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TRANSMITTAL

DATE: July 29, 2011

REFERENCE NO.: 611633

PROJECT NAME: Chevron Station 9-6991 (RO475)

TO: Mr. Mark Detterman, P.G., C.E.G.
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RECEIVED
9:10 am, Aug 03, 2011
Alameda County
Environmental Health

Please find enclosed:
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- ☐ Originals
- ☐ Prints
- ☒ Final
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QUANTITY	DESCRIPTION
1	Case Closure Request

- ☐ As Requested
- ☒ For Your Use
- ☐ For Review and Comment
- ☐
- ☐

COMMENTS:

Copy to: Ms. Olivia Skance, Chevron
K&K Petroleum, LLC

Completed by: James P. Kiernan [Please Print]

Signed:

Filing: **Correspondence File**

Olivia Skance
Team Lead
Marketing Business Unit

Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 790-6521

July 29, 2011

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

Re: Chevron Facility # 9-6991

Address: 2920 Castro Valley Boulevard, Castro Valley, California

I have reviewed the attached report titled *Case Closure Request* and dated July 29, 2011.

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.

Sincerely,

Olivia Skance
Project Manager

Enclosure: Report

CASE CLOSURE REQUEST

Chevron Service Station 9-6991
2920 Castro Valley Boulevard
Castro Valley, California
Case No. RO0000475

Prepared for:

Mr. Mark Detterman, P.G., C.E.G.
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Prepared by:
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JULY 29, 2011
REF. NO. 611633 (9)
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CASE CLOSURE REQUEST

Chevron Service Station 9-6991
2920 Castro Valley Boulevard
Castro Valley, California
Case No. RO0000475

Christopher J. Benedict

James P. Kiernan, P.E.

Prepared by:
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JULY 29, 2011
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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) has prepared this *Case Closure Request* on behalf of Chevron Environmental Management Company (Chevron) for Chevron service station 9-6991 located at 2920 Castro Valley Boulevard in Castro Valley, California. Based on our review of the site background and conditions, the site meets the San Francisco Bay Regional Water Quality Control Board (RWQCB) criteria for closure as a low-risk groundwater case as described in their January 5, 1996 memorandum entitled *Interim Guidance on Required Cleanup of Low-Risk Fuel Sites*. Presented below are the site description and background, site conditions and discussion of remaining impacts, an evaluation of potential risk, the rationale for closure based on the low-risk criteria, and our conclusions and recommendations.

2.0 SITE DESCRIPTION AND BACKGROUND

The site is located on the northeast corner of the intersection of Castro Valley Boulevard and Anita Avenue (Figure 1), and is currently a Chevron-branded station. Current station facilities include a station building, three 10,000-gallon fiberglass gasoline underground storage tanks (USTs), four dispenser islands, and associated piping. The site is bounded by Anita Avenue to the west, Castro Valley Boulevard to the south, and parking areas for a strip mall to the east and north.

The date the site was first occupied by a service station is unknown; however, based on historical aerial photographs, it appears to have been since at least 1946. Chevron reportedly operated the service station from 1961 to 2004, when the property and all improvements were sold to a private party (K&K Petroleum LLC). According to Chevron records, the USTs were replaced in 1983 and at that time the storage and sale of diesel fuel was discontinued. In 1990, a 6,000-gallon unleaded gasoline UST and a 1,000-gallon used-oil UST were removed and the station was remodeled into its current configuration. The three existing gasoline USTs were left in place; however, the product piping was replaced. Current and former station facilities are shown on Figure 2.

Environmental work has been ongoing since 1990, and has included the installation of monitoring wells MW-1 through MW-7, the drilling of exploratory borings SB-1 through SB-7, and confirmation soil sampling during UST removals. Remedial excavation in 1990 removed approximately 700 cubic yards of hydrocarbon-bearing soil. A summary of the environmental work is presented in Appendix A. The historical soil and groundwater sample analytical results are presented in Tables 1 and 2, respectively. The approximate well and boring locations and the excavation extents are shown on Figure 2. Previous site

plans showing the excavations and confirmation sample locations are presented in Appendix B.

Surrounding land use is commercial with residential further from the site. An additional Leaking Underground Storage Tank (LUST) case is present across Anita Avenue to the west of the site (former Walt's Auto Tec at 2896 Castro Valley Boulevard). This facility was formerly a Texaco service station, and also appears to have been occupied by a service station as early as 1946. A dry cleaning facility was formerly located in the strip mall behind the site, and is an open chlorinated solvent release case (Dry Clean Club of America at 2960 Castro Valley Boulevard).

3.0 SITE CHARACTERISTICS

3.1 REGIONAL GEOLOGY AND HYDROGEOLOGY

The site is located within the Castro Valley groundwater basin in a valley between ridges of the Diablo Range. The unconfined water-bearing zone lies within unconsolidated alluvial sediments and exhibits a generally southwestward flow direction toward San Francisco Bay. These water-bearing sediments overlie the sedimentary Chico Formation; considered non-water-producing based on historically poor groundwater yields.

3.2 SITE GEOLOGY AND HYDROGEOLOGY

Soil encountered beneath and in the vicinity of the site has generally consisted of clays and to a lesser degree, sand, with varying amounts of silt, sand, clay, and gravel to the maximum explored depth of 26.5 feet below grade (fbg). Copies of the historical boring logs are presented in Appendix C. Geologic cross-sections depicting the best available information on the shallow subsurface are presented on Figures 3 and 4.

