Environmental Management Company

6001 Bollinger Canyon Rd, K2256 P.O. Box 6012 San Ramon, CA 94583-2324 Tel 925-842-1589 J. Mark Inglis Project Manager

RECEIVED

By lopprojectop at 10:00 am, Jan 12, 2006

Jan 10,2006
(date)

Fax 925-842-8370

ChevronTexaco

Alameda County Health Care Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Re: Chevron Service Station # 20-6127

Address: 2301 Blanding Avenue, Alameda CA

I have reviewed the attached report titled Closure Request and dated Jan, 10, 2006.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Cambria Environmental Technology, Inc., upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

J. Mark Inglis
Project Manager

Enclosure: Report

RECEIVED

By lopprojectop at 10:01 am, Jan 12, 2006

January 10, 2006

Mr. Barney Chan Alameda County Health Care Services Agency Environmental Health Services (ACHCSA-EHS) 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-9335

Re: Closure Request

Former Signal Oil Marine Storage and Distribution Facility Chevron Facility #20-6127 2301 Blanding Avenue Alameda, California Cambria Project No. 31H-1916

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Dear Mr. Chan:

On behalf of Chevron Products Company (Chevron), Cambria Environmental Technology, Inc. (Cambria) submits this request for case closure for the above referenced site. The site is a former Signal Oil and Gas Company (Signal) fuel distribution terminal located on Blanding Avenue between Oak and Park Street in Alameda, California (Figure 1). Signal leased the site from approximately 1930 to 1961. The lease was originally between Edward and Mary Beck and U.S. Refining Co. Inc, whom in 1931 changed their name to Signal Oil & Gas Company. The property is currently a strip mall owned by Julie Beck Hall & Helen Beck Kleeman.

SITE BACKGROUND

Eight above ground storage tanks equipped with concrete secondary containment walls, underground piping, office and storage buildings, a loading rack and pumping station were used to store and distribute fuels and lubricants (Figure 2). A paint storage area, as identified on available site plans was seen on aerial photos from 1932 and 1941. Between 1957 and 1963, the buildings at the site were reportedly removed and it is assumed that the tanks and piping were removed at this time also. From 1973 to 1983, the site was used as a construction yard and boat repair facility. Since 1987, the site has been developed as a strip mall.

SITE CONDITIONS

The site is underlain by fill consisting of clay with fine sand and concrete fragments to approximately 6 fbg. Native soil consists of sandy clay and clayey sand to depths of approximately 16 fbg. Underlying this layer, is poorly-graded sand from approximately 15 to 18 fbg. Boring logs are attached in Appendix A. Based on the quarterly groundwater monitoring events, depth to groundwater has ranged between approximately 7 and 10 fbg. Based on depth to water data collected from the borings, which were temporarily cased and monitored over a 2-day period, and information from RRM's *Tier 2 Risk Based Corrective Action (RBCA)* assessment, dated October 1998, groundwater flow is to the north/northeast toward Alameda Canal at an approximate gradient of 0.01 and is slightly tidally influenced.

Cambria Environmental Technology, Inc.

5900 Hollis Street Suite A Emeryville, CA 94608 Tel (510) 420-0700 Fax (510) 420-9170

PREVIOUS INVESTIGATIONS

In February 1995, Geomatrix advance eight soil borings (SB-1 through SB-8) on site. Soil samples collected during the investigation contained total petroleum hydrocarbons diesel (TPHd) at a maximum concentration of 250 parts per million (ppm), total petroleum hydrocarbons as gasoline (TPHg) at a maximum concentration of 2,000 ppm and benzene at a maximum concentration of 3.7 ppm. In April 1995, Geomatrix collected groundwater samples from ten shallow borings (GWS-7 through GWS-16). TPHd, TPHg and benzene were detected at maximum concentrations of 1,200 parts per billion (ppb), 22,000 ppb and 6,200 ppb, respectively, in GWS-9 located east of the former loading racks along the Alameda Canal. Maximum hydrocarbon concentrations were collected from borings located in the north eastern portion of the site.



RRM, Inc. advanced additional borings SB-9 through SB-12 at the site in October 1998, as part of a RBCA assessment. Hydrocarbons were detected in soil samples from borings SB-9 and SB-11. TPHd, TPHg and benzene were detected in groundwater at maximum concentrations of 62,000 ppb, 14,000 ppb and 1,400 ppb, respectively, in SB-9. TPHd, TPHg and benzene were also detected in soil at maximum concentrations of 2,200 ppm, 900 ppm, and 3.3 ppm, respectively in SB-9. (Table 1 and Table 2). Water samples collected from Alameda Canal, adjacent to the site, did not contain hydrocarbons above method reporting limits. Tidal measurements were collected from the Alameda Canal and the four temporary wells. Measurements indicated that the Alameda Canal varied by 2.62 feet while SB-9, located approximately 60 feet from the canal varied by 0.42 feet. SB-10, 11 and 12 located approximately 120, 260, and 330 feet from the canal fluctuated by 0.14, 0.17 and 0.14 feet, respectively.

In December 2000, Gettler Ryan, Inc. installed groundwater monitor well MW-1 along the northeastern portion of the site adjacent to the Alameda Canal. Low concentrations of hydrocarbons were detected in soil at 10 fbg.

Cambria collected surface soil samples S1, S2 and S3 from the soil bank above the western shore of the Alameda Canal in January 2004 in response to an October 16, 2002 letter from ACEHS regarding concerns of impact to surface water. One sample (S2) was collected directly downslope of MW-1 near a water seep observed on the slope above the canal. Due to the historical industrial nature of the property two additional samples were collected approximately 70 feet east and 90 feet north of MW-1 to observe background concentrations. No TPHg, MTBE or BTEX was detected in any of the soil samples. Low to moderate concentrations of TPHd were detected in all three soil samples. Laboratory chromatographs indicate that the hydrocarbon pattern observed in these soil samples is not typical of diesel fuel. This may represent either highly degraded diesel fuel from various historical onsite and nearby operations, or residual organic material of unknown origin present in local fill material.

HYDROCARBON DISTRIBUTION IN SOIL

TPHd was detected at a maximum concentration of 2,200 mg/kg in a sample collected from SB-9 at six fbg. A sample collected from SB-9 at 14 fbg contained 620 mg/kg of TPHd. Deeper samples collected from SB-9 did not contain TPHd above the method reporting limits of 1.0 mg/kg. TPHg and BTEX constituents were detected at maximum concentrations of 2,000 mg/kg, 3.7 mg/kg, 34 mg/kg, 14 mg/kg, and 46 mg/kg, respectively in SB-2 at 7 fbg. MTBE was

detected in one sample at 12 mg/kg in SB-9 at 14fbg. Figure 3 illustrates hydrocarbon distributions in soil.

HYDROCARBON DISTRIBUTION IN GROUNDWATER

Hydrocarbons have been detected at maximum concentrations in groundwater on the northeast section of the site in borings GWS-8 through GWS-10 and in monitor well MW-1. TPHg and benzene were detected at maximum concentrations of 22,000 ug/L and 6,200 ug/L respectively, from samples collected from GWS-9. TPHd was detected at a maximum concentration of 62,000 ug/L from a grab groundwater sample collected from SB-9. Typically grab groundwater samples contain higher concentrations of hydrocarbons than samples collected from permanent sampling points.



The first quarterly samples collected from MW-1 in January 2001 contained hydrocarbon concentrations of 5,210 ug/L TPHg, 1,100 ug/L TPHd and 868 ug/L benzene. During the fourth quarter 2005 groundwater monitoring event, hydrocarbon concentrations were below method reporting limits for all constituents, with the exception of TPHd at 920 ug/L. The laboratory noted the sample to indicate the observed sample pattern includes #2 fuel/diesel and an additional pattern which elutes later in the DRO range. A copy of the Fourth Quarter 2005 groundwater sampling event is attached as Appendix B.

HYDROCARBON DISTRIBUTION IN SURFACE WATER

TPHd was detected at low concentrations from samples collected from the Alameda Canal between July 2001 and April 2002. A slight sheen has been noticed on the water and is likely due to inadvertent discharge from gasoline and diesel powered boats. No additional petroleum hydrocarbons have been detected in grab water samples collected from the Alameda Canal.

REGULATORY STATUS REVIEW AND RECOMMENDATIONS

The site appears to meet the Regional Water Quality Control Board (RWQCB) San Francisco Bay Region criteria for a low-risk fuel site. As described by the April 1, 1996 RWQCB memorandum, Regional Board Supplemental Instructions to State Water Board December 8, 1995, Interim Guidance on Required Cleanup at Low-Risk Fuel Sites, a low-risk groundwater case has the following general characteristics:

- The leak has stopped and ongoing sources, including free product, have been removed or remediated;
- The site has been adequately characterized;
- The dissolved hydrocarbon plume is not migrating;
- No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted; and
- The site presents no significant risk to human health or the environment.

Each of the low-risk groundwater case characteristics, as they relate to the site, is discussed below.

The Leak Has Stopped and Ongoing Sources, Including Free Product, Have Been Removed

It is assumed that all tanks and piping were removed between 1957 and 1963 when the buildings at the site were reportedly removed. No records of these activities are available. Over several phases of investigation, no soil samples collected have contained hydrocarbon concentrations indicative of light non-aqueous phase liquids (LNAPL). LNAPL has never been observed in any samples collected from borings or the monitor well and dissolved hydrocarbon concentrations in grab groundwater samples collected from borings across the site do not indicate the presence of LNAPL.



The Site Has Been Adequately Characterized

A total of sixteen soil borings to a maximum depth of 16 fbg have been advanced onsite. Hydrocarbon impacted soil at the site has been defined to the north by soil samples that were collected from surface samples S1 through S3, which contained maximum concentrations of diesel-range hydrocarbons at 220 mg/kg. No additional constituents were detected in S1 through S3 above method detection limits. Hydrocarbon impacted soil has been defined to the south by soil samples collected from SB-12 which did not contain TPHg, TPHd, or BTEX constituents above method reporting limits. Hydrocarbon impacted soil has been defined to the east by SB-7, which contained 250 mg/kg TPHd at 4.0 fbg.

Grab groundwater samples were collected from fourteen borings advanced across the site. Additionally, one groundwater monitor well and three sample points within the estuary channel have been sampled. Grab groundwater samples typically detect hydrocarbons at higher concentrations than static groundwater conditions. MW-1 and CS-2 have been sampled on a quarterly basis since July 2001. Hydrocarbon impact in water has been defined to the north by samples collected from CS-1, CS-2 and CS-3 which have not contained hydrocarbons above method reporting limits, with the exception of low levels of TPHd prior to July 2002 in samples collected from CS-2. The limits of hydrocarbons in groundwater to the east has been defined by GWS-12, which contained 0.06 ug/L of toluene. No additional hydrocarbons were detected above method reporting limits in GWS-12. Hydrocarbon impact in groundwater has been defined to the south and west by GWS-14 and GWS-15, which did not contain hydrocarbons above method reporting limits. Maximum concentrations of TPHg, TPHd, and benzene detected in groundwater were collected from GWS-9 and SB-9 located east of the former tanks along the Alameda Canal.

The Dissolved Hydrocarbon Plume Is Not Migrating

Based on information from RRM's RBCA, groundwater at the site appears to be only slightly tidally influenced. Low concentrations of TPHd were historically above detection limits during three sampling events between 2001 and 2002 in the Alameda Canal. The canal is used as a marina and the occasional presence of hydrocarbons may be due to releases or spills from boats or runoff from storm drains. Hydrocarbons have not been detected in the Canal since 2002, which indicates that groundwater is not discharging dissolved petroleum hydrocarbons to the canal. The lack of significant plume migration and lack of evidence of petroleum hydrocarbon impact to the Alameda Canal, 38 years after operations at the former bulk fuel distribution facility ceased, suggests the plume is stable and future impact to Alameda Canal is unlikely. Additionally, hydrocarbons detected in MW-1 have been steadily decreasing (Figures 4-6).

No Water Wells, Deeper Drinking Water Aquifers, Surface Water, or Other Sensitive Receptors are Likely to be Impacted

The Alameda Canal is the closest body of water to the site, approximately 50 feet to the northeast. The Alameda Canal is tested on a quarterly basis for the presence of hydrocarbons. Groundwater monitoring reports indicate that the canal has not been impacted by subsurface hydrocarbon conditions. Due to the vicinity of the Alameda Canal, and slight tidal influence, shallow groundwater is not a current or future source of drinking water.

The Site Presents No Significant Risk to Human Health or the Environment



To assess the potential health risks to occupants of the site and adjacent properties, as well as aquatic life in the Alameda Canal, Cambria compared hydrocarbon concentrations in soil and groundwater with water quality objectives from environmental screening levels (ESLs) developed by the Regional Water Quality Control Board (RWQCB) San Francisco Bay Region¹. The following table details concentrations for soil and groundwater based on surface water bodies in an Estuarine Environment.

Groundwater IS	NOT a Cu	irrent or Po		ce of Drinking Only	g Water-Commercia	al/Industrial I	and Use		
		Ceiling Value ESL Concentrations							
	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	МТВЕ		
Shallow Soils (<3m bgs) in mg/kg	500	400	0.38	9.3	32	11	5.6		
Deep Soils (>3m bgs) in mg/kg	500	400	0.51	9.3	32	11	5.6		
Groundwater in μg/l	640	500	46	30	40	100	180		

Hydrocarbon impacts in soil have been above ESLs in samples collected in 1995 and 1998. Additionally, the site has been paved over and future soil disturbance is likely to be minimal. Hydrocarbons detected in water collected from Alameda Canal were very low and have not been detected since 2002. Hydrocarbon trend graphs of MW-1 show decreasing levels with time and are not currently above ESLs. MTBE has never been detected in water samples. Therefore, the extent of hydrocarbons has been defined to the degree necessary to determine whether the site presents a threat to human health or the environment.

¹ RWQCB Application of Risk-Based Screening Levels and Decision Making to Sites With Impacted Soil and Groundwater, Volume 1, Summary Tier 1 Lookup Tables, Interim Final February 2005, for Aquatic Habitat Goal ESLs

CONCLUSIONS AND RECOMMENDATIONS

The indication of plume stability and the lack of discharge of petroleum hydrocarbons in the Alameda Canal (38 years after closing the bulk fuel terminal facility) suggest future impact to Alameda Canal is unlikely. Additionally current groundwater monitoring indicates that hydrocarbon contamination is below RWQCB ESLs and trends indicate continued reduction. Therefore Cambria, recommends a case closure from ACEHD.

Chevron will address issues arising from future changes in property use or redevelopment. If you should have questions regarding this report please contact us at 510-420-0700.



Sincerely,

Cambria Environmental Technology, Inc.

Laura Genin

Senior Staff Geologist

Tuera Din

Robert Foss, P.G. #7445

Robert Fors

Associate Geologist



Figures:

1 – Vicinity Map

2 – Site Map

3 – Subsurface Hydrocarbon Distribution

4 – TPH as Gasoline in Groundwater over Time 5 – TPH as Diesel in Groundwater over Time

6 - Benzene in Groundwater over Time

Tables:

1 – Soil Analytical Data

2 – Groundwater Analytical Data

Appendices:

A – Boring Logs

B – 4th Quarter 2005 Groundwater Monitoring Report

cc:

Chevron Strata Database



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FIGURE

EXPLANATION

MW-1 ♦ Monitoring Well Location

Canal water level gauging station from Park Street bridge (RRM, October 1998) CWL-1 ◆

CS-2 ▲ Canal grab surface water sample

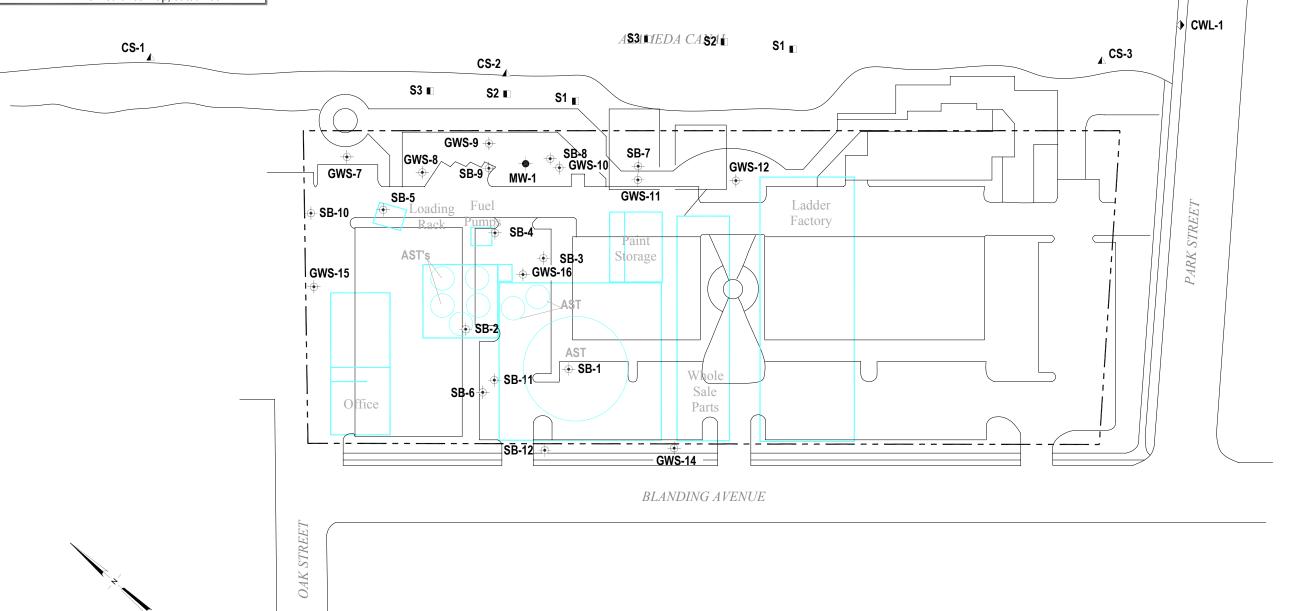
Shallow groundwater survey point (Geomatrix, April 1995) GWS-10 🕁

