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October 6, 2006

Mr. Donald Hwang
Alameda County Environmental Health Services
1131 Harbor Bay Parkway Suite 250
Alameda, CA 94502

RE: **No Further Action Analysis and Human Health Risk Assessment**
Former 76 Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California

SECOR Project No.: 77CP.01631.08.1330

Dear Mr. Hwang:

On behalf of ConocoPhillips, SECOR International Incorporated (SECOR) is forwarding our *No Further Action Analysis and Human Health Risk Assessment* Report, dated October 5, 2006. If you have questions or comments regarding this submission, please do not hesitate to contact Diane Barclay at (916) 861-0400.

Sincerely,
SECOR International Incorporated

Diane M. Barclay
Senior Geologist, C.H.G.

Attachments: SECOR's *No Further Action Analysis and Human Health Risk Assessment* Report, dated October 5, 2006

cc: Mr. Thomas Kosel, ConocoPhillips
Ms. Rebecca Seevers, Target Corporation – Environmental Services, 33 South 6th Street, CC—3425 Minneapolis, MN 55402
Mr. Alan Guttenberg, Guttenberg, Rapson and Colvin LLP, 101 Lucas Valley Road Suite 216, San Rafael, CA 94903
Mr. Gary Ragghianti, Ragghianti Freitas LLP, 874 Fourth Street, Suite D, San Rafael CA 94901
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Mr. Steve Osborne, Fugro West, Inc., 1000 Broadway, Suite 200, Oakland, CA 94607
Mr. Bob Clark-Riddell, Pangea Environmental Services, Inc, 1710 Franklin Street, Suite 200, Oakland, CA 94612

ConocoPhillips

October 5, 2006

Mr. Don Hwang
Alameda County Health Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: **Document Transmittal**
Fuel Leak Case
76 Station #7004
15599 Hesperian Blvd.
San Leandro, CA

Dear Mr. Hwang:

Please find attached Secor's *No Further Action Analysis and Human Health Risk Assessment dated October 5, 2006* for the above referenced site. I declare, under penalty of perjury, that to the best of my knowledge the information and/or recommendations contained in the attached proposal or report is true and correct.

If you have any questions or need additional information, please call me at (916) 558-7666.

Sincerely,

Thomas H. Kosel
Site Manger, Risk Management and Remediation
ConocoPhillips
76 Broadway, Sacramento, CA 95818

Attachment
cc: Diane Barclay, Secor

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NO FURTHER ACTION ANALYSIS AND HUMAN HEALTH RISK ASSESSMENT

Former 76 Service Station No. 7004
15555 Hesperian Boulevard
San Leandro, California

SECOR Project No. 77CP.67004.08.0010

October 5, 2006

Prepared For:

Mr. Don Hwang
Alameda County Health Agency
Environmental Health Services
1131 Harbor Bay, Suite 250
Alameda, California 94502

Submitted By:

SECOR International Incorporated
3017 Kilgore Road, Suite 100
Sacramento, California 95670

SECOR

This report was prepared for the exclusive use of ConocoPhillips Company and its representatives as it pertains to the property located at 15599 Hesperian Boulevard, San Leandro, California. This report was prepared consistently with current and generally accepted risk assessment principles and practices. The risk assessment, statistical analysis, and modeling portions of this report were reviewed by Todd Leonard, and the geology was reviewed by Diane Barclay, C.H.G. SECOR assumes no responsibility for work reported or performed by other consultants or contractors. No other interpretation, representations, warranties, guarantees, express or implied, are included or intended in the report findings.

Prepared by:

SECOR International Incorporated

Erik Brown
Associate Scientist

for Todd Leonard
Senior Scientist

Diane M. Barclay, C.H.G.
Senior Geologist

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LIST OF ACRONYMS

AL	action level
ASTM	American Society for Testing and Materials
bgs	below the ground surface
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
Cal-EPA	California Environmental Protection Agency
CHHSL	California Human Health Screening Level
COC	chemical of concern
CP	ConocoPhillips
DHS	California Department of Health Services
DPE	Dual Phase Extraction
ECR	excess cancer risk
EPC	exposure point concentration
ERA	environmental risk assessment
ESL	environmental screening level
GR	Gettler-Ryan
HHRA	human health risk assessment
HI	hazard index
HQ	hazard quotient
KEI	Kaprealian Engineering, Inc
kg	kilogram
L/day	liters per day
MCL	maximum contaminant level
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MTBE	Methyl-tertiary-Butyl Ether
Nav	not available
ND	non-detected
OEHHA	Office of Environmental Health and Hazard Assessment
PHG	public health goal
PQL	practical quantitation limit
PRG	preliminary remediation goal
PWS	public water service
HHRA	Risk-Based Corrective Action
RBSL	Risk Based Screening Level
RWQCB	Regional Water Quality Control Board

SCM	Site conceptual model
SECOR	SECOR International Incorporated
SSTL	Site-specific target level
TBA	tert-butyl-alcohol
TDS	total dissolved solids
TPHg	total petroleum hydrocarbons as gasoline
UCL	upper confidence limit
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	underground storage tank
µg/L	micrograms per liter
WDNR	Wisconsin Department of Natural Resources

1.0 INTRODUCTION

SECOR International Incorporated (SECOR) is presenting this No Further Action Required (NFAR) evaluation and Human Health Risk Assessment (HHRA) on behalf of ConocoPhillips for the former 76 service station No. 7004 (hereafter referred to as the Site) located at 15599 Hesperian Boulevard in San Leandro, California. The NFAR evaluation was conducted to see if the conditions at the Site met the criteria for NFAR presented in the Regional Water Quality Control Board's (RWQCB's) Appendix A Reports for the Tri-Regions (RWQCB, 2004). The HHRA assessment was conducted to evaluate the current and potential risks to human health and the environment resulting from residual petroleum hydrocarbons in soil and groundwater at the Site. The methodology used for this HHRA analysis was based on risk assessment guidance documents from the American Standards and Testing Materials (ASTM) (ASTM, 2002), United States Environmental Protection Agency (USEPA) (USEPA, 1989, 2002 and 2003), the California Environmental Protection Agency (Cal-EPA) (Cal-EPA 1992, 2005a and 2005b) and the RWQCB, San Francisco Region (RWQCB, 2005). This work was performed to evaluate if it would be appropriate to prepare a NFAR request for the site.

2.0 SITE BACKGROUND AND CHARACTERIZATION

Descriptions of the Site physical setting, previously evaluated Site geology and hydrogeology, and the results of previous environmental investigations are presented in the following subsections.

2.1 SITE DESCRIPTION

The site is located at the northwest corner of Hesperian Boulevard and Lewelling Boulevard in San Leandro, California. The site is a former 76 Service Station which was closed in May of 2000. At that time, the subsurface tanks, piping and aboveground components were removed. The station building was converted into a Kragen auto parts store, but is no longer open as a retail store, and is currently used by the adjacent Target store for storage. The site is currently within a paved parking lot in a Target department store complex. Currently, TRC performs quarterly monitoring and sampling of ten monitoring wells and one recovery well at the site (TRC, 2004 through 2006). A Site Location Map is attached as **Figure 1**, and a Site Plan is attached as **Figure 2**.

2.2 PREVIOUS INVESTIGATIONS

In October, 1990, Kaprealian Engineering, Inc (KEI) observed the removal of three single-walled underground storage tanks (USTs) and removal and replacement of product piping at the site. The tanks included one steel 12,000-gallon super unleaded fuel tank and two steel 12,000-gallon regular unleaded fuel tanks, and were replaced with two double-walled 12,000-gallon USTs. No holes or cracks were observed in the tanks. Fifteen confirmation soil samples were collected from the tank pit and analyzed for total petroleum hydrocarbons as gasoline (TPHg), and benzene, toluene, ethylbenzene, and xylenes (BTEX). Soil samples collected from the final tank excavation contained up to 30 parts per million (ppm) TPHg, 0.054 ppm benzene, 0.047 ppm toluene, 0.46 ppm ethylbenzene, and 0.054 ppm xylenes. A water sample collected from the tank pit contained 4,300 parts per billion (ppb) TPHg, 40 ppb benzene, 1.9 ppb toluene, 0.54 ppb ethylbenzene, and 520 ppb xylenes. Samples collected from the final pipeline trenches

contained up to 20 ppm TPHg, 0.015 ppm benzene, 0.15 ppm toluene, 0.13 ppm ethylbenzene, and 1.3 ppm xylenes (KEI, 1990).

In April and July, 1991, KEI supervised the installation of six 2-inch diameter monitoring wells (MW1 through MW6). Groundwater was encountered at depths of 16.5 to 20.5 feet below ground surface (bgs). The wells were completed between 25 and 26 feet bgs. Selected soil samples and grab groundwater samples from each well were analyzed for TPHg and BTEX. Soil samples contained up to 4,800 parts per million (ppm) TPHg and 23 ppm benzene, 9.1 ppm toluene, 63 ppm ethylbenzene, and 290 ppm xylenes (17.5 feet bgs in MW3). Post development groundwater samples from these wells contained up to 34,000 ppb TPHg and 6,100 ppb benzene (MW3; KEI, 1991a and KEI 1991b).

In December, 1991, KEI conducted water recovery tests in wells MW-3 and MW-5. The tests indicated a minimal influence in water levels. KEI installed recovery well RW-1 in April 1992 (KEI, 1992a).

In May, 1992, KEI conducted an aquifer test using RW-1 for extraction and MW-2, MW3, MW4, and MW5 for observation. The saturated zone was described as semi-confined, and aquifer parameters evaluated from the test were as follows:

- Transmissivity: 16 to 700 ft^2/day
- Storativity: $6.3E^{-6}$ to $1.4E^{-2}$
- Hydraulic Conductivity: 0.3 ft/day to 76 ft/day (KEI, 1992b)

Pacific Environmental Group (PEG) performed a water supply well survey within a ¼-mile radius of the site. Four documented wells were identified, including two domestic irrigation wells, one industrial well, and one well of unknown use. The closest of these wells was approximately 2,000 feet south of the site (PEG, 1996).

In May, 2000, Gettler-Ryan (GR) observed the removal of two 12,000-gallon, double-walled glasteel USTs and fiberglass product piping and dispensers at the site. The USTs were in good condition with no observed cracks or holes. At this time, station-related structures were also demolished and removed. Four soil samples were collected from the tank pit excavation, and four were collected from the pipeline trenches. The samples were analyzed for TPHg, BTEX, and methyl tertiary butyl ether (MTBE). Tank pit samples contained up to 350 ppm TPHg, 4.8 ppm ethylbenzene, and 0.81 ppm xylenes, but were non-detectable for benzene and MtBE. Pipeline trench samples were non-detectable for the analytes requested. Oxygen releasing compound (360 pounds) was placed in the bottom of the UST pit during tank removal (GR, 2000).

In 2001, GR conducted a limited Phase I Environmental Assessment to assess the potential for environmental impact to the site from current or past usage or other properties in the vicinity. Six petroleum hydrocarbon impacted sites were identified within ¼-mile of the site (GR, 2001a).

In 2001, GR performed a ½-mile radius well survey, and found that three domestic wells were present within 2,500 feet of the site. Two of the wells were located 1,650 and 2,300 feet potentially down gradient of the site. The third was located approximately 2,275 feet upgradient. GR recommended that the site be considered for low-risk case closure (GR, 2001b).

In November, 2001, SECOR conducted a 5 day dual phase extraction (DPE) test at the site. The test utilized MW-3 and RW-1 for extraction. During the test, applied vacuum was approximately 25 inches of mercury, vapor extraction flow rates ranged from approximately 20 to 155 cubic feet per minute, and groundwater extraction flow rates ranged from 0.25 to 3.0 gallons per minute. Influent vapor concentrations dropped from a high of 5,200 parts per million by volume (ppmv) TPHg at the start of the test to 440 ppmv TPHg at the end of test. Based on the data collected during the test, approximately 36.55 pounds of vapor phase TPHg, 0.56 pounds of vapor phase benzene, and 0.47 pounds of vapor phase MTBE were removed from the subsurface. The radius of influence was estimated at 15 to 55 feet for MW-3 and 48 to 85 feet for RW-1 (SECOR, 2002).

In September, 2002, Gettler-Ryan drilled and sampled five direct push soil borings (G-1 through G-5) in the vicinity of the Kragen Auto Parts building and the former USTs. Soil and groundwater samples were collected from each boring and analyzed for TPHg, BTEX, and fuel oxygenates. Soil samples were below detection for the analytes requested, except for sample GP-3 @13.5 feet which contained 0.051 mg/kg MtBE and 0.083 mg/kg tertiary butyl alcohol (TBA). Groundwater samples contained up to 96,000 ppb TPHg (G-4W), 4,300 ppb ethylbenzene (G-5W), 300 ppb TBA (G-3W), and 360 ppb MTBE (G-5W) (GR, 2002).

In March 2005, SECOR performed a preferential pathway survey to delineate underground utilities with the potential to transport groundwater beneath the site. Utilities were identified to be underground at depths ranging from 20 inches bgs to 4 feet bgs. Off-site utilities, including sewer and storm drain, were identified on the east side of Hesperian Boulevard between 6 and 7 feet bgs. The groundwater level over the last five years had varied from 12 to 16 feet bgs. Data presented did not identify utilities and associated utility trenches with the potential to act as a preferential groundwater pathway, based on historical depths to groundwater (SECOR, 2005a).

In August 2005, SECOR conducted an investigation at the site which included drilling and sampling 23 direct push soil borings (SB-1 through SB-23), at total depths of 19 feet bgs to 28 feet bgs. Soil and groundwater samples were collected from each boring and analyzed for TPHg, BTEX, and fuel oxygenates. Laboratory analysis of the soil samples indicated detections for the requested constituents in 7 of the 23 soil borings at maximum concentrations of 0.024 milligrams per kilogram (mg/kg) ethylbenzene (SB-21), 0.022 MTBE mg/kg (SB-18), and 0.024 mg/kg TBA (SB-18). Groundwater samples contained up to 4,100 micrograms per liter (µg/L) TPHg (SB-17), 14 µg/L benzene (SB-21), 1.4 µg/L toluene (SB-4), 340 µg/L ethylbenzene (SB-21), 9.4 µg/L xylenes (SB-4), 180 µg/L MTBE (SB-4), 71 µg/L TBA (SB-17), and 1,100 µg/L ethanol (SB-4; SECOR, 2005b).

In January 2006, SECOR advanced an additional 14 soil borings (SB24 through SB-37) and installed an additional 4 groundwater monitoring wells (MW-7 through MW-10). At least one soil sample was collected from each borehole, and groundwater samples were collected from the boreholes except SB24, SB25, SB26, SB28, and SB31. The samples were analyzed for TPHg, BTEX, fuel oxygenates (MTBE, DIPE, TAME, ETBE, ethanol), and lead scavengers (EDB and 1,2-DCA). Maximum concentrations in the soil were reported as 46 mg/kg TPHg (SB-30 at 5.5 feet bgs), 0.29 mg/kg toluene (SB-30 at 5.5 feet bgs), 1.2 mg/kg ethylbenzene (SB-30 at 2.5 feet bgs), 7.8 mg/kg xylenes (SB-30 at 2.5 feet bgs), 0.0058 mg/kg MTBE (SB-34 at 19 feet bgs), and 0.010 mg/kg TBA (SB-24 at 2.5 feet bgs). No detectable concentrations of benzene, DIPE, TAME, ETBE, ethanol, 1,2-DCA, or EDB were reported (SECOR, 2006a).

In April 2006, SECOR prepared a startup report for the portable DPE system at the site (SECOR, 2006b). The system was started on March 20, 2006, and continues to operate.

In June 2006, SECOR prepared a work plan for additional offsite assessment (SECOR 2006c). This work was proposed in the event that additional assessment to the southeast became necessary.

The site has been monitored and sampled since the 2nd quarter, 1991. Between 1991 and 1995, monitoring was conducted quarterly. Between 1996 and 2001, the site was monitored semiannually. From January 2002 to July 2003, the site was monitored monthly. Currently, ten wells (MW-1 through MW-10 and RW-1) are sampled quarterly (SECOR, 2006d). Samples are analyzed for total purgeable petroleum hydrocarbons (TPPH), BTEX, and fuel oxygenates. The groundwater gradient has been mainly to the southwest and east-southeast.

Maps indicating the locations of historical soil samples are attached in **Appendix A**. Soil boring and monitoring well locations are shown on **Figure 2**. Tables with the historical soil concentrations and historical groundwater analytical data are attached in Appendices **B** through **D**.

2.3 SITE GEOLOGY AND HYDROGEOLOGY

The subsurface has been identified to consist of poorly-graded sand, silty sand, and clayey sand interbedded with fat clay and sandy clay. Based on the borings from 2005 and 2006 assessments, laterally continuous silty and clean sand layers are present beneath the Site from approximately 5 feet to 10 feet bgs and from 21 feet to 25 feet bgs. Laterally continuous layers of fat clay and sandy clay are present beneath the Site from the ground surface to 5 feet bgs and from approximately 10 feet to 21 feet bgs. Groundwater was generally first encountered at approximately 13 feet bgs, and the static water level was at approximately 11.5 feet bgs. A perched water table was encountered at approximately 10 feet bgs during drilling in soil boring SB33 (SECOR, 2006a). Boring logs are attached in **Appendix E**.

From 1991 through May 25, 2006, the depth to groundwater at the Site has ranged from 10.01 to 16.71 feet bgs. During the second quarter 2006, the depth to groundwater ranged between 10.01 and 12.07 feet bgs. Prior to first quarter 2005, groundwater generally flowed to the southwest at a gradient of 0.003 to 0.005 feet per foot (ft/ft). During recent groundwater monitoring events the flow direction has varied from northwest to west at a gradient of 0.001 to 0.006 ft/ft. The direction of groundwater flow during the second quarter was towards the center of the property. This new interpretation of the flow direction is likely the result of pumping from well MW-5 during operation of the dual-phase extraction system installed during the first quarter 2006, and additional groundwater elevation data from the new wells MW-7 through MW-10. TRC's historical groundwater elevations and depths to water are presented in **Appendix D**.

3.0 CURRENT SITE CONDITIONS

3.1 SOIL

The extent of the impacts to the soil resulting from the petroleum release(s) at the Site from the USTs and/or the associated pipeline have been thoroughly characterized by the greater than 170 soil samples that have been collected. Because petroleum hydrocarbon concentrations in the soil are readily reduced over time through biodegradation (Marchal et al., 2003) or may have been removed during Site decommissioning, the most recent analytical data were used to determine the current impacts at the Site and evaluate current and future risks. During the 2005 and 2006 soil investigations, samples were collected from various depths from 41 borings. The borings were installed throughout the Site in areas where previous soil samples indicated the presence of hydrocarbons, as well as down gradient of these areas. Based on a depth to groundwater of approximately 11 to 15 feet bgs, samples collected below 15 feet bgs were considered to be in the saturated zone. Chemical concentrations within the saturated zone are expected to be at equilibrium with groundwater concentrations; therefore, groundwater concentrations provide a better indication of the risk (Bonazountas and Kallidromitou, 1993).

As expected, based on the length of time since the petroleum release occurred at the Site, little to no hydrocarbons were detected during the 2005 and 2006 investigations. The maximum concentrations of the chemicals of concern (COCs) (BTEX, MtBE, TPHg, TBA and lead) detected in the shallow soil (≤10 feet bgs) and deep soil (10 to 15 feet bgs) from borings G-1 through G-5 and SB1 through SB37 are presented in **Table 1**. The primary areas with residual soil concentrations were in and around the former USTs and associated pipelines. While no soil samples have been collected beneath the former auto parts building, samples have been collected between the USTs and the building and downgradient of the building. No COCS were detected in the shallow soil in borings installed immediately adjacent to the former Kragen Auto Parts store (G-2, G-3, G-5, SB-16 through SB18, SB-21, and S-31) and only low concentrations of ethylbenzene (0.024 mg/kg), MtBE (0.012 mg/kg to 0.051 mg/kg) and TBA (0.010 to 0.083 mg/kg) were detected in the deep soils from some of the borings (G-3, SB4, SB-6, SB-17, SB-18, and SB-23).

3.2 GROUNDWATER

The analytical data collected in the second quarter 2006 from wells MW-1 through MW-10 and RW-1 indicated that MTBE concentrations in wells MW-5 (72 µg/L) and MW-7 (17 µg/L) exceeded the MCL. The benzene concentration in MW-5 (1.5 µg/l) also exceeded the MCL of 1.0 µg/L. TPHg was detected in wells MW-2, MW-3, MW-5, MW-9 and RW-1 at concentrations ranging from 54 µg/L in MW-9 to 3,200 µg/L in MW-3. Neither the US Environmental Protection Agency (USEPA) nor the California EPA has established a MCL for TPHg. Although TPHg analyses are often used in site assessments, they should be used cautiously if at all in risk assessment because the general measure of TPH provides insufficient information about the amounts of the individual COCs present (ASTM E1739-85, 2002). Therefore, the more toxic and mobile constituents of TPHg (BTEX and MtBE) are typically used to estimate the risk presented at a Site with petroleum impacts. During the second quarter 2006, concentrations of toluene, ethylbenzene, xylenes and TBA were either not detected or were detected at concentrations below their respective regulatory limits in the remaining wells.

The analytical data suggest that a groundwater plume with low concentrations of dissolved hydrocarbons likely extends from the former UST basin to down gradient of the former Kragen Auto Parts store. TRC's groundwater concentration maps from the second quarter 2006 are

included in **Appendix F**. Groundwater samples collected from soil borings installed southwest of monitoring wells MW-5, -7 and -10 (SB34 through SB37) in January 2006 contained MtBE concentrations ranging from 16 to 57 µg/L. While these data suggest an MtBE plume extends to near the southwest corner of the block that encompasses the Site, concentrations of hydrocarbons are typically up to orders of magnitude higher in "grab samples" from soil borings than those from developed monitoring wells and the data may give a false impression of the magnitude of the impacts. When groundwater samples are collected from a boring rather than a developed well, hydrocarbons can adhere to high concentrations of entrained sediment that are typically present. The additional hydrocarbons are subsequently released in to the water by acidification during sample preservation, resulting in a higher dissolved phase hydrocarbon concentration not truly indicative of the actual groundwater conditions (Driscoll, F.G., 1995).

4.0 GROUNDWATER REGULATORY STATUS

The RWQCB determines if groundwater is unsuitable, or potentially unsuitable, for municipal or domestic water supply based on the following criteria:

- The total dissolved solids exceed 3,000 mg/l; or
- There is contamination, either by natural processes or by human activity (unrelated to a specific pollution incident), that cannot reasonably be treated for domestic use; or
- The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day; or
- The aquifer is regulated as a geothermal energy-producing source or has been exempted administratively for the purpose of underground injection of fluids associated with the production of hydrocarbon or geothermal energy.

Pursuant to these criteria and the East Bay Plain Groundwater Basin Beneficial Use Evaluation Report (RWQCB, 1999) it is assumed that the shallow groundwater beneath Site can either be used as a potable source of water or is possibly connected to a deeper aquifer that can be used for municipal or domestic purposes.

4.1 WATER QUALITY OBJECTIVES

Because the groundwater beneath the Site is potentially suitable for domestic or municipal use, the chemical concentration limits are established by the MCLs for drinking water. For chemicals that do not have a designated MCL, the RWQCB may select other criteria such as Cal-EPA public health goals (PHGs) or DHS notification levels. PHGs are risk-based concentrations corresponding to levels that do not pose any significant risk to human health. PHGs are not regulatory in nature and represent non-mandatory goals. When groundwater chemical concentrations exceed the MCLs or other assigned limits, further assessment and/or remediation of the Site may be required. For the purposes of this assessment, MCLs are considered the RWQCB water quality objectives; however, analysis was completed with PHGs that were lower than MCLs (see section 5.2 below).

Historically, concentrations of benzene, ethylbenzene, total xylenes and MtBE at the Site have exceeded their respective MCLs of 1.0 µg/L, 300 µg/L, 1,750.0 µg/L and 13 µg/L . Currently, only benzene and MtBE concentrations exceed their MCLs. Benzene also exceeds its PHG of 0.15 µg/L , and MtBE exceeds the secondary MCL of 5 µg/L.

4.2 NO FURTHER ACTION REPORTING CRITERIA

According to the California Health and Safety Code, the RWQCB can issue a NFAR letter for a Site when contaminants remain in the soil or groundwater at concentrations above regulatory limits but are no longer considered a risk to public health and safety or ecological receptors (RWQCB, 2004). An NFAR designation may be considered for a Site with concentrations that exceed water quality objectives when the following criteria are met:

- Demonstration that the plume is stable with either an overall annual decrease in size or an annual decrease in contaminant concentration trend;

- Calculations or modeling results, including monitoring verification of model conclusions, which show when water quality objectives are predicted to be achieved; and

- Verification that there are no current or anticipated uses of the impaired water within the timeframe projected to meet water quality objectives.

5.0 EVALUATION OF NFAR REQUIREMENTS

5.1 GROUNDWATER CONCENTRATION TREND ANALYSIS

Groundwater samples have been collected quarterly since 1991. The table below shows how the concentrations of benzene, MtBE and TPHg in the impacted wells have declined dramatically overtime.

Change in Benzene, MtBE and TPHg Concentrations in MW-3, MW-5, and RW-1

Well	Benzene (µg/L)	MtBE (µg/L)	TPHg (µg/L)
MW-3 Historical High	76 (7/8/98)	3,300 (7/15/00)	23,000 (1/11/99)
MW-3 As of 5/26/06	0.53	ND <0.50	3,200
MW-5 Historical High	2.1 (7/8/96)	1,000 (5/19/03)	12,000 (1/3/97)
MW-5 As of 5/26/06	1.5	72	1,100
RW-1 Historical High	3.0 (1/11/99)	300 (5/24/02)	2,900 (12/19/92)
RW-1 As of 5/26/06	ND <0.5	7.6	930

Graphs depicting the declining trends of benzene in MW-3, TPHg in MW-3, MW-5, and RW-1 and MtBE in MW-5 and RW-1 are attached in **Appendix G**. These wells were selected because they have had the highest and most consistent concentrations of the COCs. The laboratory practical quantitation limit (PQL) was used for TPHg for the December 2005 concentration in RW-1 and the January 2005 and March 2006 concentrations in MW-5. The graph for benzene in MW-3 utilized data only from 1991 to April 2002 because after this date there were numerous non-detectable concentrations. Groundwater elevations were also included in the graphs to illustrate how the declining trends may or may not be related to fluctuations in the groundwater level. No groundwater elevation data was available from RW-1. The graphs show a declining trend, except for one recent spike in TPHg in MW-5. The only trend clearly related to the groundwater levels was the one for TPHg in MW-5, which showed a positive relationship. The recent spike in TPHg concentration in this well was associated with an increase in water level.

The Mann-Whitney U Statistical Test (Test) was also used to conduct a trend analysis of the benzene, MtBE, and TPHg concentrations. The Test is equivalent to the Wilcoxon rank sum test and provides a groundwater concentration trend analysis based on eight consecutive sampling events. The spreadsheet test used for this assessment was supplied by the Wisconsin Department of Natural Resources (WDNR), who use the test as a tool to support site closure. The tests for TPHg were conducted with data from wells MW-3, MW-5 and RW-1 and the tests for MtBE were conducted with data from wells MW-5 and RW-1. Based on the large number of non detectable concentrations for benzene, the Test could not be used for this chemical. As with the graphs in **Appendix G**, the Mann-Whitney Test showed that the concentrations of MtBE in wells MW-5 and RW-1 and the TPHg concentrations in MW-3 are on a declining trend. Based on widely fluctuating data over the last eight sampling events, no trend could be established for TPHg in MW-5 or RW-1. The declining trend of TPHg in these wells presented in the graphs in Appendix G resulted from using years of historical data rather than data from just the last eight sampling events as was required in the Test. The Mann-Whitney Test results are attached in **Appendix H**.

5.2 TIMEFRAME TO MEET WATER QUALITY OBJECTIVES

To account for the impact of seasonal variations of chemical concentrations in groundwater when calculating representative concentrations, analytical data from at least two quarters is required, and data from four quarters is preferred (USEPA, 1993). The highest benzene and MtBE concentrations over the last four sampling events were measured in MW-5. Therefore, the maximum benzene concentration and the mean and maximum MtBE concentrations from this well for the past four quarters were used to predict when the concentrations of these chemicals will be below their respective MCLs of 1 µg/L and 13 µg/L. An additional analysis was conducted to predict when concentrations of benzene will be below its PHGs of 0.15 µg/L, and when concentrations of MtBE will be below its secondary MCL of 5 µg/L. These values were selected for this analysis as they are the lowest water quality numerical limits listed by the RWQCB (RWQCB, 2004). Only the maximum benzene concentration was evaluated because benzene was not detected during two of the last four sampling events, and using the analytical PQL to calculate the mean resulted in a concentration (0.8 µg/L) that was below the MCL. Due the vast number of chemicals that make up TPHg, the widely varying chemical and physical characteristics of these chemicals, and the absence of an MCL, no degradation evaluation of TPHg was conducted.

The time it will take the concentrations to drop below the MCL or PHG can be estimated using conservative half-lives from literature (Howard, et al. 1991) or Site specific data and the following first-order decay equation (USEPA, 1996):

$$C_t = C_o \times e^{-\lambda t} \qquad \text{(Eq. 1)}$$

where:

- C_t = COC concentration at time t;
- C_o = Original measured concentration at time = 0;
- e = Natural exponential;
- λ = First-order decay constant (days^{-1}), equals $0.693/t_{1/2}$, where $t_{1/2}$ is half-life in days;
- t = Time elapsed from the original sampling (days).

The equation must be rearranged as follows to solve for the desired future concentration at time t' ($C_{t'}$):

$$\ln(\frac{C_{t'}}{C_o}) = -\lambda t' \qquad \text{(Eq. 2)}$$

and therefore,

$$t' = -\ln(\frac{C_{t'}}{C_o}) \Big/ \lambda \qquad \text{(Eq. 3)}$$

The most conservative half-life from Howard, et al. (1991) for benzene in groundwater of 720 days was used in this assessment. The half-lives for MtBE in groundwater published by Howard, et al. (1991) range from 56 days to 360 days. However, the Site specific data from wells MW-5 and RW-1 show that the concentrations fluctuate dramatically and can take up to 2 years to reduce the concentration by half. Therefore, to provide a conservative estimate of when the MtBE concentration will be below the MCL, calculations were made using a half-life of 730 days (2 years).

To predict when both the RWQCB water quality objective for benzene and the PHG would be achieved, the following values were used in Equation 3:

$C_{t'}$ = 0.9 µg/L	This will provide a conservative time estimate to achieve the MCL of 1.0 µg/L
$C_{t'}$ = 0.14 µg/L	This will provide a conservative time estimate to achieve the PHG of 0.15 µg/L
C_o= 1.5 µg/L	The maximum concentration measured during the last four sampling events)
λ = 9.6E-04	(0.693/720 days),

which resulted in the following equations:

$$t'(\text{days}) = -\ln(\frac{0.9}{1.5}) \Big/ 9.6E-04 \text{ to achieve the MCL}$$

$$t'(\text{days}) = -\ln(\frac{0.14}{1.5}) \Big/ 9.6E-04 \text{ to achieve the PHG}$$

Based on these calculations, it is conservatively estimated that, if the maximum benzene concentration represented site conditions, concentrations less than the MCL of 1.0 µg/L would be achieved in 532 days or 1.45 years and concentrations less than the PHG would be achieved in 2,470 days, or 6.77 years. Because the actual maximum site concentrations have

been below the MCL for two of the last four sampling events, this is an overly conservative estimate of the amount of time to achieve the objective.

To predict when the RWQCB water quality objective for MtBE would be achieved, the following values were used in Equation 3:

$C_{t'}$ = 12.0 µg/L	This will provide a conservative time estimate to achieve the MCL of 13.0 µg/L
$C_{t'}$ = 4.9 µg/L	This will provide a conservative time estimate to achieve the secondary MCL of 5.0 µg/L
C_o= 35.2 µg/L	(the mean from the last four sampling events)
C_o= 72.0 µg/L	(the maximum concentration measured during the last four sampling events)
λ = 9.49E-04	(0.693/730 days),

which resulted in the following equations:

$$t'(\text{days}) = -\ln(\frac{12.0}{35.2}) \Big/ 9.49E-04$$ for the mean MtBE concentration to achieve the MCL

$$t'(\text{days}) = -\ln(\frac{12.0}{72.0}) \Big/ 9.49E-04$$ for the maximum concentration to achieve the MCL

$$t'(\text{days}) = -\ln(\frac{4.9}{35.2}) \Big/ 9.49E-04$$ for the mean MtBE concentration to achieve the secondary MCL

$$t'(\text{days}) = -\ln(\frac{4.9}{72.0}) \Big/ 9.49E-04$$ for the maximum concentration to achieve the secondary MCL.

Based on these calculations, it is conservatively estimated the MtBE concentration in the groundwater at the Site will decline to below the MCL of 13.0 µg/L in between 1,134 and 1,888 days (3.11 and 5.17 years). MtBE concentrations will decline below the secondary MCL of 5.0 µg/L in between 2,077 and 2,832 days (5.69 and 7.76 years).

5.3 WATER USE SURVEY

In 2001, GR performed a ½ mile radius well survey for the Site. The survey identified three domestic water supply wells located within 2,500 feet of the Site. One of the wells was located 2,275 feet from the Site in the upgradient direction. and two of the wells were located within 2,300 feet of the Site in the downgradient direction (GR, 2001). SECOR's March 2005 preferential pathway study indicated that it was unlikely that preferential pathways for the migration of hydrocarbon impacted groundwater existed at the site. SECOR contacted the San Leandro and Alameda County Departments of Public Works and neither office was aware of any

plans to use either the shallow groundwater beneath the Site and any deeper aquifers in the vicinity for municipal or domestic purposes.

Based on the reduction in the hydrocarbon concentrations observed within the Site boundaries, the location of the groundwater within relatively low permeability materials including silty sand and fat clay, and the lack of preferential pathways, it does not appear that the downgradient wells will be impacted by the dissolved hydrocarbon plume. Because MtBE is the most water soluble and pervasive chemical in the groundwater at the site, a further evaluation of the potential for the MtBE to migrate was conducted using the BIOSCREEN model.

5.3.1 BIOSCREEN Modeling

The BIOSCREEN model is a natural attenuation model distributed by the USEPA. The model simulates advection, dispersion, adsorption, and aerobic decay, as well as anaerobic reactions that have been shown to be the dominant biodegradation processes at petroleum release sites. BIOSCREEN can predict how far the dissolved COC plume extends if no engineered controls or further source zone reduction measures are implemented.

The BIOSCREEN model can be used to estimate natural attenuation and migration based on the following three scenarios: 1) Solute transport with no decay; 2) Solute transport with first-order decay; and 3) Solute transport with an instantaneous biodegradation reaction (Instantaneous Reaction Model). The first model is appropriate for non degrading solutes such as chlorides, where the only attenuation mechanisms are dispersion and adsorption to the soil matrix. This model provides the most conservative estimate of plume migration (e.g., the maximum distance) as it does not account for any biodegradation. The first-order decay model contains a solute degradation rate that is proportional to the solute concentration. This is a conventional method for simulating biodegradation in dissolved hydrocarbon plumes, but still provides a conservative evaluation as it does not assume any biodegradation in the source zone. The instantaneous biodegradation model accounts for biodegradation in the source zone and accounts for the availability of electron acceptors. In order to accurately use the instantaneous biodegradation model, Site-specific electron acceptor information is required. In an effort to provide the most conservative estimate of the plume migration, only the no degradation and first order decay scenarios were used in this evaluation.

5.3.1.1 Model Inputs

The following assumptions were used in the BIOSCREEN models to provide conservative estimates of plume migration and MTBE natural attenuation:

- Hydraulic conductivity: 1.05E-04 cm/sec; Site specific data (KEI, 1992). The value from RW-1 was selected based on the better suitability of the data from this well for evaluation, the similarity of the soil stratigraphy in this well to the majority of the wells/borings at the site, and because the groundwater at the site is located within relatively low permeability materials including fat clay, and is semi-confined by clay. This site specific value is equivalent to the median hydraulic conductivity estimate for clay presented in the BIOSCREEN Users Manual (USEPA, 1996).

- Hydraulic gradient: 0.005 ft/ft; conservatively high Site-specific value based on groundwater monitoring reports by TRC from 2003 through 2005.
- Effective Porosity: 0.20; a median estimate for silt and a high estimate for clay (EPA, 1996);
- Estimated plume length: 430 feet (assumed that the source zone extended from well MW-2 southwest to the vacant interchange right-of-way beyond borings SB34 through SB37)
- Soil bulk density: 1.7 kg/L (model default);
- Partition coefficient K_{oc} = 7.26 L/Kg (Cal-EPA, 2005b);
- Fraction organic carbon f_{oc} = 0.001 (model default; ASTM 2002);
- Modeled area length = 2,300 ft Site specific distance that encompasses downgradient wells;
- Modeled area width = 240 ft (conservative estimate based on Site specific boring data);
- Simulation time = 20, 50, and 200 years;
- Source thickness in saturation zone = 10 ft (model default; this is a conservatively high estimate based on the tendency for LNAPL to exist near the top of the aquifer and lack of MtBE detected in the saturated soil);
- Source zone width = 155 ft, estimated from the distance between borings SB34 and SB37;
- Groundwater concentrations = 72 µg/L in MW-5, the highest concentration measured at the Site over the last four quarters. This well represents the leading edge of the plume but is modeled as zero distance from the source area, which therefore provides a conservative estimate of risk. Because BIOSCREEN only works in concentrations of mg/L, the MTBE concentration was input as 0.072 mg/L. Using the maximum concentration provides a conservative estimate of risk as it does not account for reductions resulting from seasonal fluctuations in the groundwater level.
- Soluble mass = 271 kilograms for 0.072 mg/L (the maximum concentration for the past four quarters). The mass was calculated with the following conservative parameters: the source zone width (155 feet) x plume length (430 feet) x source thickness in saturated zone (10 feet) x 20% porosity x MtBE concentration x conversion factors (28.3 liters per cubic foot and 1 kilogram per 1,000,000 milligrams). The BIOSCREEN manual recommends using the soil concentration to predict the soluble mass; however, because the MtBE concentrations in the saturated soil at the Site are low (<0.03 mg/kg), the method of calculating soluble mass used in this document will provide a much more conservative (greater) estimate of plume migration.

5.3.1.2 Modeling Results

The BIOSCREEN modeling results indicated that after at least 200 years and with no degradation, MTBE concentrations above the secondary MCL (5 µg/L) would not migrate beyond approximately 700 feet from the Site. The model also indicated that with biodegradation, MTBE concentrations exceeding the MCLs would not migrate greater than 45 feet from the current leading edge of the plume over this same time period. Therefore, the model indicates that the downgradient wells will not be impacted within at least 200 years. The no degradation modeling results are presented in the Table below and the BIOSCREEN model outputs in **Appendix I**. Please note that the initial first order decay concentration and the initial no degradation concentrations are equal because, as stated in Section 5.3.1, the first order decay model does not account for decay in the source area.

