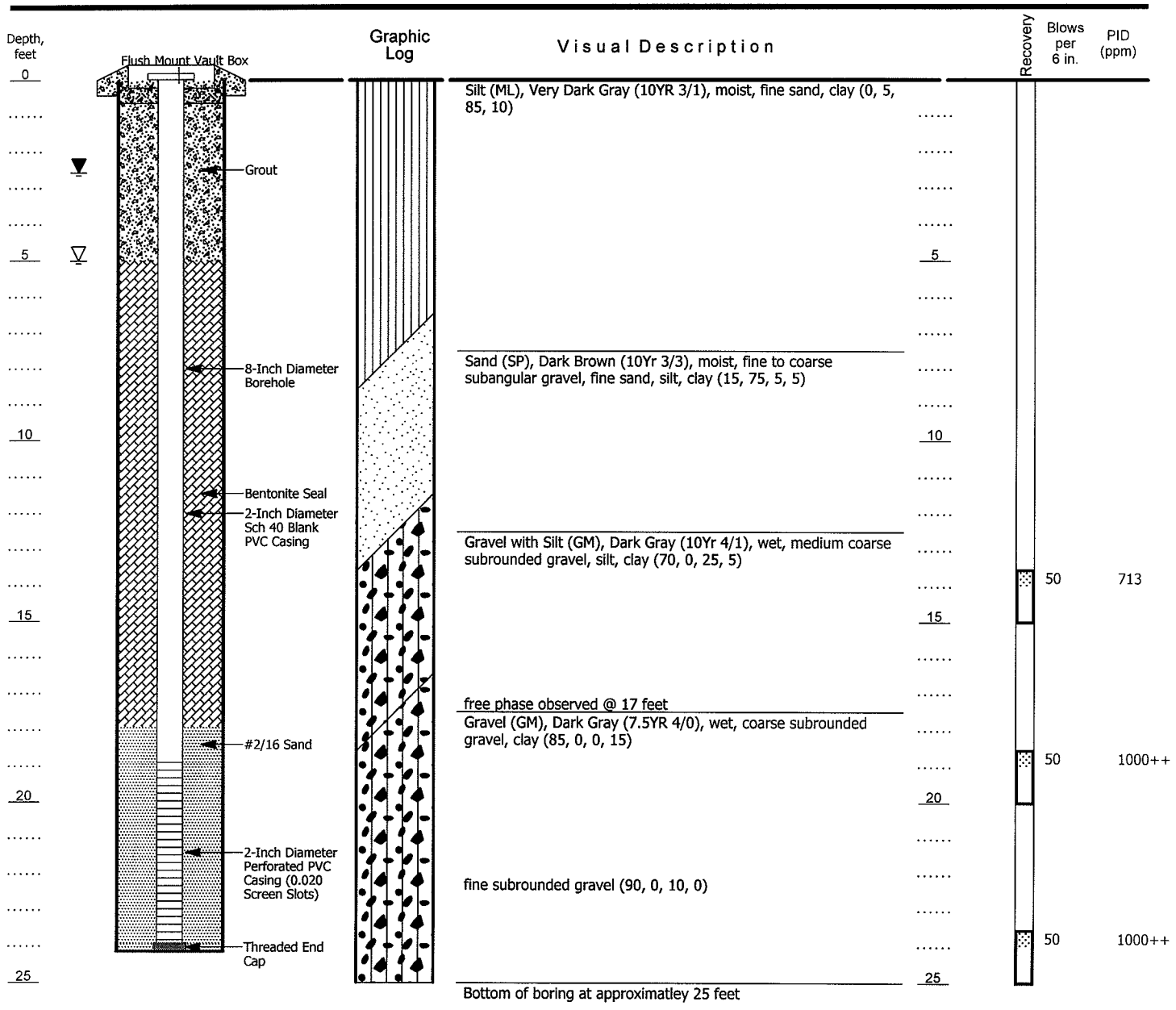
WELL CONSTRUCTION AND LITHOLOGY FOR WELL MW- 9S

LFR
LEVINE •FRICKE
001-09480-00

Mission Valley

7/3/06 JST/DLB

ENVR SOIL+WELL 001-09480-00 HANSON MISSION VALLEY.GPJ 7/10/06



Well Permit Number: 26066
Date Well Drilled: 4/26/06
Drilling Company: Gregg Drilling
Driller: JT
Sampling Method: Split Spoon
LFR Geologist: Jason Triolo

EXPLANATION

- Clay (CL/CH)
- Silt (ML/MH)
- Sand (SP/SW)
- Gravel (GP/GW)
- Modified California Sampler
- Shading indicates sample recovery; black bar to left indicates sample collected for analytical purposes.
- Water level at time of drilling
- Static Water Level

(Gravel, Sand, Silt, Clay) (70, 15, 10, 5)

WELL CONSTRUCTION AND LITHOLOGY FOR WELL MW- 9D

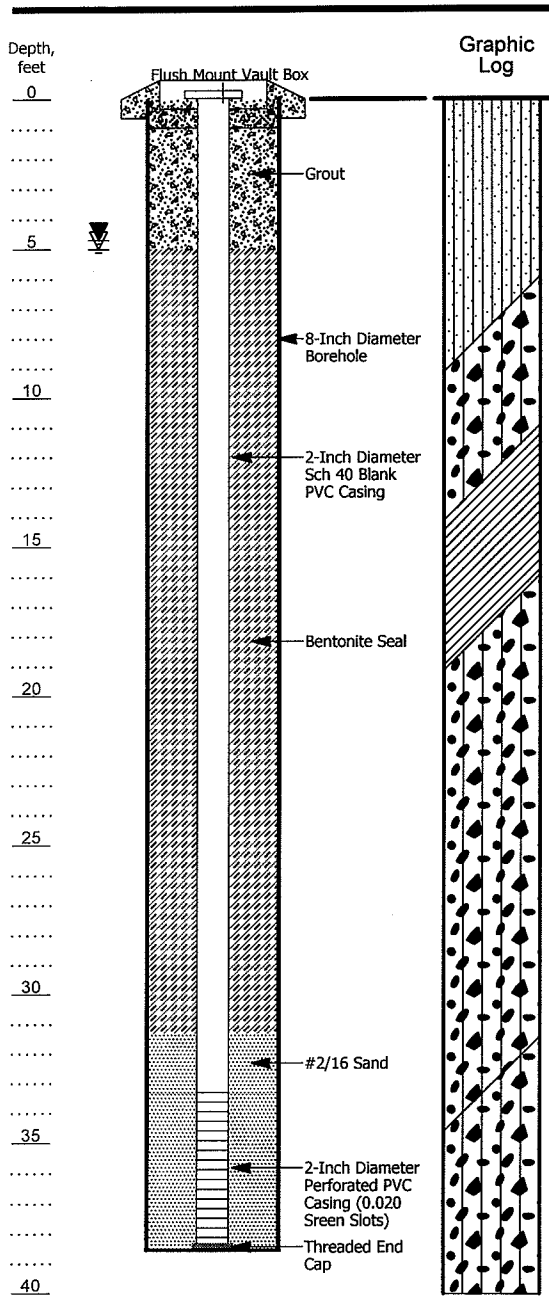
LFR LEVINE •FRICKE
001-09480-00

Mission Valley

7/3/06 JST/DLB

ENVR SOIL+WELL 001-09480-00 HANSON MISSION VALLEY.GPJ 7/10/06

WELL CONSTRUCTION	LITHOLOGY	SAMPLING DATA



Graphic Log	Visual Description	Recovery	Blows per 6 in.	PID (ppm)
	Sandy Silt with gravel (ML), Grayish Brown (10YR 5/2), wet, fine grained subangular gravel, fine sand, silt, (25, 25, 50, 0)			
	Silty Gravel (GM), Grayish Brown (10YR 5/2), wet, fine grained subangular, gravel, silt(70, 0, 30, 0)		12/12/15	0.0
	Clay (CL), Dark Gray (7.5YR 4/0), wet, fine to coarse-grained subangular gravel, silt. clay, (20, 0, 15, 65)		5/8/13	0.1
	Silty Gravel (GM), Very Dark Gray (7.5YR 3/0), wet, coarse-grained subangular gravel, silt, petroleum hydrocarbon odors, (90, 0, 10, 0)		15/50	671
	Grades to Dark Gray (7.5YR 4/0), increasing clay content		15/50	350
	Grades to fine-grained, fine to medium sand		50	50
	Silty Gravel (GM), Dark Gray (7.5YR 4/0), wet, fine to medium coarse-grained, subrounded gravel, silt, (75, 0, 25, 0)		16/18/27	40
	Bottom of boring at approximatley 40 feet		31/50	6.0
			50	15

Well Permit Number: 26066
Date Well Drilled: 4/26/06
Drilling Company: Gregg Drilling
Driller: JT
Sampling Method: Split Spoon
LFR Geologist: Jason Triolo

EXPLANATION

- Clay (CL/CH)
- Silt (ML/MH)
- Sand (SP/SW)
- Gravel (GP/GW)
- Modified California Sampler
- Shading indicates sample recovery; black bar to left indicates sample collected for analytical purposes.
- Water level at time of drilling
- Static Water Level

(Gravel, Sand, Silt, Clay) (70, 15, 10, 5)

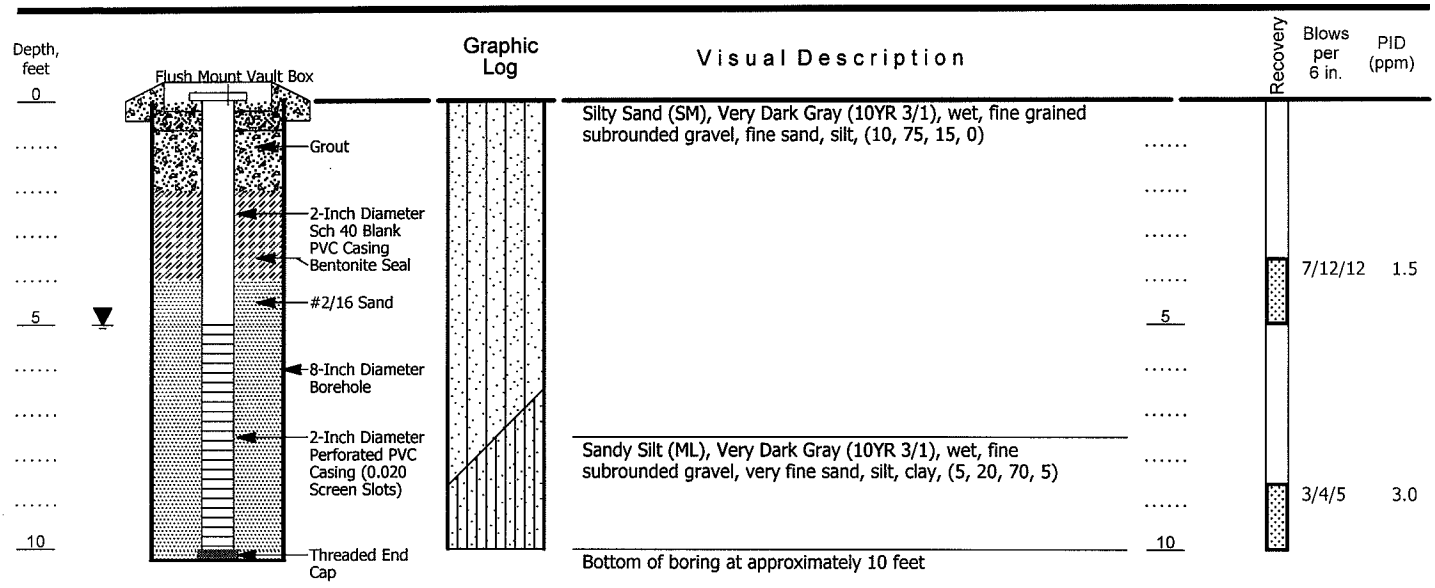
WELL CONSTRUCTION AND LITHOLOGY FOR WELL MW- 9LF

LFR LEVINE •FRICKE
001-09480-00

Mission Valley

6/28/06 JST/DLB

ENVR SOIL+WELL 001-09480-00 HANSON MISSION VALLEY.GPJ 7/7/06



Well Permit Number: 26066
Date Well Drilled: 5/1/06
Drilling Company: Gregg Drilling
Driller: JT
Sampling Method: Split Spoon
LFR Geologist: Jason Triolo

EXPLANATION

- Clay (CL/CH)
- Silt (ML/MH)
- Sand (SP/SW)
- Gravel (GP/GW)
- Modified California Sampler
- Shading indicates sample recovery; black bar to left indicates sample collected for analytical purposes.
- Water level at time of drilling
- Static Water Level

(Gravel, Sand, Silt, Clay) (70, 15, 10, 5)