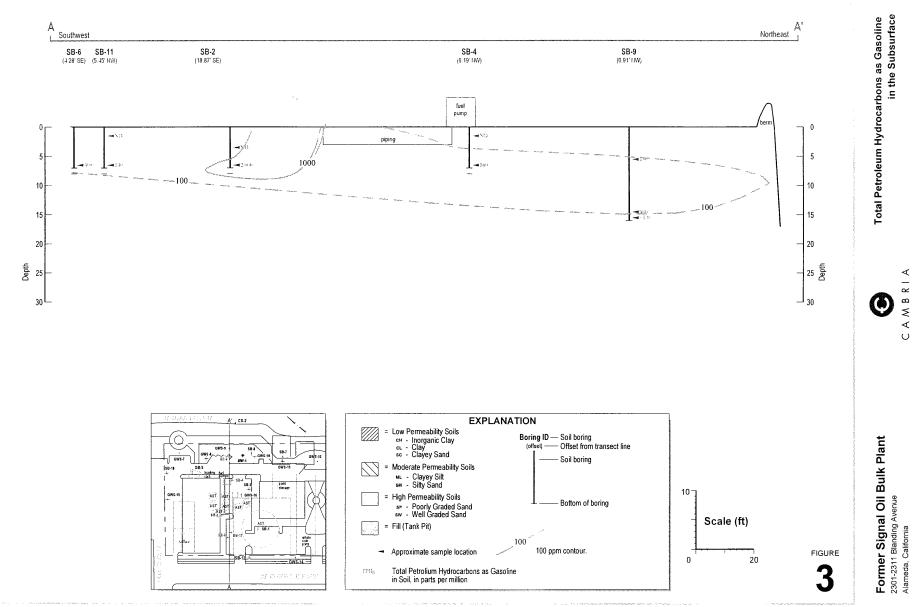
S2 ■ Grab soil sample (Cambria, 2004)

Site features noted on Sanborn Fire Insurance map, dated 1932

160

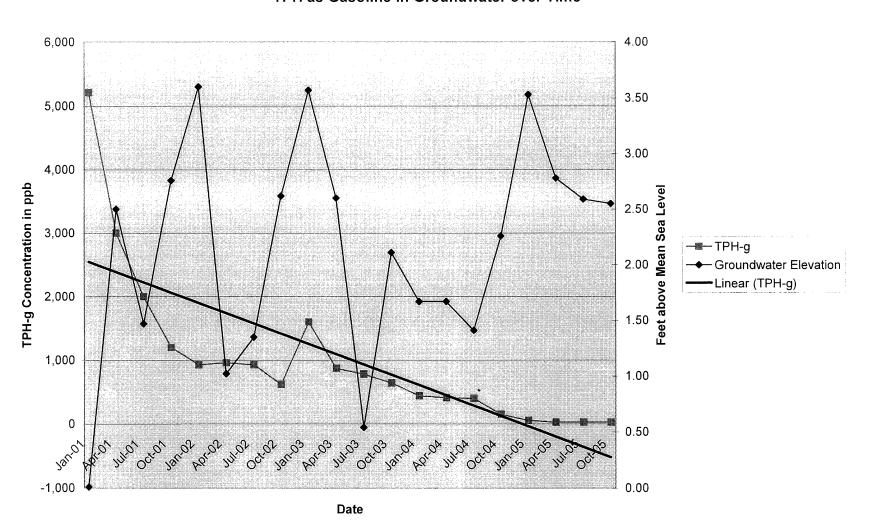
Scale (ft)





06127 ALAMEDAVIGURES/20,6127_X.SE

Figure 4
TPH as Gasoline in Groundwater over Time



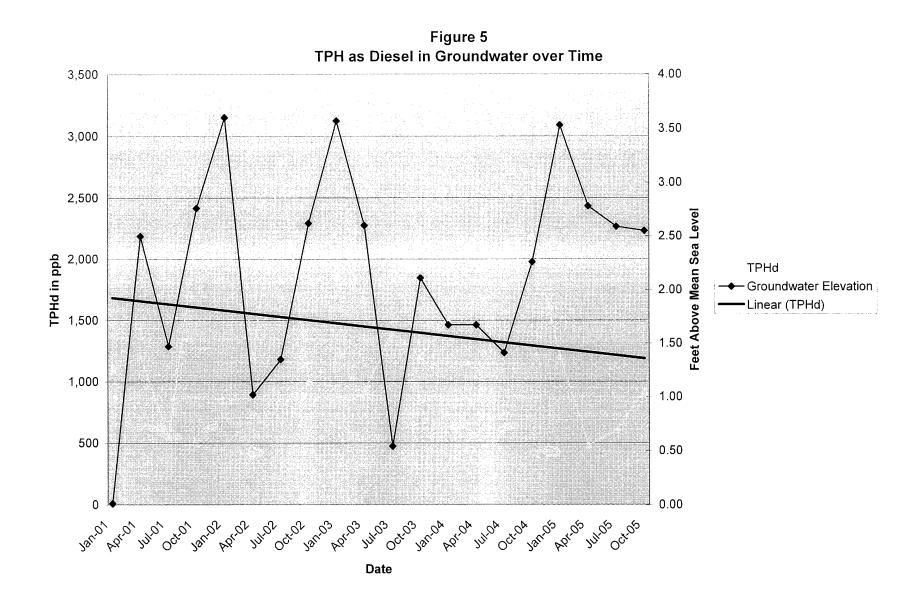
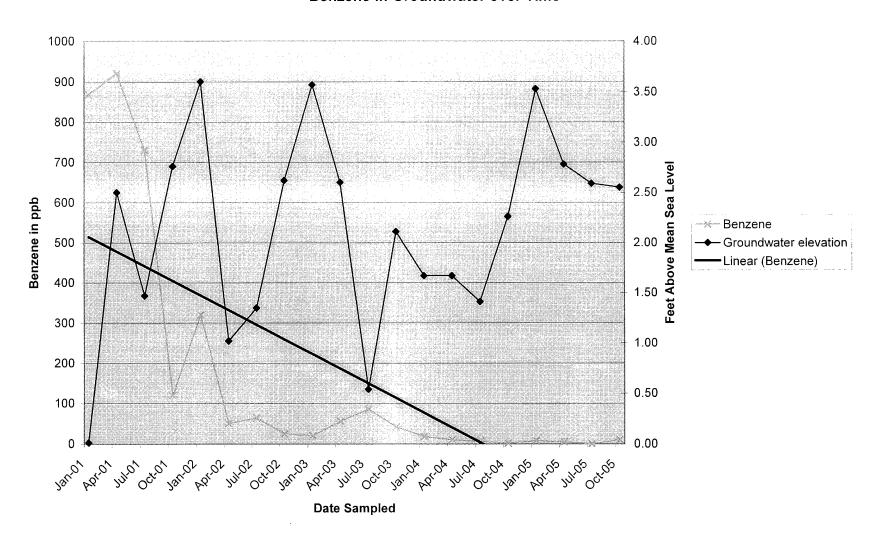


Figure 6
Benzene in Groundwater over Time



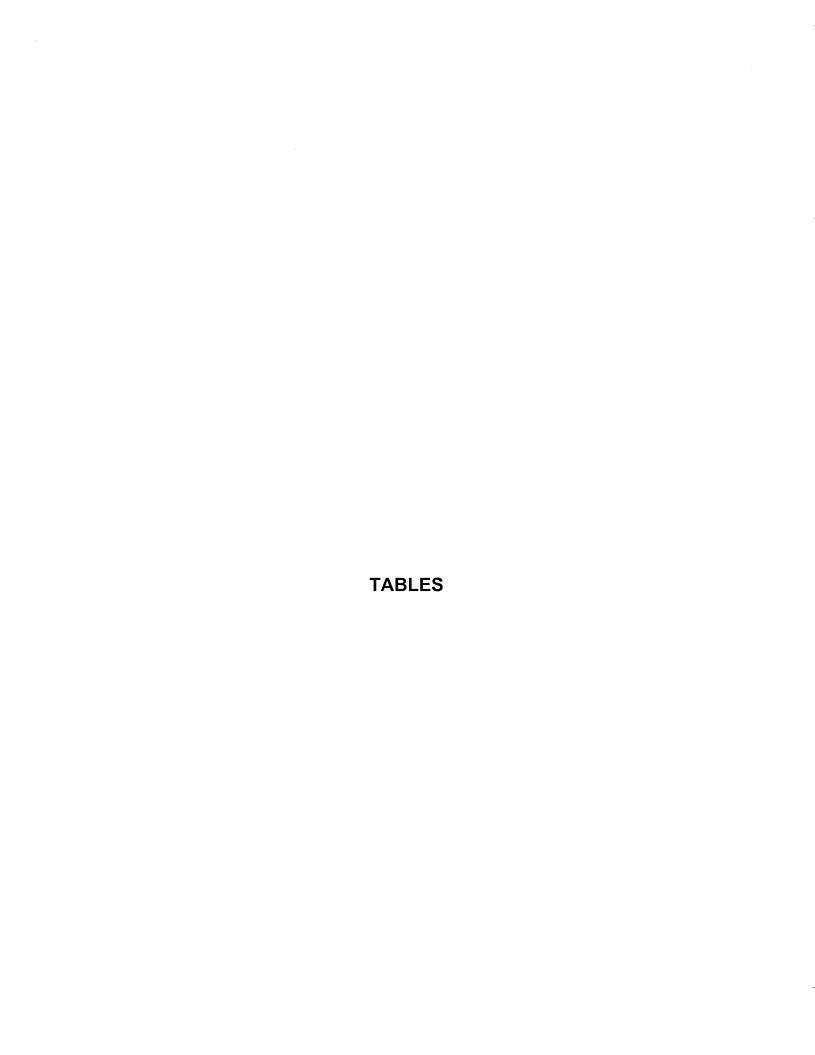


Table 1
Petroleum Hydrocarbons and Volatile Organic Compounds in Soil

Sample Name	Depth	TPHg	TPHd	Benzene	Toluene	etheylbenze	Xylenes	MTBE
SB-1-3.5	3.5	ND	110	ND	ND	ND	ND	NA
SB-1-5.5	5.5	390	10	0.08	0.2	0.58	0.86	NA
SB-1-9.5	9.5	ND	ND	ND	ND	ND	ND	NA
SB-2-3.5	3.5	ND	40	ND	ND	ND	ND	NA
SB-2-7.0	7	2000	35	3.7	34	14	46	NA
SB-3-1.5	1.5	ND	ND	ND	ND	ND	ND	NA
SB-3-7.0	7	150	230	ND	0.46	0.58	0.51	NA
SB-3-10.0	10	ND	ND	ND	ND	ND	ND	NA
SB-4-1.5	1.5	ND	20	ND	ND	ND	ND	NA
SB-4-6.5	6.5	860	240	2	0.81	3.6	13	NA
SB-4-7.0*	7	NA	NA	2.3	8.7	3.5	35	NA
SB-4-10.0	10	4	ND	0.34	ND	ND	ND	NA
SB-5-1.5	1.5	ND	10	ND	ND	ND	ND	NA
SB-5-5.5	5.5	ND	15	ND	ND	ND	ND	NA
SB-5-6.0	6	NA	NA	NA	NA	NA	NA	NA
SB-6-1.5	1.5	ND	40	ND	ND	ND	ND	NA
SB-6-7.0	7	400	170	ND	0.12	0.56	ND	NA
SB-7-1.0	1	ND	110	ND	ND	ND	ND	NA
SB-7-4.0	4	ND	250	ND	ND	ND	ND	NA
SB-8-1.0	1	ND	75	ND	ND	ND	ND	NA
SB-8-6.5	6.5	ND	ND	ND	ND	ND	ND	NA
SB-8-7.0	7	NA	NA	NA	NA	NA	NA	NA
SB-9	5-6	130	2200**	0.36	<0.12	<0.12	0.28	<0.62
SB-9	13-14	900	620**	3.3	<1.2	2.1	2	12
SB-9	15-16	<1.0	<1.0	0.22	<0.0050	<0.0050	<0.0050	<0.025
SB-10	5.5-6.5	<1.0	80**	<0.0050	<0.0050	<0.0050	<0.0050	<0.025
SB-11	6-7	140	27**	<1.0	0.12	0.24	0.49	<0.50
SB-12	5-6	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025
SB-12	7-8	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025
SB-12	14-15	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025
MW-1-5	5	<1.0	30	<0.0050	<0.0050	<0.0050	0.017	<0.050
MW-1-10	10	320	160	0.4	1.6	0.9	1.1	<1.2
MW-1-15	15	<2.5	<1.0	0.53	0.021	0.028	0.065	<0.12
S1	0.5	<1.0	14	<0.0005	<0.001	<0.001	<0.001	<0.0005
S2	0.5	<20	220	<0.0005	<0.001	<0.001	<0.001	<0.0005
S3	0.5	<10	220	<0.0005	<0.001	<0.001	<0.001	<0.0005
ESL's shallow soil	<10	400	500	0.38	9.3	32	1.1	5.6
ESL's Deep Soil	>10	400	500	0.51	9.3	32	1.1	5.6

Table 1 Petroleum Hydrocarbons and Volatile Organic Compounds in Soil

Notes:

- * Constituents detected using EPA method 8240
- ** TPH-d concentrations after 2nd Silica Gel clenup.

Bold concentrations exceed the ESL's

ESL - Environmental Screening Levels

ESL's Based on SHALLOW SOIL SCREENING LEVELS (<3m bgs)

COMMERCIAL / INDUSTRIAL LAND USE

(potentially impacted groundwater IS NOT a current or potential drinking water resource)

TPHg Total petrolium hydrocarbons as gasoline

TPHd Total petrolium hydrocarbons as diesel

Concentrations in milligrams per kilogram

Table 2
Petroleum Hydrocarbons and Volatile Organic Compounds in Water

Sample Name	Date	Depth	TPHg	TPHd	Benzene	Toluene	Etheylbenzene	Xylenes	MTBE
GWS-7	Feb-95	16	ND	ND	ND	ND	ND	ND	
GWS-8	Feb-95	16	3700	60	36	6.9	27	11	
GWS-9	Feb-95	16	22000	1200	6200	140	1100	1200	
GWS-10	Feb-95	16	11000	240	880	40	100	50	
GWS-11	Feb-95	16	140	70	ND	1	1.4	8.4	
GWS-12	Feb-95	16	ND	ND	ND	0.06	ND	ND	
GWS-13	Feb-95	16	ND	ND	ND	ND	ND	ND	
GWS-14	Feb-95	16	ND	ND	ND	ND	ND	ND	
GWS-15	Feb-95	16	ND	ND	ND	ND	ND	ND	
GWS-16	Feb-95	16	70	ND	ND	ND	2	1.1	
SB-9	1998	16	14000	62000	1400				<10
SB-10	1998	6.5	<50	<50	<0.50				<2.5
SB-11	1998	7	310	170	<0.50				<2.5
SB-12	1998	15	<50	<50	<0.50				<2.5
MW-1 ¹	1/23/01	0.01	5,210	1,100	868	<50	<50	<50	<250
MW-1 ¹	4/9/01	2.50	3,000	1,200	920	<20	<20	<20	<100
MW-1 ¹	7/30/01	1.47	2,000	550	730	13	<5	<5	<25
MW-1 ¹	10/8/01	2.76	1,200	2,200	120	2.4	5.9	6.4	<2.5
MW-1 ¹	1/13/02	3.60	930	3,300	320	0.78	0.87	3.8	<2.5
MW-1 ¹	4/8/02	1.02	960	1,200	50	1.4	2.6	9	<2.5
MW-1 ¹	7/31/02	1.35	930	2,800	64	1.4	1.9	11	<5.0
MW-1 ¹	10/15/02	2.62	620	1,000	25	0.78	1.4	4.3	<2.5
MW-1 ¹	1/14/03	3.57	1,600	960	20	1.3	1.3	<1.5	<2.5
MW-1 ¹	4/15/03	2.60	870	920	56	1	1.4	3.1	<2.5
MW-1	7/16/03	0.54	780	1,400	85	1	0.8	0.7	<0.5
MW-1	10/18/03	2.11	640	1,200	42	0.8	<0.5	0.5	<0.5
MW-1	1/22/04	1.67	440	1,500	18	<0.5	<0.5	<0.5	<0.5
MW-1	4/23/04	1.67	410	2,200	10	<0.5	<0.5	<0.5	<0.5
MW-1	7/23/04	1.41	400	1,800	6	<0.5	<0.5	<0.5	<0.5
MW-1	10/22/04	2.26	150	2,200	2	<0.5	<0.5	<0.5	<0.5
MW-1	1/28/05	3.53	55	1,200	8	<0.5	<0.5	<0.5	<0.5
MW-1	4/26/2005	2.78	<50	480	5	<0.5	<0.5	<0.5	<0.5
MW-1	7/15/2005		<50	610	<0.5	<0.5	<0.5	<0.5	<0.5
MW-1	10/14/2005	2.55	<50	920	10	<0.5	<0.5	<0.5	<0.5
CS-1 ¹	1998		<50	<50	<0.50				<2.5
CS-2 ¹	7/30/2001		<50	140	<0.5	<0.5	<0.5	<0.5	<2.5
CS-2 ¹	10/8/2001		<50	53	<0.5	<0.5	<0.5	<1.5	<2.5
CS-2 ¹	1/13/2002		<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5
CS-2 ¹	4/8/2002		<50	77	<0.5	<0.5	<0.5	<1.5	<2.5

Table 2
Petroleum Hydrocarbons and Volatile Organic Compounds in Water

Sample Name	Date	Depth	TPHg	TPHd	Benzene	Toluene	Etheylbenzene	Xylenes	MTBE
CS-2 ¹	7/31/2002		<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5
CS-2 ¹	10/15/2002		<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5
CS-2 ¹	1/14/2003		<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5
CS-2	4/15/2003		<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5
CS-2	7/16/2003		<50	<50	<0.5	0.7	<0.5	0.6	<0.5
CS-2	10/18/2003		<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
CS-2	1/22/2004		<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
CS-2	4/23/2004		<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
CS-2	7/23/2004		<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
CS-2	10/22/2004		<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
CS-2	1/28/2005		<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
CS-2	4/26/2005		<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
CS-2	7/15/2005		<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
CS-2	10/14/2005		<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
CS-3 ¹	1998		<50	<50	<0.50				<2.5
ESLs			500	640	46	30	40	100	180

Notes:

- 1 Constituents detected using EPA method 8240
- 2 Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. It elutes in the DRO range later than #2 fuel.
- 3 Laboratory report indicates the observed sample pattern includes #2 fuel/diesel and an additional patern which elutes later in the DRO Range