Elapsed Time From October 2006 (years)	Distance from MW-5 (feet)	Approximate Concentration with No Degradation (µg/L)
20	119	4.0
50	232	4.0
200	720	4.0

6.0 HUMAN HEALTH RISK ASSESSMENT

While the NFAR criteria address the migration of a hydrocarbon plume and the risk presented by ingestion of groundwater, they do not directly account for the risk presented by other media or exposure pathways such as direct contact with impacted soil or inhalation of vapors volatilizing from impacted soil and/or groundwater into indoor air. Therefore, in addition to evaluating if the conditions at the Site met the NFAR requirements, a HHRA was conducted.

6.1 METHODOLOGY

The HHRA process is implemented in a tiered approach where upon completion of each tier, the results are evaluated and, if warranted, conservative default assumptions of the earlier tier are replaced with Site-specific data and the analysis proceeds to the next tier (ASTM, 2002).

In the Tier 1 analysis, concentrations of detected analytes are compared to the applicable media-specific screening levels to determine if Site conditions satisfy the criteria for a quick regulatory closure or warrant a more site-specific evaluation. The screening levels may consist of MCLs, California human health screening levels (CHHSLs) (Cal-EPA, 2005b), environmental screening levels (ESLs) (RWQCB, 2005), preliminary remediation goals (PRGs) (USEPA, 2004), public health goals (PHGs) (Cal-EPA, 2005c) or notification levels (NLs) (DHS, 2005).

The Tier 1 screening levels are selected based on the type of impacted media and the presence of complete or potentially complete exposure pathways, which are defined in a site conceptual model (SCM). If the SCM indicates that there are no complete or potentially complete exposure pathways, further analysis is not warranted.

When a complete or potentially complete exposure pathway exists and the Tier 1 screening level is exceeded, a Tier 2 HHRA analysis is conducted using simple fate and transport models with site-specific data (e.g., soil type, hydraulic conductivity, hydraulic gradient, etc.) and USEPA or Cal-EPA exposure criteria and toxicity values. When site-specific data are not available, conservative values from literature are used. Fate and transport models can be used to predict when and if the chemical(s) will reach a potential receptor, and the time it will take the chemical to degrade in the impacted media. The models can also be used to develop Site-specific target level (SSTLs) that will be protective of receptors at the end of an exposure pathway. When Tier 2 SSTLs are exceeded, remediation can be implemented until SSTLs for risk-driving chemicals are achieved, or a Tier 3 HHRA analysis can be performed to provide a more complex assessment, which may include additional site assessment, probabilistic evaluations, and sophisticated chemical fate and transport models (ASTM, 2002).

6.2 SITE CONCEPTUAL MODEL

The goal of a SCM is to identify known and hypothetical exposure pathways relevant to an assessment of human health and environmental risks at a Site (USEPA, 1992a). This section consists of the following components (USEPA, 1989):

- Current and future land uses;
- Potentially exposed populations;
- Water well surveys; and
- Complete and potentially complete exposure pathways.

6.2.1 CURRENT AND FUTURE LAND USES

The service station was removed from the Site in 2000, and the Site is currently occupied by a former Kragen auto parts store and a parking lot that extends to the Target retail store to the northwest. A Wal-Mart is scheduled to replace the Target store in the future, and an In-N-Out Burger restaurant is scheduled for construction within the current parking area in 2007. The properties surrounding the Site are utilized for commercial purposes. Based on current land use and the location of the Site near the freeway and the intersection of two busy streets, it is expected that Site will be used for commercial/industrial purposes in the future.

6.2.2 POTENTIALLY EXPOSED POPULATIONS

Based on the current and likely future use of the Site and surrounding land as commercial property, the on-Site potentially exposed populations include commercial/industrial workers, customers, and construction workers. Because the Site is covered with asphalt and structures and the groundwater is not currently used for municipal or domestic purposes, the only potential exposure above the ground surface would be to vapors emanating from soil and/or groundwater to indoor air. Of the potential receptors, commercial/industrial workers spend the greatest amount of time on Site and would therefore incur the greatest potential exposure to hydrocarbon vapors. If subsurface work is done at the Site, construction workers could potentially be exposed to residual hydrocarbons in the soil or to hydrocarbon vapors emanating from the soil and/or groundwater. Based on the overexcavation of soil during tank removal, previous

investigation results, the results of the risk assessment, and expected site use, SECOR does not anticipate that the residual hydrocarbons in the top ten feet of soil will result in limitations on the use of the property or require additional remediation. Because the depth to groundwater is greater than 10 feet bgs, it is unlikely that there would be any direct contact with the water during construction activities. SECOR does not anticipate the need for a plan to manage contaminated soil and groundwater during construction; however, if residual hydrocarbons are noted during construction, this should be reevaluated.

For the reasons presented above, off-Site residents and commercial workers are not expected to be exposed to impacted water or soil. Additionally, based on the higher chemical concentrations on Site than those detected near the perimeter of the property, the analysis of the potential exposure to hydrocarbon vapors on Site will provide a conservative estimate of risk for potential receptors.

Typically, potentially exposed sensitive populations at a site may also include off-site school age children, medically compromised people, and the elderly. SECOR conducted a survey to determine if sensitive populations were located in the vicinity of the Site. The survey indicated that San Lorenzo Unified School is located approximately 0.1 miles downgradient (southwest) from the Site, and the International Christian Center and Community Christian School are located 0.2 miles southwest of the Site. Additionally, Grant Elementary School and San Lorenzo High School are located 0.4 miles southwest 0.4 miles northeast of the Site, respectively. No other schools, daycare centers, elderly housing facilities or hospitals were identified within a one-half mile radius of the Site. Since on-site contamination represents a decreasing source strength due to biodegradation and active remediation, these identified off-site sensitive populations are not expected to be exposed to site-related chemicals.

6.2.3 WATER SURVEYS

The closest surface water body to the Site is San Lorenzo Creek, which is located approximately 800 feet to the southwest and downgradient. SECOR reviewed aerial photographs of the Site and adjacent properties, and observed that San Lorenzo Creek appeared to be running through a concrete lined channel in the vicinity of the Site. A conversation with the San Leandro Public Works Department confirmed this. Based on this information, the depth to water at the Site and the BIOSCREEN modeling first-order decay scenario presented in Section 5.3.1, it does not appear that there is threat to the surface water from the dissolved phase hydrocarbon plume.

6.2.4 COMPLETE AND POTENTIAL COMPLETE EXPOSURE PATHWAYS

According to Cal-EPA and USEPA, an exposure pathway is considered complete or potentially complete if it meets four basic requirements: (1) presence of chemical sources, (2) release and transport within an environmental medium, (3) an exposure point for contact, and (4) an exposure route.

Based on the location of hydrocarbon-impacted soil and groundwater beneath the Site and the information provided in the SCM, the following exposure pathways are complete or potentially complete for the on site commercial/industrial receptors and/or and construction workers:

Inhalation of indoor or outdoor vapors from the impacted soil and or groundwater. The hydrocarbon vapors could migrate vertically and laterally through permeable zones in the soil and along man-made conduits such as buried utility lines, through cracks in the paving or foundations to indoor and outdoor air where they could be inhaled. Currently, the nearest structure that may be occupied by commercial/industrial workers in the future is the former auto parts store which is located 55 feet away from where the maximum soil concentrations were detected (boring SB30) and within approximately 5 feet of the well with maximum groundwater concentrations.

Direct contact with the shallow (≤3 m or 10 feet bgs) impacted soil. Construction workers could be exposed to chemicals when excavating soils near the former dispenser islands. Based on the overexcavation of soil during tank removal, previous investigation results, the results of the risk assessment, and expected site use, SECOR does not anticipate that the residual hydrocarbons in the top ten feet of soil will result in limitations on the use of the property or require additional remediation. However, if residual hydrocarbons are noted during construction, this should be reevaluated.

6.3 EXPOSURE POINT CONCENTRATIONS AND TIER 1 SCREENING LEVELS

Exposure point concentrations (EPCs) are representative chemical concentrations at the point of exposure. To arrive at EPCs in soil and groundwater at the Site, relevant datasets and statistical analysis were identified.

6.3.1 Soil

For surface and subsurface soils, residual hydrocarbons were generally detected at low detection frequencies. Accordingly, as a conservative measure, the maximum soil concentrations from borings SB1 through SB37 were used to evaluate the risks presented by residual hydrocarbons in shallow soil and deep soil. These borings were selected because they provide the most current information about the site and they were installed in and beyond areas previously shown to be impacted with hydrocarbons, and therefore account for degradation of the chemicals that has likely taken place. When shallow soil sample data was not available from the 2005/2006 borings, data from borings G-1 through G-5 collected in 2002 was used. The maximum soil concentrations in shallow and deep soils at the Site are presented in **Table 1**.

6.3.2 Groundwater

According to the USEPA, to account for the impact of seasonal variations when calculating representative concentration of the COCs in groundwater, analytical data from at least two quarters is required, and data from four quarters is preferred (USEPA, 1993). The USEPA also recommends that the groundwater concentrations are either estimated by (1) the 95% upper confidence limit (UCL) of the arithmetic mean for wells across the Site, or (2) the arithmetic mean of data obtained from a well or wells in the center of the plume (USEPA, 1993). When there are less than 10 samples per exposure area or when there is large variation in the dataset, there is a large difference between the mean and the 95% UCL, and the mean will likely provide a more accurate representation of actual Site conditions (USEPA 1992b and 1993).

Petroleum hydrocarbons and BTEX detected in the last four quarters were selected as chemicals of concern. The maximum concentrations were detected in wells MW-3 and MW-5. Therefore, data from well MW-3 was used to calculate the mean toluene, ethylbenzene, xylenes and TPHg concentrations, and data from well MW-5 was used to calculate the benzene and MtBE concentrations. When concentrations were not detected, the analytical practical quantitation limit provided by the laboratory was used. The mean concentrations for the COCs in groundwater are presented in **Table 2.**

6.3.3 Soil Gas

Vapor samples were collected from wells MW-3, MW-5 and RW-1 utilizing the 25 inches of mercury vacuum provided by the temporary DPE system. The typical vacuum used during soil gas sampling is less than 10 inches of mercury (Cal/EPA, 2005a); therefore, these samples will provide a very conservative estimate of risk. Because the wells were designed for dual phase extraction, vapors were collected from both the saturated and unsaturated zones. Each well was isolated when the samples were collected, and no dilution air was added. Given the limited number of soil gas samples collected, the maximum detected soil gas concentration was used as the EPC.

6.3.4 Tier 1 Screening levels

Based on correspondence with Alameda County Health Services, the RWQCB ESLs were selected as the screening levels for direct contact with soil and the inhalation of vapors from soil, groundwater, and soil gas to indoor air. The RWQCB has not established an ESL for the vapor intrusion pathway for TPHg or TBA in soil or groundwater, and advises that risks via this exposure pathway be assessed by comparing soil gas data to the soil gas ESL.

The ESLs are conservatively calculated using the latest Cal-EPA toxicological data, and reflect a target excess cancer risk (ECR) value of one in a million (1E-06) and a non-carcinogenic hazard quotient (HQ) 0.2. Per the USEPA (USEPA, 1991), the acceptable multi-chemical and multi-pathway ECR range is from 1E-04 to 1E-06, and the acceptable multi-pathway non-carcinogenic HQ for a single chemical or multi-chemical and multi-pathway hazard index (HI) (segregated by toxic effects) is 1.0. The HI is calculated by summing the chemical-specific and/or pathway-specific HQs). To address anticipated reuse of the Site, the Tier 1 HHRA used ESLs for commercial/industrial or construction worker exposure.

6.4 TIER 1 HHRA RESULTS

6.4.1 Soil

None of the soil concentrations exceeded the ESLs for the direct contact or inhalation pathways. The soil EPCs and the pathway specific ESLs are presented in Table 1.

6.4.2 Groundwater

None of the groundwater EPCs exceeded the ESLs for the vapor intrusion pathway. Although the mean concentration of MtBE did exceed the MCL, ingestion of groundwater is not a complete exposure pathway. Potential exposure to MtBE impacted groundwater in the future is

addressed in Section 5.2 of this report. The groundwater concentrations of the COCs, the mean concentration, and the applicable ESLs are presented in Table 2.

6.4.3 Soil Gas

The TPHg concentrations measured in soil gas ranged from 5.6E04 micrograms per cubic meter ($\mu g/m^3$) in MW-3 to 7.0E04 $\mu g/m^3$ in MW-5 and were below the commercial/industrial ESL of 7.2E04. MTBE detected in soil gas ranged from 6.9E02 $\mu g/m^3$ in RW-1 to 8.7E02 $\mu g/m^3$ in MW-5 and were below both the commercial/industrial ESL of 3.1E04 and the residential ESL of 9.4E03. The soil gas EPCs and ESLs are presented in Table 3. As discussed in Section 6.3.3, these soil gas samples were collected under vacuum and are therefore expected to be significantly higher than ambient conditions.

The soil gas samples were not analyzed for TBA, although low concentrations of (0.01 mg/kg) were detected in the shallow soil samples in borings G-3 and SB-18 north of the auto parts store. However, because TBA has similar physical characteristics to MtBE, and because MtBE was present at elevated concentrations in the soil and groundwater when TBA was only present in the soil at low concentrations, MtBE was used as a surrogate to provide a conservative estimate of the potential risk from TBA via the inhalation pathway. MtBE was detected in the soil gas at a maximum concentration of 8.7E02, which is an order of magnitude less than the TBA ESL of 8.7E03.

7.0 CONCLUSION

The NFAR assessment and HHRA analysis have shown that the residual hydrocarbons in the soil, groundwater and soil gas at the Site do not present an unacceptable risk to human health or the environment on or off Site. Therefore, we conclude that a NFAR request for this site would be appropriate.

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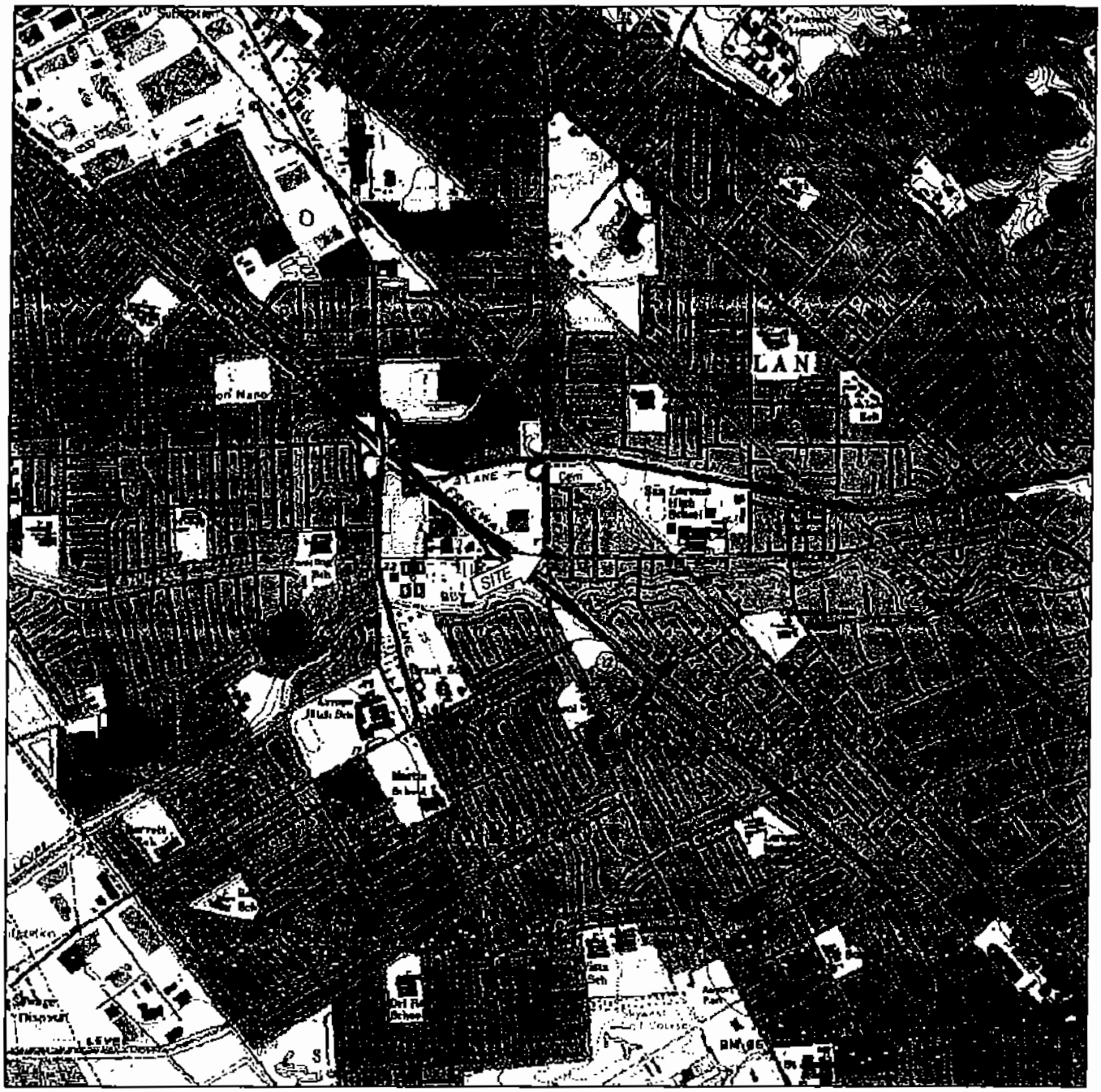
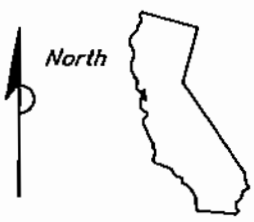
FIGURES

NFAR ANALYSIS AND HHRA
FORMER 76 SERVICE STATION NO. 7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CALIFORNIA

SECOR Project No. 77CP.67004.08
October 5, 2006





1 1/2 0 1

SCALE (MILES)

1000 0 1000 2000 3000 4000 5000 6000 7000

SCALE (FEET)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, SAN LEANDRO, CALIFORNIA

SECOR 3017 KILGORE ROAD, SUITE 100 RANCHO CORDOVA, CALIFORNIA PHONE: (916) 861-0400/861-0430 (FAX)	FOR: CONOCOPHILLIPS FORMER 76 SERVICE STATION NO. 7004 15599 HESPERIAN BOULEVARD SAN LEANDRO, CALIFORNIA		**SITE LOCATION MAP**		FIGURE: **1**
	JOB NUMBER: 77CP.67004.00	DRAWN BY: DWR	CHECKED BY: ST	APPROVED BY: TP	DATE: 9/16/05

LEGEND:

- GROUNDWATER MONITORING WELL
- AQUIFER TESTING WELL
- SB23 SOIL BORINGS
- HEAVY DUTY PAVEMENT

TARGET

DEPRESSED TRUCK DOCK

SB1

SB2

SB37

PROPOSED PARCEL LINE

BOLLARD (TYP.)

SB36

SB4

OUTPARCEL 1

TRASH ENCLOSURE

SB35

MW10

SB5

PAD 1
3958 SQ FT

BUILDING LIMIT LINE

SB34

SB33

SB6

MW-1

FORMER UNDERGROUND STORAGE TANKS REMOVED 2000

G-1

MW-4

SB7

SB27

SB9

MW-2

SB24

SB8

SB26

TANKS

SB10

SB11

SB30

RW-1

G-4

SB18

SB25

KIOSK

MW9

SB19

MW-3

SB28

SB12

G-3

G-5

G-2

SB21

SB17

SB20

MW-7

SB3

MW-5

SB22

SB13

MW8

SB29

SB31

PREVIOUS KRAGEN AUTO PARTS

FORMER DISPENSER ISLANDS

SB23

SB14

SB16

SB15

MW-6

SB32

PLANTER

DRIVEWAY

HESPERIAN BOULEVARD

CONCRETE WALK

EAST LEWELLING BOULEVARD

N

0 50 100

SCALE IN FEET

REFERENCE: PRELIMINARY SITE PLAN EXHIBIT "A" PREPARED FOR WAL-MART STORES, PROVIDED BY MR. BOB CLARK-RIDDELL

SECOR
3017 KILGORE ROAD, SUITE 100
RANCHO CORDOVA, CALIFORNIA
PHONE: (916) 861-0400/861-0430 (FAX)

FOR:
FORMER 76
SERVICE STATION NO. 7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CALIFORNIA

SITE PLAN

FIGURE: **2**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
77CP.01631.00	MDR	DMB	DMB	08/29/06

Q:\CADD-77\ConocoPhillips\7004\EXHIBIT-A.dwg, 10/5/2006 5:21:15 PM, droy

SECOR

TABLES

NFAR ANALYSIS AND HHRA
FORMER 76 SERVICE STATION NO. 7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CALIFORNIA

SECOR Project No. 77CP.67004.08
October 5, 2006

Table 1
Maximum Soil Concentrations and Enviromental Screening Levels

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Sample ID	Constituent	Date Collected	Sample Depth (feet bgs)	Maximum Soil Concentration (mg/Kg)	ESL[a] (mg/kg) Construction Worker Direct Contact[b]	ESL[a] (mg/kg) Vapor Intrusion[c,d]
Shallow Soils (≤10ft bgs)						
SB-1 through SB-37 and G-1 through G-5	Benzene	2002, 2005 & 2006	≤10	< 0.005	16,000	0.510
SB-30	Toluene	January-06	5.5	0.03	4,100	310
SB-30	Ethylbenzene	January-06	5.5	0.54	20,000	390
SB-30	Xylenes	January-06	2.5	7.80	13,000	420
SB-23	MTBE	August-05	10	0.01	2,500	5.6
SB-26	TBA	January-06	7.5	0.01	3,700	Nav[f]
SB-30	TPHg	January-06	5.5	46.00	6,000	Nav[f]
SB-32	Lead	January-06	5.5	12.00	750	NA
Deep Soils (>10 ft bgs and < 15 ft bgs)						
SB-1 through SB-37 and G-1 through G-5	Benzene	2002, 2005 & 2006	>10 and < 15	< 0.005	16,000	0.510
SB-1 through SB-37 and G-1 through G-5	Toluene	2002, 2005 & 2006	>10 and < 15	< 0.005	4,100	310
SB-1 through SB-37 and G-1 through G-5	Ethylbenzene	2002, 2005 & 2006	>10 and < 15	< 0.005	20,000	390
SB-1 through SB-37 and G-1 through G-5	Xylenes	2002, 2005 & 2006	>10 and < 15	< 0.005	13,000	420
SB-18	MTBE	August-05	13	0.022[e]	2,500	5.6
SB-18	TBA	August-05	13	0.024[e]	3,700	Nav[f]
SB-1 through SB-37	TPHg	2002, 2005 & 2006	>10 and < 15	< 1.0	6,000	Nav[f]
SB-32	Lead	January-06	10.5	13.000	750	NA

Definitions:

ESL = Environmental screening level based on a hazard quotient of =0.2 and an excess cancer risk of 1.0E-06)
bgs = Below the ground surface
mg/kg = Milligrams per kilogram
ESL = Environmental screening level
MTBE = Methyl tertiary butyl ether
TBA = Tert butyl alcohol
Nav = Not Available
NA = Not applicable because lead is not volatile

Notes:

[a] Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater. Appendix 1. (SFRWQCB Interim Final - February 2005). Hazard Quotient = 0.2 and Excess Cancer Risk = 10^{-6} unless otherwise noted

[b] Table K-3 Direct-Exposure Screening Levels Construction/Trench Worker Exposure Scenario

[c] Table A-2 Shallow Soil Screening Levels (<3m bgs) Commercial/Industrial Land Use (groundwater IS a current or potential drinking water resource)

[d] Table C-2 Deep Soil Screening Levels (>3m bgs) Commercial/Industrial Land Use (groundwater IS a current or potential drinking water resource)

[e] The MTBE and TBA concentrations in samples collected from boring G-3 were 0.051 and 0.083 mg/kg, respectively. However, because these data are almost 4 years old, current data was used. Additionally, these concentrations are below the applicable ESLs

[f] No ESL Available in Tables A-2 and C-2. Both tables say "Use soil gas"

Table 2
Groundwater Concentrations and Environmental Screening Levels

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Date	Benzene[a] (µg/L)	Toluene[b] (µg/L)	Ethylbenzene[b] (µg/L)	Xylenes[b] (µg/L)	MTBE[a] (µg/L)	TPHg[b] (µg/L)
Sep-05	0.56	5.0[c]	22.0	10.0	55.0	670.0
Dec-05	0.50[c]	0.5[c]	0.5[c]	1.0[c]	9.4	190.0
Mar-06	0.50[c]	1.5	86.0	4.6	4.3	4,400.0
May-06	1.50	1.3	59.0	1.0[c]	72.0	3,200.0
Arithmetic Mean	0.80	2.1	41.9	4.2	35.2	2,115.0
Primary MCL[d]	1.0	150.0	300.0	1,750.0	13.0	DNE
Public Health Goal[e]	0.15	150.0	300.0	1,800.0	13.0	DNE
Vapor Intrusion ESL[f]	6,400	530,000	170,000	160,000	150,000	Nav

Definitions:

TPHg = Total petroleum hydrocarbons in the gasoline range

MTBE = Methyl tertiary butyl ether

MCL = Maximum contaminant level

ESL = Environmental screening level

µg/L = Micrograms per liter

DNE = Does not exist

Nav = Not Available; use soil gas

[a] Analytical data from well MW-5

[b] Analytical data from well MW-3

[c] Analytical pratical quantitation limit

[d] California Department of Health Services (CDHS) primary maximum contaminant level (2003)

[e] Office of Environmental Health Hazard Assessment, March 6, 2006

[f] Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater. Appendix 1, Table E-1a Groundwater Screening Levels For Evaluation of Potential Vapor Intrusion Concerns: Commercial/Industrial Land Use, Low/Moderately Permeable Soils (SFRWQCB Interim Final - February 2005).

Table 3
Soil Gas Concentrations and Environmental Screening Levels
July 17, 2006
Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Well	TPHg ($\mu g/m^3$)	Benzene ($\mu g/m^3$)	Toluene ($\mu g/m^3$)	Ethylbenzene ($\mu g/m^3$)	Xylenes ($\mu g/m^3$)	MTBE ($\mu g/m^3$)
MW-3	5.6E+04	ND	ND	ND	ND	ND
MW-5	7.0E+04	ND	ND	ND	ND	8.7E+02
RW-1	6.7E+04	ND	ND	ND	ND	6.9E+02
Reporting Limit	1.8E+04	9.9E+02	9.8E+02	1.0E+03	1.0E+03	5.0E+02
Vapor Intrusion ESL[a]	7.2E+04	2.9E+02	1.8E+05	1.2E+06	4.1E+05	3.1E+04

Definitions:
TPHg = Total petroluem hydrocarbons in the gasoline range
MTBE = Methyl tertiary butyl ether
$\mu g/m^3$ = micorgrams per cubic meter
ESL = Environmental screening level
ND = Not detected

Notes: All data were converted from parts per million by volume reported by the STL with the unit converter available at http://www.airtoxics.com/cclasses/unitcalc.html

[a]Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater. Appendix 1. Table E-2 [1]Shallow Soil Gas Screening Levels For Evaluation of Potential Vapor Intrusion Concerns: Commercial/Industrial Land Use, SFRWQCB Interim Final - February 2005. [1]Shallow soils are < 5 feet below the building foundation)

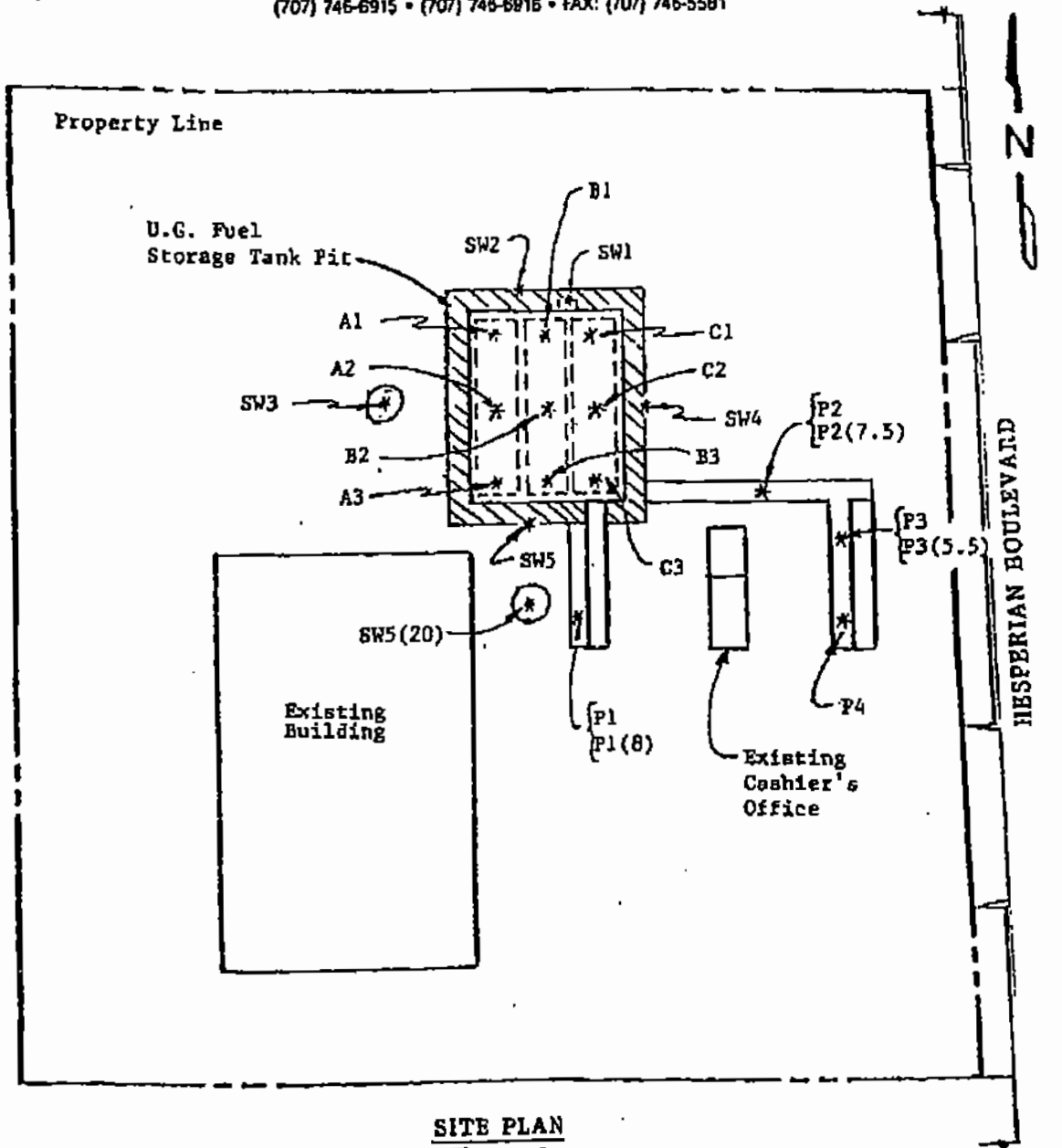
SECOR

APPENDIX A
MAPS WITH HISTORICAL SOIL SAMPLE LOCATIONS

NFAR ANALYSIS AND HHRA
FORMER 76 SERVICE STATION NO. 7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CALIFORNIA

SECOR Project No. 77CP.67004.08
October 5, 2006

KAPREALIAN ENGINEERING, INC.
Consulting Engineers
P.O. BOX 996 • BENICIA, CA 94510
(707) 746-6915 • (707) 746-6916 • FAX: (707) 746-5581



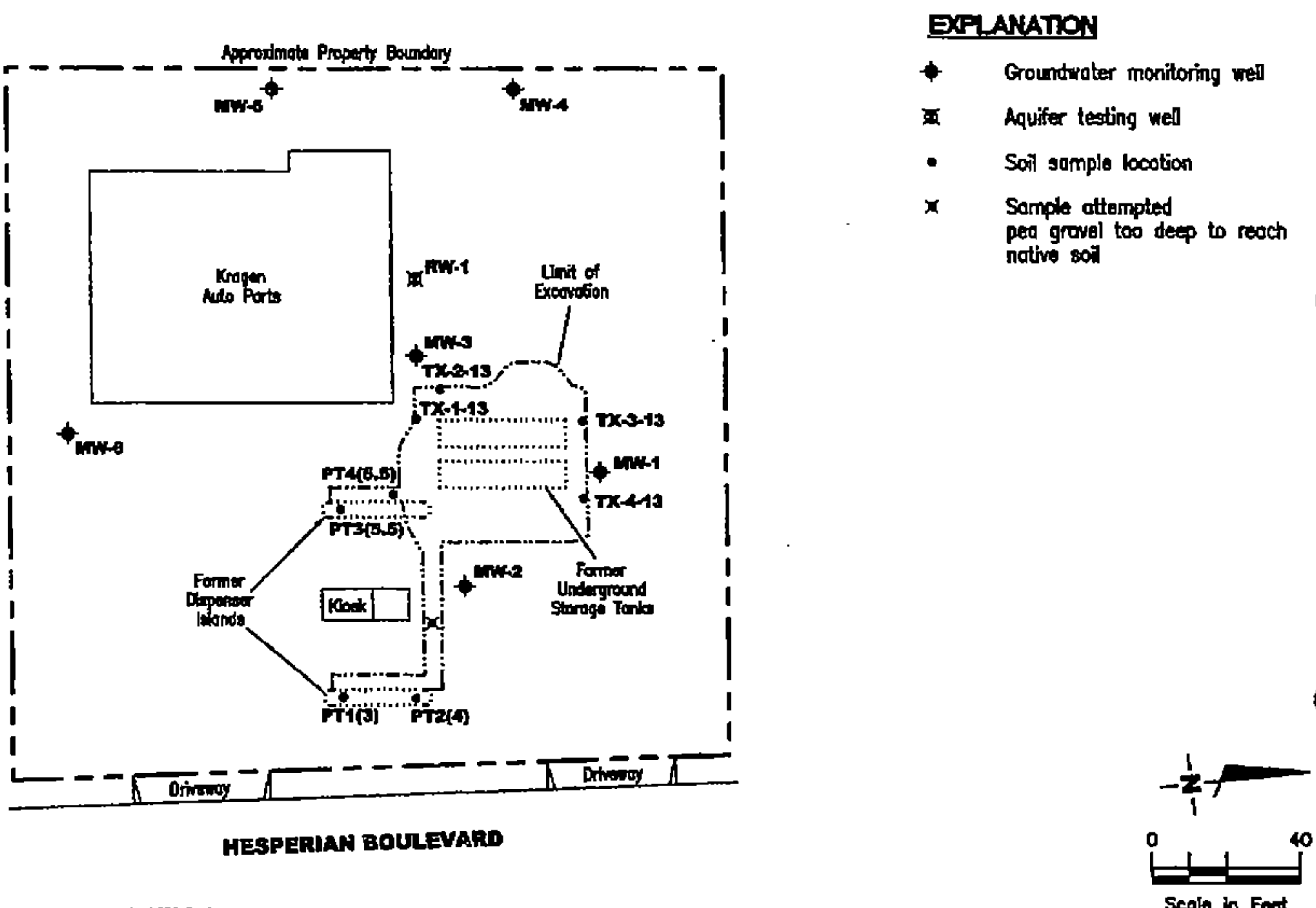
SITE PLAN
Figure 2

LEGEND

* Sample Point Location

▨ Area of Additional Excavation

Unocal S/S #7004
15599 Hesperian Boulevard
San Leandro, CA



Source: Figure modified from drawing provided by MPDS Services Inc.