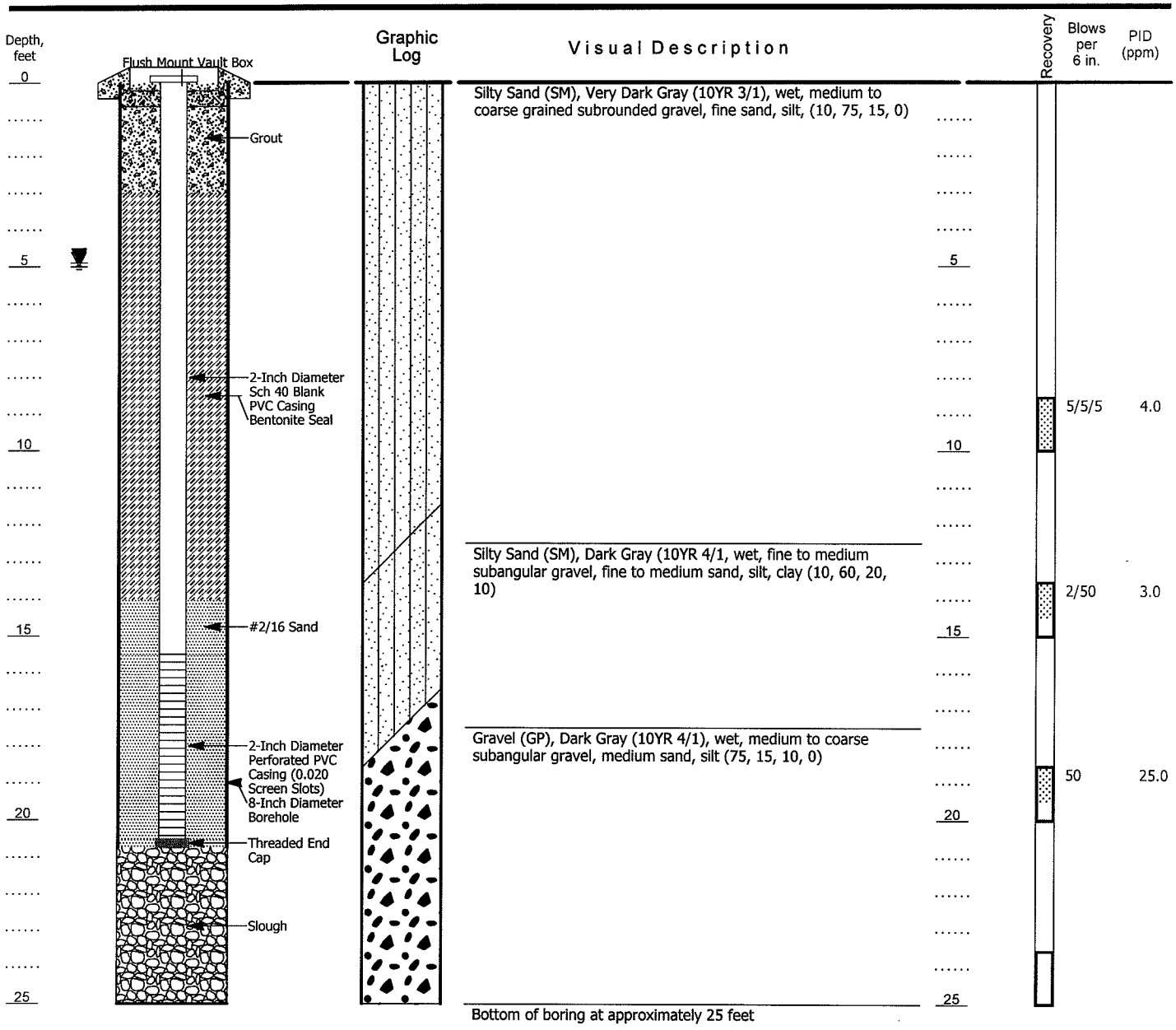
WELL CONSTRUCTION AND LITHOLOGY FOR WELL MW-10S

LFR
LEVINE •FRICKE
001-09480-00

Mission Valley

7/3/06 JST/DLB

ENVR SOIL+WELL 001-09480-00 HANSON MISSION VALLEY.GPJ 7/7/06



Well Permit Number: 26066
Date Well Drilled: 5/1/06
Drilling Company: Gregg Drilling
Driller: JT
Sampling Method: Split Spoon
LFR Geologist: Jason Triolo

EXPLANATION

- Clay (CL/CH)
- Silt (ML/MH)
- Sand (SP/SW)
- Gravel (GP/GW)
- Modified California Sampler
- Shading indicates sample recovery; black bar to left indicates sample collected for analytical purposes.
- Water level at time of drilling
- Static Water Level

(Gravel, Sand, Silt, Clay) (70, 15, 10, 5)

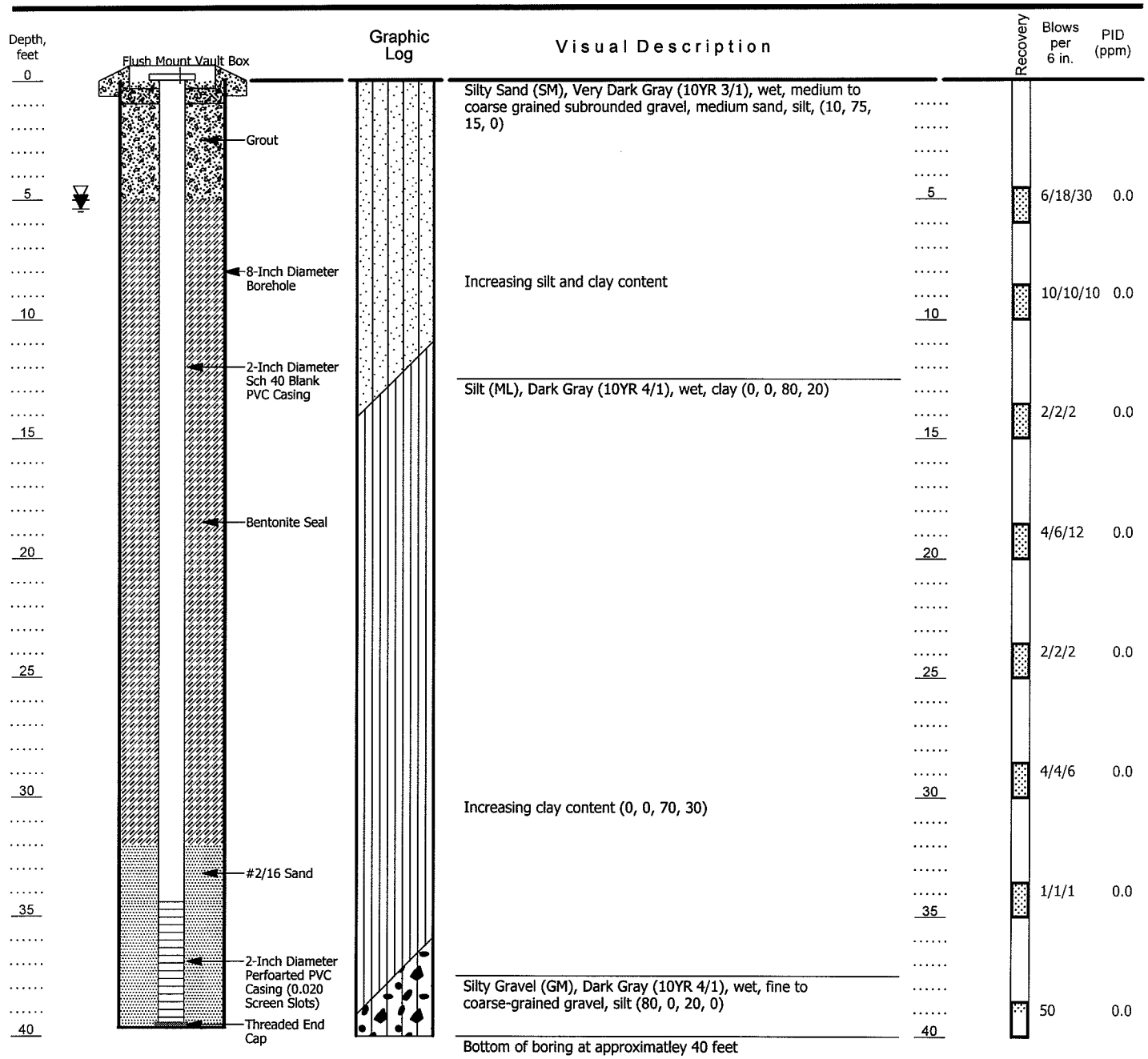
WELL CONSTRUCTION AND LITHOLOGY FOR WELL MW-10D

LFR LEVINE•FRICKE
001-09480-00

Mission Valley

7/3/06 JST/DLB

ENVR SOIL+WELL 001-09480-00 HANSON MISSION VALLEY.GPJ 7/7/06



Well Permit Number: 26066
Date Well Drilled: 5/1/06
Drilling Company: Gregg Drilling
Driller: JT
Sampling Method: Split Spoon
LFR Geologist: Jason Triolo

EXPLANATION

- Clay (CL/CH)
- Silt (ML/MH)
- Sand (SP/SW)
- Gravel (GP/GW)
- Modified California Sampler
- Shading indicates sample recovery; black bar to left indicates sample collected for analytical purposes.
- Water level at time of drilling
- Static Water Level

(Gravel, Sand, Silt, Clay) (70, 15, 10, 5)

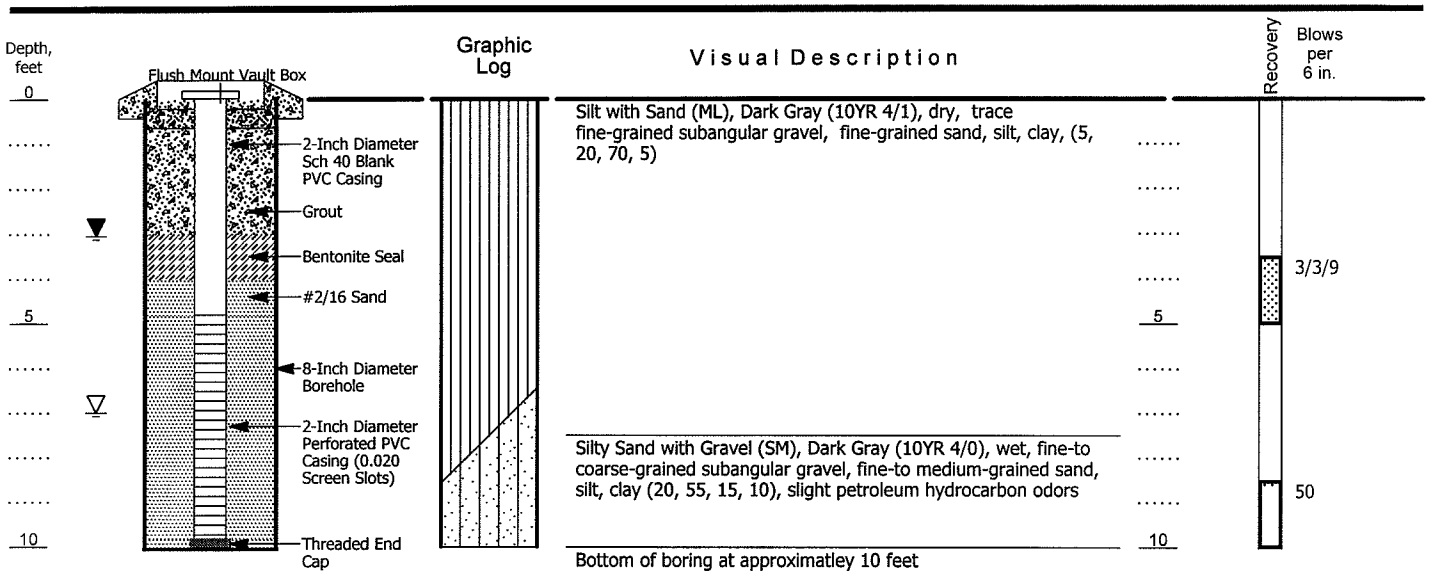
WELL CONSTRUCTION AND LITHOLOGY FOR WELL MW-10LF

LFR LEVINE•FRICKE
001-09480-00

Mission Valley

6/28/06 JST/DLB

ENVR SOIL+WELL 001-09480-00 HANSON MISSION VALLEY.GPJ 7/7/06



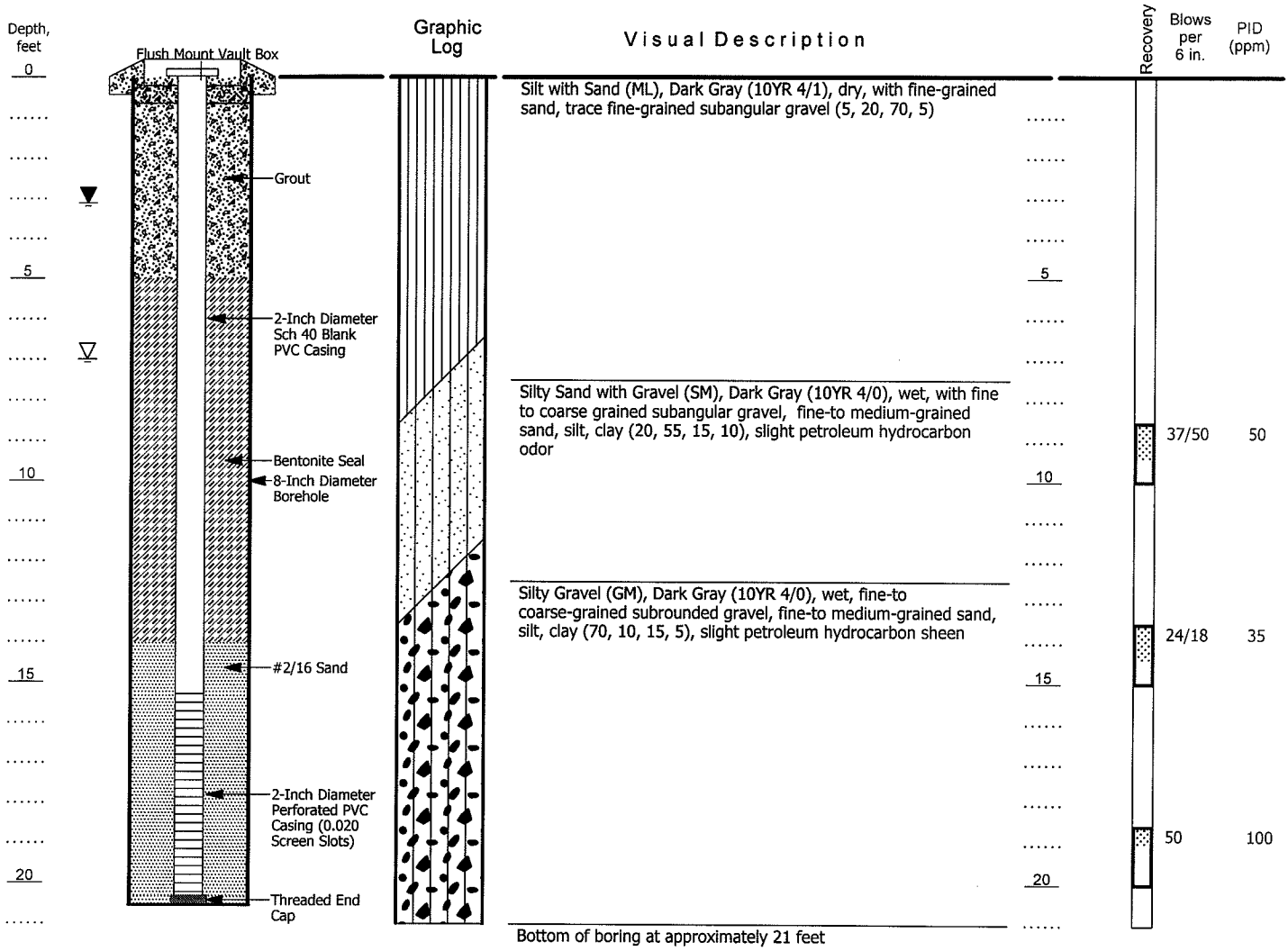
Well Permit Number: 26066
Date Well Drilled: 4/28/06
Drilling Company: Gregg Drilling
Driller: JT
Sampling Method: Split Spoon
LFR Geologist: Jason Triolo