Groundwater was encountered during drilling at depths ranging from approximately 6 to 16 fbg, but generally between 11 and 13 fbg. Depth to groundwater in the site wells has ranged from approximately 8 to 21 feet below top of casing (TOC), but typically fluctuates between 10 and 12 feet below TOC. The groundwater flow direction is generally southwesterly following the local topography (see rose diagram on Figure 2). The historical range of groundwater elevations measured in the wells is shown on the cross-sections (Figures 3 and 4).

3.3 NEARBY WELLS AND SENSITIVE RECEPTORS

CRA reviewed California Department of Water Resources (DWR) files to identify any water-supply wells within 2,000 feet of the site. Five wells were identified within the search radius. Three of the wells (uses listed as test well, domestic, and cooling system return) were identified at Eden Hospital approximately 2,000 feet northwest (crossgradient) of the site. The remaining two wells were identified as domestic: one approximately 1,400 feet south-southwest (down- to crossgradient) and one approximately 1,400 feet north (crossgradient) of the site. The well survey results and a figure showing the identified well locations are presented in Appendix D.

There do not appear to be any sensitive receptors within 2,000 feet of the site in the downgradient direction with the exception of some residential areas at least 200 feet from well MW-6. The local water supply is provided by East Bay Municipal Utility District (EBMUD); the source is the Mokelumne River Basin in the Sierra Nevada range. The nearest surface water is an unnamed intermittent creek (concrete-lined channel or underground culvert) approximately 1,100 feet southwest of the site.

3.4 PREFERENTIAL PATHWAY EVALUATION

Due to the relatively shallow depth to groundwater, CRA evaluated potential preferential pathways (underground utility lines) in the site vicinity that could contribute to the migration of groundwater. As shown on Figure 2, sanitary sewer, water, and storm drain lines are present beneath Anita Avenue to the west of the site; these connect to main lines beneath the north side of Castro Valley Boulevard. Additional water and sanitary sewer lines are present beneath the south side of Castro Valley Boulevard. There may be additional lines beneath the surrounding sidewalk(s) such as gas, communications, or electric; however, these lines are typically buried at shallow depths (several feet or less) and therefore not considered a concern.

The depth of the storm drain and water lines are approximately 7 fbg and 3 fbg, respectively. Based on the typical depth to groundwater, these lines do not appear to be a potential preferential pathway concern. The utilities which may intersect groundwater are the sanitary sewer lines beneath Castro Valley Boulevard which vary in depth from approximately 10 to 12 fbg. However, according to Mr. Run Chen, Associate Engineer with the Castro Valley Sanitary District (CVSD), these lines are older and thus most likely were backfilled with native soil, as was the typical practice. As the soil to this depth is generally fine-grained clay, these trenches would not be expected to act as preferential pathways. There appear to be no potential receptors in the site vicinity that would be

affected. The creek to the west/southwest of the site is channelized or an underground culvert; regardless, the sanitary sewer lines would not discharge into a surface water body but would flow to a treatment plant. Based on this information, the sanitary sewer lines also do not appear to be a potential preferential pathway concern and no further work appears warranted.

4.0 CONSTITUENTS OF CONCERN

4.1 SOIL

Based on the historical data, the primary constituents of concern (COCs) in remaining soil (i.e. not excavated) are total petroleum hydrocarbons as diesel (TPHd) and gasoline (TPHg). These constituents were only detected in several of the soil samples, and only at low concentrations (up to 150 milligrams per kilogram [mg/kg] TPHd and 430 mg/kg TPHg). Benzene, toluene, ethylbenzene, and xylenes (BTEX) are less significant COCs in soil, as they were only detected at low concentrations in several samples (benzene detected in four samples at a maximum of only 0.24 mg/kg).

Total oil and grease (TOG) was detected in several of the soil samples collected from the used-oil UST excavation at concentrations up to 780 mg/kg; however, heavier-end hydrocarbons such as TOG exhibit characteristics of low mobility and low toxicity in the environment. In addition, since the soil samples were collected in 1990, concentrations likely have decreased due to natural attenuation processes, and TOG was not detected in groundwater samples from MW-1. Therefore, TOG does not appear to be a primary COC in soil.

Methyl tertiary butyl ether (MTBE), other fuel oxygenates, and volatile organic compounds (VOCs) generally were not detected in any of the soil samples analyzed; therefore, none of these constituents appear to be COCs in soil.

4.2 GROUNDWATER

Based on the monitoring results, the primary COCs remaining in groundwater are TPHd, TPHg, and MTBE. No BTEX were detected during the most recent event and in most wells, benzene has not been detected for at least several years. As such, BTEX are not primary COCs. Ethanol was not detected in any of the wells and as mentioned above, TOG was not detected in MW-1. Therefore, these constituents are not COCs in groundwater.

5.0 PETROLEUM HYDROCARBON SOURCES AND DISTRIBUTION

5.1 RELEASE SOURCE AND VOLUME

Based on previous investigations and UST/piping removal confirmation sampling, the primary source(s) of the released petroleum hydrocarbons appears to be the former USTs and dispensers. As the site appears to have been occupied by a service station since at least 1946, releases from previous generation USTs or site activities may also have occurred. Although the volume of released hydrocarbons is unknown, approximately 700 cubic yards of impacted soil was excavated and removed. This remedial action has adequately mitigated the release as evidenced by decreasing hydrocarbon concentrations in groundwater and lack of dissolved-phase BTEX.

5.2 POTENTIAL OFFSITE SOURCES

There do not appear to be any offsite sources contributing to the impacts at the site. The nearby former Walt's Auto Tec facility is located in the crossgradient direction.