Gettler - Ryan Inc.
6747 Sierra Ct., Suite J
Dublin, CA 94568
(925) 551-7555

SITE PLAN
Former Tosco (76) Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California

FIGURE
2

PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
140106		8/00	

FILE NAME: P:\ENVIRO\TOSCO\7004\A00-7004.DWG | Layout Tab: Tank Rpt 8-00

SECOR

APPENDIX B
HISTORICAL SOIL ANALYTICAL DATA

NFAR ANALYSIS AND HHRA
FORMER 76 SERVICE STATION NO. 7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CALIFORNIA

SECOR Project No. 77CP.67004.08
October 5, 2006

Historical Soil Analytical Data

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Sample ID	Sample Depth (feet bgs)	Date Sampled	TPH-g [1] (mg/kg)	BTEX [2]				MTBE [3] (mg/kg)	Fuel Oxygenates [4]							Lead [5] (mg/kg)
				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)		TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	Ethanol (mg/kg)	
Groundwater Monitoring Wells																
MW-1																
MW1 (5)	5	4/22/1991	<1.0	<0.0050	<0.0050	<0.0050	0.012	--	--	--	--	--	--	--	--	--
MW1 (10)	10	4/22/1991	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW1 (16)	16	4/22/1991	1.5	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW-2																
MW2 (5)	5	4/22/1991	4.5	0.015	<0.0050	0.034	0.079	--	--	--	--	--	--	--	--	--
MW2 (10)	10	4/22/1991	6.8	0.025	<0.0050	0.035	0.043	--	--	--	--	--	--	--	--	--
MW2 (15.5)	15.5	4/22/1991	<1.0	<0.005	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW2 (17)	17	4/22/1991	<1.0	0.014	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW-3																
MW3 (5)	5	4/22/1991	2.0	0.025	<0.0050	<0.0050	0.011	--	--	--	--	--	--	--	--	--
MW3 (10)	10	4/22/1991	<1.0	0.018	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW3 (15)	15	4/22/1991	4,600	23	9.1	63	290	--	--	--	--	--	--	--	--	--
MW3 (17.5)	17.5	4/22/1991	1,000	8.4	4.6	17	84	--	--	--	--	--	--	--	--	--
MW-4																
MW4 (5)	5	7/2/1991	<1.0	<0.0050	0.0084	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW4 (10)	10	7/2/1991	<1.0	<0.0050	0.0051	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW4 (15)	15	7/2/1991	<1.0	<0.0050	0.018	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW4 (17)	17	7/2/1991	<1.0	<0.0050	0.015	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW-5																
MW5 (5)	5	7/2/1991	<1.0	<0.0050	0.030	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW5 (10)	10	7/2/1991	<1.0	<0.0050	0.0074	0.012	<0.0050	--	--	--	--	--	--	--	--	--
MW5 (15)	15	7/2/1991	<1.0	<0.0050	0.011	0.0094	<0.0050	--	--	--	--	--	--	--	--	--
MW5 (17.5)	17.5	7/2/1991	<1.0	<0.0050	0.0098	0.0077	0.0052	--	--	--	--	--	--	--	--	--
MW-6																
MW6 (5)	5	7/2/1991	<1.0	<0.0050	0.0088	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW6 (10)	10	7/2/1991	<1.0	<0.0050	0.0061	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW6 (15)	15	7/2/1991	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--
MW6 (17.5)	17.5	7/2/1991	<1.0	<0.0050	0.0084	0.0063	<0.0050	--	--	--	--	--	--	--	--	--
MW7																
MW7-6	6	1/17/2006	<0.98	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<0.0098	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	13
MW7-10.5	10.5	1/17/2006	<0.91	<0.0046	<0.00463	<0.0046	<0.0091	<0.0046	<0.0091	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	3.8
MW7-12.5	12.5	1/17/2006	<0.85	<0.0043	<0.0043	<0.0043	<0.0085	<0.0043	<0.0085	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.43	6.3
MW7-24	24	1/17/2006	<0.88	<0.0044	<0.0044	<0.0044	<0.0088	<0.0044	<0.0088	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.44	5.0
MW8																
MW8-5.5	5.5	1/18/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	6.3
MW8-11.5	11.5	1/18/2006	<1.9	<0.0097 g	<0.0097 g	<0.0079	<0.019	<0.0097 g	<0.019	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.97	4.6
MW8-24.5	24.5	1/18/2006	<0.93	<0.0046	<0.0046	<0.0046	<0.0093	<0.0046	<0.0093	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	4.5
MW9																
MW9-6.5	6.5	1/17/2006	<0.99	<0.0049	<0.0049	<0.0049	<0.0099	<0.0049	<0.0099	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	5.2
MW9-11	11	1/17/2006	<0.93	<0.0047	<0.0047	<0.0047	<0.0093	0.011	<0.0093	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	5.7
MW9-15	15	1/17/2006	<0.93	<0.0046	<0.0046	<0.0046	<0.0093	<0.0046	<0.0093	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	5.2
MW9-25	25	1/17/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	4.2
MW10																
MW10-5.5	5.5	1/17/2006	<0.88	<0.0044	<0.0044	<0.0044	<0.0088	<0.0044	<0.0088	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.44	8.6
MW10-10.5	10.5	1/17/2006	<0.87	<0.0043	<0.0043	<0.0043	<0.0087	<0.0043	<0.0087	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.43	3.8
MW10-20.5	20.5	1/17/2006	<0.92	<0.0046	<0.0046	<0.0046	<0.0092	<0.0046	<0.0092	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	5.7
MW10-24.5	24.5	1/17/2006	<0.98	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<0.0098	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	4.4

Historical Soil Analytical Data

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Sample ID	Depth (feet)	Date Sampled	Notes	TPH-d (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	Ethanol (mg/kg)	Lead (mg/kg)
UST and Piping Removal and Excavation																	
USTs Removed 1990																	
A1	14.5	10/12/1990	a,h	350	2.0	3.6	7.7	47	--	--	--	--	--	--	--	--	--
A2	14.5	10/12/1990	a,h	460	2.4	7.3	7.4	49	--	--	--	--	--	--	--	--	--
A3	14	10/12/1990	a,h	570	0.97	5.6	8.3	50	--	--	--	--	--	--	--	--	--
B1	15	10/12/1990	a,h	180	0.64	0.64	3.0	11	--	--	--	--	--	--	--	--	--
B2	15	10/12/1990	a,h	1,900	9.7	120	33	250	--	--	--	--	--	--	--	--	--
B3	15	10/12/1990	a,h	990	6.3	52	18	120	--	--	--	--	--	--	--	--	--
C1	15	10/12/1990	a,h	270	0.64	3.7	5.4	22	--	--	--	--	--	--	--	--	--
C2	15	10/12/1990	a,h	1,200	4.9	41	24	150	--	--	--	--	--	--	--	--	--
C3	15	10/12/1990	a,h	590	4.6	23	9.4	80	--	--	--	--	--	--	--	--	--
Fuel Tank Pit Side Walls 1990																	
SW-1	18	10/19/1990	h	3.7	0.21	0.024	0.14	0.42	--	--	--	--	--	--	--	--	--
SW-2	18	10/19/1990	h	4.5	0.46	0.024	0.28	0.46	--	--	--	--	--	--	--	--	--
SW-3	18	10/19/1990	h	4.1	0.024	0.0080	0.058	0.088	--	--	--	--	--	--	--	--	--
SW-4	18	10/19/1990	h	<1.0	0.0090	<0.0050	<0.0050	0.0070	--	--	--	--	--	--	--	--	--
SW-5	18	10/22/1990	h	998	0.58	<0.0050	19	21	--	--	--	--	--	--	--	--	--
SW-5 (20)	18	10/22/1990		30	0.054	0.047	0.48	0.054	--	--	--	--	--	--	--	--	--
Product Piping Removal 1990																	
P1	2.5	10/31/1990	a,f,j	1,400	0.22	3.3	8.9	72	--	--	--	--	--	--	--	--	--
P1 (8.0)	8	11/2/1990	a	5.7	0.0078	0.0054	0.033	0.18	--	--	--	--	--	--	--	--	--
P2	3	10/31/1990	a,i	3,900	1.1	23	41	280	--	--	--	--	--	--	--	--	--
P2 (7.5)	7.5	10/31/1990	a,b,i	20	<0.025	0.11	0.12	1.3	--	--	--	--	--	--	--	--	--
P3	2.5	10/31/1990	a,f,k	100	0.057	0.63	0.97	12	--	--	--	--	--	--	--	--	--
P3 (5.5)	5.5	11/2/1990	a,f	9.8	0.015	0.15	0.13	1.3	--	--	--	--	--	--	--	--	--
P4	2.5	10/31/1990	a,f	19	<0.0050	0.10	<0.0050	0.13	--	--	--	--	--	--	--	--	--
USTs Removed 2000																	
TX-1-13	13	5/26/2000		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	--	--	--	--	--	--	--	--
TX-2-13	13	5/26/2000	c	1.1	<0.0050	<0.0050	0.014	0.015	<0.050	--	--	--	--	--	--	--	11
TX-3-13	13	5/26/2000	d	350	<0.25	<0.25	4.8	0.81	<2.5	--	--	--	--	--	--	--	5.5
TX-4-13	13	5/26/2000	d	4	<0.0050	<0.0050	0.016	0.013	<0.050	--	--	--	--	--	--	--	5.5
Product Lines Removed 2000																	
PT1 (3)	3	5/24/2000		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	--	--	--	--	--	--	--	--
PT2 (4)	4	5/24/2000		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	--	--	--	--	--	--	--	--
PT3 (4.5)	4.5	5/24/2000		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	--	--	--	--	--	--	--	--
PT4 (5.5)	5.5	5/24/2000		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	--	--	--	--	--	--	--	--
Soil Borings																	
G-1																	
G-1 (S10)	10	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-1 (S14)	14	9/20/2002		<100	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<20	--
G-2																	
G-2 (S5)	5	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-2 (S10)	10	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-2 (S14)	14	9/20/2002		<100	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<20	--
G-3																	
G-3 (S5)	5	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-3 (S10)	10	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-3 (S13.5)	13.5	9/20/2002		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.051	0.093	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--

Historical Soil Analytical Data

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Sample Name	Sample Depth (feet)	Date Sampled	TPH-g (mg/kg)	BTEX (mg/kg)				MTBE (mg/kg)	Fuel Oxygenates (mg/kg)							Lead (mg/kg)
				Benzene	Toluene	Ethylbenzene	Total Xylenes		TBA	DIPE	ETBE	TAME	Ethanol	Ethanol	Methanol	
G-4																
G-4 (S10)	10	9/20/2002	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-4 (S13)	13	9/20/2002	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-5																
G-5 (S5)	5	9/20/2002	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-5 (S10)	10	9/20/2002	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.20	--
G-5 (S13)	13	9/20/2002	<100	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<20	--
SB1																
SB1-12	12	8/23/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	4.9
SB2																
SB2-15	15	8/22/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	6.4
SB2-22	22	8/22/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	3.2
SB3																
SB3-7	7	8/22/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.3
SB3-10	10	8/22/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	4.6
SB4																
SB4-12	12	8/22/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.012	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.7
SB4-19	19	8/22/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.0076	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.7
SB5																
SB5-12	12	8/22/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	4.4
SB5-19	19	8/22/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.1
SB6																
SB6-13	13	8/23/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.013	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	4.3
SB6-19	19	8/23/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.2
SB7																
SB7-11	11	8/23/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	3.5
SB7-19	19	8/23/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.1
SB8																
SB8-13	13	8/23/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.2
SB8-16	16	8/23/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	7.2
SB8-22	22	8/23/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	3.4
SB9																
SB9-13	13	8/23/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	4.7
SB9-19	19	8/23/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	4.4
SB10																
SB10-16	16	8/23/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	4.2
SB10-28	28	8/24/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	4.7
SB11																
SB11-15	15	8/24/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	6.9
SB11-19	19	8/24/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.4
SB12																
SB12-12	12	8/24/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.7
SB13																
SB13-12	12	8/24/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	8.3
SB13-19	19	8/24/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.8
SB14																
SB14-13	13	8/24/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.1
SB14-19	19	8/24/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	6.8
SB15																
SB15-13	13	8/24/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	10
SB15-19	19	8/24/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.6

Historical Soil Analytical Data

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Sample ID	Depth (feet)	Date Sampled	TPH-g (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Fuel Oxygenates: TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	Ethanol (mg/kg)	Lead (mg/kg)
SB16																
SB16-12	12	8/26/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.2
SB16-22	22	8/26/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	2.7
SB17																
SB17-11	11	8/25/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.012	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.6
SB18																
SB18-13	13	8/25/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.022	0.024	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.1
SB18-22	22	8/25/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	2.3
SB19																
SB19-13	13	8/25/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.7
SB19-22	22	8/25/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.3
SB20																
SB20-11	11	8/25/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.0
SB20-22	22	8/25/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	2.9
SB21																
SB21-12	12	8/26/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	7.3
SB21-22	22	8/26/2005	<1.0	<0.0050	<0.0050	0.024	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	2.4
SB22																
SB22-10	10	8/26/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.4
SB22-12	12	8/26/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.4
SB22-19	19	8/26/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	6.0
SB23																
SB23-10	10	8/26/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.011	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.1
SB23-13	13	8/26/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.011	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	1.9
SB23-22	22	8/26/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	4.1
SB24																
SB24-2.5	2.5	1/20/2006	<0.99	<0.0049	<0.0049	<0.0049	<0.0099	<0.0049	0.010	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	7.0
SB24-5.5	5.5	1/20/2006	<0.98	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<0.0098	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	6.4
SB24-7.5	7.5	1/20/2006	<0.97	<0.0049	<0.0049	<0.0049	<0.0097	<0.0049	<0.0097	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	4.7
SB24-10.5	10.5	1/20/2006	<0.97	<0.0048	<0.0048	<0.0048	<0.0097	<0.0048	<0.0097	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	4.5
SB24-12.5	12.5	1/20/2006	<0.97	<0.0048	<0.0048	<0.0048	<0.0097	<0.0048	<0.0097	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	5.3
SB25																
SB25-5.5	5.5	1/20/2006	<0.98	<0.0049	<0.0049	<0.0049	<0.0098	0.008	<0.0098	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	7.0
SB25-10.5	10.5	1/20/2006	<0.91	<0.0046	<0.0046	<0.0046	<0.0091	<0.0046	<0.0091	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	7.8
SB25-12.5	12.5	1/20/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	4.2
SB26																
SB26-5.5	5.5	1/20/2006	<0.99	<0.0050	<0.0050	<0.0050	<0.0099	<0.0050	<0.0099	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	1.6
SB26-7.5	7.5	1/20/2006	<0.99	<0.0049	<0.0049	<0.0049	<0.0099	<0.0049	<0.0099	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	<0.98
SB26-10.5	10.5	1/20/2006	<0.98	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<0.0098	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	3.0
SB26-12.5	12.5	1/20/2006	<0.97	<0.0048	<0.0048	<0.0048	<0.0097	<0.0048	<0.0097	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	4.8
SB27																
SB27-5.5	5.5	1/19/2006	<0.97	<0.0048	<0.0048	<0.0048	<0.0097	<0.0048	<0.0097	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	4.4
SB27-7.5	7.5	1/19/2006	<0.90	<0.0045	<0.0045	<0.0045	<0.0090	<0.0045	<0.0090	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.45	4.0
SB27-10.5	10.5	1/19/2006	<0.97	<0.0049	<0.0049	<0.0049	<0.0097	<0.00489	<0.0097	<0.0049	<0.049	<0.0049	<0.0049	<0.0049	<0.49	3.3
SB27-12.5	12.5	1/19/2006	<0.96	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<0.0096	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	3.8
SB27-15	15	1/19/2006	<0.95	<0.0047	<0.0047	<0.0047	<0.0095	<0.0047	<0.0095	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	5.4
SB28																
SB28-5.5	5.5	1/20/2006	<0.94	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<0.0094	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	3.0
SB28-7.5	7.5	1/20/2006	<0.93	<0.0046	<0.0046	<0.0046	<0.0093	<0.0046	<0.0093	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	4.4
SB28-10.5	10.5	1/20/2006	<0.95	<0.0048	<0.0048	<0.0048	<0.0095	<0.0048	<0.0095	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	4.7
SB28-12.5	12.5	1/20/2006	<0.95	<0.0048	<0.0048	0.010	<0.0095	<0.0048	<0.0095	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	4.4

Historical Soil Analytical Data

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Sample ID	Depth (feet bgs)	Date Sampled	TPHg[1] (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE[2] (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	TPPH[3] (mg/kg)	Lead[4] (mg/kg)
SB29																
SB29-5.5	5.5	1/19/2006	<0.99	<0.0050	<0.0050	<0.0050	<0.0099	<0.0050	<0.0099	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	6.5
SB29-10.5	10.5	1/19/2006	<0.99	<0.0049	<0.0049	<0.0049	<0.0099	<0.0049	<0.0099	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	5.3
SB29-12.5	12.5	1/19/2006	<0.98	<0.0049	<0.0049	<0.0049	<0.0098	0.008	<0.0098	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	5.5
SB30																
SB30-2.5	2.5	1/19/2006	<170	<0.85	<0.85	1.2	7.8	<0.85	<1.7	<0.85	<0.85	<0.85	<0.85	<0.85	<85	8.2
SB30-5.5	5.5	1/19/2006	46	<0.024	0.029	0.54	4.2	<0.024	<0.048	<0.024	<0.024	<0.024	<0.024	<0.024	<2.4	6.6
SB30-7.5	7.5	1/19/063	<0.99	<0.0050	<0.0050	<0.0050	0.037	<0.0050	<0.0099	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	7.8
SB320-10	10	1/19/2006	<4.8	<0.024	<0.024	0.028	0.18	<0.024	<0.048	<0.024	<0.024	<0.024	<0.024	<0.024	<2.4	6.2
SB30-12.5	12.5	1/19/2006	<0.97	<0.0048	<0.0048	<0.0048	<0.0097	<0.0048	<0.0097	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	4.3
SB31																
SB31-7	7	1/20/2006	<0.99	<0.0050	<0.0050	<0.0050	<0.0099	<0.0050	<0.0099	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	3.7
SB31-11	11	1/20/2006	<0.97	<0.0048	<0.0048	<0.0048	<0.0097	<0.0048	<0.0097	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	5.0
SB32																
SB32-5.5	5.5	1/19/2006	<0.97	<0.0048	<0.0048	<0.0048	<0.0097	<0.0048	<0.0097	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	12
SB32-7.5	7.5	1/19/2006	<0.99	<0.0050	<0.0050	<0.0050	<0.0099	<0.0050	<0.0099	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	3.8
SB32-10.5	10.5	1/19/2006	<0.92	<0.0046	<0.0046	<0.0046	<0.0092	<0.0046	<0.0092	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	13
SB32-12.5	12.5	1/19/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	3.0
SB33																
SB33-11	11	1/18/2006	<0.99	<0.0050	<0.0050	<0.0050	<0.0099	<0.0050	<0.0099	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	4.2
SB33-14	14	1/18/2006	<0.93	<0.0047	<0.0047	<0.0047	<0.0093	<0.0047	<0.0093	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	4.0
SB33-20	20	1/18/2006	<0.95	<0.0047	<.0047	<.0047	<0.0093	<0.0047	<0.0093	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	4.7
SB34																
SB34-9	9	1/18/2006	<0.98	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<0.0098	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	5.1
SB34-12	12	1/18/2006	<0.99	<0.0050	<0.0050	<0.0050	<0.0099	<0.0050	<0.0099	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	4.4
SB34-19	19	1/18/2006	<0.94	<0.0047	<0.0047	<0.0047	<0.0094	0.0058	<0.0094	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	5.1
SB35																
SB35-7	7	1/18/2006	<0.95	<0.0048	<0.0048	<0.0048	<0.0095	<0.0048	<0.0095	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	4.0
SB35-12	12	1/18/2006	<0.94	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<0.0094	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	4.8
SB35-19	19	1/18/2006	<0.94	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<0.0094	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	5.9
SB36																
SB36-9	9	1/19/2006	<0.96	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<0.0096	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	3.5
SB36-10.5	10.5	1/19/2006	<0.90	<0.0045	<0.0045	<0.0045	<0.0090	<0.0045	<0.0090	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.45	4.0
SB36-20	20	1/19/2006	<0.96	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<0.0096	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	5.5
SB37																
SB37-7	7	1/19/2006	<0.91	<0.0045	<0.0045	<0.0045	<0.0091	<0.0045	<0.0091	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.45	3.7
SB37-10.5	10.5	1/19/2006	<0.94	<0.0047	<0.0047	<0.0047	<0.0094	0.0052	<0.0094	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	5.0
SB37-22	22	1/19/2006	<0.84	<0.0042	<0.0042	<0.0042	<0.0084	0.0094	<0.0084	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.42	5.5

Notes:

–	Not analyzed/recorded	1,2-DCA	1,2-Dichloroethane	ETBE	Ethyl tertiary butyl ether	TBA	Tertiary butyl alcohol
<	Denotes less than Laboratory Reporting Limits	DIPE	Di-isopropyl ether	GRO	Gasoline range organics	TPHg	Total petroleum hydrocarbons as gasoline
mg/kg	Milligrams per kilogram	EDB	Ethylene dibromide	MTBE	Methyl tertiary butyl ether	TPPH	Total purgeable petroleum hydrocarbons
bgs	Below ground surface	EPA	Environmental Protection Agency	TAME	Tertiary amyl methyl ether		

1 Analyzed as TPHg by EPA Method 5030/8015 for samples collected between 10/12/1990 and 7/2/1991; as TPHg by OHS Luft between 5/24/2000 and 5/26/2000; as Gasoline (C6-C10) by EPA Method 8260B between 9/20/2002 and 1/20/2006.

2 Analyzed by EPA Method 8020 for samples collected between 10/21/90 and 7/2/1991; by OHS LUFT between 5/24/2000 and 5/26/2000; by EPA Method 8260B between 9/20/2002 and 1/20/2006.

3 Analyzed by DHS Luft between 5/24/2000 and 5/26/2000; by EPA Method 8260B between 9/20/2002 and 1/20/2006.

4 Analyzed by EPA Method 8260B between 9/20/2005 and 1/20/2006.

5 Analyzed by EPA 6000/7000 Series Methods between 5/24/2000 and 5/26/2000; by EPA Method 60108 between 8/26/2005 and 1/20/2006.

Historical Soil Analytical Data

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]							[illegible]
				[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

a Samples collected from bulk material excavated by backhoe.
b Due to matrix effects and/or other factors required additonal sample dilution, detection limits for these samples were raised.
c Chromatogram Pattern was Gasoline C6-C12.
d Chromatogram Pattern was Gasoline C6-C12 + Unidentified Hydrocarbons >C10.
e The sample was diluted due to the presence of high levels of non-target analytes resulted in elevated reporting limits.
f These samples did not appear to contain gasoline.
g LCS, LCSD, MSD, MC, or LCS, LCSD, MSD, MC, or Surrogate exceeded the control limits.
h Sample location excavated to a depth of 19 feet.
i Sample location excavated to a depth of 7.5 feet.
j Sample location excavated to a depth of 8 feet.
k Sample location excavated to a depth of 5.5 feet.

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APPENDIX C
HISTORICAL GROUNDWATER ANALYTICAL DATA

NFAR ANALYSIS AND HHRA
FORMER 76 SERVICE STATION NO. 7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CALIFORNIA

SECOR Project No. 77CP.67004.08
October 5, 2006

Historical Groundwater Analytical Data

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

Sample ID	Date	TPH-g (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)	MTBE [a] (ppb)	DIPE [a] (ppb)	ETBE [a] (ppb)	TAME [a] (ppb)	TBA [a] (ppb)	1,2-DCA [a] (ppb)	EDB [a] (ppb)	Ethanol [a] (ppb)	TRPH (ppm)
Groundwater Monitoring Wells During Dual Phase Extraction															
MW-3	11/5/2001	6,000.00	57.00	50.00	920.00	65	130	-	-	-	-	-	-	-	-
	11/10/2001	2,800.00	13.00	<10	130.00	<10	800	-	-	-	-	-	-	-	-
RW-1	11/5/2001	<500	<5.0	<5.0	<5.0	<5.0	860	-	-	-	-	-	-	-	-
	11/10/2001	4,700	26	<5.0	84	9	150	-	-	-	-	-	-	-	-
UST Excavation Groundwater Sample															
W-1	10/24/1990	4,300	40	1.9	0.54	520	-	-	-	-	-	-	-	-	-
G-1W	9/20/2002	22	<0.50	<0.50	<0.50	<0.50	0.47 f	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	-
G-2W	9/20/2002	8,200	<250	<250	540	<250	<250	<2,500	<250	<250	<250	<250	<250	<25,000	-
G-3W	9/20/2002	1,000	<25	<25	29	<25	240	300	<25	<25	<25	<25	<25	<2,500	-
G-4W	9/20/2002	98,000	<100	<100	1,500	<100	<100	<1,000	<100	<100	<100	<100	<100	<10,000	-
G-5W	9/20/2002	9,300	<500	<500	4,300	<500	360	<5,000	<500	<500	<500	<500	<500	<50,000	-
Soil Borings															
SB1	8/23/2005	<50	<0.50	0.62	<0.50	1.3	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.016
SB2	8/22/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.11
SB3	8/22/2005	<50	<0.50	<0.50	<0.50	<1.0	39	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	<0.0050
SB4	8/22/2005	53	<0.50	1.4	<0.50	9.4	180	8.2	<0.50	<0.50	<0.50	<0.50	<0.50	1,100	0.14
SB5	8/22/2005	<50	<0.50	<0.50	<0.50	<1.0	9.1	7.4	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.045
SB6	8/23/2005	<50	<0.50	<0.50	<0.50	<1.0	2.2	5.4	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.020
SB7	8/23/2005	<50	<0.50	<0.50	<0.50	<1.0	4.6	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.13
SB8	8/23/2005	340 a	<0.50	<0.50	<0.50	<1.0	2.8	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.033
SB9	8/23/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.10
SB10	8/23/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	<0.0063
SB11	8/24/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.083
SB12	8/24/2005 b	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.097
SB13	8/24/2005 b	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.079
SB14	8/24/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.016
SB15	8/25/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.0069
SB16	8/26/2005 c,d	<50	<0.50	<0.50	<0.50	<1.0	<0.50	0.58	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.12
SB17	8/25/2005 c,d	4,100	3.5	1.1	3.8	<1.0	80	71	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.43
SB18	8/25/2005	<50	<0.50	<0.50	<0.50	<1.0	3.6	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.028
SB19	8/25/2005 d,e	2,400	<2.5	<2.5	49	<5.0	<2.5	<25	<2.5	<2.5	<2.5	<2.5	<2.5	<250	0.017
SB20	8/25/2005	450	2.4	<0.50	8.3	8.2	3.8	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.290
SB21	8/26/2005 c,d	2,400	14	<2.5	340	<5.0	<2.5	<25	<2.5	<2.5	<2.5	<2.5	<2.5	<250	0.170
SB23	8/26/2005	<50	<0.50	<0.50	<0.50	<1.0	10	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	0.230
SB27	1/19/2006	310	0.87	<0.50	35	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	-
SB29	1/19/2006	<50	<0.50	<0.50	<0.50	<0.50	35	18	<0.50	<0.50	<0.50	<0.50	<0.50	<100	-
SB30	1/19/2006	610	<0.50	0.63	13	73	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	-
SB33	1/18/2006	<50	<0.50	<0.50	<0.50	<1.0	0.72	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<100	-
SB33	1/18/2006	<50	<0.50	<0.50	<0.50	<1.0	0.58	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<100	-
SB34	1/18/2006	<50	<0.50	<0.50	<0.50	<1.0	57	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	-
SB35	1/18/2006	<50	<0.50	<0.50	<0.50	<1.0	19	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	-
SB36	1/19/2006	<50	<0.50	<0.50	<0.50	<1.0	16	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	-
SB37	1/19/2006	<50	<0.50	<0.50	<0.50	<1.0	23	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	-

Historical Groundwater Analytical Data

Former 76 Station #7004
15599 Hesperian Boulevard
San Leandro, California

[illegible] ID	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			[illegible]	[illegible]	[illegible]	[illegible]									

Notes:

--	Not analyzed/applicable/measured	ETBE	Ethyl tertiary butyl ether	MTBE	Methyl tertiary butyl ether
µg/L	Micrograms per liter	GRO	Gasoline range organic	TAME	Tertiary amyl methyl ether
1,2-DCA	1,2-dichloroethane	DIPE	Di-isopropyl ether	TBA	Tertiary butyl alcohol
EDB	Ethylene dibromide	EPA	U.S. Environmental Protection Agency	TPPH	Total purgeable petroleum hydrocarbons

1 Analyzed by EPA Methods 5030/8015 on 10/24/1990 ; by DHS LUFT as TPHg between 11/5/2001 and 11/10/2005; by EPA Method 8260B as GRO between 9/20/2002 and 1/19/06.
2 Analyzed by EPA Method 8020 on 10/24/1990; by DHS Luft between 11/5/2001 and 11/10/2001; by EPA Method 8260B between 9/20/2002 and 1/19/06.
3 Analyzed by ; by DHS Luft between 11/5/2001 and 11/10/2001; by EPA Method 8260B between 9/20/2002 and 1/19/2006.
4 Analyzed by ; by EPA Method 8260B between 9/20/2002 and 1/19/2006.
5 Analyzed by EPA Method 6010B between 6/22/2005 and 1/19/2006.

a Quantity of unknown hydrocarbon(s) in sample based on gasoline.
b Internal standard out of range.
c Extracted out of holding time.
d Reporting limits were raised due to high level of analyte present in the sample.
e Initial analysis within holding time but required dilution.
f Estimated value.

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APPENDIX D
TRC'S HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

NFAR ANALYSIS AND HHRA
FORMER 76 SERVICE STATION NO. 7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CALIFORNIA

SECOR Project No. 77CP.67004.08
October 5, 2006

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through May 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-1	(Screen Interval in feet: 10.0-25.0)													
05/04/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
07/23/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
10/14/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
01/14/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
04/14/92	--	--	--	--	--	76	--	ND	ND	ND	ND	--	--	
07/09/92	--	--	--	--	--	70	--	ND	ND	ND	ND	130	--	
10/28/92	--	--	--	--	--	--	--	--	--	--	--	--	--	Sampled Semi-Annually
01/21/93	--	--	--	--	--	ND	--	ND	ND	ND	ND	42	--	
04/20/93	36.89	14.89	0.00	22.00	--	--	--	--	--	--	--	56	--	
07/22/93	36.89	14.34	0.00	22.55	0.55	ND	--	ND	ND	ND	ND	77	--	
10/06/93	36.39	14.87	0.00	21.52	-1.03	--	--	--	--	--	--	--	--	
01/11/94	36.39	15.14	0.00	21.25	-0.27	ND	--	ND	ND	ND	ND	--	--	
04/06/94	36.39	14.19	0.00	22.20	0.95	--	--	--	--	--	--	--	--	
07/08/94	36.39	14.66	0.00	21.73	-0.47	ND	--	ND	ND	ND	ND	--	--	
10/06/94	36.39	16.71	0.00	19.68	-2.05	--	--	--	--	--	--	--	--	
01/05/95	36.39	14.68	0.00	21.71	2.03	ND	--	ND	ND	ND	ND	--	--	
04/05/95	36.39	11.76	0.00	24.63	2.92	--	--	--	--	--	--	--	--	
07/14/95	36.39	12.93	0.00	23.46	-1.17	ND	--	0.65	2.2	ND	2.3	--	--	
10/12/95	36.39	14.29	0.00	22.10	-1.36	--	--	--	--	--	--	--	--	
01/08/96	36.39	14.18	0.00	22.21	0.11	ND	--	ND	ND	ND	ND	--	--	
07/08/96	36.39	12.74	0.00	23.65	1.44	ND	--	ND	ND	ND	ND	ND	--	
01/03/97	36.39	12.89	0.00	23.50	-0.15	87	--	ND	ND	ND	ND	ND	--	
07/02/97	36.39	13.66	0.00	22.73	-0.77	ND	--	ND	ND	ND	ND	ND	--	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through May 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-1 continued														
01/15/98	36.39	13.08	0.00	23.31	0.58	ND	--	ND	ND	ND	ND	ND	--	
07/08/98	36.39	11.25	0.00	25.14	1.83	ND	--	ND	ND	ND	ND	ND	--	
01/11/99	36.39	13.68	0.00	22.71	-2.43	51	--	ND	ND	ND	ND	4.8	--	
07/07/99	36.39	12.15	0.00	24.24	1.53	ND	--	ND	ND	ND	ND	ND	--	
01/04/00	36.39	13.95	0.00	22.44	-1.80	ND	--	ND	ND	ND	ND	ND	--	
07/15/00	36.39	13.46	0.00	22.93	0.49	ND	--	ND	0.86	ND	ND	ND	--	
01/19/01	36.39	12.96	0.00	23.43	0.50	ND	--	ND	ND	ND	ND	ND	--	
07/31/01	36.39	14.36	0.00	22.03	-1.40	ND	--	ND	ND	ND	ND	ND	--	
01/28/02	36.39	12.89	0.00	23.50	1.47	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
04/22/02	36.39	12.86	0.00	23.53	0.03	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
05/24/02	36.39	13.16	0.00	23.23	-0.30	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<0.50	
06/21/02	36.39	13.52	0.00	22.87	-0.36	--	76	ND<0.50	ND<0.50	ND<0.50	ND<1	--	0.59	
07/29/02	36.39	13.76	0.00	22.63	-0.24	--	54	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
08/29/02	36.39	14.10	0.00	22.29	-0.34	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
09/14/02	36.39	14.18	0.00	22.21	-0.08	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
10/25/02	36.39	14.63	0.00	21.76	-0.45	--	ND<50	0.91	ND<0.50	ND<0.50	ND<1	--	ND<2	
11/27/02	36.39	14.34	0.00	22.05	0.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
12/19/02	36.39	13.60	0.00	22.79	0.74	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
01/24/03	36.39	12.03	0.00	24.36	1.57	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
02/15/03	36.39	12.42	0.00	23.97	-0.39	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
03/17/03	36.39	12.54	0.00	23.85	-0.12	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
04/18/03	36.39	12.43	0.00	23.96	0.11	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
05/19/03	36.39	12.38	0.00	24.01	0.05	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
06/16/03	36.39	13.02	0.00	23.37	-0.64	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

May 1991 Through May 2006

Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-1 continued														
07/18/03	36.39	13.66	0.00	22.73	-0.64	--	56	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
10/01/03	36.39	14.47	0.00	21.92	-0.81	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
01/30/04	36.39	13.14	0.00	23.25	1.33	--	120	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
04/26/04	36.39	12.68	0.00	23.71	0.46	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
07/28/04	36.39	13.79	0.00	22.60	-1.11	--	73	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/19/04	36.39	14.04	0.00	22.35	-0.25	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
01/05/05	36.39	13.11	0.00	23.28	0.93	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
06/14/05	36.39	11.58	0.00	24.81	1.53	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
09/29/05	36.39	13.22	0.00	23.17	-1.64	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/02/05	36.39	13.74	0.00	22.65	-0.52	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
03/21/06	36.39	11.39	0.00	25.00	2.35	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
05/25/06	36.39	10.70	0.00	25.69	0.69	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
MW-2	**(Screen Interval in feet: 10.0-25.0)**													
05/04/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
07/23/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
10/14/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
01/14/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
04/14/92	--	--	--	--	--	45	--	ND	ND	ND	ND	--	--	
07/09/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	49	--	
10/28/92	--	--	--	--	--	--	--	--	--	--	--	--	--	Sampled Semi-Annually
01/21/93	--	--	--	--	--	ND	--	ND	ND	ND	ND	17	--	
04/20/93	37.35	15.20	0.00	22.15	--	--	--	--	--	--	--	80	--	
07/22/93	37.35	14.75	0.00	22.60	0.45	62	--	ND	ND	ND	ND	42	--	
10/06/93	37.07	15.49	0.00	21.58	-1.02	--	--	--	--	--	--	--	--	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through May 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-2 continued														
01/11/94	37.07	15.77	0.00	21.30	-0.28	120	--	ND	ND	ND	ND	--	--	
04/06/94	37.07	14.83	0.00	22.24	0.94	--	--	--	--	--	--	--	--	
07/08/94	37.07	15.28	0.00	21.79	-0.45	140	--	ND	ND	ND	ND	--	--	
10/06/94	37.07	16.32	0.00	20.75	-1.04	--	--	--	--	--	--	--	--	
01/05/95	37.07	15.30	0.00	21.77	1.02	310	--	ND	ND	ND	ND	--	--	
04/05/95	37.07	12.12	0.00	24.95	3.18	--	--	--	--	--	--	--	--	
07/14/95	37.07	13.55	0.00	23.52	-1.43	86	--	ND	ND	ND	ND	--	--	
10/12/95	37.07	14.88	0.00	22.19	-1.33	--	--	--	--	--	--	--	--	
01/08/96	37.07	14.81	0.00	22.26	0.07	91	--	ND	ND	ND	ND	--	--	
07/08/96	37.07	13.37	0.00	23.70	1.44	100	--	ND	ND	ND	ND	ND	--	
01/03/97	37.07	13.14	0.00	23.93	0.23	160	--	ND	ND	ND	ND	ND	--	
07/02/97	37.07	14.26	0.00	22.81	-1.12	91	--	ND	ND	ND	ND	ND	--	
01/15/98	37.07	13.31	0.00	23.76	0.95	ND	--	ND	ND	ND	ND	ND	--	
07/08/98	37.07	11.57	0.00	25.50	1.74	ND	--	ND	ND	ND	ND	ND	--	
01/11/99	37.07	14.26	0.00	22.81	-2.69	ND	--	ND	ND	ND	ND	9.8	--	
07/07/99	37.07	12.24	0.00	24.83	2.02	ND	--	ND	ND	ND	ND	9.4	--	
01/04/00	37.07	14.14	0.00	22.93	-1.90	ND	--	ND	0.518	ND	ND	9.07	--	
07/15/00	37.07	13.75	0.00	23.32	0.39	ND	--	ND	0.51	ND	ND	6.0	--	
01/19/01	37.07	13.37	0.00	23.70	0.38	ND	--	ND	ND	ND	ND	6.84	--	
07/31/01	37.07	14.96	0.00	22.11	-1.59	ND	--	ND	ND	ND	ND	ND	--	
01/28/02	37.07	13.51	0.00	23.56	1.45	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
04/22/02	37.07	13.48	0.00	23.59	0.03	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
05/24/02	37.07	13.78	0.00	23.29	-0.30	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<0.50	
06/21/02	37.07	14.11	0.00	22.96	-0.33	--	100	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<0.50	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

May 1991 Through May 2006

Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-2 continued														
07/29/02	37.07	14.36	0.00	22.71	-0.25	--	60	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
08/29/02	37.07	14.71	0.00	22.36	-0.35	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
09/14/02	37.07	14.81	0.00	22.26	-0.10	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
10/25/02	37.07	15.23	0.00	21.84	-0.42	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
11/27/02	37.07	14.95	0.00	22.12	0.28	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
12/19/02	37.07	14.10	0.00	22.97	0.85	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
01/24/03	37.07	12.64	0.00	24.43	1.46	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
02/15/03	37.07	13.06	0.00	24.01	-0.42	--	64	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
03/17/03	37.07	13.18	0.00	23.89	-0.12	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
04/18/03	37.07	13.06	0.00	24.01	0.12	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
05/19/03	37.07	13.07	0.00	24.00	-0.01	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
06/16/03	37.07	13.72	0.00	23.35	-0.65	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
07/18/03	37.07	14.35	0.00	22.72	-0.63	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
10/01/03	37.07	15.10	0.00	21.97	-0.75	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
01/30/04	37.07	13.78	0.00	23.29	1.32	--	130	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
04/26/04	37.07	13.31	0.00	23.76	0.47	--	53	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
07/28/04	37.07	14.39	0.00	22.68	-1.08	--	63	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/19/04	37.07	14.99	0.00	22.08	-0.60	--	56	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
01/05/05	37.07	13.70	0.00	23.37	1.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
06/14/05	37.07	12.21	0.00	24.86	1.49	--	96	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
09/29/05	37.07	13.83	0.00	23.24	-1.62	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/02/05	37.07	14.17	0.00	22.90	-0.34	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
03/21/06	37.07	12.04	0.00	25.03	2.13	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
05/25/06	37.07	11.35	0.00	25.72	0.69	--	57	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

May 1991 Through May 2006

Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-3	(Screen Interval in feet: 10.0-25.0)													
05/04/91	--	--	--	--	--	34000	--	6100	32	1200	6100	--	--	
07/23/91	--	--	--	--	--	17000	--	5500	26	1800	2800	--	--	
10/14/91	--	--	--	--	--	25000	--	6300	28	2000	1400	--	--	
01/14/92	--	--	--	--	--	13000	--	6600	19	2600	1800	--	--	
04/14/92	--	--	--	--	--	16000	--	3400	19	1400	1300	--	--	
07/09/92	--	--	--	--	--	13000	--	3200	12	1900	1100	--	--	
10/28/92	--	--	--	--	--	15000	--	4400	15	2400	800	--	--	
01/21/93	--	--	--	--	--	12000	--	2800	11	1600	590	--	--	
04/20/93	37.22	15.13	0.00	22.09	--	18000	--	3700	11	2300	1300	410	--	
07/22/93	37.22	13.52	0.00	23.70	1.61	16000	--	4500	17	3600	1900	440	--	
10/06/93	36.79	15.41	0.00	21.38	-2.32	24000	--	4100	ND	3600	2000	ND	--	
01/11/94	36.79	15.66	0.00	21.13	-0.25	19000	--	3300	31	3300	890	--	--	
04/06/94	36.79	14.72	0.00	22.07	0.94	24000	--	3100	ND	3300	820	--	--	
07/08/94	36.79	15.20	0.00	21.59	-0.48	18000	--	2200	25	2500	860	--	--	
10/06/94	36.79	16.23	0.00	20.56	-1.03	20000	--	2100	26	3000	900	--	--	
01/05/95	36.79	15.12	0.00	21.67	1.11	20000	--	2100	ND	3200	3800	--	--	
04/05/95	36.79	12.03	0.00	24.76	3.09	18000	--	2100	ND	3700	690	--	--	
07/14/95	36.79	13.46	0.00	23.33	-1.43	21000	--	1600	ND	3900	1500	--	--	
10/12/95	36.79	14.81	0.00	21.98	-1.35	17000	--	1000	ND	3600	1000	--	--	
01/08/96	36.79	14.70	0.00	22.09	0.11	14000	--	760	ND	3100	380	--	--	
07/08/96	36.79	13.29	0.00	23.50	1.41	16000	--	470	45	4400	1000	340	--	
01/03/97	36.79	13.09	0.00	23.70	0.20	14000	--	160	ND	2100	120	620	--	
07/02/97	36.79	13.96	0.00	22.83	-0.87	23000	--	110	ND	3600	1600	1200	--	
01/15/98	36.79	13.26	0.00	23.53	0.70	12000	--	33	ND	2800	120	1100	--	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through May 2006
Former 76 Station 7004

