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

Re: Former Chevron Service Station No. 93600
2200 Telegraph Avenue
Oakland, California

I have reviewed the *Response to Technical Comments and Focused Conceptual Site Model and Closure Request*.

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 Conestoga-Rovers & Associates, 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 to the best of my knowledge.

Sincerely,

Alexis Fischer
Project Manager

Attachment: Response to Technical Comments and Focused Conceptual Site Model and Closure Request

CONESTOGA-ROVERS & ASSOCIATES

5900 Hollis Street, Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
http://www.craworld.com

June 20, 2014 Reference No. 311965

Mr. Mark Detterman
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Response to Technical Comments and
Focused Conceptual Site Model and Closure Request
Former Chevron Service Station 93600
2200 Telegraph Avenue
Oakland, California
Fuel Leak Case No. RO00002435

Dear Mr. Detterman:

Conestoga-Rovers & Associates (CRA) is submitting this *Response to Technical Comments and Focused Conceptual Site Model and Closure Request* for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company (CEMC). On April 24, 2014, Alameda County Department of Environmental Health (ACEH), CEMC, and CRA attended a joint meeting to discuss action items to move the case toward closure. Additionally, in letters dated December 3, 2013 and March 24, 2014, ACEH requested a focused conceptual site model (CSM) and requested several technical comments be addressed. A response to the technical comments is provided in this letter with a focused CSM enclosed. The CSM includes an evaluation of the site conditions with respect to the State Water Resource Control Board's Low Threat Closure Policy (LTCP) case closure criteria, and conclusions and recommendations.

Response to Technical Comments

1. ***LTCP General Criteria e (Site Conceptual Model)***
   A focused CSM with all its tables, figures, and appendices is enclosed. The CSM discusses the source and remediation of the unauthorized release, the hydrocarbon distribution in soil, groundwater, and soil vapor, geology, hydrogeology and other physical site characteristics, site background, and potential sensitive receptors and exposure routes.

2. ***LTCP Media Specific Criteria for Groundwater***
   a. ***Extent of Groundwater Plume – downgradient extent of the groundwater plume.***
      The dissolved hydrocarbon plume is centered on the UST pit and well MW-1, as demonstrated by residual petroleum hydrocarbon concentrations in soil and groundwater. The current TPHg concentration of 1,500 µg/L in MW-1 is two orders of magnitude less than the 1986 sample from the UST pit and one order of magnitude lower than the 1992 sample VW-2-1. The TPHg

trend in MW-1 is stable over the last 12 years and recently decreasing. A plume that is "stable" is a contaminant mass that has expanded to its maximum extent: the distance from the release where attenuation exceeds migration.[1] Therefore, the TPHg plume has reached its maximum extent and is no longer migrating.

As shown on Figure 9, CRA estimates that this site's TPHg plume is 105 feet in length, and provides the average TPHg plume length from the source area (248 feet) and the 90th percentile plume length (350 feet).[2] Due to the low concentrations of petroleum hydrocarbon source mass historically detected in soil, it is very likely that this petroleum hydrocarbon plume would be considered a below average plume and would not have migrated beyond the average TPHg plume length of 248 feet. Furthermore, boring B-12 is located approximately 50 feet downgradient of B-9 and adjacent to the BART tunnel that transects the site. No petroleum hydrocarbons were detected in soil or groundwater in B-12, including soil in B-12 at 10 and 15 fbg where shallow groundwater was sampled in B-9. Groundwater was first encountered in B-12 at 23 fbg and the shallower groundwater sampling interval was dry, which indicates that groundwater could be flowing toward B-12 from B-9. Furthermore, the rose diagram represents the groundwater flow direction for the three monitoring wells onsite. Considering the variability in the onsite flow direction as shown on the rose diagram, you can expect similar variability offsite 100 feet downgradient.

The dissolved TPHg concentrations in offsite boring B-9 were equal or greater than the concentrations detected in onsite source area well MW-1. Based on the fate and transport of TPHg, you would not expect to detect higher dissolved hydrocarbon concentrations approximately 50 feet downgradient of the source area. Furthermore, grab groundwater samples are often biased high due to disturbance of the soil matrix during boring advancement, which may cause desorption of petroleum hydrocarbons from the soil into the groundwater and because grab groundwater samples often contain excessive amounts of sediments containing non-dissolved petroleum hydrocarbons that desorb while in the sample container. Therefore, the grab groundwater samples collected downgradient of the site are likely biased high and not representative of only the dissolved phase. Based on the information presented above, CRA's estimated TPHg plume length is conservative and the actually TPHg plume length is likely less than 100 feet in length.

As discussed in section 2.10, downgradient structures consisted of parking garages and office buildings that do not contain basements and the nearest downgradient receptor is 1,100 feet to

1 California State Water Resource Control Board, *Leaking Underground Fuel Tank Guidance Manual*, 2012.

2 California State Water Resource Control Board, *Technical Justification for Groundwater Plume Lengths, Indicator Constituents, Concentrations, and Buffer Distances (Separation Distances) to Receptors*, 2011.

the southeast. Considering that the petroleum hydrocarbon plume is around 100 feet in length, TPHg concentrations are stable in the source area, the plume is weathered (BTEX compounds depleted), the release took place prior to 1986, the plume affects the subsurface of an active service station and paved parking lot, and the nearest downgradient receptor is 1,100-feet downgradient; the residual TPHg plume is not a threat to human health or the environment. This is further discussed in Section 2.8.2 of the CSM.

b. Existence of a Shallow Groundwater Zone in Boring B-12

Boring B-12 is located approximately 50 feet downgradient of B-9 and adjacent to the BART tunnel that transects the site. No petroleum hydrocarbons were detected in soil or groundwater in B-12, including soil in B-12 at 10 and 15 fbg where shallow groundwater was sampled in B-9. Groundwater was first encountered in B-12 at 23 fbg and the shallower groundwater sampling interval was dry, which indicates that groundwater could be flowing toward B-12 from B-9. Furthermore, the rose diagram represents the groundwater flow direction for the three monitoring wells onsite. Considering the variability in the onsite flow direction as shown on the rose diagram, you can expect similar variability offsite 100 feet downgradient. This is further discussed in Section 2.8.2 of the CSM.

c. Calculated Time to Achieving Water Quality Goals

Current TPHg concentrations are two orders of magnitude lower than the historical high concentrations detected in the 1992 UST pit grab-groundwater sample, and have been stable in MW-1 the past 11 years, one order of magnitude above the WQO of 100 µg/L. Benzene is no longer detected in groundwater. TPHg (3 year trend) and MTBE (11 year trend) concentrations in onsite source area well MW-1 (from the historical concentration peaks) will reach the WQOs within 6 years (Table A). The presence of tertiary butyl alcohol (TBA), a biotransformation byproduct of MTBE degradation, also demonstrates that the MTBE is degrading and not just migrating away from the source. In addition, the MTBE concentrations detected in borings downgradient of MW-1 are at or below the WQO. Therefore, the plume has reached its maximum extent and is degrading back toward the source. This is further discussed in Section 2.8.2 of the CSM.

TABLE A: Summary of Degradation Calculations

Well ID	*Analyte*	*Maximum Concentrations*	*Current Concentrations*	*WQO*	*Date to Reach WQO*	*Years to Reach WQO*
MW-1	TPHg	4,200	1,500	100	2020	6
	MTBE	9,800	38	5	2019	5

Note:
WQO Water Quality Objective (Regional Water Quality Control Board – San Francisco Bay Region, *Water Quality Control Plan (Basin Plan):* dated December 31, 2011.)

d. Sensitive Receptor

i. Well Survey - In 2008, CRA compiled well data provided by California Department of Water Resources (DWR)[1] and in 2014 compiled well data provided by the Alameda County Public Works Agency (ACPW). Based on well data from the two agencies, five wells (3 irrigation, 1 domestic, and 1 industrial) were located within ½-mile of the site; one was located 3,500 feet away; one was located over 2 miles away; and one well did not have an address. The nearest well is an irrigation well located 1,100 feet southeast (downgradient) of the site (Figures 9 and 10). Due to proximity, residual onsite petroleum hydrocarbon concentrations are not expected to affect any of the water supply wells. The water supply wells are listed in Table 4 and located on Figure 10, and the entire list of wells from the DWR and ACPW are included in Appendix E, of the CSM.

ii. Potential Sensitive Receptors – Commercial buildings and parking lots are located east and southeast (downgradient) of the site. CRA reviewed online mapping services (i.e. Google Earth®) and performed a physical site reconnaissance to identify other potential receptors within a ¼-mile radius, including basements, schools, hospitals, day care centres, and eldercare facilities. Three eldercare centres, Satellite Central, and Providence Home, and Northgate Terrace, are located approximately 400 feet southwest (crossgradient), 600 feet northwest (upgradient), and 900 feet northwest (upgradient), respectively, of the site. Mercy Housing (Hamilton Apartments) for families seniors and special needs was located approximately 200 feet southwest (crossgradient) of the site. Two daycares, New Day Pre-School and Smalltrans Depot, are located approximately 125 feet northeast (crossgradient) and 750 feet east (downgradient), respectively, of the site. Westlake Middle School is located approximately 1,600 feet northeast of the site. Due to distance and direction, none of these are not at risk of being affected by hydrocarbons originating at the site (Figure 9). None of the buildings in the immediately downgradient vicinity of the site contained basements and no hospitals are located within ¼-mile of the site. This is further discussed in Section 2.9.1 of the CSM.

[1] The DWR well report was presented to ACEH in the CRA Site Conceptual Model (December 30, 2008).

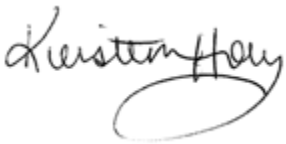
CONESTOGA-ROVERS & ASSOCIATES

June 20, 2014 Reference No. 311965

Please contact Nathan Lee at (925) 849-1003 if you have any questions or require additional information.

Regards,

CONESTOGA-ROVERS & ASSOCIATES



Kiersten Hoey Brandon S. Wilken, PG 7564

NL/aa/14
Encl.

Focused Conceptual Site Model

cc: Ms. Alexis Fischer, CEMC *(electronic copy)*
Mr. George Kim, Property Owner

FOCUSED CONCEPTUAL SITE MODEL AND CLOSURE REQUEST

Former Chevron Service Station 93600
2200 Telegraph Avenue
Oakland, California
ACEH Case #RO2435

Prepared for:

Mr. Mark Detterman
Alameda County Health Services Agency
Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Prepared by:
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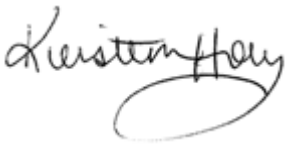
JUNE 20, 2014
REF. NO. 311965 (14)

FOCUSED CONCEPTUAL SITE MODEL AND CLOSURE REQUEST

Former Chevron Service Station 93600
2200 Telegraph Avenue
Oakland, California
ACEH Case #RO2435



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JUNE 20, 2014
REF. NO. 311965 (14)

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Section 1.0 Introduction

Conestoga-Rovers & Associates (CRA) is submitting this *Focused Conceptual Site Model and Closure Request* for Chevron Service Station 93600 located at 2200 Telegraph Avenue in Oakland, California (Figure 1) on behalf of Chevron Environmental Management Company (CEMC). A revised conceptual site model (CSM) was requested by Alameda County Environmental Health (ACEH) in a March 24, 2014 letter (Appendix A). Presented below are a CSM, an evaluation of the site conditions with respect to the State Water Resource Control Board's Low Threat Closure Policy (LTCP) case closure criteria, and conclusions and recommendations.

Section 2.0 Conceptual Site Model

2.1 Site Description

The site is an active gasoline service station (Golden Bay Gas & Food Mart) located at 2200 Telegraph Avenue, in Oakland, California (Figure 1). The property is at the southeast corner of the intersection of Telegraph and West Grand Avenues, and is bound on the east by the Douglas Parking Lot (Figure 2). Surrounding properties are commercial businesses, with a church located to the west across Telegraph Avenue and a daycare located north across Grand Avenue. The Bay Area Rapid Transit (BART) runs directly beneath the site and trends northwest to southeast (Figure 2). Based on information provided by BART, the top of tunnel is approximately 12 feet below grade (fbg) in this area.

Current site facilities include three 10,000-gallon underground storage tanks (UST) that share a common pit near the northeastern corner of the site, five dispenser islands covered by a canopy, and a station kiosk (Figure 2).

2.2 Historical Ownership

Chevron purchased the land in 1951 and operated a retail service station until 1983. All station facilities and improvements were removed in 1984 when Chevron attempted to sell the land. Due to the presence of the BART right-of-way, Chevron was unable to complete the sale, and in 1985, rebuilt the station into its current configuration. In 2000, Chevron sold the land and facilities to the current station dealer, Mr. George Kim.

2.3 Topography and Surface Hydrology

The regional ground surface slopes gently toward the east. The nearest surface waters are Glenn Echo Creek, located approximately 1,500 feet east, which drains into Lake Merritt, located approximately 1,500 feet east and southeast (downgradient) of the site. Lake Merritt then drains into Oakland Inner Harbor, approximately 1.5 miles to the south. The site topography is relatively flat at an elevation of

approximately 17 feet above mean sea level (amsl). The adjacent Parking Lot surface elevation is 1 foot lower than the site, and slopes slightly to the east toward Valley Street (Figure 2).

2.4 Geology and Hydrogeology

The site is located on the eastern flank of the San Francisco Basin, a broad Franciscan Complex depression approximately 3 miles east of San Francisco Bay. The basin basement is overlain first by the Pleistocene Santa Clara Formation, then by the Alameda Formation, and lastly by the Temescal Formation. The three units consist of unconsolidated sediments varying in total thickness from approximately 300 to 1,000 feet. The Santa Clara Formation is comprised primarily of alluvial fan deposits interspersed with lake, swamp, river channel, and flood plain deposits. The overlying Alameda Formation was deposited in an estuary environment and consists of organic clays and alluvial deposits. The Temescal Formation is an alluvial deposit ranging in thickness from 1 to 50 feet and consists primarily of silts and clays overlying a basal gravel unit (California Regional Water Quality Control Board [RWQCB], 1999).[1]

Boring logs are included in Appendix B, and Figure 3 presents the locations of Geologic Cross-Sections A-A' and B-B' (Figures 4 and 5). Cross-Section A-A' was prepared along the direction of groundwater flow (northwest to southeast), and B-B' was prepared generally perpendicular to groundwater flow (northwest to southwest).

As shown on the cross-sections, the shallow subsurface consists of a continuous, poorly graded sand and clayey sand unit that extends to depths up to approximately 7 fbg. This unit is underlain by a low permeability silt and clay unit that ranges in thickness from about 7 feet in the adjacent Douglas Parking Lot on the southeast, to 15 feet on the northwest site of the site (Figure 4). At borings B-10, B-11, and B-12, the silt and clay unit is likely interbedded with coarse materials between 8 and 10 fbg because core material was not recovered from this interval during sampling. Southeast of well MW-1 (in the Parking Lot), a relatively thick (i.e., to up to 17 feet) silty sand, sand, and gravel unit underlies the silt and clay, and extends to the maximum depth explored of 30 fbg (Figure 5).

The site is within the Oakland subarea of the East Bay Plain groundwater basin. This basin encompasses approximately 115 square miles and is bound by San Pablo Bay to the north, Alameda County to the south, the Hayward Fault to the east and the San Francisco Bay to the west. Groundwater flow direction in the basin typically follows surface topography; however, local groundwater flow direction can be influenced by subsurface features. Groundwater in this basin is designated as beneficial for municipal and domestic water supply, as indicated in the San Francisco Bay Basin Water Quality Control Plan prepared by the RWQCB – Region 2. However, current beneficial water use of groundwater in the basin is minimal due to readily available, high-quality imported surface water.

[1] California Regional Water Quality Control Board San Francisco Bay Region, *East Bay Plain Ground Water Basin Beneficial Use Evaluation Report*, 1999.

Groundwater flow beneath the site has historically fluctuated between southwest and southeast, but primarily flows to the southeast, paralleling the BART tunnel. The BART tunnel appears to influence both onsite and offsite groundwater elevations. In this area, the top of tunnel occurs at a depth of approximately 12 fbg (Figure 4). As shown, this depth corresponds with the top of the thick, high permeability silty sand, sand, and gravel unit that occurs immediately southeast of MW-1. It is also in this area where the water table appears to decline rapidly, as discussed below.

During installation of the onsite wells MW-1, MW-2, and MW-3, groundwater was initially encountered at 12, 15, and 11 fbg, respectively. According to 11 years of monitoring well data from the three site wells (screened between 5 and 20 fbg), onsite (static) groundwater occurs at depths between approximately 10 and 12 fbg. Groundwater was first encountered at offsite boring locations B-10, B-11, and B-12 at depths of 18, 20, and 23 fbg, respectively. As shown on Figure 4, potentiometric heads decline rapidly across relatively short lateral distances between MW-1, B-10, and B-12 in the southwestern portion of the Parking Lot. Figure 4 illustrates the top and bottom of the BART tunnel, relative to observed groundwater elevations. Near this area, the BART tunnel begins its descent into the subsurface, and the tunnel appears to slightly dewater the aquifer, resulting in a depression of the water table along the tunnel. Based on this hydrogeologic evaluation, boring B-12 is the most downgradient location from both MW-1 and the former tanks.

2.5 Release History

The highest total petroleum hydrocarbons as gasoline (TPHg) concentration in soil is 44 mg/kg from tank pit samples collected in 1986 on the eastern, downgradient side of the tank pit. During product piping removal in 1994, with the exception of 3.6 mg/kg TPHg, no TPHg or benzene were detected in the eight soil samples collected beneath the piping. Trace toluene, ethylbenzene, and xylenes concentrations were detected in four samples. Based on this and soil data collected during boring and well advancement, hydrocarbon impacts in soil are minimal.

During UST replacement in 1986, the grab-groundwater sample collected from groundwater encountered in the pit contained 480,000 micrograms per liter (μg/L) TPHg and 10,000 μg/L benzene. Since groundwater monitoring began in 2002, hydrocarbon concentrations have been greatest in MW-1 with concentrations up to 4,200 μg/L TPHg, 9.2 μg/L benzene, and 9,800 μg/L MTBE. Groundwater in MW-2 and MW-3 seldom contain detectable hydrocarbon concentrations.

2.6 Potential Offsite Sources

Two potential offsite sources are located near the site.

- Former ExxonMobile 70235 (currently a Valero Gasoline Service Station) is located upgradient across Telegraph Avenue with an open environmental case (ACEH Case RO0378)
- Dave's Complete Auto Service is located north (upgradient) across West Grand Avenue with an open environmental Case (ACEH Case RO0359)

Based on the distribution of hydrocarbons in groundwater beneath the Chevron site, it does not appear the ExxonMobile is a source of hydrocarbons detected beneath the Chevron site. Based on its upgradient location, Dave's Complete Auto Service could potentially be contributing to hydrocarbons detected in borings B-11 and B-9.

2.7 Previous Environmental Investigations

Environmental investigation began at the site in 1986 with replacement of the USTs. Between 1986 and early 2012, 63 soil samples and 13 grab-groundwater samples were collected; 11 soil borings were advanced and 3 groundwater monitoring wells were installed; 16 vadose wells with vapor sensors were installed and sampled; and groundwater has been monitored since 2002. Soil analytical data is presented in Table 1, monitoring well construction details are listed in Table 2, and grab-groundwater analytical data is presented in Table 3. Below is a description of the environmental investigations.

In October 1986, new gasoline USTs were installed in the location of the original tank pit. Six soil and one grab-groundwater samples were collected by Blaine Tech Services, Inc. (Blaine Tech) prior to installation of the new USTs. Additional information on soil and groundwater sampling is available in Blaine Tech's account of site activities dated November 21 and 28, 1986.

During site reconstruction in 1986/87, 16 vadose zone wells with vapor sensors were installed onsite. In October 1992, Groundwater Technology, Inc. collected a grab-groundwater sample from vadose well VW-2-1 at the request of Chevron, and analyzed the sample for TPHg and BTEX (Table 3). Because the vadose zone wells do not currently exist, nor is there any record of their installation, the location and depth of these wells are unknown. Additional information is available in Groundwater Technology, Inc.'s *Monitoring and Sampling Report of Vadose Well 2-1* dated November 20, 1992.

In July 1994, gasoline product lines were removed and replaced. Touchstone Developments collected compliance samples P-1 through P-8 from the product line trenches at depths between approximately 4.5 and 5.5 fbg. Approximately 100 cubic yards of soil were excavated from the trenches and disposed of at Redwood Landfill in Novato, California. Additional information is available in Touchstone Developments' August 9, 1994 *Product Line Removal and Sampling Report*.

In November 2000, G-R advanced soil borings B-1 through B-8 to depths ranging from 4 to 16 fbg for a baseline evaluation for Chevron prior to property transfer. Borings B-2 through B-6 were advanced above the BART underground tunnel and were therefore only advanced to 10 fbg in accordance with BART restrictions. Soil samples were collected from each boring and grab-groundwater samples were collected from borings B-1 and B-7. Additional information is available in G-R's November 21, 2000 *Baseline Evaluation*.

In March 2002, G-R installed groundwater monitor wells MW-1 through MW-3 to a depth of 20 fbg and screened between 5 and 20 fbg (Table 2). Soil samples were collected from the three well borings. Additional information is available in G-R's May 30, 2002 *Monitoring Well Installation Report*.

In April 1012, CRA observed the advancement of soil borings B-8B and B-9 through B-12, and collected soil and grab-groundwater samples at various depths from each boring. Additional information is available in CRA's June 8, 2012 *Subsurface Investigation Report and Case Closure Request*.

2.8 Hydrocarbon Remediation

Primary and Secondary Source Removal

In October 1986, new gasoline USTs were installed in the re-excavated location of the original tank pit. Soil and groundwater samples were collected by Blaine Tech Services, Inc. (Blaine Tech) prior to installation of the new USTs. Additional information on soil and groundwater sampling is available in Blaine Tech's account of site activities dated November 21 and 28, 1986.

In July 1994, gasoline product lines were removed and replaced. Excavation of approximately 100 cubic yards of soil was performed and Touchstone Developments collected compliance soil samples P-1 through P-8 from product line trenches at depths between approximately 4.5 and 5.5 fbg. Additional information is available in Touchstone Developments' August 9, 1994 *Product-Line Removal and Sampling Report*.

2.9 Distribution of Residual Hydrocarbons

The primary constituents of concerns (COC) beneath the site are TPHg and MTBE. Other COCs are toluene, ethylbenzene, and xylenes. No benzene is detected in groundwater beneath the site and is only detected in soil at 0.0006 milligrams per kilogram (mg/kg) at 20 fbg and 0.002 mg/kg at 10 fbg, and is therefore not a COC. A discussion of hydrocarbon distribution is presented below.

2.9.1 Soil

Soil beneath the site has been sampled between 2 and 30 fbg. The highest residual concentrations detected in soil are 44 mg/kg TPHg (#2 at 2 fbg), 0.002 mg/kg benzene (B-9 at 10 fbg), 0.39 mg/kg

ethylbenzene (B-9 at 10 fbg), and 0.001 mg/kg MTBE (B-10 at 10 fbg). TPHg has been detected in 10 out of 63 soil samples, benzene 2 out of 57 samples, ethylbenzene 9 out of 57 samples, and MTBE 2 out of 53 samples. No hydrocarbons are detected below 20 fbg to the maximum depth explored of 30 fbg. Residual petroleum hydrocarbons in soil are adequately horizontally and vertically defined.

Nineteen soil samples were collected between 0 and 5 fbg, and 17 soil samples were collected between 5 and 10 fbg. No TPHg, benzene, or ethylbenzene concentrations between 0 and 10 fbg exceed LTCP direct contact and outdoor air criteria. Cumulative analytical data in soil is presented in Table 1. Historical soil analytical results are presented on Table 1 and on geologic cross-sections shown on Figures 4 and 5 and Soil Figures 6 and 7.

2.9.2 Groundwater

Groundwater has been monitored and sampled since 2002 by three wells. Recent groundwater data are summarized below in Table 2.1 and historic groundwater data are presented in Appendix C. Monitoring well construction details are included in Table 2 and grab-groundwater analytical data are listed in Table 3. Current groundwater data are illustrated on Figures 8 and 9.

TABLE 2.1: Groundwater Analytical Data – May 1, 2013

Well ID	*TPHg (µg/L)*	*Benzene (µg/L)*	*Toluene (µg/L)*	*Ethylbenzene (µg/L)*	*Total Xylenes (µg/L)*	*MTBE (µg/L)*
WQOs/ESLs	***100***	***1***	***40***	***30***	***20***	***5***
MW-1	**1,500**	<0.5	<0.5	<0.5	<0.5	**38**
MW-2	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<50	<0.5	<0.5	<0.5	<0.5	<0.5

Note:

< Indicates constituent was not detected at or above laboratory reporting limit.
Bold indicates results above the drinking water environmental screening level (ESL).

WQO Water Quality Objective (Regional Water Quality Control Board – San Francisco Bay Region, *Water Quality Control Plan (Basin Plan):* dated December 31, 2011.)

ESL Environmental Screening Level (Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, November 2007, revised May 2013.)

Depth to groundwater beneath the site ranges from approximately 10 to 12 fbg and typically flows toward the southeast.

Historically, the highest dissolved hydrocarbon concentrations were detected in the grab-groundwater sample collected from the UST pit during UST replacements in 1986, which contained 480,000 µg/L TPHg and 10,000 µg/L benzene. The next highest concentrations were detected in a groundwater sample from onsite vadose well VW-2-1 in 1992, which contained 42,000 µg/L TPHg, 3,300 µg/L benzene, and 540 µg/L ethylbenzene. However, there is no record of installation, location, depth or destruction for these vadose zone probes.

The dissolved hydrocarbon plume is centered on the UST pit and well MW-1, as demonstrated by residual petroleum hydrocarbon concentrations in soil and groundwater. The current TPHg concentration of 1,500 μg/L in MW-1 is two orders of magnitude less than the 1986 sample from the UST pit and one order of magnitude lower than the 1992 sample VW-2-1. The TPHg trend in MW-1 is stable over the last 12 years and recently decreasing. A plume that is "stable" is a contaminant mass that has expanded to its maximum extent: the distance from the release where attenuation exceeds migration.[2] Therefore, the TPHg plume has reached its maximum extent and is no longer migrating.

As shown on Figure 9, CRA estimates that this site's TPHg plume is 105 feet in length, and provides the average TPHg plume length from the source area (248 feet) and the 90th percentile plume length (350 feet).[3] Due to the low concentrations of petroleum hydrocarbon source mass historically detected in soil, it is very likely that this petroleum hydrocarbon plume would be considered a below average plume and would not have migrated beyond the average TPHg plume length of 248 feet. Furthermore, boring B-12 is located approximately 50 feet downgradient of B-9 and adjacent to the BART tunnel that transects the site. No petroleum hydrocarbons were detected in soil or groundwater in B-12, including soil in B-12 at 10 and 15 fbg where shallow groundwater was sampled in B-9. Groundwater was first encountered in B-12 at 23 fbg and the shallower groundwater sampling interval was dry, which indicates that groundwater could be flowing toward B-12 from B-9. Furthermore, the rose diagram represents the groundwater flow direction for the three monitoring wells onsite. Considering the variability in the onsite flow direction as shown on the rose diagram, you can expect similar variability offsite 100 feet downgradient.

The dissolved TPHg concentrations in offsite boring B-9 were equal or greater than the concentrations detected in onsite source area well MW-1. Based on the fate and transport of TPHg, you would not expect to detect higher dissolved hydrocarbon concentrations approximately 50 feet downgradient of the source area. Furthermore, grab-groundwater samples are often biased high due to disturbance of the soil matrix during boring advancement, which may cause desorption of petroleum hydrocarbons from the soil into the groundwater and because grab groundwater samples often contain excessive amounts of sediments containing non-dissolved petroleum hydrocarbons that desorb while in the sample container.[4] Therefore, the grab groundwater samples collected downgradient of the site are likely biased high and not representative of only the dissolved phase. Based on the information presented above, CRA's estimated TPHg plume length is conservative and the actually TPHg plume length is likely less than 100 feet in length.

2 California State Water Resource Control Board, *Leaking Underground Fuel Tank Guidance Manual*, 2012.
3 California State Water Resource Control Board, *Technical Justification for Groundwater Plume Lengths, Indicator Constituents, Concentrations, and Buffer Distances (Separation Distances) to Receptors*, 2011.
4 California State Water Resource Control Board, *Leaking Underground Fuel Tank Guidance Manual*, 2012.

As discussed in section 2.10, downgradient structures consisted of parking garages and office buildings that do not contain basements and the nearest downgradient receptor is 1,100 feet to the southeast. Considering that the petroleum hydrocarbon plume is around 100 feet in length, TPHg concentrations are stable in the source area, the plume is weathered (BTEX compounds depleted), the release took place prior to 1986, the plume affects the subsurface of an active service station and paved parking lot, and the nearest downgradient receptor is 1,100-feet downgradient; the residual TPHg plume is not a threat to human health or the environment.

No dissolved benzene has been detected in any monitoring wells since January 2005 or in 2012 borings B-9 through B-12. The BTEX compounds are depleted in the plume as seen in the monitoring well and downgradient grab-groundwater data. This demonstrates that the petroleum hydrocarbon plume is significantly weathered, no longer migrating, and is shrinking in size and mass.

The highest remaining dissolved MTBE concentration is 38 µg/L in MW-1. In 2012 all downgradient MTBE grab-groundwater concentrations from borings B-9 through B-12 were equal to or below the Water Quality Objective of 5 µg/L.

The dissolved hydrocarbon plume is adequately defined horizontally and vertically. As shown on Figures 4 and 8, the lateral and vertical extents of petroleum hydrocarbons are delineated downgradient of well MW-1 and boring B-9 by boring B-12. Based on the data presented, dissolved petroleum hydrocarbons detected in B-9 are adequately delineated and residual petroleum hydrocarbons do not pose a threat to human health or the environment. As described in Section 3.0, the site meets the LTCP Groundwater Class 2 criteria.

Dissolved Hydrocarbon Trends and Degradation Rates

To support a site specific evaluation of the shrinking plume, CRA uses the guidance provided within the United States Environmental Protection Agency (EPA) document *Calculation and Use of First-Order Rate Constants for Monitored Natural Attenuation Studies* (November 2002) to estimate the time for groundwater concentrations to reach WQOs. CRA also uses the EPA document *On-line Tools for Assessing Petroleum Releases* (September 2004) to assess the proper methodology of determining where to begin a trend analysis. A receptor is located some distance from the source, and no impact to the receptor is seen when the release first occurs. The analytes take time to travel to the receptor. The first data points that show an analyte detection is called the first arrival time. The first arrival time varies for each receptor based upon distance from the receptor and the transport rates through the heterogeneous medium.

As the analyte plume expands and stabilizes, the analyte concentration reaches the maximum concentration. If the source of the release is finite (e.g., a single release from an underground storage tank), the concentration will eventually decrease from the maximum, to below the concentration of concern. This period is called the duration.

CRA evaluates groundwater monitoring data from each well (the receptor) and creates a degradation trend analysis for site COCs from the maximum detection through the latest sampling date. The starting point can vary from the maximum detection if the transport mechanisms are not sufficiently linear. For example, groundwater monitoring data may show that the maximum concentration occurred at some point in the past and that degradation seemed to be occurring. However, due to the heterogeneous nature of the subsurface and seasonal groundwater level fluctuations, the duration does not demonstrate a steady degradation behavior. The concentrations of the analyte may increase one or more times before showing consistent attenuation towards the concentration objective.

CRA calculated dissolved TPHg and MTBE concentration trends for well MW-1 to meet the RWQCB's water quality objective (WQOs). These WQOs are 100 µg/L TPHg and 5 µg/L MTBE. No benzene, toluene, ethylbenzene, or xylenes (BTEX) are detected in the wells. CRA used the following first order exponential decay rate calculation[5] to estimate the time to meet the applicable WQOs:

$$y = be^{(ax)}$$

Where "a" is a decay constant, "b" is a concentration at time (x), y is concentration (WQO) and "x" is time. A summary of historical maximum concentrations and current concentrations for all active wells and projections to meet the WQOs are presented in Table 2.2. Trend graphs and degradation calculations are presented as Appendix D.

TABLE 2.2: Summary of Degradation Calculations

Well ID	*Analyte*	*Maximum Concentrations*	*Current Concentrations*	*WQO*	*Date to Reach WQO*	*Years to Reach WQO*
MW-1	TPHg	4,200	1,500	100	2020	6
	MTBE	9,800	38	5	2019	5

Note:

< Indicates constituent was not detected at or above laboratory reporting limit.
Bold indicates results above the drinking water environmental screening level (ESL).

WQO Water Quality Objective (Regional Water Quality Control Board – San Francisco Bay Region, *Water Quality Control Plan (Basin Plan):* dated December 31, 2011.)

ESL Environmental Screening Level (Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, November 2007, revised May 2013.)