5.3 PETROLEUM HYDROCARBONS IN SOIL

As described above, only low concentrations of TPHd, TPHg, and BTEX were detected in remaining soil. The maximum concentrations were either detected in the area of the former dispenser islands, or in the southwest corner of the site. The remedial excavations ranged from approximately 3 to 15 fbg, and appear to have removed the majority of the hydrocarbon source mass soil. In addition, residual concentrations likely have further decreased due to natural attenuation processes as indicated by decreasing concentrations in groundwater and lack of dissolved-phase BTEX. Based on the data, the lateral and vertical extent of hydrocarbons in soil has been adequately defined, and no further investigation is warranted. The soil sample analytical results are presented in Table 1 (samples collected from areas that were later excavated are shaded).

5.4 PETROLEUM HYDROCARBONS IN GROUNDWATER

Groundwater has been monitored since 1991. Wells MW-2, MW-6, and MW-7 are currently sampled semi-annually during the first and third quarters, and wells MW-1 and

MW-4 are sampled annually during the first quarter. Wells MW-3 and MW-5 are no longer sampled. A copy of the first semi-annual 2011 groundwater monitoring report is presented in Appendix E.

Based on the monitoring results, the dissolved hydrocarbon plume is generally located in the area of the former dispensers (downgradient of the former gasoline UST) as well as downgradient beneath Castro Valley Boulevard. Low concentrations of TPHd also remain in groundwater in the area of the former used-oil UST. The residual concentrations are low and have decreased by up to three orders of magnitude below historic maximums. Based on the concentrations in MW-6, the downgradient extent of hydrocarbons in groundwater is adequately defined and no further investigation is warranted. Isoconcentration maps of TPHd, TPHg, and MTBE remaining in groundwater are presented on Figures 5 through 7, respectively. The dissolved mass remaining is estimated at 0.2 pounds TPHd, 0.004 pounds TPHg, and 0.04 pounds MTBE (Appendix F).

Graphs of TPHd, TPHg, benzene, and/or MTBE concentrations over time in wells MW-1, MW-2, and MW-7 are presented in Appendix G. As shown in the graphs, although fluctuations occur, the COC concentrations are low and declining, indicating that the plume has reached its maximum extent and is decreasing in size and mass due to natural attenuation. The TPHg concentrations in MW-7 have remained relatively stable over the years, but have recently declined to new lows. A comparison of the historical maximum and most recent TPHd, TPHg, benzene, and MTBE concentrations in the wells is presented in Table A below.

TABLE A. COMPARISON OF MAXIMUM AND MOST RECENT CONCENTRATIONS IN GROUNDWATER
(concentrations in µg/L)

Well ID	*TPHd*		*TPHg*		*Benzene*		*MTBE*[a]	
	Max Conc.	*Most Recent Conc.*	*Max Conc.*	*Most Recent Conc.*	*Max Conc.*	*Most Recent Conc.*	*Max Conc.*	*Most Recent Conc.*
MW-1	2,300 (3-2-00)	180 (3-23-11)	340 (11-4-91)	<50 (3-23-11)	120 (11-4-91)	<0.5 (3-23-11)	1 (3-16-10)	<0.5 (3-23-11)
MW-2	1,300 (9-13-96)	570 (3-23-11)	2,400 (3-20-97)	<50 (3-23-11)	30 (3-31-98)	<0.5 (3-23-11)	530 (3-21-06)	91 (3-23-11)
MW-4	290 (3-26-07)	<50 (3-23-11)	<50 (all)	<50 (3-23-11)	<0.5 (all)	<0.5 (3-23-11)	1 (6-26-07)	<0.5 (3-23-11)
MW-6	470 (12-30-92)	51 (9-21-10)	1,700 (12-30-92)	<50 (9-21-10)	170 (12-30-92)	<0.5 (9-21-10)	18 (6-28-04)	3 (9-21-10)
MW-7	13,000 (3-21-02)	360 (3-23-11)	3,200 (3-21-02)	76 (3-23-11)	750 (9-30-00)	<0.5 (3-23-11)	790 (9-15-03)	0.6 (3-23-11)

a Only results obtained using EPA Method 8260 reported

< Indicates constituent was not detected at or above stated laboratory reporting limit

6.0 RISK EVALUATION

To evaluate potential risks to human health or the environment associated with the residual petroleum hydrocarbons in soil and groundwater, CRA evaluated the presence of wells and potential sensitive receptors in the site vicinity, evaluated potential receptor exposure pathways, and performed a screening-level risk evaluation. The findings of the risk evaluation are presented below.

6.1 NEARBY WELLS AND SENSITIVE RECEPTORS

As described in Section 3.3, the only identified water-supply well within 2,000 feet downgradient was a domestic well approximately 1,400 feet south-southwest. Based on this distance and the groundwater monitoring results from well MW-6, it is unlikely this well would be impacted by petroleum hydrocarbons from the site. As the local drinking water supply is obtained from EBMUD, it is unlikely this well would be used as a drinking water source.

The site is currently an active service station and therefore no sensitive receptors exist at the site. Some residential areas are located further downgradient from the site. However, drinking water is supplied by EBMUD.

Based on this information, there do not appear to be any wells or sensitive receptors that would likely be impacted by petroleum hydrocarbons from the site.

6.2 POTENTIAL EXPOSURE PATHWAYS

6.2.1 SOIL

As the site is generally capped with asphalt or concrete as part of the existing development, potential exposure to any residual impacted soil beneath the site by the general public is de minimis. Therefore, the only identified potential exposure pathway to any residual impacted soil beneath the site is direct exposure by construction workers during trenching or excavating activities.