EXPLANATION

- Clay (CL/CH)
- Silt (ML/MH)
- Sand (SP/SW)
- Gravel (GP/GW)
- Modified California Sampler
- Shading indicates sample recovery; black bar to left indicates sample collected for analytical purposes.
- Water level at time of drilling
- Static Water Level

(Gravel, Sand, Silt, Clay) (70, 15, 10, 5)

WELL CONSTRUCTION AND LITHOLOGY FOR WELL MW-11S



Well Permit Number: 26066
Date Well Drilled: 4/28/06
Drilling Company: Gregg Drilling
Driller: JT
Sampling Method: Split Spoon
LFR Geologist: Jason Triolo

EXPLANATION

- Clay (CL/CH)
- Silt (ML/MH)
- Sand (SP/SW)
- Gravel (GP/GW)
- Modified California Sampler
- Shading indicates sample recovery; black bar to left indicates sample collected for analytical purposes.
- Water level at time of drilling
- Static Water Level

(Gravel, Sand, Silt, Clay) (70, 15, 10, 5)

WELL CONSTRUCTION AND LITHOLOGY FOR WELL MW-11D

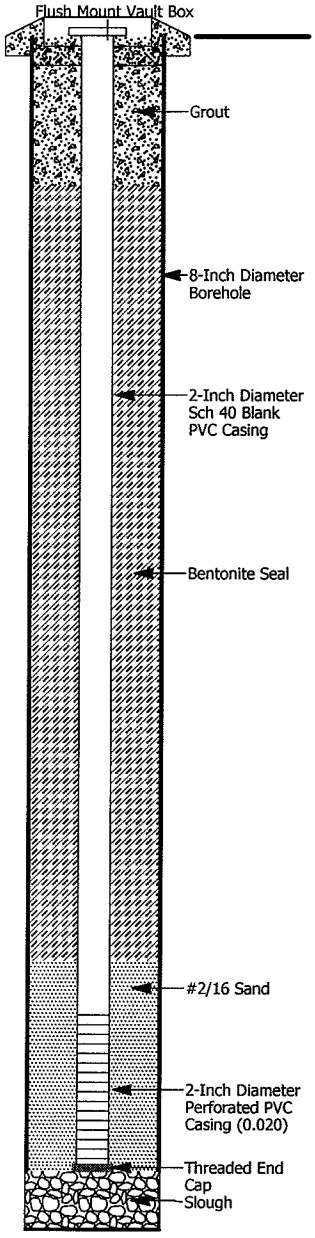
LFR LEVINE•FRICKE
001-09480-00

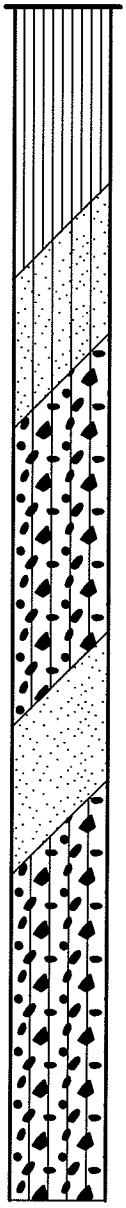
Mission Valley

7/3/06 JST/DLB

ENVR SOIL+WELL 001-09480-00 HANSON MISSION VALLEY.GPJ 7/10/06

WELL CONSTRUCTION	LITHOLOGY	SAMPLING DATA





Depth, feet	Visual Description	Recovery	Blows per 6 in.	PID (ppm)
0				
5	Silt with Sand (ML), Dark Gray (10YR 4/1), dry, trace fine-grained subangular gravel, fine-grained sand, silt, clay, (5, 20, 70, 5)		8/8/10	0.0
10	Silty Sand with Gravel (SM), Dark Gray (10YR 4/0), wet,, with fine-to coarse-grained subangular gravel, fine-to medium-grained sand, silt, clay, (20, 55, 15, 10), slight petroleum hydrocarbon odor		50	12.5
15	Silty Gravel (GM), Dark Gray (10YR 4/0), wet, fine-to coarse-grained subrounded gravel, fine-to medium-grained sand, silt, clay, (70, 10, 15, 5)		37/50	32.0
20	Grades to Very Dark Gray (7.5YR 3/0) and decreasing fines (70, 15, 10, 5)		50	121.0
25	Sand with Gravel (SP) Very Dark Gray (7.5YR 3/0), wet, coarse-grained subrounded gravel, medium-grained poorly graded sand, silt, clay, (20, 75, 5, 5)		27/50	68.0
30	Silty Gravel (GM), Very Dark Gray (7.5YR 3/0), wet, fine-to coarse-grained, subrounded gravel, medium-grained sand, silt, (75, 15, 10, 0)		50	5.0
35				
40	Increasing fines content (75, 0, 25, 0)		50	0.0
	Bottom of boring at approximately 40 feet			

Well Permit Number: 26066
Date Well Drilled: 4/27/06
Drilling Company: Gregg Drilling
Driller: JT
Sampling Method: Split Spoon
LFR Geologist: Jason Triolo

EXPLANATION

- Clay (CL/CH)
- Silt (ML/MH)
- Sand (SP/SW)
- Gravel (GP/GW)
- Modified California Sampler
- Shading indicates sample recovery; black bar to left indicates sample collected for analytical purposes.
- Water level at time of drilling
- Static Water Level

(Gravel, Sand, Silt, Clay) (70, 15, 10, 5)

WELL CONSTRUCTION AND LITHOLOGY FOR WELL MW-11LF

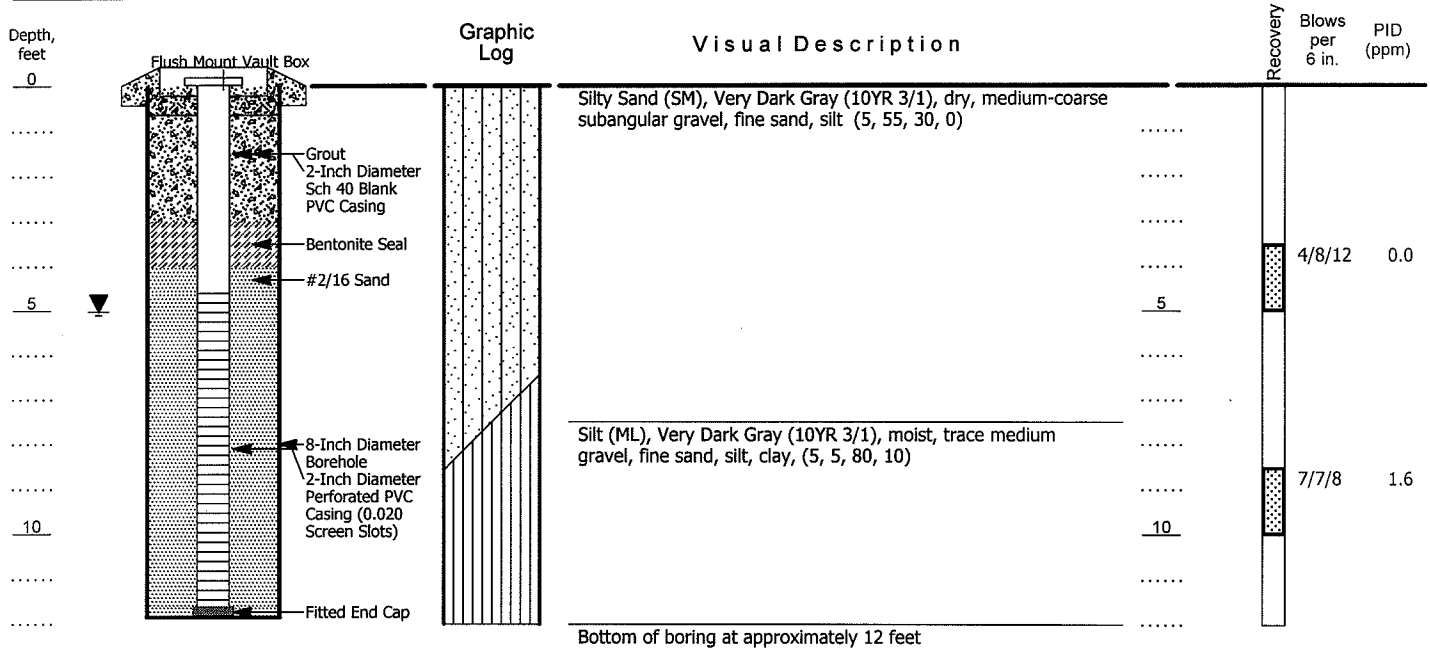
LFR LEVINE•FRICKE
001-09480-00

Mission Valley

6/28/06 JST/DLB

ENVR SOIL+WELL 001-09480-00 HANSON MISSION VALLEY.GPJ 7/7/06

WELL CONSTRUCTION	LITHOLOGY	SAMPLING DATA



Well Permit Number: 26066
Date Well Drilled: 4/27/06
Drilling Company: Gregg Drilling
Driller: JT
Sampling Method: Split Spoon
LFR Geologist: Jason Triolo

EXPLANATION

- Clay (CL/CH)
- Silt (ML/MH)
- Sand (SP/SW)
- Gravel (GP/GW)
- Modified California Sampler
- Shading indicates sample recovery; black bar to left indicates sample collected for analytical purposes.
- Water level at time of drilling
- Static Water Level

(Gravel, Sand, Silt, Clay) (70, 15, 10, 5)