Current TPHg concentrations are two orders of magnitude lower than historical high concentrations detected in the grab-groundwater sample collected from the UST pit in 1992, and have been stable in MW-1 the past 11 years, one order of magnitude above the WQO of 100 µg/L. Benzene is no longer detected in groundwater. As shown in Table 2.2, TPHg (3 year trend) and MTBE (11 year trend) concentrations in MW-1 (from the historical concentration peaks) will reach the WQOs within 6 years in

5 EPA-Groundwater Issue; Calculation and Use of First-Order Rate Constants for Monitored Natural Attenuation Studies; Charles J. Newell, et al., 2002.

onsite source area well MW-1. The trend graphs presented as Appendix D show that dissolved petroleum hydrocarbon constituent concentrations are stable or decreasing. The presence of tertiary butyl alcohol (TBA), a biotransformation byproduct of MTBE degradation, also demonstrates that the MTBE is degrading and not just migrating away from the source. In addition, the MTBE concentrations detected in borings downgradient of MW-1 are at or below the WQO. Therefore, the plume has reached its maximum extent and is degrading back toward the source.

2.9.3 Soil Vapor

No known vapor data has been collected from the site. During station reconstruction in 1986–1987, 16 vadose wells equipped with vapor sensors were reportedly installed because BART tracks run directly beneath the site in an underground tunnel. No analytic data or report is available for these well installations. G-R concluded that the vapor wells and sensors were abandoned and removed from the site at an unknown date.[6]

This site is an active commercial service station and will likely be so for the foreseeable future. The LTCP states that satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required at active commercial petroleum fueling facilities, except in cases where release characteristics can be reasonably believed to pose an unacceptable health risk. Because no benzene is detected in groundwater, the only benzene in shallow soil (0-10 fbg) is 0.002 mg/kg, and no TPHg in shallow soil (0-10 fbg) exceeds the LTCP criteria of 100 mg/kg, this site is not believed to pose an unacceptable health risk.

2.9.4 LNAPL

No light non-aqueous phase liquid (LNAPL) has been detected beneath the site.

2.10 Potential Receptors and Exposure Pathways

All identified potential receptors are listed on Table 4 and illustrated on Figures 9 and 10.

2.10.1 Potential Human Receptors

This site is an active service station in a primarily commercial area with a restaurant and parking garage to the south across 22nd Avenue, a Valero Service Station to the west across Telegraph Avenue, Dave's Complete Auto Service and New Day Pre-School to the north across West Grand Avenue, and a parking lot and commercial building to the east. A church is located west-southwest of the site, and beyond the church are a few residential homes. Potential human receptors include onsite workers and potential utility/construction workers. The transport pathway of chemicals in subsurface soil and groundwater by

6 G-R's November 21, 2000 Baseline Evaluation

volatilization of soil gas to the atmosphere and direct contact onsite is unlikely given the results of our previous analysis of site data.

CRA reviewed online mapping services (i.e. Google Earth®) and performed a physical site reconnaissance to identify other potential receptors within a ¼-mile radius, including basements, schools, hospitals, day care centres, and eldercare facilities. Three eldercare centres, Satellite Central, and Providence Home, and Northgate Terrace, are located approximately 400 feet southwest (crossgradient), 600 feet northwest (upgradient), and 900 feet northwest (upgradient), respectively, of the site. Mercy Housing (Hamilton Apartments) for families seniors and special needs was located approximately 200 feet southwest (crossgradient) of the site. Two daycares, New Day Pre-School and Smalltrans Depot, are located approximately 125 feet northeast (crossgradient) and 750 feet east (downgradient), respectively, of the site. Westlake Middle School is located approximately 1,600 feet northeast of the site. Due to either the distance and/or direction, none of these potential receptors are at risk of being affected by hydrocarbons originating at the site (Figure 9). None of the buildings in the immediately downgradient vicinity of the site contained basements and no hospitals are located within ¼-mile of the site.

2.10.2 Water Supply Wells

In 2008, CRA compiled well data provided by California Department of Water Resources (DWR) and in 2014 compiled well data provided by the Alameda County Public Works Agency (ACPW).[7] Based on well data from the two agencies, five wells (three irrigation, one domestic, and one industrial) were located within ½-mile of the site; one was located 3,500 feet away; one was located over 2 miles away; and one well did not have an address. The nearest well is an irrigation well located 1,100 feet southeast (downgradient) of the site (Figures 9 and 10). Due to proximity, residual onsite petroleum hydrocarbon concentrations are not expected to affect any of the water supply wells. The water supply wells are listed in Table 4 and located on Figure 10, and the entire list of wells from the DWR and ACPW are included in Appendix E.

2.10.3 Surface Waters

The nearest surface waters are Glenn Echo Creek, located approximately 1,500 feet east, which drains into Lake Merritt, located approximately 1,500 feet east and southeast (downgradient) of the site. Lake Merritt then drains into Oakland Inner Harbor, approximately 1.5 miles to the south.

2.10.4 Summary of Potential Exposure Pathways

All identified potential receptors are listed on Table 4 and illustrated on Figures 9 and 10. The site poses a low threat to human health and safety and the environment based on soil and groundwater data, and

[7] The DWR well report was presented to ACEH in the CRA Site Conceptual Model (December 30, 2008).

potential routes for exposure including inhalation, ingestion, and direct contact. Direct contact, ingestion, and inhalation exposure pathways are discussed further in Section 3.2 below.

2.10.5 Conduit Study

CRA contacted Underground Service Alert and hired a private utility locator to locate and measure the depths of utilities near the site. The deepest utilities were storm and sewer lines at approximately 6 fbg. Groundwater monitoring at the site has occurred from April 2002 to present. During this period, depth to groundwater has consistently been deeper than 10 fbg beneath the site, with the exception of one 9.86 fbg measurement in MW-2. Various other utilities have been identified on and around the site. However, it does not appear that the utility lines are acting as preferential pathways for significant hydrocarbon migration because groundwater is below the depth of typical utility depths.

While the BART line, located approximately 12 fbg, appears to affect groundwater flow, the extent of hydrocarbons is adequately defined in the direction of potential groundwater flow by grab-groundwater data collected from boring B-12.

Section 3.0 Request for Low-Threat Closure

3.1 General Criteria

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

Yes. The site receives water from the East Bay Municipal Utility District.

b) The Unauthorized Release Consists Only of Petroleum

Yes. All unauthorized releases consisted of hydrocarbons originating from either the gasoline USTs or product piping.

c) The Unauthorized ('Primary') Release from the UST System has stopped

Yes. The fuel USTs were replaced in 1986, and product piping were replaced in 1994.

d) Free product has been removed to the Maximum Extent Practicable

No LNAPL has ever been detected beneath the site.

e) A Conceptual Site Model that Assesses the Nature, Extent, and Mobility of the Release has been developed

Yes. A CSM is presented herein.

f) Secondary Source has been removed to the Extent Practicable

Based on the review of historical site data, there is not a significant mass of hydrocarbons in soil. The highest concentrations detected in soil are 44 milligrams per kilogram (mg/kg) TPHg, 0.002 mg/kg benzene, 0.39 mg/kg ethylbenzene, and 0.001 mg/kg MTBE. All detected concentrations are below LTCP criteria and are laterally and vertically defined.

During the product piping replacements in 1994, approximately 100 cubic yards of soil was excavated and disposed of offsite. An adequate amount of secondary source mass has been removed to stabilize and allow natural attenuation to degrade the petroleum hydrocarbon plume.

g) Soil and Groundwater have been tested for MTBE and Results Reported in Accordance with Health and Safety Code Section 25296.15

Yes. Soil and groundwater have been tested for MTBE and are presented in Table 1 (soil data) and Appendix C (groundwater data).

h) Nuisance as Defined by Water Code Section 13050 Does Not Exist at the Site

The conditions of "nuisance" as defined by water code section 13050 does not exist at the site.

3.2 Media-Specific Criteria

3.2.1 Groundwater

Long-term groundwater monitoring data demonstrate that the plume above WQOs is stable or decreasing in areal extent, as required by the LTCP. The LTCP has five classes that define a stable plume as "low threat". This site meets Criteria 2 as follows.

a) The TPHg plume is less than 250 feet in length; the MTBE plume is less than 200 feet in length; and no benzene is detected in groundwater (Figures 8 and 9).

b) No LNAPL has ever been detected beneath the site.

c) The nearest surface waters are Lake Merrit and Glen Echo Creek, both over 1,000 feet from the site; the nearest water supply well is located 1,100 feet from the site

d) No benzene is detected in groundwater and the highest MTBE concentration detected is 38 µg/L.

Additionally, MTBE is expected to reach WQO within 5 years and the TPHg plume is stable, which meets the LTCP that states "…the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent…" Therefore, based on this analysis of site specific conditions, under current and reasonably anticipated near-term future scenarios the contaminant plume poses a low threat to human health and safety and to the environment and water quality objectives will be achieved within a reasonable time frame.

3.2.2 Vapor Intrusion to Indoor Air

This is an active service station and according to the LTCP, active service stations are exempt from satisfying the vapor intrusion criteria. The policy states, "Exposures to petroleum vapors associated with historical fuel system releases are comparatively insignificant relative to exposures from small surface spills and fugitive vapor releases that typically occur at active fueling facilities. Therefore, satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required at active commercial petroleum fueling facilities, except in cases where release characteristics can be reasonably

believed to pose an unacceptable health risk."

No benzene is detected in groundwater. The depth to groundwater is approximately 10 to 12 fbg. No TPHg has been detected above 100 mg/kg in the 36 soil samples collected between 0 and 10 fbg. The highest TPHg concentration in shallow soil is 44 mg/kg. Therefore there is little risk of vapor intrusion to the onsite station building or any of the surrounding parking lots or commercial buildings.

3.2.3 Direct Contact and Outdoor Air Exposure

The *Low Threat Policy* contains concentration criteria for benzene, ethylbenzene, naphthalene, and PAHs in soil between 0 and 5 fbg and 5 to 10 fbg that are defined as "low threat" for the direct contact and outdoor air pathway for various receptors. The criteria are listed below in Table 3.1:

	Table 3.1 ***Policy Criteria for Direct Contact/Outdoor Air (DC/OA)***					***Site Data***	
	Residential		***Commercial/Industrial***		***Utility Worker***	***Site Maximum Concentration.***	
Constituent	***0 – 5 fbg mg/kg***	***Volatilization to outdoor air (5 – 10 fbg) mg/kg***	***0 – 5 fbg mg/kg***	***Volatilization to outdoor air (5 – 10 fbg) mg/kg***	***0 – 10 fbg mg/kg***	***0 – 5 fbg***	***>5 – 10 fbg***
Benzene	1.9	2.8	8.2	12	14	<0.005	0.002
Ethylbenzene	21	32	89	134	314	0.008	0.39
Naphthalene	9.7	9.7	45	45	219	NA	NA
PAH*	0.063	NA	0.68	NA	4.5	NA	NA
*Notes: Based on the seven carcinogenic polynuclear aromatic hydrocarbons (PAHs) as benzo(a)pyrene toxicity equivalent [BaPe]. The PAH screening level is only applicable where soil is affected by either waste oil and/or Bunker C fuel.							

This is an active gasoline station surrounded by parking lots and commercial buildings; therefore, the residential values do not apply to this site. Of the 19 soil samples collected between 0 and 5 fbg, and 17 soil samples collected between 5 and 10 fbg, no benzene or ethylbenzene concentrations exceed the above criteria. The highest concentrations detected between 0 and 10 fbg are 0.002 mg/kg benzene and 0.39 mg/kg ethylbenzene. Soil has not been analyzed for naphthalene or poly-aromatic hydrocarbons (PAHs). However, the relative concentration of naphthalene in soil can be conservatively estimated using the published relative concentrations of naphthalene and benzene in gasoline. Oxygenated gasoline mixtures contain approximately 1 percent benzene and 0.25 percent naphthalene.[8] Therefore, benzene can be directly substituted for naphthalene concentrations with a safety factor of four. Benzene concentrations from the site are five orders of magnitude below the naphthalene thresholds in the above Table 3.1. Therefore, the estimated naphthalene concentrations meet the thresholds in Table 3.1 and the *Low Threat* criteria for direct contact by a factor of four. It is highly

[8] USEPA, 2010, *Gasoline Composition Regulations Affecting LUST Sites*, dated January.

unlikely that naphthalene concentrations in the soil, if any, exceed the threshold. There is no PAH data because soil has not been affected by used-oil or Bunker C fuel. Cumulative soil analytical data is listed in Table 1.

Section 4.0 Conclusions and Recommendations

Based on the site data presented in Section 2.0 and the evaluation of the site conditions with respect to the LTCP case closure criteria in Section 3.0, there are no data gaps. Additionally, this report adequately addresses the technical comments in the ACEH letter dated December 3, 2013.

Based on our review, the site conditions adequately meet general and media-specific criteria established in the LTCP. Site conditions pose a low threat to human health, safety, and the environment, and satisfy the case-closure requirements of the Health and Safety Code section 25296.10, and case closure is consistent with Resolution 92-49 that requires that cleanup goals be met within a reasonable time frame.

Figures

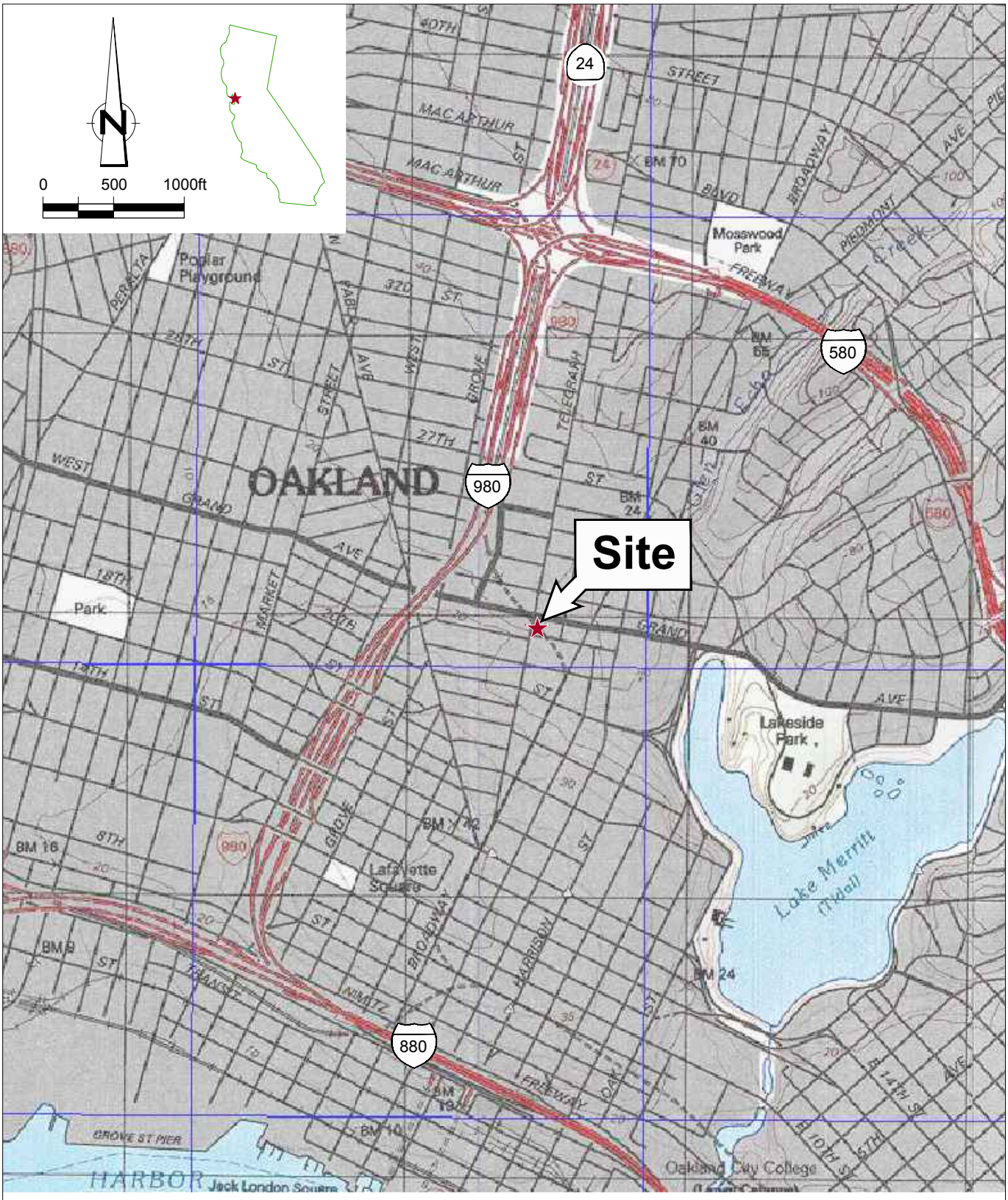
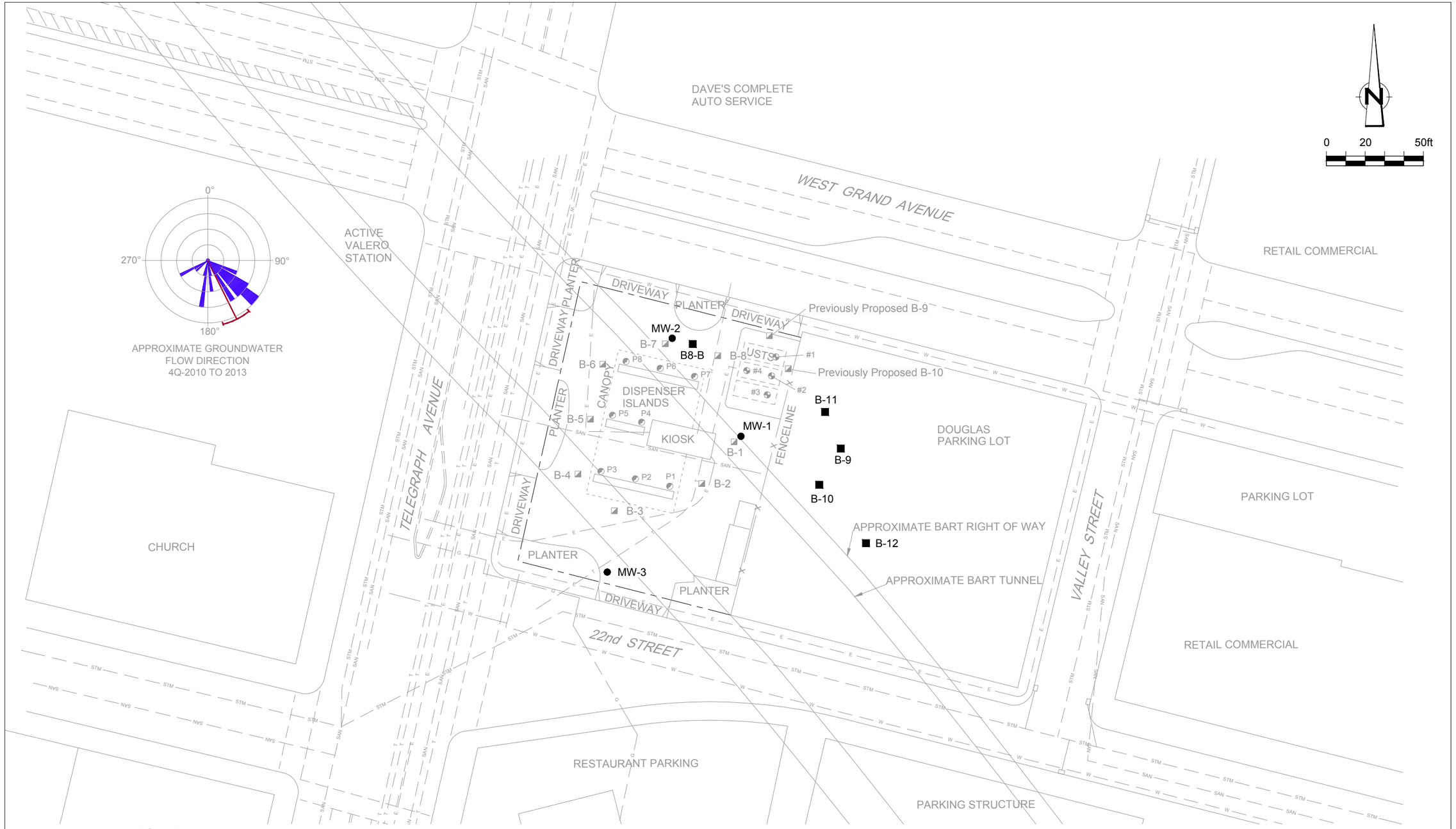


Figure 1

VICINITY MAP
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE
Oakland, California

311965-2014(014)GN-EM001 JUN 5/2014



BASEMAP MODIFIED FROM DRAWING PROVIDED BY GETTLER-RYAN INC.

311965-2014(014)GN-EM002 JUN 5/2014

Figure 2

SITE PLAN
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE
Oakland, California

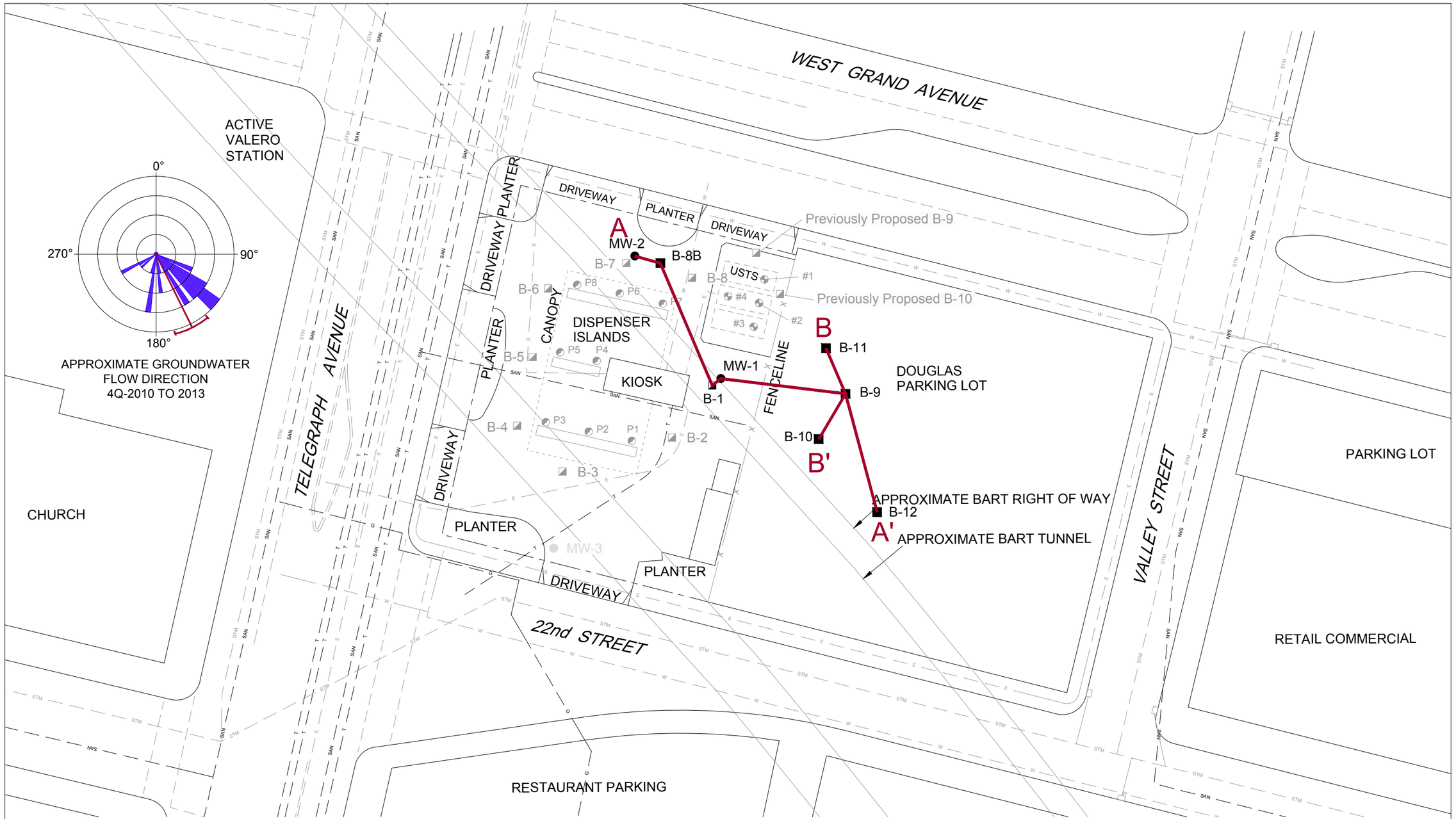
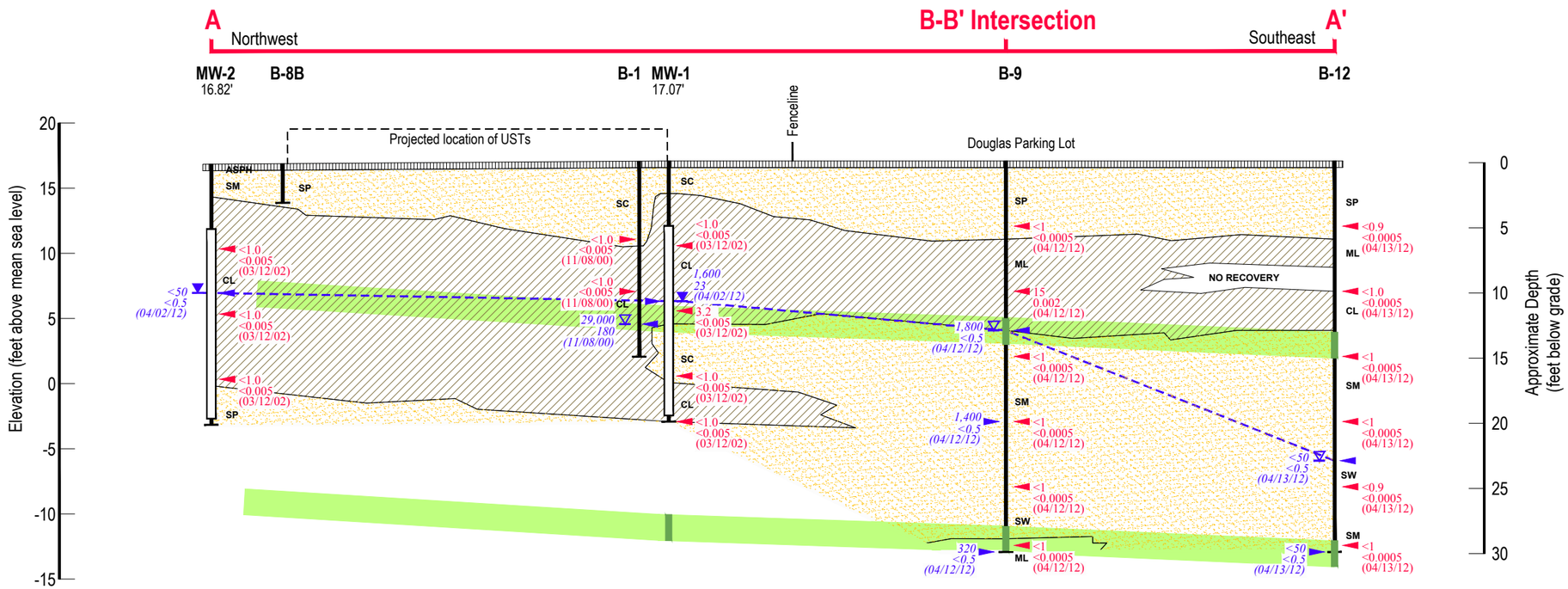
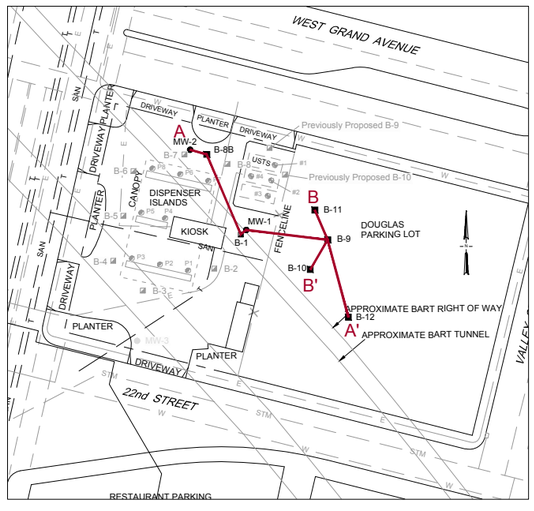


Figure 3

GEOLOGIC CROSS-SECTION LOCATIONS
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE
Oakland, California

311965-2014(014)GN-EM004 JUN 5/2014





EXPLANATION

Fine Materials

- ML - Inorganic silt and very fine sand, silty sand of slight plasticity
- CL - Inorganic clay of low to medium plasticity, gravelly, sandy, and silty clays, lean clay

Coarse Materials

- GW - Well graded gravel, gravel-sand mixture, little or no fines
- SW - Well graded sand, gravelly sand, little or no fines
- SP - Poorly graded sand, or gravelly sand, little or no fines
- SM - Silty sand, sand-silt mixtures
- SC - Clayey sand, sand-clay mixtures

Approximate elevations of top and bottom of BART Tunnel

Approximate potentiometric surface

Approximate groundwater sample location

Approximate soil sample location

TPHg / Benzene (Date) — Hydrocarbon concentrations in soil, in milligrams per kilogram (mg/kg)

Well ID / Elev. — Well Designation / Top of Casing Elevation

Boring / Well

Well Screen Interval

Bottom of Boring

Groundwater Level During Drilling (Date as noted)

Static Groundwater Level (Date as noted)

TPHg / MTBE (Date) — Hydrocarbon concentrations in groundwater samples, in micrograms per liter (µg/L)

(Benzene was not detected at or above the reporting limit in 4/12/12 grab-groundwater samples)

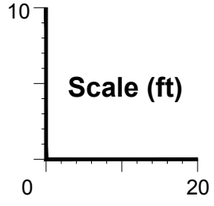
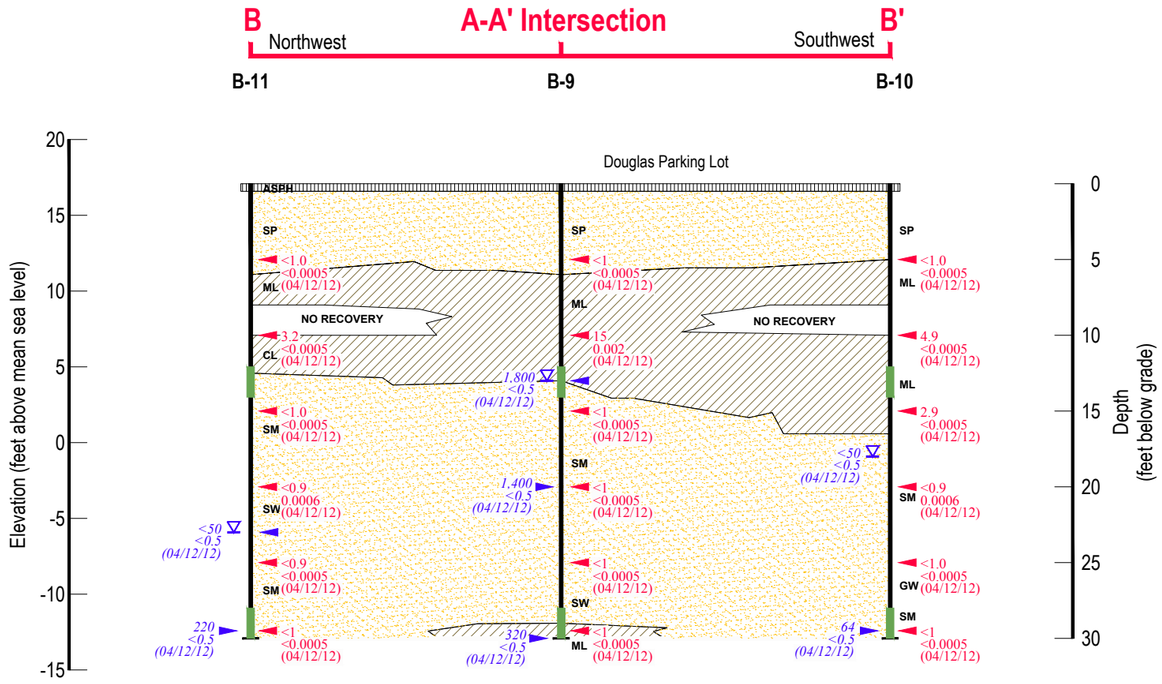
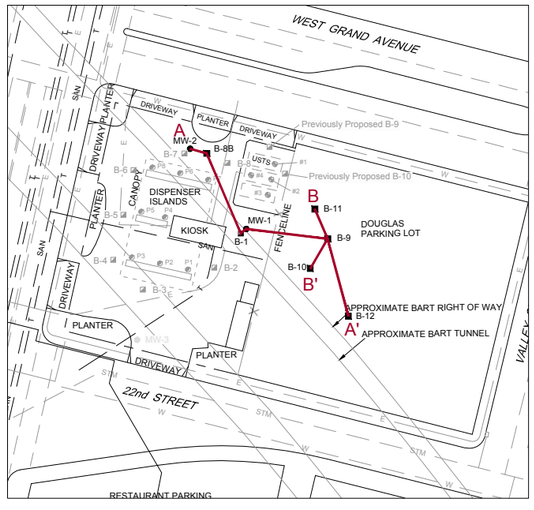