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-3 continued														
07/08/98	36.79	11.64	0.00	25.15	1.62	20000	--	76	ND	4100	1400	750	--	
01/11/99	36.79	14.17	0.00	22.62	-2.53	23000	--	ND	ND	4100	460	920	--	
07/07/99	36.79	13.18	0.00	23.61	0.99	15000	--	35	ND	3400	470	1700	--	
01/04/00	36.79	14.27	0.00	22.52	-1.09	15500	--	ND	ND	3330	191	827	--	
07/15/00	36.79	13.91	0.00	22.88	0.36	15000	--	ND	ND	3400	420	3300	--	
08/25/00	36.79	14.24	0.00	22.55	-0.33	--	--	--	--	--	--	1920	--	
01/19/01	36.79	13.42	0.00	23.37	0.82	11100	--	38.4	ND	1760	38.8	ND	--	
07/31/01	36.79	14.90	0.00	21.89	-1.48	13000	--	ND	ND	1600	63	ND	--	
01/28/02	36.79	13.41	0.00	23.38	1.49	82	--	ND<0.50	ND<0.50	10	ND<0.50	ND<2.5	--	
04/22/02	36.79	13.41	0.00	23.38	0.00	7300	--	39	ND<25	970	ND<25	ND<120	--	
05/24/02	36.79	13.69	0.00	23.10	-0.28	--	8500	ND<5	ND<5	1200	ND<10	--	12	
06/21/02	36.79	14.04	0.00	22.75	-0.35	--	11000	ND<5	ND<5	690	ND<10	--	17	
07/29/02	36.79	14.28	0.00	22.51	-0.24	--	6800	ND<5	ND<5	1100	ND<10	--	ND<20	
08/29/02	36.79	14.62	0.00	22.17	-0.34	--	7200	ND<25	ND<25	1200	ND<50	--	ND<100	
09/14/02	36.79	14.72	0.00	22.07	-0.10	--	180	ND<0.50	ND<0.50	20	ND<1	--	ND<2	
10/25/02	36.79	15.13	0.00	21.66	-0.41	--	1000	ND<0.50	ND<0.50	110	ND<1	--	ND<2	
11/27/02	36.79	14.85	0.00	21.94	0.28	--	7600	ND<10	ND<10	1200	ND<20	--	ND<40	
12/19/02	36.79	13.83	0.00	22.96	1.02	--	6400	ND<10	ND<10	810	ND<20	--	ND<40	
01/24/03	36.79	12.52	0.00	24.27	1.31	--	6600	ND<25	ND<25	930	ND<50	--	ND<100	
02/15/03	36.79	12.96	0.00	23.83	-0.44	--	8400	ND<10	ND<10	970	ND<20	--	ND<40	
03/17/03	36.79	13.08	0.00	23.71	-0.12	--	7900	ND<5	ND<5	1100	ND<10	--	ND<20	
04/18/03	36.79	12.95	0.00	23.84	0.13	--	6700	ND<5	ND<5	1100	ND<10	--	ND<20	
05/19/03	36.79	13.10	0.00	23.69	-0.15	--	8700	ND<5	ND<5	1100	ND<10	--	ND<20	
06/16/03	36.79	13.75	0.00	23.04	-0.65	--	7700	ND<10	ND<10	1000	ND<20	--	ND<40	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

May 1991 Through May 2006

Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change In Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-3 continued														
07/18/03	36.79	14.43	0.00	22.36	-0.68	--	11000	ND<10	ND<10	1800	1300	--	ND<40	
10/01/03	36.79	15.12	0.00	21.67	-0.69	--	9000	ND<10	ND<10	820	ND<20	--	ND<10	
01/30/04	36.79	13.70	0.00	23.09	1.42	--	7800	ND<5.0	ND<5.0	670	ND<10	--	ND<20	
04/26/04	36.79	13.23	0.00	23.56	0.47	--	9800	ND<5.0	ND<5.0	470	ND<10	--	ND<5.0	
07/28/04	36.79	14.35	0.00	22.44	-1.12	--	10000	ND<5.0	ND<5.0	450	ND<10	--	ND<5.0	
10/19/04	36.79	14.90	0.00	21.89	-0.55	--	5700	3.2	ND<2.5	210	ND<5.0	--	ND<2.5	
01/05/05	36.79	13.44	0.00	23.35	1.46	--	4600	0.96	0.73	42	1.4	--	ND<2.5	
06/14/05	36.79	12.09	0.00	24.70	1.35	--	8400	ND<5.0	ND<5.0	180	ND<10	--	ND<5.0	
09/29/05	36.79	13.78	0.00	23.01	-1.69	--	670	ND<5.0	ND<5.0	22	ND<10	--	ND<5.0	
12/02/05	36.79	14.21	0.00	22.58	-0.43	--	190	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
03/21/06	36.79	12.29	0.00	24.50	1.92	--	4400	1.1	1.5	86	4.6	--	ND<0.50	
05/25/06	36.79	11.24	0.00	25.55	1.05	--	3200	0.53	1.3	59	ND<1.0	--	ND<0.50	
MW-4	**(Screen Interval in feet: 10.0-26.0)**													
07/23/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
10/14/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
01/14/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
04/14/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
07/09/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
10/28/92	--	--	--	--	--	--	--	--	--	--	--	--	--	Sampled Semi-Annually
01/21/93	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
04/20/93	35.81	13.84	0.00	21.97	--	--	--	--	--	--	--	65	--	
07/22/93	35.81	13.52	0.00	22.29	0.32	ND	--	ND	ND	ND	ND	54	--	
10/06/93	35.44	14.17	0.00	21.27	-1.02	--	--	--	--	--	--	--	--	
01/11/94	35.44	14.42	0.00	21.02	-0.25	ND	--	ND	ND	ND	ND	--	--	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through May 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-4 continued														
04/06/94	35.44	13.44	0.00	22.00	0.98	--	--	--	--	--	--	--	--	
07/08/94	35.44	13.96	0.00	21.48	-0.52	ND	--	ND	ND	ND	ND	--	--	
10/06/94	35.44	15.00	0.00	20.44	-1.04	--	--	--	--	--	--	--	--	
01/05/95	35.44	13.83	0.00	21.61	1.17	ND	--	ND	ND	ND	ND	--	--	
04/05/95	35.44	11.05	0.00	24.39	2.78	--	--	--	--	--	--	--	--	
07/14/95	35.44	12.23	0.00	23.21	-1.18	ND	--	ND	ND	ND	ND	--	--	
10/12/95	35.44	13.59	0.00	21.85	-1.36	--	--	--	--	--	--	--	--	
01/08/96	35.44	13.43	0.00	22.01	0.16	ND	--	ND	ND	ND	ND	--	--	
07/08/96	35.44	12.04	0.00	23.40	1.39	ND	--	ND	ND	ND	ND	ND	--	
01/03/97	35.44	12.38	0.00	23.06	-0.34	80	--	ND	ND	ND	ND	ND	--	
07/02/97	35.44	13.00	0.00	22.44	-0.62	ND	--	ND	ND	ND	ND	25	--	
01/15/98	35.44	12.50	0.00	22.94	0.50	ND	--	ND	ND	ND	ND	ND	--	
07/08/98	35.44	10.53	0.00	24.91	1.97	ND	--	ND	ND	ND	ND	25	--	
01/11/99	35.44	12.95	0.00	22.49	-2.42	ND	--	ND	ND	ND	ND	23	--	
07/07/99	35.44	11.76	0.00	23.68	1.19	ND	--	ND	ND	ND	ND	15	--	
01/04/00	35.44	13.17	0.00	22.27	-1.41	ND	--	ND	ND	ND	ND	13.2	--	
07/15/00	35.44	13.04	0.00	22.40	0.13	ND	--	ND	ND	ND	ND	11	--	
01/19/01	35.44	12.65	0.00	22.79	0.39	ND	--	ND	ND	ND	ND	9.97	--	
07/31/01	35.44	13.69	0.00	21.75	-1.04	ND	--	ND	ND	ND	ND	6.0	--	
01/28/02	35.44	12.17	0.00	23.27	1.52	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	13	--	
04/22/02	35.44	12.18	0.00	23.26	-0.01	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	5.7	--	
05/24/02	35.44	12.45	0.00	22.99	-0.27	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	2.9	
06/21/02	35.44	12.48	0.00	22.96	-0.03	--	54	ND<0.50	ND<0.50	ND<0.50	ND<1	--	3.6	
07/29/02	35.44	13.08	0.00	22.36	-0.60	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	5.7	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through May 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-4 continued														
08/29/02	35.44	13.39	0.00	22.05	-0.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	8.5	
09/14/02	35.44	13.49	0.00	21.95	-0.10	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	4.8	
10/25/02	35.44	13.93	0.00	21.51	-0.44	--	ND<50	0.82	ND<0.50	ND<0.50	ND<1	--	7.1	
11/27/02	35.44	13.62	0.00	21.82	0.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	7.3	
12/19/02	35.44	12.56	0.00	22.88	1.06	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	8.1	
01/24/03	35.44	11.26	0.00	24.18	1.30	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	8.4	
02/15/03	35.44	11.71	0.00	23.73	-0.45	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	6.2	
03/17/03	35.44	11.82	0.00	23.62	-0.11	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	7.3	
04/18/03	35.44	11.70	0.00	23.74	0.12	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	6.2	
05/19/03	35.44	11.74	0.00	23.70	-0.04	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	3.2	
06/16/03	35.44	12.35	0.00	23.09	-0.61	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	4.3	
07/18/03	35.44	13.06	0.00	22.38	-0.71	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
10/01/03	35.44	13.81	0.00	21.63	-0.75	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.89	
01/30/04	35.44	12.42	0.00	23.02	1.39	--	55	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.2	
04/26/04	35.44	11.99	0.00	23.45	0.43	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.0	
07/28/04	35.44	13.12	0.00	22.32	-1.13	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.8	
10/19/04	35.44	13.78	0.00	21.66	-0.66	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.4	
01/05/05	35.44	12.21	0.00	23.23	1.57	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.7	
06/14/05	35.44	10.99	0.00	24.45	1.22	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	4.1	
09/29/05	35.44	12.57	0.00	22.87	-1.58	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	7.0	
12/02/05	35.44	13.01	0.00	22.43	-0.44	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.6	
03/21/06	35.44	10.82	0.00	24.62	2.19	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.9	
05/25/06	35.44	10.01	0.00	25.43	0.81	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.9	
MW-5	**(Screen Interval in feet: 10.0-26.0)**													
7004														

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through May 2006
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Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-Q (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-5 continued														
07/23/91	--	--	--	--	--	260	--	1.2	0.39	10	0.71	--	--	
10/14/91	--	--	--	--	--	140	--	0.72	ND	1.3	0.89	--	--	
01/14/92	--	--	--	--	--	60	--	ND	ND	ND	ND	--	--	
04/14/92	--	--	--	--	--	86	--	ND	ND	ND	ND	--	--	
07/09/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	71	--	
10/28/92	--	--	--	--	--	ND	--	ND	ND	ND	ND	45	--	
01/21/93	--	--	--	--	--	100	--	ND	ND	ND	ND	160	--	
04/20/93	37.01	14.87	0.00	22.14	--	99	--	ND	ND	ND	ND	120	--	
07/22/93	37.01	14.82	0.00	22.19	0.05	59	--	ND	ND	2.6	ND	42	--	
10/06/93	36.81	15.61	0.00	21.20	-0.99	150	--	1.1	ND	3.1	0.85	57	--	
01/11/94	36.81	15.84	0.00	20.97	-0.23	160	--	ND	0.79	0.54	ND	--	--	
04/06/94	36.81	14.90	0.00	21.91	0.94	260	--	1.4	ND	0.88	ND	--	--	
07/08/94	36.81	15.38	0.00	21.43	-0.48	200	--	ND	ND	ND	ND	--	--	
10/06/94	36.81	16.42	0.00	20.39	-1.04	350	--	1.3	ND	ND	ND	--	--	
01/05/95	36.81	15.20	0.00	21.61	1.22	85	--	ND	ND	ND	ND	--	--	
04/05/95	36.81	11.72	0.00	25.09	3.48	ND	--	ND	ND	ND	ND	--	--	
07/14/95	36.81	13.69	0.00	23.12	-1.97	180	--	1.3	ND	7.9	ND	--	--	
10/12/95	36.81	15.02	0.00	21.79	-1.33	310	--	ND	ND	31	1.2	--	--	
01/08/96	36.81	14.85	0.00	21.96	0.17	ND	--	0.55	ND	ND	0.58	--	--	
07/08/96	36.81	13.52	0.00	23.29	1.33	140	--	2.1	1.4	5.6	0.51	110	--	
07/12/96	36.81	14.50	0.00	22.31	-0.98	--	--	--	--	--	--	--	--	
01/03/97	36.81	12.85	0.00	23.96	1.65	12000	--	150	ND	2100	120	660	--	
07/02/97	36.81	13.79	0.00	23.02	-0.94	ND	--	ND	ND	ND	ND	72	--	
01/15/98	36.81	13.03	0.00	23.78	0.76	69	--	ND	ND	ND	ND	--	--	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
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Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-5 continued														
07/08/98	36.81	12.05	0.00	24.76	0.98	ND	--	0.74	ND	ND	ND	95	--	
01/11/99	36.81	14.41	0.00	22.40	-2.36	ND	--	1.0	ND	ND	ND	170	--	
07/07/99	36.81	12.38	0.00	24.43	2.03	130	--	0.64	ND	ND	ND	330	--	
01/04/00	36.81	14.33	0.00	22.48	-1.95	ND	--	ND	ND	ND	ND	183	--	
07/15/00	36.81	13.88	0.00	22.93	0.45	ND	--	0.68	ND	ND	ND	350	--	
01/19/01	36.81	13.41	0.00	23.40	0.47	ND	--	ND	ND	ND	ND	195	--	
07/31/01	36.81	15.12	0.00	21.69	-1.71	ND	--	ND	ND	ND	ND	190	--	
01/28/02	36.81	13.59	0.00	23.22	1.53	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	97	--	
04/22/02	36.81	13.61	0.00	23.20	-0.02	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	160	--	
05/24/02	36.81	13.89	0.00	22.92	-0.28	--	89	ND<0.50	ND<0.50	ND<0.50	ND<1	--	180	
06/21/02	36.81	14.22	0.00	22.59	-0.33	--	190	ND<0.50	ND<0.50	ND<0.50	ND<1	--	85	
07/29/02	36.81	14.48	0.00	22.33	-0.26	--	120	ND<0.50	ND<0.50	ND<0.50	ND<1	--	76	
08/29/02	36.81	14.80	0.00	22.01	-0.32	--	ND<500	ND<5	ND<5	ND<5	ND<10	--	380	
09/14/02	36.81	14.91	0.00	21.90	-0.11	--	130	ND<0.50	ND<0.50	ND<0.50	ND<1	--	91	
10/25/02	36.81	15.32	0.00	21.49	-0.41	--	ND<200	ND<2	ND<2	ND<2	ND<4.0	--	270	
11/27/02	36.81	15.03	0.00	21.78	0.29	--	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<5	--	330	
12/19/02	36.81	13.75	0.00	23.06	1.28	--	290	ND<2.5	ND<2.5	ND<2.5	ND<5	--	320	
01/24/03	36.81	12.68	0.00	24.13	1.07	--	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<5	--	200	
02/15/03	36.81	13.15	0.00	23.66	-0.47	--	82	ND<0.50	ND<0.50	ND<0.50	ND<1	--	180	
03/17/03	36.81	13.26	0.00	23.55	-0.11	--	400	ND<2.5	ND<2.5	ND<2.5	ND<5	--	510	
04/18/03	36.81	13.14	0.00	23.67	0.12	--	140	ND<0.50	ND<0.50	ND<0.50	ND<1	--	170	
05/19/03	36.81	13.45	0.00	23.36	-0.31	--	ND<500	ND<5	ND<5	ND<5	ND<10	--	1000	
06/16/03	36.81	14.07	0.00	22.74	-0.62	--	ND<500	ND<5	ND<5	ND<5	ND<10	--	730	
07/18/03	36.81	14.71	0.00	22.10	-0.64	--	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<5	--	260	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

May 1991 Through May 2006

Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-5 continued														
10/01/03	36.81	15.36	0.00	21.45	-0.65	--	220	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	100	
01/30/04	36.81	14.05	0.00	22.76	1.31	--	460	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	210	
04/26/04	36.81	13.60	0.00	23.21	0.45	--	260	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	200	
07/28/04	36.81	14.53	0.00	22.28	-0.93	--	140	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	130	
10/19/04	36.81	15.13	0.00	21.68	-0.60	--	120	0.53	ND<0.50	ND<0.50	ND<1.0	--	76	
01/05/05	36.81	13.48	0.00	23.33	1.65	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	89	
06/14/05	36.81	12.31	0.00	24.50	1.17	--	230	0.70	ND<0.50	ND<0.50	ND<1.0	--	110	
09/29/05	36.81	13.96	0.00	22.85	-1.65	--	270	0.56	ND<0.50	ND<0.50	ND<1.0	--	55	
12/02/05	36.81	14.37	0.00	22.44	-0.41	--	50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	9.4	
03/21/06	36.81	12.20	0.00	24.61	2.17	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	4.3	
05/25/06	36.81	12.07	0.00	24.74	0.13	--	1100	1.5	ND<0.50	3.5	ND<1.0	--	72	
MW-6	**(Screen Interval in feet: 10.0-26.0)**													
07/23/91	--	--	0.00	--	--	ND	--	ND	ND	ND	ND	--	--	
10/14/91	--	--	0.00	--	--	ND	--	ND	ND	ND	ND	--	--	
01/14/92	--	--	0.00	--	--	ND	--	ND	ND	ND	ND	--	--	
04/14/92	--	--	0.00	--	--	ND	--	ND	ND	ND	ND	--	--	
07/09/92	--	--	0.00	--	--	ND	--	ND	ND	ND	ND	--	--	
10/28/92	--	--	0.00	--	--	--	--	--	--	--	--	--	--	Sampled Semi-Annually
01/21/93	--	--	0.00	--	--	ND	--	ND	ND	ND	ND	--	--	
04/20/93	37.55	15.27	0.00	22.28	--	--	--	--	--	--	--	ND	--	
07/22/93	37.55	15.20	0.00	22.35	0.07	ND	--	ND	ND	ND	ND	ND	--	
10/06/93	37.13	15.75	0.00	21.38	-0.97	--	--	--	--	--	--	--	--	
01/11/94	37.13	16.02	0.00	21.11	-0.27	ND	--	ND	ND	ND	ND	--	--	
04/06/94	37.13	15.07	0.00	22.06	0.95	--	--	--	--	--	--	--	--	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through May 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-6 continued														
07/08/94	37.13	15.55	0.00	21.58	-0.48	ND	--	ND	ND	ND	ND	--	--	
10/06/94	37.13	16.58	0.00	20.55	-1.03	--	--	--	--	--	--	--	--	
01/05/95	37.13	15.42	0.00	21.71	1.16	ND	--	ND	ND	ND	ND	--	--	
04/05/95	37.13	12.14	0.00	24.99	3.28	--	--	--	--	--	--	--	--	
07/14/95	37.13	13.87	0.00	23.26	-1.73	ND	--	ND	ND	ND	ND	--	--	
10/12/95	37.13	15.17	0.00	21.96	-1.30	--	--	--	--	--	--	--	--	
01/08/96	37.13	15.05	0.00	22.08	0.12	ND	--	ND	ND	ND	ND	--	--	
07/08/96	37.13	13.71	0.00	23.42	1.34	ND	--	ND	ND	ND	ND	ND	--	
01/03/97	37.13	13.12	0.00	24.01	0.59	97	--	ND	ND	ND	ND	ND	--	
07/02/97	37.13	14.57	0.00	22.56	-1.45	ND	--	ND	ND	ND	ND	ND	--	
01/15/98	37.13	13.30	0.00	23.83	1.27	ND	--	ND	ND	ND	ND	ND	--	
07/08/98	37.13	12.33	0.00	24.80	0.97	ND	--	ND	ND	ND	ND	ND	--	
01/11/99	37.13	14.60	0.00	22.53	-2.27	ND	--	ND	ND	ND	ND	ND	--	
07/07/99	37.13	13.23	0.00	23.90	1.37	ND	--	ND	ND	ND	ND	ND	--	
01/04/00	37.13	14.41	0.00	22.72	-1.18	ND	--	ND	ND	ND	ND	ND	--	
07/15/00	37.13	14.05	0.00	23.08	0.36	ND	--	ND	ND	ND	ND	ND	--	
01/19/01	37.13	13.58	0.00	23.55	0.47	ND	--	ND	ND	ND	ND	ND	--	
07/31/01	37.13	15.24	0.00	21.89	-1.66	ND	--	ND	ND	ND	ND	ND	--	
01/28/02	37.13	13.80	0.00	23.33	1.44	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
04/22/02	37.13	13.22	0.00	23.91	0.58	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
05/24/02	37.13	14.07	0.00	23.06	-0.85	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<0.50	
06/21/02	37.13	14.38	0.00	22.75	-0.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<0.50	
07/29/02	37.13	14.64	0.00	22.49	-0.26	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
08/29/02	37.13	14.97	0.00	22.16	-0.33	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through May 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-6 continued														
09/14/02	37.13	15.04	0.00	22.09	-0.07	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
10/25/02	37.13	15.46	0.00	21.67	-0.42	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
11/27/02	37.13	15.17	0.00	21.96	0.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
12/19/02	37.13	13.88	0.00	23.25	1.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
01/24/03	37.13	12.91	0.00	24.22	0.97	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
02/15/03	37.13	13.38	0.00	23.75	-0.47	--	ND<50	ND<0.50	ND<0.50	0.98	3.6	--	ND<2	
03/17/03	37.13	13.49	0.00	23.64	-0.11	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
04/18/03	37.13	13.33	0.00	23.80	0.16	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
05/19/03	37.13	13.73	0.00	23.40	-0.40	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
06/16/03	37.13	14.41	0.00	22.72	-0.68	--	97	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
07/18/03	37.13	15.01	0.00	22.12	-0.60	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
10/01/03	37.13	15.58	0.00	21.55	-0.57	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
01/30/04	37.13	14.05	0.00	23.08	1.53	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
04/26/04	37.13	13.64	0.00	23.49	0.41	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
07/28/04	37.13	14.68	0.00	22.45	-1.04	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/19/04	37.13	15.21	0.00	21.92	-0.53	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
01/05/05	37.13	13.68	0.00	23.45	1.53	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
06/14/05	37.13	12.52	0.00	24.61	1.16	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
09/29/05	37.13	14.12	0.00	23.01	-1.60	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/02/05	37.13	14.04	0.00	23.09	0.08	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
03/21/06	37.13	12.42	0.00	24.71	1.62	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
05/25/06	37.13	11.71	0.00	25.42	0.71	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
MW-7	*(Screen Interval in feet: 20-25)*													
05/25/06	37.39	11.01	0.00	26.38	--	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	17	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through May 2006
Former 76 Station 7004

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-8	**(Screen Interval in feet: 20-25)**													
05/25/06	38.91	11.31	0.00	27.60	--	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
MW-9	**(Screen Interval in feet: 20-25)**													
05/25/06	38.39	11.02	0.00	27.37	--	--	54	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	10	
MW-10	**(Screen Interval in feet: 20-25)**													
05/25/06	38.12	11.09	0.00	27.03	--	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.9	
RW-1	**(Screen Interval in feet: 12.5-27.5)**													
07/08/98	--	11.72	0.00	--	--	80	--	1.7	ND	ND	ND	1300	--	
01/11/99	--	14.05	0.00	--	--	ND	--	3.0	ND	ND	ND	1200	--	
07/07/99	--	13.05	0.00	--	--	ND	--	ND	ND	ND	ND	590	--	
01/04/00	--	14.26	0.00	--	--	ND	--	ND	ND	ND	ND	270	--	
07/15/00	--	13.77	0.00	--	--	ND	--	0.55	ND	ND	ND	460	--	
01/19/01	--	13.29	0.00	--	--	ND	--	ND	ND	ND	ND	338	--	
07/31/01	--	14.72	0.00	--	--	ND	--	ND	ND	ND	ND	1900	--	
01/28/02	--	13.21	0.00	--	--	72	--	0.98	ND<0.50	ND<0.50	ND<0.50	460	--	
04/22/02	--	13.22	0.00	--	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	290	--	
05/24/02	--	13.51	0.00	--	--	--	1200	ND<1	ND<1	30	ND<2	--	300	
06/21/02	--	13.85	0.00	--	--	--	400	ND<0.50	ND<0.50	ND<0.50	ND<1	--	130	
07/29/02	--	14.11	0.00	--	--	--	130	ND<0.50	ND<0.50	ND<0.50	ND<1	--	91	
08/29/02	--	14.43	0.00	--	--	--	2400	ND<2	ND<2	47	ND<4.0	--	210	
09/14/02	--	14.54	0.00	--	--	--	390	ND<0.50	ND<0.50	ND<0.50	ND<1	--	120	
10/25/02	--	14.95	0.00	--	--	--	2700	0.96	1.1	51	ND<1	--	160	
11/27/02	--	14.66	0.00	--	--	--	1800	0.91	0.82	31	ND<1	--	170	
12/19/02	--	13.60	0.00	--	--	--	2900	ND<5	ND<5	50	ND<10	--	200	

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 1991 Through May 2006
Former 76 Station 7004

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change In Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
RW-1 continued														
01/24/03	--	12.31	0.00	--	--	--	1800	0.88	0.69	29	ND<1	--	140	
02/15/03	--	12.88	0.00	--	--	--	480	ND<0.50	ND<0.50	6.8	ND<1	--	88	
03/17/03	--	12.88	0.00	--	--	--	ND<50	0.62	ND<0.50	21	ND<1	--	86	
04/18/03	--	12.76	0.00	--	--	--	1600	0.76	0.92	34	ND<1	--	62	
05/19/03	--	12.91	0.00	--	--	--	1200	0.60	ND<0.50	15	ND<1.5	--	76	
06/16/03	--	13.55	0.00	--	--	--	760	0.60	0.64	4.1	ND<1	--	100	
07/18/03	--	14.33	0.00	--	--	--	620	0.61	1.8	3.6	ND<1	--	60	
10/01/03	--	14.90	0.00	--	--	--	490	0.56	ND<0.50	1.7	ND<1.0	--	15	
01/30/04	--	13.46	0.00	--	--	--	1400	ND<2.5	ND<2.5	8.6	ND<5.0	--	38	
04/26/04	--	13.03	0.00	--	--	--	1100	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	30	
07/28/04	--	14.15	0.00	--	--	--	1200	ND<2.5	ND<2.5	15	ND<5.0	--	24	
10/19/04	--	14.34	0.00	--	--	--	680	0.99	ND<0.50	16	ND<1.0	--	15	
01/05/05	--	13.23	0.00	--	--	--	160	ND<0.50	ND<0.50	2.2	ND<1.0	--	2.5	
06/14/05	--	11.91	0.00	--	--	--	1300	0.61	ND<0.50	14	ND<1.0	--	10	
09/29/05	--	13.58	0.00	--	--	--	1000	0.53	ND<0.50	16	ND<1.0	--	4.7	
12/02/05	--	14.02	0.00	--	--	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.3	
03/21/06	--	12.74	0.00	--	--	--	440	ND<0.50	ND<0.50	4.2	ND<1.0	--	6.8	
05/25/06	--	11.05	0.00	--	--	--	930	ND<0.50	ND<0.50	3.7	ND<1.0	--	7.6	

ADDITIONAL HISTORIC ANALYTICAL RESULTS

Former 76 Station 7004

Date Sampled	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene-dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	Lead (total (µg/l)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)
MW-1										
07/02/97	--	--	--	--	--	--	--	--	--	3.82
06/16/03	--	ND<500	--	--	--	--	--	--	--	--
07/18/03	--	ND<500	--	--	--	--	--	--	--	--
10/01/03	--	ND<50	--	--	--	--	--	--	--	--
01/30/04	--	ND<500	--	--	--	--	--	--	--	--
04/26/04	--	ND<50	--	--	--	--	--	--	--	--
07/28/04	--	ND<50	--	--	--	--	--	--	--	--
10/19/04	--	ND<50	--	--	--	--	--	--	--	--
01/05/05	--	ND<50	--	--	--	--	--	--	--	--
06/14/05	--	ND<50	--	--	--	--	--	--	--	--
09/29/05	--	ND<250	--	--	--	--	--	--	--	--
12/02/05	--	ND<250	--	--	--	--	--	ND<50	--	--
03/21/06	--	ND<250	--	--	--	--	--	--	--	--
05/25/06	--	ND<250	--	--	--	--	--	--	--	--
MW-2										
06/16/03	--	ND<500	--	--	--	--	--	--	--	--
07/18/03	--	ND<500	--	--	--	--	--	--	--	--
10/01/03	--	ND<50	--	--	--	--	--	--	--	--
01/30/04	--	ND<500	--	--	--	--	--	--	--	--
04/26/04	--	ND<50	--	--	--	--	--	--	--	--
07/28/04	--	ND<50	--	--	--	--	--	--	--	--
10/19/04	--	ND<50	--	--	--	--	--	--	--	--
01/05/05	--	ND<50	--	--	--	--	--	--	--	--
06/14/05	--	ND<50	--	--	--	--	--	--	--	--
09/29/05	--	ND<250	--	--	--	--	--	--	--	--
12/02/05	--	ND<250	--	--	--	--	--	ND<50	--	--

ADDITIONAL HISTORIC ANALYTICAL RESULTS

Former 76 Station 7004

Date Sampled	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene-dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	Lead (total (µg/l)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)
MW-2 continued										
03/21/06	--	ND<250	--	--	--	--	--	--	--	--
05/25/06	--	ND<250	--	--	--	--	--	--	--	--
MW-3										
08/25/00	ND	--	ND	ND	ND	ND	ND	--	--	--
06/16/03	--	ND<10000	--	--	--	--	--	--	--	--
07/18/03	--	ND<10000	--	--	--	--	--	--	--	--
10/01/03	--	ND<50	--	--	--	--	--	--	--	--
01/30/04	--	ND<5000	--	--	--	--	--	--	--	--
04/26/04	--	ND<500	--	--	--	--	--	--	--	--
07/28/04	--	ND<500	--	--	--	--	--	--	--	--
10/19/04	--	ND<250	--	--	--	--	--	--	--	--
01/05/05	--	ND<250	--	--	--	--	--	--	--	--
06/14/05	--	ND<500	--	--	--	--	--	--	--	--
09/29/05	--	ND<2500	--	--	--	--	--	--	--	--
12/02/05	--	ND<250	--	--	--	--	--	ND<50	--	--
03/21/06	--	ND<250	--	--	--	--	--	--	--	--
05/25/06	--	ND<250	--	--	--	--	--	--	--	--
MW-4										
06/16/03	--	ND<500	--	--	--	--	--	--	--	--
07/18/03	--	ND<500	--	--	--	--	--	--	--	--
10/01/03	--	ND<50	--	--	--	--	--	--	--	--
01/30/04	--	ND<500	--	--	--	--	--	--	--	--
04/26/04	--	ND<50	--	--	--	--	--	--	--	--
07/28/04	--	ND<50	--	--	--	--	--	--	--	--
10/19/04	--	990	--	--	--	--	--	--	--	--
01/05/05	--	ND<50	--	--	--	--	--	--	--	--

ADDITIONAL HISTORIC ANALYTICAL RESULTS

Former 76 Station 7004

Date Sampled	TBA	Ethanol (8260B)	Ethylene-dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Lead (total	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)
MW-4 continued										
06/14/05	--	ND<50	--	--	--	--	--	--	--	--
09/29/05	--	ND<250	--	--	--	--	--	--	--	--
12/02/05	--	ND<250	--	--	--	--	--	ND<50	--	--
03/21/06	--	ND<250	--	--	--	--	--	--	--	--
05/25/06	--	ND<250	--	--	--	--	--	--	--	--
MW-5										
07/12/96	--	--	--	--	--	--	--	--	3.67	3.44
01/03/97	--	--	--	--	--	--	--	--	4.27	4.35
07/02/97	--	--	--	--	--	--	--	--	3.97	3.82
01/15/98	--	--	--	--	--	--	--	--	4.38	4.19
07/08/98	--	--	--	--	--	--	--	--	4.60	4.67
06/16/03	--	ND<5000	--	--	--	--	--	--	--	--
07/18/03	--	ND<2500	--	--	--	--	--	--	--	--
10/01/03	--	ND<50	--	--	--	--	--	--	--	--
01/30/04	--	ND<1000	--	--	--	--	--	--	--	--
04/26/04	--	ND<100	--	--	--	--	--	--	--	--
07/28/04	--	ND<100	--	--	--	--	--	--	--	--
10/19/04	--	ND<50	--	--	--	--	--	--	--	--
01/05/05	--	ND<50	--	--	--	--	--	--	--	--
06/14/05	--	ND<50	--	--	--	--	--	--	--	--
09/29/05	--	ND<250	--	--	--	--	--	--	--	--
12/02/05	--	ND<250	--	--	--	--	--	ND<50	--	--
03/21/06	--	ND<250	--	--	--	--	--	--	--	--
05/25/06	--	ND<250	--	--	--	--	--	--	--	--
MW-6										
06/16/03	--	ND<500	--	--	--	--	--	--	--	--

ADDITIONAL HISTORIC ANALYTICAL RESULTS
Former 76 Station 7004

Date Sampled	TBA	Ethanol (8260B)	Ethylene-dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Lead (total	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)
MW-6 continued										
07/18/03	--	ND<500	--	--	--	--	--	--	--	--
10/01/03	--	ND<50	--	--	--	--	--	--	--	--
01/30/04	--	ND<500	--	--	--	--	--	--	--	--
04/26/04	--	ND<50	--	--	--	--	--	--	--	--
07/28/04	--	ND<50	--	--	--	--	--	--	--	--
10/19/04	--	ND<50	--	--	--	--	--	--	--	--
01/05/05	--	ND<50	--	--	--	--	--	--	--	--
06/14/05	--	ND<50	--	--	--	--	--	--	--	--
09/29/05	--	ND<250	--	--	--	--	--	--	--	--
12/02/05	--	ND<250	--	--	--	--	--	ND<50	--	--
03/21/06	--	ND<250	--	--	--	--	--	--	--	--
05/25/06	--	ND<250	--	--	--	--	--	--	--	--
MW-7										
05/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--
MW-8										
05/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--
MW-9										
05/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--
MW-10										
05/25/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--
RW-1										
05/24/02	ND<10	ND<50	ND<0.5	ND<0.5	ND<2	ND<1	ND<1	--	--	--
06/16/03	--	ND<500	--	--	--	--	--	--	--	--
07/18/03	--	ND<500	--	--	--	--	--	--	--	--
10/01/03	--	ND<50	--	--	--	--	--	--	--	--

ADDITIONAL HISTORIC ANALYTICAL RESULTS

Former 76 Station 7004

Date Sampled	TBA	Ethanol (8260B)	Ethylene-dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Lead (total	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)
RW-1 continued										
01/30/04	--	ND<2500	--	--	--	--	--	--	--	--
04/26/04	--	ND<250	--	--	--	--	--	--	--	--
07/28/04	--	ND<250	--	--	--	--	--	--	--	--
10/19/04	--	ND<50	--	--	--	--	--	--	--	--
01/05/05	--	ND<50	--	--	--	--	--	--	--	--
06/14/05	--	ND<50	--	--	--	--	--	--	--	--
09/29/05	--	ND<250	--	--	--	--	--	--	--	--
12/02/05	--	ND<250	--	--	--	--	--	ND<50	--	--
03/21/06	--	ND<250	--	--	--	--	--	--	--	--
05/25/06	--	ND<250	--	--	--	--	--	--	--	--

SECOR

APPENDIX E
BORING LOGS

NFAR ANALYSIS AND HHRA
FORMER 76 SERVICE STATION NO. 7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CALIFORNIA

SECOR Project No. 77CP.67004.08
October 5, 2006

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P90-1003	9" 2"	W.W.
Project Name Unocal 15599 Hesperian S. L.	**Well Cover Elevation**	**Date Drilled** 4/22/91
Boring No. MW1	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
		0		2" asphalt pavement over 8" concrete slab, underlain by fill material consisting of clay with gravel and sand.
			ML/ MH	Sandy silt, trace angular gravel to 3/4" diameter, moist, stiff, olive gray.
4/5/7		5		
				Silt, moist, stiff, olive gray.
			SP/ SM	Sand, with silt, trace gravel to 3/4" diameter, poorly graded, moist, loose to medium dense.
6/5/2		10		
			ML/ MH to CL/ CH	Clayey silt to silty clay, trace sand, trace caliche, moist to saturated below 16', firm to stiff, dark gray.
2/4/4	▽	15		
		20	CL	Clay, grayish brown.