WELL CONSTRUCTION AND LITHOLOGY FOR WELL MW-12S

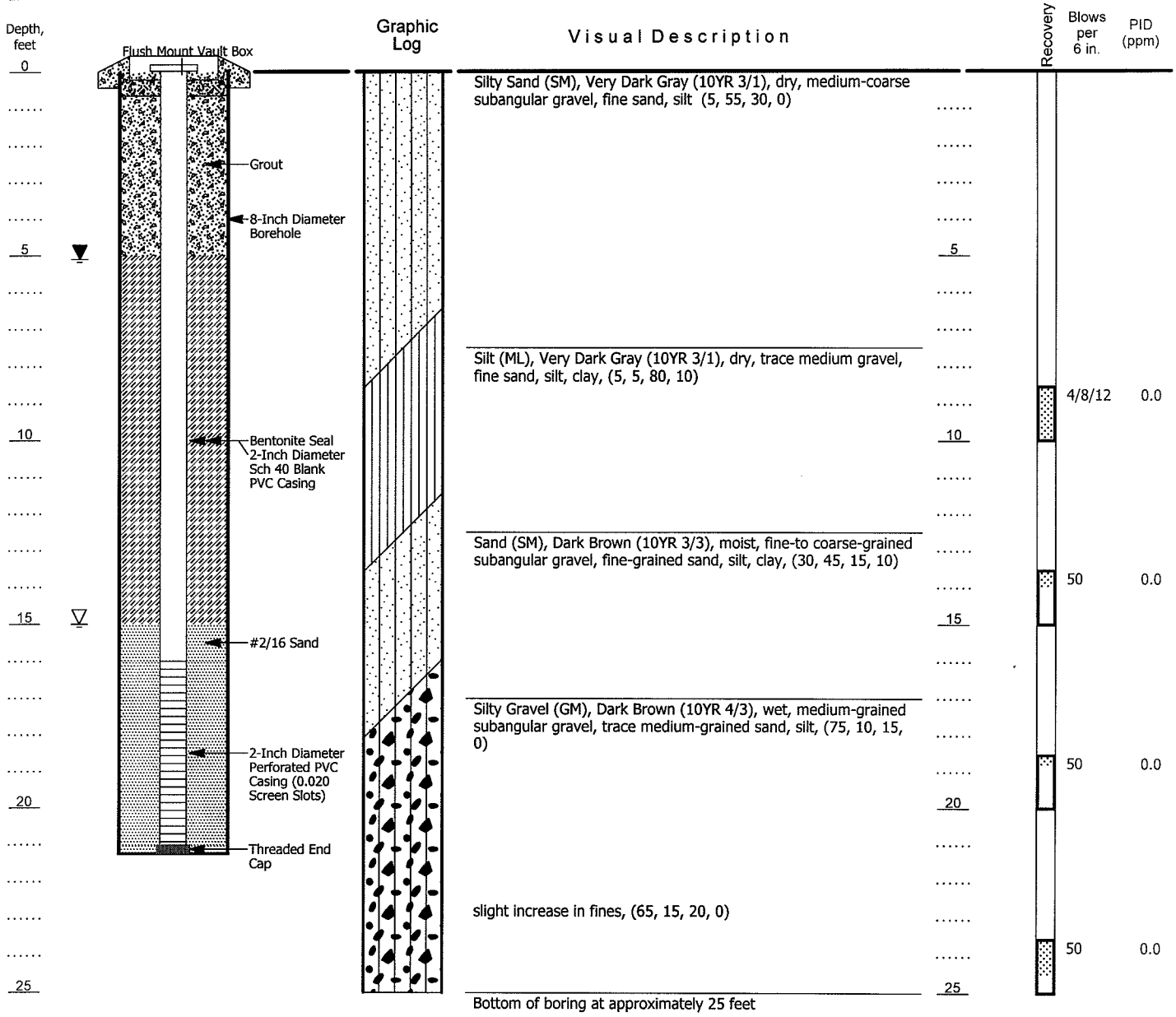
LFR
LEVINE •FRICKE
001-09480-00

Mission Valley

7/3/06 JST/DLB

ENVR SOIL+WELL 001-09480-00 HANSON MISSION VALLEY.GPJ 7/10/06

WELL CONSTRUCTION	LITHOLOGY	SAMPLING DATA



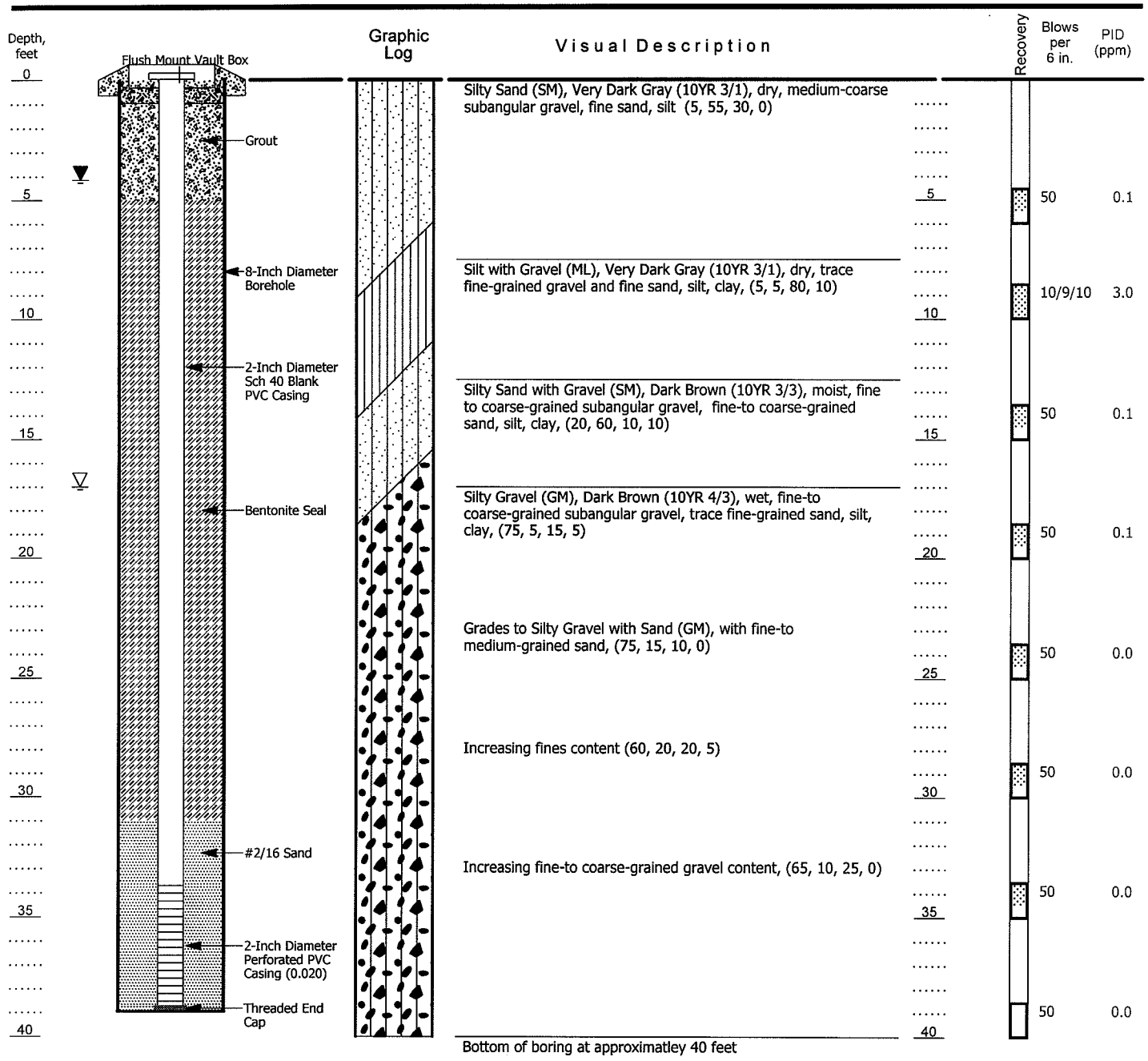
Well Permit Number: 26066
Date Well Drilled: 4/27/06
Drilling Company: Gregg Drilling
Driller: JT
Sampling Method: Split Spoon
LFR Geologist: Jason Triolo

EXPLANATION

- Clay (CL/CH)
- Silt (ML/MH)
- Sand (SP/SW)
- Gravel (GP/GW)
- Modified California Sampler
- Shading indicates sample recovery; black bar to left indicates sample collected for analytical purposes.
- Water level at time of drilling
- Static Water Level

(Gravel, Sand, Silt, Clay) (70, 15, 10, 5)

WELL CONSTRUCTION AND LITHOLOGY FOR WELL MW-12D



Well Permit Number: 26066
Date Well Drilled: 4/27/06
Drilling Company: Gregg Drilling
Driller: JT
Sampling Method: Split Spoon
LFR Geologist: Jason Triolo

EXPLANATION

- Clay (CL/CH)
- Silt (ML/MH)
- Sand (SP/SW)
- Gravel (GP/GW)
- Modified California Sampler
- Shading indicates sample recovery; black bar to left indicates sample collected for analytical purposes.
- Water level at time of drilling
- Static Water Level

(Gravel, Sand, Silt, Clay) (70, 15, 10, 5)

WELL CONSTRUCTION AND LITHOLOGY FOR WELL MW-12LF

APPENDIX C

Laboratory Certified Analytical Report

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

10 July 2006

Katrin Schliewen
LFR Inc. -- Emeryville
1900 Powell Street, 12th Floor
Emeryville, CA 94608-1827

RE: Hanson, Sunol

Enclosed are the results of analyses for samples received by the laboratory on 05/06/06 09:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

John Shepler
Laboratory Director

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-11 LF	T600612-01	Water	05/05/06 15:42	05/06/06 09:00
MW-11 D	T600612-02	Water	05/05/06 11:31	05/06/06 09:00
MW-11 S	T600612-03	Water	05/05/06 11:01	05/06/06 09:00
MW-12 LF	T600612-04	Water	05/05/06 15:16	05/06/06 09:00
MW-12 D	T600612-05	Water	05/05/06 10:36	05/06/06 09:00
MW-12 S	T600612-06	Water	05/05/06 14:54	05/06/06 09:00
MW-10 LF	T600612-07	Water	05/05/06 12:51	05/06/06 09:00
MW-10 D	T600612-08	Water	05/05/06 12:21	05/06/06 09:00
MW-10 S	T600612-09	Water	05/05/06 11:57	05/06/06 09:00
MW-9 LF	T600612-10	Water	05/05/06 14:40	05/06/06 09:00
MW-9 D	T600612-11	Water	05/05/06 14:16	05/06/06 09:00
MW-9 D DUP	T600612-12	Water	05/05/06 14:20	05/06/06 09:00
MW-9 FB	T600612-13	Water	05/05/06 13:54	05/06/06 09:00
MW-9 S	T600612-14	Water	05/05/06 13:49	05/06/06 09:00
Trip	T600612-15	Water	05/05/06 00:00	05/06/06 09:00

SunStar Laboratories, Inc.

John Shepler, Laboratory Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

MW-11 LF

T600612-01 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Purgeable Petroleum Hydrocarbons by EPA 8015m									
C6-C12 (GRO)	**1300**	50	ug/l	1	6050806	05/08/06	05/10/06	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		*89.4 %*	*65-135*		"	"	"	"	
Extractable Petroleum Hydrocarbons by 8015									
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	6050808	05/08/06	05/09/06	EPA 8015m	
Surrogate: Chrysene		*119 %*	*65-135*		"	"	"	"	
Volatile Organic Compounds by EPA Method 8260B									
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/08/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	**1.1**	0.50	"	"	"	"	"	"	
m,p-Xylene	**1.9**	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	**250**	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*112 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*112 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

MW-11 D

T600612-02 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Purgeable Petroleum Hydrocarbons by EPA 8015m									
C6-C12 (GRO)	**13000**	250	ug/l	5	6050806	05/08/06	05/10/06	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		*77.6 %*	*65-135*		"	"	"	"	
Extractable Petroleum Hydrocarbons by 8015									
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	6050808	05/08/06	05/09/06	EPA 8015m	
Surrogate: Chrysene		*128 %*	*65-135*		"	"	"	"	
Volatile Organic Compounds by EPA Method 8260B									
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/08/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	**20**	0.50	"	"	"	"	"	"	
Toluene	**20**	0.50	"	"	"	"	"	"	
Ethylbenzene	**26**	0.50	"	"	"	"	"	"	
m,p-Xylene	**43**	1.0	"	"	"	"	"	"	
o-Xylene	**34**	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	**47**	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*103 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*116 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

MW-11 S

T600612-03 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Purgeable Petroleum Hydrocarbons by EPA 8015m									
C6-C12 (GRO)	**11000**	50	ug/l	1	6050806	05/08/06	05/10/06	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		*99.6 %*	*65-135*		"	"	"	"	
Extractable Petroleum Hydrocarbons by 8015									
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	6050808	05/08/06	05/09/06	EPA 8015m	
Surrogate: Chrysene		*112 %*	*65-135*		"	"	"	"	
Volatile Organic Compounds by EPA Method 8260B									
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/09/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	**8.4**	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*103 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*110 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

MW-12 LF

T600612-04 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Purgeable Petroleum Hydrocarbons by EPA 8015m									
C6-C12 (GRO)	ND	50	ug/l	1	6050806	05/08/06	05/10/06	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		*102 %*	*65-135*		"	"	"	"	
Extractable Petroleum Hydrocarbons by 8015									
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	6050808	05/08/06	05/09/06	EPA 8015m	
Surrogate: Chrysene		*119 %*	*65-135*		"	"	"	"	
Volatile Organic Compounds by EPA Method 8260B									
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/09/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*103 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*97.8 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

MW-12 D

T600612-05 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Purgeable Petroleum Hydrocarbons by EPA 8015m									
C6-C12 (GRO)	ND	50	ug/l	1	6050806	05/08/06	05/10/06	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		*93.6 %*	*65-135*		"	"	"	"	
Extractable Petroleum Hydrocarbons by 8015									
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	6050808	05/08/06	05/09/06	EPA 8015m	
Surrogate: Chrysene		*131 %*	*65-135*		"	"	"	"	
Volatile Organic Compounds by EPA Method 8260B									
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/08/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*110 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

MW-12 S

T600612-06 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Purgeable Petroleum Hydrocarbons by EPA 8015m									
C6-C12 (GRO)	ND	50	ug/l	1	6050806	05/08/06	05/10/06	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		*92.2 %*	*65-135*		"	"	"	"	
Extractable Petroleum Hydrocarbons by 8015									
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	6050808	05/08/06	05/09/06	EPA 8015m	
Surrogate: Chrysene		*112 %*	*65-135*		"	"	"	"	
Volatile Organic Compounds by EPA Method 8260B									
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/08/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	**450**	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*110 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

MW-10 LF

T600612-07 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Purgeable Petroleum Hydrocarbons by EPA 8015m									
C6-C12 (GRO)	**860**	50	ug/l	1	6050806	05/08/06	05/10/06	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		*95.0 %*	*65-135*		"	"	"	"	
Extractable Petroleum Hydrocarbons by 8015									
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	6050808	05/08/06	05/09/06	EPA 8015m	
Surrogate: Chrysene		*102 %*	*65-135*		"	"	"	"	
Volatile Organic Compounds by EPA Method 8260B									
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/08/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	**11**	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	**4.2**	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*112 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

MW-10 D

T600612-08 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Purgeable Petroleum Hydrocarbons by EPA 8015m									
C6-C12 (GRO)	**5900**	50	ug/l	1	6050806	05/08/06	05/10/06	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		*106 %*	*65-135*		"	"	"	"	
Extractable Petroleum Hydrocarbons by 8015									
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	6050808	05/08/06	05/09/06	EPA 8015m	
Surrogate: Chrysene		*97.0 %*	*65-135*		"	"	"	"	
Volatile Organic Compounds by EPA Method 8260B									
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/08/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	**24**	0.50	"	"	"	"	"	"	
Toluene	**9.0**	0.50	"	"	"	"	"	"	
Ethylbenzene	**260**	0.50	"	"	"	"	"	"	
m,p-Xylene	**23**	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*114 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*103 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

MW-10 S

T600612-09 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Purgeable Petroleum Hydrocarbons by EPA 8015m									
C6-C12 (GRO)	ND	50	ug/l	1	6050806	05/08/06	05/10/06	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		*89.8 %*	*65-135*		"	"	"	"	
Extractable Petroleum Hydrocarbons by 8015									
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	6050808	05/08/06	05/09/06	EPA 8015m	
Surrogate: Chrysene		*126 %*	*65-135*		"	"	"	"	
Volatile Organic Compounds by EPA Method 8260B									
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/09/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*120 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