Bold concentrations exceed the ESL's

ESL - Environmental Screening Levels

ESLs Based on Surface Water Bodies in an Estuarine Environment

TPHg Total petrolium hydrocarbons as gasoline

TPHd Total petrolium hydrocarbons as diesel

Concentrations in micrograms per liter

ND: Constituents not detected above method reporting limits

APPENDIX A Boring Logs

ROJECT: PAR	K STRE	ET LAND	DING	Log of Bo	ring N	o. SB1
Alam	eda, C	alifornia		ELEVATION AND DATUM	A:	
ORING LOCATION	DN:			Ground surface DATE STARTED:	DATE FI	NISHED:
RILLING CONTR	RACTOR:	Precision	Sampling	2/17/95 TOTAL DEPTH:	2/17/95 MEASUR	RING POINT:
				10 feet bgs.	Ground	surface
RILLING METH				DEPTH TO FIRST WATER	COMPL	. 24 HRS.
ORILLING EQUIP	MENT:	XD 1		LOGGED BY:		
SAMPLING METH	HOD: Er	nviro Core	System	T. F. Wood RESPONSIBLE PROFE	SSIONAL:	REG. NO.
HAMMER WEIGH	łΤ:		DROP:	A. L. Spencer		RG 5713
CAMPLE			DESCRIP	TION		REMARKS
	Foot Gom)	NAME (TION ity, structure, cementation, react, w/HCl, geo. inter.		
(feet) Sample No. Sample	g ₁		Surface Eleva	ition:		
			phalt CRAVEL (S	:C)	17	
7 17			AYEY SAND with GRAVEL (S ry dark gray (10YR 3/1); moist		17	
1-		40	% fine to coarse subangular g	ravel; 20% medium plasticity	- -	
7		fin	es; firm		17	
2 - //						
SB1-	7	,			1 -	
3 - SB1-	-	,			14	
3.5	'				- -	
4-		c	LAYEY SAND (SC)	co 70% fine to medium	1-	
SB1-		D	ark greenish gray (5BG 4/1); r and; 30-40% medium plasticity	noist; 60-70% fine to medium	14	
5 - 5.0 SB1-		l	and; 30-40% mediam placation,			
5.5	4	91			14	
6-						
7-						
8-]	
"		<u> </u>	Color change to dark gray (5	Y 4/1); mottled with dark	17	
		₩	greenish gray (5BG 4/1)		17	
9 - _{SB1-}		9	,			
SB1-		15				
10 - 100			Bottom of boring at 10 feet bg	S	11	
1 1	1					
11 -					-	
					-	
12-					-	
					14	
13 -						
						B-1 (1
7436.02.002				Project N	lo. 2436.02	Figure
136.0			Geomatrix Consultants	1. 13		

ROJECT: PARK ST	REET LA	NDING		of Borin	ng No	. SB2
Alameda,	California	a	ELEVATION AN	ID DATUM:		
ORING LOCATION:			Ground surfa	D.	DATE FINIS	SHED:
PILLING CONTRACTO	OR: Precis	sion Sampling	2/20/95		2/20/95 MEASURIN	IG POINT:
			TOTAL DEPTH 10 feet bgs		Ground st	urface
PRILLING METHOD: [n .	DEPTH TO WATER	FIRST	COMPL.	24 HRS.
DRILLING EQUIPMENT			LOGGED BY: T. F. Wood			
SAMPLING METHOD:	Enviro C		RESPONSIBL	E PROFESSIO	NAL:	REG. NO. RG 5713
HAMMER WEIGHT:		DROP:	A. L. Spence			
SAMPLES	(ppm)	DESCRIP AME (USCS Symbol): color, moist, % by wt., plast, dens	FION ity, structure, cementation, react, w/H	CI, geo. inter.	R	EMARKS
(feet) Sample No. Sample Blows/	ğ ^B	Surface Eleva	tion:			
core		Concrete - sidewalk POORLY GRADED SAND with Cl				
3 - SB2- 2 - 2.0 3 - SB2- 3.5 SB2- 4 - 0 5 - 0 6 - 0 8 - 0 9 - SB2- 7.0 8 - 0 9 - SB2- 10.0 11 - 0		POORLY GRADED SAND with Coord brown (10YR 3/3); moist; 70% coarse sand); 20% fine to coarse medium plasticity fines; loose SANDY LEAN CLAY (CL) Dark greenish gray (5BG 4/1); refine to medium sand; medium p	noist; 60-65% fines; 35			
12 -					1	
13						
						8-1 (
14	11_			Project No. 2		Figure

PROJECT: PARK STRE Alameda, Ca	ET LANDING	Log of Bo		SB3	
		ELEVATION AND DATUM	vi:		
BORING LOCATION:		Ground surface DATE STARTED:	DATE FINISH	ED:	
DRILLING CONTRACTOR:	Precision Sampling	2/17/95 TOTAL DEPTH:	2/17/95 2/17/95 TOTAL DEPTH: MEASURING POIN		
DRILLING METHOD: Dire	ct push	10 feet bgs DEPTH TO FIRST		24 HRS.	
DRILLING EQUIPMENT: X	(D 1	WATER			
SAMPLING METHOD: En	viro Core System	T. F. Wood RESPONSIBLE PROFE	SSIONAL:	REG. NO.	
HAMMER WEIGHT:	DROP:	A. L. Spencer		RG 5713	
E SAMPLES E	DESCRIPT NAME (USCS Symbol): color, moist, % by wt., plast, densil	TION ity, structure, cementation, react, w/HCI, geo. inter.	REM	ARKS	
(feet) (feet) (Sample Sample Sample Sample Foot PID Reading (ppm)	NAME (USCS Symbol): Latel, most, a 57 map and Surface Elevat				
	Asphalt		<u> </u>		
SB3-	CLANEY CAND with GRAVEL (SC	C)			
1.0	10VR 3/1): dry: 40	()% tine to theuluth sand,	17		
SB3-136	40% fine to coarse angular grave	i; 20% medium plasticity	-		
7 17 1	fines; loose		1+		
2 - \/			14		
-					
3- 1/\					
	·		1	••	
1 1			- -		
4-	SANDY LEAN CLAY (CL)	250/ 5000 25 40%	14		
$A = A \setminus A = A$	Dark greenish gray (5BG 4/1); mo	oist; 60 -65% lines, 33-40%			
5 -	fine sand; medium plasticity; firm	ı	17		
			11		
1 / V			1 -		
6 - _{SB3} -	4		14		
593.					
7.0	8		17		
'			11		
7			1 -1		
8-		•	11		
9 - 583	Mottled with dark gray (5Y 4/1)	17		
9 SB3-	1 1		11		
SB3-	9				
10 - 10.0	Bottom of boring at 10 feet bgs				
			17		
			14		
			14		
12 -					
			17		
13 -			14		
_				B-1 (1	
14			2426.02	Figure	
9	Geomatrix Consultants	Project No.	2430.02	9	

PROJECT: PARK STREE	ET LANDING lifornia	Log of Bor	ing No. SB4
		ELEVATION AND DATUM: Ground surface	:
BORING LOCATION:		DATE STARTED:	DATE FINISHED: 2/17/95
DRILLING CONTRACTOR: [Precision Sampling	2/17/95 TOTAL DEPTH:	MEASURING POINT:
DRILLING METHOD: Direct	et push	10 feet bgs DEPTH TO FIRST	Ground surface COMPL. 24 HRS.
DRILLING EQUIPMENT: XI	D 1	WATER	
SAMPLING METHOD: Env	riro Core System	T. F. Wood RESPONSIBLE PROFESS	IONAL: REG. NO.
HAMMER WEIGHT:	DROP:	A. L. Spencer	RG 5713
(feet) (Sample Sample Sample Foot Prot Seed Sample Foot Prot Seed Seed Seed Seed Seed Seed Seed See	DESCRIPTION NAME (USCS Symbol): color, moist, % by wt., plast, density, stru Surface Elevation:	octure, cementation, react, w/HCl, geo. inter.	REMARKS
- S S - L	Asphalt		
59 1 - SB4- 1.5 2 -	Black mottling	60-65% fines; 35-40%	
500			B-1 (11/92
14 14 1508	Geomatrix Consultants	Project No. 2	436.02 Figure

PROJECT: PARK STRE	ET LANDING	Log of Bo	ring No. SB5
		ELEVATION AND DATUM: Ground surface	
BORING LOCATION:	O washing	DATE STARTED:	DATE FINISHED: 2/17/95
DRILLING CONTRACTOR:	Precision Sampling	2/17/95 TOTAL DEPTH:	MEASURING POINT:
DRILLING METHOD: Direct	ct push	10 feet bgs DEPTH TO FIRST	Ground surface COMPL. 24 HRS.
DRILLING EQUIPMENT: X	D 1	WATER	
SAMPLING METHOD: Env	viro Core System	T. F. Wood RESPONSIBLE PROFESS	SIONAL: REG. NO.
HAMMER WEIGHT:	DROP:	A. L. Spencer	RG 5713
(feet) (sample No. Sample No. Sample Sample Foot Plo Reading (ppm)	DESCRIPTION NAME (USCS Symbol): color, moist, % by wt., plast, density, struc	cture, cementation, react. w/HCl, geo. Inter.	REMARKS
(feet) Sample No. Sample Blows/ Foot PID Read (ppm)	Surface Elevation:		
	Asphalt		4
532 1-5 532 1643 2-7 3-7 5-5 5-5 5-5 5-5 5-5 5-5 5-5 5	fines; loose Color change to dark brown (7.5YR CLAYEY SAND (SC) Black (2.5YR 2.5/0); moist; 60-65% firmedium plasticity fines; soft Color change to dark greenish gray	% medium plasticity 1 3/2) ne sand; 35-40%	Brick and plastic pieces present
8 -			B-1 (11/92)
14 138.02	Geomatrix Consultants	Project No. 2	
*	4 4 4 1 1 1 1 1 1 1 1 1 1		

PROJE	CT:	PAR	RK S	TREE	ET LANDING ifornia		Log of Bo	ring No	o. SB6
		Alai	med	a, Cai	IIOTTIIA		ELEVATION AND DATUM:		
BORIN	g LO	CAT	ION:				Ground surface DATE STARTED:	DATE FIN	IISHED:
DRILLI	NG C	TNO	RAC	TOR: F	Precision Sampling		2/17/95	2/17/95	ING POINT:
					t push		TOTAL DEPTH: 10 feet bgs	Ground	surface
							DEPTH TO FIRST	COMPL.	24 HRS.
DRILLI							WATER LOGGED BY:		
SAMPL	ING	MET	HOD	: Env	iro Core System		T. F. Wood RESPONSIBLE PROFESS	SIONAL:	REG. NO.
НАММ	ER V	VEIG	HT:		DROP:		A. L. Spencer	T	RG 5713
Εæ		MPL		PID Reading (ppm)	DESCRIP NAME (USCS Symbol): color, moist, % by wt., plast, den	TION sity, structure, cen	nentation, react. w/HCl, geo. inter.	,	REMARKS
DEPTH (feet)	Sample No.	Sample	3lows Foot	8 g	Surface Eleva				
	S	5	-	-	Asphalt			_	
	SB6-				CLAVEY SAND with GRAVEL (S	SC)			
1-	1.0 SB6-			26	Vanu dark gray (10YR 3/1): dry: 4	10% tine to	medium sand;	7	
_	1.5			36	40% fine to coarse angular grave fines; loose	ei; 20% ille	digiti plasticity	7	
2		NΛ			mes, loose			7	
_		M						1	
3 -		١Χ١						1	
J		$ /\rangle $						4	
		1						4	
4 -	1				SANDY LEAN CLAY (CL) Dark greenish gray (5BG 4/1); rr	noist: 60-65	5% fines; 35-40%	4	
-	1	$ \cdot $:		fine sand; medium plasticity; firn	1		-	
5 -	1	I X						-	
-	1	1/						4	
6-	1	$V \setminus$						4	
-	SB6		Ì	248				1	
7-	7.0		1	240					
-	SB6								
8-	8.0			26				7	
	4							7	
9.	١				Black mottling			1	
.	SB6 9.5			86	♦				
10	SB6			32				-	
'0					Bottom of boring at 10 feet bgs			-	
	7							-	
11	7							-	
	1						•		
12	1								
	4								
13	+								
	+								8-1 (11/9
14	<u></u>						Project No. 2	436.02	Figure
25.5					Geomatrix Consultants		13/223		

PROJECT: PAR	K STRE	ET LANDING lifornia	Log of B		o. SB7	
DODING LOCATI	ON:		ELEVATION AND DAT	'UM:		
BORING LOCATI		Provision Sampling	DATE STARTED: 2/17/95	DATE STARTED: DATE FINISHED:		
		Precision Sampling	TOTAL DEPTH:	TOTAL DEPTH: MEASURING POIL		
DRILLING METH			10 feet bgs DEPTH TO FIRS		24 HRS.	
DRILLING EQUIP	MENT: X	D 1	WATER -	<u> </u>		
SAMPLING MET	HOD: Env	viro Core System	T. F. Wood RESPONSIBLE PROF	ESSIONAL:	REG. NO.	
HAMMER WEIGH	łТ:	DROP:	A. L. Spencer		RG 5713	
(feet) Sample No. Sample Sample Diage		DESCRIF NAME (USCS Symbol): color, moist, % by wt., plast., der	PTION nsity, structure, cementation, react, w/HCl, geo. inte	er.	REMARKS	
(feet) Sample No. Sample	Foot PID Rea (ppm	Surface Elev	ration:			
		Asphalt		Poor re	covery	
S87-	13			Unable		
1 - se7-	3			-		
2-			·	11		
		•		1-		
3-		?		Concre	te in shoe	
]]				-		
SB7-	15			1-	• •	
4-				-		
1 _ 1 \\\				1-		
5 -						
	Ì] -		
6-		?		1-1		
7 - 587-	17			14		
']				14		
8 -						
			·			
9 - _{S87} -	94			-		
SB7-	19					
10 - 10.0		Bottom of boring at 10 feet bgs	3	14		
			•	-		
				1-1		
				-		
12				-		
				14		
13 -						
800					B-1 (11/92	
14 14		Geomatrix Consultants	Project No	o. 2436.02	Figure	

ROJECT: PARK STRI Alameda, C	EET LANDING alifornia		Log of Boring No. SB8				
	prox. 15 feet N of North corner of trash house	ELEVATION AND DATUM: Ground surface					
		DATE STARTED:	DATE FINISHED: 2/20/95				
RILLING CONTRACTOR	Precision Sampling	2/20/95 TOTAL DEPTH:	MEASURING POINT:				
RILLING METHOD: Dir	ect push	10 feet bgs DEPTH TO FIRST	Ground surface COMPL. 24 HRS.				
PRILLING EQUIPMENT:	XD 2	WATER					
SAMPLING METHOD: EI	nviro Core System	T. F. Wood RESPONSIBLE PROFESS	SIONAL: REG. NO.				
IAMMER WEIGHT:	DROP:	A. L. Spencer	RG 5713				
SAMPLES	DESCRIPTION NAME (USCS Symbol): color, moist, % by wt., plast., density, structu	re, cementation, react, w/HCl, geo. inter.	REMARKS				
Sample No. Sample Blows/ Foot PID Reads (com)	Surface Elevation:						
SB8- 0.5 SB8- 1.0 2 - 3 -	Dark brown (10YR 3/3); moist; 70% line to	n medium sand (davo	Samples SB8-0.5 and SB8-1.0 collected from new hole approximately 1 foot north of SB8 due to poor recovery. New hole only 18 inches deep samples collected with split spoon				
4 - 5 - 5 - 6 - 5B8- +99	? Increase in fine gravel to 40%; decrease to coarse sand; decrease in fines to 5%	se in sand to 55% fine %					
- SB8.	74	?	- Rock in shoe				
7 - 8 - 9 - SBB- 9.5 SBB- 10.0	CLAYEY SAND (SC) Black (5Y 2.5/1); moist; 80-90% fine to 10-20% medium plasticity fines; firm SANDY LEAN CLAY (CL) Dark greenish gray (5BG 4/1); moist; fine sand; medium plasticity; firm Bottom of boring at 10 feet bgs at 10:	60-70% fines; 30-40%	One 1 inch subrounded gravel at gradational contact				
11 -			B-1 (1)				
14	Geomatrix Consultants	Project No.					