6.2.2 GROUNDWATER

The extent of hydrocarbons in groundwater appears to be adequately defined, not migrating, and no water-supply wells appear likely to be impacted. Therefore, no complete groundwater ingestion pathways exist and none are likely to exist in the foreseeable future based on the current municipal water supply. Based on the depth to groundwater, it may be encountered during deeper trenching or excavating activities.

6.2.3 SURFACE WATER

The unnamed creek is located approximately 1,100 feet downgradient. Based on this distance, it is unlikely this creek would be impacted by petroleum hydrocarbons from the site.

6.2.4 VAPOR INTRUSION

The site remains an active gas station and remedial excavation was performed to remove hydrocarbon source mass soil. Although impacted groundwater remains beneath the site, concentrations are low and the extent appears to be generally away from the site building. Benzene is considered the primary risk driver for vapor intrusion as it is a known human carcinogen. No benzene is detected in groundwater indicating limited residual source in soil. Based on this information, potential vapor intrusion is not a significant concern under the current land use scenario.

6.3 COMPARISON TO ENVIRONMENTAL SCREENING LEVELS

The maximum residual COC concentrations in soil and groundwater were compared to the corresponding environmental screening levels (ESLs) established by the RWQCB in May 2008. The ESLs are for use as screening levels in determining if further evaluation is warranted, in prioritizing areas of concern, in establishing cleanup goals, and in estimation of potential health risks. As stated by the RWQCB, the ESLs are considered to be conservative. The presence of a chemical at a concentration above an ESL does not necessarily indicate that adverse impacts to human health or the environment are occurring; rather exceeding ESLs indicates that the potential for impacts may exist and that additional evaluation may be needed. Under most circumstances, the presence of a chemical in soil, groundwater, or soil gas at concentrations below the corresponding ESL can be assumed to not pose a significant, long-term (chronic) threat to human health and

the environment. For soil vapor, the most recent groundwater concentrations were compared to the ESLs for evaluation of potential vapor intrusion concerns, where established.

6.3.1 SOIL

The only complete potential exposure pathway to residual hydrocarbons in soil under the current land use scenario is direct exposure by construction workers during trenching or excavation activities. Table B below presents a comparison of the maximum COC concentrations detected in remaining soil to the respective ESLs associated with construction/trench worker direct exposure concerns. The results were also compared to the ESLs for groundwater protection (soil leaching) at commercial sites where groundwater is a current or potential drinking water source.

TABLE B. COMPARISON OF MAXIMUM RESIDUAL SOIL CONCENTRATIONS TO ESLs (concentrations in mg/kg)

Constituent	*Highest Detected Concentration Remaining in Soil*	*ESL for Construction/Trench Worker Exposure*[1]	*ESL for Groundwater Protection*[2]
TPHd	150 (TE; 5 fbg; 9/18/90)	4,200	83
TPHg	430 (SB-7; 13 fbg; 7/29/03)	4,200	83
Benzene	0.24 (TNW; 3 fbg; 9/11/90)	12	0.044
Toluene	0.26 (MW-6; 5 fbg; 9/25/92)	650	2.9
Ethylbenzene	0.52 (PITNC; 9 fbg; 9/11/90)	210	3.3
Xylenes	2 (PITNC; 9 fbg; 9/11/90)	420	2.3

1. ESLs from Table K-3, Direct Exposure Soil Screening Levels, Construction/Trench Worker Exposure Scenario, in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, RWQCB-May 2008
2. ESLs from Table A-2, Shallow Soil Screening Levels, Commercial/Industrial Land Use, Groundwater is a current or potential source of drinking water, in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, RWQCB-May 2008

As shown above, the maximum detected COC concentrations in soil are well below the respective ESLs for construction/trench worker exposure. The TPHd, TPHg, and benzene concentrations exceed the ESLs associated with groundwater protection; however, concentrations in groundwater are declining and therefore any residual impacted soil does not appear to be acting as a significant continuing source of hydrocarbons that

would reverse overall improving trends. In addition, as the majority of these samples were collected in 1990, concentrations have likely decreased due to natural attenuation. Therefore, the residual hydrocarbons in soil do not appear to pose a significant threat to human health or the environment.

6.3.2 GROUNDWATER

As described above, there were no identified complete groundwater ingestion pathways. However, the most recent COC concentrations detected in groundwater were compared to the ESLs at sites where groundwater is a current or potential source of drinking water. The comparison is presented in Table C below.

TABLE C. COMPARISON OF MOST RECENT MAXIMUM GROUNDWATER CONCENTRATIONS TO ESLs (concentrations in ug/L)

Constituent	*Highest Detected Concentration Remaining in Groundwater*	*Groundwater ESL[1]*
TPHd	570	100
TPHg	76	100
MTBE	91	5

1. ESLs from Table C, ESLs for Deep Soils, groundwater is a current or potential source of drinking water in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, RWQCB-May 2008

The maximum detected TPHd and MTBE concentrations in groundwater exceeded the respective ESLs. However, the source has been removed, the plume is stable, and concentrations are decreasing. Although groundwater could be encountered during deeper trenching or excavation activities, the potential risk to construction workers is low based on the remaining concentrations. Additionally, as the site in an active gas station, workers would be required to have the appropriate health and safety training. Therefore, the residual petroleum hydrocarbons in groundwater do not appear to pose a significant threat to human health or the environment.

Trend analysis was performed to estimate when the TPHd and/or MTBE concentrations in those wells with residual concentrations over ESLs would reach the respective ESLs (Appendix G). As shown in Table D below, TPHd and MTBE are expected to reach the ESLs by 2050 at the latest, which is a reasonable amount of time given the municipal water supply.