Figure 4

GEOLOGIC CROSS-SECTION A-A'
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE
Oakland, California





EXPLANATION

Fine Materials

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Coarse Materials

- GW - Well graded gravel, gravel-sand mixture, little or no fines
- SW - Well graded sand, gravelly sand, little or no fines
- SP - Poorly graded sand, or gravelly sand, little or no fines
- SM - Silty sand, sand-silt mixtures
- SC - Clayey sand, sand-clay mixtures

Approximate elevations of top and bottom of BART Tunnel

Approximate potentiometric surface

Approximate groundwater sample location

Approximate soil sample location

TPHg / Benzene / (Date) — Hydrocarbon concentrations in soil, in milligrams per kilogram (mg/kg)

Boring ID — Boring Designation

Boring

Bottom of Boring

Groundwater Level During Drilling (Date as noted)

Static Groundwater Level (Date as noted)

TPHg / MTBE / (Date) — Hydrocarbon concentrations in groundwater samples, in micrograms per liter (µg/L)

(Benzene was not detected at or above the reporting limit in 4/12/12 grab-groundwater samples)

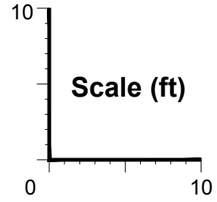
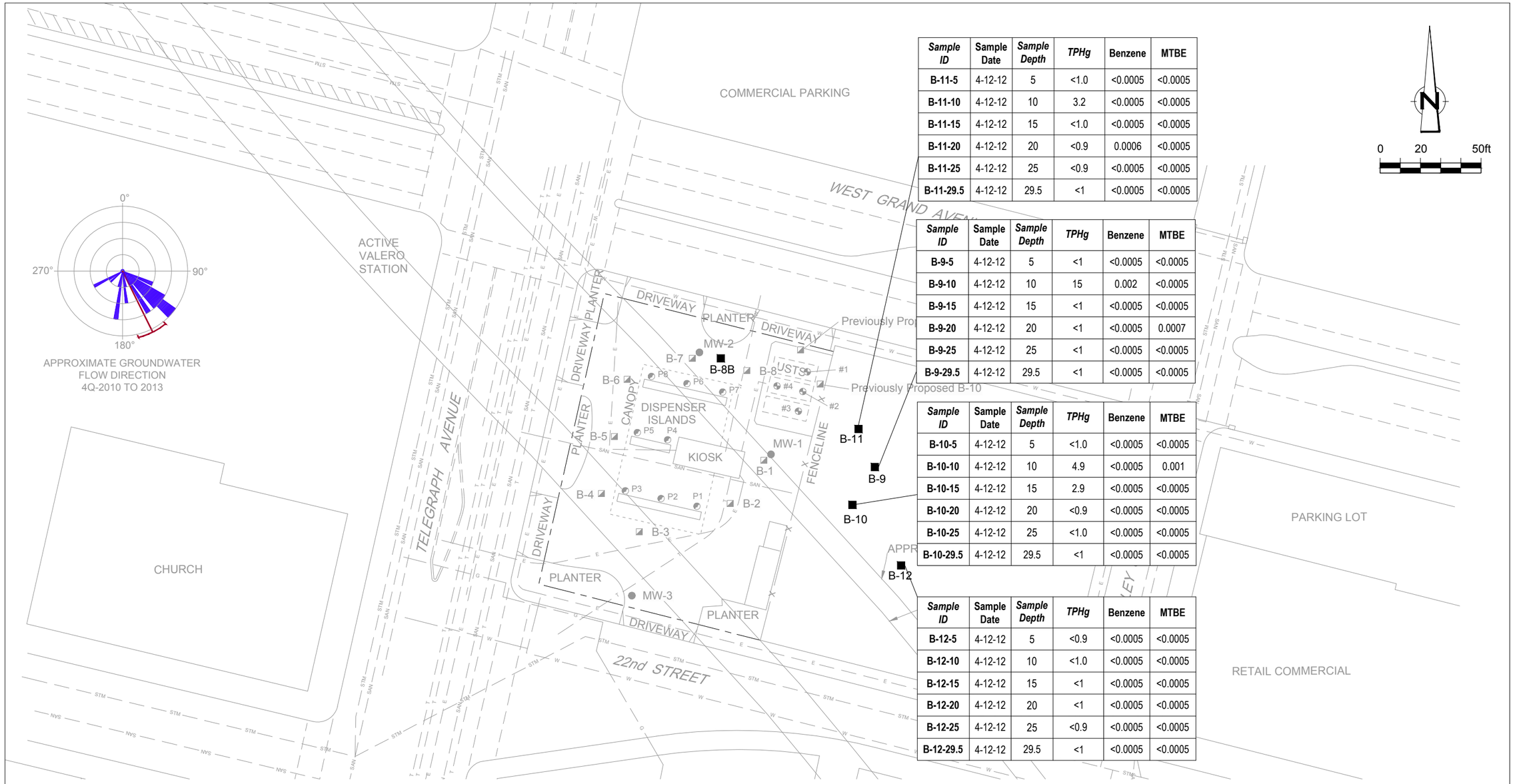


Figure 5

GEOLOGIC CROSS-SECTION B-B'
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE
Oakland, California



Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
B-11-5	4-12-12	5	<1.0	<0.0005	<0.0005
B-11-10	4-12-12	10	3.2	<0.0005	<0.0005
B-11-15	4-12-12	15	<1.0	<0.0005	<0.0005
B-11-20	4-12-12	20	<0.9	0.0006	<0.0005
B-11-25	4-12-12	25	<0.9	<0.0005	<0.0005
B-11-29.5	4-12-12	29.5	<1	<0.0005	<0.0005

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
B-9-5	4-12-12	5	<1	<0.0005	<0.0005
B-9-10	4-12-12	10	15	0.002	<0.0005
B-9-15	4-12-12	15	<1	<0.0005	<0.0005
B-9-20	4-12-12	20	<1	<0.0005	0.0007
B-9-25	4-12-12	25	<1	<0.0005	<0.0005
B-9-29.5	4-12-12	29.5	<1	<0.0005	<0.0005

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
B-10-5	4-12-12	5	<1.0	<0.0005	<0.0005
B-10-10	4-12-12	10	4.9	<0.0005	0.001
B-10-15	4-12-12	15	2.9	<0.0005	<0.0005
B-10-20	4-12-12	20	<0.9	<0.0005	<0.0005
B-10-25	4-12-12	25	<1.0	<0.0005	<0.0005
B-10-29.5	4-12-12	29.5	<1	<0.0005	<0.0005

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
B-12-5	4-12-12	5	<0.9	<0.0005	<0.0005
B-12-10	4-12-12	10	<1.0	<0.0005	<0.0005
B-12-15	4-12-12	15	<1	<0.0005	<0.0005
B-12-20	4-12-12	20	<1	<0.0005	<0.0005
B-12-25	4-12-12	25	<0.9	<0.0005	<0.0005
B-12-29.5	4-12-12	29.5	<1	<0.0005	<0.0005

LEGEND

B-8B ■ SOIL BORING LOCATION
MW-1 ● MONITORING WELL LOCATION
B-1 ◪ SOIL BORING LOCATION (BASELINE INVESTIGATION, 2000)
P1 ◴ PRODUCT LINE SOIL SAMPLE LOCATION (1994)
#1 ◔ TANK PIT SOIL SAMPLE LOCATION (1986)

NS NO SAMPLE COLLECTED AT LOCATION
<X INDICATES CHEMICAL NOT DETECTED AT OR ABOVE REPORTING LIMIT SHOWN
CONCENTRATIONS REPORTED IN MILLIGRAMS PER KILOGRAM (mg/kg)

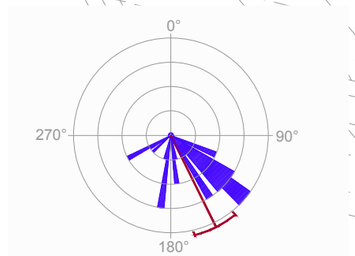
W WATER LINE
E ELECTRICAL LINE
G GAS LINE
S SANITARY SEWER LINE
STM STORM DRAIN LINE
T TELECOMMUNICATIONS LINE

BASEMAP MODIFIED FROM DRAWING PROVIDED BY GETTLER-RYAN INC.

Figure 6

OFFSITE TPHg, BENZENE, AND MTBE CONCENTRATIONS IN SOIL
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE
Oakland, California

311965-2014(014)GN-EM006 JUN 5/2014



APPROXIMATE GROUNDWATER
FLOW DIRECTION
4Q-2010 TO 2013

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
P5-5	7-25-94	5	<1.0	<0.005	NA

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
B-5-5	11-8-00	5	<1.0	<0.005	<0.005
B-5-10	11-8-00	10	<1.0	<0.005	<0.005

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
P3-5	7-25-94	5	<1.0	<0.005	NA

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
B-4-5	11-8-00	5	<1.0	<0.005	<0.005
B-4-10	11-8-00	10	<1.0	<0.005	<0.005

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
P2-4.5	7-25-94	4.5	<1.0	<0.005	NA

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
B-7-5	11-8-00	5	<1.0	<0.005	<0.005
B-7-10	11-8-00	10	<1.0	<0.005	<0.005

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
P8-5	7-25-94	5	<1.0	<0.005	NA

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
B-6-5	11-8-00	5	<1.0	<0.005	<0.005
B-6-10	11-8-00	10	<1.0	<0.005	<0.005

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
P4-5	7-25-94	5	<1.0	<0.005	NA

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
B-3-5	11-8-00	5	<1.0	<0.005	<0.005

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
MW-3-6.5	3-12-02	6.5	<1.0	<0.005	<0.05
MW-3-11.5	3-12-02	11.5	<1.0	<0.005	<0.05
MW-3-16.5	3-12-02	16.5	<1.0	<0.005	<0.05
MW-3-20	3-12-02	20	<1.0	<0.005	<0.05

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
P1-4.5	7-25-94	4.5	<1.0	<0.005	NA

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
B-2-6	11-8-00	6	<1.0	<0.005	<0.005
B-2-10	11-8-00	10	<1.0	<0.005	<0.005

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
MW-2-6.5	3-12-02	6.5	<1.0	<0.005	<0.05
MW-2-11.5	3-12-02	11.5	<1.0	<0.005	<0.05
MW-2-16.5	3-12-02	16.5	<1.0	<0.005	<0.05
MW-2-20	3-12-02	20	<1.0	<0.005	<0.05

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
P6-5.5	7-25-94	5.5	3.6	<0.005	NA

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
P7-5.5	7-25-94	5.5	<1.0	<0.005	NA

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
#4-2	10-29-86	2	<1.0	NA	NA

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
#1-2.5	10-29-86	2.5	15	NA	NA

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
#2-2	10-29-86	2	44	NA	NA
#2-13	10-27-86	13	4.5	NA	NA

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
#3-2	10-29-86	2	1.4	NA	NA
#3-13	10-27-86	13	ND	NA	NA

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
MW-1-6.5	3-12-02	6.5	<1.0	<0.005	<0.05
MW-1-11.5	3-12-02	11.5	3.20	<0.005	<0.05
MW-1-16.5	3-12-02	16.5	<1.0	<0.005	<0.05
MW-1-20	3-12-02	20	<1.0	<0.005	<0.05

Sample ID	Sample Date	Sample Depth	TPHg	Benzene	MTBE
B-1-6	11-8-00	6	<1.0	<0.005	<0.005
B-1-10	11-8-00	10	<1.0	<0.005	<0.005

LEGEND

- B-8B ■ SOIL BORING LOCATION
- MW-1 ● MONITORING WELL LOCATION
- B-1 ◪ SOIL BORING LOCATION (BASELINE INVESTIGATION, 2000)
- P1 ◴ PRODUCT LINE SOIL SAMPLE LOCATION (1994)
- #1 ◔ TANK PIT SOIL SAMPLE LOCATION (1986)

NS NO SAMPLE COLLECTED AT LOCATION
NA NOT ANALYZED
<X INDICATES CHEMICAL NOT DETECTED AT OR ABOVE REPORTING LIMIT SHOWN
CONCENTRATIONS REPORTED IN MILLIGRAMS PER KILOGRAM (mg/kg)

- W WATER LINE
- E ELECTRICAL LINE
- G GAS LINE
- S SANITARY SEWER LINE
- STM STORM DRAIN LINE
- T TELECOMMUNICATIONS LINE

BASEMAP MODIFIED FROM DRAWING PROVIDED BY GETTLER-RYAN INC.

Figure 7

ONSITE TPHg, BENZENE, AND MTBE CONCENTRATIONS IN SOIL
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE
Oakland, California

311965-2014(014)GN-EM007 JUN 5/2014

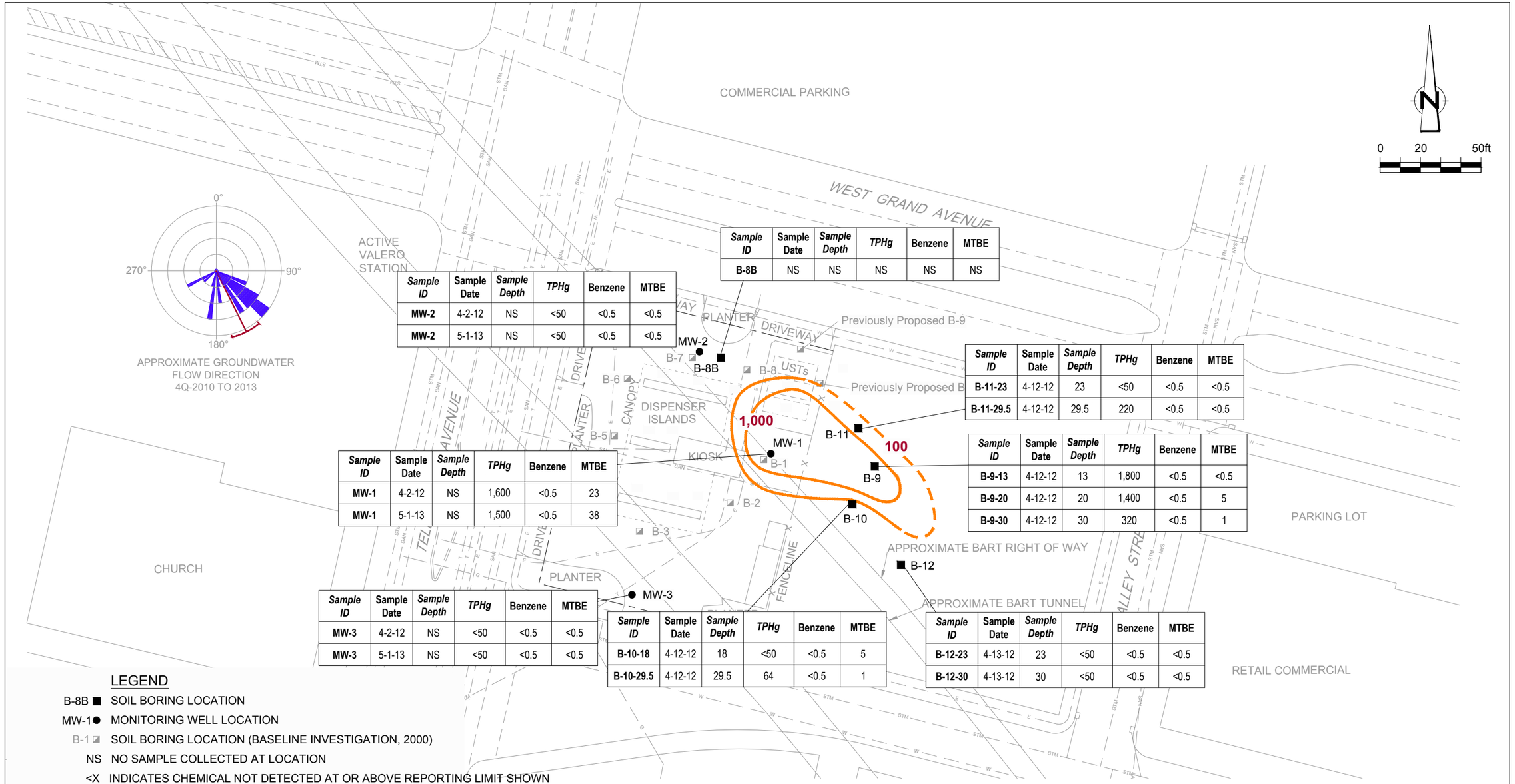
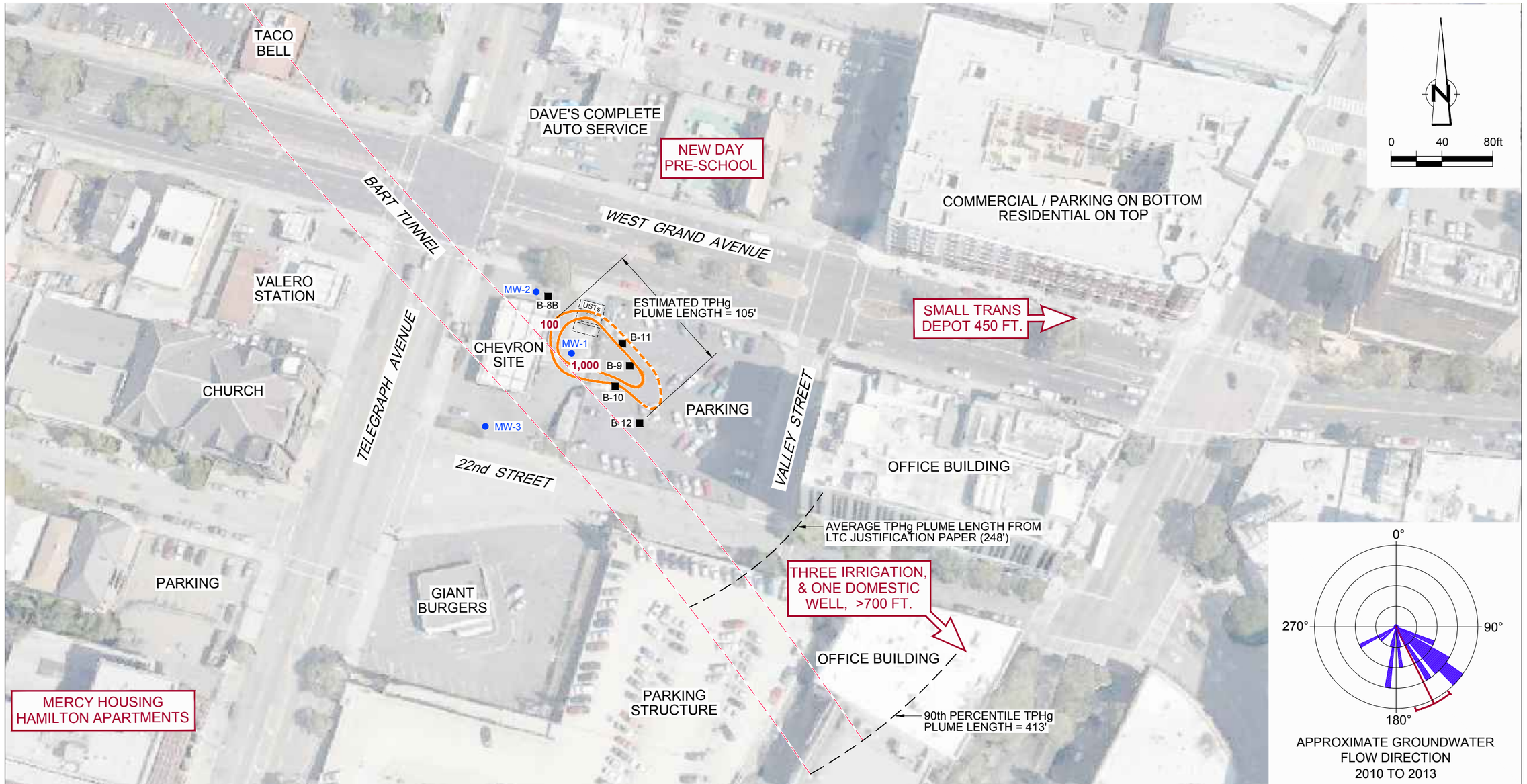


Figure 8

TPHg, BENZENE, AND MTBE CONCENTRATIONS IN GROUNDWATER
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE
Oakland, California

311965-2014(014)GN-EM008 JUN 5/2014



LEGEND

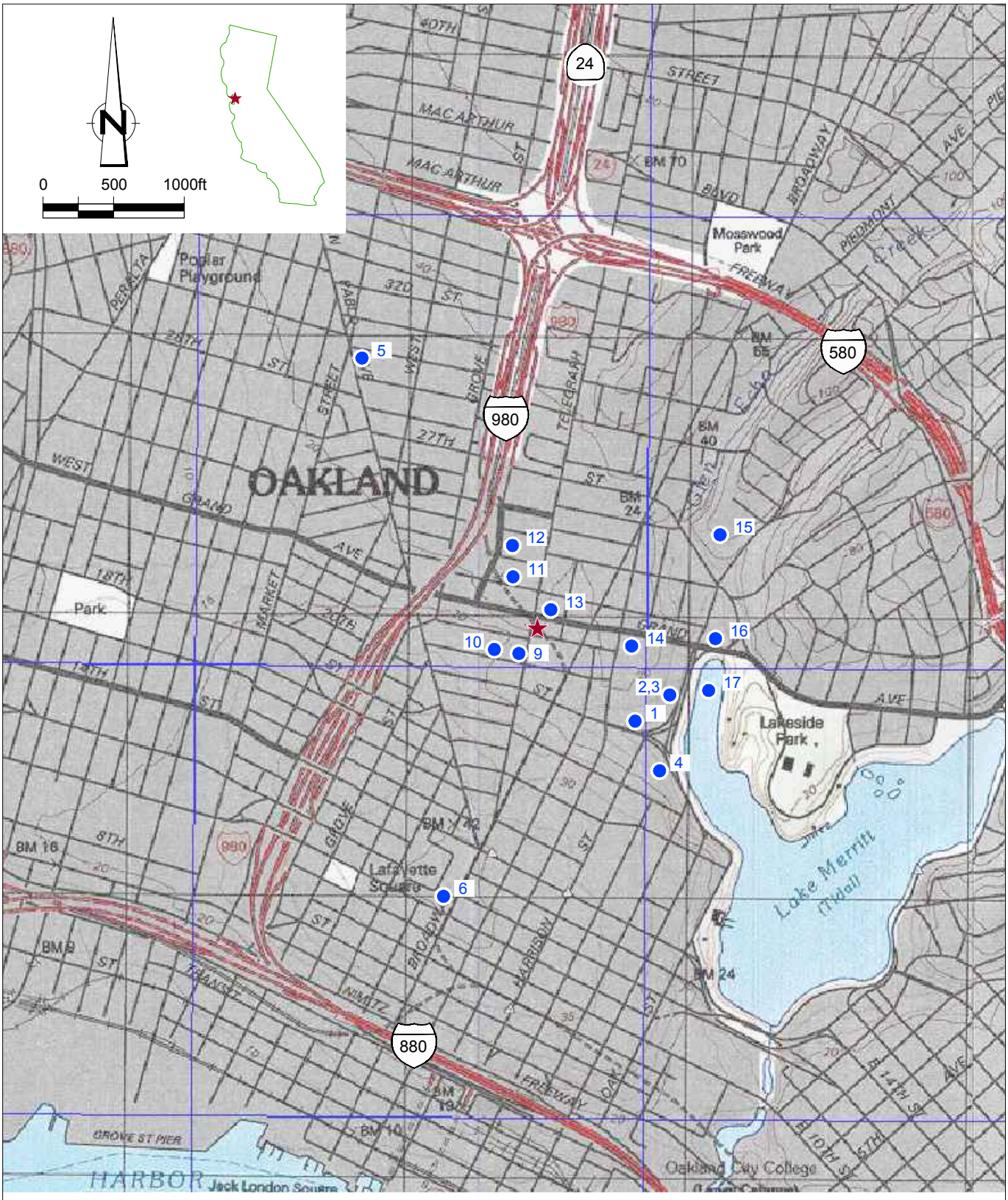
- B-8B ■ SOIL BORING LOCATION
- MW-1 ● MONITORING WELL LOCATION
- 100 TPHg CONCENTRATION CONTOUR LINE, DASHED WHERE INFERRED
- POTENTIAL SENSITIVE RECEPTOR

BASEMAP FROM GOOGLE EARTH PRO

311965-2014(014)GN-EM009 JUN 16/2014

Figure 9

POTENTIAL RECEPTORS AND GROUNDWATER PLUME
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE
Oakland, California



LEGEND

★ SITE LOCATION

1 ● SENSITIVE RECEPTOR

Figure 10

POTENTIAL SENSITIVE RECEPTOR MAP
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE
Oakland, California

311965-2014(014)GN-EM010 JUN 5/2014

Tables

TABLE 1
CUMULATIVE SOIL ANALYTICAL DATA
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*VOCs*	*SVOCs*	*Pb*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Naph-thalene*	*PAHs*
			Concentrations in milligrams per kilogram (mg/kg)														
Low-Threat Underground Storage Tank Case Closure Criteria [a, b]																	
Vapor Intrusion to Indoor Air (0-10 fbg) (No LNAPL)			***100***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*
Direct Contact (0-5 fbg)	***Residential***		*--*	***1.9***	*--*	***21***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***9.7***	***0.063***
	Commercial		*--*	***2.8***	*--*	***32***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***9.7***	***NA***
Volatilization to Outdoor Air (5-10 fbg)	***Residential***		*--*	***8.2***	*--*	***89***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***45***	***0.68***
	Commercial		*--*	***12***	*--*	***134***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***45***	***NA***
Diret Contact (0-10 fbg)	***Utility***		*--*	***14***	*--*	***314***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***219***	***4.5***
2012 CRA Soil Boring Investigation																	
B-9	4/12/2012	5	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.020	<0.001	<0.001	<0.001	--	--
B-9	4/12/2012	10	15	0.002	<0.001	0.39	0.051	<0.0005	--	--	--	<0.021	<0.001	<0.001	<0.001	--	--
B-9	4/12/2012	15	<1	<0.0005	<0.001	0.002	0.007	<0.0005	--	--	--	<0.021	<0.001	<0.001	<0.001	--	--
B-9	4/12/2012	20	<1	<0.0005	<0.001	0.003	0.007	0.0007	--	--	--	<0.020	<0.001	<0.001	<0.001	--	--
B-9	4/12/2012	25	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.020	<0.001	<0.001	<0.001	--	--
B-9	4/12/2012	29.5	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.020	<0.001	<0.001	<0.001	--	--
B-10	4/12/2012	5	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.020	<0.001	<0.001	<0.001	--	--
B-10	4/12/2012	10	4.9	<0.0005	<0.001	0.001	<0.001	0.001	--	--	--	<0.021	<0.001	<0.001	<0.001	--	--
B-10	4/12/2012	15	2.9	<0.0005	<0.001	0.047	0.062	<0.0005	--	--	--	<0.020	<0.001	<0.001	<0.001	--	--
B-10	4/12/2012	20	<0.9	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.021	<0.001	<0.001	<0.001	--	--
B-10	4/12/2012	25	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.020	<0.001	<0.001	<0.001	--	--
B-10	4/12/2012	29.5	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.020	<0.001	<0.001	<0.001	--	--
B-11	4/12/2012	5	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	<0.0005	--	--	--	<0.019	<0.0009	<0.0009	<0.0009	--	--
B-11	4/12/2012	10	3.2	<0.0005	<0.001	<0.001	0.001	<0.0005	--	--	--	<0.021	<0.001	<0.001	<0.001	--	--
B-11	4/12/2012	15	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.020	<0.001	<0.001	<0.001	--	--
B-11	4/12/2012	20	<0.9	0.0006	<0.001	0.011	0.011	<0.0005	--	--	--	<0.020	<0.001	<0.001	<0.001	--	--
B-11	4/12/2012	25	<0.9	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.019	<0.001	<0.001	<0.001	--	--
B-11	4/12/2012	29.5	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.021	<0.001	<0.001	<0.001	--	--
B-12	4/13/2012	5	<0.9	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.021	<0.001	<0.001	<0.001	--	--
B-12	4/13/2012	10	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.019	<0.001	<0.001	<0.001	--	--
B-12	4/13/2012	15	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.021	<0.001	<0.001	<0.001	--	--
B-12	4/13/2012	20	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.019	<0.001	<0.001	<0.001	--	--
B-12	4/13/2012	25	<0.9	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.020	<0.001	<0.001	<0.001	--	--
B-12	4/13/2012	29.5	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	--	--	<0.020	<0.001	<0.001	<0.001	--	--

TABLE 1
CUMULATIVE SOIL ANALYTICAL DATA
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*VOCs*	*SVOCs*	*Pb*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Naph-thalene*	*PAHs*
			Concentrations in milligrams per kilogram (mg/kg)														
Low-Threat Underground Storage Tank Case Closure Criteria [a, b]																	
Vapor Intrusion to Indoor Air (0-10 fbg) (No LNAPL)			***100***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*
Direct Contact (0-5 fbg)		***Residential***	*--*	***1.9***	*--*	***21***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***9.7***	***0.063***
		Commercial	*--*	***2.8***	*--*	***32***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***9.7***	***NA***
Volatilization to Outdoor Air (5-10 fbg)		***Residential***	*--*	***8.2***	*--*	***89***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***45***	***0.68***
		Commercial	*--*	***12***	*--*	***134***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***45***	***NA***
Diret Contact (0-10 fbg)		***Utility***	*--*	***14***	*--*	***314***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***219***	***4.5***
2002 Delta Monitoring Well Installation																	
MW-1	3/12/2002	6.5	<1.0	<0.005	<0.005	<0.005	<0.15	<0.05	--	--	--	--	--	--	--	--	--
MW-1	3/12/2002	11.5	3.20	<0.005	<0.005	0.15	<0.15	<0.05	--	--	--	--	--	--	--	--	--
MW-1	3/12/2002	16.5	<1.0	<0.005	<0.005	<0.005	<0.15	<0.05	--	--	--	--	--	--	--	--	--
MW-1	3/12/2002	20	<1.0	<0.005	<0.005	<0.005	<0.15	<0.05	--	--	--	--	--	--	--	--	--
MW-2	3/12/2002	6.5	<1.0	<0.005	<0.005	<0.005	<0.15	<0.05	--	--	--	--	--	--	--	--	--
MW-2	3/12/2002	11.5	<1.0	<0.005	<0.005	<0.005	<0.15	<0.05	--	--	--	--	--	--	--	--	--
MW-2	3/12/2002	16.5	<1.0	<0.005	<0.005	<0.005	<0.15	<0.05	--	--	--	--	--	--	--	--	--
MW-2	3/12/2002	20	<1.0	<0.005	<0.005	<0.005	<0.15	<0.05	--	--	--	--	--	--	--	--	--
MW-3	3/12/2002	6.5	<1.0	<0.005	<0.005	<0.005	<0.15	<0.05	--	--	--	--	--	--	--	--	--
MW-3	3/12/2002	11.5	<1.0	<0.005	<0.005	<0.005	<0.15	<0.05	--	--	--	--	--	--	--	--	--
MW-3	3/12/2002	16.5	<1.0	<0.005	<0.005	<0.005	<0.15	<0.05	--	--	--	--	--	--	--	--	--
MW-3	3/12/2002	20	<1.0	<0.005	<0.005	<0.005	<0.15	<0.05	--	--	--	--	--	--	--	--	--
2000 Gettler-Ryan Baseline Investigation																	
B-1	11/8/2000	6	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	32	--	--	--	--	--	--
B-1	11/8/2000	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	10	--	--	--	--	--	--
B-2	11/8/2000	6	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	9.6	--	--	--	--	--	--
B-2	11/8/2000	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	6.2	--	--	--	--	--	--
B-3	11/8/2000	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	27	--	--	--	--	--	--
B-4	11/8/2000	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	26	--	--	--	--	--	--
B-4	11/8/2000	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	27	--	--	--	--	--	--
B-5	11/8/2000	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	17	--	--	--	--	--	--
B-5	11/8/2000	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	8.9	--	--	--	--	--	--
B-6	11/8/2000	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	27	--	--	--	--	--	--
B-6	11/8/2000	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	3.6	--	--	--	--	--	--

TABLE 1
CUMULATIVE SOIL ANALYTICAL DATA
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*VOCs*	*SVOCs*	*Pb*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Naph-thalene*	*PAHs*
			Concentrations in milligrams per kilogram (mg/kg)														
Low-Threat Underground Storage Tank Case Closure Criteria [a, b]																	
Vapor Intrusion to Indoor Air (0-10 fbg) (No LNAPL)			***100***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*
Direct Contact (0-5 fbg)		***Residential***	*--*	***1.9***	*--*	***21***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***9.7***	***0.063***
		Commercial	*--*	***2.8***	*--*	***32***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***9.7***	***NA***
Volatilization to Outdoor Air (5-10 fbg)		***Residential***	*--*	***8.2***	*--*	***89***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***45***	***0.68***
		Commercial	*--*	***12***	*--*	***134***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***45***	***NA***
Diret Contact (0-10 fbg)		***Utility***	*--*	***14***	*--*	***314***	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	***219***	***4.5***
B-7	11/8/2000	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	6.5	--	--	--	--	--	--
B-7	11/8/2000	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	6.8	--	--	--	--	--	--
												--	--	--	--	--	--
1994 Touchstone Product-Line Removal and Sampling Report																	
P-1	7/25/1994	4.5	<1.0	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--
P-2	7/25/1994	4.5	<1.0	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--
P-3	7/25/1994	5	<1.0	<0.005	0.012	0.008	0.045	--	--	--	--	--	--	--	--	--	--
P-4	7/25/1994	5	<1.0	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--
P-5	7/25/1994	5	<1.0	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--
P-6	7/25/1994	5.5	3.6	<0.005	0.03	0.012	1.3	--	--	--	--	--	--	--	--	--	--
P-7	7/25/1994	5.5	<1.0	<0.005	0.005	<0.005	0.007	--	--	--	--	--	--	--	--	--	--
P-8	7/25/1994	5	<1.0	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--
1986 Blaine Tech Services Tank Pit Sampling																	
#1	10/29/1986	2.5	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--
#2	10/29/1986	2	44	--	--	--	--	--	--	--	--	--	--	--	--	--	--
#2	10/27/1986	13	4.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
#3	10/29/1986	2	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
#3	10/27/1986	13	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--
#4	10/29/1986	2	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M.

Benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8021B.

Total lead by EPA Method 6010.

fbg = Feet below grade.

<x = Not detected above method detection limit.

-- = Not analyzed.

TABLE 2
MONITORING WELL CONSTRUCTION DETAILS
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA

Well ID	*TOC*	*Well Casing Diameter (inches)*	*Depth (fbg)*	*Screen Interval (fbg)*	*Slot Size (inches)*	*Filter Pack Type*
MW-1	17.07	2	20	5-20	0.020 inch	#3 Lonestar
MW-2	16.82	2	20	5-20	0.020 inch	#3 Lonestar
MW-3	16.52	2	20	5-20	0.020 inch	#3 Lonestar

Notes:

fbg = Feet below grade
TOC = Top of casing

TABLE 3
CUMULATIVE GRAB-GROUNDWATER ANALYTICAL DATA
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Sample Depth (fbg)*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*	*Ethanol*
			Reported in micrograms per liter (µg/L) unless otherwise noted												
Drinking Water ESL Table F-1a			100	1	40	30	20	5	12	NE	NE	NE	***0.5***	***0.05***	NE
2012 CRA Soil Boring Investigation															
B-9	4/12/2012	13	1,800	<0.5	<0.5	43	130	<0.5	<2	<0.5	<0.5	<0.5	--	--	--
B-9	4/12/2012	20	1,400	<0.5	<0.5	51	150	5	<2	<0.5	<0.5	<0.5	--	--	--
B-9	4/12/2012	30	320	<0.5	<0.5	13	40	1	<2	<0.5	<0.5	<0.5	--	--	--
B-10	4/12/2012	18	<50	<0.5	<0.5	0.7	0.8	5	<2	<0.5	<0.5	<0.5	--	--	--
B-10	4/12/2012	29.5	64	<0.5	<0.5	1	2	1	<2	<0.5	<0.5	<0.5	--	--	--
B-11	4/12/2012	23	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	--	--	--
B-11	4/12/2012	29.5	220	<0.5	<0.5	10	8	<0.5	<2	<0.5	<0.5	<0.5	--	--	--
B-12	4/13/2012	23	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	--	--	--
B-12	4/13/2012	30	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	--	--	--
2000 Gettler-Ryan Baseline Investigation															
B-1	11/8/2000	12.50	29,000	180	<20	2,200	1,100	730	380	<20	<20	<20	<20	<20	<200
B-7	11/8/2000	15.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.50	<0.50	<0.50	<0.5	<0.5	<5.0
1992 Groundwater Technology Inc. Monitoring and Sampling Event of Vadose Well 2-1															
VW-2-1	10/13/1992	--	42,000	3,300	7,100	540	10,000	--	--	--	--	--	--	--	
1986 Blaine Tech Services Tank Pit Sampling*															
#1	10/24/1986	--	480,000	10,000	<500	--	<500	--	--	--	--	--	--	--	

TABLE 3
CUMULATIVE GRAB-GROUNDWATER ANALYTICAL DATA
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Sample Depth (fbg)*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*	*Ethanol*
			Reported in micrograms per liter (µg/L) unless otherwise noted												
Drinking Water ESL Table F-1a			100	1	40	30	20	5	12	NE	NE	NE	***0.5***	***0.05***	NE

Notes:
Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M
Benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8260B
Methyl tertiary butyl ether (MTBE) t-Butyl alcohol (TBA), diisopropyl ether (DIPE), tertiary amyl ether (TAME), ethyl tertiary butyl ether (ETBE), 1,2-dichlorethane (1,2-DCA), 1,2-dibromoethane (EDB) by EPA Method 8260B
ESL = RWQCB-San Francisco Bay Region, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim final May 2013.
Bold = Concentration exceeds the lowest ESL
<x = Not detected above method detection limit
-- = Not Analyzed
fbg = feet below grade

TABLE 4
POTENTIAL SENSITIVE RECEPTORS
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA

ID#	*Potential Sensitive Receptor*	*Address*	**Owner**	*Distance (feet)*	*Direction*
	Water Supply Wells				
1	Irrigation	300 Lakeside Drive	Kaiser Center	1,100	Southeast
2	Irrigation	2100 Harrison Street	Ahmanson Commerical Development	1,200	Southeast
3	Domestic	2100 Harrison Street	Ahmanson Commerical Development	1,200	Southeast
4	Irrigation	244 Lakeside Drive	Lakeside Corp (Bechtel)	1,700	Southeast
5	Industrial	887 30th Street	Lane Metal Finishing	2,200	Northwest
6	Irrigation	1111 Broadway		3,500	
7	Irrigation	Location Uncertian	Middle School		
8	Irrigation	900 High Street	Oakland School District	>2 miles	Southeast
	Eldercare homes				
9	Mercy Housing - Hamilton Apartments	500 21st Street		200	Southwest
10	Satellite Central	540 21st Street		400	Southwest
11	Providence Home	540 23rd Street		600	Northwest
12	Northgate Terrace	550 24th Street		900	Northwest
	Daycare/Pre-School				
13	New Day Preschool	460 West Grand Avenue		125	Northeast
14	SmallTrans Depot	111 Grand Avenue		750	East
	Schools				
15	Westlake Middle School	2629 Harrison Street		1,600	Northeast
	Surface Waters				
16	Glenn Echo Creek			1,500	East
17	Lake Merritt			1,500	East

Appendix A

Regulatory Letter

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH DEPARTMENT
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 24, 2014

NOTICE TO COMPLY

Mr. Brian Waite
Chevron Environmental Management Co.
6101 Bollinger Canyon Road
San Ramon, CA 94583
(sent via electronic mail to bwaite@chevron.com)

Ui Hwang
909 Trent Street
Concord, CA 94518

Choung & Myung Inc.
2200 Telegraph Avenue
Oakland, CA 94612

Subject: Notice to Comply; Fuel Leak Case No. RO0002435 and Geotracker Global ID T0600161613, Chevron # 9-3600, 2200 Telegraph Avenue, Oakland, CA 94612

Dear Responsible Parties:

As discussed in our meeting of March 13, 2014, and in an effort to move this case forward, Alameda County Environmental Health Department (ACEH) staff reviewed the case file and submittals due to ACEH for compliance. A denial of the Request for Closure response directive letter was issued by ACEH to all Responsible Parties on December 3, 2013 (copy attached). In order to determine if the case could be closed under the Low-Threat Closure Policy (LTCP), the directive letter requested the submittal of a report documenting the results of a sensitive receptor survey (nuisance, or other, issues in building basements and any associated sensitive populations) within the assumed extent of the shallow groundwater plume, as supported by technical justification documents of the LTCP. This request was due to the complexity of the case caused by the presence of a BART tube directly beneath the site, potential tube-related contaminated groundwater drainage, and the undetermined downgradient extent of the shallow hydrocarbon groundwater plume beneath the site and vicinity. The document was requested to be submitted by January 24, 2014, but has not been submitted and is now overdue. You are out of compliance with this agency's directives.

In order to regain compliance please submit the documents in accordance with the schedule below. Failure to do so will result in the issuance of a Notice of Violation. Subsequent to the submittal of these documents, ACEH will contact you to convene a meeting with all parties.

COMPLIANCE SCHEDULE

Please upload technical reports to the ACEH ftp site (Attention: Barbara Jakub), and to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention and schedule:

- **April 25, 2014** – Focused Site Conceptual Model Addendum
  (File to be named: SCM_ADEND_R_yyyy-mm-dd)

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Online case files are available for review at the following website: http://www.acgov.org/aceh/index.htm.

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please contact me at (510) 567--6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Digitally signed by Mark E. Detterman
DN: cn=Mark E. Detterman, o, ou, email, c=US
Date: 2014.03.24 13:37:48 -07'00'

Mark E. Detterman, PG, CEG
Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions

Copy – December 3, 2013 ACEH letter

cc: Nathan Lee, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608 (sent via E-mail to NLee@craworld.com)

Brandon Wilken, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608 (sent via E-mail to BWilken@craworld.com)

Dilan Roe, ACEH (Sent via E-mail to: dilan.roe@acgov.org)
Mark Detterman, ACEH, (sent via E-mail to mark.detterman@acgov.org)
GeoTracker, Electronic File

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements: (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	**REVISION DATE:** July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) require submission of all reports in electronic form to the county's FTP site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single Portable Document Format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for.**

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) ~~Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being~~ supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH DEPARTMENT
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

December 3, 2013

Ms. Catalina Espino Devine
Chevron Environmental Management Co.
6101 Bollinger Canyon Road
San Ramon, CA 94583
(sent via electronic mail to espino@chevron.com)

Ui Hwang
909 Trent Street
Concord, CA 94518

Choung & Myung Inc.
2200 Telegraph Avenue
Oakland, CA 94612

Subject: RFC Response and Request for Data Gap Work Plan; Fuel Leak Case No. RO0002435 and Geotracker Global ID T0600161613, Chevron # 9-3600, 2200 Telegraph Avenue, Oakland, CA 94612

Dear Responsible Parties:

Alameda County Environmental Health (ACEH) staff has reviewed the case file including the *Addendum to Subsurface Investigation Report and Case Closure Request*, dated October 8, 2013, that was prepared by Conestoga-Rovers & Associates (CRA) for the subject site. The document was submitted in response to a conference call held on July 2, 2013 that identified a Path to Closure (PTC) for the site. In lieu of additional soil bores, the identified PTC included an estimate of the length of the undefined dissolved-phase groundwater plume (a flowpath identified by rose diagrams associated with the site and downgradient of well MW-1; with appropriate references and resource citations) and the evaluation if potential sensitive receptors were within that downgradient path and extent.

ACEH has evaluated the data and recommendations presented in the above-mentioned report, in conjunction with the case files, and the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP). Based on ACEH staff review, we have determined that the site fails to meet the LTCP General Criteria e (Site Conceptual Model), and the Media-Specific Criteria for Groundwater (see Geotracker for a copy of the LTCP checklist).

Therefore, at this juncture ACEH requests that you prepare a Data Gap Investigation Work Plan that is supported by a focused Site Conceptual Model (SCM) to address the Technical Comments provided below.

TECHNICAL COMMENTS

1. **LTCP General Criteria e (Site Conceptual Model)** – According to the LTCP, the SCM is a fundamental element of a comprehensive site investigation. The SCM establishes the source and attributes of the unauthorized release, describes all affected media (including soil, groundwater, and soil vapor as appropriate), describes local geology, hydrogeology and other physical site characteristics that affect contaminant environmental transport and fate, and identifies all confirmed and potential contaminant receptors (including water supply wells, surface water bodies, structures and their inhabitants). The SCM is relied upon by practitioners as a guide for investigative design and data collection. All relevant site characteristics identified by the SCM shall be assessed and supported by data so that the nature, extent and mobility of the release have been established to determine conformance with applicable criteria in this policy.

   Our review of the case files indicates that insufficient data collection and analysis has been presented to assess the nature, extent, and mobility of the release and to support compliance with the Media Specific Criteria for Groundwater as described in Item 2 below.

2. **LTCP Media Specific Criteria for Groundwater** – To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites listed in the policy.

   Our review of the case files indicates that insufficient data collection and analysis has been presented to support the requisite characteristics of plume stability or plume classification as follows:

   a. **Extent of Groundwater Plume** – It appears that the downgradient extent of the groundwater plume has not been defined. The *Addendum to Subsurface Investigation Report and Case Closure Request* argues that soil bore B-12 is sufficiently downgradient of the UST complex. ACEH relies on the Rose Diagram presented in the report in our analysis. The diagram has a strong bias towards a single groundwater flow direction further to the north of bore B-12. Bores B-11 and B-9 appear to lie along this trend. Grab groundwater samples collected in the downgradient bore B-9 (up to 1,800 micrograms per liter [µg/l] TPHg and up to 51 µg/l ethylbenzene) do not indicate the plume is defined.

   b. **Existence of a Shallow Groundwater Zone in Bore B-12** – The referenced report argues that the length of the groundwater plume is defined by the presence of non-detectable grab groundwater concentrations in soil bore B-12, noting that shallow groundwater was not encountered in the soil bore. Groundwater was initially encountered in the bore at an anomalous depth of 23 feet below grade surface (bgs). Soil bores SB-10 and B-11 also reported anomalously deep first groundwater that ranged between approximately 18 and 23 feet bgs. This contrasts with the depth of groundwater in all groundwater monitoring wells during the entire multi-year monitoring period at the site (in MW-1; 10.76 to 12.25 ft below grade surface), and with groundwater in soil bores B-1 (12.5 feet bgs) and B-7 (16 ft bgs).

      A reasonable conclusion can be made that the upper water-bearing zone was not sampled and that the non-detectable concentrations were collected from a deeper water-bearing zone that appears to be lateral to the primary flow direction of the dissolved-phase groundwater plume, or that there may be groundwater drainage into the BART tunnel that lies directly beneath the site that may dewater the site and vicinity lateral to the identified flowpath depicted in the rose diagram.

   c. **Calculated Time to Achieving Water Quality Goals** – In support of the Request for Closure, the referenced report calculated the estimated time until WQGs are achieved at the site. The decay rate calculation for MTBE estimates a six year time period is required (November 2019) and is based on an 11 year trend graph. The decay rate calculation for TPHg estimates an approximately 7 year period is required (September 2020) and is based on a two year trend graph that is based on a short term spike in TPHg concentrations in July 2010. Conversely, review of groundwater concentrations in well MW-1 indicate that TPHg concentrations have been generally stable over the 13 year period that groundwater has been monitored and sampled at the site, and there is not an expectation that groundwater concentrations will decrease or that potential downgradient neighborhood sensitive receptors are protected.

   d. **Sensitive Receptor** – A 2008 well survey of Department of Water Resources (DWR) data found that there are no municipal or irrigation wells within approximately 3,800 and 2,500 feet of the site, respectively. Lake Merritt was reported to be the closest surface water body to the site, at an approximate distance of 1,850 feet.

      i. **Well Survey** – In general ACEH prefers to utilize two resources for well surveys, from the DWR and from the Alameda County Public Works Agency (ACPWA) due to slightly different databases. Consequently, ACEH requests that the well survey be updated to include this additional resource.

      ii. **Sensitive Receptors** – Because the length of the plume is not clearly defined in the downgradient direction, ACEH requests a neighborhood canvas in order to determine if other potential sensitive receptors within the immediate downgradient neighborhood, such as buildings with basements or sensitive populations are present.

Consequently, please present a strategy in a Data Gap Investigation Work Plan (described in Item 3 below) to address the items discussed above. Alternatively, please provide justification of why the site satisfies the Media-Specific Criteria for Groundwater in the focused SCM described in Item 3 below.

3. **Revised Data Gap Investigation Work Plan and Focused Site Conceptual Model** – Please prepare Revised Data Gap Investigation Work Plan to address the technical comments listed above. Please support the scope of scope of work in the Data Gap Investigation Work Plan with a focused SCM and Data Quality Objectives (DQOs) that relate the data collection to each LTCP criteria. For example please clarify which scenario within each Media-Specific Criteria a sampling strategy is intended to apply to.

   In order to expedite review, ACEH requests the focused SCM be presented in a tabular format that highlights the major SCM elements and associated data gaps, which need to be addressed to progress the site to case closure under the LTCP. Please see Attachment A "Site Conceptual Model Requisite Elements". Please sequence activities in the proposed revised data gap investigation scope of work to enable efficient data collection in the fewest mobilizations possible.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Barbara Jakub), and to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention and schedule:

- **January 24, 2014** – Data Gap Investigation Plan and Focused Site Conceptual Model
  (File to be named: WP_SCM_R_yyyy-mm-dd)

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Online case files are available for review at the following website: http://www.acgov.org/aceh/index.htm.

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please contact me at (510) 567--6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Digitally signed by Mark Detterman
DN: cn=Mark Detterman, o, ou, email=mark.detterman@acgov.org, c=US
Date: 2013.12.03 11:11:31 -08'00'

Mark E. Detterman, PG, CEG
Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions
Attachment A – Site Conceptual Model Requisite Elements

cc: Nathan Lee, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608
(sent via E-mail to NLee@craworld.com)
Brandon Wilken, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608
(sent via E-mail to BWilken@craworld.com)

Dilan Roe, ACEH (Sent via E-mail to: dilan.roe@acgov.org)
Mark Detterman, ACEH, (sent via E-mail to mark.detterman@acgov.org)
GeoTracker, Electronic File

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements: (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	**REVISION DATE:** July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) require submission of all reports in electronic form to the county's FTP site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single Portable Document Format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses,** and the **Case Numbers (RO# available in Geotracker) you will be posting for.**

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ATTACHMENT A

Site Conceptual Model Requisite Elements

ATTACHMENT A

Site Conceptual Model

The site conceptual model (SCM) is an essential decision-making and communication tool for all interested parties during the site characterization, remediation planning and implementation, and closure process. A SCM is a set of working hypotheses pertaining to all aspects of the contaminant release, including site geology, hydrogeology, release history, residual and dissolved contamination, attenuation mechanisms, pathways to nearby receptors, and likely magnitude of potential impacts to receptors.

The SCM is initially used to characterize the site and identify data gaps. As the investigation proceeds and the data gaps are filled, the working hypotheses are modified, and the overall SCM is refined and strengthened until it is said to be "validated". At this point, the focus of the SCM shifts from site characterization towards remedial technology evaluation and selection, and later remedy optimization, and forms the foundation for developing the most cost-effective corrective action plan to protect existing and potential receptors.

For ease of review, Alameda County Environmental Health (ACEH) requests utilization of tabular formats to (1) highlight the major SCM elements and their associated data gaps which need to be addressed to progress the site to case closure (see Table 1 of attached example), and (2) highlight the identified data gaps and proposed investigation activities (see Table 2 of the attached example). ACEH requests that the tables presenting the SCM elements, data gaps, and proposed investigation activities be updated as appropriate at each stage of the project and submitted with work plans, feasibility studies, corrective action plans, and requests for closures to support proposed work, conclusions, and/or recommendations.

The SCM should incorporate, but is not limited to, the topics listed below. Please support the SCM with the use of large-scaled maps and graphics, tables, and conceptual diagrams to illustrate key points. Please include an extended site map(s) utilizing an aerial photographic base map with sufficient resolution to show the facility, delineation of streets and property boundaries within the adjacent neighborhood, downgradient irrigation wells, and proposed locations of transects, monitoring wells, and soil vapor probes.

a. Regional and local (on-site and off-site) geology and hydrogeology. Include a discussion of the surface geology (e.g., soil types, soil parameters, outcrops, faulting), subsurface geology (e.g., stratigraphy, continuity, and connectivity), and hydrogeology (e.g., water-bearing zones, hydrologic parameters, impermeable strata). Please include a structural contour map (top of unit) and isopach map for the aquitard that is presumed to separate your release from the deeper aquifer(s), cross sections, soil boring and monitoring well logs and locations, and copies of regional geologic maps.

b. Analysis of the hydraulic flow system in the vicinity of the site. Include rose diagrams for depicting groundwater gradients. The rose diagram shall be plotted on groundwater elevation contour maps and updated in all future reports submitted for your site. Please address changes due to seasonal precipitation and groundwater pumping, and evaluate the potential interconnection between shallow and deep aquifers. Please include an analysis of vertical hydraulic gradients, and effects of pumping rates on hydraulic head from nearby water supply wells, if appropriate. Include hydraulic head in the different water bearing zones and hydrographs of all monitoring wells.

c. Release history, including potential source(s) of releases, potential contaminants of concern (COC) associated with each potential release, confirmed source locations, confirmed release locations, and existing delineation of release areas. Address primary leak source(s) (e.g., a tank, sump, pipeline, etc.) and secondary sources (e.g., high-

ATTACHMENT A

Site Conceptual Model (continued)

concentration contaminants in low-permeability lithologic soil units that sustain groundwater or vapor plumes). Include local and regional plan view maps that illustrate the location of sources (former facilities, piping, tanks, etc.).

d. Plume (soil gas and groundwater) development and dynamics including aging of source(s), phase distribution (NAPL, dissolved, vapor, residual), diving plumes, attenuation mechanisms, migration routes, preferential pathways (geologic and anthropogenic), magnitude of chemicals of concern and spatial and temporal changes in concentrations, and contaminant fate and transport. Please include three-dimensional plume maps for groundwater and two-dimensional soil vapor plume plan view maps to provide an accurate depiction of the contaminant distribution of each COC.

e. Summary tables of chemical concentrations in different media (i.e., soil, groundwater, and soil vapor). Please include applicable environmental screening levels on all tables. Include graphs of contaminant concentrations versus time.

f. Current and historic facility structures (e.g., buildings, drain systems, sewer systems, underground utilities, etc.) and physical features including topographical features (e.g., hills, gradients, surface vegetation, or pavement) and surface water features (e.g. routes of drainage ditches, links to water bodies). Please include current and historic site maps.

g. Current and historic site operations/processes (e.g., parts cleaning, chemical storage areas, manufacturing, etc.).

h. Other contaminant release sites in the vicinity of the site. Hydrogeologic and contaminant data from those sites may prove helpful in testing certain hypotheses for the SCM. Include a summary of work and technical findings from nearby release sites, including the two adjacent closed LUFT sites, (i.e., Montgomery Ward site and the Quest Laboratory site).

i. Land uses and exposure scenarios on the facility and adjacent properties. Include beneficial resources (e.g., groundwater classification, wetlands, natural resources, etc.), resource use locations (e.g., water supply wells, surface water intakes), subpopulation types and locations (e.g., schools, hospitals, day care centers, etc.), exposure scenarios (e.g. residential, industrial, recreational, farming), and exposure pathways, and potential threat to sensitive receptors. Include an analysis of the contaminant volatilization from the subsurface to indoor/outdoor air exposure route (i.e., vapor pathway). Please include copies of Sanborn maps and aerial photographs, as appropriate.

j. Identification and listing of specific data gaps that require further investigation during subsequent phases of work. Proposed activities to investigate and fill data gaps identified.

TABLE 1

INITIAL SITE CONCEPTUAL MODEL

CSM Element	CSM Sub-Element	Description	Data Gap	How to Address
Geology and Hydrogeology	Regional	The site is in the northwest portion of the Livermore Valley, which consists of a structural trough within the Diablo Range and contains the Livermore Valley Groundwater Basin (referred to as "the Basin") (DWR, 2006). Several faults traverse the Basin, which act as barriers to groundwater flow, as evidenced by large differences in water levels between the upgradient and downgradient sides of these faults (DWR, 2006). The Basin is divided into 12 groundwater basins, which are defined by faults and non-water-bearing geologic units (DWR, 1974). The hydrogeology of the Basin consists of a thick sequence of fresh-water-bearing continental deposits from alluvial fans, outwash plains, and lacustrine environments to up to approximately 5,000 feet bgs (DWR, 2006). Three defined fresh-water bearing geologic units exist within the Basin: Holocene Valley Fill (up to approximately 400 feet bgs in the central portion of the Basin), the Plio-Pleistocene Livermore Formation (generally between approximately 400 and 4,000 feet bgs in the central portion of the Basin), and the Pliocene Tassajara Formation (generally between approximately 250 and 5,000 or more feet bgs) (DWR, 1974). The Valley Fill units in the western portion of the Basin are capped by up to 40 feet of clay (DWR, 2006).	None	NA
	Site	***Geology:*** Borings advanced at the site indicate that subsurface materials consist primarily of finer-grained deposits (clay, sandy clay, silt and sandy silt) with interbedded sand lenses to 20 feet below ground surface (bgs), the approximate depth to which these borings were advanced. The documented lithology for one on-site boring that was logged to approximately 45 feet bgs indicates that beyond approximately 20 feet bgs, fine-grained soils are present to approximately 45 feet bgs. A cone penetrometer technology test indicated the presence of sandier lenses from approximately 45 to 58 feet bgs and even coarser materials (interbedded with finer-grained materials) from approximately 58 feet to 75 feet bgs, the total depth drilled. The lithology documented at the site is similar to that reported at other nearby sites, specifically the Montgomery Ward site (7575 Dublin Boulevard), the Quest laboratory site (6511 Golden Gate Drive), the Shell-branded Service Station site (11989 Dublin Boulevard), and the Chevron site (7007 San Ramon Road). ***Hydrogeology:*** Shallow groundwater has been encountered at depths of approximately 9 to 15 feet bgs. The hydraulic gradient and groundwater flow direction have not been specifically evaluated at the site.	As noted, most borings at the site have been advanced to approximately 20 feet bgs, and one boring has been advanced and logged to 45 feet bgs; CPT data was collected to 75 feet bgs at one location. Lithologic data will be obtained from additional borings that will be advanced on site to further the understanding of the subsurface, especially with respect to deeper lithology. The on-site shallow groundwater horizontal gradient has not been confirmed. Additionally, it is not known if there may be a vertical component to the hydraulic gradient.	Two direct push borings and four multi-port wells will be advanced to depth (up to approximately 75 feet bgs) and soil lithology will be logged. See items 4 and 5 on Table 2. Shallow and deeper groundwater monitoring wells will be installed to provide information on lateral and vertical gradients. See Items 2 and 5 on Table 2.
Surface Water Bodies		The closest surface water bodies are culverted creeks. Martin Canyon Creek flows from a gully west of the site, enters a culvert north of the site, and then bends to the south, passing approximately 1,000 feet east of the site before flowing into the Alamo Canal. Dublin Creek flows from a gully west of the site, enters a culvert approximately 750 feet south of the site, and then joins Martin Canyon Creek approximately 750 feet southeast of the site.	None	NA
Nearby Wells		The State Water Resources Control Board's GeoTracker GAMA website includes information regarding the approximate locations of water supply wells in California. In the vicinity of the site, the closest water supply wells presented on this website are depicted approximately 2 miles southeast of the site; the locations shown are approximate (within 1 mile of actual location for California Department of Public Health supply wells and 0.5 mile for other supply wells). No water-producing wells were identified within 1/4 mile of the site in the well survey conducted for the Quest Laboratory site (6511 Golden Gate Drive; documented in 2009); information documented in a 2005 report for the Chevron site at 7007 San Ramon Road indicates that a water-producing well may exist within 1/2 mile of the site.	A formal well survey is needed to identify water-producing, monitoring, cathodic protection, and dewatering wells.	Obtain data regarding nearby, permitted wells from the California Department of Water Resources and Zone 7 Water Agency (Item 11 on Table 2).

TABLE 2

DATA GAPS AND PROPOSED INVESTIGATION

Item	Data Gap	Proposed Investigation	Rationale	Analysis
5	Evaluate the possible presence of impacts to deeper groundwater. Evaluate deeper groundwater concentration trends over time. Obtain data regarding the vertical groundwater gradient. Obtain more lithological data below 20 feet bgs.	Install four continuous multichannel tubing (CMT) groundwater monitoring wells (aka multi-port wells) to approximately 65 feet bgs in the northern parking lot with ports at three depths (monitoring well locations may be adjusted pending results of shallow grab groundwater samples; we will discuss any potential changes with ACEH before proceeding). Groundwater monitoring frequency to be determined. Soil samples will be collected only if there are field indications of impacts. Soil lithology will be logged. However, information regarding the moisture content of soil may not be reliable using sonic drilling technology (two borings will be logged using direct push technology; see item 4, above).	One well is proposed at the western (upgradient) property boundary to confirm that there are no deeper groundwater impacts from upgradient. Two wells are proposed near the center of the northern parking lot to evaluate potential impacts in an area where deeper impacts, if any, would most likely to be found. One well is proposed at the eastern (downgradient) property boundary to confirm that there are no impacts extending off-site. Port depths will be chosen based on the locations of saturated soils (as logged in direct push borings; see item 4, above), but are expected at approximately 15, 45, and 60 feet bgs.	*Groundwater:* VOCs by EPA Method 8260, dissolved oxygen, oxidation/reduction potential, temperature, pH, and specific conductance.
6	Evaluate possible off-site migration of impacted soil vapor in the downgradient direction (east). Evaluate concentration trends over time.	Install 4 temporary nested soil vapor probes at approximately 4 and 8 feet bgs along the eastern property boundary. Based on the results of the sampling, two sets of nested probes will be converted to vapor monitoring wells to allow for evaluation of VOC concentration trends over time.	Available data indicate that PCE and TCE are present in soil vapor in the eastern portion of the northern parking lot. Samples are proposed on approximately 50-foot intervals along the eastern property boundary to provide a transect of concentrations through the vapor plume. The depths of 4 and 8 feet bgs are chosen to provide data closest to the source (i.e., groundwater) while avoiding saturated soil, and also provide shallower data to help evaluate potential attenuation within the soil column. Two sets of nested vapor probes will be converted into vapor monitoring wells (by installing well boxes at ground surface); the locations of the permanent wells will be chosen based on the results of samples from the temporary probes.	*Soil vapor:* VOCs by EPA Method TO-15.
7	Evaluate potential for off-site migration of impacted groundwater in the downgradient direction (east).	Advance two borings to approximately 20 feet bgs in the parking lot of the property east of the Crown site for collection of grab groundwater samples.	Two borings are proposed off-site, on the property east of the Crown site, just east of the building in the expected area of highest potential VOC concentrations.	*Groundwater:* VOCs by EPA Method 8260, dissolved oxygen, oxidation/reduction potential, temperature, pH, and specific conductance.
8	Evaluate VOC concentrations just north of the highest concentration area.	Advance two borings to approximately 20 feet bgs north of Building A for collection of soil and grab groundwater samples. Soil samples will be collected at two depths in the vadose zone. Soil samples will be collected based on field indications of impacts (PID readings, odor, staining) or, in the absence of field indications of impacts, at 5 and 10 feet bgs.	The highest concentrations of PCE in groundwater were detected at boring NM-B-32, just north of Building A. The nearest available data to the north are approximately 75 feet away. One of the borings will be advanced approximately 20 feet north of NM-B-32 to provide data close to the highest concentration area. A second boring will be advanced approximately halfway between the first boring and former boring NM-B-33 to provide additional spatial data for contouring purposes. These borings will be part of a transect in the highest concentration area.	*Groundwater:* VOCs by EPA Method 8260, dissolved oxygen, oxidation/reduction potential, temperature, pH, and specific conductance. *Soil:* VOCs by EPA Method 8260 (soil samples to be collected using field preservation in accordance with EPA Method 5035).
9	Evaluate VOC concentrations in soil vapor in the south parcel of the site.	Install four temporary soil vapor probes at approximately 5 feet bgs around boring SV-25, where PCE was detected in soil vapor at a low concentration.	PCE was detected in soil vapor sample SV-25 in the southern parcel, although was not detected in groundwater in that area. Three probes will be installed approximately 30 feet from of boring SV-25 to attempt to delineate the extent of impacts. A fourth probe is proposed west of the original sample, close to the property boundary and the location of mapped utility lines, which may be a potential conduit, to evaluate potential impacts from the west.	*Soil vapor:* VOCs by EPA Method TO-15.
10	Obtain additional information regarding subsurface structures and utilities to further evaluate migration pathways and sources.	Ground penetrating radar (GPR) and other utility locating methodologies will be used, as appropriate, to further evaluate the presence of unknown utilities and structures at the site.	Utilities have been identified at the site that include an on-site sewer lateral and drain line, and shallow water, electric, and gas lines. Given the current understanding of the distribution of PCE in groundwater at the site, it is possible that other subsurface utilities, and specifically sewer laterals, exist that may act as a source or migration pathway for distribution of VOCs in the subsurface.	NA

Appendix B

Boring Logs

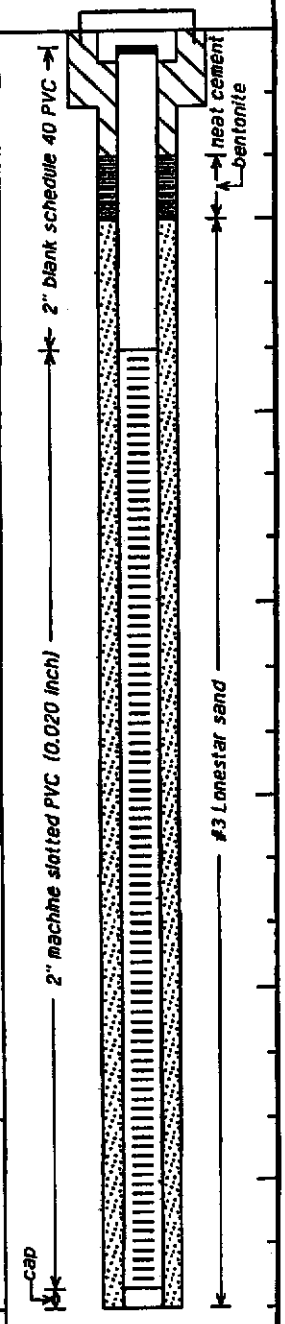
Gettler-Ryan, Inc.