						001444			PEM	EDIA	\T16	ON RI	SK N	IANAGEMENT, IN	IC.	WELL/BORIN	G:SB-9
N W	ELL/B(JRIN	G L	.UC	AH	ON MA	-	DATE:						DF	RILLING ME	THOD:GEOPE	OBE
Ť	_						ŀ	PROJE						SA	MPLING M	ETHOD:CONT	INUOUS CORE
'			_		_		·	CLIEN			N				ORING DIAM		
	SB-9	9 •		_	_		-	LOCA				JG AV	F	BC	ORING DEP	TH:16'	
				_	_		}	CITY:						W	ELL CASIN	G:Temporary 1	" sch 40 PVC
				1			ŀ	CO./STATE:ALAMEDA WELL SCREEN:									
				_	J			DRILLER:ECA SAND PACK:									
							1			1			. 1	WATER LEVEL:	6.59	6.60	
			_	250	MOISTURE	DENSITY BLOWS / ft.	FIELD TEST HNU	SAMPLE NUMBER	ΞF	RECOVERY	¥ E	GRAPHIC	USCS SYMBOL	TIME:	13:55	14:10	
WEL	L/BORI	NG	FIRST	STABILIZED	딝	ISI WS	LD TE HNU	MB	DEPTH (FEET)		SAMPLE INTERVAL	AP	SSY	DATE:	10/28/98	10/28/98	
COM	IPLETI	ON		ST	ğ	DE	IEL!	SA	2 6	12	ďΖ	GR	nsc	DESCRIPTION/LOG			
			꼬	Y	2		ц.			LL.		xxx					·
_	1	_				P			٠.			燚	Fill	0-3": Asphalt 3"-3':Fill Material; n	ative clayey s	sandy soil with de	ebris
 	C								2 -			\bowtie			, ,		
-	E	<u> </u>			Ь			SB-9	4 -					3'-13.5':Sandy Clay	v areenish ar	av: 80% low to m	noderate
┢	M						1	4-5'	-				CL	plasiticity clayey fir	nes; 20% fine	sand;roots comr	non
	E	_			D		162	SB-9 5-6'	6 -	-	ŀ						
	N			Y				3-0		-						-	
L	T				м		137	SB-9	8 -			V//				>	
⊢	G		-		'''	}		9-10.5	10 -								
┝	R	-	1				287		10 -								
	0]			}			12 -	-				@13': 40% fine sa	nd		
	U		-		M		323	SB-9 13-14		7		K					
 -	T	_	-	1			158	13-14	14 -	-			SP	13.5-16': Sand; gre	eenish gray; ti	race clayey silty	fines; fine sand
-	11		-		w		4.4		16 -					16': Bottom of Bor			
-	ш	_	-						10	L	L	-		16. Bottom or bor	iiig		
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-										PEM	FDI	ΔΤΙ	ON RI	SK N	ANAGEMENT, INC. WELL/BORING:SB-10
1		LL/BC	ORIN	G L	OC,	ATIC	ON.MA	P	DATE:10/28/98 DRILLING METHOD:GEOPROBE						
1	γ	SB-1	0						PROJE						SAMPLING METHOD:CONTINUOUS CORE
1	ı	•	^						CLIEN)N			BORING DIAMETER:2"
		/		`_				}	LOCAT				IC AV		BORING DEPTH:18'
	_				7							ווטוי	NG AV	Ç.	WELL CASING:Temporary 1" sch 40 PVC
~	_ `	BIA			/			Ì	CITY:A			N 41-7	3.4		WELL SCREEN:
١		- SA/	VOING	· / ·					CO./S			ME	JA		SAND PACK:
1				~ \		`_			DRILL	ER.EC	А.		- · · · -		
r					9	ZE	≻ ≠	ST	ше	T \frown	≿	يـا	일	BOL	WATER COLUMN
1,	WELL/	BOR	ING	FIRST	STABILIZED	MOISTURE	DENSITY BLOWS / ft	FIELD TEST HNU	SAMPLE NUMBER	DEPTH (FEET)	RECOVER	SAMPLE	GRAPHIC	USCS SYMBOL	TIME: 14:05
	COMP	LETI	ON	=	STA	S	OEN	밀표	NAN UN	HH H		SA	λχ. 	SCS	DATE: 10/28/98
1			}	- 1	Y	Σ	D B	끝	0) Z		25	<u> </u>	0		DESCRIPTION/LOGGED BY:DR
H							р						∞	İ	0-3":Asphalt;
H	-					D	!		SB-10	2 -		-	\bowtie	Fill	
T	-								3-4'	1	-		XXX		3"-3':fill is a siltiy to clayey sand; olive brown
		<u>c</u>								4 -	-		///		i
	_	E				D			SB-10		-		1//	sc	3-7':Clayey Sand: dark brown; 20% clayey fines; 80% fine
1	-	M						1.0	5.5-6.5	6	1		///		sand; organic matter, dark brown to black
ŀ		E			Y			ł	1	8					
	-	N	_					1.0	SB-10 6.5-7				V //	1	
ŀ	-	T				M		1.0	10.5-7	10	_	Ę		CL	land the beauty law placticity clayer fines: 25%
t	-	G	_	·							+	4			7-14':Sandy Clay:dark brown; low plasticity clayey fines; 25% fine sand; roots common
	_	R								12	七	Ⅎ	<i>V//</i>	1	inito salis, issue salis
I		0	-	•		М		ļ		1	-	1			
ļ	-	U		1		1		1.7	1	14	T			1	
	'	T				W	}		SB-10	16	\perp				14-16': No Recovery
	_ '		_	_				1.0	17-18	1,0				SP	16-18':Sand: greenish gray; trace fines; fine sand
	_			-				1.0		18	_	Ļ	******	35	- 18': Bottom of Boring
	_		_	-			1		ļ		+	+	-		
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PROJECT:AA46 CLIENT:CHEVRON LOCATION:BLANDING AVE	RILLING MET		DBE						
CLIENT:CHEVRON LOCATION:BLANDING AVE			DATE:10/28/98 DRILLING METHOD:GEOPROBE						
CLIENT:CHEVRON LOCATION:BLANDING AVE		PROJECT:AA46 SAMPLING METHOD:CONTINUOS CORE							
LOCATION: BLANDING AVE									
	BORING DEPT								
SB-11	WELL CASING	:Temporary 1"	sch 40 PVC						
B/ana	CO./STATE:ALAMEDA WELL SCREEN:								
CO./STATE:ALAMEDA CO./STATE:ALAMEDA DRILLER:ECA	SAND PACK:								
I MATERIEVE	8.19'	7.57	6.50'						
SAMPLE INTERVAL GRAPHIC GRAPHI	09:30	09:47	10:10						
MELLO TES SAMPLE NUMBER OF THE STABILIZED TO SAMPLE NUMBER OF THE STABILIZED TO SAMPLE NUMBER OF THE STABILIZED TO SAMPLE NUMBER OF THE	10/28/98	10/28/98	10/28/98						
CONTINUITE INTERVAL SAMPLE NUMBER OBENTH O	OGGED BY:DR								
V V C C C C C C C C C C C C C C C C C C									
Fill 3"-5,5'; Fill: base	ock-native-debris to clayey fines; 8	s; silty to clayey : 35% sand	sand; olive						
	to clayey inies, c	30,75 54.1.5	ì						
	lay: greenish gra	v· 85% moderate	e plasticity						
6 - September 159	6 sand; some iron	n-oxide staining	as veinlets						
		•• ••							
L ' -		_							
W 1.0 SB-11 40 11 Increase in	sand content to	20-25%; fine sa	nd						
0.3 0.3 @13':25% fine s	and; occasional s enish gray; trace	sand stringers at	nes: fine sand						
03 14-15' AST. Dettern of 5		clayey to sitty in							
14 - 15: Bottom of 8	omig	•							
30 ++-									
_									

Г		00	ΛT1	ON MA	p I		REMEDIATION RISK MANAGEMENT, INC. WELL/BORING:SB-12											
	WEL	N DRC	KIN	GL	.00.	AII	ON WA	,	DATE:		_				DRILLING METHOD:GEOPROBE			
-		1		7				}	PROJE						SAM	PLING METH	OD:CONTINU	OS CORE
١								ŀ	CLIEN						BOR	ING DIAMETE	R:2"	
1	`		L_	J'				İ	LOCA				VG AV	/E.		ING DEPTH:-		
			\		Ε-	-9		Ì		LAME	_				WEL	L CASING:Te	mporary 1" sc	h 40 PVC
~	В	LAND	DING	\	SB-	12				TATE:		MEI	DA .		WEL	L SCREEN:		
		AV				\				ER:CA					SAN	D PACK:		
١						111	<u>`</u>	1		WATER LEVEL: 4.63'								
	14/51 1 /5	~~"		7	STABILIZED	8	\F. \\	J J	SAMPLE NUMBER	ΞE	RECOVERY	<u>"</u> ₹	GRAPHIC	USCS SYMBOL	TIME:	11:35		
	WELL/B		אט אמ	FIRST	ME	ST	NSI	LD TE	AME JA BA	DEPTH (FEET)	lg.	SAMPLE	¥	S SY	DATE:	10/28/98		
	1			- 1	Y	MOISTURE	DENSITY BLOWS / ft.	FIELD TEST HNU	S Z		REC	_	5	nsc	DESCRIPTION/LOGG	ED BY:DR		
				X.	-		р						∞		Planter Fill Top Soil; s	ilty to clayey sa	nd; olive brown	,
			-				,						$\otimes\!\!\!\!\otimes$		Plainer i in 10p com	,, .,		
						۵			SB-12	2-			$\otimes\!$	Fill				
	E	≣│							2-3'	4-	_		$\times\!\!\times\!\!\times$					
		VI			¥					Ì	-	.						909/ Fpos:
	- E	ΞΪ				М		1.0	SB-12 6-7'	6-	-			CL	4-12.5':Sandy Clay: da 20% fine sand	ark grayish brow	n; low plasticity	00% ilies.
	- P	N					İ	1	SB-12						2575 11115 52112			
-	- -	Γ	_					1.0	7-8'	8-	-	ı			@9':Sandy Clay: olive	vellow:: low-pla	sticity 80% fine	s; 25%
		3	_						İ	10-	-	-			fine sand			
		₹				М			1		-	B			@11':Sandy Clay: gre 20% fine sand	enish gray; low	plasticity 60% i	ines,
	- 0	0	_					1.0		12			1 555	sc		nd; greenish gr	y; 25% fines; 7	5% sand
	-	U				VM	1	l	SB-12						14.5-15': Sand; green			
	- ·	T	_			1		1.0	14-15'	14		.	******	SP	15': Bottom of Boring			,
			_				j			16	+	+	- }					
			_	-							+	+	1					
	F		-	-						18	十	+	7					
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										44							·	

PROJECT: PARK STREET LANDING Alameda, California						Log of Boring No. GWS-7A					
							ELEVATION A				
					thwest corner by canal		Gravel sidewalk DATE STARTED: 4/24/95 DATE FINISH				
DRILLI	RILLING CONTRACTOR: Precision Sampling							H:	MEASURIN		
DRILLI	RILLING METHOD: Direct push							FIRST	Ground s	urface 24 HRS.	
DRILLII	NG E	QUI	PMEI	NT: X	(D-3		DEPTH TO WATER LOGGED BY:		1		
SAMPL	ING I	ME	HOD	: En	viro Core System		S. L. Anich		<u> </u>	REG. NO.	
HAMM	ER W	EIG	HT:		DROP:		A. L. Spend	E PROFESSI er	ONAL:	RG 5713	
(feet)	SAN No.		Blows/ Soot	PID Reading (ppm)	DES NAME (USCS Symbol): color, moist, % by wt., plas	DESCRIPTION S Symbol): color, moist, % by wt., plast., density, structure, cementation, react. w/HCl, geo. Inter.					
<u>ā</u>)	g Z	Sa	g r.	PiO		Elevation:					
1-		$\left\langle \right\rangle$			Gravel sidewalk CLAYEY SAND (SC)			-	د:		
2-					Very dark grayish brown (10 sand, 30% low plasticity fine	s, 10% small gr	avel, loose	<u></u>			
3-					Gray concrete and brick frag						
4 -					GRANULAR MATERIAL Black (7.5YR 2.5/1), moist, 6 low plasticity fines, 5% small	60% fine to med I gravel, loose	ium grains,	35% -			
5 -								-			
6 -					Refusal at 6 feet bgs			-			
7 -								-			
8 -								-			
9-								-			
- 10 -								-			
-									1		
11 -	-								-		
12 -									-		
13 -											
-	1									B-1 (11/9	
14 -		_			Geomatrix Consultants		Pr	oject No. 243	6.02	Figure	

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ROJECT: PARK ST Alameda,	REET LANDING California		Boring No	. GWS-7B			
		ELEVATION AND Gravel sidewa	lk				
	Northwest corner by canal	DATE STARTED 4/24/95		INISHED:			
RILLING CONTRACTO	DR: Precision Sampling	TOTAL DEPTH:	MEASL	JRING POINT: d surface			
RILLING METHOD: [irect push	6 feet DEPTH TO	FIRST COMP				
RILLING EQUIPMENT	: XD-3	WATER LOGGED BY:		<u> </u>			
AMPLING METHOD:	Enviro Core System	S. L. Anich	PROFESSIONAL:	REG. NO.			
AMMER WEIGHT:		A. L. Spencer		RG 5713			
SAMPLES		ON /, structure, cementation, react. w/HCl,	geo, inter.	REMARKS			
Sample Sample Blows/ Foot	Surface Elevati						
1-	CLAYEY SAND (SC) Very dark grayish brown (10Y 3/2 sand, 30% low plasticity fines, 10s Gray concrete / brick GRANULAR MATERIAL Black (7.5YR 2.5/1), moist, 60% f low plasticity fines, 5% small grav Refusal at 6 feet bgs	ine to medium grains, 3	5%				
11 -							
1 1 1			1 1				
-				B-1 (1			

Compatrix Consultants Project No. 2436.02 Figure	PROJECT: PARK STR Alameda, C		Log of Boring	g No. GWS-7
DRILLING CONTRACTOR: Precision Sampling Al 24/395 DRILLING METHOD: Direct push DRILLING METHOD: Direct push DRILLING EQUIPMENT: XD-3 SAMPLING EQUIPMENT: XD-3 SAMPLING METHOD: Enviro Core System DRICE SAMPLING METHOD: Enviro Core System DROP: DROP: DROP: DROP: DESCRIPTION RESPONSIBLE PROFESSIONAL: REG. NO. R. R. R. R. R. R. R.	BORING LOCATION: No	rthwest corner of property	Gravel sidewalk	
DRILLING METHOD: Direct push DRILLING EQUIPMENT: XD-3 SAMPLING EQUIPMENT: XD-3 SAMPLING EQUIPMENT: XD-3 SAMPLING METHOD: Enviro Core System DRIP : DROP: DROP: DROP: DESCRIPTION RESPONSIBLE PROFESSIONAL: REG. NO. RG 5713 NAME (USCS 5ymbol): sold; nick, 1s by vt., part, draise), and other commandation, read, wifk(1, pon. inex.) REMARKS DESCRIPTION A. L. Spencer RESPONSIBLE PROFESSIONAL: REG. NO. RG 5713 NAME (USCS 5ymbol): sold; nick, 1s by vt., part, draise), and this, commandation, read, wifk(1, pon. inex.) REMARKS REMARKS DESCRIPTION A. L. Spencer REMARKS REMARKS CLAYEY SAND (SC) Very dark grayish brown (10YR 3/2), dry, 60% meditum sand, 30% low plasticity fines, 10% small gravel, loose GRANULAR MATERIAL Black (7.5YR 2.5/11), loose, dry CLAYEY SAND (SC) Light olive brown (2.5Y 5/3), dry, 60% fine to meditum sand, 35% low plasticity fines, 5% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fines, 5% small gravel, loose LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 80% fines, 20% sand, low plasticity, hard LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, high plasticity, hard LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, high plasticity, medium plasticity REMARKS	DRILLING CONTRACTOR	: Precision Sampling	4/24/95	4/24/95 1000 hrs.
DESCRIPTION AMPLES SAMPLES	DRILLING METHOD: Dire	ect push	15 feet	Ground surface
SAMPLES PORSIBLE PROFESSIONAL: RES. No. A. L. Spencer RESPONSIBLE PROFESSIONAL: RG 5713 A. L. Spencer RESPONSIBLE PROFESSIONAL: RG 5713 A. L. Spencer RG Symbols color, made, % by wt., past, denies, structure, censeration, mact. w/MCL gen. inter. CLAYEY SAND (SC) Very dark gray/sish brown (10YR 3/2), dry, 60% medium sand, 30% low plasticity fines, 10% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3), dry, 60% fine to medium sand, 35% low plasticity fines, 5% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 80% fines, 20% sand, low plasticity, soft LEAN CLAY (CL) Black (10YR 4/1), wet, 95% fines, 5% sand, high plasticity, hard LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity fines and production of the protection. 2456 82 Figure - 10 Regree - 10 Re	DRILLING EQUIPMENT:	XD-3	WATER bgs 9 feet	•
PEMARKS DESCRIPTION SAMPLES Samples Samples Samples Samples Samples Samples Samples Samples Samples Samples Surface Elevation: CLAYEY SAND (SC) Light olive brown (10YR 3/2), dry, 60% medium sand, 30% low plasticity fines, 10% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 80% fines, 20% sand, low plasticity, soft LEAN CLAY (CL) Black (10YR 4/1), wet, 95% fines, 5% sand, high plasticity, hard LEAN CLAY (CL) Creenish gray gley (56 5/1), moist, 95% fines, 5% sand, medium plasticity REMARKS REMAR	SAMPLING METHOD: Er	nviro Core System	S. L. Anich	NAL I REG NO
CLAYEY SAND (SC) Very dark grayish brown (10YR 3/2), dry, 60% medium sand, 30% low plasticity fines, 10% small gravel, loose GRANULAR MATERIAL Black (7.5YR 2.5/1), loose, dry CLAYEY SAND (SC) Light olive brown (2.5Y 5/3), dry, 60% fine to medium sand, 35% low plasticity fines, 5% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 80% fines, 20% sand, low plasticity, soft LEAN CLAY (CL) Black (10YR 4/1), wet, 95% fines, 5% sand, high plasticity, hard LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity Received No. 2436 02 Figure	HAMMER WEIGHT:	DROP:		
CLAYEY SAND (SC) Very dark grayish brown (10YR 3/2), dry, 60% medium sand, 30% low plasticity fines, 10% small gravel, loose GRANULAR MATERIAL Black (7.5YR 2.5/1), loose, dry CLAYEY SAND (SC) Light olive brown (2.5Y 5/3), dry, 60% fine to medium sand, 35% low plasticity fines, 5% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 80% fines, 20% sand, low plasticity, soft LEAN CLAY (CL) Black (10YR 4/1), wet, 95% fines, 5% sand, high plasticity, hard LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity Received No. 2436 02 Figure	(feet) mple No. No. Nows/ Coot Soot (ppm)	DESCRIPTION NAME (USCS Symbol): color, moist, % by wt., plast., density, structure, c	ementation, react. w/HCl, geo. inter:	REMARKS
Very dark grayish brown (10YR 3/2), dry, 60% medium sand, 30% low plasticity fines, 10% small gravel, loose GRANULAR MATERIAL Black (7.5YR 2.5/1), loose, dry CLAYEY SAND (SC) Light olive brown (2.5Y 5/3), dry, 60% fine to medium sand, 35% low plasticity fines, 5% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 80% fines, 20% sand, low plasticity, soft LEAN CLAY (CL) Black (10YR 4/1), wet, 95% fines, 5% sand, high plasticity, hard LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity Screenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity Figure	Sal Sal D			
GRANULAR MATERIAL Black (7.5YR 2.5/1), loose, dry CLAYEY SAND (SC) Light olive brown (2.5Y 5/3), dry, 60% fine to medium sand, 35% low plasticity fines, 5% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 80% fines, 20% sand, low plasticity, soft LEAN CLAY (CL) Black (10YR 4/1), wet, 95% fines, 5% sand, high plasticity, hard LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity Protect No. 2496 02 Figure		Very dark grayish brown (10YR 3/2), dry,	60% medium gravel, loose	
Black (7.5YR 2.5/1), loose, dry CLAYEY SAND (SC) Light olive brown (2.5Y 5/3), dry, 60% fine to medium sand, 35% low plasticity fines, 5% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 80% fines, 20% sand, low plasticity, soft LEAN CLAY (CL) Black (10YR 4/1), wet, 95% fines, 5% sand, high plasticity, hard LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity Brolect No. 2456 02 Figure		, OCANIII AD MATERIAL		
Light olive brown (2.57 5/3), dry, 60% fine to medium sand, 35% low plasticity fines, 5% small gravel, loose CLAYEY SAND (SC) Light olive brown (2.57 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 80% fines, 20% sand, low plasticity, soft LEAN CLAY (CL) Black (10YR 4/1), wet, 95% fines, 5% sand, high plasticity, hard LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity Protect No. 2436.02 Figure	3 -		/	
CLAYEY SAND (SC) Light olive brown (2.5Y 5/3) with brick fragments, moist, 60% fine sand, 35% low plasticity fines, 5% small gravel, loose LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 80% fines, 20% sand, low plasticity, soft LEAN CLAY (CL) Black (10YR 4/1), wet, 95% fines, 5% sand, high plasticity, hard LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity B1 (104) Project No. 2436 92 Figure —		Light olive brown (2.5Y 5/3), dry, 60% fine	to medium gravel, loose	
Black (10YR 2/1), moist, 80% fines, 20% sand, low plasticity, soft 10 - 1-inch lense of coarse gravel LEAN CLAY (CL) Black (10YR 4/1), wet, 95% fines, 5% sand, high plasticity, hard LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity Black (10YR 4/1), wet, 95% fines, 5% sand, high plasticity, hard Comparison of the comparison of	6 -	Light olive brown (2.5Y 5/3) with brick frag 60% fine sand, 35% low plasticity fines, 5	ments, moist, % small gravel,	
LEAN CLAY (CL) Black (10YR 4/1), wet, 95% fines, 5% sand, high plasticity, hard LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity B-1 (116) B-1 (116) Figure	9 -	Black (10YR 2/1), moist, 80% fines, 20%	sand, low	
Black (10YR 4/1), wet, 95% fines, 5% sand, high plasticity, hard LEAN CLAY (CL) Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity B-1 (11/4) B-1 (11/4) B-1 (11/4) Figure				
Greenish gray gley (5G 5/1), moist, 95% fines, 5% sand, medium plasticity B-1 (11/4) B-1 (11/4) B-1 (11/4) B-1 (11/4)	12 -	Black (10YR 4/1), wet, 95% fines, 5% sar hard	nd, high plasticity,	
Compatrix Consultants Project No. 2436.02 Figure		Greenish gray gley (5G 5/1), moist, 95% (ines, 5% sand,	B-1 (11/92)
1 /4 M I / 1 I I 1 1 1 1 1 1 1 1	2438.02.018	Geomatrix Consultants	Project No. 2436.0	