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P90-1003	9" 2"	W.W.
Project Name Unocal 15599 Hesperian S. L.	**Well Cover Elevation**	**Date Drilled** 4/22/91
Boring No. MW1	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
6/11/13		25	CL/ CH	Clay, with sand, trace gravel to 1/2" diameter, trace rootlets, very moist to saturated, very stiff, grayish brown.
		30		
		35		
		40		TOTAL DEPTH: 25'

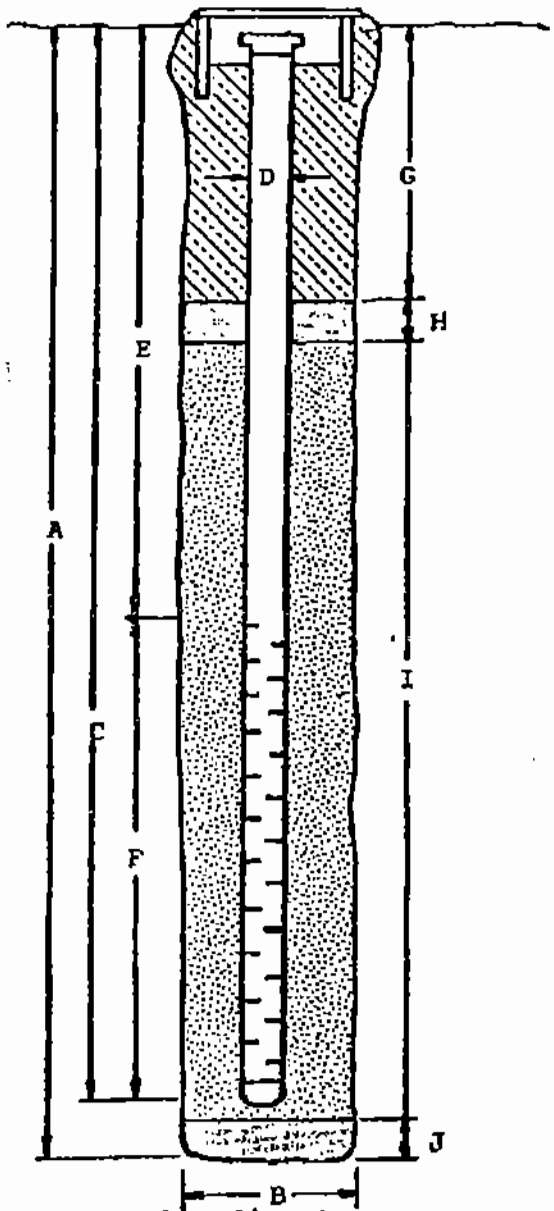
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal 15599 Hesperian San Leandro BORING/WELL NO. MW1

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.:

Flush-mounted Well Cover



A. Total Depth: 25'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 25'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"

ID = 2.067"

E. Depth to Perforations: 10'

F. Perforated Length: 15'

Perforation Type: Machined Slot

Perforation Size: 0.010"

G. Surface Seal: 6'

Seal Material: Concrete

H. Seal: 2'

Seal Material: Bentonite

I. Gravel Pack: 17'

Pack Material: RMC Lonestar Sand

Size: #2/16

J. Bottom Seal: None

Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

BORING LOG

Project No. KEI-P90-1003	Boring & Casing Diameter 9" 2"	Logged By W.W.
Project Name Unocal 15599 Hesperian S. L.	Well Cover Elevation	Date Drilled 4/22/91
Boring No. MW2	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
		0		Asphalt pavement over sand and gravel. Fill material consisting of clay with gravel and sand, trace silt, moist, firm, brown, gravel to 2-1/2" diameter.
4/5/6		5	CL/ CH	Silty clay, trace sand, moist, stiff, greenish gray with slight grayish brown, mottling.
				Clay, with silt, trace sand, moist, firm, dark gray to dark greenish gray.
3/4/4		10	SP	Sand, trace silt, sand is predominantly fine-grained, moist, loose, dark greenish gray.
			CL/ CH	Silty clay, trace sand, moist, firm, dark gray.
2/3/4		15		
3/4/5	▽		SC	Clayey sand, trace gravel to 1/2" diameter, saturated below 17.5', loose, dark grayish brown.
		20	CL	Clay, very dark grayish brown.

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P90-1003	9" 2"	W.W.
Project Name Unocal 15599 Hesperian S. L.	**Well Cover Elevation**	**Date Drilled** 4/22/91
Boring No. MW2	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
3/4/6		25	CL/ CH	Clay, trace silt, trace sand, trace rootlets, porous, moist, stiff, very dark grayish brown.
		30		
		35		
		40		TOTAL DEPTH: 25'

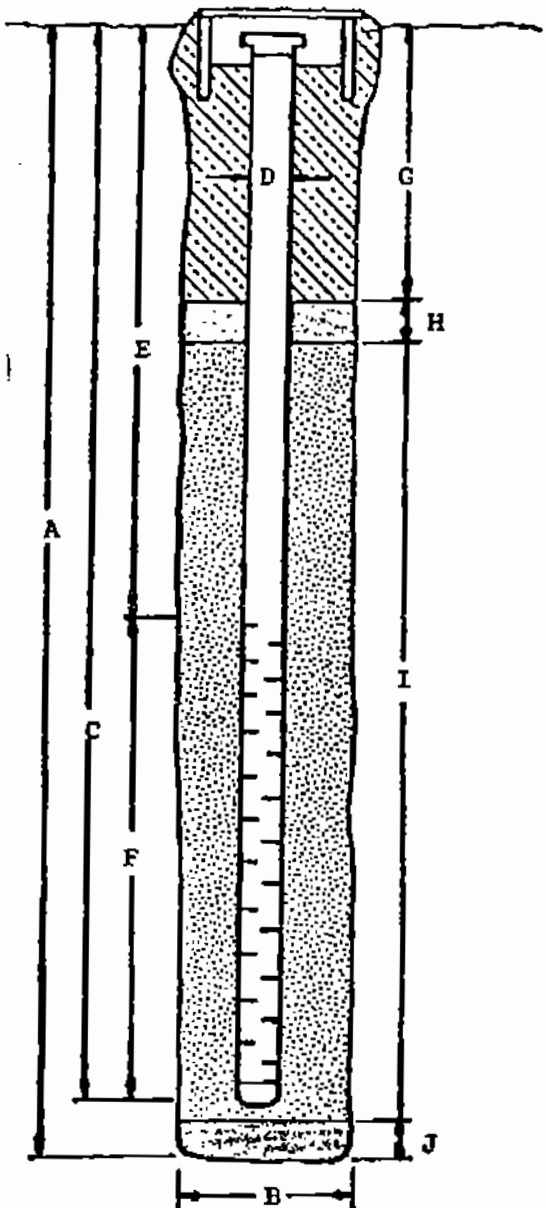
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal 15599 Hesperian San Leandro BORING/WELL NO. MW2

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.:

Flush-mounted Well Cover



A. Total Depth: 25'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 25'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"

ID = 2.067"

E. Depth to Perforations: 10'

F. Perforated Length: 15'

Perforation Type: Machined Slot

Perforation Size: 0.010"

G. Surface Seal: 6'

Seal Material: Concrete

H. Seal: 2'

Seal Material: Bentonite

I. Gravel Pack: 17'

Pack Material: RMC Lonestar Sand

Size: #2/16

J. Bottom Seal: None

Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

BORING LOG

Project No. KEI-P90-1003	**Boring & Casing Diameter** 9" 2"	**Logged By** W.W.
Project Name Unocal 15599 Hesperian San L	**Well Cover Elevation**	**Date Drilled** 4/22/91
Boring No. MW3	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
		0	CL/CH	Asphalt pavement over sand and gravel. Fill material consisting of silty clay with gravel to 2-1/2" diameter, moist, firm, gray to brown.
			MH	Silt, with clay, trace sand, moist, firm to soft, very dark gray.
2/2/2		5	CL/CH	Silty clay, moist, soft, gray to greenish gray, trace rootlets.
3/3/4		10	ML/MH	Silt and clayey silt, moist, firm, greenish gray, trace caliche.
2/3/4		15		Clayey silt, trace sand, trace rootlets, moist, firm, very dark gray.
3/4/4	▽		SC	Clayey sand, with silt, trace gravel to 3/8" diameter, saturated below 18', free product present, firm to stiff, dark gray.
		20	ML	Silt, greenish gray.

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P90-1003	9" 2"	W.W.
Project Name Unocal 15599 Hesperian San L	**Well Cover Elevation**	**Date Drilled** 4/22/91
Boring No. MW3	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
			ML/ MH	Clayey silt, saturated, porous, greenish gray.
5/7/8				Clay, trace sand and rootlets, moist, stiff, very dark gray and very dark grayish brown mottled.
4/5/6			CL/ CH	Clay, trace sand and rootlets, moist, stiff, gray to dark gray.
		25		
		30		
		35		
		40		TOTAL DEPTH: 25'

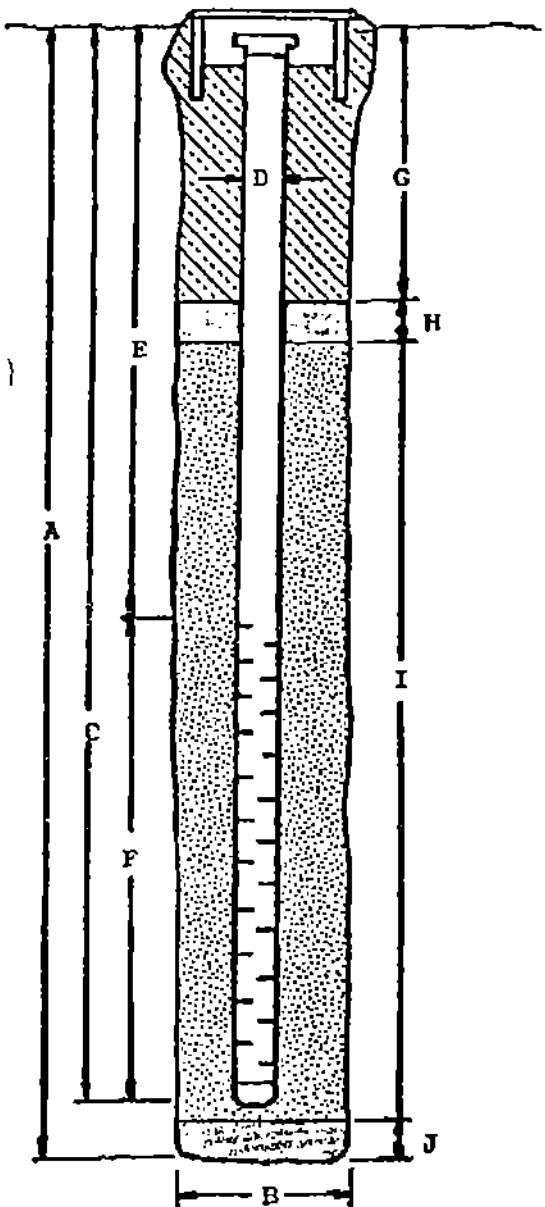
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal 15599 Hesperian San Leandro BORING/WELL NO. MW3

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.:

Flush-mounted Well Cover



A. Total Depth: 25'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 25'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375" ID = 2.067"

E. Depth to Perforations: 10'

F. Perforated Length: 15'

Perforation Type: Machined Slot

Perforation Size: 0.010"

G. Surface Seal: 6'

Seal Material: Concrete

H. Seal: 2'

Seal Material: Bentonite

I. Gravel Pack: 17'

Pack Material: RMC Lonestar Sand

Size: #2/16

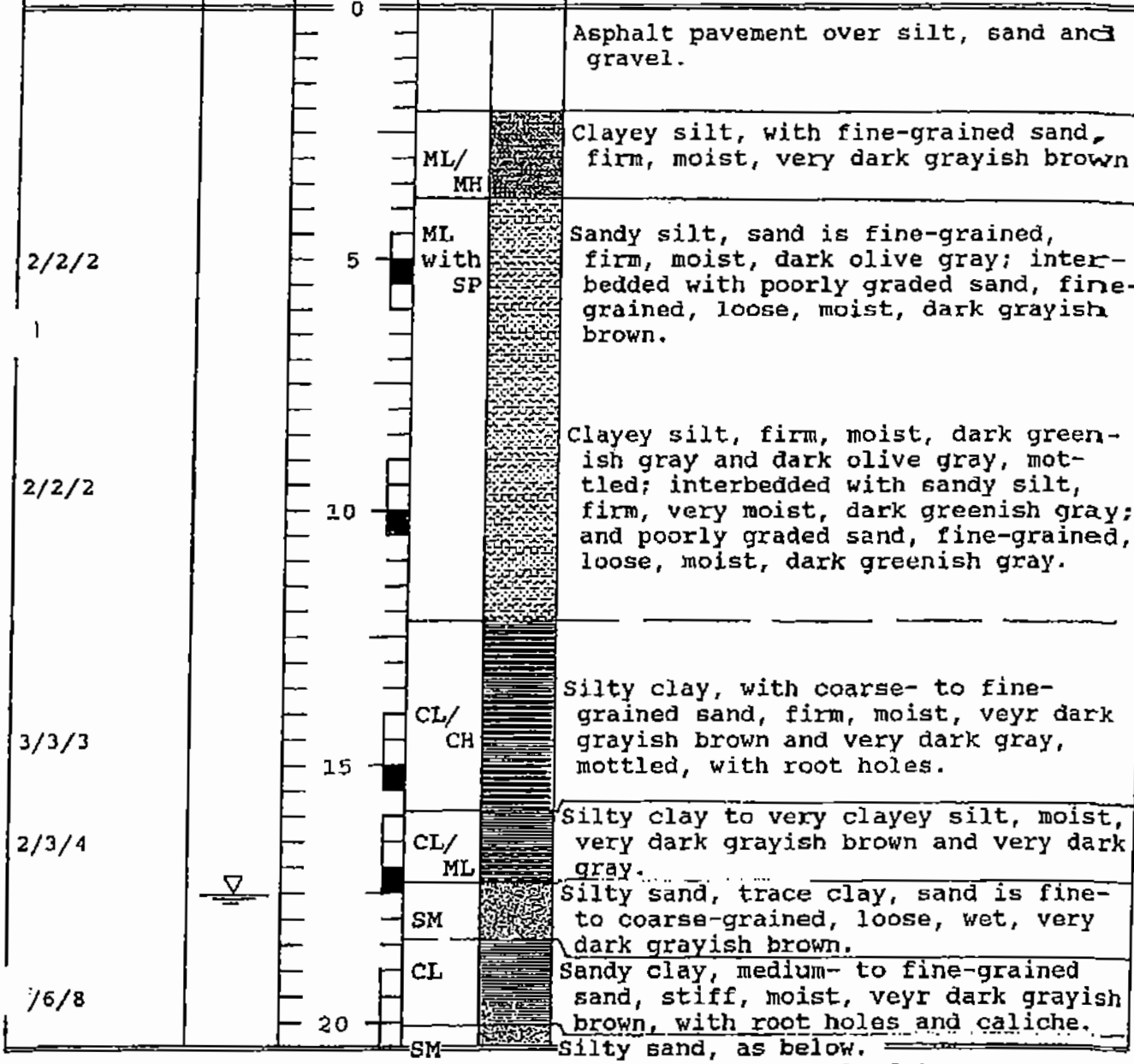
J. Bottom Seal: None

Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

BORING LOG

Project No. KEI-P90-1003	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal San Leandro, Hesper.	Well Cover Elevation	Date Drilled 7/2/91
Boring No. MW4	Drilling Method Hollow-stem Auger	Drilling Company EGI



BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P90-1003	9" 2"	D.L.
Project Name Unocal San Leandro, Hesper.	**Well Cover Elevation**	**Date Drilled** 7/2/91
Boring No. MW4	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
			SM	Silty sand, up to 20% silt, sand is predominantly fine-grained, medium dense, wet, olive brown.
6/9/11		25	CL/ CH	Sandy clay, stiff to very stiff, moist, with voids, caliche nodules to 1" diameter, wet in voids and around nodules, very dark gray, grading to dark grayish brown below 25'.
		30		
		35		
		40		TOTAL DEPTH: 26'

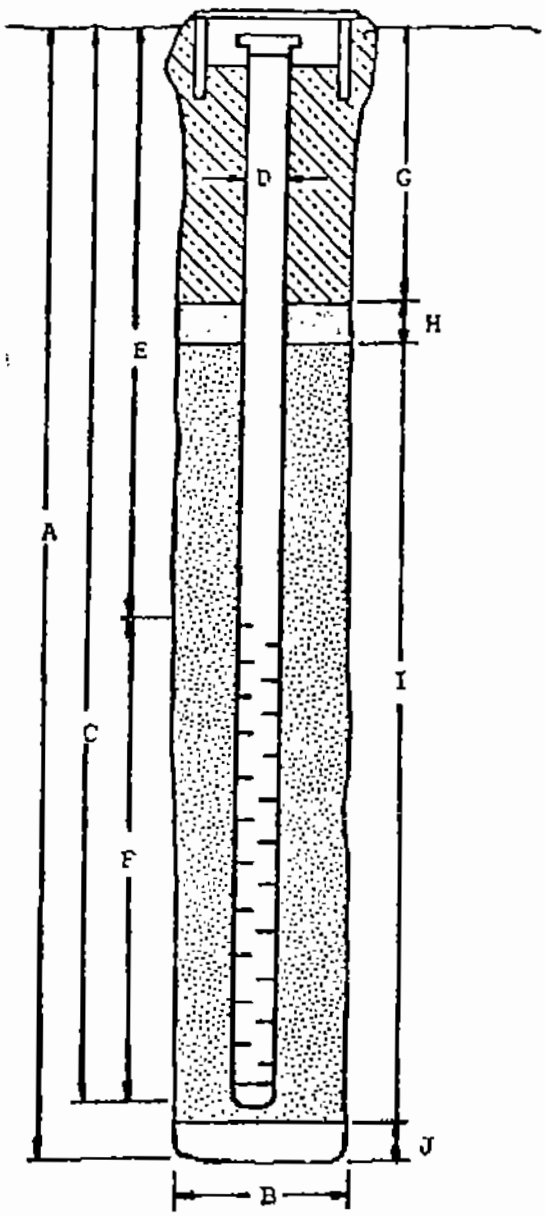
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal San Leandro, Hesperian BORING/WELL NO. MW4

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.: 91349

Flush-mounted Well Cover



A. Total Depth: 26'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 26'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"
ID = 2.067"

E. Depth to Perforations: 10'

F. Perforated Length: 16'

Perforation Type: Machined Slot

Perforation Size: 0.010"

G. Surface Seal: 6'

Seal Material: Neat Cement

H. Seal: 2'

Seal Material: Bentonite

I. Gravel Pack: 18'

Pack Material: RMC Lonestar Sand

Size: #2/12

J. Bottom Seal: none

Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

BORING LOG

Project No. KEI-P90-1003	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal San Leandro, Hesper.	Well Cover Elevation	Date Drilled 7/2/91
Boring No. MW5	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
		0		Asphalt pavement over silt, sand and gravel fill, olive brown.
				Clay, sand and gravel with asphalt, wood and assorted debris.
			ML/ MH	Sandy silt, with clay, sand is medium- to fine-grained, firm, moist, very dark gray.
3/3/4		5		
			CL/ CH	Silty clay, with up to 45% silt, trace fine-grained sand, firm, moist, dark olive gray.
			SW	Well graded sand, with gravel to 3/8" diameter, sand is coarse- to fine-grained, trace silt, loose, moist, dark grayish brown.
2/3/4		10		
			MH	Silt, with clay, trace fine-grained sand, firm, very moist, very dark gray.
2/2/4				
			CL/ CH	Silty clay, firm to stiff, moist, very dark gray, with fine-grained sand below 14'.
2/3/5		15		
				Silty clay, stiff, moist, very dark grayish brown and very dark gray, mottled, with root holes.
3/6/7				
	▽		MH	Clayey silt, stiff, wet, dark gray.
			CL/ CH	Sandy clay, trace gravel to 1/8" diameter, sand is coarse- to fine-grained, stiff, moist, very dark gray.
./6/7		20	SM	Silty sand, as below.

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P90-1003	9" 2"	D.L.
Project Name Unocal San Leandro, Hesper.	**Well Cover Elevation**	**Date Drilled** 7/2/91
Boring No. MW5	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
			SM	Silty sand, up to 20% silt, sand is coarse- to fine-grained, with angular to rounded gravel to 5/8" diameter, medium dense, wet, very dark grayish brown.
5/6/9		25	CL/CH	Silty clay, stiff, moist, very dark grayish brown, locally with fissures and voids, caliche developed in voids.
		30		
		35		
		40		TOTAL DEPTH: 26'

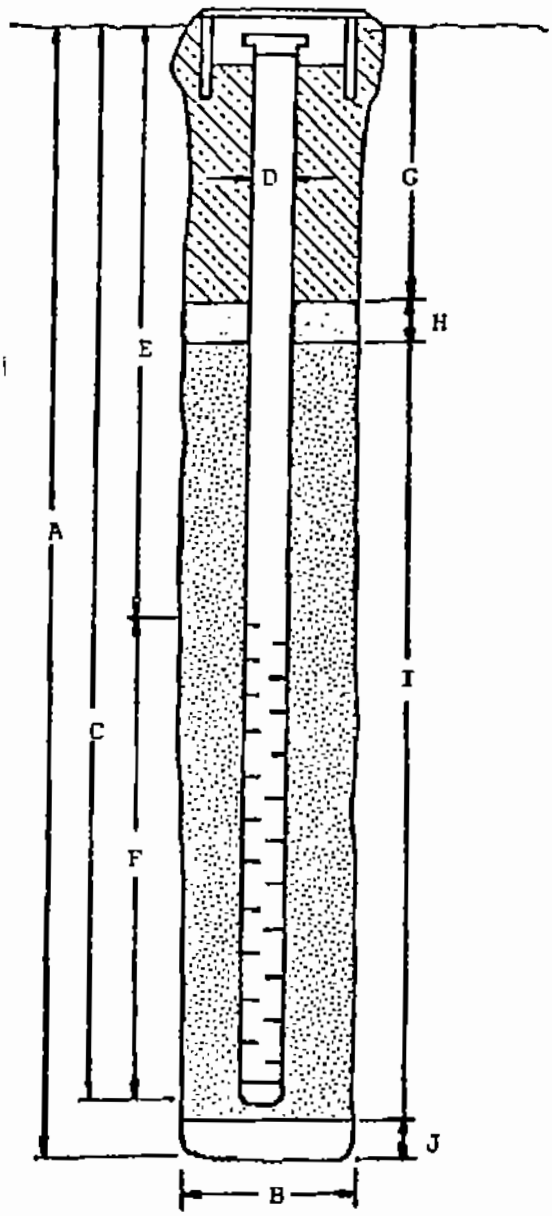
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal San Leandro, Hesperian BORING/WELL NO. MW5

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.:

Flush-mounted Well Cover



A. Total Depth: 26'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 26'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"
ID = 2.067"

E. Depth to Perforations: 10'

F. Perforated Length: 16'

Perforation Type: Machined Slot

Perforation Size: 0.010"

G. Surface Seal: 6'

Seal Material: Neat Cement

H. Seal: 2'

Seal Material: Bentonite

I. Gravel Pack: 18'

Pack Material: RMC Lonestar Sand

Size: #2/12

J. Bottom Seal: none

Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P90-1003	9" 2"	D.L.
Project Name Unocal San Leandro, Hesper.	**Well Cover Elevation**	**Date Drilled** 7/2/91
Boring No. MW6	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
		0		Asphalt pavement over silt, sand and gravel.
			SM	Silty sand, sand is medium- to predominantly fine-grained, loose, moist, olive brown, homogenous?, possible fill?
2/2/4		5	ML	Sandy silt, sand is fine-grained, firm, moist, dark brown, with trace organic matter.
			SW	Well graded sand, with trace silt and gravel to 1/4" diameter, sand is coarse- to fine-grained, medium dense, moist, dark brown.
4/9/3		10	ML/ MH	Silt, with clay, up to 10% fine-grained sand, firm, moist, olive brown.
			CL/ CH	Silty clay, with sand, stiff, moist, very dark grayish brown.
3/5/7		15		Clay, with silt, trace sand, stiff, moist, very dark grayish brown, with root holes.
4/6/7			ML/ MH	Clayey silt, stiff, very moist, very dark grayish brown.
			CL/ CH	Sandy clay, trace gravel to 1/4" diameter, sand is coarse- to fine-grained, stiff, moist, very dark grayish brown, with root holes to 20.5'.
4/6/	▽	20		

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P90-1003	9" 2"	D.L.
Project Name Unocal San Leandro, Hesper.	**Well Cover Elevation**	**Date Drilled** 7/2/91
Boring No. MW6	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
/6			SM	Silty sand, coarse- to fine-grained, up to 20% silt, trace clay, medium dense, wet, very dark grayish brown.
3/5/7		25	CL/CH	Clay, with silt, trace sand, stiff, moist, very dark gray, with root holes and caliche, wet inside root holes.
		30		
		35		
		40		TOTAL DEPTH: 26'

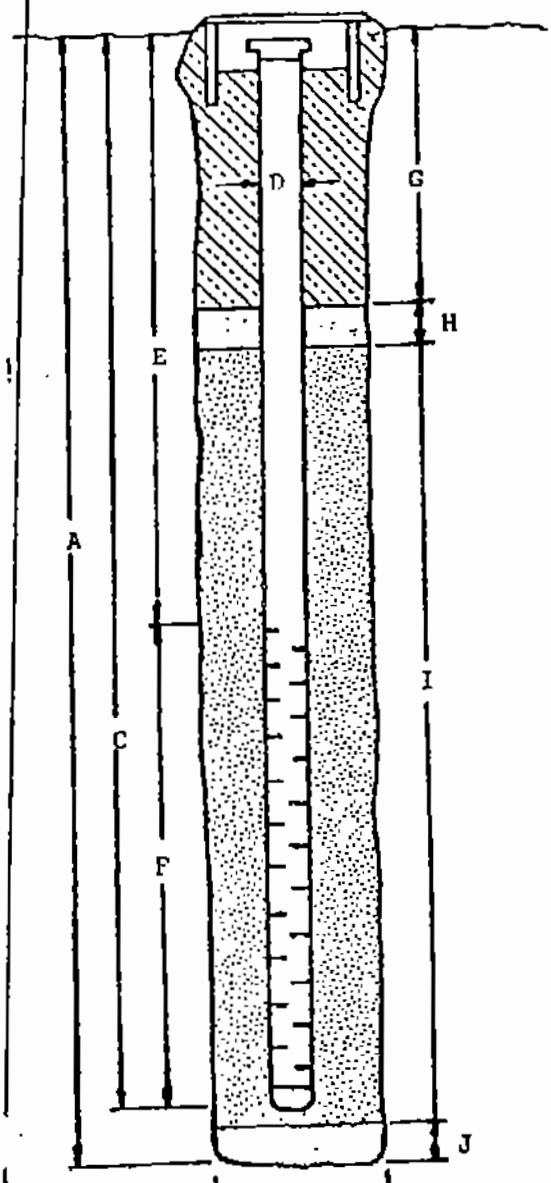
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal San Leandro, Hesperian BORING/WELL NO. MW6

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.:

Flush-mounted Well Cover



A. Total Depth: 26'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 26'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"
ID = 2.067"

E. Depth to Perforations: 10'

F. Perforated Length: 16'

Perforation Type: Machined Slot

Perforation Size: 0.010"

G. Surface Seal: 6'

Seal Material: Neat Cement

H. Seal: 2'

Seal Material: Bentonite

I. Gravel Pack: 18'

Pack Material: RMC Lonestar Sand

Size: #2/16

J. Bottom Seal: none

Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

PROJECT:	Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO:	
LOCATION:	15599 Hesperian Boulevard, San Leandro, California	MW-7 PAGE 1 OF 1	SECOR
PROJECT NUMBER:	77CP.67004.06.0011		
DRILLING:	STARTED 1/17/06 COMPLETED: 1/17/06	NORTHING (ft):	EASTING (ft):
INSTALLATION:	STARTED 1/17/06 COMPLETED: 1/17/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY:	Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT:	CME-75	INITIAL DTW (ft): 10.5 11/20/06	BOREHOLE DEPTH (ft): 25.0
DRILLING METHOD:	Hollow Stem Auger	STATIC DTW (ft):	WELL DEPTH (ft): 25.0
SAMPLING EQUIPMENT:	Split Spoon	WELL CASING DIAMETER (in): 2	BOREHOLE DIAMETER (in): 8
		LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Air knife to five feet below ground surface							
1125		SP-SM	SAND WITH SILT AND CLAY; SP-SM; 5/1 10YR gray; fine-grained; loose; moist		1125 MW-7@ 6-6.5'	1	9 9 13	1.1		
1130		ML	SILT WITH SOME SAND; ML; 5/3 10YR brown; fine-grained; soft; moist; no odor		1130 MW-7@ 10.5-11'	1.5	8 9 11	1.2		
		SP	SAND LITTLE SILT; SP; 5/2 10YR grayish brown; loose; wet							
		CL	SILTY CLAY; CL; 4/2 10YR dark grayish brown; soft; moist; no odor							
1135		CH	FAT CLAY LITTLE SILT; CH; 4/1 10YR dark gray; stiff; wet; no odor		1135 MW-7@ 15.5-16'	1.5	10 10 12	1.1		
1137		SP	SAND WITH TRACE SILT; SP; 5/4 10YR yellowish brown; fine-grained; medium dense; wet; no odor			0.5	11 12 14			
1140		CH	FAT CLAY WITH TRACE SILT; CH; 5/1 10YR gray; hard; wet; no odor		1140 MW-7@ 24-24.5'	0.5	10 11 14	1.0		
			Hole terminated at 25 feet.							

Well Construction: Neat Portland Cement with 5% bentonite powder; Schedule 40 PVC casing; Bentonite Seal; #3 Sand; 0.020-inch factory slotted screen

GEO FORM 304 MW7MW7GSB246837.GPJ SECOR INTL.GDT 2/3/06

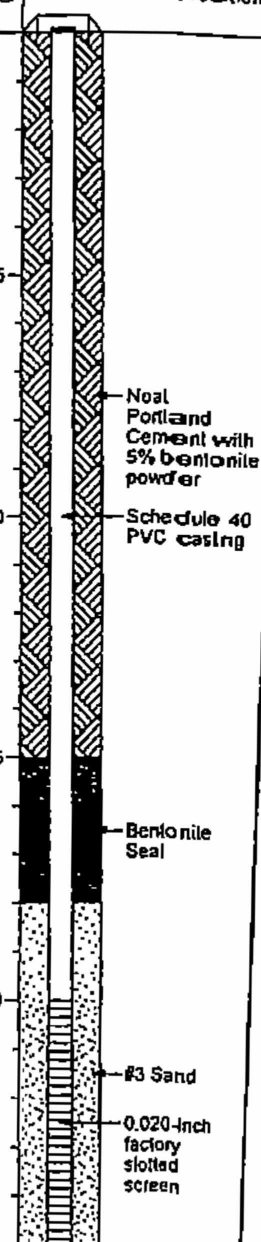
PROJECT:	Former 76 Service Station No. 7004
LOCATION:	15599 Hesperian Boulevard, San Leandro, California
PROJECT NUMBER:	77CP.67004.06.0011

WELL / PROBEHOLE / BOREHOLE NO: **MW-8** PAGE 1 OF 1

SECOR

DRILLING: STARTED 1/18/06 COMPLETED: 1/18/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/18/06 COMPLETED: 1/18/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT: CME-75	INITIAL DTW (ft): 15 1/18/06	BOREHOLE DEPTH (ft): 25.0
DRILLING METHOD: Hollow Stem Auger	STATIC DTW (ft):	WELL DEPTH (ft): 25.0
SAMPLING EQUIPMENT: Split Spoon	WELL CASING DIAMETER (in): 2	BOREHOLE DIAMETER (in): 8
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	USCS	Description	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)
0		Air knife to five feet below ground surface				
0750 / 5	SP-SM	SAND WITH SILT; SP-SM; 5/2 10YR grayish brown; medium dense; moist	0750 MW-8@ 5.5-6'	0.5	10 7 13	1.3
0755 / 10	CL-ML	SILTY CLAY; CL-ML; 4/1 10YR dark gray; soft; moist; no odor	0755 MW-8@ 11-11.5'	1.5	9 10 12	0.5
15		LITTLE SAND; wet		1	8 8 10	
20				0.75	10 10 13	
	SP	SAND WITH SOME SILT; SP; 7/4 10YR pale brown; fine to medium-grained; loose; wet; no odor; very pale brown color				
0810 / 25		Hole terminated at 25 feet.	0810 MW-8@ 24.5-25'	0.75	11 10 14	0.6



GEO FORM 304 MWTMWMGSB24SB37.GPJ SECOR INTL.GDT 2/3/06

PROJECT:	Former 76 Service Station No. 7004
LOCATION:	15599 Hesperian Boulevard, San Leandro, California
PROJECT NUMBER:	77CP.67004.06.0011

WELL / PROBEHOLE / BOREHOLE NO: **MW-9** PAGE 1 OF 1

SECOR

DRILLING: STARTED 1/17/06	COMPLETED: 1/17/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/17/06	COMPLETED: 1/17/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY:	Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT:	CME-75	INITIAL DTW (ft): 16 1/17/06	BOREHOLE DEPTH (ft): 25.0
DRILLING METHOD:	Hollow Stem Auger	STATIC DTW (ft):	WELL DEPTH (ft): 25.0
SAMPLING EQUIPMENT:	Split Spoon	WELL CASING DIAMETER (in): 2	BOREHOLE DIAMETER (in): 8
		LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	USCS	Description	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
		Air knife to five feet below ground surface					
5	ML	CLAYEY SILT; ML; 5/1 10YR gray; stiff; dry; no odor; no staining					5
1010			1010 MW-9@ 6.5-7'	1.5		1.5	
10							10
1015			1015 MW-9@ 11-11.5'	1	9 10 14		
15							15
1020	SP	SAND WITH SOME SILT; SP; 4/2 10YR dark grayish brown; fine to medium-grained; medium dense; moist; no odor	1020 MW-9@ 15.5-16'	1.5	12 11 10	1.2	▽
	CH	FAT CLAY; CH; 4/1 10YR dark gray; stiff; wet; no odor					
1025 20	CL	SANDY LEAN CLAY; CL; 4/1 10YR dark gray; stiff; wet; no odor		1.5	10 10 14		20
	CL	SILTY CLAY; CL; 4/2 10YR dark grayish brown; hard; moist; no odor					
	SP	SAND WITH SOME SILT; SP; 4/1 10YR dark gray; fine-grained; loose; wet					
1030 25	CL	SILTY CLAY WITH LITTLE SAND; CL; 5/1 10YR gray; soft; wet	1030 MW-9@ 24.5-25'	1.5	11 13 14	1.1	25
		Hole terminated at 25 feet.					

Well Construction:
- Neat Portland Cement with 5% bentonite powder
- Schedule 40 PVC casing
- Bentonite Seal
- #3 Sand
- 0.020-inch factory slotted screen

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO:
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	MW-10 PAGE 1 OF 1
PROJECT NUMBER: 77CP.67004.06.0011	SECOR
DRILLING: STARTED 1/17/06 COMPLETED: 1/17/06	NORTHING (ft): EASTING (ft):
INSTALLATION: STARTED 1/17/06 COMPLETED: 1/17/06	LATITUDE: LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft): TOC ELEV (ft):
DRILLING EQUIPMENT: CME-75	INITIAL DTW (ft): 21 1/17/06 BOREHOLE DEPTH (ft): 25.0
DRILLING METHOD: Hollow Stem Auger	STATIC DTW (ft): WELL DEPTH (ft): 25.0
SAMPLING EQUIPMENT: Split Spoon	WELL CASING DIAMETER (in): 2 BOREHOLE DIAMETER (in): 8
	LOGGED BY: Jim Dowd CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Air knife to five feet below ground surface							
1335 5		ML	SILT WITH LITTLE SAND; ML; 4/2 10YR dark grayish brown; stiff; moist		1335 MW-10@ 5-5.5'	1.5	9 10 14	0.6	5	
		SP	SAND WITH LITTLE SILT; SP; 5/4 10YR yellowish brown; medium dense; moist							Neat Portland Cement with 5% bentonite powder
1340 10		SP	SAND WITH GRAVEL; SP; 6/3 10YR pale brown; loose; moist; gravel (6/1 10YR) gray		1340 MW-10@ 10-10.5'	1	10 10 13	0.5	10	Schedule 40 PVC casing
		CL	CLAY WITH SILT; CL; 4/1 10YR dark gray; soft; moist; no odor							
1345 15			WITH SAND; 4/2 10YR dark grayish brown			1.5	11 12 14		15	Bentonite Seal
1350 20			SILTY CLAY; 5/1 10YR gray; stiff		1350 MW-10@ 20-20.5'	1.5	11 12 14	0.6	20	#3 Sand
		SM	SILTY SAND; SM; 6/2 10YR light brownish gray; fine to medium-grained; medium dense; wet							0.020-inch factory slotted screen
1355 25		CL	CLAY WITH SILT; CL; 5/1 10YR gray; hard; moist; no odor		1355 MW-10@ 24.5-25'	1	12 12 15	0.7	25	
			Hole terminated at 25 feet							

GEO FORM 304 MW/MW10/SB245837.GPJ SECOR INTL.GDT 2/3/06

BORING LOG

Project No. KEI-P90-1003	**Boring & Casing Diameter** 12" 6"	**Logged By** D.L. JGG LEG 1633
Project Name Unocal # 7004 15599 Hesperian Blvd, San Leandro	**Well Cover Elevation** N/A	**Date Drilled** 4-15-92
Boring No. RW1	**Drilling Method** Hollow-stem Auger	**Drilling Company** Woodward Drilling

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
		0		Asphalt pavement over sand and gravel base.
				Clay, sand and gravel with cobbles to 8 inches in diameter, very dark grayish brown and black (fill).
			SM	Silty sand, sand is very fine to fine-grained, moist, loose, dark olive gray.
2/3/5		5	CL	Silty clay, moist, firm, dark greenish gray.
			MH	Silt with clay, estimated at 10-15% fine-grained sand, moist, stiff, dark olive gray.
			SW	Well graded sand, dry, loose, light olive brown.
3/4/5			SW/ ML	Well graded sand, moist, loose, dark olive gray with lenses of sandy silt to 1 inch thick. Silt is moist, firm, dark olive gray.
		10	ML	Silt with sand, trace clay, sand is very fine-grained, moist, firm, dark olive gray.
3/4/6			MH	Clayey silt, estimated at 10-15% sand, moist, stiff, black, grades to dark olive gray.
			CL	Silty clay, moist, stiff, very dark gray to black.
NO BLOW COUNT DATA - CONTINUOUSLY CORED	▽	15	MH	Clayey silt very moist to wet, stiff, black with molds and root holes.
			CL	Silty clay, trace fine-grained sand, moist, very stiff, dark olive gray and very dark gray, mottled.
				Clay with silt, moist, very stiff, very dark gruyish brown and very dark gray, mottled.
		20	SM	Silty sand, estimated at 15-20% silt, sand is fine to medium grained, saturated, medium dense, olive and olive brown, mottled.

BORING LOG

Project No. KEI-P90-1003	**Boring & Casing Diameter** 12" 6"	**Logged By** JGG D.L. LEG 1633
Project Name Unocal #7004 15599 Hesperian Blvd, San Leandro	**Well Cover Elevation** N/A	**Date Drilled** 4-15-92
Boring No. RW1	**Drilling Method** Hollow-stem Auger	**Drilling Company** Woodward Drilling

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
Particle Size Analysis Sample		25	SM	Silty sand as above.
			CH	Clay with trace silt and sand, locally trace caliche, moist, hard, very stiff, black.
			CL	Silty clay with root holes and organic matter, moist, stiff, olive gray.
			CH	Sandy silty clay, significant caliche development locally, moist, very stiff to hard, olive and olive brown, mottled.
		30		TOTAL DEPTH: 29.5'
		35		
		40		

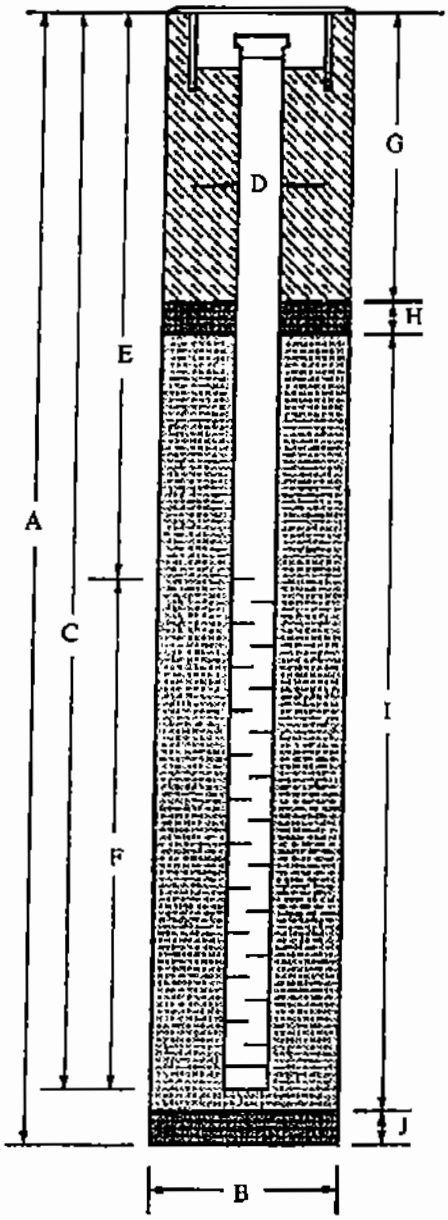
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal #7004, 15599 Hesperian Blvd., San Leandro WELL NO. RW1

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.: ACF-C & WCD #92151

Flush-mounted Well Cover



A. Total Depth: 27.5"

B. Boring Diameter*: 12"

Drilling Method: Hollow Stem Auger

C. Casing Length: 27.5'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 6.625

ID = 6.065

E. Depth to Perforations: 12.5'

F. Perforated Length: 15'

Perforation Type: Machined Slot

Perforation Size: 0.010"

G. Surface Seal: 8.5'

Seal Material: Neat Cement

H. Seal: 2'

Seal Material: Bentonite

I. Filter Pack: 17'

Pack Material: Silica Resources Inc. Sand

Size: #2/12

J. Bottom Seal: 2'

Seal Material: Bentonite

* Boring diameter can vary from 11 1/4" to 12" depending on bit wear.