MW-9 LF

T600612-10 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Purgeable Petroleum Hydrocarbons by EPA 8015m									
C6-C12 (GRO)	**5400**	50	ug/l	1	6050806	05/08/06	05/10/06	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		*110 %*	*65-135*		"	"	"	"	
Extractable Petroleum Hydrocarbons by 8015									
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	6050808	05/08/06	05/09/06	EPA 8015m	
Surrogate: Chrysene		*118 %*	*65-135*		"	"	"	"	
Volatile Organic Compounds by EPA Method 8260B									
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/08/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	**12**	0.50	"	"	"	"	"	"	
Toluene	**17**	0.50	"	"	"	"	"	"	
Ethylbenzene	**190**	0.50	"	"	"	"	"	"	
m,p-Xylene	**130**	1.0	"	"	"	"	"	"	
o-Xylene	**20**	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*112 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*104 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

John Shepler, Laboratory Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

MW-9 D

T600612-11 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Purgeable Petroleum Hydrocarbons by EPA 8015m									
C6-C12 (GRO)	**88000**	1000	ug/l	20	6050806	05/08/06	05/10/06	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		*80.8 %*	*65-135*		"	"	"	"	
Extractable Petroleum Hydrocarbons by 8015									
Diesel Range Hydrocarbons	**13**	0.050	mg/l	1	6050808	05/08/06	05/09/06	EPA 8015m	D-08
Surrogate: Chrysene		*117 %*	*65-135*		"	"	"	"	
Volatile Organic Compounds by EPA Method 8260B									
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/08/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	**5500**	25	"	50	"	"	05/09/06	"	
Toluene	**15000**	25	"	"	"	"	"	"	
Ethylbenzene	**4200**	25	"	"	"	"	"	"	
m,p-Xylene	**11000**	50	"	"	"	"	"	"	
o-Xylene	**4000**	25	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	1	"	"	05/08/06	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*110 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*96.0 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

MW-9 D DUP

T600612-12 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Purgeable Petroleum Hydrocarbons by EPA 8015m									
C6-C12 (GRO)	**85000**	1000	ug/l	20	6050806	05/08/06	05/10/06	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		*80.8 %*	*65-135*		"	"	"	"	
Extractable Petroleum Hydrocarbons by 8015									
Diesel Range Hydrocarbons	**6.0**	0.050	mg/l	1	6050808	05/08/06	05/09/06	EPA 8015m	D-08
Surrogate: Chrysene		*92.2 %*	*65-135*		"	"	"	"	
Volatile Organic Compounds by EPA Method 8260B									
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/08/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	**4900**	25	"	50	"	"	05/09/06	"	
Toluene	**14000**	25	"	"	"	"	"	"	
Ethylbenzene	**3700**	25	"	"	"	"	"	"	
m,p-Xylene	**10000**	50	"	"	"	"	"	"	
o-Xylene	**3700**	25	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	1	"	"	05/08/06	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*106 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*114 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*95.8 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

MW-9 FB

T600612-13 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Purgeable Petroleum Hydrocarbons by EPA 8015m									
C6-C12 (GRO)	ND	50	ug/l	1	6050806	05/08/06	05/10/06	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		*93.6 %*	*65-135*		"	"	"	"	
Extractable Petroleum Hydrocarbons by 8015									
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	6050808	05/08/06	05/10/06	EPA 8015m	
Surrogate: Chrysene		*91.2 %*	*65-135*		"	"	"	"	
Volatile Organic Compounds by EPA Method 8260B									
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/08/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*117 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*114 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

MW-9 S

T600612-14 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Purgeable Petroleum Hydrocarbons by EPA 8015m									
C6-C12 (GRO)	**1300**	50	ug/l	1	6050806	05/08/06	05/10/06	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		*97.0 %*	*65-135*		"	"	"	"	
Extractable Petroleum Hydrocarbons by 8015									
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	6050808	05/08/06	05/10/06	EPA 8015m	
Surrogate: Chrysene		*96.2 %*	*65-135*		"	"	"	"	
Volatile Organic Compounds by EPA Method 8260B									
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/08/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	**8.6**	0.50	"	"	"	"	"	"	
Toluene	**24**	0.50	"	"	"	"	"	"	
Ethylbenzene	**40**	0.50	"	"	"	"	"	"	
m,p-Xylene	**22**	1.0	"	"	"	"	"	"	
o-Xylene	**7.8**	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*112 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*100 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

Trip

T600612-15 (Water)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	6050805	05/08/06	05/08/06	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*88.8-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*111 %*	*83.5-119*		"	"	"	"	
Surrogate: Dibromofluoromethane		*118 %*	*81.1-136*		"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

Purgeable Petroleum Hydrocarbons by EPA 8015m - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6050806 - EPA 5030 GC										
Blank (6050806-BLK1)				Prepared: 05/08/06 Analyzed: 05/10/06						
C6-C12 (GRO)	ND	50	ug/l							
Surrogate: 4-Bromofluorobenzene	*43.3*		"	*50.0*		*86.6*	*65-135*			
LCS (6050806-BS1)				Prepared: 05/08/06 Analyzed: 05/10/06						
C6-C12 (GRO)	5830	50	ug/l	5500		106	75-125			
Surrogate: 4-Bromofluorobenzene	*52.2*		"	*50.0*		*104*	*65-135*			
Matrix Spike (6050806-MS1)		**Source: T600612-01**		Prepared: 05/08/06 Analyzed: 05/10/06						
C6-C12 (GRO)	6810	50	ug/l	5500	1300	100	65-135			
Surrogate: 4-Bromofluorobenzene	*52.4*		"	*50.0*		*105*	*65-135*			
Matrix Spike Dup (6050806-MSD1)		**Source: T600612-01**		Prepared: 05/08/06 Analyzed: 05/10/06						
C6-C12 (GRO)	6710	50	ug/l	5500	1300	98.4	65-135	1.48	20	
Surrogate: 4-Bromofluorobenzene	*51.1*		"	*50.0*		*102*	*65-135*			

SunStar Laboratories, Inc.

John Shepler, Laboratory Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6050808 - EPA 3510C GC										
Blank (6050808-BLK1)				Prepared: 05/08/06 Analyzed: 05/09/06						
Diesel Range Hydrocarbons	ND	0.050	mg/l							
Surrogate: Chrysene	*4.29*		*"*	*4.00*		*107*	*65-135*			
LCS (6050808-BS1)				Prepared: 05/08/06 Analyzed: 05/10/06						
Diesel Range Hydrocarbons	16.6	0.050	mg/l	20.0		83.0	75-125			
Surrogate: Chrysene	*4.34*		*"*	*4.00*		*108*	*65-135*			
Matrix Spike (6050808-MS1)	**Source: T600612-01**			Prepared: 05/08/06 Analyzed: 05/10/06						
Diesel Range Hydrocarbons	19.6	0.050	mg/l	20.0	ND	98.0	75-125			
Surrogate: Chrysene	*4.60*		*"*	*4.00*		*115*	*65-135*			
Matrix Spike Dup (6050808-MSD1)	**Source: T600612-01**			Prepared: 05/08/06 Analyzed: 05/10/06						
Diesel Range Hydrocarbons	18.7	0.050	mg/l	20.0	ND	93.5	75-125	4.70	20	
Surrogate: Chrysene	*4.63*		*"*	*4.00*		*116*	*65-135*			

SunStar Laboratories, Inc.

John Shepler, Laboratory Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

Volatile Organic Compounds by EPA Method 8260B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6050805 - EPA 5030 GCMS										
Blank (6050805-BLK1)				Prepared & Analyzed: 05/08/06						
1,2-Dibromoethane (EDB)	ND	1.0	ug/l							
1,2-Dichloroethane	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.50	"							
Tert-amyl methyl ether	ND	2.0	"							
Tert-butyl alcohol	ND	10	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
Methyl tert-butyl ether	ND	1.0	"							
Surrogate: Toluene-d8	*40.8*		*"*	*40.0*		*102*	*88.8-117*			
Surrogate: 4-Bromofluorobenzene	*41.6*		*"*	*40.0*		*104*	*83.5-119*			
Surrogate: Dibromofluoromethane	*43.6*		*"*	*40.0*		*109*	*81.1-136*			
LCS (6050805-BS1)				Prepared & Analyzed: 05/08/06						
Benzene	115	0.50	ug/l	100		115	75-125			
Toluene	110	0.50	"	100		110	75-125			
Surrogate: Toluene-d8	*42.3*		*"*	*40.0*		*106*	*88.8-117*			
Surrogate: 4-Bromofluorobenzene	*44.4*		*"*	*40.0*		*111*	*83.5-119*			
Surrogate: Dibromofluoromethane	*40.9*		*"*	*40.0*		*102*	*81.1-136*			
Matrix Spike (6050805-MS1)	**Source: T600612-01**			Prepared & Analyzed: 05/08/06						
Benzene	115	0.50	ug/l	100	ND	115	75-125			
Toluene	122	0.50	"	100	ND	122	75-125			
Surrogate: Toluene-d8	*41.3*		*"*	*40.0*		*103*	*88.8-117*			
Surrogate: 4-Bromofluorobenzene	*45.2*		*"*	*40.0*		*113*	*83.5-119*			
Surrogate: Dibromofluoromethane	*42.1*		*"*	*40.0*		*105*	*81.1-136*			

SunStar Laboratories, Inc.

John Shepler, Laboratory Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

Volatile Organic Compounds by EPA Method 8260B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6050805 - EPA 5030 GCMS										
Matrix Spike Dup (6050805-MSD1)	**Source: T600612-01**			Prepared & Analyzed: 05/08/06						
Benzene	119	0.50	ug/l	100	ND	119	75-125	3.42	20	
Toluene	122	0.50	"	100	ND	122	75-125	0.00	20	
Surrogate: Toluene-d8	*42.8*		*"*	*40.0*		*107*	*88.8-117*			
Surrogate: 4-Bromofluorobenzene	*44.8*		*"*	*40.0*		*112*	*83.5-119*			
Surrogate: Dibromofluoromethane	*40.4*		*"*	*40.0*		*101*	*81.1-136*			

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

3002 Dow Ave. , Suite 212
Tustin, CA 92780
714.505.4010 Phone
714.505.4010 Fax

LFR Inc. -- Emeryville	Project: Hanson, Sunol	
1900 Powell Street, 12th Floor	Project Number: 001-09480-00	**Reported:**
Emeryville CA, 94608-1827	Project Manager: Katrin Schliewen	07/05/06 10:12

Notes and Definitions

D-08	Results in the diesel organics range are primarily due to overlap from a gasoline range product.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

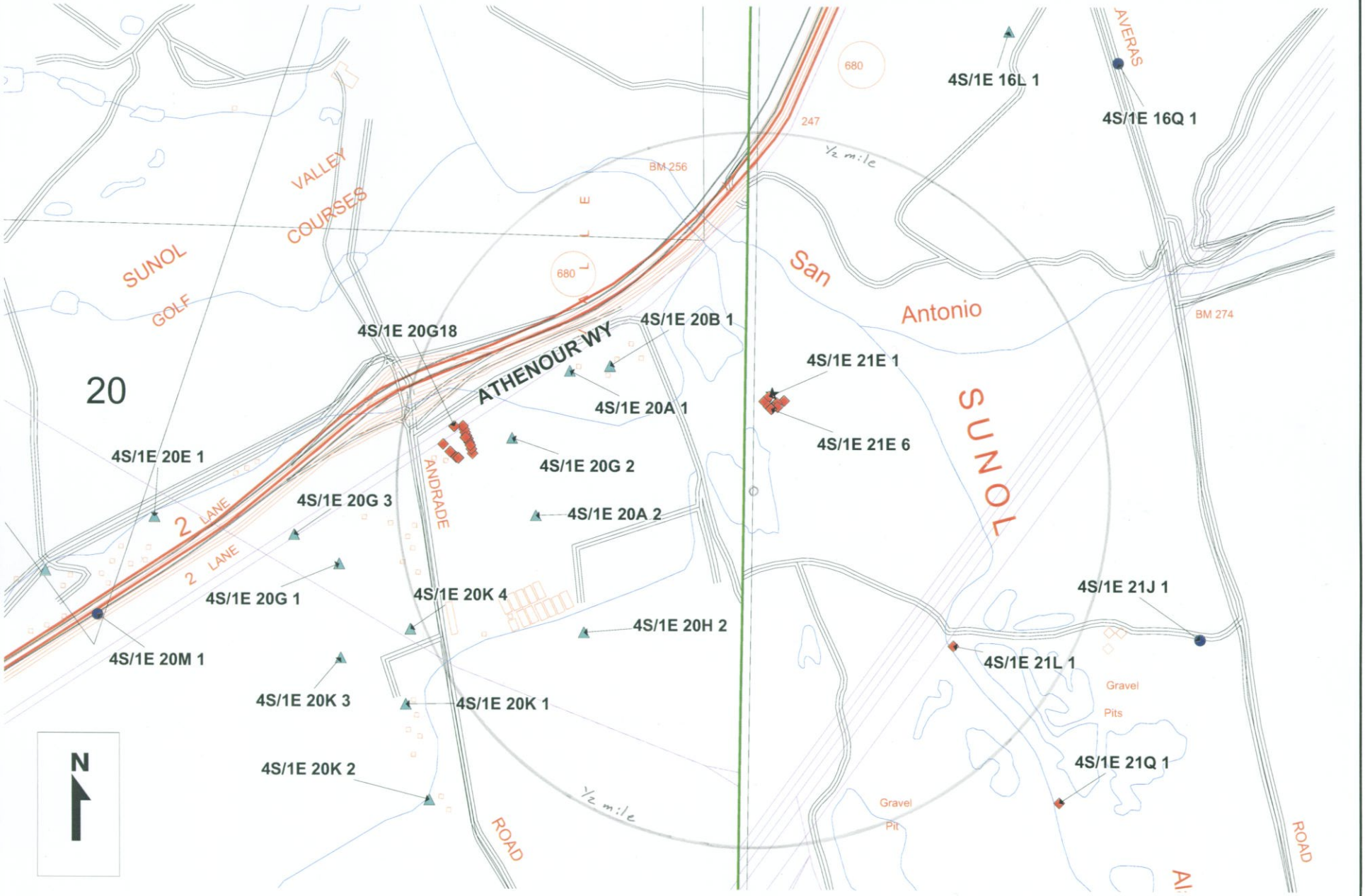
SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