Log of Boring MW-1

PROJECT: *Chevron Service Station No. 9-3600*	LOCATION: *2200 Telegraph Avenue, Oakland, California*
GR PROJECT NO.: *DG93600G.4CT1*	CASING ELEVATION:
DATE STARTED: *03/12/02*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *03/12/02*	WL (ft. bgs): *11.20* DATE: *03/12/02* TIME: *13:09*
DRILLING METHOD: *8 in. HSA – Limited Access Rig*	TOTAL DEPTH: *20 feet*
DRILLING COMPANY: *Gregg Drilling, Inc.*	GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	SAMPLE NUMBER	SOIL CLASS	GEOLOGIC DESCRIPTION
			Asphalt – 6 inches thick.
		SC	CLAYEY SAND (SC)
3		CL	CLAY WITH SAND (CL) – brown to dark brown (7.5YR 3/3), moist; 80% clay, 20% fine to medium sand, trace fine gravel.
6	MW-1-6.5		
9			CLAY (CL) – black (N2 5Y), moist; 90% clay, 10% fine sand, faint organic odor.
12	MW-1-11.5	SC	CLAYEY SAND (SC) – brown (7.5YR 3/3), wet, medium dense; 60% fine sand, 40% clay, abundant iron oxidation.
15	MW-1-16.5		
18		CL	SANDY CLAY (CL) – brown to green (2.5Y 5/3), trace gray mottling, wet; 70% clay, 30% fine sand, abundant iron oxidation.
21	MW-1-20		Bottom of boring at 20 feet bgs.

WELL DIAGRAM



JOB NUMBER: *DG93600G.4CT1*

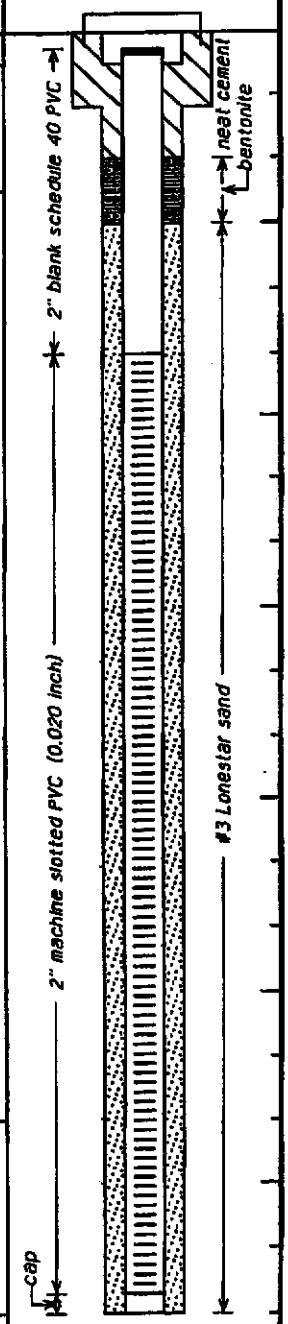
Gettler-Ryan, Inc.

Log of Boring MW-2

PROJECT: *Chevron Service Station No. 9-3600*	LOCATION: *2200 Telegraph Avenue, Oakland, California*
GR PROJECT NO.: *DG936006.4CTI*	CASING ELEVATION:
DATE STARTED: *03/12/02*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *03/12/02*	WL (ft. bgs): *11.65* DATE: *03/12/02* TIME: *13:16*
DRILLING METHOD: *8 in. HSA – Limited Access Rig*	TOTAL DEPTH: *20 feet*
DRILLING COMPANY: *Gregg Drilling, Inc.*	GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	SAMPLE NUMBER	SOIL CLASS	GEOLOGIC DESCRIPTION
			Asphalt – 6 inches thick.
		SM	SILTY SAND (SM)
3		CL	CLAY (CL) – black (N.2.5), moist; 80% clay, 20% silt, trace shell fragments.
6	MW-2-6.5		
9			Color changes to dark brown (2.5Y 4/3), moist, very plastic; 70% clay, 20% silt, 10% fine sand, abundant iron oxidation, abundant black organic matter.
12	MW-2-11.5		
15	MW-2-16.5		Becomes wet.
18		SP	POORLY GRADED SAND (SP) – light olive brown (2.5Y 5/3), wet; 100% very fine sand, trace iron oxidation.
21	MW-2-20		Bottom of boring at 20 feet bgs.

WELL DIAGRAM



JOB NUMBER: *DG936006.4CTI*

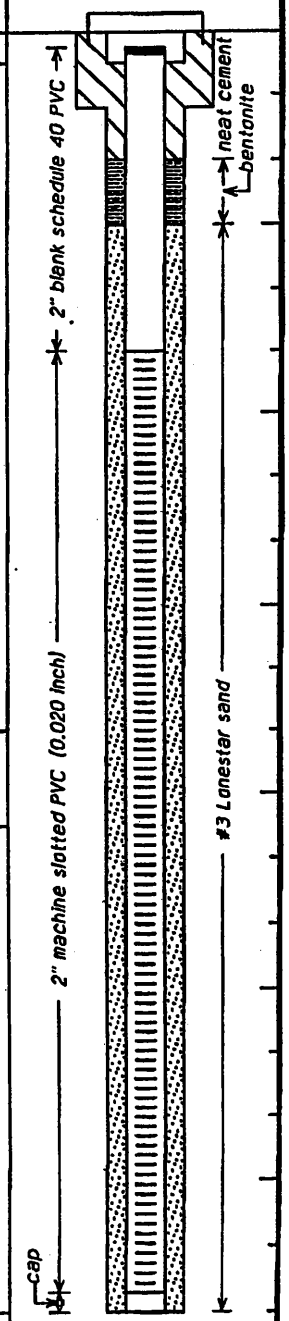
Gettler-Ryan, Inc.

Log of Boring MW-3

PROJECT: *Chevron Service Station No. 9-3600*	LOCATION: *2200 Telegraph Avenue, Oakland, California*
GR PROJECT NO.: *DG93600G.4CT1*	CASING ELEVATION:
DATE STARTED: *03/12/02*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *03/12/02*	WL (ft. bgs): *10.60* DATE: *03/12/02* TIME: *13:05*
DRILLING METHOD: *8 in. HSA - Limited Access Rig*	TOTAL DEPTH: *20 feet*
DRILLING COMPANY: *Gregg Drilling, Inc.*	GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	SAMPLE NUMBER	SOIL CLASS	GEOLOGIC DESCRIPTION
			Asphalt - 6 inches thick.
		CL	SANDY CLAY (CL) - brown (7.5YR 4/3), moist.
6	MW-3-6.5		
12	MW-3-11.5	SP	POORLY GRADED SAND (SP) - brown (7.5YR 4/3), wet; 95% fine sand, 5% silt, abundant iron oxidation, abundant black organic matter.
		SM	SILTY SAND (SM) - brown (7.5YR 4/3), wet; 80% fine sand, 20% silt, abundant iron oxidation, trace gravel.
15	MW-3-16.5		
18	MW-3-20		Color changes to light olive brown (2.5Y 5/3); trace white mineralization.
21			Bottom of boring at 20 feet bgs.

WELL DIAGRAM



JOB NUMBER: *DG93600G.4CT1*

Gettler-Ryan, Inc.

Log of Boring B-1

PROJECT: *Chevron Service Station No. 9-3600*	LOCATION: *2200 Telegraph Avenue, Oakland, CA.*
GR PROJECT NO.: *346895.01*	SURFACE ELEVATION:
DATE STARTED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *3 1/2 in. Hand Auger*	TOTAL DEPTH: *15 feet*
DRILLING COMPANY: *Bay Area Exploration*	GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						ASPHALT - 6 inches thick.	
					SC	CLAYEY SAND (SC) - brown to dark brown (7.5YR 3/3), moist; 50% fine to medium sand, 30% clay, 20% gravel (<1 inch diameter).	Boring backfilled with neat cement from the bottom to ground surface.
3	1.1						
6	2.1				CL	Color changes to dark brown (7.5YR 3/3), becomes 70% fine to medium sand, 30% clay, trace of gravel (<1 inch diameter).	
	2.8					CLAY (CL) - black (N2 5Y), moist; 90% clay, 10% fine sand, trace of silt, faint organic odor.	
9	340					SILTY CLAY (CL) - brown (7.5YR 3/3) mottled with gray to green; moist; 80% clay, 20% silt, abundant iron oxide staining, trace of fine sand.	
	639						
12	850					CLAY (CL) - brown to green (2.5Y 5/3), wet; 60% clay, 20% silt, 20% fine sand, trace of silt, strong hydrocarbon odor.	Grab groundwater sample B-1-11/08/00 (W) collected at 12.5 feet.
15	..					Bottom of boring at 15 feet bgs.	
18							
21							

JOB NUMBER: *346895.01*

Gettler-Ryan, Inc.

Log of Boring B-2

PROJECT: *Chevron Service Station No. 9-3600*	LOCATION: *2200 Telegraph Avenue, Oakland, CA.*
GR PROJECT NO.: *346895.01*	SURFACE ELEVATION:
DATE STARTED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *3 1/2 in. Hand Auger*	TOTAL DEPTH: *10 feet*
DRILLING COMPANY: *Bay Area Exploration*	GEOLOGIST: *Tony Mikacich*

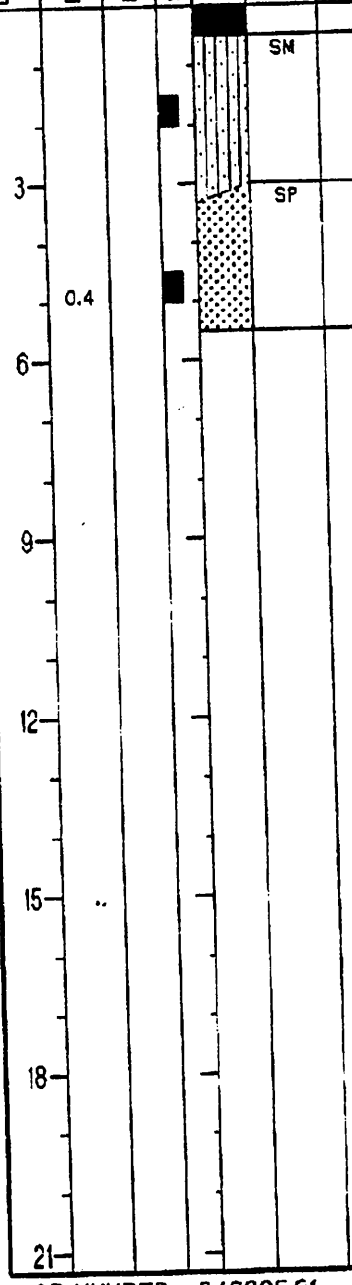
DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						ASPHALT – 6 inches thick.	
					SM	SILTY SAND (SM) – olive brown (2.5Y 4/4), moist; 70% fine to medium sand, 30% silt, hydrocarbon odor.	Boring backfilled with neat cement from the bottom to ground surface.
3	1.6				SC	CLAYEY SAND (SC) – olive brown (2.5Y 4/4), moist; 70% fine to medium sand, 30% clay.	
					SM	SILTY SAND (SM) – brown (7.5YR 4/3), moist; 80% fine to medium sand, 20% silt.	
6	1.1						
					SP	POORLY GRADED SAND (SP) – brown (7.5YR 4/3), moist; 100% fine to medium sand, trace of coarse sand, trace of shell fragments, no hydrocarbon odor.	
9	23.6					Bottom of boring at 10 feet bgs.	
12							
15							
18							
21							

JOB NUMBER: *346895.01*

Gettler-Ryan, Inc.

Log of Boring B-3

PROJECT: *Chevron Service Station No. 9-3600*	LOCATION: *2200 Telegraph Avenue, Oakland, CA.*
GR PROJECT NO.: *346895.01*	SURFACE ELEVATION:
DATE STARTED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *3 1/2 in. Hand Auger*	TOTAL DEPTH: *5.5 feet*
DRILLING COMPANY: *Bay Area Exploration*	GEOLOGIST: *Tony Mikacich*



SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
	ASPHALT - 8 inches thick.	Boring backfilled with neat cement from the bottom to ground surface.
SM	SILTY SAND (SM) - brown (7.5YR 4/3), moist; 80% fine to medium sand, 20% silt.	
SP	POORLY GRADED SAND (SP) - brown (7.5YR 4/3), moist; 100% fine to medium sand, no hydrocarbon odor.	
	Bottom of boring at 5.5 feet bgs.	

JOB NUMBER: *346895.01*

Gettler-Ryan, Inc.

Log of Boring B-4

PROJECT: *Chevron Service Station No. 9-3600*	LOCATION: *2200 Telegraph Avenue, Oakland, CA.*
GR PROJECT NO. : *346895.01*	SURFACE ELEVATION:
DATE STARTED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *3 1/2 in. Hand Auger*	TOTAL DEPTH: *10 feet*
DRILLING COMPANY: *Bay Area Exploration*	GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						ASPHALT – 6 inches thick.	
					SM	SILTY SAND (SM) – brown (7.5YR 4/3), moist; 70% fine to medium sand, 30% silt.	Boring backfilled with neat cement from the bottom to ground surface.
3					SP	POORLY GRADED SAND (SP) – brown (7.5YR 4/3), moist; 100% fine to medium sand, trace of coarse sand, trace of clay, trace of shell fragments.	
	0.8						
6							
	0.4					Becomes 100% fine to medium sand, 20% gravel.	
9					SM/SC	SILTY AND CLAYEY SAND (SM/SC) – dark brown (7.5YR 3/3), moist; 60% fine to medium sand, 20% silt, 20% clay.	
	0					Bottom of boring at 10 feet bgs.	
12							
15							
18							
21							

JOB NUMBER: *346895.01*

Gettler-Ryan, Inc.

Log of Boring B-5

PROJECT: *Chevron Service Station No. 9-3600*	LOCATION: *2200 Telegraph Avenue, Oakland, CA.*
GR PROJECT NO.: *346895.01*	SURFACE ELEVATION:
DATE STARTED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *3 1/2 in. Hand Auger*	TOTAL DEPTH: *10 feet*
DRILLING COMPANY: *Bay Area Exploration*	GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						ASPHALT - 6 inches thick.	
					SC	CLAYEY SAND WITH SILT (SC) - olive brown (2.5Y 4/4), moist; 60% fine to medium sand, 30% clay, 10% silt.	Boring backfilled with neat cement from the bottom to ground surface
3	1.5						
	1.3				SP	POORLY GRADED SAND (SP) - brown (7.5YR 4/3), moist; 90% fine to medium sand, 10% silt, trace of shell fragments.	
6	1.0				CL	SANDY CLAY (CL) - dark brown (7.5YR 3/3) mottled with brown, moist; 80% clay, 20% sand, no hydrocarbon odor.	
	0.9				SP	POORLY GRADED SAND (SP) - brown (7.5YR 4/3), moist; 100% fine to medium sand, trace of shell fragments.	
9	0.8					Bottom of boring at 10 feet bgs.	
12							
15							
18							
21							

JOB NUMBER: *346895.01*

Gettler-Ryan, Inc.

Log of Boring B-6

PROJECT: *Chevron Service Station No. 9-3600*	LOCATION: *2200 Telegrapn Avenue, Oakland, CA.*
GR PROJECT NO. : *346895.01*	SURFACE ELEVATION:
DATE STARTED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *3 1/2 in. Hand Auger*	TOTAL DEPTH: *10 feet*
DRILLING COMPANY: *Bay Area Exploration*	GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						ASPHALT – 6 inches thick.	
					SP	POORLY GRADED SAND (SP) – brown (7.5YR 4/3), moist; 100% fine sand, trace of shell fragments.	Boring backfilled with neat cement from the bottom to ground surface.
3	0.3						
6							
9							
						Bottom of boring at 10 feet bgs.	
12							
15							
18							
21							

JOB NUMBER: *346895.01*

Gettler-Ryan, Inc.

Log of Boring B-7

PROJECT: *Chevron Service Station No. 9-3600*	LOCATION: *2200 Telegraph Avenue, Oakland, CA.*
GR PROJECT NO.: *346895.01*	SURFACE ELEVATION:
DATE STARTED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *3 1/2 in. Hand Auger*	TOTAL DEPTH: *16 feet*
DRILLING COMPANY: *Bay Area Exploration*	GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						ASPHALT – 6 inches thick.	
					CL	SILTY CLAY (CL) – black (N2.5), moist; 80% clay, 20% silt, trace of fine sand.	Boring backfilled with neat cement from the bottom to ground surface
3							
	339						
6						Color changes to dark brown (2.5Y 4/3), becomes 70% clay, 20% silt, 10% fine sand, trace of iron oxide staining, trace of black organic matter.	
9							
	5.5						
12							
15	"						Grab groundwater sample B-7-W-11/08/00 (W) collected at 16 feet.
						Bottom of boring at 16 feet bgs.	
18							
21							

JOB NUMBER: *346895.01*

Gettler-Ryan, Inc.	Log of Boring B-8
PROJECT: *Chevron Service Station No. 9-3600*	LOCATION: *2200 Telegraph Avenue, Oakland, CA.*
GR PROJECT NO.: *346895.01*	SURFACE ELEVATION:
DATE STARTED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *11/08/00*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *3 1/2 in. Hand Auger*	TOTAL DEPTH: *4 feet*
DRILLING COMPANY: *Bay Area Exploration*	GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						ASPHALT - 6 inches thick.	
					SM	SILTY SAND (SM) - brown (7.5YR 4/3), moist; 70% sand, 30% silt.	Boring backfilled with neat cement from the bottom to ground surface
3						Bottom of boring at 4 feet bgs.	
6							
9							
12							
15							
18							
21							

JOB NUMBER: *346895.01*

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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	B-8B
JOB/SITE NAME	93600	**DRILLING STARTED**	12-Apr-12
LOCATION	2200 Telegraph Avenue, Oakland, CA	**DRILLING COMPLETED**	12-Apr-12
PROJECT NUMBER	311965	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Direct push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2-inches	**SCREENED INTERVALS**	NA
LOGGED BY	A. McDonell	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	T. Hariu, PG #5907	**DEPTH TO WATER (Static)**	NA
REMARKS	Refusal - Metal object in subsurface		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT	0.5	Portland Type I/II
					SP		**SAND:** Brown; moist; poorly graded; fine to medium sand.	3.0	
							@ 3 fbg - refusal due to metal obstruction in subsufrace.		Bottom of Boring @ 3 fbg

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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	B-9
JOB/SITE NAME	93600	**DRILLING STARTED**	12-Apr-12
LOCATION	2200 Telegraph Avenue, Oakland, CA	**DRILLING COMPLETED**	12-Apr-12
PROJECT NUMBER	311965	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Direct push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2-inches	**SCREENED INTERVALS**	NA
LOGGED BY	A. McDonell	**DEPTH TO WATER (First Encountered)**	13.50 fbg
REVIEWED BY	T. Hariu, PG #5907	**DEPTH TO WATER (Static)**	NA
REMARKS	Utility cleared to 8 fbg by hand auger		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT	0.5	
					SP		**SAND:** Brown; moist; poorly graded; medium sand.		
1.0		B- 9 -5		5				6.0	
					ML		**SILT with sand:** Black; moist.		
							@ 8 fbg - Dark gray; increase clay; low plasticity.		
							@ 9 fbg - Brownish gray.		
25		B- 9 -10		10			@ 11 fbg - Gray; increase clay and sand content; fine sand.		
								13.0	
					SM		**Silty SAND with gravel:** Gray; moist; well graded; medium to coarse sand, fine gravel. @ 13.5 - wet.		Portland Type I/II
1.0		B- 9 -15		15			@ 15 fbg - Brown; no gravel; poorly graded; fine sand.		
							@ 17 fbg - increase sand; well graded; fine to medium sand.		
0.6		B- 9 -20		20			@ 20 fbg - **Silty SAND:** Brown; wet; well graded; fine to coarse sand; trace fine gravel.		
							@ 24 fbg - Gray.		
--		B- 9 -25		25				26.0	
					SW		**SAND with gravel:** Brown; wet; well graded; fine to coarse sand; fine gravel.		
								29.0	
0.7		B-9 - 29.5		30	ML		**Sandy SILT:** Dark brown; wet; fine sand.	30.0	Bottom of Boring @ 30 fbg

WELL LOG (PID) I:\CHEVRON\3119--\311965 9-3600 OAKLAND\311965-BORING LOGS\311965-B-9 THROUGH B-12.GPJ DEFAULT.GDT 5/29/12

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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	B-10
JOB/SITE NAME	93600	**DRILLING STARTED**	12-Apr-12
LOCATION	2200 Telegraph Avenue, Oakland, CA	**DRILLING COMPLETED**	12-Apr-12
PROJECT NUMBER	311965	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Direct push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2-inches	**SCREENED INTERVALS**	NA
LOGGED BY	A. McDonell	**DEPTH TO WATER (First Encountered)**	18.00 fbg
REVIEWED BY	T. Hariu, PG #5907	**DEPTH TO WATER (Static)**	NA
REMARKS	Utility cleared to 8 fbg by hand auger		

PID (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (fbg)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				SP	**ASPHALT** **SAND:** Brown; moist; poorly graded; medium sand.	0.5	
1.5		B-10- 5	5	ML	**Sandy SILT:** Dark brown; moist; well graded; fine to medium sand. @ 6 fbg - Black.	5.0	
					No recovery	8.0	
4.0		B-10- 10	10	ML	**SILT:** Gray; dry; trace clay. @ 13 fbg - **SILT with sand:** Gray; moist; poorly graded; fine sand.	10.0	
3.0		B-10- 15	15				Portland Type I/II
						16.5	
0.5		B-10- 20	20	SM	**Silty SAND:** Brown; moist; poorly graded; fine sand; lenses of medium sand up to 1" thick. @ 18 fbg - wet @ 20 fbg - increase sand; well graded, fine to medium sand. @ 22 fbg - **SAND with silt:** Brown; wet; well graded; medium to coarse sand; trace fine gravel.		
0.5		B-10- 25	25	GW	**GRAVEL with sand:** Reddish brown; wet; well graded; medium to coarse sand; fine gravel.	25.0	
				SM	**Silty SAND:** Tan; wet; poorly graded; fine sand.	28.0	
0.2		B-10- 29.5	30			30.0	Bottom of Boring @ 30 fbg

WELL LOG (PID) I:\CHEVRON\3119--\311965 9-3600 OAKLAND\311965-BORING LOGS\311965-B-9 THROUGH B-12.GPJ DEFAULT.GDT 5/29/12

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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	B-11
JOB/SITE NAME	93600	**DRILLING STARTED**	12-Apr-12
LOCATION	2200 Telegraph Avenue, Oakland, CA	**DRILLING COMPLETED**	12-Apr-12
PROJECT NUMBER	311965	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Direct push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2-inches	**SCREENED INTERVALS**	NA
LOGGED BY	A. McDonell	**DEPTH TO WATER (First Encountered)**	20.00 fbg ▽
REVIEWED BY	T. Hariu, PG #5907	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Utility cleared to 8 fbg by hand auger		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT	0.5	
					SP		**SAND:** Brown; moist; poorly graded; medium sand.		
0.6		B-11- 5		5				6.0	
					ML		**SILT with sand:** Black; moist.		
							@ 7 fbg - Dark brown; increase silt content.	8.0	
							No recovery		
2.6		B-11- 10		10	CL		**CLAY:** Dark brown; moist; high plasticity.	10.0	
							Silty SAND: Brown; moist; poorly graded; fine sand.	12.5	
1.3		B-11- 15		15	SM		@ 15 fbg - Gray; well graded sand; fine to coarse sand; some fine gravel.		Portland Type I/II
							@ 18 fbg - Reddish brown; increase in coarse sand and fine gravel.		
0.7		B-11- 20		20	SW		▽ **SAND with gravel:** Brown; wet; well graded; coarse sand and fine gravel.	20.0	
							Silty SAND: Gray; wet; poorly graded; fine sand; some fine gravel.	23.0	
0.6		B-11- 25		25	SM		@ 25 fbg **SAND with silt:** Gray; wet; poorly graded; fine sand.		
							@ 28 fbg - increase in grain size; well graded; medium to coarse sand.		
0.6		B-11- 29.5		30				30.0	Bottom of Boring @ 30 fbg

WELL LOG (PID) I:\CHEVRON\3119--\311965 9-3600 OAKLAND\311965-BORING LOGS\311965-B-9 THROUGH B-12.GPJ DEFAULT.GDT 5/29/12

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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	B-12
JOB/SITE NAME	93600	**DRILLING STARTED**	13-Apr-12
LOCATION	2200 Telegraph Avenue, Oakland, CA	**DRILLING COMPLETED**	13-Apr-12
PROJECT NUMBER	311965	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Direct push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2-inches	**SCREENED INTERVALS**	NA
LOGGED BY	A. McDonell	**DEPTH TO WATER (First Encountered)**	23.00 fbg
REVIEWED BY	T. Hariu, PG #5907	**DEPTH TO WATER (Static)**	NA
REMARKS	Utility cleared to 8 fbg by hand auger		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT	0.5	
					SP		**SAND:** Brown; moist; poorly graded; medium sand.		
0		B-12- 5		5				6.0	
					ML		**SILT with sand:** Black; moist; poorly graded; fine sand.		
								8.0	
							No recovery		
0		B-12- 10		10	CL		**CLAY:** Brownish black; moist; medium to high plasticity.	10.0	
								13.0	
							Sandy SILT: Brown; moist; poorly graded; fine sand.		
0		B-12- 15		15	SM		@ 15 fbg - Reddish brown; some streaks of light gray; increase sand content.		Portland Type I/II
0		B-12- 20		20			@ 20 - increase in moisture content.	21.0	
							SAND with gravel: Brown; moist; well graded; fine to coarse sand; fine gravel; angular to sub angular gravel.		
					SW		@ 23 fbg - wet.		
0		B-12- 25		25			@ 26 fbg - increase in gravel content and size to fine gravel.		
								28.0	
					SM		**Silty SAND:** Gray; wet; poorly graded; fine sand.		
0		B-12- 29.5		30				30.0	Bottom of Boring @ 30 fbg

WELL LOG (PID) I:\CHEVRON\3119--\311965 9-3600 OAKLAND\311965-BORING LOGS\311965-B-9 THROUGH B-12.GPJ DEFAULT.GDT 5/29/12

Appendix C

Groundwater Monitoring and Sampling Data

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVE
OAKLAND, CALIFORNIA

					HYDROCARBONS	*PRIMARY VOCS*					*ADDITIONAL VOCS*				
Location	Date	*TOC*	*DTW*	*GWE*	*TPH-GRO*	*B*	*T*	*E*	*X*	*MTBE by SW8260*	*ETHANOL*	*TBA*	*DIPE*	*ETBE*	*TAME*
	Units	*ft*	*ft*	*ft-amsl*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*
MW-1	04/05/2002[1]	17.07	11.68	5.39	2,000	5.0	<1.0	14	8.4	310/370	-	200	<2	<2	10
MW-1	07/01/2002	17.07	12.01	5.06	2,000	8.9	<1.0	97	31	420/370	-	190	<2	<2	9
MW-1	10/08/2002	17.07	12.20	4.87	1,400	9.2	<10	75	20	360/440	-	110	<2	<2	8
MW-1	01/11/2003	17.07	11.13	5.94	1,600	7.1	0.51	53	13	280/270	-	<100	<2	<2	7
MW-1	04/01/2003	17.07	11.53	5.54	1,800	5.2	0.6	25	9.1	210/210	-	22	<0.5	<0.5	5
MW-1	07/01/2003[3]	17.07	11.95	5.12	2,000	4	<0.5	31	12	170	<50	26	<0.5	<0.5	5
MW-1	10/02/2003[3]	17.07	12.25	4.82	480	<5	<5	<5	<5	9,800	<500	2,600	<5	<5	6
MW-1	01/05/2004[3]	17.07	11.05	6.02	1,700	3	<0.5	27	4	140	<50	21	<0.5	<0.5	3
MW-1	04/05/2004[3]	17.07	11.63	5.44	1,500	2	<0.5	21	0.6	120	<50	17	<0.5	<0.5	3
MW-1	07/01/2004[3]	17.07	12.08	4.99	1,500	1	<0.5	3	<0.5	130	<50	13	<0.5	<0.5	2
MW-1	10/05/2004[3]	17.07	12.21	4.86	1,400	<0.5	<0.5	1	0.5	130	<50	14	<0.5	<0.5	2
MW-1	01/04/2005[3]	17.07	11.15	5.92	1,500	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-1	04/14/2005[3]	17.07	11.20	5.87	2,100	<0.5	<0.5	4	0.5	61	<50	15	<0.5	<0.5	1
MW-1	07/08/2005[3]	17.07	11.38	5.69	1,800	<0.5	<0.5	0.8	<0.5	71	<50	15	<0.5	<0.5	1
MW-1	10/27/2005[3]	17.07	12.24	4.83	800	<0.5	<0.5	<0.5	<0.5	76	<50	10	<0.5	<0.5	1
MW-1	01/12/2006[3]	17.07	11.10	5.97	1,600	<0.5	<0.5	4	<0.5	47	<50	12	<0.5	<0.5	<0.5
MW-1	04/13/2006[3]	17.07	10.81	6.26	1,500	<0.5	<0.5	1	<0.5	36	<50	8	<0.5	<0.5	0.6
MW-1	07/13/2006[3]	17.07	11.18	5.89	990	<0.5	<0.5	<0.5	<0.5	44	<50	7	<0.5	<0.5	0.7
MW-1	10/16/2006[3]	17.07	12.18	4.89	780	<0.5	<0.5	<0.5	<0.5	59	<50	6	<0.5	<0.5	1
MW-1	01/20/2007[3]	17.07	11.91	5.16	890	<0.5	<0.5	<0.5	<0.5	47	<50	8	<0.5	<0.5	0.8
MW-1	04/11/2007[3]	17.07	11.87	5.20	1,900	<0.5	<0.5	4	<0.5	39	<50	9	<0.5	<0.5	0.7
MW-1	07/27/2007[3]	17.07	11.91	5.16	1,500	<0.5	<0.5	0.6	<0.5	56	<50	8	<0.5	<0.5	0.8
MW-1	10/22/2007[3]	17.07	-	-	610	<0.5	<0.5	<0.5	<0.5	65	<50	5	<0.5	<0.5	0.7
MW-1	11/26/2007	17.07	11.96	5.11	-	-	-	-	-	-	-	-	-	-	-
MW-1	01/21/2008[3]	17.07	11.78	5.29	1,100	<0.5	<0.5	0.8	<0.5	48	<50	5	<0.5	<0.5	0.7
MW-1	04/04/2008[3]	17.07	11.83	5.24	1,600	<0.5	<0.5	<0.5	<0.5	53	<50	6	<0.5	<0.5	0.6
MW-1	07/21/2008[3]	17.07	12.10	4.97	950	<0.5	<0.5	<0.5	<0.5	72	<50	11	<0.5	<0.5	0.7