Gettler-Ryan, Inc.

Log of Boring G-1

PROJECT: *Tosco (76) Service Station No. 7004*	LOCATION: *15599 Hesperian Blvd., San Leandro, CA*
GR PROJECT NO.: *140106.06*	SURFACE ELEVATION:
DATE STARTED: *09/20/02*	WL (ft. bgs): *16* DATE: *09/20/02* TIME: *8:00*
DATE FINISHED: *09/20/02*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *2 in. Geoprobe - Direct Push*	TOTAL DEPTH: *20 feet*
DRILLING COMPANY: *Gregg Drilling*	GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
				Asphalt and base rock.	
			ML	SILT (ML) - dark gray (N4), moist, soft; 80% silt, 10% fine sand.	Boring backfilled with neat cement to ground surface.
3					
	0				Hand augered to 5 feet bgs.
6				SILT WITH SAND (ML) - dark brown (7.5YR 4/1), moist, medium stiff; 75-85% silt, 15-25% fine sand.	
9					
	0	G-1 (S10)			
12			SP-SM	POORLY GRADED SAND WITH SILT (SP-SM) - dark brown (7.5YR 4/1), moist, dense; 90% fine sand, 10% silt.	
			ML	SILT (ML) - dark gray (N4), moist, medium stiff; 80% silt, 10% clay.	
	0	G-1 (S14)			
15			CL	CLAY (CL) - dark gray (N4), moist, medium stiff; 95% clay, 5% silt. ▽	
			SP	POORLY GRADED SAND (SP) - dark gray (N4), wet, medium dense; 90% fine sand, 10% silt.	
18			CL	CLAY (CL) - dark gray (N4), wet, medium stiff; 100% clay.	
				Bottom of boring at 20 feet bgs.	
21					

JOB NUMBER: *140106.06*

Gettler-Ryan, Inc.

Log of Boring G-2

PROJECT: *Tosco (76) Service Station No. 7004*	LOCATION: *15599 Hesperian Blvd., San Leandro, CA*
GR PROJECT NO.: *140106.06*	SURFACE ELEVATION:
DATE STARTED: *09/20/02*	WL (ft. bgs): *15.5* DATE: *09/20/02* TIME: *8:20*
DATE FINISHED: *09/20/02*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *2 in. Geoprobe - Direct Push*	TOTAL DEPTH: *20 feet*
DRILLING COMPANY: *Gregg Drilling*	GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
				Asphalt and base rock.	
3			ML	SILT (ML) - dark gray (2.5Y 4/1), moist, medium stiff; 90% silt, 10% fine sand.	Boring backfilled with neat cement to ground surface.
	0				Hand augered to 5 feet bgs.
6			SP	POORLY GRADED SAND (SP) - grayish brown (10YR 5/2), moist, medium dense; 95% fine sand, 5% silt.	
			ML	SILT WITH SAND (ML) - dark grayish brown (10YR 4/2), moist, medium stiff; 75-85% silt, 15-25% fine sand.	
9					
	0	G-2 (S10)			
12					
	0	G-2 (S14)			
15				▽	
				SILT (ML) - dark greenish gray (5GY 3/1), moist, medium stiff; 85% silt, 5% fine sand.	
			CL	CLAY (CL) - dark greenish gray (5GY 3/1), moist, medium stiff; 95% clay, 5% silt.	
18	17.1				
				Bottom of boring at 20 feet bgs.	
21					

JOB NUMBER: *140106.06*

Gettler-Ryan, Inc.

Log of Boring G-3

PROJECT: *Tosco (76) Service Station No. 7004*	LOCATION: *15599 Hesperian Blvd., San Leandro, CA*
GR PROJECT NO.: *140106.06*	SURFACE ELEVATION:
DATE STARTED: *09/20/02*	WL (ft. bgs): *15.5* DATE: *09/20/02* TIME: *8:55*
DATE FINISHED: *09/20/02*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *2 in. Geoprobe - Direct Push*	TOTAL DEPTH: *20 feet*
DRILLING COMPANY: *Gregg Drilling*	GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						Asphalt and base rock.	
					ML	SILT (ML) - dark gray (2.5Y 4/1), moist, medium stiff; 85-90% silt, 10-15% fine sand.	Boring backfilled with neat cement to ground surface.
3							
	0	G-3 (S5)					Hand augered to 5 feet bgs.
6							
					SP-SM	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM) - greyish brown (10YR 5/2), moist, medium dense; 75% fine sand, 15% gravel, 10% silt.	
9					SW	WELL-GRADED SAND (SW) - grayish brown (10YR 5/2), moist, medium dense; 95% sand, 5% silt.	
	0	G-3 (S10)			CL	CLAY (CL) - dark greenish gray (10Y 4/1), moist, medium stiff; 100% clay.	
12							
	0	G-3 (S13.5)					
15					SM	▽ SILTY SAND (SM) - dark greenish gray (10Y 4/1), wet, loose; 80-85% sand, 15-20% silt.	
					ML	SILT (ML) - dark greenish gray (10Y 4/1), moist, medium stiff; 90-95% silt, 5-10% clay.	
18							
						Bottom of boring at 20 feet bgs.	
21							

JOB NUMBER: *140106.06*

Gettler-Ryan, Inc.

Log of Boring G-4

PROJECT: *Tosco (76) Service Station No. 7004*	LOCATION: *15599 Hesperian Blvd., San Leandro, CA*
GR PROJECT NO.: *140108.06*	SURFACE ELEVATION:
DATE STARTED: *08/20/02*	WL (ft. bgs): *15.5* DATE: *08/20/02* TIME: *8:30*
DATE FINISHED: *08/20/02*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *2 in. Geoprobe - Direct Push*	TOTAL DEPTH: *20 feet*
DRILLING COMPANY: *Gregg Drilling*	GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						Asphalt and base rock.	
3					ML	SILT (ML) - dark gray (2.5Y 4/1), moist, medium stiff; 85-90% silt, 10-15% fine sand.	Boring backfilled with neat cement grout to ground surface.
6					SM	SILTY SAND WITH GRAVEL (SM) - dark brown (10YR 4/1), moist, medium dense; 70% sand, 15% fine gravel, 15% silt.	Hand augered to 5 feet bgs.
9		G-4 (S10)			SP-SM	POORLY GRADED SAND WITH SILT (SP-SM) - dark brown (10YR 3/3), moist, medium dense; 90% fine sand, 10% silt.	
12		G-4 (S13.5)			ML	SILT (ML) - dark greenish gray (10GY 3/1), moist, stiff; 95% silt, 5% clay.	
15						▽ Becomes 90% silt, 10% clay.	
18					CL	CLAY (CL) - dark greenish gray (10GY 3/1), wet, medium stiff; 90% clay, 10% silt.	
21						Bottom of boring at 20 feet bgs.	

JOB NUMBER: *140108.06*

Gettler-Ryan, Inc.

Log of Boring G-5

PROJECT: *Tosco (76) Service Station No. 7004*	LOCATION: *15599 Hesperian Blvd., San Leandro, CA*
GR PROJECT NO.: *140106.06*	SURFACE ELEVATION:
DATE STARTED: *09/20/02*	WL (ft. bgs): *15.0* DATE: *09/20/02* TIME: *12:20*
DATE FINISHED: *09/20/02*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *2 in. Geoprobe - Direct Push*	TOTAL DEPTH: *20 feet*
DRILLING COMPANY: *Gregg Drilling*	GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						Concrete - 5 inches thick.	
					SM	SILTY SAND (SM) - dark brown (7.5YR 3/2), moist, medium dense; 80% fine to medium sand, 20% silt.	Boring backfilled with neat cement to ground surface.
					ML	SILT (ML) - dark gray (2.5Y 4/1), moist, medium stiff; 85-90% silt, 10-15% fine sand.	
3	1.7						
	1.9	G-5 (S5)					Hand augered to 5 feet bgs.
6							
9							
	1.0	G-5 (S11)				Becomes 90-95% silt, 5-10% fine sand.	
12		G-5 (S13)					
15					▽		
					CL	CLAY (CL) - dark gray (2.5Y 4/1), moist, medium stiff; 95% clay, 5% silt.	
18							
						Bottom of boring at 20 feet bgs.	
21							

JOB NUMBER: *140106.06*

SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/23/05 8/23/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-1

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▼ 11 First Water ▼ 11.5 Static Water	19.0		

Well Construction	Depth (ft.)	Sample Recovery	Description	Name
Neat cement backfill	5 10 15 20		Hand Cleared to 5' **POORLY-GRADED SAND WITH SILT (SP-SM):** Brownish yellow (10YR 6/8), slightly loose, poorly graded, moist to wet Fat clay (CH): Dark olive Brown (2.5Y 3/3), moist, high plasticity **SANDY CLAY (CL):** Dark olive brown (2.5Y 3/3), moist, high plasticity **FAT CLAY (CH):** Dark olive brown (2.5Y 3/3)	SB-1 @ 12'

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

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SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/26/05 8/26/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-2

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▽ 19.5 First Water ▼ 12 Static Water	22.0		

Well Construction	Depth (ft.)	Sample Recovery	Description	Name
Neat cement backfill	5		Hand cleared to 5'	
			POORLY-GRADED SAND (SP): Brownish yellow (10YR 6/8), medium-fine grain, poorly graded, moist, loose	
▼	10		FAT CLAY (CH): Very dark grayish brown (2.5Y 3/2), firm to stiff, moist	
▽	15			SB-2 @ 15'
	20		POORLY-GRADED SAND (SP): fine grain, poorly graded, saturated 0/100/0	
				SB-2 @ 22'

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Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

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LOG OF BOREHOLE

Figure

SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/22/05 8/22/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-3

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▼ 10 First Water ▼ 13 Static Water	19.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name
Neat cement backfill	5		Hand cleared to 5' POORLY-GRADED SAND WITH SILT (SP-SM):, poorly graded, moist	SB-3@
▼	10		FAT CLAY WITH SAND (CH):, moist, saturated (0, 15, 85)	SB-3@
▼			FAT CLAY WITH SAND (CL): Black (2.5Y 2.5/1) moist, black, stiff	
	15			
	20			

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Log of Boring

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LOG OF BOREHOLE

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SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/22/05 8/22/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-4

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt (lbs.):	Drop Dist.(in.):
		▼ 12.5 First Water ▼ 13.5 Static Water	25.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name
Neat cement backfill	5 10 15 20		Hand cleared to 5' **POORLY-GRADED SAND WITH SILT (SP-SM)**: Brownish yellow (10YR 6/8), poorly graded, moist to saturated Same as above; Dark yellowish brown (10YR 3/4) **FAT CLAY (CH)**: Dark olive brown (2.5Y 3/3), moist, stiff, high plasticity 2.5Y 3/3 **SILTY SAND (SM)**: Olive Brown (2.5Y 4/4), silty sand, poorly graded, moist 2.5Y 4/4 **FAT CLAY (CH)**: high plasticity	SB-4@12 SB-4@19

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Log of Boring

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LOG OF BOREHOLE

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SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/22/05 8/22/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-5

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▽ 12 First Water ▼ 14 Static Water	25.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name
			Hand cleared to five feet	
Neat cement backfill	5		POORLY-GRADED SAND WITH SILT (SP-SM): Brownish yellow (10YR 6/8), poorly graded, moist	
▽	10			SB-5@12
▼			FAT CLAY WITH SAND (CH): Black (2.5Y 2.5/1) moist, firm	
	15		FAT CLAY (CH): Dark Olive Brown (2.35Y 3/3), stiff, high plasticity 2.5Y 3/3	SB-5@19
	20		POORLY-GRADED SAND (SP): Light olive brown (2.5Y 5/4) poorly graded, fairly loose, saturated	
			FAT CLAY (CH): Dark olive brown (2.35Y3/3), stiff, high plasticity	

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Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

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LOG OF BOREHOLE

Figure

SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/23/05 8/23/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-6

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▼ 12.5 Static Water	19.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name
			Hand cleared to 5'	
Neat cement backfill	5		**POOLY-GRADED SAND WITH SILT (SP-SM):** Dark Gray (5Y 4/1), sand to silty sand, poorly graded, dry to moist,	
▼	10		**POORLY-GRADED SAND WITH GRAVEL (SP):** sand with gravel, angular to 3/4" diameter, dry to moist, loose	
	15		**FAT CLAY (CH):** Dark olive brown (2.5Y 3/3), moist, stiff, high plasticity	SB-6@13
	20			SB-6@19
			SILTY SAND (SP): Olive brown (2.5Y 4/4), poorly graded, moist 2.5Y 4/4 **FAT CLAY (CH):** high plasticity	

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Log of Boring

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SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/23/05 8/23/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-7

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
			22.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name	PID
Neat cement backfill	5		Hand clear to 5'		
	10		SILTY SAND (SM): poorly graded, moist to very moist, 10YR 6/8	SB-7@11	10
	15		FAT CLAY WITH SAND (CH): Black (10YR 2/1), stiff 10YR 2/1 FAT CLAY (CH): Dark olive brown (2.5 3/3), stiff, high plasticity		
	20			SB-7@19	20
			SILTY SAND (SM): medium-fine grain, poorly graded, moist		

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Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

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LOG OF BOREHOLE

Figure

SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/23/05 8/23/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-8

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt (lbs.):	Drop Dist.(in.):
			22.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name	PID
Neat cement backfill	5 10 15 20		Hand cleared to 5' **POORLY-GRADED SAND WITH SILT (SP-SM):** Brownish yellow (10YR 6/8), poorly graded, dry to moist, loose	SB-8@10	70
			FAT CLAY WITH SAND (CH): Very dark Gray (2.5Y 3/1), stiff, moderate plasticity, very moist, odors noted		
			FAT CLAY (CH): Very dark gray (10YR 3/1), stiff, high plasticity, odors noted	SB-8@15	80
			CLAYEY SAND (SC):, poorly graded, very moist	SB-8@22	

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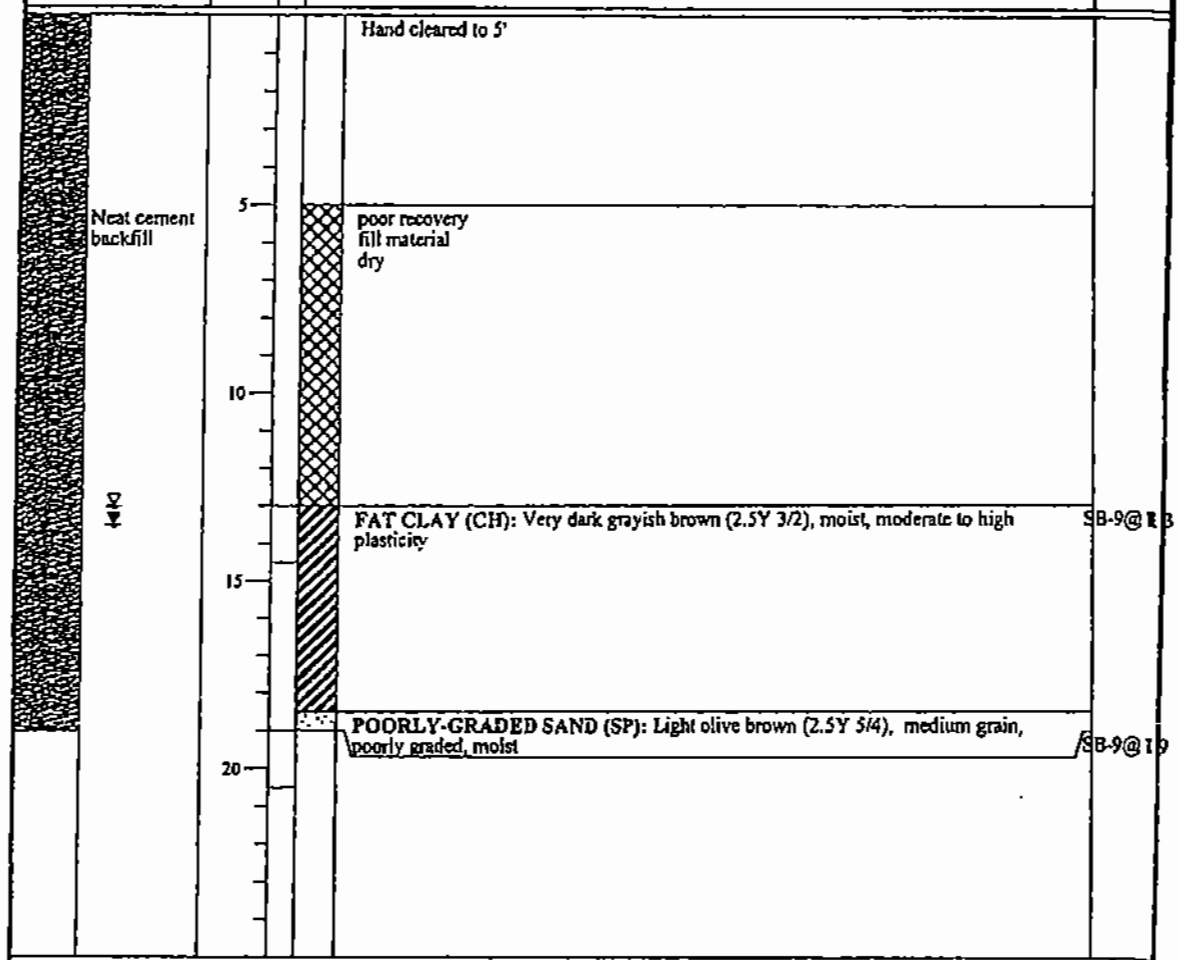
SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/23/05 8/23/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-9

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▽ 13 First Water ▼ 13.5 Static Water	19.0		



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SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/23/05 8/24/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-10

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▽ 14.5 First Water	28.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name	PID
Neat cement backfill	5 10 15 20 25		Hand Cleared to 5' Poor recovery - Fill Highly saturated fill FAT CLAY (CH): Light olive brown (2.5Y 5/4), saturated, very stiff		

▽

SB-10@28 30

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Log of Boring

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SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/24/05 8/24/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-11

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▼ 15 First Water ▼ 14.5 Static Water	19.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name
Neat cement backfill	5		Hand cleared to 5' **POORLY-GRADED SAND WITH SILT(SP-SM):** Dark Brown (10YR 3.3), poorly graded, moist, slightly firm	
▼ ▼	10 15		**FAT CLAY (CH):** very dark gray to Very dark grayish bown (2.5Y 3/1 to 10YR 3/2), saturated to moist, stiff, high plasticity	SB-11@
	20			SB-11@

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Log of Boring

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LOG OF BOREHOLE

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SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/24/05 8/24/05	P.S.I	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-12

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▽ 12 First Water ▼ 14.5 Static Water	19.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name
Neat cement backfill	5		Hand Cleared to 5' **CLAYEY SAND WITH GRAVEL (SC)**: Very dark brown (10YR 2/2), moist, firm, angular up to 3/4" gravel, (15, 65, 30)	
	10		**SILTY SAND (SM)**: Dark brown (10YR 3/3), poorly graded, moist, loose to firm (0, 85, 15)	
▽			Saturated **LEAN CLAY (CL)**: Black (10YR 2/1), moist, stiff, slightly plastic, very dark gray to black, streaks of oxidation, trace sand, (0, 5, 95)	SB-12@
▼	15		**FAT CLAY (CH)**: Very dark brown (10YR 2/2), trace sand, stiff, plastic, moist to very moist, dark brown, streaks of oxidation, (0, 5, 95) **FAT CLAY (CH)**: Very dark grayish brown (2.5Y 3/2), stiff, very plastic, dark grey, (0, 0, 100)	
	20		Same as above: Color change dark brown (2.5Y 4/3)	

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Log of Boring

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LOG OF BOREHOLE

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SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/24/05 8/24/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-13

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▽ 12 First Water ▼ 14.5 Static Water	19.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name
Neat cement backfill	5		Hand Cleared to 5'	
			SILTY SAND (SM): Dark brown (10YR 3/3), medium-fine grain, moist, firm, poorly graded, (0, 75, 25)	
			POORLY-GRADED SAND WITH SILT (SP-SM): Dark yellowish brown (10YR 4/6), medium grain, poorly graded, dry to moist, loose, (0, 90, 10)	
▽	10		SILTY SAND (SM): Fine grain, poorly graded, very moist to saturated, firm	SB-13@
▼			LEAN CLAY (CL): Grayish Brown (10YR 5/2), moist, stiff, slightly plastic, trace sand, streaks of oxidation (0, 5, 95)	
	15		FAT CLAY (CH): Very dark grayish brown (2/5Y 3/2), stiff, very plastic, moist (0, 0, 100)	
			Same as above: Color change to Olive brown (2.5Y 4/3)	
	20			SB-13@

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Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

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SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/24/05 8/24/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-14

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▽ 12.5 First Water	19.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name	PID
			Hand cleared to 5'		
Neat cement backfill	5		POORLY-GRADED SAND WITH SILT (SP-SM): Dark brown (10YR 3/3), poorly graded, dry to moist, loose		
▽	10		Saturated		
			FAT CLAY (CH): Very dark grayish brown (10YR 3/2), moist, stiff, high plasticity	SB-14@12	2.4
	15		CLAYEY SAND (SC): Dark olive Brown (2.5Y 3/3), poorly graded, very moist, loose	SB-14@19	2.3
	20				

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Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

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SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/24/05 8/24/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-15

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt (lbs.):	Drop Dist.(in.):
		▽ 12 First Water	19.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name	PID
			Hand cleared to 5'		
Neat cement backfill	5		POORLY-GRADED SAND (SP): Dark Brown (10YR 3/3), poorly graded, dry, loose to slighly firm, (0, 100, 0)		
			SILTY SAND (SM)		
	10		SAND WITH GRAVEL (SP): angular <1/8" diameter SITLY SAND (SM): Dark brown (10YR 3/3), poorly graded, dry to saturated, (0, 85, 15)		
▽			FAT CLAY (CH): Very dark grayish brown, moist, stiff, high plasticity, (0, 0, 100)	SB-15@13	0.8
	15				
				SB-15@19	1.5
	20				

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SECOR

Logged By:	Date Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/24/05 8/24/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-16

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▽ 11.5 First Water ▼ 15 Static Water	22.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name
Neat cement backfill	5		Hand cleared to 5'	
	10		POORLY-GRADED SAND WITH SILT (SP-SM): Dark brown (10YR 3/3), moist, loose, poorly graded, medium-fine grain	
▽			Saturated	SB-16@
			SANDY FAT CLAY (CL): Firm, moist	
▼	15		FAT CLAY (CH): Dark olive brown (2.5Y 3/3), moist, stiff, high plasticity	
	20		POORLY-GRADED SAND (SP): Olive brown (2.5Y 4/3), saturated, poorly graded, coarse grain, (0, 100, 0)	SB-16@

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Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)

SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/25/05 8/25/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-17

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▼ 12 First Water ▼ 17.5 Static Water	22.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name	PID
			Hand cleared to 5'		
Neat cement backfill	5		SILTY SAND (SM): Dark yellowish brown (10YR 4/4), poorly graded, moist, loose, (0, 85, 15)		
			Same as above: Color change to Dark grayish brown (2.5Y 4/2)		
	10		CLAYEY SAND (SC): saturated	SB-17@16.0	
▼			LEAN CLAY WITH SAND (CL): Black (10YR 2/1), moist, stiff, slightly plastic, very dark		
	15		FAT CLAY (CH): Very dark gray (2.5Y 3/1 to 10YR 3/1), moist, stiff, high plasticity, (0, 0, 100)		
▼					
	20		POORLY-GRADED SAND (SP): Dark grayish brown (2.5Y 4/2), medium grain, poorly graded, saturated, loose, (0, 100, 0)		

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)

SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/25/05 8/25/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-18

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
			22.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name	PID
			Hand cleared to 5'		
Neat cement backfill	5		POORLY-GRADED SAND WITH SILT (SP-SM): Dark yellowish brown to Olive brown (10YR 4/4 to 2.5Y 4/2), moist to very moist, poorly graded		
	10				
			LEAN CLAY WITH SAND (CL): Black (10YR 2/1), stiff	SB18-13	2.3
	15		FAT CLAY (CH): Very dark gray (2.5Y 3/1), moist-very moist, stiff, high plasticity		
	20		POORLY GRADED SAND (SP): Dark grayish brown (2.5Y 4/2), moist-saturated, poorly graded, loose	SB18-22	0.7

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Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)

SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/25/05 8/25/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-19

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▽ 12 First Water	22.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name	PID
Neat cement backfill	5		Hand cleared to 5' SILTY SAND (SM): Dark Brown (10YR 3/3), poorly-graded, slightly stiff, moist, (0, 70, 30)		
▽	10		POORLY-GRADED SAND (SP): Dark yellowish brown (10YR 4/4), poorly graded, loose, (0, 100, 0) POORLY-GRADED SAND WITH CLAY (SP-SC): Dark grayish brown (2.5Y 4/2), moist to saturated, poorly graded LEAN CLAY WITH SAND (CL): Black (10YR 2/1), stiff, slightly plastic	SB-19@13.5	
	15		FAT CLAY (CH): Very dark gray (2.5Y 3/1), moist-very moist, stiff, high plasticity		
	20		POORLY-GRADED SAND (SP): Dark grayish brown (2.5Y 4/2), medium grain, very moist	SB-19@22	

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Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)

SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/25/05 8/25/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-20

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▽ 11.5 First Water	22.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name	PID
Neat cement backfill	5 10 15 20		Hand cleared to 5' **POORLY-GRADED SAND WITH SILT (SP-SM):** Dark Brown (10YR 3/3), loose, poorly graded, moist Saturated **LEAN CLAY WITH SAND (CL):** Black (10YR 2/1), stiff **CLAYEY SAND (SC):** Dark gray (2.5Y 4/1), poorly graded, saturated, loose **FAT CLAY (CH):** Very dark gray (2.5Y 3/1), moist, stiff, high plasticity, extremely strong odors **POORLY-GRADED SAND (SP):** Dark grayish brown (2.5Y 4/2), poorly graded, saturated, loose	SB-20@11.4 SB-20@2200+	

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)

SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/26/05 8/26/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-21

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		⚲ 21 First Water ⚳ 18 Static Water	22.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name
			Hand cleared to 5'	
Neat cement backfill	5		SILTY SAND (SM): poorly graded, loose, moist 10YR 3/3	
	10		CLAYEY SAND (SC): Very dark grayish brown (10YR 3/2), very moist, streaks of oxidation	SB-21@12
			CLAY WITH SAND (CL): Black (2.5Y 2.5/1), firm, streaks of oxidation	
	15		FAT CLAY (CH): Very dark gray (2.5Y 3/1) highly plastic fat clay, moist	
⚲				
⚳	20		SILTY SAND (SM): Dark grayish brown (2.5Y 4/2), poorly graded, saturated	SB-21@22

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Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)

SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/26/05 8/26/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-22

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▽ 12 First Water	19.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name
			Hand cleared to 5'	
Neat cement backfill	5		POORLY-GRADED SAND WITH SILT (SP-SM): Very dark grayish brown (2.5Y 3/2), poorly graded, moist	
			Strong odor	SB-22@ 1
▽	10		Saturation	SB-22@ 12
			FAT CLAY (CH): Very dark gray (2.5Y 3/1), moist to very moist, stiff	
	15		Same as above: High plasticity	
				SB-22@ 1
	20			

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Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)

SECOR

Logged By:	Dates Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
Dan Fisher	8/26/05 8/26/05	P.S.I.	Former 76 Service Station No. 7004 San Leandro, CA	Direct Push Geoprobe	SB-23

Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
		▽ 12.5 First Water ▼ 17 Static Water	22.0		

Well Construction	Depth, (ft.)	Sample Recovery	Description	Name	PID
			Hand cleared to 5'		
Neat cement backfill	5		POORLY-GRADED SAND WITH SILT (SP-SM): Dark brown (10YR 3/3), firm to loose, moist, poorly graded		
	10		Strong odor	SB-23@10	15.8
▽			Saturated		
			LEAN CLAY WITH SAND (CL): Black (10YR 2/1), firm, slightly plastic	SB-23@13	
	15		FAT CLAY (CH): Very dark gray (2.5Y 3/1), moist, stiff, high plasticity		
▼					
	20		SILTY SAND (SM): Dark grayish brown (2.5Y 4/2), moist, poorly graded	SB-23@22	

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Project No. 77CP.67004.03.0001 Date 8/22/05-8/26/05

Log of Boring

GINT6#7004.GPJ
LOG OF BOREHOLE

Figure

(sheet 1 of 1)

PROJECT: Former 76 Service Station No. 7004
LOCATION: 15599 Hesperian Boulevard, San Leandro, California
PROJECT NUMBER: 77CP.67004.06.0011

WELL / PROBEHOLE / BOREHOLE NO: **SB24** PAGE 1 OF 1

SECOR

DRILLING: STARTED 1/20/06 COMPLETED: 1/20/06
INSTALLATION: STARTED 1/20/06 COMPLETED: 1/20/06
DRILLING COMPANY: Cascade Drilling, Inc.
DRILLING EQUIPMENT: Geoprobe
DRILLING METHOD: Direct Push
SAMPLING EQUIPMENT: Microprobe bore barrels

NORTHING (ft):
LATITUDE:
GROUND ELEV (ft):
INITIAL DTW (ft): 11 1/20/06
STATIC DTW (ft): NE
WELL CASING DIAMETER (in): —
LOGGED BY: Jim Dowd

EASTING (ft):
LONGITUDE:
TOC ELEV (ft):
BOREHOLE DEPTH (ft): 15.0
WELL DEPTH (ft): —
BOREHOLE DIAMETER (in): 2
CHECKED BY: Tom Porter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Bore hole Backfill
		CL-ML	SILTY CLAY SOME GRAVEL ; CL-ML; 5/2, 10YR pale grayish brown; soft; moist; no odor		1010 SB24@ 2-2.5'	2.5		0.6		
1010		SC	CLAYEY SAND ; SC; 3/2, 10YR very dark grayish brown; loose; moist; no odor		1015 SB24@ 5-5.5'			1.0	5	
1015		ML	CLAYEY SILT ; ML; 4/1, 5Y dark gray; soft; moist; slight petroleum odor		SB24@ 7-7.5'	3		0.6		Neat Portland Cement with 5% bentonite powder
		SP	SAND ; SP; 3/2, 5Y dark greenish gray; loose; saturated; slight petroleum odor							
10		ML	SILTY CLAY ; ML; 3/2, 5Y dark greenish gray; soft; saturated; slight petroleum odor		1020 SB24@ 10-10.5'				10	
1020		ML	SILT ; ML; 3/1, 5Y very dark gray; stiff; moist; slight petroleum odor						▽	
		SP	SAND ; SP; 3/1, 5Y very dark gray; dense; moist; strong petroleum odor; iron oxide staining		SB24@ 12-12.5'	4				
		ML	CLAYEY SILT ; ML; 3/1, 5Y very dark gray; soft; moist; strong petroleum odor							
			14 - 15'							
15			Hole terminated at 15 feet.						15	
20									20	
25									25	

GEO FORM 304 MW/MW105824S857.GPJ SECOR INTL.GDT 4/3/06

PROJECT:	Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO:	
LOCATION:	15599 Hesperian Boulevard, San Leandro, California	SB25	PAGE 1 OF 1
PROJECT NUMBER:	77CP.67004.06.0011		SECOR
DRILLING:	STARTED 1/20/06 COMPLETED: 1/20/06	NORTHING (ft):	EASTING (ft):
INSTALLATION:	STARTED 1/20/06 COMPLETED: 1/20/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY:	Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT:	Geoprobe	INITIAL DTW (ft): 12 1/20/06	BOREHOLE DEPTH (ft): 15.0
DRILLING METHOD:	Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): —
SAMPLING EQUIPMENT:	Microprobe bore barrels	WELL CASING DIAMETER (in): —	BOREHOLE DIAMETER (in): 2
		LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
		CL-ML	SILTY CLAY SOME GRAVEL; CL-ML; 5/2, 10YR grayish brown; soft; wet; no odor 1 - 5'			1				
0950		SP	SAND; SP; 4/4, 10YR dark yellowish brown; loose to medium dense; moist; no odor 6 - 10'		0950 SB25@ 5-5.5'	1		0.1		Neat Portland Cement with 5% bentonite powder
0955		CL	SILTY CLAY; CL; 5/3, 10YR brown; soft; wet; no odor		0955 SB25@ 10-10.5'	3.5		0.2		
		SC	CLAYEY SAND; SC; 5/3, 10YR brown; loose; wet; no odor		SB25@ 12-12.5'					
		SP	SAND; SP; 3/1, 5Y very dark gray; loose to medium dense; wet; strong petroleum odor							
			Hole terminated at 15 feet.							