APPENDIX D

Survey of Nearby Wells



	ZONE 7 WATER AGENCY **100 NORTH CANYONS PARKWAY** **LIVERMORE, CA 94551**	**WELL LOCATION MAP**	**SCALE: 1"= 1000 ft** **DATE: 6/14/06** **7999 ATHENOUR WAY** H:\FLOOD\REFERALLS\REFERALLS.WOR

Table D-1
Survey of Wells Located Within 1/2 Mile of the Hanson-Sunol Asphalt Plant
Mission Valley Rock and Asphalt
7999 Athenour Way, Sunol, California

State Well Number	Common Well Name	Well Use	Date of Well Installation	Well Diameter (inches)	Well Depth (feet TOC)	Well Screen Interval Top (feet TOC)	Well Screen Interval Bottom (feet TOC)	Total Depth Drilled (feet bgs)	Well Owner	Well Location: Address	Assessor's Parcel Number	Easting	Northing	Permit Number	Well Driller	Remarks
OFF-SITE WELLS																
Water Supply Wells																
4S/1E 20A 1		sup	2/17/1981	6.0	250.0	40.0	250.0	250.0	BERKELEY READY MIX	7587 ATHENOUR WY	096 0001 008 07	6161565.6	2034701.1	NA	LIETE BROS.	
4S/1E 20G 2		sup	NA	NA	NA	NA	NA	NA	HELYN HAYES, ROY TOVANI	3000 ANDRADE RD	096 0001 007 06	6161129.3	2034198.4	NA	NA	SITE REVIEW 02-056
Domestic Supply Wells																
4S/1E 20H 2		dom	2/3/1977	12.0	240.0	46.0	208.0	240.0	JACK FARNHAM	3540 ANDRADE RD	NA	6161668.2	2032738.8	77137	DELUCCHI WELL &	100GPM
4S/1E 20B 1		dom	5/22/1962	10.0	152.0	23.0	141.0	152.0	JOSEPH ATHENOUR JR	7587 MISSION RD	096 0001 008 07	6161867.3	2034738.4	NA	SILVA BROS.	
Irrigation Supply Wells																
4S/1E 20A 2		irr	12/4/1973	10.0	140.0	25.0	126.0	146.0	FRANCO	ANDRADE RD & ATHENOUR WY	096 0001 007 10	6161308.0	2033616.0	7888	DELUCCHI	120GPM,2HR,20'
Monitoring Wells																
4S/1E 20G17	PZ-1	mon	7/21/2004	1.0	17.0	12.0	17.0	56.0	ALAMEDA CO. HEALTH	3000 ANDRADE RD	096 0001 007 06	1599326.6	393877.4	24084	WEBER, HAYES &	1 OF 2 NESTED
4S/1E 20G18	PZ-1	mon	7/21/2005	1.0	46.5	41.5	46.5	56.0	ALAMEDA CO. HEALTH	3000 ANDRADE RD	096 0001 007 06	1599329.4	393877.4	24084	WEBER, HAYES &	2 OF 2 NESTED
4S/1E 20G 5	CMT-5	mon	12/28/2004	1.0	54.0	21.0	53.0	54.0	ALAMEDA CO. HEALTH	3000 ANDRADE RD	096 0001 007 06	1599420.2	393808.4	24151	WEBER, HAYES &	
4S/1E 20G 6	CMT-6	mon	1/6/2005	1.0	54.0	22.0	53.0	54.0	ALAMEDA CO. HEALTH	3000 ANDRADE RD	096 0001 007 06	1599431.5	393784.9	24151	WEBER, HAYES &	
4S/1E 20G 7	CMT-7	mon	1/7/2005	1.0	59.0	14.0	58.0	60.0	ALAMEDA CO. HEALTH	3000 ANDRADE RD	096 0001 007 06	1599410.3	393831.8	24151	WEBER, HAYES &	
4S/1E 20G 8	CMT-8	mon	1/10/2005	1.0	54.0	22.0	53.0	54.0	ALAMEDA CO. HEALTH	3000 ANDRADE RD	096 0001 007 06	1599402.6	393855.3	24151	WEBER, HAYES &	
4S/1E 20G 9	CMT-9	mon	1/11/2005	1.0	54.0	22.0	53.0	54.0	ALAMEDA CO. HEALTH	3000 ANDRADE RD	096 0001 007 06	1599393.3	393881.3	24151	WEBER, HAYES &	
4S/1E 20G10	CMT-3	mon	1/13/2005	1.0	54.0	22.0	53.0	54.0	ALAMEDA CO. HEALTH	3000 ANDRADE RD	096 0001 007 06	1599448.5	393735.4	24151	WEBER, HAYES &	
4S/1E 20G11	CMT-4	mon	1/5/2005	1.0	54.0	13.0	53.0	54.0	ALAMEDA CO. HEALTH	3000 ANDRADE RD	096 0001 007 06	1599440.5	393757.5	24151	WEBER, HAYES &	
4S/1E 20G12	CMT-11	mon	1/3/2005	1.0	55.0	22.0	54.0	55.0	ALAMEDA CO. HEALTH	3004 ANDRADE RD	096 0001 007 07	1599297.2	393687.3	24152	WEBER, HAYES &	
4S/1E 20G13	CMT-12	mon	1/4/2005	1.0	69.0	23.0	58.0	60.0	ALAMEDA CO. HEALTH	3004 ANDRADE RD	096 0001 007 07	1599244.9	393744.5	24152	WEBER, HAYES &	
4S/1E 20G14	CMT 1	mon	12/22/2005	1.0	54.0	21.0	52.0	55.0	ALAMEDA CO. HEALTH	3220 ANDRADE RD	096 0001 007 14	1599465.4	393674.1	24153	WEBER, HAYES &	
4S/1E 20G15	CMT-2	mon	12/27/2005	1.0	54.0	22.0	53.0	54.0	ALAMEDA CO. HEALTH	3220 ANDRADE RD	096 0001 007 14	1599456.1	393706.9	24153	WEBER, HAYES &	
4S/1E 20G16	CMT-10	mon	1/12/2005	1.0	54.0	22.0	53.0	55.0	ALAMEDA CO. HEALTH	3220 ANDRADE RD	096 0001 007 14	1599343.0	393645.5	24153	WEBER, HAYES &	
4S/1E 20G19	PZ-2	mon	7/22/2004	1.0	29.0	24.0	29.0	49.0	ALAMEDA CO. HEALTH	3000 ANDRADE RD	096 0001 007 06	1599412.5	393793.9	24084	WEBER, HAYES &	1 OF 2 NESTED
4S/1E 20G20	PZ-2	mon	7/22/2004	1.0	49.0	44.0	49.0	49.0	ALAMEDA CO. HEALTH	3000 ANDRADE RD	096 0001 007 06	1599411.4	393792.5	24084	WEBER, HAYES &	2 OF 2 NESTED
4S/1E 20G21	PZ-3	mon	7/23/2005	1.0	21.0	16.0	21.0	55.0	ALAMEDA CO. HEALTH	3000 ANDRADE RD	096 0001 007 06	1599358.8	393641.5	24084	WEBER, HAYES &	1 OF 2 NESTED
4S/1E 20G22	PZ-3	mon	7/23/2005	1.0	49.0	44.0	49.0	55.0	ALAMEDA CO. HEALTH	3000 ANDRADE RD	096 0001 007 06	1599358.8	393639.0	24084	WEBER, HAYES &	2 OF 2 NESTED
4S/1E 21L 1		mon	NA	NA	NA	NA	NA	NA	CITY & COUNT OF S.F.	CALAVERAS RD & ALAMEDA CRK		1603083.2	392237.7	NA	NA	

Table D-1
Survey of Wells Located Within 1/2 Mile of the Hanson-Sunol Asphalt Plant
Mission Valley Rock and Asphalt
7999 Athenour Way, Sunol, California

State Well Number	Common Well Name	Well Use	Date of Well Installation	Well Diameter (inches)	Well Depth (feet TOC)	Well Screen Interval Top (feet TOC)	Well Screen Interval Bottom (feet TOC)	Total Depth Drilled (feet bgs)	Well Owner	Well Location: Address	Assessor's Parcel Number	Easting	Northing	Permit Number	Well Driller	Remarks
ON-SITE WELLS																
Monitoring Wells																
4S/1E 21E 1	MW-1	mon	6/18/1998	2.0	20.0	5.0	20.0	20.0	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601698.0	394107.2	98088	TANK PROTECT	
4S/1E 21E 2	MW-2	mon	6/18/1998	2.0	21.0	6.0	21.0	21.0	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601694.1	394033.7	98088	TANK PROTECT	**ABANDONED**
4S/1E 21E 4	MW-2S	mon	1/4/2005	2.0	8.0	3.5	7.5	30.0	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601713.9	394017.9	24147	TAIT ENVT	1 OF 3 NESTED
4S/1E 21E 5	MW-2M	mon	1/4/2005	2.0	19.0	14.0	18.5	30.0	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601716.4	394013.6	24147	TAIT ENVT	2 OF 3 NESTED
4S/1E 21E 6	MW-2D	mon	1/4/2005	2.0	25.0	25.0	29.0	30.0	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601713.6	394013.6	24147	TAIT ENVT	3 OF 3 NESTED
4S/1E 21E 3	MW-3	mon	6/18/1998	2.0	20.0	5.0	20.0	20.0	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601761.1	394028.1	98088	TANK PROTECT	
4S/1E 21E 7	MW-4S	mon	1/5/2005	2.0	8.5	3.0	8.0	22.5	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601808.9	394074.7	24147	TAIT ENVT	1 OF 2 NESTED
4S/1E 21E 8	MW-4D	mon	1/5/2005	2.0	22.0	17.0	21.5	22.5	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601812.0	394074.7	24147	TAIT ENVT	2 OF 2 NESTED
4S/1E 21E 9	MW-5S	mon	1/6/2005	2.0	7.5	2.5	7.0	24.0	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601756.0	394060.3	24147	TAIT ENVT	1 OF 2 NESTED
4S/1E 21E10	MW-5D	mon	1/6/2005	2.0	22.0	17.0	21.5	24.0	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601757.1	394059.2	24147	TAIT ENVT	2 OF 2 NESTED
4S/1E 21E11	MW-6S	mon	1/5/2005	2.0	15.0	5.0	14.5	30.0	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601728.6	394025.2	24147	TAIT ENVT	1 OF 2 NESTED
4S/1E 21E12	MW-6D	mon	1/5/2005	2.0	29.5	24.5	29.0	30.0	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601727.2	394025.2	24147	TAIT ENVT	2 OF 2 NESTED
4S/1E 21E13	MW-7S	mon	1/6/2005	2.0	8.0	5.0	7.5	26.0	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601675.1	394077.3	24147	TAIT ENVT	1 OF 2 NESTED
4S/1E 21E14	MW-7D	mon	1/6/2005	2.0	25.0	20.5	24.5	26.0	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601676.5	394078.7	24147	TAIT ENVT	2 OF 2 NESTED
4S/1E 21E15	MW-8	mon	1/6/2005	2.0	15.0	5.0	14.5	16.0	MISSION VALLEY ROCK	7999 ATHENOUR WY	096 0080 001 07	1601661.0	394070.8	24147	TAIT ENVT	
4S/1E 21E16	MW-9S	mon	4/26/2006	2.0	12.3	5.3	12.3	12.0	HANSON AGGREGATES	7999 ATHENOUR WY	096 0080 001 07			26066	LFR	1 OF 3 CLUSTERED
4S/1E 21E17	MW-9D	mon	4/26/2006	2.0	24.4	18.9	23.9	26.0	HANSON AGGREGATES	7999 ATHENOUR WY	096 0080 001 07			26066	LFR	2 OF 3 CLUSTERED
4S/1E 21E18	MW-9LF	mon	4/26/2006	2.0	38.6	33.3	38.3	40.0	HANSON AGGREGATES	7999 ATHENOUR WY	096 0080 001 07			26066	LFR	3 OF 3 CLUSTERED
4S/1E 21E19	MW-10S	mon	5/1/2006	2.0	9.8	4.8	9.8	10.0	HANSON AGGREGATES	7999 ATHENOUR WY	096 0080 001 07			26066	LFR	1 OF 3 CLUSTERED
4S/1E 21E20	MW-10D	mon	5/1/2006	2.0	21.0	15.5	20.5	22.0	HANSON AGGREGATES	7999 ATHENOUR WY	096 0080 001 07			26066	LFR	2 OF 3 CLUSTERED
4S/1E 21E21	MW-10LF	mon	5/1/2006	2.0	39.9	34.4	39.4	40.0	HANSON AGGREGATES	7999 ATHENOUR WY	096 0080 001 07			26066	LFR	3 OF 3 CLUSTERED
4S/1E 21E22	MW-11S	mon	4/28/2006	2.0	9.8	4.8	9.8	10.0	HANSON AGGREGATES	7999 ATHENOUR WY	096 0080 001 07			26066	LFR	1 OF 3 CLUSTERED
4S/1E 21E23	MW-11D	mon	4/28/2006	2.0	20.8	15.3	20.3	21.0	HANSON AGGREGATES	7999 ATHENOUR WY	096 0080 001 07			26066	LFR	2 OF 3 CLUSTERED
4S/1E 21E24	MW-11LF	mon	4/27/2006	2.0	38.3	32.8	37.8	40.0	HANSON AGGREGATES	7999 ATHENOUR WY	096 0080 001 07			26066	LFR	3 OF 3 CLUSTERED
4S/1E 21E25	MW-12S	mon	4/27/2006	2.0	11.6	4.6	11.6	12.0	HANSON AGGREGATES	7999 ATHENOUR WY	096 0080 001 07			26066	LFR	1 OF 3 CLUSTERED
4S/1E 21E26	MW-12D	mon	4/27/2006	2.0	21.5	16.0	21.0	22.0	HANSON AGGREGATES	7999 ATHENOUR WY	096 0080 001 07			26066	LFR	2 OF 3 CLUSTERED
4S/1E 21E27	MW-12LF	mon	4/27/2006	2.0	39.2	33.7	38.7	40.0	HANSON AGGREGATES	7999 ATHENOUR WY	096 0080 001 07			26066	LFR	3 OF 3 CLUSTERED