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVE
OAKLAND, CALIFORNIA

					HYDROCARBONS	*PRIMARY VOCS*					*ADDITIONAL VOCS*				
Location	Date	*TOC*	*DTW*	*GWE*	*TPH-GRO*	*B*	*T*	*E*	*X*	*MTBE by SW8260*	*ETHANOL*	*TBA*	*DIPE*	*ETBE*	*TAME*
	Units	*ft*	*ft*	*ft-amsl*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*
MW-1	10/09/2008[3]	17.07	12.17	4.90	960	<0.5	<0.5	<0.5	<0.5	59	<50	5	<0.5	<0.5	0.5
MW-1	01/21/2009[3]	17.07	12.15	4.92	840	<0.5	<0.5	<0.5	<0.5	31	<50	5	<0.5	<0.5	0.5
MW-1	04/29/2009	17.07	11.68	5.39	1,800	<0.5	<0.5	3	<0.5	25	<50	5	<0.5	<0.5	<0.5
MW-1	07/23/2009[3]	17.07	11.85	5.22	1,900	<0.5	<0.5	<0.5	<0.5	30	<50	4 J	<0.5	<0.5	<0.5
MW-1	01/28/2010	17.07	10.81	6.26	2,600	<0.5	<0.5	2	<0.5	31	<50	11	<0.5	<0.5	<0.5
MW-1	07/22/2010	17.07	11.76	5.31	4,200	0.5 J	<0.5	3	<0.5	59	<50	9	<0.5	<0.5	0.6 J
MW-1	01/20/2011	17.07	11.33	5.74	2,500	<0.5	<0.5	2	<0.5	30	<50	4 J	<0.5	<0.5	<0.5
MW-1	07/18/2011	17.07	11.41	5.66	2,200	<0.5	<0.5	4	<0.5	55	<50	5	<0.5	<0.5	0.5 J
MW-1	04/02/2012	17.07	10.76	6.31	1,600	<0.5	<0.5	2	<0.5	23	<50	3 J	<0.5	<0.5	<0.5
MW-1	**05/01/2013**	**17.07**	**11.40**	**5.67**	**1,500**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**38**	**<50**	**<2**	**<0.5**	**<0.5**	**<0.5**
MW-2	04/05/2002[1]	16.82	11.17	5.65	<50	<0.50	<0.50	<0.50	<1.5	<2/<2.5	-	<100	<2	<2	<2
MW-2	07/01/2002	16.82	11.36	5.46	<50	<0.50	0.57	0.52	<1.5	<2.5/<2	-	<100	<2	<2	<2
MW-2	10/08/2002	16.82	11.57	5.25	<100	<2.0	<2.0	<2.0	<5.0	<10/<2	-	<100	<2	<2	<2
MW-2	01/11/2003	16.82	10.94	5.88	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2	-	<100	<2	<2	<2
MW-2	04/01/2003	16.82	11.03	5.79	<50	<0.5	<0.5	<0.5	<1.5	<0.5/<2.5	<50	<5	<0.5	<0.5	<0.5
MW-2	07/01/2003[3]	16.82	11.30	5.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-2	10/02/2003[3]	16.82	11.63	5.19	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-2	01/05/2004[3]	16.82	10.82	6.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-2	04/05/2004[3]	16.82	11.21	5.61	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-2	07/01/2004[3]	16.82	11.46	5.36	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-2	10/05/2004[3]	16.82	11.57	5.25	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-2	01/04/2005[3]	16.82	10.87	5.95	<50	0.5	<0.5	8	0.9	87	<50	14	<0.5	<0.5	2
MW-2	04/14/2005[3]	16.82	10.72	6.10	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-2	07/08/2005[3]	16.82	11.16	5.66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-2	10/27/2005[3]	16.82	11.59	5.23	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-2	01/12/2006[3]	16.82	10.68	6.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVE
OAKLAND, CALIFORNIA

					HYDROCARBONS	*PRIMARY VOCS*					*ADDITIONAL VOCS*				
Location	Date	*TOC*	*DTW*	*GWE*	*TPH-GRO*	*B*	*T*	*E*	*X*	*MTBE by SW8260*	*ETHANOL*	*TBA*	*DIPE*	*ETBE*	*TAME*
	Units	*ft*	*ft*	*ft-amsl*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*
MW-2	04/13/2006[3]	16.82	10.37	6.45	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-2	07/13/2006[3]	16.82	10.68	6.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-2	10/16/2006[3]	16.82	11.48	5.34	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-2	01/20/2007[3]	16.82	11.27	5.55	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	04/11/2007[3]	16.82	11.20	5.62	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	07/25/2007[3]	-	-	-	-	-	-	-	-	-	<50	<2	<0.5	<0.5	<0.5
MW-2	07/27/2007[3]	16.82	11.27	5.55	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
MW-2	10/22/2007[3]	16.82	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	11/26/2007	16.82	11.31	5.51	-	-	-	-	-	-	-	-	-	-	-
MW-2	01/21/2008[3]	16.82	11.08	5.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	04/04/2008[3]	16.82	11.12	5.70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	07/21/2008[3]	16.82	11.56	5.26	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	10/09/2008[3]	16.82	11.73	5.09	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	01/21/2009[3]	16.82	11.55	5.27	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	04/29/2009	16.82	11.06	5.76	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	07/23/2009[3]	16.82	11.30	5.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	01/28/2010	16.82	10.23	6.59	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	07/22/2010	16.82	11.03	5.79	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	01/20/2011	16.82	10.52	6.30	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	07/18/2011	16.82	10.61	6.21	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	04/02/2012	16.82	9.86	6.96	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-2	**05/01/2013**	**16.82**	**10.52**	**6.30**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<50**	**<2**	**<0.5**	**<0.5**	**<0.5**
MW-3	04/05/2002[1]	16.52	11.29	5.23	<50	<0.50	0.59	<0.50	<1.5	<2.5/<2	-	<100	<2	<2	<2
MW-3	07/01/2002	16.52	11.55	4.97	<50	<0.50	0.60	<0.50	<1.5	<2.5/<2	-	<100	<2	<2	<2
MW-3	10/08/2002	16.52	11.62	4.90	<100	<2.0	<2.0	<2.0	<5.0	<2/<10	-	<100	<2	<2	<2
MW-3	01/11/2003	16.52	11.09	5.43	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2	-	<100	<2	<2	<2

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVE
OAKLAND, CALIFORNIA

					HYDROCARBONS	*PRIMARY VOCS*					*ADDITIONAL VOCS*				
Location	Date	*TOC*	*DTW*	*GWE*	*TPH-GRO*	*B*	*T*	*E*	*X*	*MTBE by SW8260*	*ETHANOL*	*TBA*	*DIPE*	*ETBE*	*TAME*
	Units	*ft*	*ft*	*ft-amsl*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*
MW-3	04/01/2003	16.52	11.25	5.27	<50	<0.5	<0.5	<0.5	<1.5	<0.5/<2.5	-	<5	<0.5	<0.5	<0.5
MW-3	07/01/2003[3]	16.52	11.42	5.10	<50	<0.5	<0.5	<0.5	<0.5	2	<50	<5	<0.5	<0.5	<0.5
MW-3	10/02/2003[3]	16.52	11.74	4.78	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-3	01/05/2004[3]	16.52	11.06	5.46	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-3	04/05/2004[3]	16.52	11.40	5.12	<50	<0.5	<0.5	<0.5	<0.5	0.6	<50	<5	<0.5	<0.5	<0.5
MW-3	07/01/2004[3]	16.52	11.58	4.94	<50	<0.5	<0.5	<0.5	<0.5	0.8	<50	<5	<0.5	<0.5	<0.5
MW-3	10/05/2004[3]	16.52	11.60	4.92	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-3	01/04/2005[3]	16.52	10.95	5.57	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-3	04/14/2005[3]	16.52	11.10	5.42	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-3	07/08/2005[3]	16.52	11.29	5.23	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-3	10/27/2005[3]	16.52	11.68	4.84	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-3	01/12/2006[3]	16.52	10.83	5.69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-3	04/13/2006[3]	16.52	10.65	5.87	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-3	07/13/2006[3]	16.52	11.03	5.49	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-3	10/16/2006[3]	16.52	11.46	5.06	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<5	<0.5	<0.5	<0.5
MW-3	01/20/2007[3]	16.52	11.39	5.13	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-3	04/11/2007[3]	16.52	11.27	5.25	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-3	07/27/2007[3]	16.52	11.38	5.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-3	10/22/2007[3]	16.52	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-3	11/26/2007	16.52	11.35	5.17	-	-	-	-	-	-	-	-	-	-	-
MW-3	01/21/2008[3]	16.52	11.16	5.36	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-3	04/04/2008[3]	16.52	11.15	5.37	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-3	07/21/2008[3]	16.52	11.38	5.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-3	10/09/2008[3]	16.52	11.49	5.03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-3	01/21/2009[3]	16.52	11.52	5.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-3	04/29/2009	16.52	11.10	5.42	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-3	07/23/2009[3]	16.52	11.20	5.32	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVE
OAKLAND, CALIFORNIA

					HYDROCARBONS	*PRIMARY VOCS*					*ADDITIONAL VOCS*				
Location	Date	*TOC*	*DTW*	*GWE*	*TPH-GRO*	*B*	*T*	*E*	*X*	*MTBE by SW8260*	*ETHANOL*	*TBA*	*DIPE*	*ETBE*	*TAME*
	Units	*ft*	*ft*	*ft-amsl*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*
MW-3	01/28/2010	16.52	10.41	6.11	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-3	07/22/2010	16.52	10.91	5.61	<50	<0.5	<0.5	<0.5	<0.5	1	<50	<2	<0.5	<0.5	<0.5
MW-3	01/20/2011	16.52	10.55	5.97	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-3	07/18/2011	16.52	10.43	6.09	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-3	04/02/2012	16.52	10.22	6.30	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5
MW-3	**05/01/2013**	**16.52**	**10.96**	**5.56**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<50**	**<2**	**<0.5**	**<0.5**	**<0.5**
Trip Blank	04/05/2002	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-
Trip Blank	07/01/2002	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-
Trip Blank	10/08/2002	-	-	-	<100	<2.0	<2.0	<2.0	<5.0	<10	-	-	-	-	-
Trip Blank	01/11/2003	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-
Trip Blank	04/01/2003	-	-	-	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-	-	-	-	-
Trip Blank	07/01/2003[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	10/02/2003[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	01/05/2004[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	04/05/2004[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	07/01/2004[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	10/05/2004[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	01/04/2005[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	04/14/2005[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	07/08/2005[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	10/27/2005[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	01/12/2006[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	04/13/2006[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	07/13/2006[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	10/16/2006[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	01/20/2007[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVE
OAKLAND, CALIFORNIA

					HYDROCARBONS	*PRIMARY VOCS*					*ADDITIONAL VOCS*				
Location	Date	*TOC*	*DTW*	*GWE*	*TPH-GRO*	*B*	*T*	*E*	*X*	*MTBE by SW8260*	*ETHANOL*	*TBA*	*DIPE*	*ETBE*	*TAME*
	Units	*ft*	*ft*	*ft-amsl*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*
Trip Blank	04/11/2007[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	07/27/2007[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	10/22/2007[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	01/21/2008[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	04/04/2008[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	07/21/2008[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	10/09/2008[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	01/21/2009[3]	-	-	-	<50[5]	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	04/29/2009	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	07/23/2009[3]	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	01/28/2010	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	07/22/2010	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	01/20/2011	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	07/18/2011	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Trip Blank	04/02/2012	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	<0.5	<0.5	<0.5
Trip Blank	**05/01/2013**	**-**	**-**	**-**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**-**	**<2**	**<0.5**	**<0.5**	**<0.5**

Abbreviations and Notes:

TOC = Top of casing

DTW = Depth to water

GWE = Groundwater elevation

(ft-amsl) = Feet above mean sea level

ft = Feet

µg/L = Micrograms per liter

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

VOCS = Volatile organic compounds

B = Benzene

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
FORMER CHEVRON SERVICE STATION 93600
2200 TELEGRAPH AVE
OAKLAND, CALIFORNIA

					HYDROCARBONS	*PRIMARY VOCS*					*ADDITIONAL VOCS*				
Location	Date	*TOC*	*DTW*	*GWE*	*TPH-GRO*	*B*	*T*	*E*	*X*	*MTBE by SW8260*	*ETHANOL*	*TBA*	*DIPE*	*ETBE*	*TAME*
	Units	*ft*	*ft*	*ft-amsl*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*

T = Toluene
E = Ethylbenzene
X = Xylenes (Total)
MTBE = Methyl tert butyl ether
TBA = Tert-butyl alcohol
DIPE = Diisopropyl ether
ETBE = Tert-butyl ethyl ether
TAME = Tert-amyl methyl ether
-- = Not available / not applicable
<x = Not detected above laboratory method detection limit
J = Estimated concentration

3 BTEX and MTBE by EPA Method 8260.

5 Laboratory report indicates the original analysis was performed on an instrument where the ending calibration standard failed the method criteria. The sample was originally analyzed approximately 30 minutes after the LCS/LCSD. The LCS/LCSD showed good GRO recovery and the surrogate recovery for this sample was 85%. The sample was reanalyzed from a vial with headspace since only 1 vial was submitted. The results for the original and the reanalysis were similar. The reanalysis was reported.

Appendix D

Degradation Calculations and Trend Graphs

Table A - Summary of Degradation Rate Calculations
Former Chevron Service Station 93600, 2200 Telegraph Avenue, Oakland, California

Well	Analyte	Maximum Concentration (ug/L)	Current Concentration (ug/L)	Half-Life (years)	Approximate Date to Reach WQO	Approximate Years to Reach WQO
MW-1	TPHg	4,200	1,500	2.01	Sep 2020	7.0
MW-1	MTBE	9,800	38	3.42	Nov 2019	6.1

Notes and Abbreviations:

TPHg = Total Petroleum Hydrocarbons as Gasoline
MTBE = Methyl Tertiary Butyl Ether
µg/L = Micrograms per liter
WQO = Water Quality Objective.

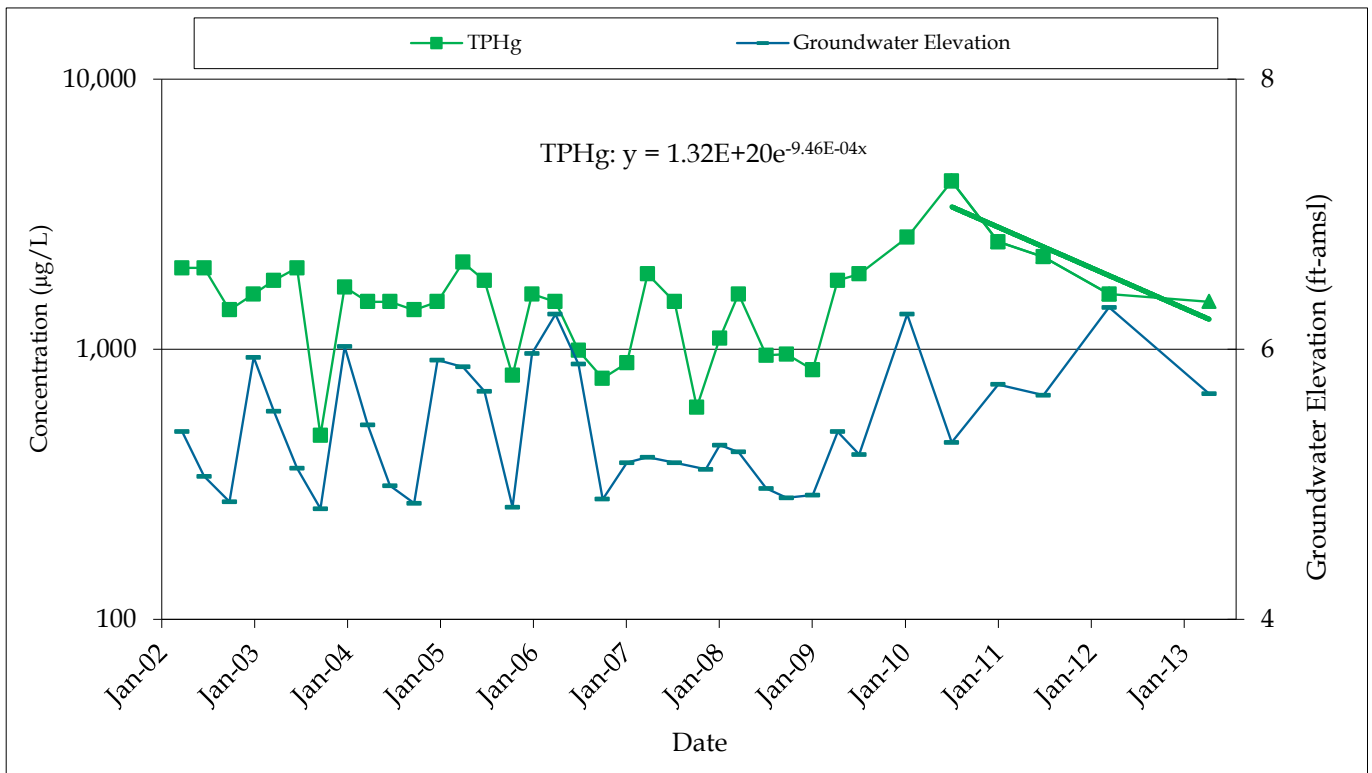
Predicted Time to Reach Water Quality Objectives (WQO) in Well MW-1

Former Chevron Service Station 93600, 2200 Telegraph Avenue, Oakland, California

$y = b\,e^{ax}$ **===>** $x = \ln(y/b) / a$

where: a = decay constant; b = concentration at time (x); x = time (x) in days

		Constituent: Total Petroleum Hydrocarbons as Gasoline (TPHg)
Given		
WQO:	y	100
Constant:	b	1.32E+20
Constant:	a	-9.46E-04
Starting date for current trend:		7/22/2010
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	2.01
Estimated Date to Reach WQO:	(x = ln(y/b) / a)	September 2020



FORMER CHEVRON SERVICE STATION 93
2200 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

Figure A
MW-1: TPHg CONCENTRATIONS AND GROUNDWATER

Predicted Time to Reach Water Quality Objectives (WQO) in Well MW-1

Former Chevron Service Station 93600, 2200 Telegraph Avenue, Oakland, California

$y = b\,e^{ax}$ **===>** $x = \ln(y/b) / a$

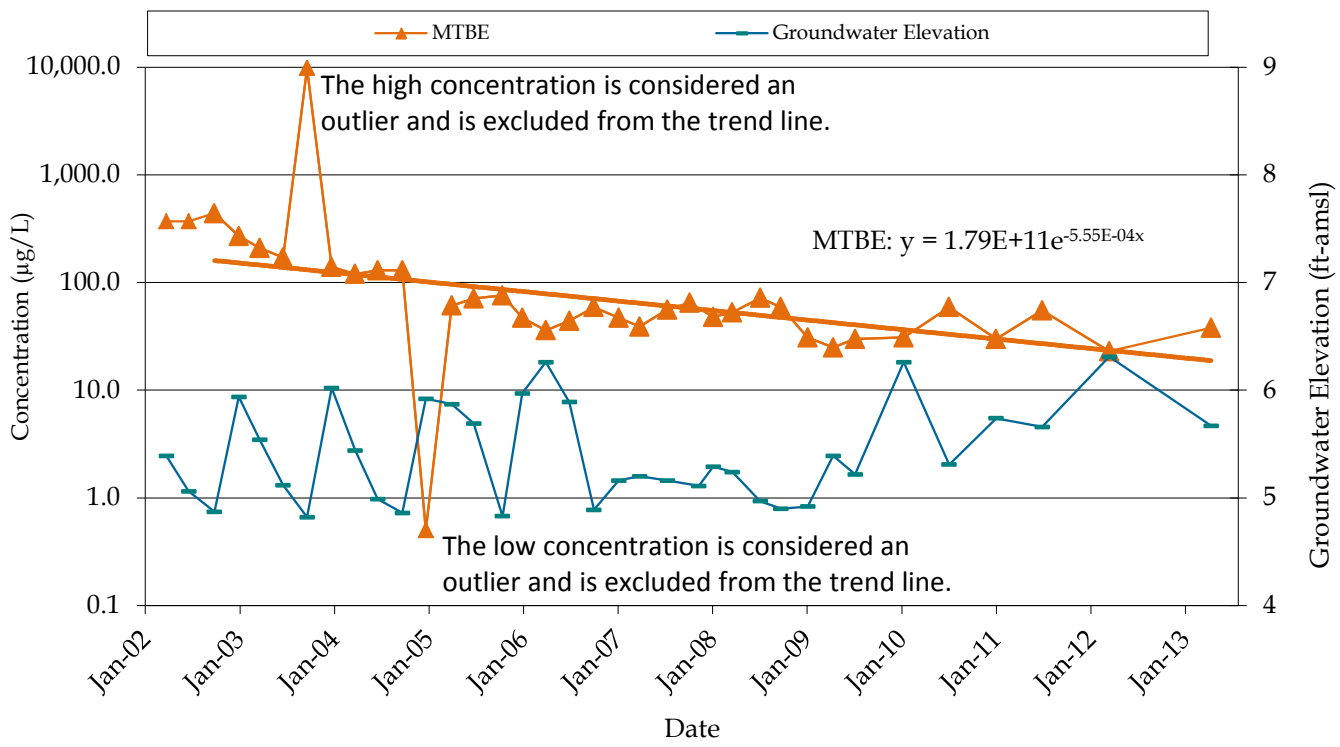
where:

a = decay constant

b = concentration at time (x)

x = time (x) in days

	Constituent	Methyl Tertiary Butyl Ether (MTBE)
Given		
WQO:	y	5
Constant:	b	1.79E+11
Constant:	a	-5.55E-04
Starting date for current trend:		10/8/2002
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	3.42
Estimated Date to Reach WQO:	(x = ln(y/b) / a)	November 2019



FORMER CHEVRON SERVICE STATION 9360(
2200 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

Figure B
MW-1: MTBE CONCENTRATIONS AND GROUNDWATER ELEVATION

Appendix E

DWR and ACPW Well Survey Data

WELL SURVEY DATA
FROM CALIFORNIA DEPARTMENT OF WATER RESOURCES
CHEVRON STATION 9-3600
2200 TELEGRAPH AVE., OAKLAND, CALIFORNIA

WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
2800 Telegraph Ave., Oakland, CA	SB-1	2,100	monitoring	F37	YES
2800 Telegraph Ave., Oakland, CA	S-1	2,100	monitoring	F38	YES
2800 Telegraph Ave., Oakland, CA	S-4	2,100	monitoring	F39	YES
2800 Telegraph Ave., Oakland, CA	S-5	2,100	monitoring	F3A	YES
2800 Telegraph Ave., Oakland, CA	S-10	2,100	monitoring	F3B	YES
423 7th St., Oakland, CA	B-3	NC	monitoring	F46	YES
423 7th St., Oakland, CA	B-1	NC	monitoring	F44	YES
423 7th St., Oakland, CA	B-2	NC	monitoring	F45	YES
29 Wildwood Ave., Piedmont, CA	MW-1	NC	monitoring	51271098	NO RECORD
29 Wildwood Ave., Piedmont, CA	MW-2	NC	monitoring	51271098	NO RECORD
29 Wildwood Ave., Piedmont, CA	MW-3	NC	monitoring	51271098	NO RECORD
29 Wildwood Ave., Piedmont, CA	MW-4	NC	monitoring	51271097	NO RECORD
29 Wildwood Ave., Piedmont, CA	MW-5	NC	monitoring	51271097	NO RECORD
363 Grand Ave., Oakland, CA	MW-1	NC	monitoring	51271096	NO RECORD
29 Wildwood Ave., Piedmont, CA	BH-D	NC	Test Boring	51271102	NO RECORD
29 Wildwood Ave., Piedmont, CA	BH-E	NC	Test Boring	51271103	NO RECORD
29 Wildwood Ave., Piedmont, CA	BH-F	NC	Test Boring	51271104	NO RECORD
29 Wildwood Ave., Piedmont, CA	BH-G	NC	Test Boring	51271105	NO RECORD
29 Wildwood Ave., Piedmont, CA	BH-H	NC	Test Boring	51271106	NO RECORD
29 Wildwood Ave., Piedmont, CA	BH-I	NC	Test Boring	51271107	NO RECORD
29 Wildwood Ave., Piedmont, CA	MW-4	NC	monitoring	51271108	NO RECORD
363 Grand Ave., Oakland, CA	MW-2	NC	monitoring	51271128	NO RECORD
363 Grand Ave., Oakland, CA	MW-3	NC	monitoring	51271129	NO RECORD
363 Grand Ave., Oakland, CA	MW-4	NC	monitoring	51271130	NO RECORD
363 Grand Ave., Oakland, CA	MW-5	NC	monitoring	51271131	NO RECORD
363 Grand Ave., Oakland, CA	MW-6	NC	monitoring	51271132	NO RECORD
363 Grand Ave., Oakland, CA	MW-7	NC	monitoring	51271133	NO RECORD
363 Grand Ave., Oakland, CA	MW-8	NC	monitoring	51271134	NO RECORD
363 Grand Ave., Oakland, CA	MW-9	NC	monitoring	51271143	NO RECORD
363 Grand Ave., Oakland, CA	RW-1	NC	test	51271138	NO RECORD
350 Grand Ave., Oakland, CA	S-1	NC	monitoring	51271135	NO RECORD
350 Grand Ave., Oakland, CA	S-2	NC	monitoring	51271136	NO RECORD
350 Grand Ave., Oakland, CA	S-3	NC	monitoring	51271137	NO RECORD

WELL SURVEY DATA
FROM CALIFORNIA DEPARTMENT OF WATER RESOURCES
CHEVRON STATION 9-3600
2200 TELEGRAPH AVE., OAKLAND, CALIFORNIA

WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
500 Grand Ave., Oakland, CA	MW-8A	NC	monitoring	51271148	YES
500 Grand Ave., Oakland, CA	MW-8B	NC	monitoring	51271150	YES
500 Grand Ave., Oakland, CA	MW-8C	NC	monitoring	51271150	YES
500 Grand Ave., Oakland, CA	MW-8E	NC	monitoring	51271149	YES
500 Grand Ave., Oakland, CA	MW-8F	NC	monitoring	51271144	YES
500 Grand Ave., Oakland, CA	MW-8G	NC	monitoring	51271145	YES
500 Grand Ave., Oakland, CA	MW-8H	NC	monitoring	51271146	YES
500 Grand Ave., Oakland, CA	MW-8I	NC	monitoring	51271147	YES
500 Grand Ave., Oakland, CA	MW-8J	NC	monitoring	51271153	YES
500 Grand Ave., Oakland, CA	MW-8K	NC	monitoring	51271159	NO RECORD
500 Grand Ave., Oakland, CA	MW-8L	NC	monitoring	51271160	NO RECORD
500 Grand Ave., Oakland, CA	B-7	NC	boring	51271154	NO RECORD
500 Grand Ave., Oakland, CA	B-8	NC	boring	51271155	NO RECORD
500 Grand Ave., Oakland, CA	B-9	NC	boring	51271155	NO RECORD
500 Grand Ave., Oakland, CA	B-11	NC	boring	51271156	NO RECORD
500 Grand Ave., Oakland, CA	B-12	NC	boring	51271157	NO RECORD
3509 Grand Ave., Oakland, CA	MW-1	NC	monitoring	51271110	NO RECORD
Adams and Lee Streets, Oakland, CA	N/A	NC	Cathodic	51271111	NO RECORD
29th and Telegraph Ave., Oakland, CA	N/A	NC	Cathodic	51286014	NO RECORD
24th and 27th Streets, Oakland, CA	OW-1	NC	monitoring	51271112	NO RECORD
24th and 27th Streets, Oakland, CA	OW-2	NC	monitoring	51271113	NO RECORD
24th and 27th Streets, Oakland, CA	OW-3	NC	monitoring	51271114	NO RECORD
230 Bay Place, Oakland, CA	MW-1	NC	monitoring	51271123	NO RECORD
460 Grand Ave. @ Bellvue, Oakland, CA	C-1	NC	monitoring	51271124	NO RECORD
460 Grand Ave. @ Bellvue, Oakland, CA	C-2	NC	monitoring	51271124	NO RECORD
460 Grand Ave. @ Bellvue, Oakland, CA	C-3	NC	monitoring	51271124	NO RECORD
210 Grand Ave., Oakland, CA	MW-1	NC	monitoring	51271117	NO RECORD
210 Grand Ave., Oakland, CA	MW-2	NC	monitoring	51271118	NO RECORD
210 Grand Ave., Oakland, CA	MW-3	NC	monitoring	51271119	NO RECORD
210 Grand Ave., Oakland, CA	MW-4	NC	monitoring	51271120	NO RECORD
210 Grand Ave., Oakland, CA	MW-5	NC	monitoring	51271121	NO RECORD
210 Grand Ave., Oakland, CA	MW-6	NC	monitoring	51271139	NO RECORD
210 Grand Ave., Oakland, CA	MW-7	NC	monitoring	51271139	NO RECORD
210 Grand Ave., Oakland, CA	MW-8	NC	monitoring	51271139	NO RECORD
210 Grand Ave., Oakland, CA	MW-9	NC	monitoring	51271139	NO RECORD

WELL SURVEY DATA
FROM CALIFORNIA DEPARTMENT OF WATER RESOURCES
CHEVRON STATION 9-3600
2200 TELEGRAPH AVE., OAKLAND, CALIFORNIA

WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
637 Beacon, Oakland, CA	MW-1	NC	monitoring	51271162	NO RECORD
637 Beacon, Oakland, CA	B-1	NC	boring	51271163	NO RECORD
637 Beacon, Oakland, CA	B-2	NC	boring	51271164	NO RECORD
637 Beacon, Oakland, CA	B-3	NC	boring	51271165	NO RECORD
637 Beacon, Oakland, CA	B-4	NC	boring	51271166	NO RECORD
637 Beacon, Oakland, CA	B-5	NC	boring	51271167	NO RECORD
3026 Lakeshore Ave., Oakland, CA	MW-1	NC	monitoring	51271171	NO RECORD
3026 Lakeshore Ave., Oakland, CA	MW-2	NC	monitoring	51271173	NO RECORD
3026 Lakeshore Ave., Oakland, CA	MW-3	NC	monitoring	51271174	NO RECORD
3026 Lakeshore Ave., Oakland, CA	MW-4	NC	monitoring	51271175	NO RECORD
3026 Lakeshore Ave., Oakland, CA	MW-5	NC	monitoring	51271178	NO RECORD
3026 Lakeshore Ave., Oakland, CA	MW-6	NC	monitoring	51271179	NO RECORD
3026 Lakeshore Ave., Oakland, CA	MW-7	NC	monitoring	51271180	NO RECORD
3026 Lakeshore Ave., Oakland, CA	MW-8	NC	monitoring	51271181	NO RECORD
3220 Lakeshore Ave., Oakland, CA	U-1	NC	test	51271169	NO RECORD
3220 Lakeshore Ave., Oakland, CA	U-2	NC	test	51271168	NO RECORD
3220 Lakeshore Ave., Oakland, CA	U-3	NC	test	51271170	NO RECORD
30th and Webster (Hospital), Oakland, CA	01-815	3,000	undefined	51286002	NO RECORD
3093 Broadway, Oakland	Test 2	NC	boring	51286004	NO RECORD
3093 Broadway, Oakland	Test 3	NC	boring	51286005	NO RECORD
3093 Broadway, Oakland	Test 4	NC	boring	51286006	NO RECORD
3093 Broadway, Oakland, CA	MW1	NC	monitoring	51286007	NO RECORD
3093 Broadway, Oakland, CA	MW2	NC	monitoring	51286008	NO RECORD
3093 Broadway, Oakland, CA	MW3	NC	monitoring	51286009	NO RECORD
3093 Broadway, Oakland, CA	MW4	NC	monitoring	51286010	NO RECORD
3093 Broadway, Oakland, CA	MW-6	NC	monitoring	51286012	NO RECORD
3093 Broadway, Oakland, CA	MW-7	NC	monitoring	51286013	NO RECORD
Middle School (Location uncertain)	N/A	NC	Irrigation	51286015	NO RECORD
2720 San Pablo Ave., Berkeley, CA	MW-1	NC	monitoring	51286016	YES
2720 San Pablo Ave., Berkeley, CA	MW-2	NC	monitoring	51286017	YES
2720 San Pablo Ave., Berkeley, CA	MW-3	NC	monitoring	51286018	YES
958 28th St., Oakland, CA	MW-4	NC	monitoring	51286019	NO RECORD
958 28th St., Oakland, CA	MW-5	NC	monitoring	51286020	NO RECORD
958 28th St., Oakland, CA	SB-1	NC	boring	51286022	NO RECORD
958 28th St., Oakland, CA	SB-2	NC	boring	51286023	NO RECORD

WELL SURVEY DATA
FROM CALIFORNIA DEPARTMENT OF WATER RESOURCES
CHEVRON STATION 9-3600
2200 TELEGRAPH AVE., OAKLAND, CALIFORNIA

WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
958 28th St., Oakland, CA	SB-3	NC	boring	51286024	NO RECORD
958 28th St., Oakland, CA	MW-4A	NC	monitoring	51286026	NO RECORD
958 28th St., Oakland, CA	MW-7	NC	test well	51286027	NO RECORD
889 West Grand Ave., Oakland, CA	unidentified	NC	monitoring	51286028	Destroyed
889 West Grand Ave., Oakland, CA	A-1	NC	monitoring	51286029	NO RECORD
889 West Grand Ave., Oakland, CA	A-2	NC	monitoring	51286030	NO RECORD
889 West Grand Ave., Oakland, CA	A-3	NC	monitoring	51286031	NO RECORD
889 West Grand Ave., Oakland, CA	A-4	NC	monitoring	51286032	NO RECORD
889 West Grand Ave., Oakland, CA	AR-1	NC	monitoring	51286033	NO RECORD
2400 Filbert Street, Oakland, CA	MW1	NC	monitoring	51286034	NO RECORD
889 West Grand Ave., Oakland, CA	AV-1	NC	monitoring	51286035	NO RECORD
889 West Grand Ave., Oakland, CA	AV-2	NC	monitoring	51286036	NO RECORD
889 West Grand Ave., Oakland, CA	AV-3	NC	monitoring	51286037	NO RECORD
889 West Grand Ave., Oakland, CA	AR-2	NC	monitoring	51286038	NO RECORD
889 West Grand Ave., Oakland, CA	A-5	NC	monitoring	51286039	NO RECORD
889 West Grand Ave., Oakland, CA	A-6	NC	monitoring	51286040	NO RECORD
2400 Filbert Street, Oakland	MW2	NC	monitoring	51286041	NO RECORD
633 Sycamore St., Oakland, CA	MW-1	NC	monitoring	51286042	NO RECORD
633 Sycamore St., Oakland, CA	MW-2	NC	monitoring	51286043	NO RECORD
633 Sycamore St., Oakland, CA	MW-3	NC	monitoring	51286044	NO RECORD
2800 Telegraph Ave., Oakland, CA	S-2	2,100	monitoring	51286047	NO RECORD
2800 Telegraph Ave., Oakland, CA	S-3	2,100	monitoring	51286048	NO RECORD
2800 Telegraph Ave., Oakland, CA	S-6	2,100	monitoring	51286052	NO RECORD
2800 Telegraph Ave., Oakland, CA	S-7	2,100	monitoring	51286053	NO RECORD
30th and Webster (Hospital), Oakland, CA	2	2,100	unknown	51286054	NO RECORD
2800 Telegraph Ave., Oakland, CA	S-8	2,100	monitoring	51286055	NO RECORD
2800 Telegraph Ave., Oakland, CA	S-9	2,100	monitoring	51286056	NO RECORD
2800 Telegraph Ave., Oakland, CA	S-10	2,100	monitoring	51286057	NO RECORD
2800 Telegraph Ave., Oakland, CA	S-11	2,100	monitoring	51286058	NO RECORD
2633 Telegraph Ave., Oakland, CA	MW-1	NC	monitoring	51286059	NO RECORD
2633 Telegraph Ave., Oakland, CA	MW-2	NC	monitoring	51286060	NO RECORD
2633 Telegraph Ave., Oakland, CA	MW-3	NC	monitoring	51286061	NO RECORD
2633 Telegraph Ave., Oakland, CA	MW-4	NC	monitoring	51286062	NO RECORD
2633 Telegraph Ave., Oakland, CA	MW-5	NC	monitoring	51286063	NO RECORD
294 27th Street, Oakland	SB-1	NC	boring	51286065	NO RECORD

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WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
294 27th Street, Oakland	SB-2	NC	boring	51286066	NO RECORD
294 27th Street, Oakland	SB-2A	NC	boring	51286067	NO RECORD
294 27th Street, Oakland	SB-3	NC	boring	51286068	NO RECORD
2827 -2831Webester Street Oakland	B1	NC	boring	51286069	NO RECORD
2827 -2831Webester Street Oakland	B2	NC	boring	51286070	NO RECORD
Broadway and 27th Street	MW-1	NC	monitoring	51286072	NO RECORD
Broadway and 27th Street	MW-2	NC	monitoring	51286073	NO RECORD
Broadway and 27th Street	MW-3	NC	monitoring	51286074	NO RECORD
2915 Broadway, Oakland, CA	MW-1	NC	monitoring	51286075	NO RECORD
2915 Broadway, Oakland, CA	MW-2	NC	monitoring	51286076	NO RECORD
2740 Broadway, Oakland, CA	MW-4	NC	monitoring	51286077	NO RECORD
2740 Broadway, Oakland, CA	MW-5	NC	monitoring	51286079	NO RECORD
2740 Broadway, Oakland, CA	MW-6	NC	monitoring	51286080	NO RECORD
294 27th Street, Oakland, CA	MW-1	NC	monitoring	51286081	NO RECORD
294 27th Street, Oakland, CA	MW-2	NC	monitoring	51286082	NO RECORD
23rd and Valdez, Oakland, CA	MW-1	NC	monitoring	51286083	NO RECORD
23rd and Valdez, Oakland, CA	MW-2	NC	monitoring	51286085	NO RECORD
23rd and Valdez, Oakland, CA	MW-2	NC	monitoring	51286086	NO RECORD
23rd and Valdez, Oakland, CA	SB1	NC	boring	51286088	NO RECORD
23rd and Valdez, Oakland, CA	SB2	NC	boring	51286089	NO RECORD
23rd and Valdez, Oakland, CA	SB3	NC	boring	51286090	NO RECORD
23rd and Valdez, Oakland, CA	SB4/MW-4	NC	monitoring	51286091	NO RECORD
23rd and Valdez, Oakland, CA	SB-5/MW-5	NC	monitoring	51286092	NO RECORD
23rd and Valdez, Oakland, CA	SB-6/MW-6	NC	monitoring	51286093	NO RECORD
23rd and Valdez, Oakland, CA	SB-7/MW-7	NC	monitoring	51286094	NO RECORD
23rd and Valdez, Oakland, CA	SB-8	NC	boring	51286095	NO RECORD
23rd and Valdez, Oakland, CA	SB-9	NC	boring	51286096	NO RECORD
23rd and Valdez, Oakland, CA	SB-10	NC	boring	51286097	NO RECORD
23rd and Valdez, Oakland, CA	SB-11	NC	boring	51286098	NO RECORD
23rd and Valdez, Oakland, CA	SB-12	NC	boring	51286099	NO RECORD
23rd and Valdez, Oakland, CA	MW-8	NC	monitoring	51286101	NO RECORD
23rd and Valdez, Oakland, CA	MW-9	NC	monitoring	51286102	NO RECORD
2345 Broadway, Oakland, CA	MW-1	NC	monitoring	51286103	NO RECORD
2225 Telegraph Ave., Oakland, CA	MW-6A	NC	monitoring	51286105	NO RECORD
2225 Telegraph Ave., Oakland, CA	MW-6B	NC	monitoring	51286106	NO RECORD

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WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
2225 Telegraph Ave., Oakland, CA	MW-6C	NC	monitoring	51286107	YES
2225 Telegraph Ave., Oakland, CA	MW-6D	NC	monitoring	51286108	NO RECORD
2225 Telegraph Ave., Oakland, CA	RW-3	NC	monitoring	51286110	YES
2225 Telegraph Ave., Oakland, CA	RW-1	NC	monitoring	51286111	NO RECORD
2225 Telegraph Ave., Oakland, CA	MW-6G	NC	monitoring	51286113	NO RECORD
2225 Telegraph Ave., Oakland, CA	MW-6H	NC	monitoring	51286114	NO RECORD
2225 Telegraph Ave., Oakland, CA	MW-6I	NC	monitoring	51286115	NO RECORD
2225 Telegraph Ave., Oakland, CA	RW-3A	NC	remediation	51286116	NO RECORD
2103 San Pablo Ave, Oakland, CA	ES-1	NC	monitoring	51286121	NO RECORD
2103 San Pablo Ave, Oakland, CA	ES-2	NC	monitoring	51286122	NO RECORD
2103 San Pablo Ave, Oakland, CA	ES-3	NC	monitoring	51286123	NO RECORD
2103 San Pablo Ave, Oakland, CA	ES-4	NC	monitoring	51286124	NO RECORD
2103 San Pablo Ave, Oakland, CA	ES-5	NC	monitoring	51286125	NO RECORD
850 West Grand Ave, Oakland, CA	MW-1	NC	monitoring	51286126	NO RECORD
850 West Grand Ave, Oakland, CA	MW-4A	NC	monitoring	51286127	NO RECORD
850 West Grand Ave, Oakland, CA	MW-5A	NC	monitoring	51286128	NO RECORD
850 West Grand Ave, Oakland, CA	MW-2	NC	monitoring	51286131	NO RECORD
850 West Grand Ave, Oakland, CA	MW-3	NC	monitoring	51286132	NO RECORD
850 West Grand Ave, Oakland, CA	MW-6	NC	monitoring	51286135	NO RECORD
850 West Grand Ave, Oakland, CA	MW-7	NC	monitoring	51286136	NO RECORD
690 15th Street, Oakland, CA	9/MW-1	NC	monitoring	51286138	NO RECORD
690 15th Street, Oakland, CA	9/MW-1	NC	monitoring	51286138	NO RECORD
690 15th Street, Oakland, CA	9/MW-1	NC	monitoring	51286138	NO RECORD
690 15th Street, Oakland, CA	11/MW-2	NC	monitoring	51286139	NO RECORD
690 15th Street, Oakland, CA	15/MW-3	NC	monitoring	51286140	NO RECORD
690 15th Street, Oakland, CA	B1	NC	boring	51286141	NO RECORD
690 15th Street, Oakland, CA	B2	NC	boring	51286142	NO RECORD
690 15th Street, Oakland, CA	B3	NC	boring	51286143	NO RECORD
690 15th Street, Oakland, CA	B4	NC	boring	51286144	NO RECORD
690 15th Street, Oakland, CA	B5	NC	boring	51286145	NO RECORD
690 15th Street, Oakland, CA	B7	NC	boring	51286146	NO RECORD
690 15th Street, Oakland, CA	B8	NC	boring	51286147	NO RECORD
690 15th Street, Oakland, CA	B10	NC	boring	51286148	NO RECORD
690 15th Street, Oakland, CA	B12	NC	boring	51286149	NO RECORD
690 15th Street, Oakland, CA	B13	NC	boring	51286150	NO RECORD
690 15th Street, Oakland, CA	B14	NC	boring	51286151	NO RECORD

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WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
San Pablo and 19th, Oakland, CA	SB1	NC	boring	51286154	NO RECORD
San Pablo and 19th, Oakland, CA	SB2	NC	boring	51286155	NO RECORD
San Pablo and 19th, Oakland, CA	SB3	NC	boring	51286156	NO RECORD
San Pablo and 19th, Oakland, CA	SB4	NC	boring	51286157	NO RECORD
San Pablo and 19th, Oakland, CA	SB5	NC	boring	51286158	NO RECORD
San Pablo and 19th, Oakland, CA	SB6	NC	boring	51286159	NO RECORD
San Pablo and 19th, Oakland, CA	SB6	NC	boring	51286158	NO RECORD
18th and Jefferson, Oakland, CA	MW-1	NC	monitoring	51286161	NO RECORD
18th and Jefferson, Oakland, CA	MW-2	NC	monitoring	51286162	NO RECORD
18th and Jefferson, Oakland, CA	MW-3	NC	monitoring	51286163	NO RECORD
18th and Jefferson, Oakland, CA	MW-1A	NC	monitoring	51286166	NO RECORD
18th and Jefferson, Oakland, CA	MW-4	NC	monitoring	51286167	NO RECORD
18th and Jefferson, Oakland, CA	#1	NC	test	51286168	NO RECORD
537 18th Street, Oakland, CA	MW-2	NC	monitoring	51286169	NO RECORD
570 18th Street, Oakland, CA	MW-7	NC	monitoring	51286170	NO RECORD
San Pablo and 19th, Oakland, CA	MW-11	NC	test	51286171	NO RECORD
611 20th Street, Oakland, CA	MW-12	NC	test	51286172	NO RECORD
612 Williams Street, Oakland, CA	MW-13	NC	test	51286173	NO RECORD
585 Williams Street, Oakland, CA	MW-14	NC	test	51286174	NO RECORD
588-596 Williams Street, Oakland, CA	MW-15	NC	test	51286175	NO RECORD
536 20th Street, Oakland, CA	MW-16	NC	test	51286176	NO RECORD
1911 Telegraph Ave, Oakland, CA	MW-1	NC	test	51286177	NO RECORD
17th Street b/n Broadway and Telegraph, Oakland, CA	MW-5	NC	test	51286184	NO RECORD
577 19th Street, Oakland, CA	MW-6	NC	test	51286185	NO RECORD
19th Street b/n Broadway and Telegraph, Oakland, CA	MW-8	NC	test	51286186	NO RECORD
552 19th Street, Oakland, CA	MW-1	NC	test	51286187	NO RECORD
20th Street b/n Broadway and Telegraph, Oakland, CA	MW-9	NC	test	51286188	NO RECORD
513 18th Street, Oakland, CA	MW-4	NC	test	51286189	NO RECORD
300 Lakeside Drive, Oakland, CA	MW-1	NC	monitoring	51286190	NO RECORD
2100 Harrison Street, Oakland, CA	MW-1	NC	monitoring	51286191	NO RECORD
2100 Harrison Street, Oakland, CA	MW-2	NC	monitoring	51286192	NO RECORD
300 Lakeside Drive, Oakland	MW-2	NC	monitoring	51286194	NO RECORD
21st and Harrison Street, Oakland	MW-3	NC	monitoring	51286195	NO RECORD
1975 Webster Street, Oakland, CA	MW-1/SB7	NC	monitoring	51286198	NO RECORD
1975 Webster Street, Oakland, CA	MW-2/SB8	NC	monitoring	51286199	NO RECORD
1975 Webster Street, Oakland, CA	MW-3/SB9	NC	monitoring	51286200	NO RECORD

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WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
1975 Webster Street, Oakland, CA	MW-4/SB10	NC	monitoring	51286201	NO RECORD
1975 Webster Street, Oakland, CA	SB1	NC	monitoring	51286202	NO RECORD
1975 Webster Street, Oakland, CA	SB2	NC	monitoring	51286203	NO RECORD
1975 Webster Street, Oakland, CA	SB3	NC	monitoring	51286204	NO RECORD
1975 Webster Street, Oakland, CA	SB4	NC	monitoring	51286205	NO RECORD
1975 Webster Street, Oakland, CA	SB5	NC	monitoring	51286206	NO RECORD
1975 Webster Street, Oakland, CA	SB6	NC	monitoring	51286207	NO RECORD
One Kaiser Platza, Oakland, CA	MW-1	NC	monitoring	51286208	NO RECORD
One Kaiser Platza, Oakland, CA	MW-2	NC	monitoring	51286209	NO RECORD
One Kaiser Platza, Oakland, CA	MW-3	NC	monitoring	51286210	NO RECORD
One Kaiser Platza, Oakland, CA	B1	NC	boring	51286211	NO RECORD
13th and Jefferson, Oakland, CA	B47	NC	boring	51315003	NO RECORD
13th and Jefferson, Oakland, CA	B48	NC	boring	51315004	NO RECORD
13th and Jefferson, Oakland, CA	B49	NC	boring	51315005	NO RECORD
13th and Jefferson, Oakland, CA	B51	NC	boring	51315006	NO RECORD
13th and Jefferson, Oakland, CA	B52	NC	boring	51315007	NO RECORD
545 17th Street, Oakland, CA	MW-1	NC	test	51315009	NO RECORD
509 17th Street, Oakland, CA	MW-3	NC	test	51315010	NO RECORD
No Adress	E2	NC	boring	51315011	NO RECORD
No Adress	E3	NC	boring	51315012	NO RECORD
No Adress	A2	NC	boring	51315013	NO RECORD
No Adress	A3	NC	boring	51315014	NO RECORD
No Adress	A5	NC	boring	51315015	NO RECORD
No Adress	A6	NC	boring	51315016	NO RECORD
No Adress	B1	NC	boring	51315017	NO RECORD
No Adress	B3	NC	boring	51315018	NO RECORD
No Adress	B4	NC	boring	51315019	NO RECORD
No Adress	B6	NC	boring	51315020	NO RECORD
No Adress	C2	NC	boring	51315022	NO RECORD
No Adress	C5	NC	boring	51315023	NO RECORD
No Adress	C6	NC	boring	51315024	NO RECORD
No Adress	D1	NC	boring	51315025	NO RECORD
No Adress	D2	NC	boring	51315026	NO RECORD
No Adress	D3	NC	boring	51315027	NO RECORD
No Adress	D5	NC	boring	51315028	NO RECORD
No Adress	D7	NC	boring	51315029	NO RECORD

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WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
No Adress	E4	NC	boring	51315030	NO RECORD
No Adress	E4.4	NC	boring	51315031	NO RECORD
No Adress	E4.7	NC	boring	51315032	NO RECORD
No Adress	E5.3	NC	boring	51315033	NO RECORD
No Adress	E6	NC	boring	51315034	NO RECORD
No Adress (Five City Center)	MW-1,2,3	NC	monitoring	51315036	NO RECORD
No Adress (Five City Center)	B4	NC	boring	51315037	NO RECORD
14th and Clay, Oacland	FCC 5	NC	boring	51315038	NO RECORD
14th and Clay, Oacland	FCC 6a	NC	boring	51315039	NO RECORD
No Adress (Five City Center), Oakland	B1	NC	boring	51315040	NO RECORD
No Adress (Five City Center), Oakland	B2	NC	boring	51315041	NO RECORD
No Adress (Five City Center), Oakland	B3	NC	boring	51315042	NO RECORD
14th and Clay, Oacland	FCC 6	NC	boring	51315043	NO RECORD
14th and Clay, Oacland	FCC 7	NC	boring	51315044	NO RECORD
14th and Clay, Oacland	FCC 8	NC	boring	51315045	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland	#16	NC	boring	51315047	NO RECORD
1300 Martin Luther King Jr. Way , Oakland	B11	NC	boring	51315048	NO RECORD
1300 Martin Luther King Jr. Way , Oakland	B16	NC	boring	51315049	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland, CA	MW-4	NC	monitoring	51315051	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland, CA	MW-5	NC	monitoring	51315052	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland, CA	MW-12	NC	monitoring	51315053	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland, CA	#1	NC	boring	51315054	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland, CA	#2	NC	boring	51315055	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland, CA	#3	NC	boring	51315056	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland, CA	#6	NC	boring	51315057	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland, CA	#7	NC	boring	51315058	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland, CA	#8	NC	boring	51315059	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland, CA	#9	NC	boring	51315060	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland, CA	#10	NC	boring	51315061	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland, CA	#11	NC	boring	51315062	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland, CA	#24	NC	boring	51315063	NO RECORD
Martin Luther King Jr. Way and 12th Styreet, Oakland, CA	#25	NC	boring	51315064	NO RECORD
12th and Clay, Oacland, CA	T-12 W-2	NC	monitoring	51315065	NO RECORD
1300 Martin Luther King Jr. Way , Oakland, CA	B39	NC	boring	51315067	NO RECORD
1300 Martin Luther King Jr. Way , Oakland, CA	B42	NC	boring	51315068	NO RECORD
1300 Martin Luther King Jr. Way , Oakland, CA	B43	NC	boring	51315069	NO RECORD

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WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
Martin Luther King Jr. Way and 14th Styreet, Oakland, CA	V1-9	NC	boring	51315093	NO RECORD
Martin Luther King Jr. Way and 14th Styreet, Oakland, CA	V-10	NC	boring	51315094	NO RECORD
Martin Luther King Jr. Way and 14th Styreet, Oakland, CA	60	NC	boring	51315097	NO RECORD
1300 Martin Luther King Jr. Way , Oakland, CA	B58	NC	boring	51315101	NO RECORD
1300 Martin Luther King Jr. Way , Oakland, CA	B59	NC	boring	51315102	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F1	NC	boring	51315106	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F2	NC	boring	51315107	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F3	NC	boring	51315108	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F4	NC	boring	51315109	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F5	NC	boring	51315110	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F6	NC	boring	51315111	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F7	NC	boring	51315112	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F8	NC	boring	51315113	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F9	NC	boring	51315114	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F10	NC	boring	51315115	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F11	NC	boring	51315116	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F12	NC	boring	51315117	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F13	NC	boring	51315118	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F14	NC	boring	51315119	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F15	NC	boring	51315120	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F17	NC	boring	51315121	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F18	NC	boring	51315122	NO RECORD
Martin Luther King Jr. Way and 11th Street, Oakland, CA	F19	NC	boring	51315123	NO RECORD
11th and Clay Street, Oakland, CA	F2	NC	boring	51315125	NO RECORD
11th and Clay Street, Oakland, CA	F3	NC	boring	51315126	NO RECORD
11th and Clay Street, Oakland, CA	F4	NC	boring	51315127	NO RECORD
11th and Clay Street, Oakland, CA	F5	NC	boring	51315128	NO RECORD
11th and Clay Street, Oakland, CA	F6	NC	boring	51315129	NO RECORD
11th and Clay Street, Oakland, CA	F7	NC	boring	51315130	NO RECORD
11th and Clay Street, Oakland, CA	F8	NC	boring	51315131	NO RECORD
11th and Clay Street, Oakland, CA	F9	NC	boring	51315132	NO RECORD
11th and Clay Street, Oakland, CA	F1-	NC	boring	51315133	NO RECORD
11th and Clay Street, Oakland, CA	F11	NC	boring	51315134	NO RECORD
11th and Clay Street, Oakland, CA	F12	NC	boring	51315135	NO RECORD
11th and Clay Street, Oakland, CA	F13	NC	boring	51315136	NO RECORD
11th and Clay Street, Oakland, CA	F14	NC	boring	51315137	NO RECORD

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WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
11th and Clay Street, Oakland, CA	F15	NC	boring	51315138	NO RECORD
11th and Clay Street, Oakland, CA	F16	NC	boring	51315139	NO RECORD
11th and Clay Street, Oakland, CA	F17	NC	boring	51315140	NO RECORD
11th and Clay Street, Oakland, CA	F18	NC	boring	51315141	NO RECORD
11th and Clay Street, Oakland, CA	F19	NC	boring	51315142	NO RECORD
11th and Clay Street, Oakland, CA	F20	NC	boring	51315143	NO RECORD
11th and Clay Street, Oakland, CA	F21	NC	boring	51315144	NO RECORD
900 Jefferson Street, Oakland, CA	CMW-1	NC	boring	51315145	NO RECORD
9th and Jefferson, Oakland, CA	MW-5	NC	monitoring	51315148	NO RECORD
9th and Jefferson, Oakland, CA	MW-18	NC	monitoring	51315149	NO RECORD
9th and Jefferson, Oakland, CA	MW-19	NC	monitoring	51315150	NO RECORD
9th and Jefferson, Oakland, CA	B1	NC	boring	51315151	NO RECORD
9th and Jefferson, Oakland, CA	B2	NC	boring	51315152	NO RECORD
9th and Jefferson, Oakland, CA	B3	NC	boring	51315153	NO RECORD
9th and Jefferson, Oakland, CA	B4	NC	boring	51315154	NO RECORD
9th and Jefferson, Oakland, CA	B6	NC	boring	51315155	NO RECORD
9th and Jefferson, Oakland, CA	B7	NC	boring	51315156	NO RECORD
9th and Jefferson, Oakland, CA	B8	NC	boring	51315157	NO RECORD
9th and Jefferson, Oakland, CA	B9	NC	boring	51315158	NO RECORD
9th and Jefferson, Oakland, CA	B10	NC	boring	51315159	NO RECORD
9th and Jefferson, Oakland, CA	B11	NC	boring	51315160	NO RECORD
9th and Jefferson, Oakland, CA	B12	NC	boring	51315161	NO RECORD
9th and Jefferson, Oakland, CA	B13	NC	boring	51315162	NO RECORD
9th and Jefferson, Oakland, CA	B14	NC	boring	51315163	NO RECORD
9th and Jefferson, Oakland, CA	B15	NC	boring	51315164	NO RECORD
9th and Jefferson, Oakland, CA	B16	NC	boring	51315165	NO RECORD
9th and Jefferson, Oakland, CA	B17	NC	boring	51315166	NO RECORD
12th and Clay Street, Oakland, CA	T-9 W-2	NC	monitoring	51315167	NO RECORD
12th and Clay Street, Oakland, CA	T-9 W-3	NC	monitoring	51315168	NO RECORD
12th and Clay Street, Oakland, CA	T-12 W-1	NC	monitoring	51315169	NO RECORD
12th and Clay Street, Oakland, CA	T-12 W-3	NC	boring	51315170	NO RECORD
12th and Clay Street, Oakland, CA	T-12 B-1	NC	boring	51315171	NO RECORD
12th and Clay Street, Oakland, CA	T-9 B-3	NC	boring	51315172	NO RECORD
12th and Clay Street, Oakland, CA	T-9 W-1	NC	monitoring	51315173	NO RECORD
12th and Clay Street, Oakland, CA	T-5 W-1	NC	monitoring	51315174	NO RECORD
12th and Clay Street, Oakland, CA	T-6 W-2	NC	monitoring	51315175	NO RECORD

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2200 TELEGRAPH AVE., OAKLAND, CALIFORNIA

WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
12th and Clay Street, Oakland, CA	T-6 W-3	NC	monitoring	51315176	NO RECORD
12th and Clay Street, Oakland, CA	T-6 B-2	NC	boring	51315177	NO RECORD
12th and Clay Street, Oakland, CA	T-6 B-1	NC	boring	51315178	NO RECORD
12th and Clay Street, Oakland, CA	T-9 B-2	NC	boring	51315180	NO RECORD
1111 Broadway Ave, Oakland, CA	APC 6	NC	boring	51315182	NO RECORD
1111 Broadway Ave, Oakland, CA	APC 7	NC	boring	51315183	NO RECORD
1111 Broadway Ave, Oakland, CA	APC 8	NC	boring	51315184	NO RECORD
1111 Broadway Ave, Oakland, CA	APC 12	NC	boring	51315186	NO RECORD
1111 Broadway Ave, Oakland, CA	APC 13	NC	boring	51315187	NO RECORD
1111 Broadway Ave, Oakland, CA	APC 14	NC	boring	51315188	NO RECORD
1111 Broadway Ave, Oakland, CA	APC 10	NC	boring	51315189	NO RECORD
1111 Broadway Ave, Oakland, CA	APC 11	NC	boring	51315190	NO RECORD
1111 Broadway Ave, Oakland, CA	undefined	3,400	Irrigation	51315191	NO RECORD
11th Jefferson Street, Oakland, CA	F1/ B1	NC	boring	51315192	NO RECORD
11th and Clay Street, Oakland, CA	B2	NC	boring	51315193	NO RECORD
11th and Clay Street, Oakland, CA	B3	NC	boring	51315194	NO RECORD
11th Jefferson Street, Oakland, CA	B4	NC	boring	51315195	NO RECORD
11th Jefferson Street, Oakland, CA	B5	NC	boring	51315196	NO RECORD
11th Jefferson Street, Oakland, CA	B6	NC	boring	51315197	NO RECORD
11th Jefferson Street, Oakland, CA	B7	NC	boring	51315198	NO RECORD
11th Jefferson Street, Oakland, CA	B8	NC	boring	51315199	NO RECORD
301 14th Street, Oakland, CA	C-1	NC	boring	51315201	NO RECORD
301 14th Street, Oakland, CA	C-2	NC	boring	51315202	NO RECORD
301 14th Street, Oakland, CA	C-3	NC	boring	51315203	NO RECORD
301 14th Street, Oakland, CA	C-4	NC	boring	51315204	NO RECORD
301 14th Street, Oakland, CA	C-A	NC	boring	51315205	NO RECORD
13th and Harrison Street, Oakland, CA	B-3	NC	boring	51315207	NO RECORD
13th and Harrison Street, Oakland, CA	B-4	NC	boring	51315208	NO RECORD
13th and Harrison Street, Oakland, CA	B-5	NC	boring	51315209	NO RECORD
301 14th Street, Oakland, CA	C-B	NC	boring	51315212	NO RECORD
301 14th Street, Oakland, CA	C-C	NC	boring	51315213	NO RECORD
301 14th Street, Oakland, CA	C-D	NC	boring	51315214	NO RECORD
10th and Webster, Oakland, CA	MW-5	NC	monitoring	51315215	NO RECORD
11th and Webster, Oakland, CA	MW-6	NC	monitoring	51315217	NO RECORD
10th and Franklin, Oakland, CA	MW-7	NC	monitoring	51315218	NO RECORD
10th and Franklin, Oakland, CA	MW-9	NC	monitoring	51315219	NO RECORD

WELL SURVEY DATA
FROM CALIFORNIA DEPARTMENT OF WATER RESOURCES
CHEVRON STATION 9-3600
2200 TELEGRAPH AVE., OAKLAND, CALIFORNIA

WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
11th and Franklin, Oakland, CA	MW-8	NC	monitoring	51315220	NO RECORD
11th and Franklin, Oakland, CA	MW-8	NC	test	51315221	NO RECORD
14th and Harrison, Oakland, CA	CR-1	NC	boring	51315226	NO RECORD
301 14th Street, Oakland, CA	C-5	NC	boring	51315227	NO RECORD
11th and Webster, Oakland, CA	MW-2	NC	monitoring	51315238	NO RECORD
10th and Webster, Oakland, CA	MW-3	NC	monitoring	51315239	NO RECORD
11th and Webster, Oakland, CA	MW-4	NC	monitoring	51315240	NO RECORD
17th and Harrison Street, Oakland, CA	B-4	NC	boring	51343142	NO RECORD
17th and Harrison Street, Oakland, CA	B-5	NC	boring	51343143	NO RECORD
17th and Harrison Street, Oakland, CA	B-6	NC	boring	51343144	NO RECORD
17th and Harrison Street, Oakland, CA	B-7	NC	boring	51343145	NO RECORD
17th and Harrison Street, Oakland, CA	B-8/MW-4	NC	monitoring	51343146	NO RECORD
17th and Harrison Street, Oakland, CA	B-9/MW-5	NC	monitoring	51343147	NO RECORD
17th and Harrison Street, Oakland, CA	B-10/MW-6	NC	monitoring	51343148	NO RECORD
17th and Harrison Street, Oakland, CA	B-11/MW-7	NC	monitoring	51343149	NO RECORD
17th and Harrison Street, Oakland, CA	B-12/MW-8	NC	monitoring	51343150	NO RECORD
1130 Martin Luther King Jr. Way , Oakland, CA	B28	NC	boring	51343152	NO RECORD
1130 Martin Luther King Jr. Way , Oakland, CA	B29	NC	boring	51343153	NO RECORD
1130 Martin Luther King Jr. Way , Oakland, CA	B30	NC	boring	51343154	NO RECORD
1130 Martin Luther King Jr. Way , Oakland, CA	B31	NC	boring	51343155	NO RECORD
City Center Garage II, Oakland, CA	MW-26	NC	monitoring	51343156	NO RECORD
City Center Garage II, Oakland, CA	MW-27	NC	monitoring	51343157	NO RECORD
City Center Garage II, Oakland, CA	#13	NC	monitoring	51343158	NO RECORD
City Center Garage II, Oakland, CA	#14	NC	monitoring	51343159	NO RECORD
City Center Garage II, Oakland, CA	#15	NC	monitoring	51343160	NO RECORD
City Center Garage II, Oakland, CA	#17	NC	monitoring	51343161	NO RECORD
City Center Garage II, Oakland, CA	#18	NC	monitoring	51343162	NO RECORD
City Center Garage II, Oakland, CA	#19	NC	monitoring	51343163	NO RECORD
City Center Garage II, Oakland, CA	#20	NC	monitoring	51343164	NO RECORD
City Center Garage II, Oakland, CA	#21	NC	monitoring	51343165	NO RECORD
City Center Garage II, Oakland, CA	#22	NC	monitoring	51343166	NO RECORD
City Center Garage II, Oakland, CA	#23	NC	monitoring	51343167	NO RECORD
1633 Harrison Street, Oakland, CA	MW-9/B-16	NC	monitoring	51343170	NO RECORD
1633 Harrison Street, Oakland, CA	MW-10/B-15	NC	monitoring	51343171	NO RECORD
1633 Harrison Street, Oakland, CA	MW-11/B-13	NC	monitoring	51343172	NO RECORD
1633 Harrison Street, Oakland, CA	MW-12/B-14	NC	monitoring	51343173	NO RECORD

WELL SURVEY DATA
FROM CALIFORNIA DEPARTMENT OF WATER RESOURCES
CHEVRON STATION 9-3600
2200 TELEGRAPH AVE., OAKLAND, CALIFORNIA

WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
244 Lakeside Drive Oakland, CA		2,500	Irrigation	51343175	NO RECORD
15th and San Pablo Avenue, Oakland, CA	B1	NC	boring	51343177	NO RECORD
15th and San Pablo Avenue, Oakland, CA	B1-P	NC	boring	51343178	NO RECORD
14th and San Pablo Avenue, Oakland, CA	B2-P	NC	boring	51343179	NO RECORD
15th and Telegrahp Avenue, Oakland, CA	B-3	NC	boring	51343180	NO RECORD
12th and Jefferson, Oakland, CA	D12	NC	boring	51343186	NO RECORD
12th and Jefferson, Oakland	D11	NC	boring	51343187	NO RECORD
12th and Jefferson, Oakland	D13	NC	boring	51343188	NO RECORD
12th and Jefferson, Oakland	D14	NC	boring	51343189	NO RECORD
12th and Jefferson, Oakland	D15	NC	boring	51343190	NO RECORD
12th and Jefferson, Oakland	D16	NC	boring	51343191	NO RECORD
17th and Harrison Street, Oakland, CA	MW-13	NC	monitoring	51343193	NO RECORD
17th and Harrison Street, Oakland, CA	MW-14	NC	monitoring	51343194	NO RECORD
1633 Harrison Street, Oakland, CA	MW-15	NC	monitoring	51343195	NO RECORD
1633 Harrison Street, Oakland, CA	MW-16	NC	monitoring	51343196	NO RECORD
17th and Broadway Street, Oakland, CA	B3	NC	boring	51343201	NO RECORD
12th and Jefferson, Oakland, CA	MW-2	NC	monitoring	51343204	NO RECORD
12th and Jefferson, Oakland, CA	MW-2	NC	monitoring	51343205	YES

Notes:
Compiled from data provided by California Department of Water Resources
NC = Not calculated