TABLE D SUMMARY OF DEGRADATION CALCULATIONS					
Well	*COC*	*Peak Concentration (µg/L)*	*ESL*	*Current Concentration (µg/L)*	*Estimated Date to Reach ESL*
MW-1	TPHd	2,300	100	180	Nov 2014
MW-2	TPHd	1,300	100	570	Jun 2011
	MTBE	20,000	5	91	Dec 2015
MW-7	TPHd	13,000	100	360	Oct 2050

6.3.3 SOIL VAPOR

The most recent COC concentrations in groundwater were compared to the groundwater ESLs for evaluation of potential vapor intrusion concerns at residential sites (most conservative). However, the only remaining COC that has a corresponding ESL is MTBE (ESL of 24,000 micrograms per liter [µg/L]), and the highest remaining concentration (91 µg/L) is well below the ESL and thus does not pose a significant threat to human health.

7.0 LOW-RISK GROUNDWATER CRITERIA

The site appears to meet the RWQCB criteria for classification as a low-risk groundwater case. As described in the January 5, 1996 memorandum, a low-risk groundwater case has the following general characteristics:

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

Each low-risk groundwater case criteria, as it relates to the site, is discussed below.

7.1 THE LEAK HAS BEEN STOPPED AND ONGOING SOURCES, INCLUDING LNAPL, HAVE BEEN REMOVED OR REMEDIATED

All original potential sources of the petroleum hydrocarbon release(s) (former used-oil and gasoline USTs, dispensers, and product piping) were removed in 1990. The site is currently an active station with three USTs. The remedial excavation appears to have removed the majority of the hydrocarbon mass from the original source areas. Based on the decreasing concentrations in groundwater, any residual impacted soil is not acting as a continuing source of hydrocarbons to groundwater that would reverse these trends. LNAPL has not been observed in any of the wells. Based on this information, the leak has been stopped and ongoing sources have been removed.

7.2 THE SITE HAS BEEN ADEQUATELY CHARACTERIZED

Soil sample analytical results indicate that the lateral and vertical extent of impacted soil has been adequately defined. Groundwater monitoring has been performed since 1991. The plume appears to be stable and the extent appears adequately defined. Concentrations are expected to continue to decrease over time due to natural attenuation.

Although soil vapor sampling has not been performed, potential vapor intrusion does not appear to be a significant concern at the site based on the remaining concentrations in soil and groundwater, the lack of benzene in groundwater, and the current land use scenario, and therefore it is not needed to make a case closure evaluation. Based on this information, the extent of impact has been defined to the degree necessary to demonstrate that the site does not present a significant threat to human health or the environment.

7.3 THE DISSOLVED HYDROCARBON PLUME IS STABLE, DECREASING, AND NOT MIGRATING

Based on the monitoring results, the plume appears stable, shrinking, and not migrating. Natural attenuation is expected to continue to reduce the remaining concentrations to background levels. The remaining TPHd and MTBE concentrations in groundwater are estimated to reach the ESLs by 2050 and 2015, respectively.

7.4 NO WATER WELLS, DEEPER DRINKING WATER AQUIFERS, SURFACE WATER, OR OTHER SENSITIVE RECEPTORS ARE LIKELY TO BE IMPACTED

No water wells, surface water, or other sensitive receptors were identified that are likely to be impacted by petroleum hydrocarbons from the site.