GEO FORM 304 MW/MW105B245ept7.OPJ SECOR INTL.GDT 2/2/06

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: **SB26** PAGE 1 OF 1	SECOR
LOCATION: 15599 Hesperian Boulevard, San Leandro, California		
PROJECT NUMBER: 77CP.67004.06.0011		

DRILLING: STARTED 1/20/06 COMPLETED: 1/20/06	NORTHING (ft): EASTING (ft):
INSTALLATION: STARTED 1/20/06 COMPLETED: 1/20/06	LATITUDE: LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft): TOC ELEV (ft):
DRILLING EQUIPMENT: Geoprobe	INITIAL DTW (ft): 7.5 1/20/06 BOREHOLE DEPTH (ft): 15.0
DRILLING METHOD: Direct Push	STATIC DTW (ft): WELL DEPTH (ft): ---
SAMPLING EQUIPMENT: Microprobe bore barrels	WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
		CL-ML	SILTY CLAY SOME GRAVEL; CL-ML; 5/2, 10YR pale grayish brown; soft; moist; no odor			1				
5					1040 SB26@ 5-5.5'			0.3	5	
1040		SC	CLAYEY SILT SOME SAND SOME GRAVEL; SC; 5/3, 10YR brown; hard to medium stiff; dry; no odor			3				
					SB26@ 7-7.5'			0.6	∇	Neat Portland Cement with 5% bentonite powder
			Wet; no odor							
10					1050 SB26@ 10-10.5'			0.6	10	
1050			Moist; no odor							
			Very loose; wet; no odor			3.5				
					SB26@ 12-12.5'			0.4		
			GRAVEL; moist; no odor							
15			Hole terminated at 15 feet.						15	
20									20	
25									25	

PROJECT:	Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO:
LOCATION:	15599 Hesperian Boulevard, San Leandro, California	SB27 PAGE 1 OF 1
PROJECT NUMBER:	77CP.67004.06.0011	SECOR

DRILLING: STARTED 1/19/06 COMPLETED: 1/19/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/19/06 COMPLETED: 1/19/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT: Geoprobe	INITIAL DTW (ft): 13 1/19/06	BOREHOLE DEPTH (ft): 15.0
DRILLING METHOD: Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): —
SAMPLING EQUIPMENT: Microprobe bore barrels	WELL CASING DIAMETER (in): —	BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
		CL-ML	SILTY CLAY SOME GRAVEL; CL-ML; 5/2, 10YR grayish brown; soft; wet; no odor			1				
5					1355 SB27@ 5-5.5'			0.2	5	
		SP	SAND; SP; 4/4, 10YR dark yellowish brown; loose; wet; no odor			3				
					SB27@ 7-7.5'			0.3		Neat Portland Cement with 5% bentonite powder
1355			Brown							
10					1410 SB27@ 10-10.5'			0.3	10	
		SC	CLAYEY SAND; SC; 4/3, 10YR brown; loose; moist; no odor							
		SP	SAND; SP; 4/6, 10YR dark yellowish brown; loose; moist; no odor		SB27@ 12-12.5'	5		1.3	∇	
1410		SP	SAND; SP; 3/1, 5Y very dark gray; loose; moist; no odor Wet							
		ML	SILTY CLAY; ML; 3/1, 5Y very dark gray; soft; moist; strong petroleum odor		SB27@ 14.5-15'			2.0		
15			Hole terminated at 15 feet						15	
20									20	
25									25	

PROJECT: Former 76 Service Station No. 7004
LOCATION: 15599 Hesperian Boulevard, San Leandro, California
PROJECT NUMBER: 77CP.67004.06.0011

WELL / PROBEHOLE / BOREHOLE NO: **SB28** PAGE 1 OF 1

SECOR

DRILLING: STARTED 1/20/06 COMPLETED: 1/20/06
INSTALLATION: STARTED 1/20/06 COMPLETED: 1/20/06
DRILLING COMPANY: Cascade Drilling, Inc.
DRILLING EQUIPMENT: Geoprobe
DRILLING METHOD: Direct Push
SAMPLING EQUIPMENT: Microprobe bore barrels

NORTHING (ft):
LATITUDE:
GROUND ELEV (ft):
INITIAL DTW (ft): 6.5 1/20/06
STATIC DTW (ft):
WELL CASING DIAMETER (in): —
LOGGED BY: Jim Dowd

EASTING (ft):
LONGITUDE:
TOC ELEV (ft):
BOREHOLE DEPTH (ft): 15.0
WELL DEPTH (ft): —
BOREHOLE DIAMETER (in): 2
CHECKED BY: Tom Potter

Time & Depth (feet)	USCS	Description	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Bore Hole Backfill
	CL-ML	SILTY CLAY; CL-ML; 5/2 10YR grayish brown; soft; moist; no odor		2				Neat Portland Cement with 5% bentonite powder
	SM	SILTY SAND; SM; 3/2 5Y dark olive gray; fine-grained; loose; moist; slight odor						
5			1150 SB28@ 5-5.5'			0.2	5	
1150	SW	SAND; SW; 3/2 5Y dark olive gray; fine to coarse-grained; loose; moist; slight odor						
	CH	FAT CLAY; CH; 3/1 5Y very dark gray; stiff; moist; slight odor		3			▽	
	SW-SM	GRAVELLY SAND; SW-SM; 3/2 5Y dark olive gray; very loose; wet; slight odor	SB28@ 7-7.5'			1.2		
	ML	SAND WITH SOME SAND; ML; 3/2 5Y dark olive gray; fine-grained; stiff; moist; slight odor Wet						
10			1155 SB28@ 10-10.5'			0.5	10	
1155	CL	LEAN CLAY WITH LITTLE SILT; CL; 4/1 5Y dark gray; soft; wet; slight odor		2.5				
			SB28@ 12-12.5'					
		Dry						
15		Hole terminated at 15 feet.					15	
20							20	
25							25	

PROJECT:	Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO:	
LOCATION:	15599 Hesperian Boulevard, San Leandro, California	SB29	PAGE 1 OF 1
PROJECT NUMBER:	77CP.87004.06.0011		SECOR
DRILLING:	STARTED 1/19/06 COMPLETED: 1/19/06	NORTHING (ft):	EASTING (ft):
INSTALLATION:	STARTED 1/19/06 COMPLETED: 1/19/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY:	Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT:	Geoprobe	INITIAL DTW (ft):	BOREHOLE DEPTH (ft): 15.0
DRILLING METHOD:	Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): —
SAMPLING EQUIPMENT:	Microprobe bore barrels	WELL CASING DIAMETER (in): —	BOREHOLE DIAMETER (in): 2
		LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
		SP	SAND WITH SOME SILT; SP; 4/2 10YR dark grayish brown; loose; wet			1.5				
		SM	SILTY SAND; SM; 4/1 5Y dark gray; medium-grained; medium dense; moist; no odor							
1520					1520 SB29@ 5-5.5'	2		0.9	5	
			Fine-grained							Neat Portland Cement with 5% bentonite powder
1540		CL-ML	CLAYEY SILT; CL-ML; 4/1 5Y dark gray; soft; moist; slight odor		1540 SB29@ 10-10.5'	2.5		0.4	10	
					SB29@ 12-12.5'			0.4		
			Hole terminated at 15 feet.						15	
									20	
									25	

GEO FORM 304 MW7MW105B245B07.GPJ SECOR INTL.GDT 2/2/06

PROJECT: Former 76 Service Station No. 7004
LOCATION: 15599 Hesperian Boulevard, San Leandro, California
PROJECT NUMBER: 77CP.67004.06.0011

WELL / PROBEHOLE / BOREHOLE NO: **SB30** PAGE 1 OF 1

SECOR

DRILLING: STARTED 1/19/06 COMPLETED: 1/19/06
INSTALLATION: STARTED 1/19/06 COMPLETED: 1/19/06
DRILLING COMPANY: Cascade Drilling, Inc.
DRILLING EQUIPMENT: Geoprobe
DRILLING METHOD: Direct Push
SAMPLING EQUIPMENT: Microprobe bore barrels

NORTHING (ft):
LATITUDE:
GROUND ELEV (ft):
INITIAL DTW (ft):
STATIC DTW (ft):
WELL CASING DIAMETER (in): —
LOGGED BY: Jim Dowd

EASTING (ft):
LONGITUDE:
TOC ELEV (ft):
BOREHOLE DEPTH (ft): 15.0
WELL DEPTH (ft): —
BOREHOLE DIAMETER (in): 2
CHECKED BY: Tom Potter

Time & Depth (feet)	USCS	Description	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Bore hole Backfill
	SP	SAND WITH SOME SILT; SP; 4/2 10YR dark grayish brown; very soft; wet		2.5				Neat Portland Cement with 5% bentonite powder
1250			1250 SB30@ 2-2.5'			16.3		
5	SM	SILTY SAND; SM; 4/4 10YR dark yellowish brown; fine to medium-grained; loose; moist; no odor	SB30@ 5-5.5'	3		0.7	5	
1255			1255 SB30@ 7-7.5'			3.3		
10	SC	CLAYEY SAND WITH SILT; SC; 4/2 10YR dark grayish brown; medium dense; moist; slight odor	SB30@ 10-10.5'	2.5		35.0	10	
1300			1300 SB30@ 12-12.5'			0.4		
	SP	SAND; SP; 4/4 10YR dark yellowish brown; medium to coarse-grained; loose; moist; no odor						
15		Hole terminated at 15 feet.					15	
20							20	
25							25	

GEO FORM 304 MW/RW/10SB24SB37.GPJ SECOR INTL.GDT 2/2/06

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: SB31 PAGE 1 OF 1
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	SECOR
PROJECT NUMBER: 77CP.67004.06.0011	

DRILLING: STARTED 1/20/06 COMPLETED: 1/20/06	NORTHING (ft):
INSTALLATION: STARTED 1/20/06 COMPLETED: 1/20/06	EASTING (ft):
DRILLING COMPANY: Cascade Drilling, Inc.	LATITUDE:
DRILLING EQUIPMENT: Geoprobe	LONGITUDE:
DRILLING METHOD: Direct Push	GROUND ELEV (ft):
SAMPLING EQUIPMENT: Microprobe bore barrels	TOC ELEV (ft):
	INITIAL DTW (ft): 11.5 1/20/06
	BOREHOLE DEPTH (ft): 25.0
	STATIC DTW (ft):
	WELL DEPTH (ft): —
	WELL CASING DIAMETER (in): --
	BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd
	CHECKED BY: Tom Potter

Time & Depth (feet)	USCS	Description	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Bore-hole Backfill
0		Air knife to five feet below ground surface					Neat Portland Cement with 5% bentonite powder
5	CL	LEAN CLAY; CL; 3/1 10YR very dark gray; soft; moist; no odor, terminated by a 1" layer of medium to fine grained sand WITH LITTLE SILT; 4/2 10YR dark grayish brown					
0745	SP	SAND WITH SOME SILT; SP; 5/6 10YR yellowish brown; fine-grained; loose; no odor	0745 SB31@ 6.5-7'	4		0.0	
	CH	FAT CLAY; CH					
10	SP	SAND; SP; 4/3 10YR brown; fine-grained; loose; moist; no odor					
0800	CL-ML	CLAYEY SILT; CL-ML; 4/2 10YR dark grayish brown; stiff; moist; no odor; terminated by 3" of coarse sand SILTY CLAY; 3/3 10YR dark brown; soft; moist Wet	0800 SB31@ 10.5-11'	7		0.0	
0830 15		WITH LITTLE SAND; very soft					
	CH	FAT CLAY WITH SOME SILT; CH; 3/2 10YR very dark grayish brown; stiff; moist; no odor FAT CLAY; hard					
0912 20							
25		Hole terminated at 25 feet.					

GEO FORM 304 HWMW10SB24SB37.GPJ SECOR INTL.GDT 2/2/06

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO: SB32 PAGE 1 OF 1
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	SECOR
PROJECT NUMBER: 77CP.67004.08.0011	
DRILLING: STARTED 1/19/06 COMPLETED: 1/19/06	NORTHING (ft): EASTING (ft):
INSTALLATION: STARTED 1/19/06 COMPLETED: 1/19/06	LATITUDE: LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft): TOC ELEV (ft):
DRILLING EQUIPMENT: Geoprobe	INITIAL DTW (ft): 13.5 1/19/06 BOREHOLE DEPTH (ft): 15.0
DRILLING METHOD: Direct Push	STATIC DTW (ft): WELL DEPTH (ft): ---
SAMPLING EQUIPMENT: Microprobe bore barrels	WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Bore hole Backfill
		CL	SILTY CLAY WITH GRAVEL; CL; 5/2 10YR grayish brown; very soft; wet			1				
1635		CL-ML	CLAY WITH SOME SILT; CL-ML; 3/3 10YR dark brown; soft; moist; no odor		1635 SB32@ 5-5.5'	2.5		0.5		
		SW	SAND; SW; 4/4 10YR dark yellowish brown; fine to coarse-grained; loose; moist		SB32@ 7-7.5'					
1645			WITH LITTLE SILT; fine to medium-grained		1645 SB32@ 10-10.5'	4		0.2		
					SB32@ 12-12.5'					
		SM	SILTY SAND; SM; 4/2 10YR dark grayish brown; fine-grained; medium dense; wet							
			Hole terminated at 15 feet.							Neat Portland Cement with 5% bentonite powder

GEO FORM 304 MW/MW/0506245837.GPJ SECOR INTL.GDT 2/3/06

PROJECT: Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO:
LOCATION: 15599 Hesperian Boulevard, San Leandro, California	SB33 PAGE 1 OF 1 SECOR
PROJECT NUMBER: 77CP.67004.06.0011	
DRILLING: STARTED 1/18/06 COMPLETED: 1/18/06	NORTHING (ft): EASTING (ft):
INSTALLATION: STARTED 1/18/06 COMPLETED: 1/18/06	LATITUDE: LONGITUDE:
DRILLING COMPANY: Cascade Drilling, Inc.	GROUND ELEV (ft): TOC ELEV (ft):
DRILLING EQUIPMENT: Geoprobe	INITIAL DTW (ft): 15 1/18/06 BOREHOLE DEPTH (ft): 21.0
DRILLING METHOD: Direct Push	STATIC DTW (ft): WELL DEPTH (ft): —
SAMPLING EQUIPMENT: Microprobe bore barrels	WELL CASING DIAMETER (in): — BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Bore hole Backfill
			Air knife to five feet below ground surface							
1150 5		ML	SANDY SILT WITH SOME GRAVEL; ML; 5/4 10YR yellowish brown; fine to medium-grained; soft; dry; no odor; gravel fine grained			2			5	
						2				
10					1200 SB33@ 10.5-11'			0.3	10	
1200										Neat Portland Cement with 5% bentonite powder
15			Wet						∇ 15	
1210			Dry			8				
1235 20									20	
			Refusal at 21 feet below ground surface		1235 Hydropunch	5				
			Entire boring appeared to consist of fill material Hole terminated at 25 feet.							
25									25	

PROJECT: Former 76 Service Station No. 7004
LOCATION: 15599 Hesperian Boulevard, San Leandro, California
PROJECT NUMBER: 77CP.67004.06.0011

WELL / PROBEHOLE / BOREHOLE NO: **SB34** PAGE 1 OF 1

SECOR

DRILLING: STARTED 1/18/06 COMPLETED: 1/18/06	NORTHING (ft):
INSTALLATION: STARTED 1/18/06 COMPLETED: 1/18/06	EASTING (ft):
DRILLING COMPANY: Cascade Drilling, Inc.	LATITUDE:
DRILLING EQUIPMENT: Geoprobe	LONGITUDE:
DRILLING METHOD: Direct Push	GROUND ELEV (ft):
SAMPLING EQUIPMENT: Microprobe bore barrels	TOC ELEV (ft):
	INITIAL DTW (ft): 13 1/18/06
	BOREHOLE DEPTH (ft): 25.0
	STATIC DTW (ft):
	WELL DEPTH (ft): —
	WELL CASING DIAMETER (in): —
	BOREHOLE DIAMETER (in): 2
	LOGGED BY: Jim Dowd
	CHECKED BY: Tom Potter

Time & Depth (feet)	USCS	Description	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Bore hole Backfill
0		Air knife to five feet.					0	Neat Portland Cement with 5% bentonite powder
1430 5	CL-ML	CLAYEY SILT; CL-ML; 3/3 10YR dark brown; stiff; moist; no odor		4			5	
	SM	SILTY SAND; SM; 4/2 10YR dark grayish brown	1440 SB34@ 8.5-9'			0.4		
1440 10	ML	SILT WITH LITTLE CLAY; ML; 3/3 10YR dark brown; soft; moist	1445 SB34@ 11.5-12'	2		0.6	10	
		Wet					13 ▽	
1445 15	CL-ML	CLAYEY SILT; CL-ML; 4/2 10YR dark grayish brown; soft; moist					15	
	CL	SANDY CLAY; CL; 4/3 10YR brown; soft; wet; no odor		4				
	CH	FAT CLAY; CH; 3/2 10YR very dark grayish brown; hard; moist; no odor	1455 SB34@ 18.5-19'			0.7		
1455 20							20	
1500 25		Hole terminated at 25 feet.					25	

PROJECT:	Former 76 Service Station No. 7004
LOCATION:	15599 Hesperian Boulevard, San Leandro, California
PROJECT NUMBER:	77CP.67004.06.0011
WELL / PROBEHOLE / BOREHOLE NO:	SB35 PAGE 1 OF 1

SECOR

DRILLING: STARTED 1/18/06	COMPLETED: 1/18/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/18/06	COMPLETED: 1/18/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY:	Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT:	Geoprobe	INITIAL DTW (ft): 10.5 1/18/06	BOREHOLE DEPTH (ft): 25.0
DRILLING METHOD:	Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): —
SAMPLING EQUIPMENT:	Microprobe bore barrels	WELL CASING DIAMETER (in): —	BOREHOLE DIAMETER (in): 2
		LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			Air knife to five feet							
1530 5		SP	SAND; SP; 4/4 10YR dark yellowish brown; medium dense; moist; no odor		1540 SB35@ 6.5-7'	2		0.2	5	
1540 10			Wet		1545 SB35@ 11.5-12'	2		0.3	10	
		CH	FAT CLAY; CH; 3/2 10YR very dark grayish brown; soft; moist; no odor							Neat Portland Cement with 5% bentonite powder
1545 15		SP	SAND WITH SILT; SP; 4/1 10YR dark gray; soft; wet			4			15	
		CH	FAT CLAY; CH; 4/2 10YR dark grayish brown; hard; moist		1605 SB35@ 18.5-19'			0.3		
1605 20									20	
1610 25			Hole terminated at 25 feet.						25	

GEO FORM 304 MW/MW105S24SB37.GPJ SECOR INTL.GDT 2/2/06

PROJECT:	Former 76 Service Station No. 7004
LOCATION:	15599 Hesperian Boulevard, San Leandro, California
PROJECT NUMBER:	77CP.67004.06.0011

WELL / PROBEHOLE / BOREHOLE NO: **SB36** PAGE 1 OF 2

SECOR

DRILLING: STARTED 1/19/06	COMPLETED: 1/19/06	NORTHING (ft):	EASTING (ft):
INSTALLATION: STARTED 1/19/06	COMPLETED: 1/19/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY:	Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT:	Geoprobe	INITIAL DTW (ft): 11 1/19/06	BOREHOLE DEPTH (ft): 25.0
DRILLING METHOD:	Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): ---
SAMPLING EQUIPMENT:	Microprobe bore barrels	WELL CASING DIAMETER (in): ---	BOREHOLE DIAMETER (in): 2
		LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			Air knife to five feet.							
5		SP	SAND; SP; 5/3 10YR brown; fine to medium-grained; loose; dry			4			5	
			WITH SOME CLAY; fine-grained		0725 SB36@ 8.5-9'			0.2		
0725										
10 0730			SAND; 4/3 10YR brown; fine-grained; loose; dry		0730 SB36@ 10-10.5'	2		0.2	10 ∇	
		CH	Wet FAT CLAY; CH; 3/4 10YR dark yellowish brown; soft; wet; no odor Stiff; moist							Neat Portland Cement with 5% bentonite powder
15									15	
					0915 SB36@ 19-19.5'			0.4		
0915 20			2/2 10YR very dark brown; soft; no odor			2			20	
		SP	SAND; SP; 4/4 10YR dark yellowish brown; medium-grained; loose; wet							
25			Hole terminated at 47 feet.						25	

GEO FORM 304 MW7MW10SB24SB37.GPJ SECOR INTL.GDT 2/2/06

PROJECT:	Former 76 Service Station No. 7004	WELL / PROBEHOLE / BOREHOLE NO:	SB37 PAGE 1 OF 1
LOCATION:	15599 Hesperian Boulevard, San Leandro, California		SECOR
PROJECT NUMBER:	77CP.67004.06.0011		
DRILLING:	STARTED 1/19/06 COMPLETED: 1/19/06	NORTHING (ft):	EASTING (ft):
INSTALLATION:	STARTED 1/19/06 COMPLETED: 1/19/06	LATITUDE:	LONGITUDE:
DRILLING COMPANY:	Cascade Drilling, Inc.	GROUND ELEV (ft):	TOC ELEV (ft):
DRILLING EQUIPMENT:	Geoprobe	INITIAL DTW (ft): 11 1/19/06	BOREHOLE DEPTH (ft): 25.0
DRILLING METHOD:	Direct Push	STATIC DTW (ft):	WELL DEPTH (ft): —
SAMPLING EQUIPMENT:	Microprobe bore barrels	WELL CASING DIAMETER (in): —	BOREHOLE DIAMETER (in): 2
		LOGGED BY: Jim Dowd	CHECKED BY: Tom Potter

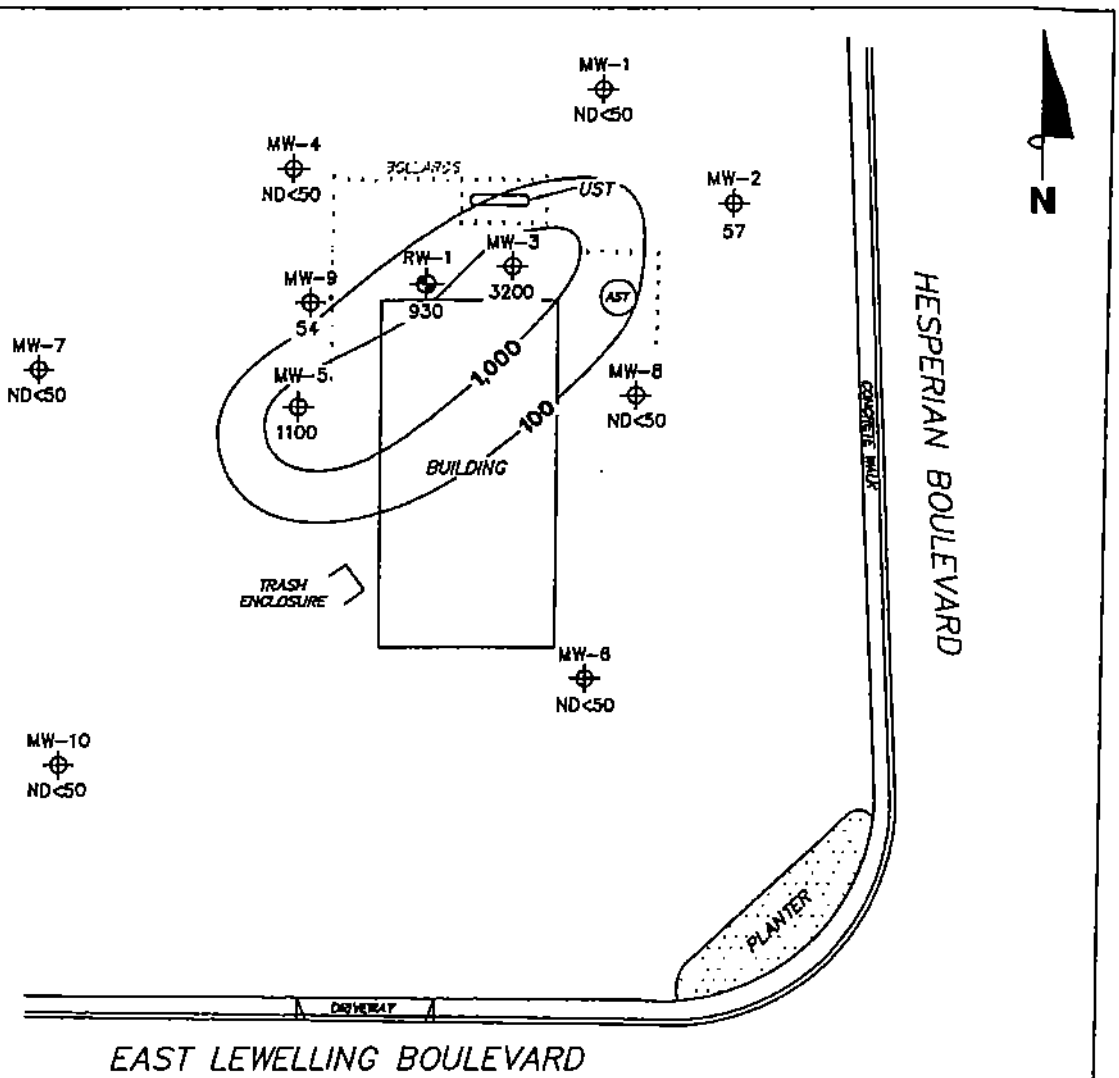
Time & Depth (feet)	USCS	Description	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
0		Air Knife to five feet						Neat Portland Cement with 5% bentonite
5	SM	SILTY SAND; SM; 4/3 10YR brown; dense; dry		2			5	
0940			0940 SB37@ 6.5-7'			0.5		
10 / 0945	CL-ML	SILTY LEAN CLAY; CL-ML; 4/3 10YR brown; very soft; moist Saturated; medium grain sand at bottom (1" thick)	0945 SB37@ 10-10.5'	2		0.5	10 ▽	
	CH	FAT CLAY; CH; 4/2 10YR dark grayish brown; stiff; moist; no odor						
	CL	SANDY LEAN CLAY; CL; 2/2 10YR very dark brown; soft; moist; no odor						
15 / 1035	CH	FAT CLAY WITH SOME SILT; CH; 3/2 10YR very dark grayish brown; stiff; moist; no odor		1.5			15	
20	CL	LEAN CLAY WITH SOME SILT; CL; 4/3 10YR brown; stiff; moist; no odor LEAN CLAY WITH SAND; 4/3 10YR brown; fine-grained; stiff; moist		2			20	
1110	SP	SAND; SP; 4/4 10YR dark yellowish brown; fine-grained; dense; wet	1110 SB37@ 21.5-22'			0.4		
	CH	FAT CLAY; CH; 3/2 10YR very dark grayish brown; hard; moist; no odor						
25		Hole terminated at 25 feet.					25	

SECOR

APPENDIX F
TRC'S GROUNDWATER CONCENTRATION MAPS

NFAR ANALYSIS AND HHRA
FORMER 76 SERVICE STATION NO. 7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CALIFORNIA

SECOR Project No. 77CP.67004.08
October 5, 2006



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells. TPH-G (GC/MS) = total purgeable petroleum hydrocarbons with gasoline distinction utilizing EPA Method 8260B. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. AST = above ground storage tank. UST = underground storage tank.

LEGEND

MW-6 ⊕ Monitoring Well with Dissolved-Phase TPH-G (GC/MS) Concentration (µg/l)

RW-1 ⊕ Aquifer Testing Well

1,000 Dissolved-Phase TPH-G (GC/MS)Contour (µg/l)

DISSOLVED-PHASE TPH-G (GC/MS) CONCENTRATION MAP May 25, 2006

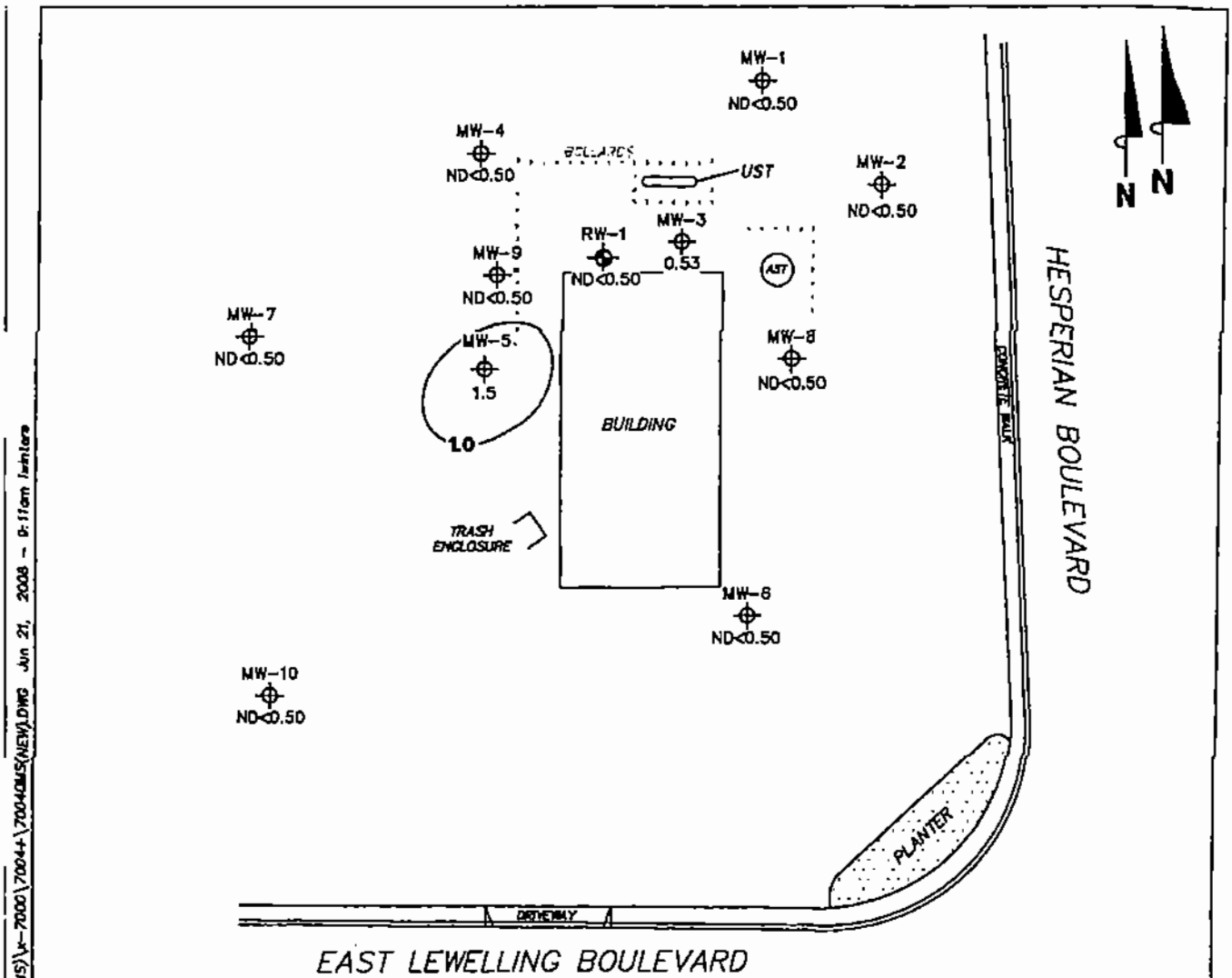
Former 76 Station 7004
15599 Hesperian Boulevard
San Leandro, California

TRC

SCALE (FEET)
0 50

FIGURE 3

PS=1:50 7004-003 L:\Graphics\ProjectsByNumber\20-xxxx\20-6400(UnocalGMS)\x-7000\7004+\7004GMS(NEW).DWG Jun 21, 2006 - 8:09am hinters



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. AST = above ground storage tank. UST = underground storage tank.

LEGEND

MW-6 ⊕ Monitoring Well with Dissolved-Phase Benzene Concentration (µg/l)

RW-1 ⊕ Aquifer Testing Well

1.0 Dissolved-Phase Benzene Contour (µg/l)

DISSOLVED-PHASE BENZENE CONCENTRATION MAP
May 25, 2008

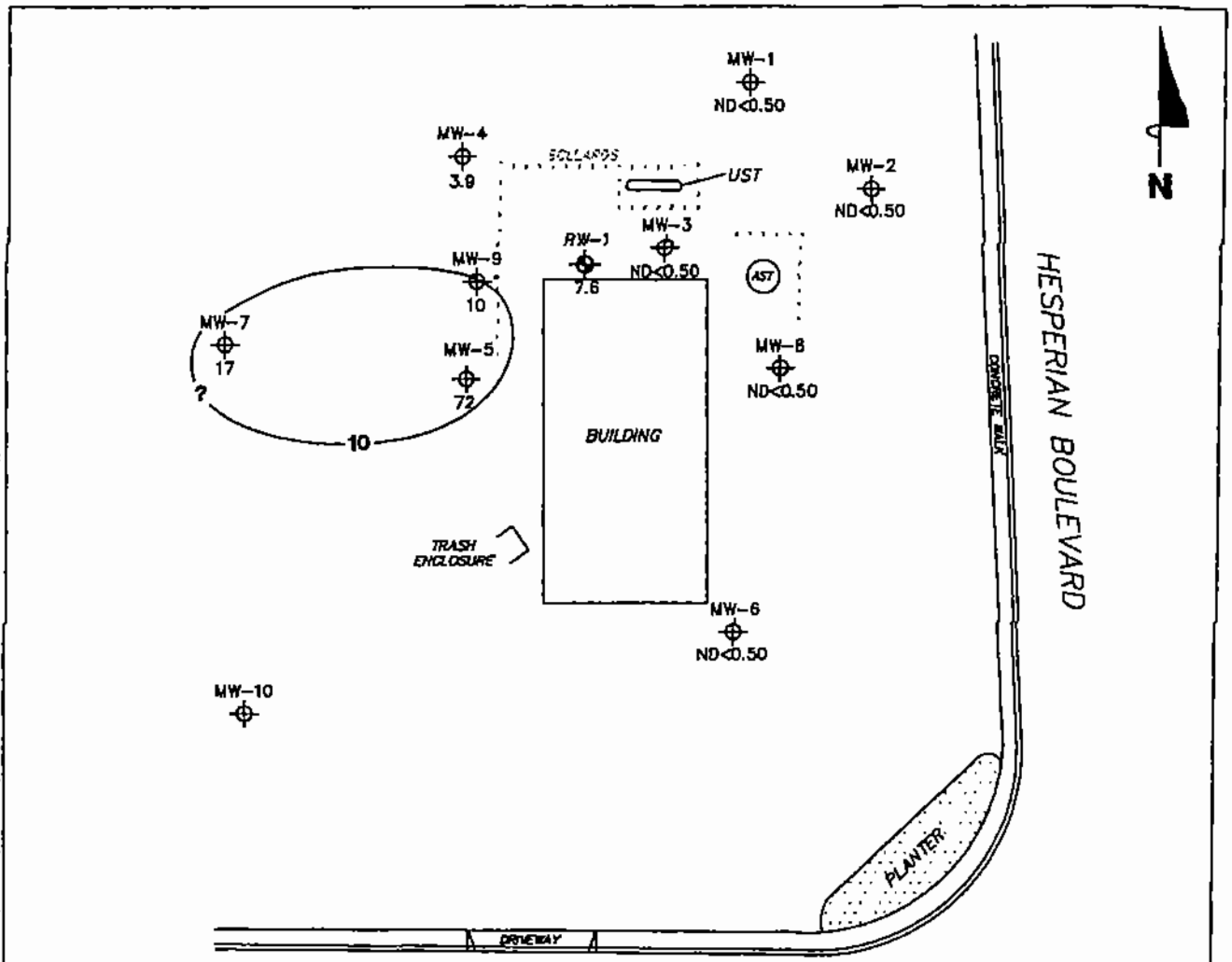
Former 76 Station 7004
15599 Hesperian Boulevard
San Leandro, California

TRC

SCALE (FEET)
0 50

FIGURE 4

PS=1:50 7004-003 L:\Graphics\ProjectsByNumber\20-xxxx\20-0400(UnocalGMS)\x-7000\7004+\7004GMS(NEW).DWG Jun 21, 2008 - 8:11am lwinters



NOTES:

Contour lines are interpretive and based on laboratory analysis results of groundwater samples. MTBE = methyl tertiary butyl ether. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. AST = above ground storage tank. UST = underground storage tank. Results obtained using EPA Method 8260B.

LEGEND

MW-6 ⊕ Monitoring Well with Dissolved-Phase MTBE Concentration (µg/l)

RW-1 ⊕ Aquifer Testing Well

10 Dissolved-Phase MTBE Contour (µg/l)

DISSOLVED-PHASE MTBE
CONCENTRATION MAP
May 25, 2006

Former 76 Station 7004
15599 Hesperian Boulevard
San Leandro, California

TRC

SCALE (FEET)
0 50

FIGURE 5

PS=1:50 7004-003 L:\Graphics\ProjectsByNumber\20-xxxx\20-0400(Unocal0MS)\x-7000\7004+\7004DMS(NEW).DWG Jun 21, 2006 - 9:11am lwinters

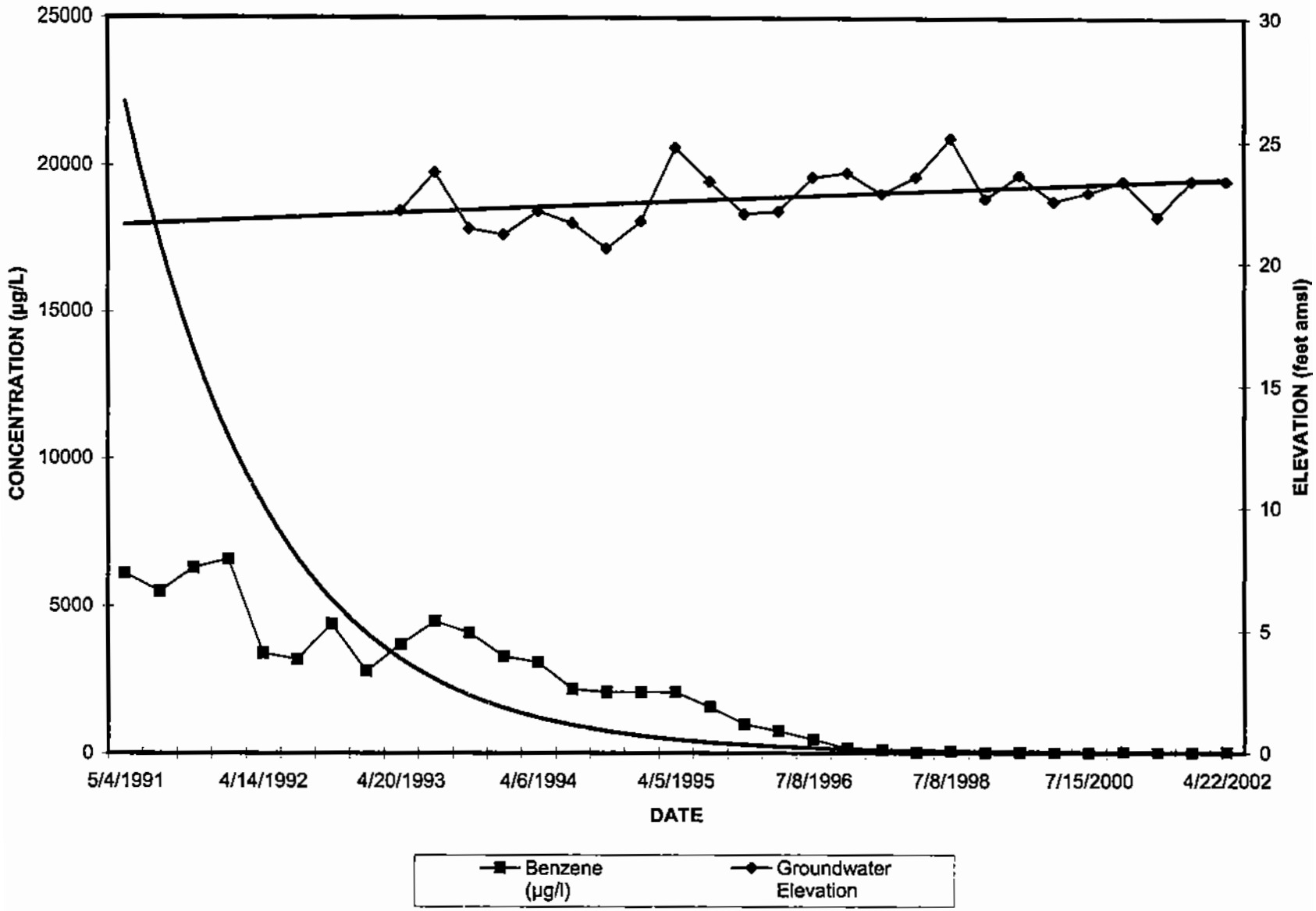
SECOR

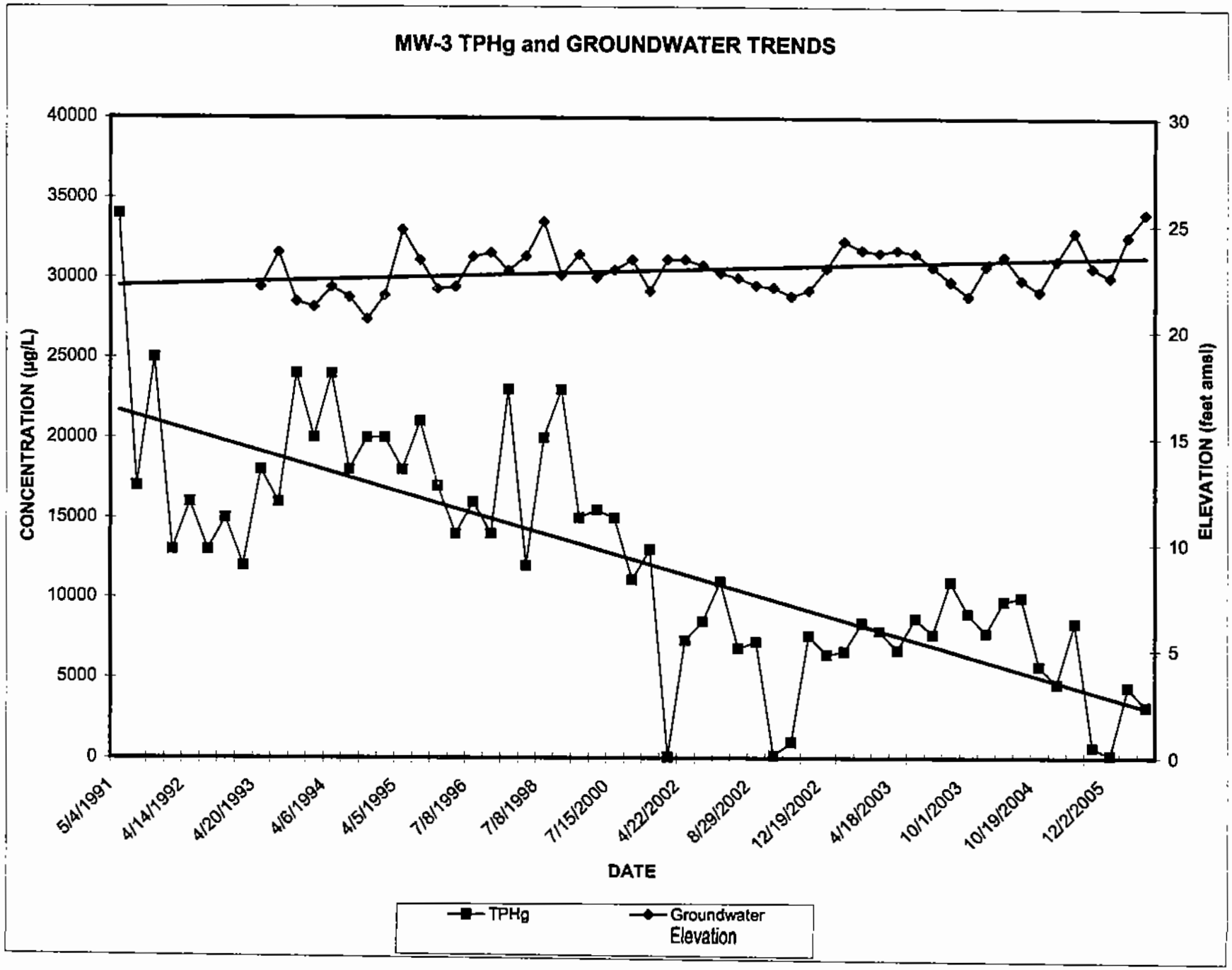
APPENDIX G
GRAPHS WITH CHEMICAL CONCENTRATION TRENDS IN GROUNDWATER

NFAR ANALYSIS AND HHRA
FORMER 76 SERVICE STATION NO. 7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CALIFORNIA

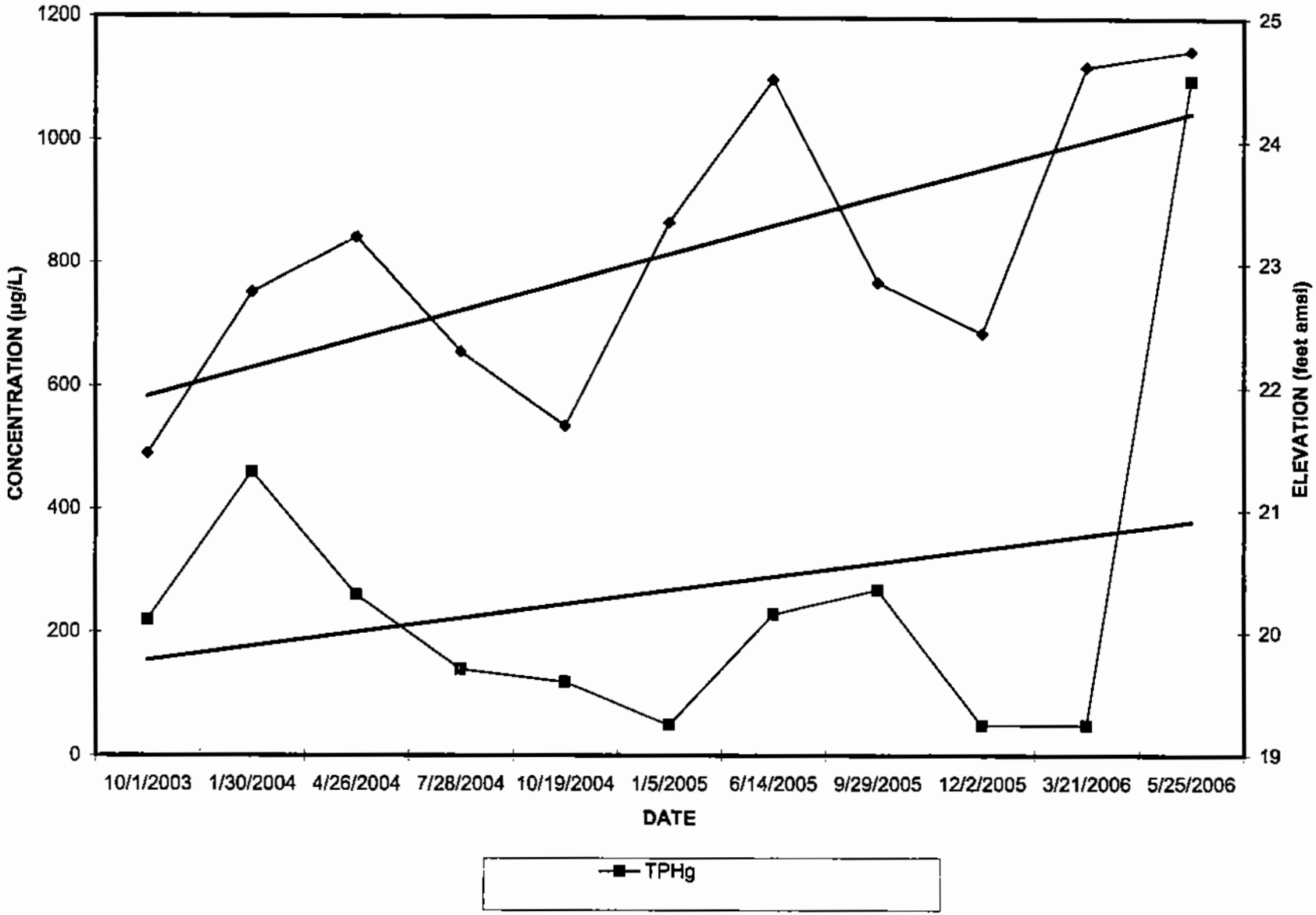
SECOR Project No. 77CP.67004.08
October 5, 2006