Alameda County Public Works Department

Well Legend

DOM=Domestic well

IRR=Irrigation well

MUN= Municipal well

IND=Industrial well

CAT=Cathodic well

DES=well destroyed (through permit)

ABN=Abandoned and not being used (but has not been destroyed through permit process)

TES=Test well

BOR= Geotechnical investigation

MON= Monitoring well

EXT=Extraction/ Vapor wells

PIE=Piezometers

REC=Recovery well (extraction/ vapor)

? = Unknown or no information found or given

Alameda County Public Works Department
Water Supply Well Survey Data - 1/2-Mile Radius

Address	Owner	Update	Drilldate	Use
225 27TH ST	EHLER CONTRACTORS	1/22/1990	Jun-89	MON
225 27TH ST	EHLER CONTRACTORS	1/22/1990	Jun-89	MON
225 27TH ST	EHLER CONTRACTORS	1/22/1990	Jun-89	MON
210 GRAND AVE	CHEVRON USA	1/22/1990	Mar-89	MON
210 GRAND AVE	CHEVRON USA	1/22/1990	Mar-89	MON
210 GRAND AVE	CHEVRON USA	1/22/1990	Mar-89	MON
210 GRAND AVE	CHEVRON USA	1/22/1990	Mar-89	MON
210 GRAND AVE	CHEVRON USA	1/22/1990	Mar-89	MON
210 Grand Ave	Chevron SS #90019	8/31/1990	Jun-90	MON
210 Grand Ave	Chevron SS #90019	8/31/1990	Jun-90	MON
210 Grand Ave	Chevron S/S #90019	8/31/1990	Jun-90	MON
210 Grand Ave	Chevron SS #90019	8/31/1990	Jun-90	MON
210 Grand Ave	Former Chevron 9-0019MW-2	9/26/1992	Nov-91	DES
230 Bay Place	Wells Fargo Bank MW-1	7/12/1993	2/93	MON
3093 Broadway	Connel Oldsmobile	3/14/1991	Oct-90	MON
450 30TH	PERALTA HOSPITAL	7/31/1984	?	GEO*
3093 Broadway	Connel Oldsmobile	1/11/1991	Oct-90	MON
3093 Broadway	Connell Oldsmobile	4/17/1991	Nov-90	MON
3093 Broadway	Connell Oldsmobile	4/17/1991	2/91	MON
3093 Broadway	Connell Oldsmobile	4/17/1991	2/91	MON
3093 Broadway	Connell Oldsmobile	4/17/1991	2/91	MON
3093 Broadway	Connell Oldsmobile	4/17/1991	2/91	MON
3093 Broadway	Connell Oldsmobile	4/17/1991	3/91	MON
29 & TELEGRAPH AV	PG&E	7/31/1984	4/74	CAT
3045 Telegraph Av		7/21/1998	4/96	MON
3045 Telegraph Av		7/21/1998	4/96	MON
3045 Telegraph Av		7/21/1998	4/96	MON
2821 WEST ST	F.L. BROWN	7/31/1984	?	ABN
730 29 ST	OAKLAND LDY CO.	7/31/1984	/28	ABN
887 30 ST 2926/2942 San Pabl	LANE METAL FINISHING	7/31/1984	/35	IND
900 HIGH ST.	OAKLAND SCHOOL DIST.	7/31/1984	?	IRR
730 29th St	Civic Bank of Commerce	3/12/1998	2/96	MON
730 29th St	Civic Bank of Commerce	3/12/1998	2/96	MON
730 29th St	Civic Bank of Commerce	3/12/1998	2/96	MON
889 W. Grand Ave	Arco Products	9/18/1992	5/91	DES
889 W. Grand Ave	ARCO Products A-1	9/21/1992	3/92	MON
889 W. Grand Ave	ARCO Products A-2	9/21/1992	3/92	MON
889 W. Grand Ave	ARCO Products A-3	9/21/1992	4/92	MON
889 W. Grand Ave	ARCO Products A-4	9/21/1992	4/92	MON
889 W. Grand Ave	ARCO Products AR-1	9/21/1992	4/92	MON
2400 Filbert St	Cal West MW-1	10/1/1992	Oct-91	MON
889 W. Grand Ave	ARCO Products AR-1	6/18/1993	6/92	MON
889 W. Grand Ave	ARCO Products AV-1	6/23/1993	6/92	MON
889 W. Grand Ave	ARCO Products AV2	6/23/1993	6/92	MON
889 W. Grand Ave	ARCO Products AV3	6/23/1993	6/92	MON
889 W. Grand Ave.	Arco A-5	7/21/1993	2/93	MON
889 W. Grand Ave.	Arco A-6	7/21/1993	2/93	MON
2400 Filbert St	Cal West MW-2	7/22/1993	Dec-92	MON

Alameda County Public Works Department
Water Supply Well Survey Data - 1/2-Mile Radius

Address	Owner	Update	Drilldate	Use
889 W Grand Ave	Arco Products Company	12/4/1997	Dec-93	EXT
889 W Grand Ave	Arco Products Company	12/4/1997	Dec-93	EXT
889 W Grand Ave	Arco Products Company	12/4/1997	Dec-93	REC
889 W Grand Ave	Arco Products Company	12/4/1997	Dec-93	REC
633 Sycamore St	Gilbert Lopez (MW-1)	12/21/1993	8/93	MON
633 Sycamore St	Gilbert Lopez (MW-2)	12/21/1993	8/93	MON
633 Sycamore St	Gilbert Lopez (MW-3)	12/21/1993	8/93	MON
2703 Martin Luther King J	Shell Oil Products Compan	11/3/1997	7/96	EXT
2703 Martin Luther King J	Shell Oil Products Compan	11/3/1997	7/96	EXT
2703 Martin Luther King J	Shell Oil Products Compan	11/3/1997	7/96	MON
2703 Martin Luther King J	Shell Oil Products Compan	11/3/1997	7/96	MON
2800 TELEGRAPH AVE	SHELL OIL COMPANY	8/8/1988	Apr-88	MON
2800 TELEGRAPH AVE	SHELL OIL COMPANY	8/8/1988	Apr-88	MON
2800 TELEGRAPH AVE	SHELL OIL COMPANY	8/8/1988	Apr-88	MON
2800 TELEGRAPH AV.	SHELL OIL	6/15/1989	Oct-88	MON
2800 TELEGRAPH AV.	SHELL OIL	6/15/1989	Oct-88	MON
2800 TELEGRAPH AV.	SHELL OIL	6/15/1989	Oct-88	MON
2800 TELEGRAPH AV.	SHELL OIL	6/15/1989	Oct-88	MON
2800 TELEGRAPH AV S-8	SHELL OIL CO.	11/6/1989	Sep-89	MON
2800 TELEGRAPH AV S-9	SHELL OIL CO.	11/6/1989	Sep-89	MON
2800 TELEGRAPH AV S10	SHELL OIL CO.	11/6/1989	Sep-89	MON
2800 TELEGRAPH S11	SHELL OIL	1/22/1990	Oct-89	MON
2800 TELEGRAPH S-2	SHELL OIL S-2	6/17/1993	4/93	DES
2633 Telegraph Ave.	Sears Roebuck & Co. MW1	7/15/1993	Dec-92	MON
2633 Telegraph Ave.	Sears Roebuck & Co. MW2	7/15/1993	Dec-92	MON
2633 Telegraph Ave.	Sears Roebuck & Co. MW3	7/15/1993	Dec-92	MON
2633 Telegraph Ave.	Sears Roebuck & Co. MW4	7/15/1993	Dec-92	MON
2633 Telegraph Ave.	Sears Roebuck & Co. MW5	7/15/1993	Dec-92	MON
477 25th St.	United Glass MW-1	12/29/1994	1/94	MON
2633 Telegraph Av	Sears	7/22/1997	Dec-93	MON
2633 Telegraph Av	Sears	7/22/1997	Dec-93	MON
2633 Telegraph Av	Sears	7/22/1997	Dec-93	MON
2633 Telegraph Av	Sears Roebuck and Company	10/19/1997	Oct-96	MON
554 27th St	Joan Schoonbrood	2/24/1998	6/95	MON
554 27th St	Joan Schoonbrood	2/24/1998	6/95	MON
554 27th St	Joan Schoonbrood	2/24/1998	6/95	MON
450 25th St	Friction Materials, Inc	9/29/1998	7/98	MON
450 25th St	Friction Materials, Inc	9/29/1998	7/98	MON
450 25th St	Friction Materials, Inc	9/29/1998	7/98	MON
2827 Webster	Alan Rudy B-1	8/14/1992	8/91	BOR*
294 27th St.	MR & RB Assoc.	7/27/1993	9/92	BOR
28 & VALDEZ ST	CHRSTN CHURCH HOME BLDG	7/31/1984	?	GEO*
20TH ST.	COMMUNITY CARE BLDG	7/31/1984	Nov-78	GEO*
2740 BROADWAY	BROADWAY VW	6/15/1989	Jan-89	MON
2740 BROADWAY	BROADWAY VW	6/15/1989	Jan-89	MON
2740 BROADWAY	BROADWAY VW	6/15/1989	Jan-89	MON
2915 Broadway	European Motors	6/21/1990	2/90	MON
2915 Broadway	European Motors	6/21/1990	2/90	MON

Alameda County Public Works Department
Water Supply Well Survey Data - 1/2-Mile Radius

Address	Owner	Update	Drilldate	Use
2915 Broadway	European Motors	6/21/1990	2/90	MON
2740 Broadway Ave	Broadway Volkswagen	7/29/1991	4/91	MON
2740 Broadway	Vorelco, Inc.	8/3/1992	Oct-91	MON
2740 Broadway	Vorelco, Inc.	8/3/1992	Oct-91	MON
294 27th St	MR & RB Partnership MW-1	4/8/1993	2/93	MON
294 27th St	MR & RB Partnership MW-2	4/8/1993	2/93	MON
2827 Webster St.	Alan Rudy B-2	7/13/1993	8/91	BOR
2630 Broadway	Chevron Oil B-9 (MW-9)	12/29/1994	7/94	MON
2630 Broadway	Chevron Oil B-10 (MW-10)	12/29/1994	7/94	MON
2630 Broadway	Chevron Oil B-11 (MW-11)	12/29/1994	7/94	MON
2630 Broadway	Chevron Oil B-12 (MW-12)	12/29/1994	7/94	MON
434 25th St	Andre Mercier	7/24/1997	8/94	MON
434 25th St	Andre Mercier	7/24/1997	8/94	MON
434 25th St	Andre Mercier	7/24/1997	8/94	MON
2735 Broadway	Ravizza Comm. Real Estate	11/3/1997	Oct-93	MON
2735 Broadway	Ravizza Comm. Real Estate	11/3/1997	Oct-93	MON
2735 Broadway	Ravizza Comm. Real Estate	11/3/1997	Oct-93	MON
2735 Broadway	Ravizza Comm. Real Estate	11/3/1997	Oct-93	MON
403 28th St	Chrysler Realty Corporati	2/24/1998	5/94	MON
403 28th St	Chrysler Realty Corporati	2/24/1998	5/94	MON
Valdez St && 26th St	Broadway Motors Ford	3/29/1998	5/97	MON
Valdez St && 26th St	Broadway Motors Ford	3/29/1998	5/97	MON
Valdez St && 26th St	Broadway Motors Ford	3/29/1998	5/97	MON
2302 VALDEZ ST.	MORRISON & FORESTER	11/6/1989	Aug-89	BOR
No Address	No Owner		Aug-89	BOR
No Address	No Owner		Aug-89	BOR
No Address	No Owner		Aug-89	BOR
No Address	No Owner		Aug-89	BOR
No Address	No Owner		Aug-89	BOR
No Address	No Owner		Aug-89	BOR
No Address	No Owner		Aug-89	BOR
23RD & VALDEZ	OAKLAND TRIBUNE	6/15/1989	Aug-88	MON
2345 Broadway	Negherbon Auto Center	6/17/1993	6/92	MON
2330 Webster St	Labor Temple	9/17/1997	Dec-95	MON
2330 Webster St	Labor Temple	9/17/1997	1/96	MON
2330 Webster St	Labor Temple	9/17/1997	1/96	MON
2330 Webster St	Labor Temple	9/17/1997	1/96	MON
2330 Webster St	Labor Temple	9/17/1997	1/96	MON
2330 Webster St	Labor Temple	9/17/1997	1/96	MON
2330 Webster St	Labor Temple	9/17/1997	1/96	MON
23RD & VALDEZ	OAKLAND TRIBUNE	6/15/1989	Aug-88	MON
23RD & VALDEZ	OAKLAND TRIBUNE	6/15/1989	Aug-88	MON
2302 VALDEZ ST.	MORRISON & FORESTER	11/6/1989	Aug-89	MON
2302 VALDEZ ST.	MORRISON & FORESTER	11/6/1989	Aug-89	MON
2302 VALDEZ ST.	MORRISON & FORESTER	11/6/1989	Aug-89	MON
2302 VALDEZ ST.	MORRISON & FORESTER	11/6/1989	Aug-89	MON
Valdez St.and 23rd Street	Oakland Tribune	7/27/1990	May-90	MON
Valdez St.and 23rd Street	Oakland Tribune	7/29/1990	May-90	MON

Alameda County Public Works Department
Water Supply Well Survey Data - 1/2-Mile Radius

Address	Owner	Update	Drilldate	Use
Broadway/W Grand Ave	Commonwealth Companies	7/27/1990	May-90	BOR
2ND AND TELEGRAPH	21ST AND TELE PARKING	12/12/1984	Oct-74	GEO*
2250 Telegraph Av		7/24/1997	3/94	MON
2225 TELEGRAPH AV.	TEXACO	6/15/1989	Dec-88	MON
BROADWAY & 22ND ST	SANWA BANK	12/12/1984	9/74	GEO*
2225 Telegraph Avenue	Texaco	7/30/1990	May-90	EXT
2250 Telegraph Av		7/24/1997	3/94	MON
No Address	No Owner		Jul-88	MON
2225 TELEGRAPH AVE	TEXACO STA #62488000195	12/20/1988	Jul-88	MON
2250 Telegraph Av		7/24/1997	3/94	MON
No Address	No Owner		Jul-88	MON
2225 TELEGRAPH AVE	TEXACO STA #62488000195	12/20/1988	Jul-88	MON
2250 Telegraph Av		7/24/1997	3/94	MON
2225 TELEGRAPH AVE	TEXACO STA #62488000195	12/20/1988	Jul-88	MON
2225 Telegraph Avenue	Texaco	7/30/1990	May-90	EXT
2225 Telegraph Avenue	Texaco	7/30/1990	May-90	EXT
2225 TELEGRAPH AV.	TEXACO	6/15/1989	Dec-88	MON
2225 TELEGRAPH AV.	TEXACO	6/15/1989	Dec-88	MON
No Address	No Owner		Dec-88	MON
2225 TELEGRAPH AV.	TEXACO	6/15/1989	Dec-88	MON
2225 Telegraph Ave	Exxon Service Stn RW3A	9/21/1992	5/92	EXT
2225 Telegraph Ave	Texaco MW6A	9/21/1992	5/92	DES
2225 Telegraph Ave	Texaco MW6C	9/26/1992	Nov-91	DES
774 W. GRAND AVE	DAVID FYNE	6/9/1988	Apr-88	MON
577 W. GRAND AV.	U.S. POSTAL SVC.	6/15/1989	Dec-88	MON
2103 San Pablo Ave	Greyhound ES-1	9/30/1992	Nov-91	MON
2103 San Pablo Ave	Greyhound ES-2	9/30/1992	Nov-91	MON
2103 San Pablo Ave	Greyhound ES-3	3/9/1992	Nov-91	MON
2103 San Pablo Ave	Greyhound ES-4	3/9/1992	Nov-91	MON
2103 San Pablo Ave	Greyhound ES-5	9/30/1992	Nov-91	MON
No Address	No Owner		Apr-89	DES
No Address	No Owner		Apr-89	DES
850 W GRAND AV & ISABELLA	CHEVRON - USA	11/26/1984	Oct-84	MON
850 W GRAND AV & ISABELLA	CHEVRON - USA	11/26/1984	Oct-84	MON
850 W GRAND AV & ISABELLA	CHEVRON - USA	11/26/1984	Oct-84	MON
850 W. GRAND AVE.	CHEVRON U.S.A. INC.	9/1/1989	Apr-89	MON
850 W. GRAND AVE.	CHEVRON U.S.A.	9/1/1989	Apr-89	MON
Isabella/W.Grand	Chevron USA	8/31/1990	Jul-90	MON
Isabella/W.Grand	Chevron USA	8/31/1990	Jul-90	MON
850 W. Grand Ave.	Chevron	3/8/1991	Dec-90	MON
850 W GRAND AV & ISABELLA	CHEVRON - USA MW-7	4/16/1993	Oct-92	MON
850 W Grand Av	Chevron USA Inc	9/17/1997	6/93	MON
850 W Grand Av	Chevron USA Inc	9/17/1997	6/93	MON
850 W Grand Av	Chevron USA Inc	9/17/1997	6/93	MON
769 22nd St	Greg Keller	9/19/1997	9/94	MON
769 22nd St	Greg Keller	9/19/1997	9/94	MON
769 22nd St	Greg Keller	9/19/1997	9/94	MON
850 W. Grand Av	Chevron	2/17/1998	8/95	MON

Alameda County Public Works Department
Water Supply Well Survey Data - 1/2-Mile Radius

Address	Owner	Update	Drilldate	Use
850 W. Grand Av	Chevron	2/17/1998	8/95	MON
690 15th St	Dignity Housing West	8/1/1991	5/91	MON
690 15th St	Dignity Housing West	8/1/1991	4/91	MON
690 15th St	Dignity Housing West	8/1/1991	4/91	MON
690 15th St	Dignity Housing West	8/1/1991	5/91	MON
15th St and Castro St	Dignity Housing West	8/5/1991	2/91	DES
1700 Castro St	Chevron Products Co.	3/29/1998	5/97	MON
1700 Castro St	Chevron Products Co.	3/29/1998	5/97	MON
1700 Castro St	Chevron Products Co.	3/29/1998	5/97	MON
S. Pablo & 18th/19th St	E.B. Galleria	7/9/1991	Dec-90	CAT
1700 JEFFERSON (@17th)	BLUE PRINT SERVICES	2/23/1988	6/87	MON
611 20th St	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
612 Williams St	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
585 20th St	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
588 - 596 Williams St	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
536 20th St	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
1700 Jefferson St	Blue Print Services	7/18/1997	4/96	TES
1700 JEFFERSON (@17th)	BLUE PRINT SERVICES	2/23/1988	Nov-87	DES
1700 JEFFERSON (@17th)	BLUE PRINT SERVICES	2/23/1988	6/87	MON
1700 JEFFERSON (@17th)	BLUE PRINT SERVICES	2/23/1988	1/88	MON
1700 JEFFERSON (@17th)	BLUE PRINT SERVICES	2/23/1988	1/88	MON
CRN OF 18TH & JEFFERSON	BLUE PRINT SERVICE CO	12/20/1988	Oct-88	MON
No Address	No Owner		Dec-88	TES
No Address	No Owner		Oct-88	MON
537 18th Street	City of Oakland Redvlpmnt	6/12/1991	1/91	MON
570 18th Street	City of Oakland Redvlpmnt	6/12/1991	1/91	EXT
19th St & San Pablo Ave	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
19 & FRANKLIN ST		12/12/1984	9/74	GEO*
BROADWAY & 20 ST	BANK AMERICA	12/12/1984	Nov-78	GEO*
1911 TELEGRAPH AVE	CARTER-HAWLEY-HALE	6/1/1988	Mar-88	TES
21ST & BROADWAY	BANK OF AMERICA	6/15/1989	Nov-88	MON
17th St & Broadway	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
557 19th Street	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
19th St & Telegraph Ave	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
552 19th St.	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
20th St. & Telegraph Ave.	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
513 18th St	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
1911 Telegraph Av	Carter Hawley Hale	8/13/1997	6/93	MON
1911 Telegraph Av	Carter Hawley Hale	8/13/1997	6/93	MON
1911 Telegraph Av	Carter Hawley Hale	8/13/1997	6/93	MON
2025 Telegraph Av	Goodyear Tire & Rubber Co	9/11/1997	5/93	MON
2025 Telegraph Av	Goodyear Tire & Rubber Co	9/11/1997	5/93	MON
2025 Telegraph Av	Goodyear Tire & Rubber Co	9/11/1997	5/93	MON
1911 Telegraph Ave-MW-22	Forest City-785 Market Street,CA 94103	06/19/206	Jun-06	MON
1911 Telegraph Ave-MW-23	Forest City-785 Market Street,CA 94103	6/19/2006	Jun-06	MON
1911 Telegraph Ave-MW-23	Forest City-785 Market Street,CA 94103	11/8/2007	118/2007	DES
1911 Telegraph Ave-MW-24	Forest City-785 Market Street,CA 94103	6/19/2006	Jun-06	MON
1911 Telegraph Ave-MW-25	Forest City-785 Market Street,CA 94103	6/19/2006	Jun-06	MON

Alameda County Public Works Department
Water Supply Well Survey Data - 1/2-Mile Radius

Address	Owner	Update	Drilldate	Use
1911 Telegraph Ave-MW-26	Forest City-785 Market Street,CA 94103	6/19/2006	Jun-06	MON
1911 Telegraph Ave-MW-23A	Forest City-785 Market Street,CA 94103	12/20/2007	Dec-07	MON
2100 Harrison Street	Ahmanson Commercial Dvlpt	4/14/2010	Aug-94	MON DES
1975 Webster	Mobil #04-077 SB1	9/21/1992	4/92	BOR*
1 Kaiser Plaza	Ordway Building B-2	9/23/1992	3/92	BOR*
300 Lakeside Drive	Kaiser Center	2/27/1991	1/91	DES
2100 Harrison Street	Ahmanson Commercial Dvlpt	4/17/1991	2/91	DOM
2100 Harrison Street	Ahmanson Commercial Dvlpt	4/17/1991	3/91	IRR
300 Lakeside Drive	Kaiser Center	7/26/1991	6/91	MON
300 Lakeside Drive	Kaiser Center	3/5/1992	Dec-91	MON
2100 Harrison St	Ahmanson Comm Dev. MW-3	9/20/1992	3/92	MON
1975 Webster St	Mobil #04-077 MW-1	9/21/1992	5/92	MON
1975 Webster St	Mobil #04-077 MW-2	9/21/1992	5/92	MON
1975 Webster St	Mobil #04-077 MW-3	9/21/1992	4/92	MON
1975 Webster St	Mobil #04-077 MW-4	9/21/1992	4/92	MON
1 Kaiser Plaza	Ordway Building MW-1	9/23/1992	3/92	MON
1 Kaiser Plaza	Ordway Building MW-2	9/23/1992	3/92	MON
1 Kaiser Plaza	Ordway Building MW-3	9/23/1992	3/92	MON
300 Lakeside Drive	Kaiser Center	3/26/2010	5/10/91	IRR
17TH ST. &HARRISON ST.	CHEVRON USA	11/6/1989	Apr-89	BOR
19th & Alice (Snow Park)	U.S. Geological Society	7/31/1991	5/91	MON
No Address	No Owner		Apr-89	BOR
No Address	No Owner		Apr-89	BOR
No Address	No Owner		Apr-89	BOR
ALICE ST	P.T. & T BLDG	12/12/1984	?	GEO*
244 LAKESIDE	LADESIDE CORP (BECHTEL)	12/12/1984	/77	IRR
17TH AND HARRISON NW	CHEVRON	6/15/1989	Oct-88	MON
17TH AND HARRISON NW	CHEVRON	6/15/1989	Oct-88	MON
17TH AND HARRISON NW	CHEVRON	6/15/1989	Oct-88	MON
17TH ST. & HARRISON ST.	CHEVRON USA	11/6/1989	Apr-89	MON
17TH & HARRISON ST.	CHEVRON USA	11/6/1989	Apr-89	MON
17TH & HARRISON ST.	CHEVRON USA	11/6/1989	Apr-89	MON
17TH & HARRISON ST.	CHEVRON USA	11/6/1989	Apr-89	MON
17TH ST. &HARRISON ST.	CHEVRON USA	11/6/1989	Apr-89	MON
1633 Harrison St.	Chevron USA	9/11/1990	Jun-90	BOR
1633 Harrison St.	Chevron USA	9/11/1990	Jun-90	MON
1633 Harrison St.	Chevron USA	9/11/1990	Jun-90	MON
1633 Harrison St.	Chevron USA	9/11/1990	Jun-90	MON
1633 Harrison	Chevron, USA	3/9/1992	Oct-91	MON
1633 HARRISON	Chevron, USA MW14	3/9/1992	Oct-91	MON
1633 HARRISON WY	Chevron Products MW-15	4/16/1993	Dec-92	MON
1633 HARRISON WY	Chevron Products MW-16	4/16/1993	Dec-92	MON
17th Street & Broadway	Portfolio Properties	7/13/1990	Dec-89	BOR*
ALICE & 15TH STS.	WSTLK CHRSTN TERRACE	12/12/1984	7/77	GEO*
1736 Franklin St	John Toothman	7/18/1997	4/95	MON
1721 Webster St	Douglas Parking Company	8/22/1997	5/96	MON
1721 Webster St	Douglas Parking Company	8/22/1997	5/96	MON
Harrison St && 15th St	Alvin H. Bacharach and Ba	12/26/1997	Oct-96	MON

Alameda County Public Works Department
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Address	Owner	Update	Drilldate	Use
Harrison St && 15th St	Alvin H. Bacharach and Ba	12/26/1997	Oct-96	MON
Harrison St && 15th St	Alvin H. Bacharach and Ba	12/26/1997	Oct-96	MON
1519 Franklin St	Pacific Bell	2/4/1998	9/95	MON
CRN OF CLAY & 14TH ST	FIVE CITY CENTER	12/20/1988		
15th St. && Clay St.	City of Oakland	7/28/1993	8/92	BOR
CLAY ST. &12TH-14 STS.	GENERAL SERVICES ADMIN.	10/6/1989	Jun-88	BOR
San Pablo Ave. & Broadway	Taldan Property	6/23/1993	8/92	BOR
No Address	No Owner		Jun-88	BOR
No Address	No Owner		Jun-88	BOR
No Address	No Owner		Jun-88	BOR
No Address	No Owner		Jun-88	BOR
No Address	No Owner		Jul-89	BOR
No Address	No Owner		Jul-89	BOR
No Address	No Owner		Jul-89	BOR
No Address	No Owner		Jul-89	BOR
No Address	No Owner		Jul-89	BOR
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No Address	No Owner		Jul-89	BOR
No Address	No Owner		Jul-89	BOR
No Address	No Owner		Jul-89	BOR
No Address	No Owner		Jul-89	BOR
No Address	No Owner		Jul-89	BOR
14TH & CLAY	CTY OF OAK	6/15/1989		
CRN OF CLAY & 14TH ST	FIVE CITY CENTER	12/20/1988	Sep-88	DES
14TH & CLAY	CTY OF OAK	6/15/1989		
CRN OF CLAY & 14TH ST	FIVE CITY CENTER	12/20/1988	Sep-88	DES
14TH & CLAY	CTY OF OAK	6/15/1989	Sep-88	DES
CLAY ST & 12TH ST	GENERAL SERVICES ADMIN	1/22/1990	May-89	MON
CLAY ST & 12TH ST	GENERAL SERVICES ADMIN	1/22/1990	May-89	MON
CLAY ST & 12TH ST	GENERAL SERVICES ADMIN	1/22/1990	May-89	MON
13th & Jefferson Street	City of Oakland	7/24/1990	4/90	DES
13th & Jefferson Streets	City of Oakland	7/11/1990	3/90	MON
13th & Jefferson Streets	City of Oakland	7/11/1990	3/90	MON
13th & Jefferson Streets	City of Oakland	7/11/1990	3/90	MON
13th & Jefferson Streets	City of Oakland	7/11/1990	3/90	MON

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Address	Owner	Update	Drilldate	Use
13th St. & Jefferson St.	City of Oakland	7/19/1993	Dec-92	DES
13th & Jefferson Streets	City of Oakland	7/11/1990	3/90	MON
545 17th St	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
509 17th St	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
13th & Jefferson	Oakland Redevpmt Agency53	10/2/1992	8/91	DES
San Pablo Ave. & Broadway	Taldan Property B1-P	6/23/1993	8/92	PIE
San Pablo Ave. & Broadway	Taldan Property B2-P	6/23/1993	8/92	PIE
JEFFERSON & 12TH ST.	CITY OF OAKLAND	1/17/1990	Sep-89	BOR
Jefferson and 12th St	Oakland Redvlpmnt Agency	8/1/1991	4/91	MON
No Address	No Owner		Sep-89	BOR
No Address	No Owner		Sep-89	BOR
No Address	No Owner		Sep-89	BOR
No Address	No Owner		Sep-89	BOR
No Address	No Owner		Sep-89	BOR
No Address	No Owner		Sep-89	BOR
No Address	No Owner		Sep-89	BOR
No Address	No Owner		Sep-89	BOR
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No Address	No Owner		Sep-89	BOR
No Address	No Owner		Sep-89	BOR
No Address	No Owner		Sep-89	BOR
No Address	No Owner		Jun-89	BOR
No Address	No Owner		Jun-89	BOR
No Address	No Owner		Jun-89	BOR
No Address	No Owner		Jun-89	BOR
No Address	No Owner		Jun-89	BOR
No Address	No Owner		Jun-89	BOR
No Address	No Owner		Jun-89	BOR
No Address	No Owner		Jun-89	BOR
1330 MARTIN LUTHER KING	CITY OF OAKLAND	12/22/1988	Jul-88	TES
1330 MLK JR.WAY	CITY OF OAKLAND	1/17/1990	Jul-88	TES
1330 MLK JR. WAY	CITY OF OAKLAND	1/17/1990	Jul-88	TES
14TH & MLK JR. WAY	HOBART HANSON	1/17/1990	Sep-88	MON
14TH & MLK JR. WAY	HOBART HANSON	1/17/1990	Sep-88	MON
14TH & MLK JR. WAY	HOBART HANSON	1/17/1990	Sep-88	MON
14TH & MLK JR. WAY	HOBART & ADELE HANSON	1/17/1990	Sep-88	MON
13TH ST & MLK JR. WAY	CITY OF OAKLAND	1/17/1990	Jun-89	MON
13TH ST & MLK JR. WAY	CITY OF OAKLAND	1/17/1990	Jun-89	MON
13TH ST & MLK JR. WAY	CITY OF OAKLAND	1/17/1990	Sep-89	MON
13TH ST & MLK JR. WAY	CITY OF OAKLAND	1/17/1990	Sep-89	MON
13TH ST & MLK JR. WAY	CITY OF OAKLAND	1/17/1990	Sep-89	MON
11th & Jefferson Streets	City Oakland, Econ. Devel	6/27/1990	2/90	PIE
1330 M. L. King Way	City of Oakland	7/11/1990	Dec-89	MON
1330 M. L. King Way	City of Oakland	7/11/1990	Nov-89	MON
1330 Martin Luther King	City of Oakland	2/27/1991	Dec-89	MON
1330 Martin Luther King	City of Oakland	2/27/1991	3/89	MON

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Address	Owner	Update	Drilldate	Use
1330 Martin Luther King	City of Oakland	2/27/1991	3/89	MON
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	8/89	MON
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redevlpmnt Agency	2/27/1991	Nov-90	TES
Martin Luther King & 14th	Oakland Redvlpmnt Agency	3/14/1991	9/90	BOR*
Martin Luther King & 14th	Oakland Redvlpmnt Agency	3/14/1991	Nov-90	TES
1330 Martin Luther King	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
13th & Jefferson Streets	City of Oakland Redvlpmnt	6/12/1991	1/91	TES
13th & Martin Luther King	Oakland Redvlpmnt Agency	7/9/1991	4/91	MON
Jefferson and 12th St	Oakland Redvlpmnt Agency	8/1/1991	4/91	MON
Jefferson and 12th St	Oakland Redvlpmnt Agency	8/1/1991	5/91	BOR*
12th & Jefferson	Schnabel FDN 1	8/13/1992	7/91	DES
12th & Jefferson	Schnabel FDN 2	8/13/1992	7/91	DES
12th & Jefferson	Schnabel FDN 3	8/13/1992	7/91	DES
12th & Jefferson	Schnabel FDN 4	8/13/1992	7/91	DES
12th & Jefferson St	Schnabel Fdn 5	9/30/1992	Nov-91	DES
12th & Jefferson	Schnabel Fdn 6	9/30/1992	Nov-91	DES
12th & Jefferson	Schnabel Fdn 7	9/30/1992	Nov-91	DES
12th & Jefferson	Schnabel Fdn 8	9/30/1992	Nov-91	DES
685 14th St.	Rutherford & Chekene BH1	6/22/1993	7/92	BOR
685 14th St.	Rutherford & Chekene BH2	6/22/1993	7/92	BOR
685 14th St.	Rutherford & Chekene BH3	6/22/1993	7/92	BOR
17TH ST. & LAKESIDE DR.	KUMAM PROPERTY	11/9/1989	Aug-89	BOR
No Address	No Owner		Aug-89	BOR
No Address	No Owner		Aug-89	BOR