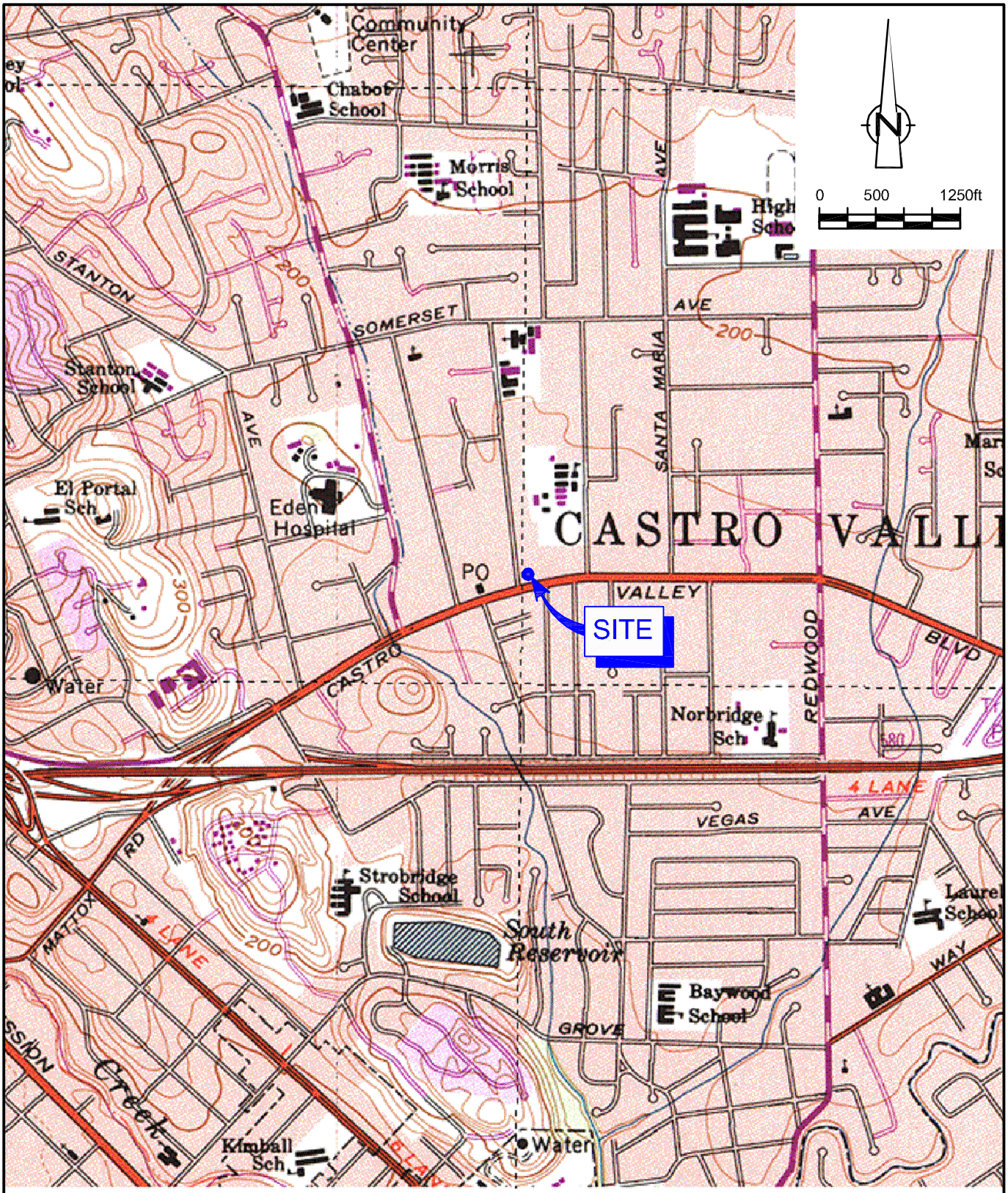
7.5 THE SITE PRESENTS NO SIGNIFICANT RISK TO HUMAN HEALTH OR THE ENVIRONMENT

The site is capped with asphalt or concrete over most of the surface area, thus potential exposure to any residual impacted soil by the general public is precluded. The maximum residual detected concentrations in soil slightly exceeded the ESLs associated with groundwater protection; however, concentrations in groundwater are decreasing indicating the lack of a continuing source. Although impacted groundwater remains beneath the site, the residual concentrations are low, the plume appears stable and limited in extent, and no sensitive receptors appear likely to be impacted. Natural attenuation is expected to continue to decrease concentrations to background levels. Potential vapor intrusion is not a significant concern given the remaining concentrations and the current land use scenario. If site redevelopment occurs, any residual hydrocarbons and potential vapor intrusion can be addressed at that time, if warranted. Based on this information, the site does not pose a significant risk to human health or the environment under the current land use scenario.

8.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the site conditions and analytical data, the site satisfies the RWQCB criteria for classification as a low-risk groundwater case. The extent of hydrocarbons in soil and groundwater has been adequately defined and no further work is warranted. The dissolved hydrocarbon plume is decreasing in size and mass and concentrations are expected to reach ESLs by 2050 at the latest. The residual petroleum hydrocarbons in soil and groundwater do not pose a significant threat to human health or the environment under the current land use scenario. The site is expected to remain a gas station for the foreseeable future. Any residual hydrocarbons can be addressed in the future if and when the site is no longer used as a service station and the existing tanks and piping are removed. Therefore, on behalf of Chevron, CRA respectfully requests the site be considered for low-risk case closure.

FIGURES



SOURCE: TOPO! MAPS.

figure 1

VICINITY MAP
CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
Castro Valley, California

LEGEND

MW-1 ● SITE MONITORING WELL LOCATION
SB-5 ■ SITE SOIL BORING LOCATION
MW-1 ◐ FORMER SERVICE STATION MONITORING WELL LOCATION
B-1 ⊠ FORMER SERVICE STATION SOIL BORING LOCATION
1990 EXCAVATION LIMITS
STM STORM DRAIN
W WATER LINE
SAN SANITARY SEWER

QUALITY AUTO CARE
FORMER SERVICE STATION
2896 CASTRO VALLEY BLVD.

B-1
B-2
B-3
B-4
MW-1
MW-2
MW-3
SB-6
MW-5
ANITA AVENUE
SIDEWALK
PLANTER
FORMER WASTE OIL TANK
EXCAVATED TO 15 FBG
DISPENSER ISLAND
BUILDING
DISPENSER ISLAND
LOCATION OF FORMER GASOLINE UST
EXCAVATED TO 9-11 FBG
EXCAVATED TO 3 FBG
EXCAVATED TO 7 FBG
FORMER DISPENSER ISLANDS
EXISTING GASOLINE USTs
SB-5
SB-7
MW-7
MW-4
SB-3
SIDEWALK
SB-1
CASTRO VALLEY BOULEVARD
MEDIAN
SB-4
SB-2
MW-6
CHABOT CINEMA
PARKING LOT
BUILDING