Notes:
Well use = use or function of the well, for example: sup = supply well; dom = domestic well; irr = irrigation well; mon = monitoring well
Total depth drilled = total depth drilled by driller prior to well installation
Well driller = well drilling or consulting geologist company
feet TOC = feet below the top of casing
feet bgs = feet below ground surface
NA = not available

APPENDIX E

Updated Site Conceptual Model

CONTENTS

FIGURES

1.0 INTRODUCTION

This Appendix contains a site conceptual model (SCM) for the former fuel dispensing facility located at the Asphalt Plant ("the Site") of the Hanson Aggregates Northern California gravel quarry ("the Facility"). Development of an initial SCM was a required element of the Work Plan for Additional Investigation at the Asphalt Plant ("Work Plan"), as described in the Alameda County Environmental Health (ACEH) comment letter dated November 3, 2005. The purpose of the SCM is to provide a framework for understanding site conditions with respect to the fate and transport of chemicals of potential concern (COPCs). The SCM is a working hypothetical model of the Site that reflects what is known about the site geology (including the potential presence of preferential pathways), the site hydrogeology, the release history at the Site, the time history of concentration of COPCs in the site groundwater and soils, potential attenuation mechanisms, and the transport mechanisms, which can impact the movement of chemicals released to the subsurface at the Site. The SCM can be used to evaluate the potential for various ecological or human receptors to be affected by site releases and to estimate the impact of these releases on potential receptors. The SCM provides a mechanism to determine if additional data are required to further refine the SCM (to fill data gaps) and to assure that any additional data to be gathered are required for making a remedial decision.

The SCM, previously submitted in Appendix B of the Work Plan, has been updated in this report to incorporate the findings of the recent additional investigation conducted to install 12 new groundwater monitoring wells.

2.0 HISTORY OF QUARRY OPERATIONS

Operations at the Facility began in the early 1950s (Saia 2006). A series of gravel pits were dug across the Facility along a north-south axis parallel to Alameda Creek. Many of these pits were subsequently used as desilting basins and in this process were filled with silt. The active pit at the time the underground storage tanks (USTs) were first installed was located west of the former UST location. The pit directly north of (and almost adjacent to) the USTs had been filled with silt by the time the USTs were installed. The asphalt plant began operations on a portion of the Facility approximately in the early 1980s. During the late 1980s or early 1990s, gravel mining operations in the active pit west of the USTs and the Asphalt Plant were ended and the pit was converted to a holding pond for wash water. Operations were then begun in a gravel pit located east of the former UST location.

3.0 GEOLOGY

Based on the borings installed at the former UST site and the Asphalt Plant by Tait Environmental Management, Inc. (Tait 2005), and more recently by LFR Inc. (LFR) during the installation of 12 new groundwater monitoring wells (April and May 2006), the subsurface in the vicinity of the former USTs consists of approximately 10 to 20 feet of relatively less pervious silts, clays, and clayey gravels overlying approximately 20 to 30 feet of relatively more permeable fine- to coarse-grained gravels considered to be the main water-bearing stratum. The Livermore Formation, which underlies the main water-bearing stratum, may be somewhat less pervious compared to the overlying strata due to increased fines content encountered approximately at 30 to 35 feet below ground surface (bgs). Previous investigations concluded that the transition to the Livermore Formation occurs approximately 40 feet bgs (Saia 2006). The 40-foot depth of the bottom of the water-bearing formation was based on observation of leakage into the active gravel pits that have existed on all sides of the former UST location. Water was observed to infiltrate from the top 40 feet of the pits, but not from deeper strata. The relative lack of water below 40 feet was supported by the deep borings installed by Treadwell & Rollo (1991) as part of the North Quarry project. Treadwell & Rollo found that the alluvium overlying the Livermore Formation was much more permeable than the Livermore Formation. Perched groundwater was locally present in the Livermore Formation, but generally the soils are described as moist or dry on the boring logs.

4.0 HYDROGEOLOGY

4.1 Regional Hydrogeology

Regional groundwater flow in the vicinity of the former USTs is to the north-northwest paralleling Alameda Creek (DWR 1980). The majority of groundwater transport takes place in the alluvium overlying the Livermore Formation (Treadwell & Rollo 1991).

4.2 Local Hydrogeology

4.2.1 Impact of Quarry Operations on Groundwater Flow

Local groundwater transport in the vicinity of the former USTs is affected by past quarry operations. The location of the former USTs has not been mined, but this area is surrounded on all four sides by former gravel pits. The gravel pits were excavated deeply into the Livermore Formation, far below the bottom of the main water-bearing unit beneath the Facility. Subsequently, the pits directly north and east of the former USTs were used as desilting basins and are now filled with silt. These silts are likely characterized as having a hydraulic conductivity orders of magnitude lower than the gravel of the main water-bearing formation. Hence, the former gravel pits north and

east of the former USTs effectively act as groundwater flow barriers. The northern pit had been filled with silt by the time the USTs were installed in 1980. The eastern pit was filled during the 1990s.

According to a review of aerial photographs (included as Attachment 1 to the initial SCM [Appendix B of the Work Plan]), the pit located directly to the west of the former USTs (currently the wash water pit) was excavated between 1982 and 1993. During the operation of the pit, the groundwater gradient in the vicinity of the USTs was likely to the west, controlled primarily by dewatering at the pit. By 1993, this pit was being used to store wash water and would no longer have drawn groundwater to it. The surface of the wash water pond is thought to represent the current groundwater surface (Saia 2006) and likely is not a significant groundwater recharge source.

The former gravel pit located directly north of the former UST location is probably causing a groundwater mound to form along its entire western and southern boundary. The mounding is likely caused by a combination of surface water flowing off of the relatively impervious surface of the former pits and into the relatively more pervious native soils and also by the damming effect of the silt-filled pits on groundwater flow. The vertical gradient at the nested well pairs installed in January 2005 is uniformly down, supporting the hypothesis that the upper alluvium is recharging the water-bearing formation beneath it (Tait 2005).

4.2.2 Groundwater Flow Directions

Recent groundwater monitoring reports have shown a shift in groundwater flow direction from easterly to southeasterly. The apparent change in groundwater flow direction is probably an artifact caused by contouring water elevation data from wells screened in the main water-bearing formation with wells screened in the upper 20 feet of the Site (for example monitoring well MW-1).

Initial water elevation data from the newly installed groundwater monitoring wells indicate that the groundwater flow direction is approximately toward the east-southeast, with a more easterly flow direction in the shallower wells compared to a more southeasterly direction in the wells assumed to be completed in the top of the Livermore Formation. Water elevations from both the shallow and deep wells indicate an easterly groundwater flow direction.

4.2.3 Change in Groundwater Table Elevation

The groundwater table elevation has varied over the history of the Site, sometimes with great rapidity (the groundwater table rose 5.2 feet between September and December 2001 at MW-1). When the excavation for the UST removal was first opened, the groundwater table was located 10 feet bgs (Tank Protect Engineering [TPE] 1996). Water levels measured by LFR in the new groundwater monitoring wells on May 5,

2005 ranged approximately from 1.5 to 5.4 feet bgs. Results from recent quarterly groundwater monitoring events show that the groundwater table has been as close as approximately 0.7 foot to the ground surface (MW-1 in March 2006; Tait 2006). The current groundwater fluctuations likely are seasonal, resulting from rainfall infiltration.

4.2.4 Probable Groundwater Flow Directions during the 1980s and 1990s

Groundwater flow directions during the period prior to the installation of groundwater monitoring wells at the Site cannot be precisely determined. During the early 1980s and 1990s, while the USTs were still in operation and there was an open gravel pit to the west, there would likely have been a groundwater gradient to the west as groundwater was diverted into the open gravel pit. Later, after the gravel pit to the west was closed and new mining operations began to the east, the direction of groundwater flow would likely have shifted to the east (where it is today).

4.2.5 Summary of Local Hydrogeology

In summary, groundwater flow conditions in the vicinity of the former USTs are likely controlled by low permeability barriers (former gravel pits that have been used as desilting basins). Groundwater mounds against the former pits in the overlying, more clayey, formation between the surface and approximately 20 feet bgs. Groundwater then percolates into the main water-bearing formation and moves in an easterly direction from the former UST location toward Alameda Creek. Eventually, the groundwater joins the main aquifer flow along the course of Alameda Creek to the north.

During the early period of UST operations (1979 to 1990), groundwater in the vicinity of the USTs likely flowed to the west toward the open gravel pit.

The rapid rising and falling of the groundwater table may have spread released petroleum products across the local area. Pockets of free products likely remain in the vadose zone, and within the aquifer in locations where lenses of product can be trapped beneath low-permeability soil lenses.

5.0 HISTORY OF UST OPERATIONS

5.1 Installation

Four USTs were installed at the Site (Groundwater Resource Consultants [GRC] 1986). Their approximate locations are shown on Figure 2 of the Work Plan. The first 10,000-gallon diesel UST (UST D4) was installed at the Site in 1973. Two additional 10,000-gallon USTs were installed in 1979 and 1980. A 2,000-gallon gasoline UST was installed in 1980. These last three tanks are the source of the petroleum hydrocarbons

currently being investigated at the Site. At the time of GRC's site investigation in 1985, the four tanks were reported to be in good condition with no evidence of releases.

Tank D4, a half aboveground, half below ground 10,000-gallon diesel tank, was removed from the Site in 1995. The tank had formerly been used in plant operations, not for fueling vehicles. Hence, the number of incidental petroleum releases from this tank would have been limited. Exploratory trenches were dug across the former tank location. The diesel-range organic compound concentrations detected in soil samples collected from the trench ranged from non-detect to 58 parts per million (ppm; TPE 1997).

5.2 Condition at Closure

At the time of tank closure in June 1996, the three USTs removed from the asphalt plant area were found to be in good condition with no holes (TPE 1996). A hole one-quarter inch in diameter was detected in a fuel line. UST D4 had been removed from nearby, southeast of the Site, at an earlier date and is not thought to have released significant quantities of diesel fuel to the environment.

5.3 Expected Types of Releases

Based on the report by TPE at the time of the tank closure, it appears that the main sources of petroleum products released to the site vadose zone likely were incidental spills during fueling operations and tank refilling. It is unknown when the hole in the fuel line occurred. While significant quantities of petroleum hydrocarbons could have been released through the hole, the releases would have occurred only during fueling operations and would not have resulted in the release of the entire tank contents.

Figure E-1 shows a graphical representation of the release SCM and the transport mechanisms that could be affecting the movement of the released petroleum products at the Site.

6.0 CURRENT UNDERSTANDING OF THE NATURE AND EXTENT OF CONTAMINATION

6.1 Nature

Incidental releases of diesel fuel and gasoline (including gasoline containing methyl tertiary-butyl ether [MtBE]) occurred at the Site. These products were likely carried in a number of directions by the changing groundwater gradients across the Site. Any residual free product (source material) left in the site subsurface is likely trapped in isolated pockets.

6.2 Horizontal Extent

The highest concentrations of petroleum products, almost entirely gasoline-range hydrocarbons, recently have been detected in groundwater samples collected from groundwater monitoring well MW-7D and in newly installed well MW-9D. Wells MW-7D and MW-9D are located approximately 40 to 70 feet west and northwest of the former USTs. The petroleum hydrocarbons in the gasoline range (TPHg) detected in groundwater samples collected from wells MW-7D and MW-9D likely migrated to this area during gravel mining operations in the current wash water pond when the groundwater gradient would have been strongly to the west from the former UST location. An indication of the relative age of this TPHg is that no MtBE has been detected in groundwater samples collected from the vicinity of wells MW-7S/D and MW-9S/D/LF. The location and type of contamination detected in groundwater samples collected from wells MW-7D and MW-9D are consistent with a past groundwater gradient to the west.

The relatively elevated TPHg concentrations detected in samples from wells MW-7D and MW-9D appear to represent a pocket of residual petroleum products in the vicinity of these two wells. The extent of the local elevated TPHg concentrations is bounded to the west by MW-8, to the south by MW-2D, and to the east by MW-5D and MW-1. There is no bounding groundwater monitoring well to the north of MW-9D. A second local area of elevated TPHg concentrations was identified by samples collected from newly installed wells MW-11S and MW-11D. The extent of the TPHg impact in the vicinity of well cluster MW-11S/D/LF is bounded to the west by well cluster MW-12S/D/LF, to the north by wells MW-2S/M/D, and to the northeast by well MW-3. There is no bounding groundwater monitoring well to the south and southeast of well cluster MW-11S/D/LF.

The lateral extent of MtBE in the site groundwater appears to be localized in the southern half of the Site, based on MtBE concentrations detected in nested wells MW-2S/M/D, MW-3, MW-6S/D, and wells cluster MW-11S/D/LF. The extent of MtBE in the site groundwater is bounded to the north, east, and west, but not to the south.

6.3 Vertical Extent

The deepest groundwater samples have been collected from wells screened approximately between 35 and 40 feet bgs and into the top of the Livermore Formation. Although the Livermore Formation is believed to be relatively less permeable than the overlying water-bearing stratum, the vertical extent of petroleum hydrocarbon impact appears to extend into the top of the Livermore Formation. The vertical extent of impact has not been fully characterized in the areas north, east, and south of the former USTs.