PROJE	ECT:	P,	ARK ame	STRI da, C	EET LANDING alifornia	Log of Borin	g No. G	WS-7 (cont.)
DEPTH (feet)	Sample No.	MPL		OVM Reading	DESCR NAME (USCS Symbol): color, moist, % by wt., plast, d	PTION ensity, structure, cementation, react. w/HCl.	, geo. inter.	REMARKS
<u> </u>	Sar	Sar	¥	CC.	LEAN CLAY (CL) (continued)			
-					Orange mottling			
15					Bottom of boring at 15 feet bgs			
16								
_								
17-								
-								
18-							-	
19-								-
-	1				•			
20-	1							
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PROJECT: PARK STRE Alameda, Ca		Log of Borir	g No. GWS-8
	ewalk, northwest corner	ELEVATION AND DATUM: Grassy area	
DRILLING CONTRACTOR:		DATE STARTED: 4/24/95	DATE FINISHED: 4/24/95 - 1130 hrs
DRILLING METHOD: Direct		TOTAL DEPTH:	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: X		DEPTH TO FIRST WATER	COMPL. 24 HRS. 9' 0"
SAMPLING METHOD: Env		LOGGED BY: S. L. Anich	1 30 1
HAMMER WEIGHT:	DROP:	RESPONSIBLE PROFESSION A. L. Spencer	ONAL: REG. NO. RG 5713
DEPTH (faet) Sample No. Sample Blows/ M Foot M (pm)	DESCRIPTION NAME (USCS Symbol): color, moist, % by wt., plast., density, struct Surface Elevation:		REMARKS
- m m = =	Sunace Elevation:		N
- \/			No recovery in upper 2 feet
1-			
			·
	CLAYEY SAND (SC) Very dark gray (10YR 3/1) with abunda	ent organics (roots.	
3	grass), moist, 65% medium sand, 25%	low plasticity fines,	
	10% fine to coarse gravel, loose	-	
4-		_	
<u> </u>			
5		-	
		-	
6-	Increased sand content to 80%, 20%		
	▼	꼭 -	
7-		-	
	LEAN CLAY with SAND (CL)		
8-	Black (10YR 2/1), moist, 75% fines, 25	% fine sand, low	
	plasticity		
9	LEAN CLAY (CL)	50/ 50 a cond low 5	
	Greenish gray (10GY 5/1), moist, 95% plasticity	fines, 5% fine sand, low	
10-	p.a.c.i.,	-	
		-	
		-	
12 -		-	
'-	TT .	-	
13	'	-	
· M		-	
14			B-1 (11/92)
2436.02.018	Geomatrix Consultants	Project No. 2436	.02 Figure

-8 (cont.)	Log of Boring No. GWS-	ET LANDING alifornia	STREI da, Ca	RK S	T: PA	ROJE
REMARKS	TION ity, structure, cementation, react. w/HCl, geo. inter.	DESCRIF NAME (USCS Symbol): color, moist, % by wt., plast., der	OVM - Reading	ES	Sample Samble	(feet)
		LEAN CLAY (CL) (continued) Increase sand content to 20%		<u> </u>	T X	
	green and brown mottling,	CLAYEY SAND (SC) Light olive brown (2.5Y 5/4) with moist, 60% fine sand, 40% low				15
		Bottom of boring at 16 feet bgs				16 - - 17 -
						18-
	. - - - - - - - - -					- 19
		•				20
						21
						22
						23
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						25
						26
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						25
					 	3
8-2 (1						3
Figure	Project No. 2436.02	Geomatrix Consultants				

BORING LOCATION: Along canal - middle Slewark (grave) DRILLING CONTRACTOR: Precision Sampling 424/95 DRILLING METHOD: Direct push 16 Fact 16 feet Ground surface Ground Surface Ground Surface Ground Ground Surface Ground Ground Surface Ground Ground Surface Ground Grou	PROJECT: PARK STRE Alameda, Ca	ET LANDING	Log of Bori	ng No. GWS-9
DRILLING CONTRACTOR: Precision Sampling A24/95 DRILLING METHOD: Direct push DRILLING METHOD: Direct push DRILLING EQUIPMENT: XD-3 SAMPLING WETHOD: Enviro Core System DESCRIPTION A. L. Spencer B. SAMPLES S. SAMPLES				
DEFILLING EQUIPMENT: XD-3 SAMPLING METHOD: Direct push DEFILLING EQUIPMENT: XD-3 SAMPLING METHOD: Enviro Core System SL Anich HAMMER WEIGHT: — DROP: — DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION SAMPLES S SAMPLES S S SAMPLES S S SAMPLES S S SAMPLES S S SAMPLES S S S S S S S S S S S S S S S S S S			DATE STARTED:	DATE FINISHED: 4/24/95 - 1330 hrs
DRILLING EQUIPMENT: XD-3 SAMPLING EQUIPMENT: XD-3 SAMPLING METHOD: Enviro Core System S.L. CANICH S.L. ARICH RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. REMARKS DESCRIPTION SAMPLES REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. REMARKS SEMPLES SAMPLES SAMPLES SAMPLES SAMPLES SAMPLES SAMPLES SAMPLES SAMPLES SAMPLES REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. RESPONSIBLE PROFESSIONAL: REG. NO. REMARKS SUMMER LEGOTOR REMARKS SAMPLES SAMPLES SAMPLES SAMPLES SAMPLES REMARKS REMARKS REMARKS REMARKS REMARKS NO recovery in upper 3 feet 1 feet 1 feet 1 feet 1 feet 1 feet 1 feet 1 feet 1 feet			TOTAL DEPTH:	MEASURING POINT:
SAMPLING METHOD: Enviro Core System S.L. Anich RESPONSIBLE PROFESSIONAL: REG.NO. REMAFICE SALE PROFESSIONAL: REG.NO. REMAFICE SALE PROFESSIONAL: REG.NO. REMAFICE SALE PROFESSIONAL: REG.NO. REMAFICE SALE PROFESSIONAL: REG.NO. REMAFICE SALE PROFESSIONAL: REG.NO. REMAFICE SALE PROFESSIONAL: REG.NO. REMAFICE SALE PROFESSIONAL: REG.NO. REMAFICE SALE PROFESSIONAL: REG.NO. REMAFICE SALE PROFESSIONAL: REG.NO. REMAFICE SALE PROFESSIONAL: REG.NO. REMAFICE SALE PROFESSIONAL: REG.NO. REMA			DEPTH TO FIRST	
HAMMER WEIGHT: — DROP: — RESPONSIBLE PROFESSIONAL: REG. NO. RG 5713 DROP: — A. L. Spencer SAMPLES Symbol: Symbol: color, modal. % by wt., plast, demails, structure, centeration, react windt. spo. Inter. SAMPLES Symbol: Symbol: color, modal. % by wt., plast, demails, structure, centeration, react windt. spo. Inter. PE SAMPLES Symbol: color, modal. % by wt., plast, demails, structure, centeration, react windt. spo. Inter. REG. NO. RG 5713 DESCRIPTION Surface Elevation: No recovery in upper 3 feet CLAYEY SAND with GRAVEL (CL) Very dark gray (10YR 3/1), dry, 60% fines, 25% fine to medium sand, 15% medium gravel, low plasticity fines, 15% fine gravel, loose CLAYEY SAND with GRAVEL (SC) Very dark gray (10YR 3/1), calcium deposits, dry, 60% fine to medium sand, 25% low plasticity fines, 15% fine sand, low plasticity Increase sand content to 80% LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 85% fines, 15% fine sand, low plasticity Increase sand content to 30% LEAN CLAY (CL) Greenish gray (10QY 5/1), moist, 95% fines, 5% fine sand, low plasticity Increase sand content to 30% LEAN CLAY (CL) Greenish gray (10QY 5/1), moist, 95% fines, 5% fine sand, low plasticity Increase sand content to 30% LEAN CLAY (CL) Greenish gray (10QY 5/1), moist, 95% fines, 5% fine sand, low plasticity Increase sand content to 30%			LOGGED BY:	
DESCRIPTION NAME (USCS Symbol): color, male, % by wt., plast, cannel part of the part of			RESPONSIBLE PROFESS	SIONAL: REG. NO.
SANDY LEAN CLAY with GRAVEL (CL) Very dark gray (10YR 3/1), dry, 60% fines, 25% fine to medium sand, 15% medium gravel, low plasticity CLAYEY SAND with GRAVEL (SC) Very dark gray (10YR 3/1), calcium deposits, dry, 60% fine to medium sand, 25% low plasticity fines, 15% fine gravel, loose Increase sand content to 80% LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 85% fines, 15% fine sand, low plasticity Increase sand content to 30% LEAN CLAY (CL) Greenish gray (10GY 5/1), moist, 95% fines, 5% fine sand, low plasticity Orange mottling			A. L. Spencer	; RG 5/13
SANDY LEAN CLAY with GRAVEL (CL) Very dark gray (10YR 3/1), dry, 60% fines, 25% fine to medium sand, 15% medium gravel, low plasticity CLAYEY SAND with GRAVEL (SC) Very dark gray (10YR 3/1), calcium deposits, dry, 60% fine to medium sand, 25% low plasticity fines, 15% fine gravel, loose Increase sand content to 80% LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 85% fines, 15% fine sand, low plasticity Increase sand content to 30% LEAN CLAY (CL) Greenish gray (10GY 5/1), moist, 95% fines, 5% fine sand, low plasticity Orange mottling	SAMPLES EN (E)	DESCRIPT NAME (USCS Symbol): color, moist, % by wt., plast, densi	TION ity, structure, cementation, react, w/HCI, geo. inter.	REMARKS
SANDY LEAN CLAY with GRAVEL (CL) Very dark gray (10YR 3/1), dry, 60% fines, 25% fine to medium sand, 15% medium gravel, low plasticity CLAYEY SAND with GRAVEL (SC) Very dark gray (10YR 3/1), calcium deposits, dry, 60% fine to medium sand, 25% low plasticity fines, 15% fine gravel, loose Increase sand content to 80% LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 85% fines, 15% fine sand, low plasticity Increase sand content to 30% LEAN CLAY (CL) Greenish gray (10GY 5/1), moist, 95% fines, 5% fine sand, low plasticity Orange mottling Increase sand content to 30%	Samp Samp Samp Blow Foo	Surface Eleva		
14	2- 3- 3- 4- 5- 6- 7- 8- 8- 10- 11- 12- 13-	Very dark gray (10YR 3/1), dry, 6 medium sand, 15% medium grav CLAYEY SAND with GRAVEL (Solvery dark gray (10YR 3/1), calcium edium sand, 25% low plasticity loose Increase sand content to 80% LEAN CLAY with SAND (CL) Black (10YR 2/1), moist, 85% find plasticity Increase sand content to 30% LEAN CLAY (CL) Greenish gray (10GY 5/1), moist low plasticity Orange mottling	ines, 25% fine to yel, low plasticity SC) um deposits, dry, 60% fine to fines, 15% fine gravel, ———————————————————————————————————	3 feet
	14	Geomatrix Consultants	Project No. 24	1 _,

Log of Boring No. GWS-9 (cont.) PROJECT: PARK STREET LANDING Alameda, California SAMPLES OVM Reading REMARKS DESCRIPTION NAME (USCS Symbol): color, moist, % by wt., plast., density, structure, cementation, react. w/HCl, geo. inter. Blows/ Foot LEAN CLAY (CL) (continued) CLAYEY SAND (SC) 15 Greenish gray (10Y 5/1) with orange mottling, moist, 60% fine sand, 40% low plasticity fines 16 Bottom of boring at 16 feet bgs 17 18 19 20 21 22 23 24 25 26 27 28 29 30 B-2 (11/92) Project No. 2436.02 Figure -**Geomatrix Consultants** 2436.02.021

ROJECT: PARK STREI Alameda, Ca	ET LANDING lifornia		g No. GWS-10
ORING LOCATION: Alon		ELEVATION AND DATUM: Gravel sidewalk	
		DATE STARTED: 4/24/95	DATE FINISHED: 4/24/95 - 1430 hrs
RILLING CONTRACTOR:		TOTAL DEPTH:	MEASURING POINT: Ground surface
RILLING METHOD: Direct	ct push	16 feet DEPTH TO FIRST	COMPL. 24 HRS.
RILLING EQUIPMENT: X	(D-3	LOGGED BY:	
AMPLING METHOD: Env	viro Core System	S. L. Anich RESPONSIBLE PROFESS	SIONAL: REG. NO.
HAMMER WEIGHT:	DROP:	A. L. Spencer	RG 5713
Sample No. Sample Blows/ Sample Foot (ppm)	DESCRIPTI NAME (USCS Symbol): color, moist, % by wt., plast, density	TON y, structure, cementation, react. w/HCl, geo. inter.	REMARKS
Sample No. Sample Blows/ Foot (ppm)	Surface Elevati		-
-	CLAYEY SAND (SC) Very dark gray (10YR 3/1), moist, plasticity fines, 5% fine to coarse some states of the sa	fines, 30-40% fine to coarse oderate amount yellow to fines, 10-20% fine to coarse ticity, firm	T
1111111			8-1 (11/4
2436.02.022	Geomatrix Consultants	Project No. 2	2436.02 Figure —

PROJECT: PARK STREET LANDING Log of Boring No. GWS-10 (cont.) Alameda, California SAMPLES OVM Reading DESCRIPTION Sample No. Sample Blows/ Foot REMARKS NAME (USCS Symbol): color, moist, % by wt., plast., density, structure, cementation, react. w/HCl, geo. Inter. LEAN CLAY (CL) (continued) 120d 15 POORLY GRADED SAND WITH CLAY (SP - SC) Gray (N5/), moist, 90% fine to medium sand, 10% low plasticity fines, loose 16 Bottom of boring at 16 feet bgs 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 B-2 (11/92) Project No. 2436.02 Figure --**Geomatrix Consultants** 2436.02.023

PROJECT: PARK Alam	eda, Ca		ELEVATION AND DATU	ing No. GWS-11
BORING LOCATIO	N: Alor	g canal - southeast side	Gravel sidewalk	
DRILLING CONTR	ACTOR:	Precision Sampling	DATE STARTED: 4/24/95	DATE FINISHED: 4/24/95 - 1530 hrs
DRILLING METHO	D: Dire	et push	TOTAL DEPTH: 16 feet	MEASURING POINT: Ground surface
DRILLING EQUIPM	ENT: X	D-3	DEPTH TO FIRST WATER	COMPL. 24 HRS.
		riro Core System	LOGGED BY: S. L. Anich	
HAMMER WEIGHT		DROP:	RESPONSIBLE PROFES	SSIONAL: REG. NO. RG 5713
CAMPLES		DESCRIPTION		
Sample No. Sample Sample Blows/	 18 1	NAME (USCS Symbol): color, moist, % by wt., plast., density, struct	ture, cementation, react. w/HCl, geo. inter.	REMARKS
Sal Sal	<u> </u>	Surface Elevation: GRAVEL SIDEWALK		
1- 1- 2- 3- 3- 4- 5- 6-	1300	SANDY LEAN CLAY (CL) Very dark grayish brown (10YR 3/2), n fine to coarse sand, 10% subangular g soft Increase organic content, wood frag	gravel, low plasticity,	No recovery in upper 1 1/2 feet
7 - 8 - 9 -	50	Black (10YR 2/1) with tan mottling, motine to coarse sand, trace fine to coarse medium hard LEAN CLAY (CL) Bluish gray (10B 6/1), moist, 90% fine coarse sand, low plasticity, firm	se gravel, low plasticity,	-
10 -	50	Color change to pale olive with gree	n and orange mottling	
14		Geomatrix Consultants	Project No. 2	8-1 (11 436.02 Figure

PROJECT: PARK STREET LANDING Log of Boring No. GWS-11 (cont.) Alameda, California SAMPLES OVM Reading DESCRIPTION REMARKS NAME (USCS Symbol): color, moist, % by wt., plast, density, structure, cementation, react. w/HCl, geo. inter. SANDY LEAN CLAY (CL) 100 Greenish gray (10Y 5/1), moist, 60% fines, 40% fine to coarse sand, low plasticity, firm 15 CLAYEY SAND (SC) Dark bluish gray (10B 4/1), moist, 70% fine to coarse sand, 16 30% low plasticity fines, dense Bottom of boring at 16 feet bgs 17 18 19 20 21 22: 23 24 25 26 27 28 29: 30. 31 B-2 (11/92) Project No. 2436.02 Figure ---**Geomatrix Consultants** 2436.02.025