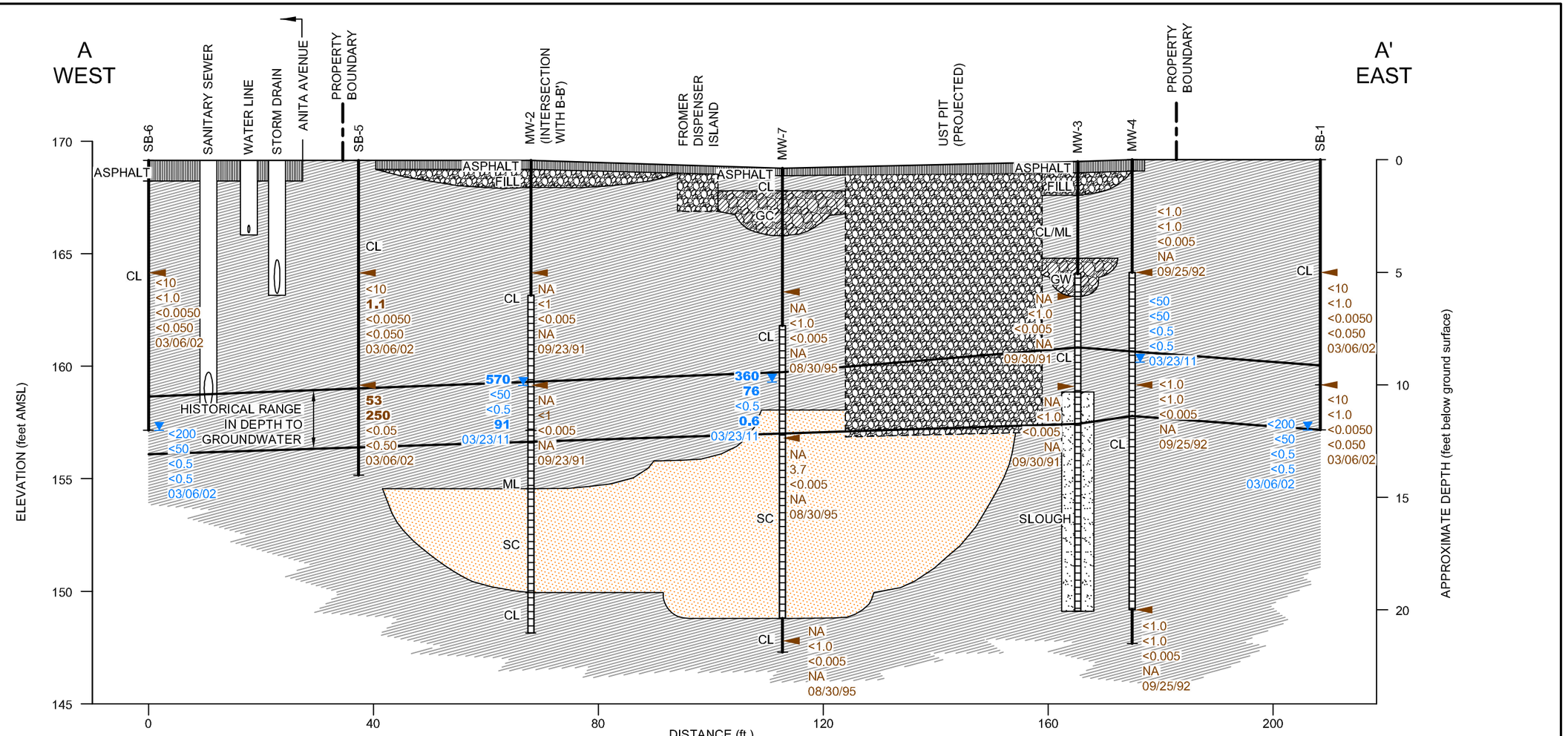
N
0 10 30ft

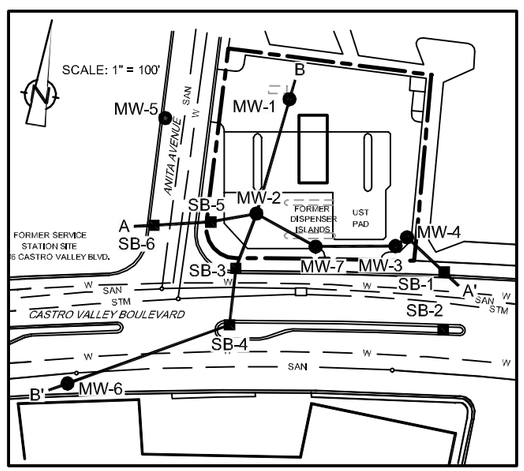
0°
90°
180°
270°
HISTORICAL GROUNDWATER FLOW DIRECTION

figure 2

SITE PLAN
CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
Castro Valley, California

611633-400(009)GN-WA002 JUN 03/2011





SCALE: HORZ. 1"=20'
VERT. 1"=5'

LEGEND

- MW-2 — WELL DESIGNATION
- GROUND SURFACE
- OBSERVATION WELL INSTALLATION
- STRATIGRAPHIC BOUNDARY
- CL — TYPICAL SOIL CLASSIFICATION
- SCREENED INTERVAL
- BOTTOM OF BORING
- TPHd / TPHg / BENZENE / MTBE / DATE — APPROXIMATE SOIL SAMPLE LOCATION; HYDROCARBON CONCENTRATIONS IN SOIL, IN mg/kg
- TPHd / TPHg / BENZENE / MTBE / DATE — DEPTH OF GROUNDWATER; HYDROCARBON CONCENTRATIONS IN GROUNDWATER, IN µg/L

- *SP* - POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
- *CL/ML* - FINE GRAINED CLAYS AND SILTS
- *AS* - ASPHALT
- *FILL*
- *GC/GW* - CLAYEY GRAVELS, WELL GRADED GRAVELS
- *SC* - CLAYEY SAND
- < NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMIT
- NA NOT ANALYZED

figure 3

GEOLOGIC CROSS-SECTION A-A'
CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
Castro Valley, California

B
NORTH

B'
SOUTH

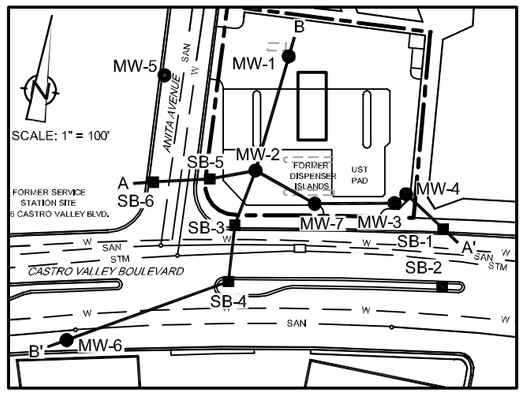
MW-1 | DISPENSER ISLAND | MW-2 (INTERSECTION WITH A-A') | PROPERTY BOUNDARY | SB-3 | CASTRO VALLEY BLVD. | WATER LINE | SANITARY SEWER | STORM DRAIN | MEDIAN | SB-4 | MEDIAN | WATER LINE | SANITARY SEWER | MW-6

ELEVATION (ft. AMSL)

APPROXIMATE DEPTH (feet below ground surface)

DISTANCE (ft.)