6.4 Time History of Petroleum Hydrocarbon Concentrations

Diesel-range total petroleum hydrocarbon (TPHd) concentrations were once as high as 480 ppm, but are now only being detected sporadically in groundwater samples collected at the Site. The only significant TPHd concentrations currently being detected are in groundwater samples collected from monitoring well MW-7S (0.66 ppm).

TPHg concentrations are more elevated and more persistent. In wells installed in 1998, TPHg concentrations detected in samples of groundwater have fallen from a maximum of 29 ppm to 0.41 ppm in MW-1; 24 ppm to 0.012 ppm in MW-2; and 0.59 ppm to undetected (less than 0.05 ppm) in MW-3. However, in wells installed in 2005 and recently in 2006, TPHg concentrations up to 1,300 ppm have been detected (sample collected from MW-7D in December 2005). Two primary areas of elevated TPHg have been identified, namely in the vicinity of wells MW-7S/D and MW-9S/D/LF, and in the vicinity of wells MW-11S/D/LF. These results are consistent with a widely scattered, discontinuous distribution of petroleum products remaining from releases that took place in the early 1990s rather than a single significant pool of hydrocarbons steadily discharging to site groundwater.

The 12 new groundwater monitoring wells also were sampled for the presence of lead scavengers, 1,2-dichloroethane (1,2-DCA), and ethylene dibromide (EDB), which were additives of leaded gasoline until the late 1980s. Neither 1,2-DCA nor EDB was detected in any of the groundwater samples collected on May 5, 2006. The absence of lead scavengers in groundwater indicates that the TPHg release to groundwater likely occurred after leaded gasoline was phased out.

7.0 RECEPTORS/PATHWAYS

Figure E-2 is a schematic showing the complete exposure pathways due to the petroleum releases at the Site. A complete exposure pathway includes a source, a media through which the contamination is moved, and a receptor that comes into contact with the media. For this Site, the source is believed to be incidental releases of petroleum products (including MtBE) and the affected media are soil, groundwater, air, and, potentially, surface water. Potential receptors are site workers and site visitors and, potentially, if the site use were to change, the public through consumption of affected groundwater or surface water.

It is not clear if a complete pathway exists between the site release and surface water. It is not clear if there are sufficient quantities of petroleum products in the groundwater that they could migrate to a groundwater receptor.

8.0 TRANSPORT MECHANISMS

The primary mechanisms affecting the petroleum hydrocarbons in site groundwater are probably dilution and attenuation. A typical hydraulic conductivity for clean gravels is 10 centimeters per second (Holtz and Kovacs 1981, page 210). A typical effective porosity for gravels is 19 percent (U.S. EPA 1989, pages 3-11). The average hydraulic gradient in the main water-bearing formation in the second and third quarters of 2005 was approximately 0.005 foot per foot to the east. Hence, the average groundwater velocity was approximately 750 feet per day. If the Site is 200 feet wide and 20 feet deep, approximately 1.5 billion gallons of water flow through the Site every year.

While some biological activity is likely taking place at the Site, the rapid dilution that takes place downgradient from the former USTs likely dilutes the petroleum products to a level far below where biological activity can take place. Biological activity in the upper 20 feet of the subsurface is probably more pronounced and may account for the disappearance of TPHd-range hydrocarbons from the Site.

A water line is shown crossing the Site in past reports. This water line could be providing a preferential pathway for petroleum migration at the Site. The boring log for MW-2, which contained free product upon installation, indicates that the boring may have intersected utility trench backfill material.

9.0 DATA GAPS

The following data gaps have been identified:

- Extent of TPHg in groundwater to the north of well cluster MW-9S/D/LF.
- Extent of TPHg and MtBE in groundwater to the south of well cluster MW-11S/D/LF.
- The vertical extent of TPHg and MtBE.
- The capacity of the site aquifer to retard petroleum transport and degrade petroleum hydrocarbons.

10.0 REFERENCES

Alameda County Environmental Health (ACEH). 2005. Letter to Mr. W.M. Calvert, Mission Valley Rock Company from Mr. Jerry Wickham. November 3.

———. 2006. Fuel Leak Case No. RO0000207, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, California – Work Plan Approval. February 3.

California Department of Water Resources (DWR). 1980. Bulletin No. 118-80, Ground Water Basins in California, Sunol Ground Water Basin description. Revised May 2.

Groundwater Resource Consultants (GRC). 1986. Hazardous Materials Management Plan. February 27.

Holtz, Robert, and William Kovacs. 1981. An introduction to Geotechnical Engineering, Prentice Hall, New York.

LFR Inc. (LFR). 2006. Work Plan for Additional Investigation at the Asphalt Plant, Hanson Aggregates Mission Valley Rock Facility, 7999 Athenour Way, Sunol, Alameda County, California. January 17.

Saia, Robert. 2006. Hanson Operations Manager, Personal Communication. January 10.

Tait Environmental Management, Inc. (Tait). 2005. Third Quarter 2005 Groundwater Monitoring and Sampling Report, Mission Valley Rock Company. October 14.

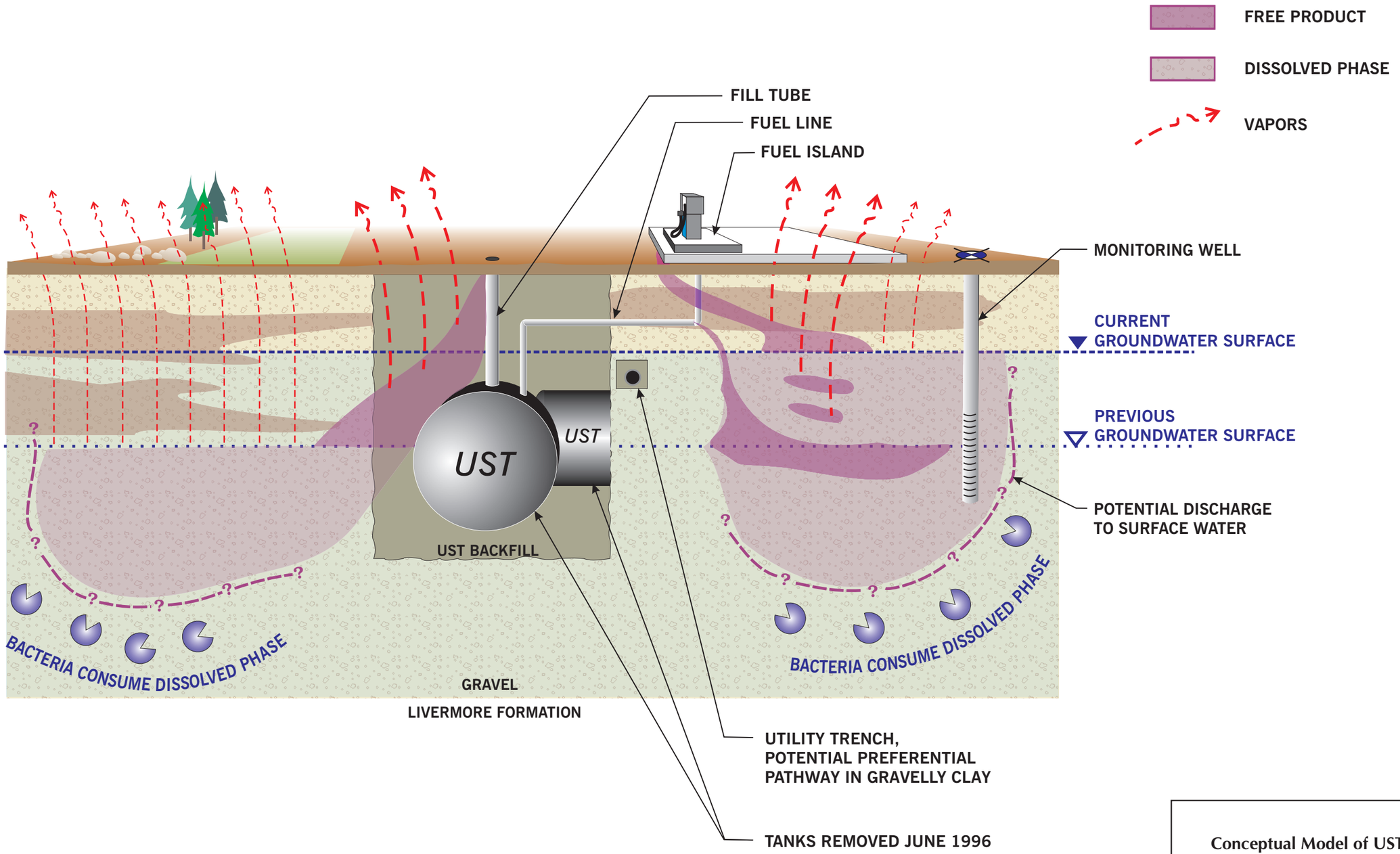
———. 2006. Summary Report, Environmental Activities, Mission Valley Rock Company, 7999 Athenour Way, Sunol, California. May 16.

Tank Protect Engineering (TPE). 1996. Tank Closure Report, Mission Valley Rock. August 12.

———. 1997. Stockpile Soil Remediation and Exploratory Trenching Report. October 20.

Treadwell & Rollo. 1991. Geotechnical and Geologic Investigation, North Quarry, Sunol, California, Mission Valley Rock Company. August.

U.S. Environmental Protection Agency (U.S. EPA). 1989. Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Interim Final Guidance, PG89-151047. April.



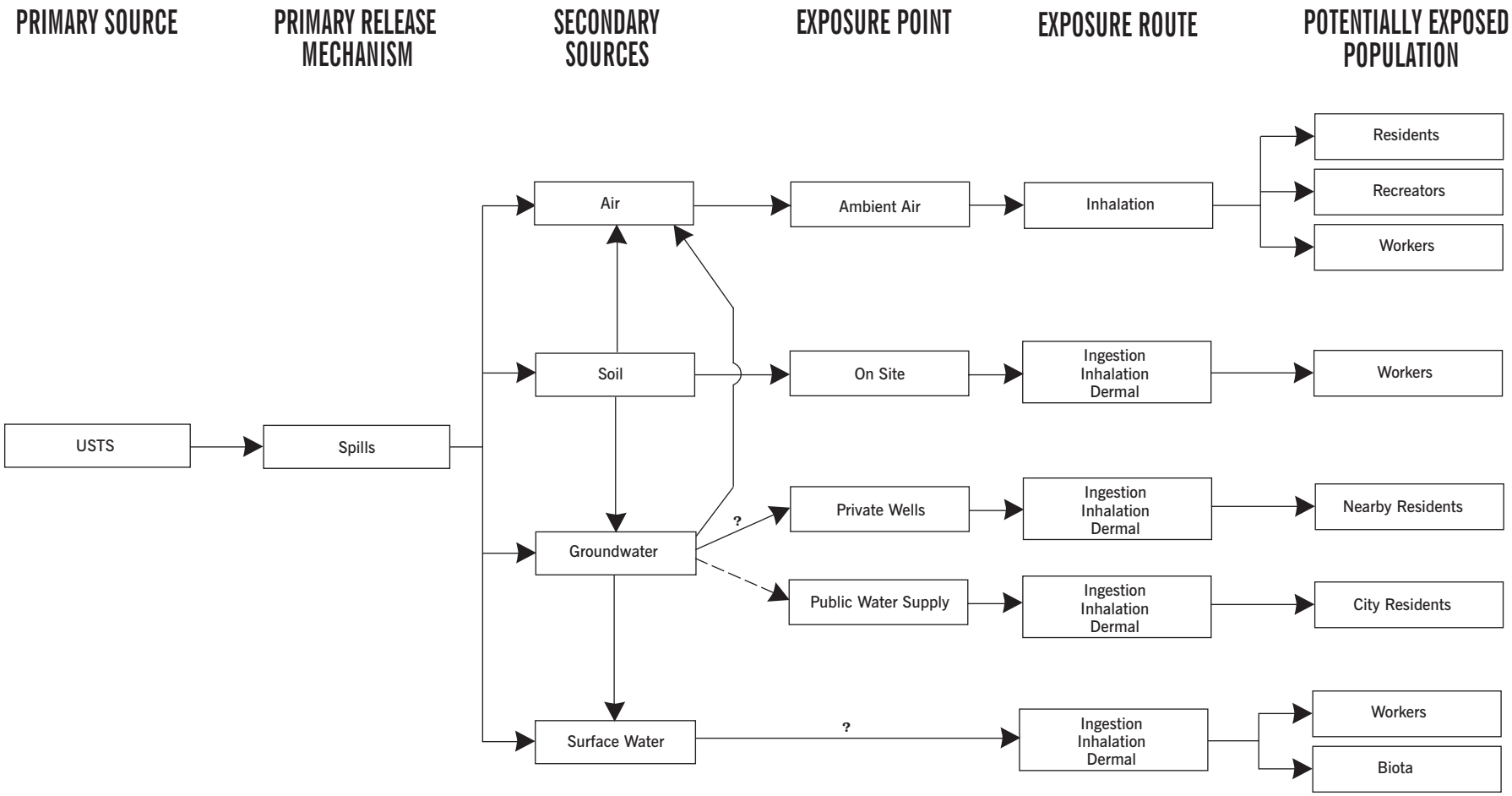
DESIGN\001\09480\00\001\CONCEPTUAL\GEOLOGIC CROSS SECTION.CDR

Conceptual Model of UST Fuel Leakage

Hanson Aggregates, Sunol, California

LFR

Figure E-1



Legend

- Complete pathway
- Incomplete pathway
- ? Potentially complete

DRAFT PRIVILEGED AND CONFIDENTIAL
ATTORNEY - CLIENT WORK PRODUCT

Conceptual Site Model for Complete Exposure Pathways

Hanson Aggregates, Sunol, California

LFR LEVINE•FRICKE

Figure E-2

DESIGN\001\09480\00\09480_Conceptual Site Model.ai