PROJEC				ET LANDING alifornia	Log of Bori	ing No.	GWS-12
					ELEVATION AND DATU	M:	
. ,				ng canal - southeast side	Gravel sidewalk DATE STARTED:	DATE FINIS	
DRILLIN	IG CO	NTRAC	TOR:	Precision Sampling	4/24/95 TOTAL DEPTH:	4/24/95 - MEASURIN	
DRILLIN	IG ME	THOD:	Dire	ct push	16 feet DEPTH TO FIRST	Ground s	urface 124 HRS.
DRILLIN	NG EQ	UIPME	NT: >	(D-3	WATER	1	1
SAMPL	ING M	ETHOD	: En	viro Core System	LOGGED BY: S. L. Anich		T 550 NO
НАММЕ	R WE	IGHT:		DROP:	RESPONSIBLE PROFE A. L. Spencer	SSIONAL:	REG. NO. RG 5713
(feet)	Sample Sa		PID Reading (ppm)	DESCRIPTION NAME (USCS Symbol): color, moist, % by wt., plast., density, structure.	cementation, react. w/HCl, geo. inter.	RI	EMARKS
م م	Z ES	음교	₽	Surface Elevation:			
1						No recove 2 1/2 fee	ery in upper t
3-				CLAYEY SAND (SC) Dark gray (7.5YR 4/1), moist, 70% fine to low plasticity fines, 5% rounded and subamedium density, glass fragments	coarse sand, 25% angular gravel,		***
5 - 6 -				▼ Increase in low plasticity fines to 30% White "chalky" mottling or inclusions			•
7-	\ \ \ \		700	WELL-GRADED SAND (SW) Light olive brown (2.5Y 5/3), moist, 95% 5% low plasticity fines, loose	fine to coarse sand,	-	
9-				Color change to very dark gray (2.5Y 3 plasticity fines to 20%	3/1), increase low		
11-			50	LEAN CLAY with SAND (CL) Olive (5Y 5/4) with green mottling, moist fine to medium sand, low plasticity, soft			
12 -				Increase sand content to 30% with ora	inge mottling		
13 -				CLAYEY SAND (SC) Olive (5Y 5/4) with green and orange mo 65% fine to coarse sand, 35% low plasti	ottling, very moist, city fines		8-1 (11/92)
14 -				Geomatrix Consultants	Project No.	2436.02	Figure
2436.02	.026			Geomatik Consultants			

Log of Boring No. GWS-12 (cont.) PROJECT: PARK STREET LANDING Alameda, California DEPTH (feet) DESCRIPTION Sample No. Sample REMARKS NAME (USCS Symbol): color, moist, % by wt., plast., density, structure, cementation, react. w/HCl, geo. inter. CLAYEY SAND (SC) (continued) Increase sand content to 80% and color change to greenish 15 gray (10GY 5/1) 16 Bottom of boring at 16 feet bgs 17 181 19 20 21 22 23 24 25 26

Geomatrix Consultants

B-2 (11/92)

Figure -

Project No. 2436.02

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2438.02.027

Geomatrix Consultants Project No. 2436.02 Figure	PROJECT: PARK STREET LAND Alameda, California	ING		ng No. GWS-13
DRILLING CONTRACTOR: Precision Sampling 4/25/95 (1045 hrs. 4/25/95 hrs. 4/25/95 (1045 hrs. 4/25/95	BORING LOCATION: Along Blandin	g Ave., N side of driveway, next to bldg	Vegetated area	<u> </u>
DRILLING METHOD: Direct push DRILLING GOUPMENT: XD-3 SAMPLING METHOD: Enviro Core System DRICLING SOUPMENT: XD-3 SAMPLING METHOD: Enviro Core System DROP: NAME: USSCI Symbol) color. most, % by wt., sext. density, sext.tim, combination, mext. wind, sex. indic. DId not encounter petroleum-like odors; however, PID: readings were measured. No. recovery in upper 2 1/2 feet. DId not encounter petroleum-like odors; however, PID: readings were measured. No. recovery in upper 2 1/2 feet. DId not encounter petroleum-like odors; however, PID: readings were measured. No. recovery in upper 2 1/2 feet. Dark grayish brown (2.5Y 4/3) LEAN CLAY (CL) Dark greenish gray (100Y 4/1), moist, 70% fine to coarse sand, 30% low plasticity, firm CLAYEY SAND (SC) Dark greenish gray (100Y 4/1), moist, 90-95% fines, 5-10% fine to medium sand, low plasticity fines, dense LEAN CLAY (CL) Olive gray (SY 4/2), moist, 80% fines, 20% fine to coarse sand, 40% low plasticity fines, including 10% silt, medium dense LEAN CLAY (CL) Olive gray (SY 4/2), moist, 80% fines, 20% fine to coarse sand, 10% plasticity fines, including 10% silt, medium dense LEAN CLAY (CL) Olive gray (SY 4/2), moist, 80% fines, 20% fine to coarse sand, 10% plasticity fines, including 10% silt, medium dense LEAN CLAY (CL) Olive gray (SY 4/2), moist, 80% fines, 20% fine to coarse sand, 10% plasticity fines, including 10% silt, medium dense LEAN CLAY (CL) Olive gray (SY 4/2), moist, 80% fines, 20% fine to coarse sand, 10% plasticity fines, 10% silt, medium dense			4/25/95	4/25/95 - 1045 hrs
DRILLING ECUIPMENT: XD-3 SAMPLING METHOD: Enviro Core System IDROP:	DRILLING METHOD: Direct push			Ground surface
SAMPLING METHOD: Errytro Core System HAMMER WEIGHT: DROP: DESCRIPTION A. L. Spencer RESPONSIBLE PROFESSIONAL: REG. NO. A. L. Spencer RESPONSIBLE PROFESSIONAL: REG. NO. A. L. Spencer REMARKS REM	DRILLING EQUIPMENT: XD-3	·		COMPL. 24 HRS.
HAMMER WEIGHT: Comparison of the project of the project of the project No. 249.0.2 Project No. 249.0.2	SAMPLING METHOD: Enviro Core	System	S. L. Anich	
Did not encounter petroleum-like odors; however, PID readings were measured. No recovery in upper 2 1/2 feet. CLAYEY SAND (SC) Black (2.5Y 2.5/1), orange organic nodules, very moist, 60-70% fine to coarse sand, 30-40% low plasticity fines, loose Color change to olive brown (2.5Y 4/3) LEAN CLAY (CL) Dark grayish brown (2.5Y 4/2), organic nodules (roots, black nodules), moist, 80-90% fines, 10-20% fine to medium sand, low plasticity, firm Gravel content to 5% (medium, angular) CLAYEY SAND (SC) Dark greenish gray (10GY 4/1), moist, 70% fine to coarse sand, 30% low plasticity, firm CLAYEY SILT (ML) 'Greenish gray (10GY 5/1), moist, 90-95% fines, 5-10% fine to medium sand, low plasticity, firm CCLAYEY SAND (SC) Dark greenish gray (10Y 4/1), moist, 60 % fine to coarse sand, 40% low plasticity fines, including 10% slit, medium dense LEAN CLAY (CL) Olive gray (5Y 4/2), moist, 80% fines, 20% fine to coarse sand, low plasticity fines, including 10% slit, medium LEAN CLAY (CL) Olive gray (5Y 4/2), moist, 80% fines, 20% fine to coarse sand, low plasticity fines, including 10% slit, medium Freject No. 2496.62 Figure	HAMMER WEIGHT:	DROP:		
Did not encounter petroleum-like odors; however, PID readings were measured. No recovery in upper 2 1/2 feet. CLAYEY SAND (SC) Black (2.5Y 2.5/1), orange organic nodules, very moist, 60-70% fine to coarse sand, 30-40% low plasticity fines, loose Color change to olive brown (2.5Y 4/3) LEAN CLAY (CL) Dark grayish brown (2.5Y 4/2), organic nodules (roots, black nodules), moist, 80-90% fines, 10-20% fine to medium sand, low plasticity, firm Gravel content to 5% (medium, angular) CLAYEY SAND (SC) Dark greenish gray (10GY 4/1), moist, 70% fine to coarse sand, 30% low plasticity, firm CLAYEY SILT (ML) 'Greenish gray (10GY 5/1), moist, 90-95% fines, 5-10% fine to medium sand, low plasticity, firm CCLAYEY SAND (SC) Dark greenish gray (10Y 4/1), moist, 60 % fine to coarse sand, 40% low plasticity fines, including 10% slit, medium dense LEAN CLAY (CL) Olive gray (5Y 4/2), moist, 80% fines, 20% fine to coarse sand, low plasticity fines, including 10% slit, medium LEAN CLAY (CL) Olive gray (5Y 4/2), moist, 80% fines, 20% fine to coarse sand, low plasticity fines, including 10% slit, medium Freject No. 2496.62 Figure	(feet) Mointenance Coot Coot Coot Coot Coot Coot Coot Coo	SCS Symbol): color, moist, % by wt. plast, density, structure, cem	entation, react. w/HCl, geo. inter.	REMARKS
petroleum-like odors; however, PID readings were measured, No recovery in upper 2 1/2 feet. CLAYEY SAND (SC) Black (2.5Y 2.5/1), orange organic nodules, very moist, 60-70% fine to coarse sand, 30-40% low plasticity fines, loose Color change to olive brown (2.5Y 4/3) LEAN CLAY (CL) Dark grayish brown (2.5Y 4/2), organic nodules (roots, black nodules), moist, 80-90% fines, 10-20% fine to medium sand, low plasticity, firm Gravel content to 5% (medium, angular) CLAYEY SAND (SC) Dark greenish gray (10GY 4/1), moist, 70% fine to coarse sand, 30% low plasticity, firm Orange mottling and organic nodules, increasing clay content CLAYEY SAND (SC) Dark greenish gray (10Y 4/1), moist, 60 % fine to coarse sand, 40% low plasticity fines, including 10% slit, medium dense LEAN CLAY (CL) Olive gray (SY 4/2), moist, 80% fines, 20% fine to coarse sand, 40% low plasticity fines, including 10% slit, medium LEAN CLAY (CL) Olive gray (SY 4/2), moist, 80% fines, 20% fine to coarse sand, 40% low plasticity fines, including 10% slit, medium LEAN CLAY (CL) Olive gray (SY 4/2), moist, 80% fines, 20% fine to coarse sand, 40% low plasticity fines, including 10% slit, medium Central Consultants Project No. 2496.02 Figure	3	Surface Elevation:		- Did not encounter
CLAYEY SAND (SC) Dark greenish gray (10GY 4/1), moist, 70% fine to coarse sand, 30% low plasticity fines, dense CLAYEY SILT (ML) Greenish gray (5GY 5/1), moist, 90-95% fines, 5-10% fine to medium sand, low plasticity, firm Orange mottling and organic nodules, increasing clay content CLAYEY SAND (SC) Dark greenish gray (10Y 4/1), moist, 60 % fine to coarse sand, 40% low plasticity fines, including 10% silt, medium dense LEAN CLAY (CL) Olive gray (5Y 4/2), moist, 80% fines, 20% fine to coarse sand, low plasticity Geometric Consultants Project No. 2436.02 Figure — Geometric Consultants	2 - CLA Black 60-3 loos C LEA Dar nod	ck (2.5Y 2.5/1), orange organic nodules, 70% fine to coarse sand, 30-40% low place olor change to olive brown (2.5Y 4/3) NO CLAY (CL) k grayish brown (2.5Y 4/2), organic nodules), moist, 80-90% fines, 10-20% fine	ules (roots, black	however, PID readings were measured. No recovery in upper
CLAYEY SILT (ML) ' Greenish gray (5GY 5/1), moist, 90-95% fines, 5-10% fine to medium sand, low plasticity, firm Orange mottling and organic nodules, increasing clay content CLAYEY SAND (SC) Dark greenish gray (10Y 4/1), moist, 60 % fine to coarse sand, 40% low plasticity fines, including 10% silt, medium dense LEAN CLAY (CL) Olive gray (5Y 4/2), moist, 80% fines, 20% fine to coarse sand, low plasticity Geomatrix Consultants Project No. 2436.02 Figure	6 - CLA	AYEY SAND (SC) k greenish gray (10GY 4/1), moist, 70%		
11 190 CLAYEY SAND (SC) Dark greenish gray (10Y 4/1), moist, 60 % fine to coarse sand, 40% low plasticity fines, including 10% silt, medium dense LEAN CLAY (CL) Olive gray (5Y 4/2), moist, 80% fines, 20% fine to coarse sand, low plasticity Geometrix Consultants Project No. 2436.02 Figure	9 - 120 CL/ Gre mer	enish gray (5GY 5/1), moist, 90-95% findium sand, low plasticity, firm	es, 5-10% fine to	
sand, 40% low plasticity fines, including 10% silt, medium dense LEAN CLAY (CL) Olive gray (5Y 4/2), moist, 80% fines, 20% fine to coarse sand, low plasticity B-1 (11/92) Geometrix Consultants Project No. 2436.02 Figure	11 - 190 CL.	AYEY SAND (SC)		- - -
Geomatrix Consultants Project No. 2436.02 Figure	sar der LE.	nd, 40% low plasticity fines, including 10 nse AN CLAY (CL) ive gray (5Y 4/2), moist, 80% fines, 20%	% silt, medium	
	14		Project No. 24	8-1 (11/92) 436.02 Figure

PROJECT: PARK STREET LANDING Alameda, California Log O						Log of Borin	og of Boring No. GWS-13 (cont.)				
(feet)	SA No.	MBI		OVM Reading	DESCRI NAME (USCS Symbol): color, moist, % by wt., plast., de	PTION nsity, structure, cementation, react. w/H	ICI, gea, inter.	REMARKS			
15 16 17 18 19 20 - 21 - 22 - 23 - 24 - 24 - 24 - 24 - 24 - 24		Samp	Blow	O Bee	WELL-GRADED SAND with CL Dark greenish gray (10GY 4/1), sand, 40% low plasticity fines, is Color change to olive brown (Bottom of boring at 16 feet bgs	AY (SW-SC) moist, 90% fine to coar	se -				
25 - 26 · 27 · 28 · 29 · 30											
31	, 1							B-2 (11			
<u></u>					Geomatrix Consultants		Project No. 2436.02	Figure			

PROJECT: PARK		ET LANDING Ilifornia	Log of Borir	ng No. GWS-14
		g Blanding Ave., south side of driveway	ELEVATION AND DATUM: Vegetated area	
		Precision Sampling	DATE STARTED: 4/25/95	DATE FINISHED: 4/25/95 - 930 hrs
DRILLING METHOD			TOTAL DEPTH: 16 feet	MEASURING POINT: Ground surface
DRILLING EQUIPMI	ENT: X	D-3	DEPTH TO FIRST WATER	COMPL. 24 HRS.
SAMPLING METHO	D: Env	viro Core System	S. L. Anich	
HAMMER WEIGHT:		DROP:	RESPONSIBLE PROFESS A. L. Spencer	REG. NO. RG 5713
Sample Sa	PID Reading (ppm)	DESCRIPTION NAME (USCS Symbol): color, moist, % by wt., plast, density, strux	ture, cementation, react. w/HCl, geo. inter.	REMARKS
San San Sa	음	Surface Elevation:		
1-				Did not encounter petroleum-like odors; however, PID readings were measured. No recovery in upper 2 1/2 feet.
3 -		CLAYEY SAND (SC) Reddish black (10R 2.5/1), moist, 60-sand, 30-40% low plasticity fines, loos	70% fine to coarse	-
4 -	80	Increased sand content to 80-85%, (10YR 5/3)	color change to brown	
5 -		SANDY LEAN CLAY (CL) Light yellowish brown (2.5Y 6/4), mois to coarse sand, 10% fine gravel, low p	st, 60% fines, 30% fine plasticity, firm	1
7-		Color change to pale olive (5Y 6/4))	, increase fines to 75%	-
8 -		CLAYEY SAND (SC) Greenish gray (5G 5/1) with orange morganic pockets, moist, 60-70% fine to low plasticity fines, medium dense to	o coarse sand, 30-40%	
9 -	160	LEAN CLAY with SAND (CL) Olive (5Y 5/3) with orange mottling ar pockets (some roots), moist, 80% fine	nd black organic es (including silt), 20%	_
10 -	271	fine to medium sand, low plasticity, fir	m	
11 - -			포	
12 -	600	CLAYEY SAND (SC) Olive (5Y 5/6) with orange and black 60-70% fine to coarse sand, 30-40% medium dense	mottling, very moist, low plasticity fines,	
14]	25			8-1 (11/92)
2436.02.030		Geomatrix Consultants	Project No. 243	36.02 Figure

PROJECT: PARK STREET LANDING

Log of Boring No. GWS-14 (cont.)