MW-3 BENZENE and GROUNDWATER TRENDS THROUGH APRIL 2002

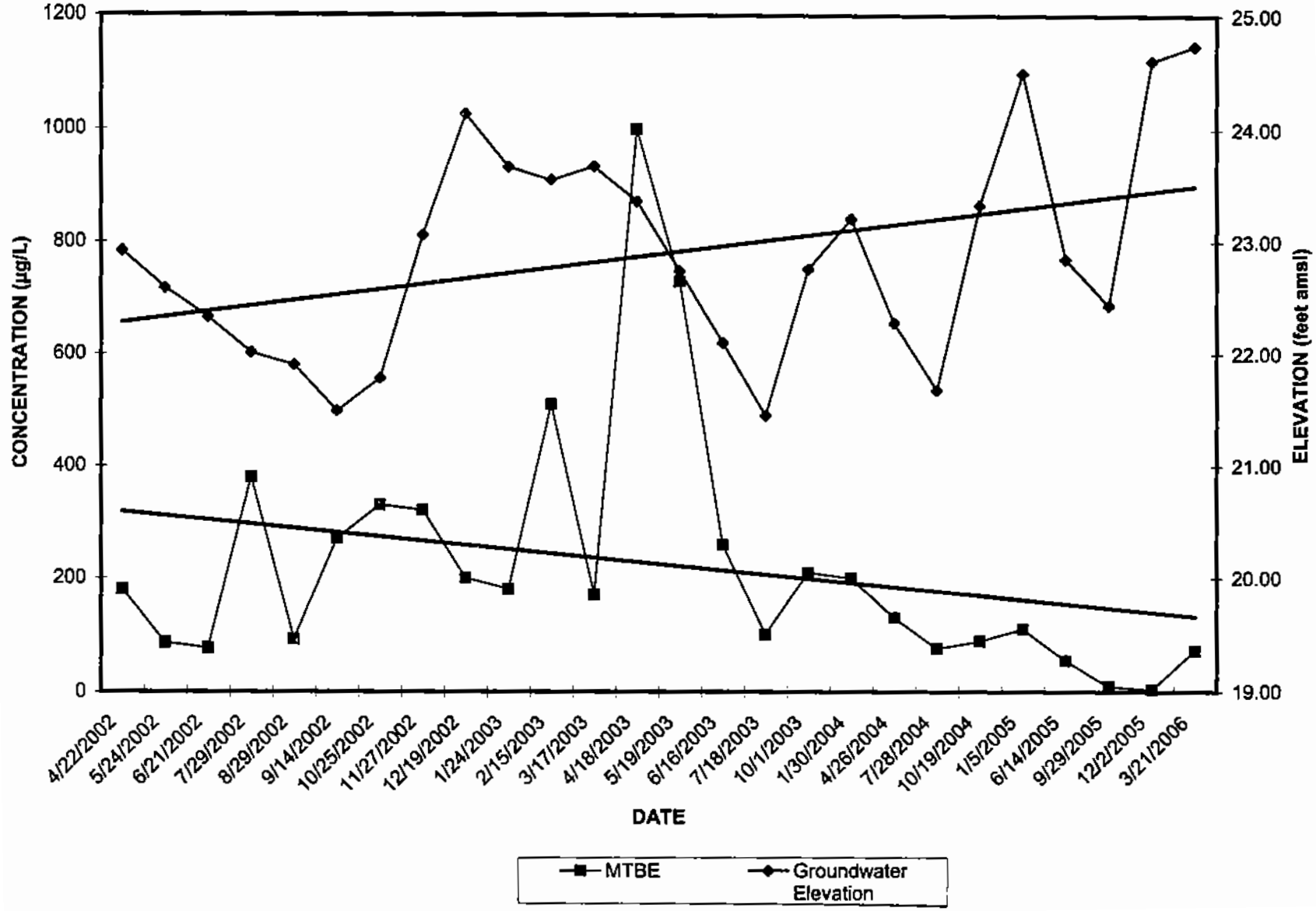


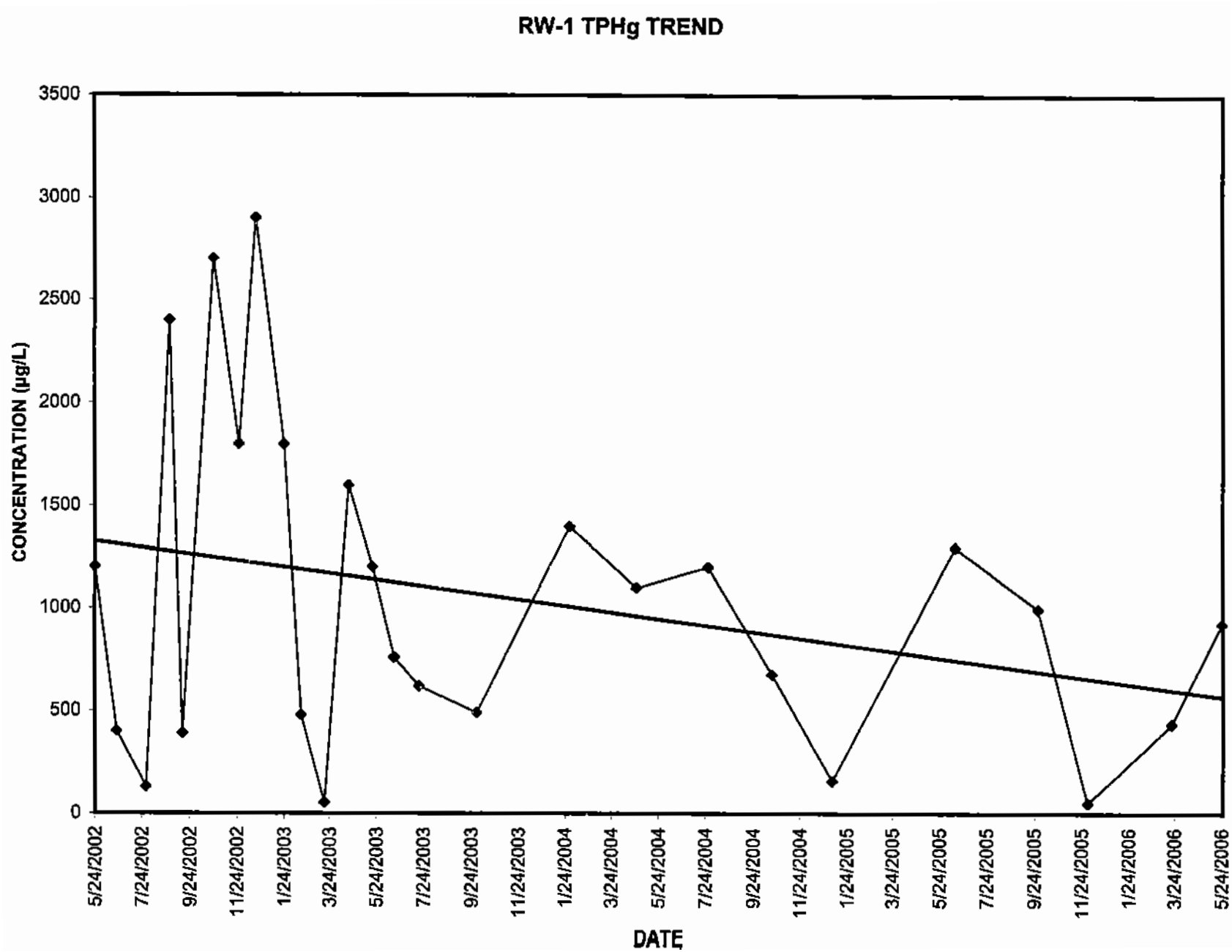

MW-3 TPHg and GROUNDWATER TRENDS
CONCENTRATION (µg/L)
ELEVATION (feet amsl)
40000
35000
30000
25000
20000
15000
10000
5000
0
30
25
20
15
10
5
0
5/4/1991
4/14/1992
4/20/1993
4/6/1994
4/5/1995
7/8/1996
7/8/1998
7/15/2000
4/22/2002
8/29/2002
12/19/2002
4/18/2003
10/1/2003
10/19/2004
12/2/2005
DATE
TPHg
Groundwater Elevation

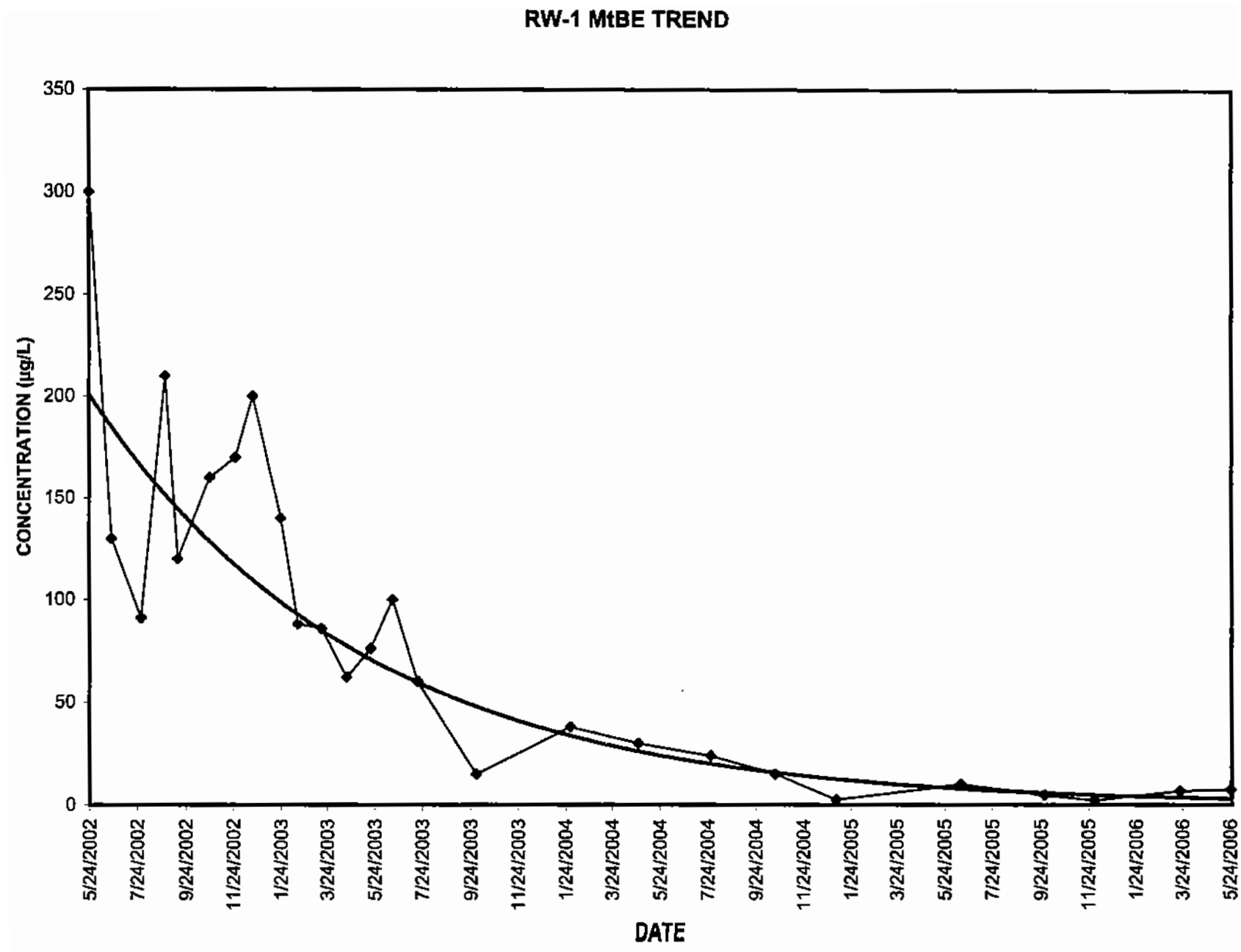
MW-5 TPHg and GROUNDWATER TRENDS



MW-5 MTBE and GROUNDWATER TRENDS




RW-1 TPHg TREND
CONCENTRATION (µg/L)
3500
3000
2500
2000
1500
1000
500
0
5/24/2002
7/24/2002
9/24/2002
11/24/2002
1/24/2003
3/24/2003
5/24/2003
7/24/2003
9/24/2003
11/24/2003
1/24/2004
3/24/2004
5/24/2004
7/24/2004
9/24/2004
11/24/2004
1/24/2005
3/24/2005
5/24/2005
7/24/2005
9/24/2005
11/24/2005
1/24/2006
3/24/2006
5/24/2006
DATE


RW-1 MtBE TREND
CONCENTRATION (µg/L)
350
300
250
200
150
100
50
0
5/24/2002
7/24/2002
9/24/2002
11/24/2002
1/24/2003
3/24/2003
5/24/2003
7/24/2003
9/24/2003
11/24/2003
1/24/2004
3/24/2004
5/24/2004
7/24/2004
9/24/2004
11/24/2004
1/24/2005
3/24/2005
5/24/2005
7/24/2005
9/24/2005
11/24/2005
1/24/2006
3/24/2006
5/24/2006
DATE

SECOR

APPENDIX H
MANN-WHITNEY TEST RESULTS

NFAR ANALYSIS AND HHRA
FORMER 76 SERVICE STATION NO. 7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CALIFORNIA

SECOR Project No. 77CP.67004.08
October 5, 2006

State of Wisconsin
Department of Natural Resources
Remediation and Redevelopment Program

Mann-Whitney U Statistical Test
Form 4400-216 (2/2001)

Notice: This form is the DNR supplied spreadsheet referenced in Appendices A of Comm 46 and NR 746, Wis. Adm. Code. It is provided to consultants as an optional tool for groundwater contaminant trend analysis to support site closure requests under s. Comm 46.07, Comm 46.08, NR 746.07, NR 746.08, Wis. Adm. Code. Use this form or a manual method when seeking case closure under those rules. Earlier versions of this form should not be used.

Instructions: Do not change formulas or other information in cells with a blue background, only cells with a yellow background are used for data entry. Provide eight (8) consecutive rounds of data for the spreadsheet to work properly. Use consistent units. The spreadsheet contains several error checks, and a data entry error may cause "DATA ERR" or "DATE ERR" to be displayed. Dates that are not consecutive will show an error message and will not display the test results. The spreadsheet tests the data for both increasing and decreasing trends. At a 90 percent confidence level, a U statistic of three (3) or less indicates a decreasing trend, and a U statistic of thirteen (13) or more indicates an increasing trend. If the data does not pass either the increasing or decreasing trend test, the No Trend result will be displayed. Use zeros for non-detect data.

Site Name =	Former 76 #7004 15599 Hesperian Blvd. San Leandro, C		BRRTS No. =				Well Number = MW3, MW5, RW
	Compound->	TPHg; MW-3	MtBE; MW-5	TPHg; MW-5	MtBE; RW-1	TPHg; RW-1	
Event Number	Days After Previous Round	Sampling Date (most recent last)	Concentration (leave blank if no data)	Concentration (leave blank if no data)	Concentration (leave blank if no data)	Concentration (leave blank if no data)	Concentration (leave blank if no data)	Concentration (leave blank if no data)
1	---	28-Jul-04	10,000.00	130.00	140.00	24.00	1,200.00	
2	83	19-Oct-04	5,700.00	76.00	120.00	15.00	680.00	
3	78	5-Jan-05	4,600.00	89.00	50.00	2.50	160.00	
4	160	14-Jun-05	10,000.00	110.00	230.00	10.00	1,300.00	
5	107	29-Sep-05	670.00	55.00	270.00	4.70	1,000.00	
6	64	2-Dec-05	190.00	9.40	50.00	2.30	50.00	
7	109	21-Mar-06	4,400.00	4.30	50.00	6.80	440.00	
8	65	25-May-06	3,200.00	72.00	1,100.00	7.60	930.00	
Error Check, Blank If No Errors Detected								n<8
DATA IS NEITHER QUARTERLY OR SEMI-ANNUAL								
U Statistic =			0.0	0.0	9.0	3.0	5.0	n<8
Trend ≥ 90 % Confidence Level			DECREASING	DECREASING	No Trend	DECREASING	No Trend	n<8

Data Entry By TL | Date = 24-Jul-06 | Checked By = DB

SECOR

APPENDIX I
BIOSCREEN MODELING RESULTS

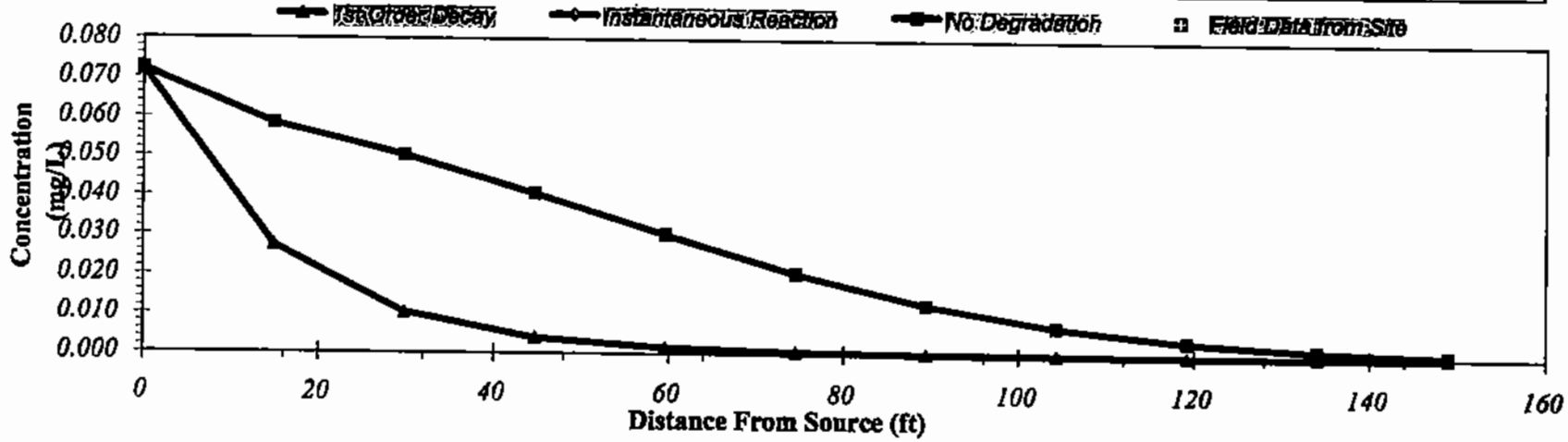
NFAR ANALYSIS AND HHRA
FORMER 76 SERVICE STATION NO. 7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CALIFORNIA

SECOR Project No. 77CP.67004.08
October 5, 2006

MtBE MIGRATION AFTER 20 YEARS WITH A SOURCE CONCENTRATION OF 72.0 µg/L

DISSOLVED HYDROCARBON CONCENTRATION ALONG PLUME CENTERLINE (mg/L at Z=0)

	Distance from Source (ft)										
TYPE OF MODEL	0	15	30	45	60	75	89	104	119	134	149
No Degradation	0.072	0.058	0.050	0.040	0.030	0.021	0.013	0.007	0.004	0.002	0.001
1st Order Decay	0.072	0.027	0.010	0.004	0.001	0.001	0.000	0.000	0.000	0.000	0.000
Field Data from Site											



Calculate Animation

Time
20 Years

Return to Input

Recalculate This Sheet

BIOSCREEN Natural Attenuation Decision Support System

[illegible]   Version [illegible]

Former 76 #7004
San Leandro, CA
Run Name

Data Input Instructions:

115	→ 1. [illegible]
↑ or	
0.02	↗ 2. [illegible] cells below. (To restore formulas, hit button below).
Variable*	→ Data used directly in model.
20	→ Value calculated by model. (Don't enter any data).

1. HYDROGEOLOGY

Seepage Velocity*	Vs	2.7	(ft/yr)
or		↑ or	
Hydraulic Conductivity	K	1.1E-04	(cm/sec)
Hydraulic Gradient	i	0.005	(ft/ft)
Porosity	n	0.2	(-)

2. DISPERSION

Longitudinal Dispersivity*	alpha x	16.7	(ft)
Transverse Dispersivity*	alpha y	1.7	(ft)
Vertical Dispersivity*	alpha z	0.0	(ft)
or		↑ or	
Estimated Plume Length	Lp	430	(ft)

3. ADSORPTION

Retardation Factor*	R	1.1	(-)
or		↑ or	
Soil Bulk Density	rho	1.7	(kg/l)
Partition Coefficient	Koc	7.26	(L/kg)
FractionOrganicCarbon	foc	1.0E-3	(-)

4. BIODEGRADATION

1st Order Decay Coeff*	lambda	3.5E-1	(per yr)
or		↑ or	
Solute Half-Life	t-half	2.00	(year)
or Instantaneous Reaction Model			
Delta Oxygen*	DO		(mg/L)
Delta Nitrate*	NO3		(mg/L)
Observed Ferrous Iron*	Fe2+		(mg/L)
Delta Sulfate*	SO4		(mg/L)
Observed Methane*	CH4		(mg/L)

5. GENERAL

Modeled Area Length*	149	(ft)
Modeled Area Width*	240	(ft)
Simulation Time*	20	(yr)

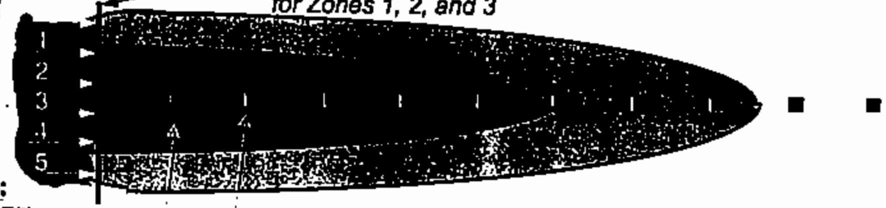
6. SOURCE DATA

Source Thickness in Sat.Zone* 10 (ft)

Vertical Plane Source: Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3

Source Zones:

Width* (ft)	Conc. (mg/L)*
155	0.072
0	0
0	0



View of Plume Looking Down

Source Halflife (see Help):

>1000	>1000	(yr)
Inst. React.	1st Order	
Soluble Mass	271	(Kg)

In Source NAPL, Soil

Observed Centerline Concentrations at Monitoring Wells
If No Data Leave Blank or Enter "0"

7. FIELD DATA FOR COMPARISON

Concentration (mg/L)											
Dist. from Source (ft)	0	15	30	45	60	75	89	104	119	134	149

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE   View Output

RUN ARRAY   View Output

Help

Recalculate This Sheet

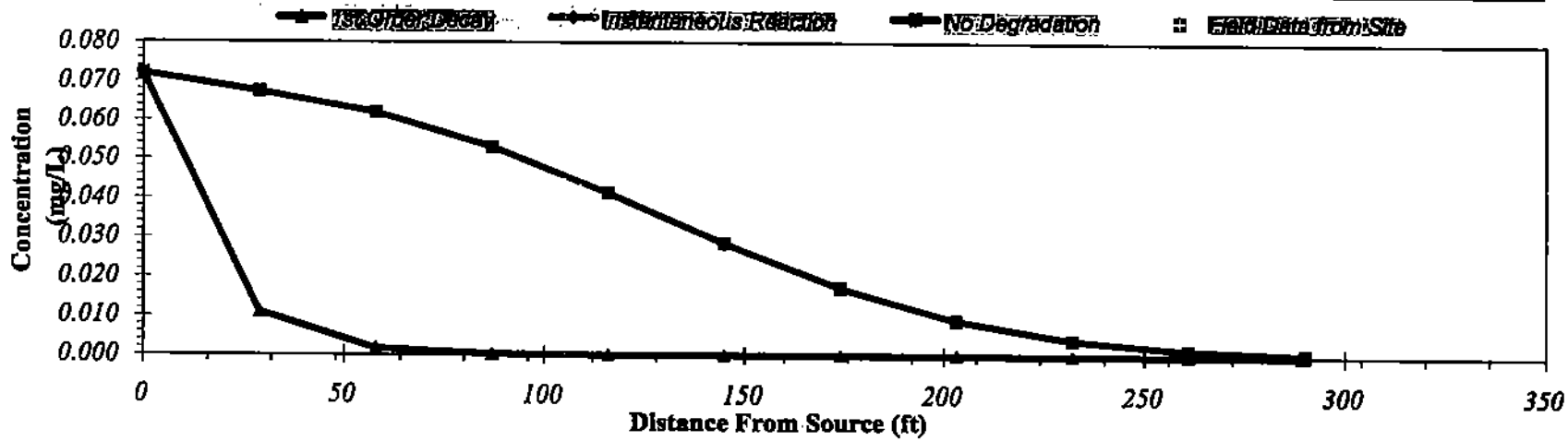
Paste Example Dataset

Restore Formulas for Vs, Dispersivities, R, lambda, other

MtBE MIGRATION AFTER 50 YEARS WITH A SOURCE CONCENTRATION OF 72.0 µg/L

DISSOLVED HYDROCARBON CONCENTRATION ALONG PLUME CENTERLINE (mg/L at Z=0)

TYPE OF MODEL	Distance from Source (ft)										
	0	29	58	87	116	145	174	203	232	261	290
No Degradation	0.072	0.067	0.062	0.053	0.041	0.029	0.017	0.009	0.004	0.001	0.000
1st Order Decay	0.072	0.011	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Inst. Reaction											
Field Data from Site											



Calculate Animation

Time: 50 Years

Return to Input

Recalculate This Sheet

BIOSCREEN Natural Attenuation Decision Support System

[illegible] [illegible]

Former 76 #7004
San Leandro, CA
Run Name

Data Input Instructions:

115	1. Enter value directly....
↑ or	2. Calculate by filling in grey
0.02	cells below. (To restore formulas, hit button below).
Variable*	Data used directly in model.
20	Value calculated by model. (Don't enter any data).

1. HYDROGEOLOGY

Seepage Velocity*	Vs	2.7	(ft/yr)
or		↑ or	
Hydraulic Conductivity	K	1.1E-04	(cm/sec)
Hydraulic Gradient	i	0.005	(ft/ft)
Porosity	n	0.2	(-)

2. DISPERSION

Longitudinal Dispersivity*	alpha x	16.7	(ft)
Transverse Dispersivity*	alpha y	1.7	(ft)
Vertical Dispersivity*	alpha z	0.0	(ft)
or		↑ or	
Estimated Plume Length	Lp	430	(ft)

3. ADSORPTION

Retardation Factor*	R	1.1	(-)
or		↑ or	
Soil Bulk Density	rho	1.7	(kg/l)
Partition Coefficient	Koc	7.26	(L/kg)
FractionOrganicCarbon	foc	1.0E-3	(-)

4. BIODEGRADATION

1st Order Decay Coeff*	lambda	3.5E-1	(per yr)
or		↑ or	
Solute Half-Life	t-half	2.00	(year)
or Instantaneous Reaction Model			
Delta Oxygen*	DO		(mg/L)
Delta Nitrate*	NO3		(mg/L)
Observed Ferrous Iron*	Fe2+		(mg/L)
Delta Sulfate*	SO4		(mg/L)
Observed Methane*	CH4		(mg/L)

5. GENERAL

Modeled Area Length*	290	(ft)
Modeled Area Width*	240	(ft)
Simulation Time*	50	(yr)

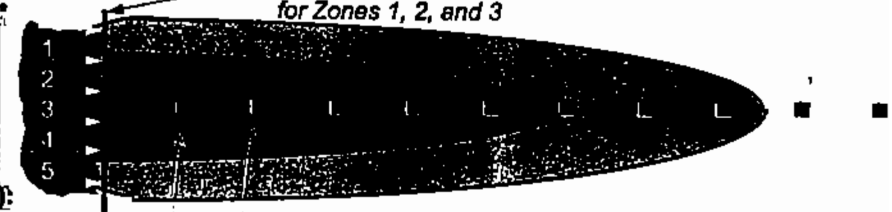
6. SOURCE DATA

Source Thickness in Sat.Zone* 10 (ft)

Vertical Plane Source: Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3

Source Zones:

Width* (ft)	Conc. (mg/L)*
155	0.072
0	0
0	0



View of Plume Looking Down

Source Halflife (see Help):

>1000	>1000	(yr)
Inst. React. ↑	↑ 1st Order	
Soluble Mass	271	(Kg)
In Source NAPL, Soil		

Observed Centerline Concentrations at Monitoring Wells
If No Data Leave Blank or Enter "0"

7. FIELD DATA FOR COMPARISON

Concentration (mg/L)											
Dist. from Source (ft)	0	29	58	87	116	145	174	203	232	261	290

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | View Output

RUN ARRAY | View Output

Help

Recalculate This Sheet

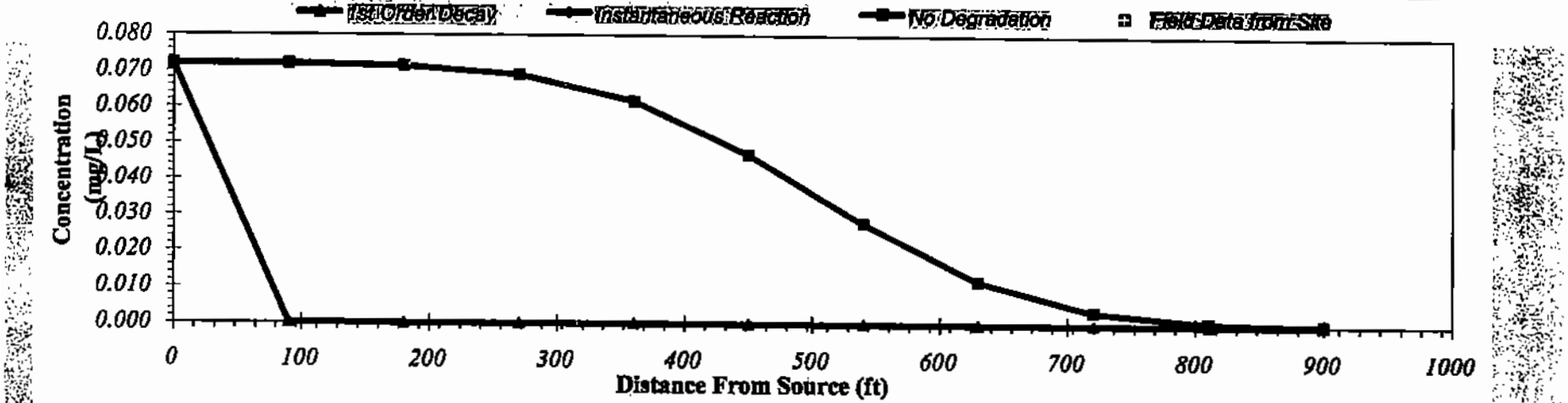
Paste Example Dataset

Restore Formulas for Vs, Dispersivities, R, lambda, other

MtBE MIGRATION AFTER 200 YEARS WITH A SOURCE CONCENTRATION OF 72.0 µg/L

DISSOLVED HYDROCARBON CONCENTRATION ALONG PLUME CENTERLINE (mg/L at Z=0)

TYPE OF MODEL	Distance from Source (ft)										
	0	90	180	270	360	450	540	630	720	810	900
No Degradation	0.072	0.072	0.071	0.069	0.062	0.047	0.028	0.012	0.004	0.001	0.000
1st Order Decay	0.072	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Field Data from Site											



Calculate Animation

Time
200 Years

Return to Input

Recalculate This Sheet

BIOSCREEN Natural Attenuation Decision Support System

Former 76 #7004
San Leandro, CA
Run Name

Data Input Instructions:

115	1. Enter value directly... or
↑ or	2. Calculate by filling in
0.02	cells below. (To restore formulas, hit button below).
Variable*	→ Data used directly in model.
20	→ Value calculated by model. (Don't enter any data).

1. HYDROGEOLOGY

Seepage Velocity*	Vs	2.7	(ft/yr)
or		↑ or	
Hydraulic Conductivity	K	[illegible]	(cm/sec)
Hydraulic Gradient	i	0.005	(ft/ft)
Porosity	n	0.2	(-)

2. DISPERSION

Longitudinal Dispersivity*	alpha x	16.7	(ft)
Transverse Dispersivity*	alpha y	1.7	(ft)
Vertical Dispersivity*	alpha z	0.0	(ft)
or		↑ or	
Estimated Plume Length	Lp	430	(ft)

3. ADSORPTION

Retardation Factor*	R	1.1	(-)
or		↑ or	
Soil Bulk Density	rho	1.7	(kg/l)
Partition Coefficient	Koc	7.26	(L/kg)
FractionOrganicCarbon	foc	1.0E-3	(-)

4. BIODEGRADATION

1st Order Decay Coeff*	lambda	3.5E-1	(per yr)
or		↑ or	
Solute Half-Life	t-half	2.00	(year)
or Instantaneous Reaction Model			
Delta Oxygen*	DO		(mg/L)
Delta Nitrate*	NO3		(mg/L)
Observed Ferrous Iron*	Fe2+		(mg/L)
Delta Sulfate*	SO4		(mg/L)
Observed Methane*	CH4		(mg/L)

5. GENERAL

Modeled Area Length*	900	(ft)
Modeled Area Width*	240	(ft)
Simulation Time*	200	(yr)

6. SOURCE DATA

Source Thickness in Sat.Zone* 10 (ft)

Source Zones:

Width* (ft)	Conc. (mg/L)*
155	0.072
0	0
0	0

Source Half-life (see Help):

>1000	>1000

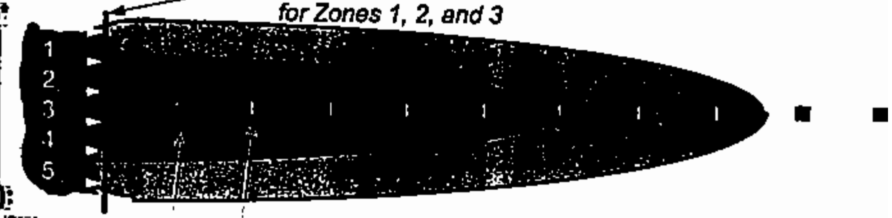
(yr)

Inst. React. ↑ 1st Order

Soluble Mass 271 (Kg)

In Source NAPL, Soil

Vertical Plane Source: Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3



View of Plume Looking Down

Observed Centerline Concentrations at Monitoring Wells
If No Data Leave Blank or Enter "0"

7. FIELD DATA FOR COMPARISON

Concentration (mg/L)											
Dist. from Source (ft)	0	90	180	270	360	450	540	630	720	810	900

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE

View Output

RUN ARRAY

View Output

Help

Recalculate This Sheet

Paste Example Dataset

Restore Formulas for Vs, Dispersivities, R, lambda, other