SANPLES Section Sect	Alameda, California		ulifornia LC	Log of Boring No. ave 14 (or			
Dark greenish gray (5G 3/1), moist, 70% fines, 30% fine to coarse sand. Iow plasticity. dense WELL-GRADED SAND with CLAY (SW-SC) Olive (5Y 4/3), moist, 90% fine to coarse sand, 10% low plasticity fines, loose Bottom of boring at 16 feet bgs 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 30 - 30 - 30 - 30 - 30 - 30 - 3	(feet) ample No.	Slows/ STA Soot OVM Reading	DESCRIPTION NAME (USCS Symbol): color, moist, % by wt., plast., density, stru	icture, cementation, react. w/HCl, geo. Inter.	REMARKS		
Dissticity fines, loose Bottom of boring at 16 feet bgs	4	ω ω	Dark greenish gray (5G 3/1), moist, 7 coarse sand, low plasticity, dense	SW-SC)			
18- 19- 20- 21- 22- 23- 24- 25- 26- 27- 28- 29- 30-	16		plasticity fines, loose				
19- 20- 21- 21- 22- 23- 24- 25- 26- 27- 28- 29- 30-	17-			-			
20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 30 - 30 - 30 - 30 - 30 - 30 - 3	18						
21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 30 - 30 - 30 - 30 - 30 - 30 - 3	19						
22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 30 - 30 - 30 - 30 - 30 - 30 - 3	20		•	. -			
23- 24- 25- 26- 27- 28- 29- 30-	21						
24- 25- 26- 27- 28- 29- 30-	22			-			
25 - 25 - 26 - 27 - 28 - 29 - 30 - 30 - 30 - 30 - 30 - 30 - 30 - 3	23						
26 - 27 - 28 - 29 - 29 - 30 - 30 - 30 - 30 - 30 - 30 - 30 - 3	24-						
27 - 28 - 29 - 30 - 30 - 30 - 30 - 30 - 30 - 30 - 3	25						
28 - 29 - 30 - 30 - 30 - 30 - 30 - 30 - 30 - 3	26		·				
29-	27 -						
30-	28 -						
-	29						
31 8-2	30						
Coomatrix Consultants Project No. 2436.02 Figure	31				8-2 (11		

PROJECT: PARK S	STREET a, Califo	· •	Log of Bor	ing	, No. C	3WS-15
BORING LOCATION:	North si	ide of propertydriveway	ELEVATION AND DATU Asphalt driveway	M:		
DRILLING CONTRAC	TOR: Pre	ecision Sampling	DATE STARTED: 4/25/95		DATE FINIS 4/25/95 - 1	200 hrs
DRILLING METHOD:	Direct p	oush	TOTAL DEPTH: 16 feet		MEASURING Ground su	
DRILLING EQUIPMEN	NT: XD-3	3	DEPTH TO FIRST WATER		COMPL.	24 HRS.
SAMPLING METHOD	: Enviro	Core System	LOGGED BY: S. L. Anich			
HAMMER WEIGHT:		DROP:	RESPONSIBLE PROFE A. L. Spencer	SSIO	NAL:	REG. NO. RG 5713
DEPTH (feet) Sample No. Sample Blows/ Foot	PID Reading (ppm)	DESCRIPTION NAME (USCS Symbol): color, moist, % by wt., plast, density, structure, ceme	entation, react. w/HCl, geo. inter.		RE	MARKS
S - S B T	颪	Surface Elevation:		T^{\dagger}		
1- 2- 3- 4-	300	GRAVEL CLAYEY SAND (SC) Very dark grayish brown (10YR 3/2), moist, coarse sand, 20-30% low plasticity fines, loc	70-80% fine to		No recov	very in upper it
5 - 6 -	250	LEAN CLAY with SAND (CL) Black (10YR 2/1), some orange organic nod 60-70% fines (5-10% silt), 30-40% fine to co plasticity, soft	ules, moist, parse sand, low			
7	50	CLAYEY SAND (SC) Dark yellowish brown (10YR 4/4), moist to vo 75-85% fine to coarse sand, 15-25% low pla loose to medium dense SANDY LEAN CLAY (CL) Olive (5Y 5/3), moist, 70% fines, 30% fine to low plasticity, firm	sticity fines,			
10 -	122	Decreasing sand content to 20% Black organic nodules, greenish gray (5G orange mottling	5/1) pockets,			
11 -	200 +9000					
13	1000	 Increasing sand content to 30-40%, color of yellowish brown (10YR 5/6) 	change to			
14	1200					B-1 (11/92)
2436 02 032		Geomatrix Consultants	Project No. 2	436.02	2 F	igure

2436.02.032

PROJECT: PARK STREET LANDING Log of Boring No. GWS-15 (cont.) Alameda, California SAMPLES OVM Reading DESCRIPTION REMARKS NAME (USCS Symbol): color, moist, % by wt., plast., density, structure, cementation, react. w/HCl, geo. inter. SANDY LEAN CLAY (CL) (Continued) CLAYEY SAND (SC) Light olive brown (2.5Y 5/4) black organic nodules, green 15 470 mottling, moist, 60% fine to coarse sand, 40% low plasticity fines, soft to firm, 16 - Increase sand content to 70-80% Bottom of boring at 16 feet bgs 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 B-2 (11/92) Figure -Project No. 2436.02 **Geomatrix Consultants** 2438.02.033

Alar	meda, C	ET LANDING alifornia	Log of	Boring	g No. (GWS-16
BORING LOCAT			ELEVATION AN Asphalt drive			
		Precision Sampling	DATE STARTE 4/25/95		DATE FINIS 4/25/95 -	
DRILLING METH			TOTAL DEPTH	:	MEASURIN Ground st	G POINT:
DRILLING EQUI			DEPTH TO WATER	FIRST	COMPL.	24 HRS.
			LOGGED BY:		1	
		viro Core System	S. L. Anich RESPONSIBLE		DNAL:	REG. NO.
HAMMER WEIG		DROP:	A. L. Spence	r		RG 5713
Sample Sa	Pm) (md	DESCRIPT NAME (USCS Symbol): color, moist, % by wt., plast, densi	FION ity, structure, cementation, react. w/HCl	, geo. inter.	RE	MARKS
Samy Samy	B S S	Surface Eleval				
1- 2- 3- 3- 4- 5- 6- 7- 8- 9- 10- 11- 12- 13-	200	GRAVEL CLAYEY SAND (SC) Black (7.5YR 2.5/1), moist, 70% for low plasticity fines, loose to media Increased sand content to 80% SANDY LEAN CLAY (CL) Dark greenish gray (5GY 4/1), moist fine to coarse sand, low plasticity Orange organic nodules LEAN CLAY with SAND (CL) Olive (5Y 5/4), with green and orange organic nodules LEAN CLAY with SAND (CL) Olive (5Y 5/4), with green and orange organic nodules WELL-GRADED SAND with CLAGreenish gray (5G 5/1), moist, 85 10-15% low plasticity fines, loose	oist, 60-70 % fines, 30-4, medium hard ange mottling, moist, arse sand, low plasticity AY (SW-SC) 5-90% fine to coarse sa	10%	No recove 2 1/2 fee	very in uppe
, 1 1 1	1 1	į		I -	i	
-						B-1 (1

PROJECT: PARK STREET LANDING Log of Boring No. GWS-16 (cont.) Alameda, California OVM Reading DESCRIPTION REMARKS NAME (USCS Symbol): color, moist, % by wt., plast., density, structure, cementation, react. w/HCl, geo. inter. WELL-GRADED SAND with CLAY (SW-SC) (Continued) Increase sand content to 90-95% 15 16 Color change to olive (5Y 4/3) 17 18 Orange mottling 19 20 21 Bottom of boring at 21.5 feet bgs 22 23 24 25 26 27 28 29 30 31 B-2 (11/92) Figure Project No. 2436.02 **Geomatrix Consultants** 2436.02.035

APPENDIX B
4th Quarter 2005 Groundwater Monitoring Report

TRANSMITTAL

November 23, 2005 G-R #386498

TO: Ms. Laura Genin

Cambria Environmental Technology, Inc.

5900 Hollis Street, Suite A Emeryville, CA 94608 P.O. Box 6012, Room K2256 San Ramon, California 94583

CC: Mr. Mark Inglis

FROM: Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6747 Sierra Court, Suite J Dublin, California 94568 **RE:** Chevron #206127

2301-2337 Blanding Avenue

Alameda, California

ChevronTexaco Company

(Former Signal Oil Marine Terminal)

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	November 23, 2005	Groundwater Monitoring and Sampling Report Fourth Quarter - Event of October 14, 2005

COMMENTS:

This report is being sent for your review. Please provide any comments/changes and propose any groundwater monitoring modifications for the next event prior to **December 7, 2005**, at which time the final report will be distributed to the following:

cc: Mr. Barney Chan, Alameda County Health Care Services, Dept. of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577

Enclosures

trans/206127-MI

November 23, 2005 G-R Job #386498

Mr. Mark Inglis ChevronTexaco Company P.O. Box 6012, Room K2256 San Ramon, CA 94583

RE: Fourth Quarter Event of October 14, 2005

Groundwater Monitoring & Sampling Report Chevron #206127 (Former Signal Oil Marine Terminal) 2301-2337 Blanding Avenue Alameda, California

Dear Mr. Inglis:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

Static groundwater level was measured and the well was checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevation, and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. A Groundwater Elevation Map is included as Figure 1.

Groundwater samples were collected from the monitoring well and submitted to a state certified laboratory for analyses. The field data sheet for this event is attached. Analytical results are presented in the table(s) listed below. The chain of custody document and laboratory analytical report are also attached.

Please call if you have any questions or comments regarding this report. Thank you.

.2_{No. 7504}

Sincerely,

Deanna L. Harding Project Coordinator

- FOR -

Kelut A. Llum

Senior Geologist, P.G. No. 7504

Figure 1: Groundwater Elevation Map

Table 1: Groundwater Monitoring Data and Analytical Results
Attachments: Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports

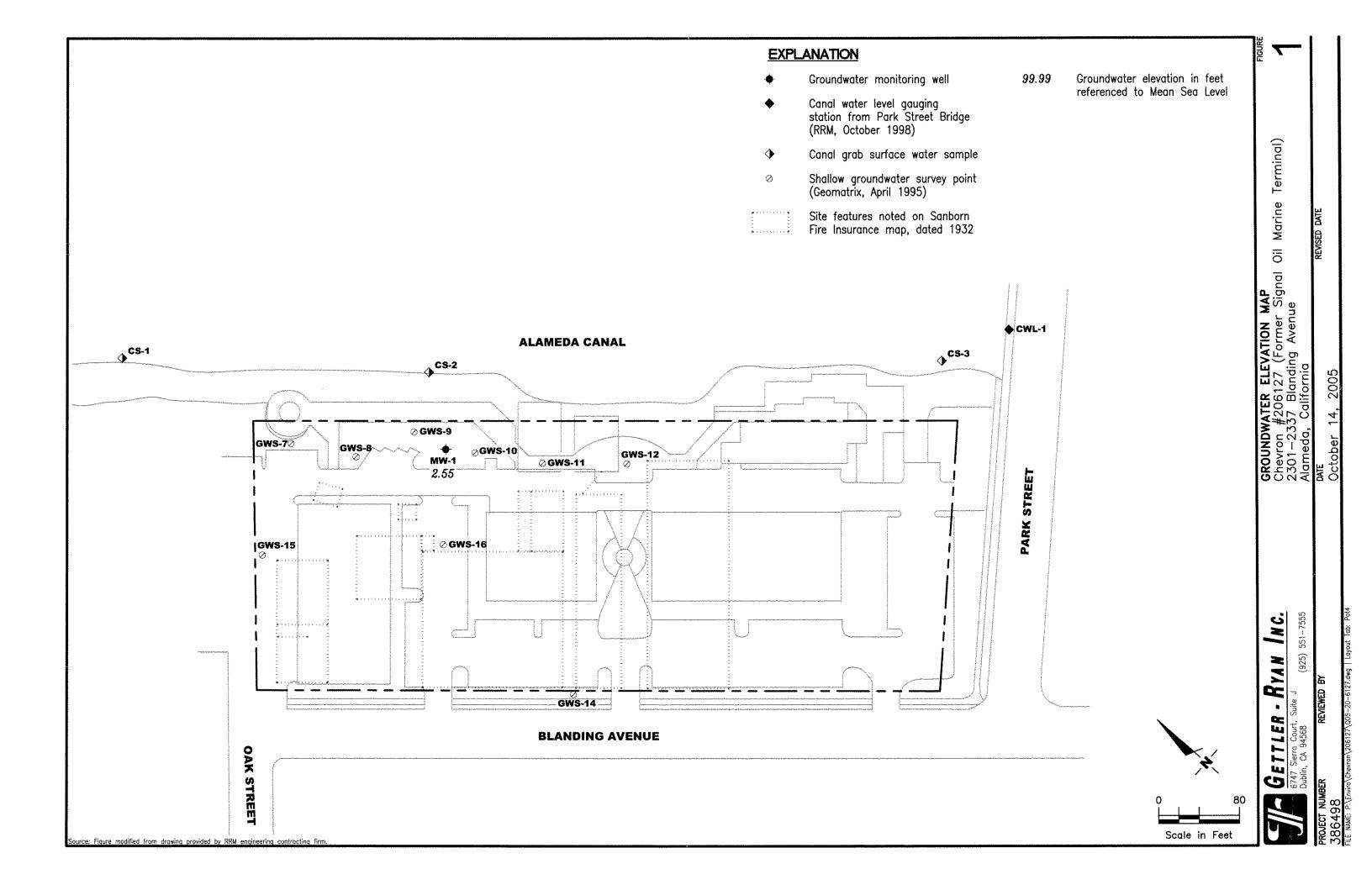


Table 1
Groundwater Monitoring Data and Analytical Results

Chevron #206127 (Former Signal Oil Marine Terminal) 2301-2337 Blanding Avenue

Alameda, California

Alameda, Cantornia										
WELL 1D/	TOC*	DTW	GWE	TPH-D	TPH-G	В	r	E	X	MTBE
DATE	(ft.)	(ft.)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-1			-							
01/23/01		7.16	760 MA	$1,100^{2,3}$	5,210 ⁴	868	<50.0	<50.0	< 50.0	<250
04/09/01	10.62	8.12	2.50	1,200 ⁶	$3,000^5$	920	<20	<20	<20	<100
07/30/01	10.62	9.15	1.47	550 ^{3,8}	$2,000^7$	730	13	<5.0	< 5.0	<25
10/08/01	10.62	7.86	2.76	2,2009	1,200	120	2.4	5.9	6.4	< 2.5
01/13/02	10.62	7.02	3.60	$3,300^3$	930	320	0.78	0.87	3.8	<2.5
04/08/02	10.62	9.60	1.02	$1,200^{3}$	960	50	1.4	2.6	9.0	<2.5
07/31/02	10.62	9.27	1.35	$2,800^{3}$	930	64	1.4	1.9	11	< 5.0
10/15/02	10.62	8.00	2.62	$1,000^3$	620	25	0.78	1,4	4.3	<2.5
01/14/03	10.62	7.05	3.57	960^{3}	1,600	20	1.3	1.3	<1.5	<2.5
04/15/03	10.62	8.02	2.60	920^{3}	870	56	1	1.4	3.1	<2.5
07/16/03 ¹⁰	10.62	10.08	0.54	1.400^{3}	780	85	1	0.8	0.7	< 0.5
10/18/03 ¹⁰	10.62	8.51	2.11	1,2003	640	42	0.8	< 0.5	0.5	< 0.5
01/22/04 ¹⁰	10.62	8.95	1,67	1,500 ³	440	18	< 0.5	< 0.5	< 0.5	< 0.5
04/23/04 ¹⁰	10.62	8.95	1.67	$2,200^{3}$	410	10	< 0.5	< 0.5	< 0.5	< 0.5
07/23/04 ¹⁰	10.62	9.21	1.41	$1,800^3$	400	6	< 0.5	< 0.5	< 0.5	< 0.5
10/22/04 ¹⁰	10.62	8.36	2.26	$2,200^{3}$	150	2	< 0.5	< 0.5	< 0.5	< 0.5
01/28/05 ¹⁰	10.62	7.09	3.53	$1,200^3$	55	8	< 0.5	< 0.5	< 0.5	< 0.5
04/26/05 ¹⁰	10.62	7.84	2.78	480^{3}	<50	5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/05 ¹⁰	10.62	8.12	2.50	$610^{3,11}$	<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/14/05 ¹⁰	10.62	8.07	2.55	920 ^{3,12}	<50	10	<0.5	<0.5	<0.5	<0.5
66.4										
CS-2 07/30/01				1403,5	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
				539	<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
10/08/01	W-4A			$<50^3$	<50	< 0.50	< 0.50	<0.50	<1.5	<2.5
01/13/02 04/08/02			~~	77 ³	<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
04/08/02				<50 ³	<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
	***			$<50^{3}$	<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
10/15/02				<50 ³	<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
01/14/03 04/15/03	404 A++			<50	<50 <50	<0.5	<0.5	<0.5	<1.5	<2.5
				<50° <50³	<50 <50	< 0.5	0.7	<0.5	0.6	< 0.5
07/16/03 ¹⁰				<50 <50 ³	<50 <50	< 0.5	<0.5	<0.5	<0.5	<0.5
10/18/03 ¹⁰	w ***			<50"	\JU	~0.3	~V.J	~0.5	~VJ	70.2

Table 1 Groundwater Monitoring Data and Analytical Results

Chevron #206127 (Former Signal Oil Marine Terminal)

2301-2337 Blanding Avenue

					Alameda, Ca	lifornia				
WELL ID/	TOC*	DTW	GWE	TPH-D	TPH-G	В	1	E	X	MTBE
DATE	(ft.)	(ft.)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
CS-2 (cont)										
01/22/04 ¹⁰	No. 70			<50 ³	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
04/23/04 ¹⁰				<50 ³	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/23/04 ¹⁰	W-44			<50 ³	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/22/04 ¹⁰	***			<50 ³	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
01/28/05 ¹⁰	**	an Are		< 50 ³	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/26/05 ¹⁰			and with	< 50 ³	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/05 ¹⁰				<50 ³	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/14/0510			we was	<50 ³	<50	<0.5	<0.5	<0.5	<0.5	<0.5
TOYO DI ANI	12									
TRIP BLANI TB-LB	N.									
01/23/01		**		~~	< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50
04/09/01		14. AM			<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
07/30/01		40/100			<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
QA										
10/08/01				w-v-	<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
01/13/02			444 mar		<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
04/08/02			***		<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
07/31/02	<u></u>	.ee va-		***	<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
10/15/02		***			<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
01/14/03				ler ear	<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
04/15/03			***		<50	< 0.5	< 0.5	< 0.5	<1.5	<2.5
07/16/03 ¹⁰	an wa			-944 ANY	<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/18/03			60 ME		<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/22/04 ¹⁰	***			-da 466	<50	< 0.5	<0.5	< 0.5	< 0.5	< 0.5
04/23/04				Not over	<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/23/04			***		<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/22/04 ¹⁰	Wa 441	m m			<50	<0.5	< 0.5	< 0.5	< 0.5	< 0.5
$01/28/05^{10}$	<u> </u>	Wa ess			<50	<0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/28/05 ¹⁰		w. es		м	<50	< 0.5	<0.5	< 0.5	< 0.5	< 0.5
	****		**	75	<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/05 ¹⁰	******	*** >==			<50	<0.5	<0.5	<0.5	<0.5	< 0.5
10/14/0510	~-				\.U	10.47	· V+4/			

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron #206127 (Former Signal Oil Marine Terminal) 2301-2337 Blanding Avenue Alameda, California

EXPLANATIONS:

TOC = Top of Casing TPH-G = Total Petroleum Hydrocarbons as Gasoline (ppb) = Parts per billion

DTW = Depth to Water T = Toluene CS-2 = Creek Sample

GWE = Groundwater Elevation E = Ethylbenzene QA = Quality Assurance/Trip Blank

(msl) = Mean sea level X = Xylenes

TPH-D = Total Petroleum Hydrocarbons as Diesel MTBE = Methyl tertiary butyl ether

- * TOC elevations were surveyed on January 25, 2001, by Virgil Chavez Land Surveying. The benchmark used for the survey was a City of Alameda benchmark being a cut square at the centerline return, south corner of Oak and Blanding, (Benchmark Elevation = 8.236 feet, NGVD 29).
- Well development performed.
- Laboratory report indicates unidentified hydrocarbons <C16.</p>
- 3 TPH-D with silica gel cleanup.
- Laboratory report indicates weathered gasoline C6-C12.
- 5 Laboratory report indicates discrete peaks.
- 6 Laboratory report indicates diesel C9-C24 + unidentified hydrocarbons <C16.</p>
- 7 Laboratory report indicates gasoline C6-C12.
- 8 Laboratory report indicates unidentified hydrocarbons C9-C24.
- Analysis performed without silica gel cleanup although was requested on the Chain of Custody.
- BTEX and MTBE by EPA Method 8260.
- Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. It elutes in the DRO range later than #2 fuel.
- Laboratory report indicates the observed sample pattern includes #2 fuel/diesel and an additional pattern which elutes later in the DRO range.

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by ChevronTexaco Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick, California.



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING **FIELD DATA SHEET**

Monitored: Volume Factor (VF) = // / x pling Equipment: psable Bailer sure Bailer rete Bailer rete Bailer were Conditions: Water Color: nt Description:	Olen	1"= 0.04 2"= 0.17 5"= 1.02 6"= 1.50 Estimated Purge Volume: Time Started: Time Completed: Depth to Product: Depth to Water: Hydrocarbon Thicknes Visual Confirmation/D Skimmer / Absorbant Amt Removed from S Amt Removed from W Water Removed: Product Transferred to	3"= 0.38 12"= 5.80 gal. (2400 (2400 (2400) Ses: escription: Sock (circle one) kimmer: //eli:	0 hrs)ftftftftgal _gal
Monitored:	3/4"= 0.02 4"= 0.66 3 case volume= E	Well Condition: 1"= 0.04 2"= 0.17 5"= 1.02 6"= 1.50 Estimated Purge Volume: Time Started: Time Completed: Depth to Product: Depth to Water: Hydrocarbon Thicknee Visual Confirmation/D Skimmer / Absorbant Amt Removed from S Amt Removed from W Water Removed: Product Transferred to	3"= 0.38 12"= 5.80 i gal. (2400 (240 ss:	0 hrs)ftftftftgal _gal
Volume Factor (VF) = // × pling Equipment: psable Bailer sure Bailer rete Bailer rete Bailer wr: Mer Conditions: Water Color: nt Description:	3/4"= 0.02 4"= 0.66 3 case volume= E	1"= 0.04 2"= 0.17 5"= 1.02 6"= 1.50 Estimated Purge Volume: Time Started: Time Completed: Depth to Product: Depth to Water: Hydrocarbon Thicknet Visual Confirmation/D Skimmer / Absorbant Amt Removed from S Amt Removed from W Water Removed: Product Transferred to	3"= 0.38 12"= 5.80 i gal. (2400 (240 ss:	0 hrs)ftftftftgal _gal
Factor (VF) = // X pling Equipment: psable Bailer sere Bailer rete Bailer rete Water Color: nt Description:	4"= 0.66 3 case volume= E	5"= 1.02 6"= 1.50 Estimated Purge Volume: Time Started: Time Completed: Depth to Product: Depth to Water: Hydrocarbon Thicknes Visual Confirmation/D Skimmer / Absorbant Amt Removed from S Amt Removed from W Water Removed: Product Transferred to	gal. (2400 (2400 (2400 SS: escription: Sock (circle one) kimmer: //ell:	0 hrs)ftftftftgal _gal
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Water Color: _ nt Description: _	clen	Water Removed: Product Transferred to	0:	
Water Color: _ nt Description: _	clen	Product Transferred to	0:	
Water Color: _ nt Description: _	clen	Odor:	Some	
nt Description: _			>~~~	
	Volume:	gal.		
9:	volume:	yaı.		
Conductivity	Temperature	D.O.	ORP	
(u mhos/cm)	(C/E)	(mg/L)	(mV)	
935	64.2			
932	63.8			
938	63.6			·
BORATORY INFO			YSES	_
PRESERV. TYPE	LANGASTER			
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140	LATTOALIA			7
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WELL MONITORING/SAMPLING FIELD DATA SHEET

Bank Cl	hevronTexac	o #206127	Job Number:	386498	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		nding Avenue	Event Date:	10-14-05	(inclusive
	lameda, CA		Sampler:	Jue	
71.					
Vell ID	CS-2	Date Monitor	ed:	Well Condition: _	Creek Sample
Vell Diameter	ą in.	[Vo	lume 3/4"= 0.02	1"= 0.04 2"= 0.17	3"= 0.38
otal Depth	/ ft.		ctor (VF) 4"= 0.66	5"= 1.02 6"= 1.50	12"= 5.80
Depth to Water	ft.				1
	x\	/F =	x3 case volume=	Estimated Purge Volume:_	
		Sampling Equ	ioment:	Time Started:	(2400 hrs) (2400 hrs)
ourge Equipment:		Disposable Bail		Depth to Product:	ft
Disposable Bailer		Pressure Bailer		Depth to Water:	· ·
Stainless Steel Bailer		Discrete Bailer	<u> </u>	Hydrocarbon Thicknes	
Stack Pump		Other:		Visual Confirmation/De	escription:
Suction Pump		<u> </u>		Skimmer / Absorbant S	Sock (circle one)
Grundfos				Amt Removed from SI	immer: gal
Other:					ell:gal
				Water Removed: Product Transferred to) *
				. Troduce Transfer as	
Start Time (purge): Sample Time/Date Purging Flow Rate Did well de-water?	: <u>0835 /</u> : gpm.	Water Sediment Description If yes, Time:		<u></u>	More.
Time (2400 hr.)	Volume (gal.)	pH Conducti		D.O. (mg/L)	ORP (mV)
		LABORATO	RY INFORMATION		
	(#) CONTAINER	REFRIG. PRESER			YSES
SAMPLEID		YES HO			M1BE(8260)
SAMPLE ID CS-2	🗸 x voa vial			- ITOU DW/60	
SAMPLE ID CS-2	x voa vial x Amber	YES N	LANCASTE	R TPH-Dw/sg	
			LANCASTE	-R TFR-DW/sg	
			LANCASTE	-R IFN-DWsg	
			LANCASTE	-R IFN-DWSg	
CS-2			LANCASTE	-R IFN-DWSg	

Chevron California Fegion Analysis Request/Chain of Custody



Acct. #: 10904 Sample #: 4675706-09

								Analyses			NOW	inearan								
		o Clabal IDs			T	Matrix		1				Pres	ervat	on	Codes				vative Code	- 1
Facility #: SS#206	5127-OML G-R#38649	8 Global ID:	,			******	.		fЦ	I_	L			_				H = HCl	T = Thiosi B = NaOH	1
Site Address.2301-23	337 BLANDING AVENU	E, ALAMEL	JA, CA							g								N = HNO3 S = H2SO4		
Chevron PM.MI	Lead	Consultant:CA	MBRIARF	· · · · · · · · · · · · · · · · · · ·			e	2	ľ	Š								☐ J value rep	orting needed	
Communitario (Companica)	R, Inc., 6747 Sierra Cou	ırt, Suite J, D	Oublin, Ca.	94558		Potable NPDES	900			8			1 1					Must meet	owest detection	on limits
Consultant Pri Mar	Deann≢ L. Herding (de	enna@grinc	.com)			5 ×	Oil 🗆 Air 🗀			TPH 8015 MOD DROX Silica Gel Cleanup	r							possible fo	8260 compou	inds .
	925-551-7555	Fax #: 925	551-7 8 99	. •					8	6	"							8021 MTBE 0		
,	JOE ASEMIA				1	1				2		ates] 7421					1 -	thest hit by 82	60
		on SAR:		Grab		1	۲ آن	TOTAL NUMBER	TPH 8015 MOD	5 K	8260 full scan	Onygenates	Leed 7420 🗆					Confirm all	nits by azeu bxy s on highe	et hill
Service Order #:	UN	Date	Time	de g	-	Water	□ io			8	2	l ^o i	12 X					1	oxy s on all hit	
Sample Identification		Collected	Collected	छ ।	S	3	Ö	2	5 F	<u> </u>	88	11	اقا				_			
	QA			14_		1		_	生		<u>, -</u>	_	\bot					Comments	/ Remarks	
	Mw-1	10-14.05			_	Cr			<u>1</u> '	<u></u>		_			\vdash		-+			
	CS-2	(/	0835	9	4-	9	1		4	<u> </u>	4	┨—	1		 					
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24 hour	4 day 5 day		(da	the	2	m	9	·			0/4		152	ો		<u>~』</u>		<u> </u>	10/14/0	·
Data Package Option	ons (please circle if required)		Relino	quished b	у:	-	~				Da	te	Time	9	Receive	d by:			Date	Time
QC Summary	Type I — Full		Defin.	guished b	. Co.	mmerri	al Carri	iar						\dashv	Receive	d.hv:	7)	17/	Date	Time
Type VI (Raw Data)	☐ Coelt Deliverable not nee	dedf/edd	UPS	•	edE)	70	Oth							.	1 1000140	ر . رس _ا س ام	40	Sk	10/15/05	0955
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计通信系统算法 开心 机套线操作机 经工厂 化二氯化

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

ANALYTICAL RESULTS

Prepared for:

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

925-842-8582

Prepared by:

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

SAMPLE GROUP

The sample group for this submittal is 963405. Samples arrived at the laboratory on Saturday, October 15, 2005. The PO# for this group is 99011184 and the release number is INGLIS.

Client Description		Lancaster Labs Number
OA-T-051014	NA Water	4625706
MW-1-W-051014	Grab Water	4625707
CS-2-W-051014	Grab Water	4625708

1 COPY TO ELECTRONIC COPY TO Cambria C/O Gettler- Ryan

Gettler-Ryan

Attn: Deanna L. Harding Attn: Cheryl Hansen



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Questions? Contact your Client Services Representative Lynn M Frederiksen at (717) 656-2300

Respectfully Submitted,

Januar E Hess

Manager



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4625706 Lancaster Laboratories Sample No. WW

Water QA-T-051014

GRD Facility# 206127 Job# 386498 QA

2301-2337 Blanding-Alamed 206127 Collected: 10/14/2005

Account Number: 10904 ChevronTexaco

Submitted: 10/15/2005 09:55

6001 Bollinger Canyon Rd L4310 Reported: 10/21/2005 at 22:20 Discard: 11/21/2005 San Ramon CA 94583

BAAQA

CAT	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit 50.	Units ug/l	Dilution Factor
01728	TPH-GRO - Waters The reported concentration of gasoline constituents eluting gatart time.	n.a. TPH-GRO does not prior to the C6	N.D. : include MTBE or (n-hexane) TPH-C	other	 5, -	
06054	BTEX+MTBE by 8260B		i			
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
02010	Benzene	71-43-2	N.D.	0.5	ug/l	1
		108-88-3	N.D.	0.5	ug/l	1
05407	Toluene	100-41-4	N.D.	0.5	ug/l	1
05415 06310	Ethylbenzene Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

Laboratory	Chronicle
Haboratory	

		Laboratory	Chro	NiCle Analysis		Dilution
CAT	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
No. 01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	10/18/2005 09:59	K. Robert Caulfeild- James	1
00054	BTEX+MTBE by 8260B	SW-846 8260B	1	10/18/2005 12:14	Ginelle L Feister	1
06054 01146	GC VOA Water Prep	SW-846 5030B	1	10/18/2005 09:59	K. Robert Caulfeild- James	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	10/18/2005 12:14	Ginelle L Feister	n.a.



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Page 1 of 1

Lancaster Laboratories Sample No. WW 4625707

MW-1-W-051014

Grab

Facility# 206127 Job# 386498

GRD

2301-2337 Blanding-Alamed 206127

MW-1

Collected:10/14/2005 09:15 by JA

Submitted: 10/15/2005 09:55 Reported: 10/21/2005 at 22:20

ChevronTexaco 6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Account Number: 10904

Discard: 11/21/2005

BAAM1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit 50.	Units ug/l	Dilution Factor
01728	TPH-GRO - Waters	n.a.	N.D.		43 <i>)</i> +	-
	The reported concentration of TP gasoline constituents eluting pr start time.	H-GRO does not lior to the C6	(n-hexane) TPH-GF	(O range	i n	
06610	TPH-DRO CALUFT (Water) w/Si Gel	n.a.	920.	50.	ug/l	1
	The observed sample pattern incl	udes #2 fuel/d	iesel and an add	itional		
	pattern which elutes later in th	e DRO range.				
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	10.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

Laboratory	Chronicle
•	3 3

CAT		парогасогу	CIII O.	Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	10/18/2005 10:57	K. Robert Caulfeild- James	1
06610	TPH-DRO CALUFT(Water) w/Si	CALUFT-DRO/8015B, Modified	1	10/18/2005 19:16	Tracy A Cole	1
06054	Gel BTEX+MTBE by 8260B	SW-846 8260B	1	10/18/2005 12:38	Ginelle L Feister	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/18/2005 10:57	K. Robert Caulfeild- James	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	10/18/2005 12:38	Ginelle L Feister	n.a.
02135	Extraction - DRO Water Special	TPH by CA LUFT	1	10/18/2005 07:45	Joseph S Feister	1



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Page 1 of 1

Lancaster Laboratories Sample No. WW 4625708

CS-2-W-051014 Water

Facility# 206127 Job# 386498 CS-2

2301-2337 Blanding-Alamed 206127

Collected:10/14/2005 08:35 by JA

Submitted: 10/15/2005 09:55

Reported: 10/21/2005 at 22:20

Discard: 11/21/2005

Account Number: 10904

ChevronTexaco

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

BAAC2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of T gasoline constituents eluting p start time.	PH-GRO does not rior to the C6	include MTBE or (n-hexane) TPH-G	other RO range		
06610	TPH-DRO CALUFT(Water) w/Si Gel	n.a.	N.D.	50.	ug/l	1
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

GRD

State of California Lab Certification No. 2116

Laboratory	Chronicle
-	

CAT		Laboratory	Cnro	NICIE Analysis	•	Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	10/18/2005 11:26	K. Robert Caulfeild- James	1
06610	TPH-DRO CALUFT(Water) w/Si	CALUFT-DRO/8015B, Modified	1	10/18/2005 19:40	Tracy A Cole	1
06054	Gel BTEX+MTBE by 8260B	SW-846 8260B	1	10/18/2005 13:02	Ginelle L Feister	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/18/2005 11:26	K. Robert Caulfeild- James	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	10/18/2005 13:02	Ginelle L Feister	n.a.
02135	Extraction - DRO Water Special	TPH by CA LUFT	1	10/18/2005 07:45	Joseph S Feister	1



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Page 1 of 2

Quality Control Summary

Group Number: 963405 Client Name: ChevronTexaco

Reported: 10/21/05 at 10:21 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 052900006A TPH-DRO CALUFT(Water) w/Si Gel	Sample:	number(s):	4625707-46 ug/l	25708 90	86	49-120	4	20
Batch number: 05290A16A TPH-GRO - Waters	Sample N.D.	number(s):	4625706-46 ug/l	108 108	108	70-130	1	30
Batch number: Z052912AA Methyl Tertiary Butyl Ether Benzene Toluene Ethylbenzene Xylene (Total)	Sample N.D. N.D. N.D. N.D.	number(s): 0.5 0.5 0.5 0.5 0.5	4625706-46 ug/l ug/l ug/l ug/l ug/l	525708 102 99 100 100 101		77-127 85-117 85-115 82-119 83-113		

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG <u>Conc</u>	DUP <u>Conc</u>	DUP RPD	Dup RPD Max
Batch number: 05290A16A TPH-GRO - Waters	Sample	number	(s): 462570 63-154	5-46257	08				
Batch number: Z052912AA Methyl Tertiary Butyl Ether Benzene Toluene Ethylbenzene Xylene (Total)	Sample 103 108 111 110 109	number 102 104 105 105	(s): 462570 69-134 83-128 83-127 82-129 82-130	6-46257 2 3 5 4 3	08 30 30 30 30 30				

Surrogate Quality Control

Analysis Name: TPH-DRO CALUFT(Water) w/Si Gel

Batch number: 052900006A Orthoterphenyl

4625707	107
4625708	106
Blank	105
LCS	123
LCSD	122

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



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Page 2 of 2

Quality Control Summary

Client Name: ChevronTexaco

Group Number: 963405

Reported: 10/21/05 at 10:21 PM

Surrogate Quality Control

Limits:	59-131			
Analysis N Batch numb	Name: TPH-GRO - Waters Der: 05290A16A			
	Trifluorotoluene-F			
4625706	92			
4625707	94			
4625708	93			
Blank	93			
LCS	95			
LCSD	97			
MS	93			
Limits:	63-135			
Analysis 1	Name: BTEX+MTBE by 8260B			
Batch numl	ber: Z052912AA	- 4 - 2 - 13 - 24	Toluene-d8	4-Bromofluorobenzene
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toruene-us	* ***
			106	101
4625706	103	103	107	102
4625707	101	100	105	100
4625708	102	102	106	100
Blank	102	100	106	102
LCS	101	102	107	102
MS	104	101	107	103
MSD	104	103	101	
		77 110	80-113	78-113
Limits:	80-116	77-113	00 415	

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



Explanation of Symbols and Abbreviations

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

N.D. TNTC IU umhos/cm C meq g ug ml m3	none detected Too Numerous To Count International Units micromhos/cm degrees Celsius milliequivalents gram(s) microgram(s) milliliter(s) cubic meter(s)	BMQL MPN CP Units NTU F Ib. kg mg I	Below Minimum Quantitation Level Most Probable Number cobalt-chloroplatinate units nephelometric turbidity units degrees Fahrenheit pound(s) kilogram(s) milligram(s) liter(s) microliter(s)
---	---	---	--

- less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than
- J estimated value The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).
- ppm parts per million One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.
- ppb parts per billion
- Dry weight basis

 Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

X,Y,Z

	Organic Qualifiers		Inorganic Qualifiers
A B C D E N P	TIC is a possible aldol-condensation product Analyte was also detected in the blank Pesticide result confirmed by GC/MS Compound quantitated on a diluted sample Concentration exceeds the calibration range of the instrument Presumptive evidence of a compound (TICs only) Concentration difference between primary and confirmation columns >25%	B E M N S	Value is <crdl, (msa)="" additions="" analysis="" but="" calculation="" compound="" control="" detected="" digestion="" due="" duplicate="" estimated="" for="" injection="" interference="" limits="" limits<="" met="" method="" not="" of="" out="" post="" precision="" sample="" spike="" standard="" th="" to="" used="" was="" within="" ≥idl=""></crdl,>
U	Compound was not detected	+	Correlation coefficient for MSA <0.995

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

Measurement uncertainty values, as applicable, are available upon request.

Defined in case narrative

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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