SCALE: HORZ. 1"=20'
VERT. 1"=5'



LEGEND

- MW-2 — WELL DESIGNATION
- GROUND SURFACE
- OBSERVATION WELL INSTALLATION
- STRATIGRAPHIC BOUNDARY
- CL — TYPICAL SOIL CLASSIFICATION
- SCREENED INTERVAL
- BOTTOM OF BORING

TPHd / TPHg / BENZENE / MTBE / DATE — APPROXIMATE SOIL SAMPLE LOCATION; HYDROCARBON CONCENTRATIONS IN SOIL, IN mg/kg

TPHd / TPHg / BENZENE / MTBE / DATE — ▼ DEPTH OF GROUNDWATER; HYDROCARBON CONCENTRATIONS IN GROUNDWATER, IN µg/L

< NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMIT

NA NOT ANALYZED

- *SP* - POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
- *CL/ML* - FINE GRAINED CLAYS AND SILTS
- *AS* - ASPHALT
- *FILL*
- *SM/SC* - SILTY SANDS, CLAYEY SANDS
- *GC/GP* - CLAYEY GRAVELS, POORLY GRADED GRAVELS

figure 4

GEOLOGIC CROSS-SECTION B-B'
CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
Castro Valley, California

LEGEND

MW-1 ● SITE MONITORING WELL LOCATION
SB-5 ■ SITE SOIL BORING LOCATION
MW-1 ◒ FORMER SERVICE STATION MONITORING WELL LOCATION
B-1 ⊠ FORMER SERVICE STATION SOIL BORING LOCATION
1990 EXCAVATION LIMITS
STM STORM DRAIN
W WATER LINE
SAN SANITARY SEWER
10 TPHd CONCENTRATION CONTOUR DASHED WHERE INFERRED
(1,200) TPHd CONCENTRATIONS ARE IN MICROGRAMS PER LITER (µg/L)
* SAMPLED SEPTEMBER 21, 2010
(NM) NOT MONITORED

QUALITY AUTO CARE
FORMER SERVICE STATION
2896 CASTRO VALLEY BLVD.

ANITA AVENUE
SIDEWALK
PLANTER
FORMER WASTE OIL TANK
EXCAVATED TO 15 FBG
MW-1 (180)
100
MW-5 (NM)
DISPENSER ISLAND
BUILDING
DISPENSER ISLAND
LOCATION OF FORMER GASOLINE UST
EXCAVATED TO 9-11 FBG
EXCAVATED TO 3 FBG
EXCAVATED TO 7 FBG
EXISTING GASOLINE USTs
FORMER DISPENSER ISLANDS
MW-2 (570)
SB-5
SB-6
SB-7
MW-7 (360)
MW-4 (<50)
MW-3 (NM)
SB-3
SB-1
B-4
B-1
MW-2
MW-1
B-3
B-2
MW-3
CASTRO VALLEY BOULEVARD
MEDIAN
SB-4
SB-2
MW-6 * (51)
CHABOT CINEMA
PARKING LOT
BUILDING

N
0 10 30ft

HISTORICAL GROUNDWATER FLOW DIRECTION
0°
90°
180°
270°

figure 5

TPHd GROUNDWATER ISOCONCENTRATION MAP
CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
Castro Valley, California

LEGEND

MW-1 ● SITE MONITORING WELL LOCATION
SB-5 ■ SITE SOIL BORING LOCATION
MW-1 ◐ FORMER SERVICE STATION MONITORING WELL LOCATION
B-1 ⊠ FORMER SERVICE STATION SOIL BORING LOCATION
1990 EXCAVATION LIMITS
STM STORM DRAIN
W WATER LINE
SAN SANITARY SEWER
10 TPHg CONCENTRATION CONTOUR DASHED WHERE INFERRED
(1,200) TPHg CONCENTRATIONS ARE IN MICROGRAMS PER LITER (µg/L)
* SAMPLED SEPTEMBER 21, 2010
(NM) NOT MONITORED

QUALITY AUTO CARE
FORMER SERVICE STATION
2896 CASTRO VALLEY BLVD.

ANITA AVENUE
SIDEWALK
PLANTER
BUILDING
DISPENSER ISLAND
DISPENSER ISLAND
FORMER WASTE OIL TANK
EXCAVATED TO 15 FBG
LOCATION OF FORMER GASOLINE UST
EXCAVATED TO 9-11 FBG
EXCAVATED TO 3 FBG
EXCAVATED TO 7 FBG
FORMER DISPENSER ISLANDS
EXISTING GASOLINE USTs
MW-1 (<50)
MW-2 (<50)
MW-3 (NM)
MW-4 (<50)
MW-5 (NM)
MW-6 * (<50)
MW-7 (76)
B-1
B-2
B-3
B-4
SB-1
SB-2
SB-3
SB-4
SB-5
SB-6
SB-7
50
SIDEWALK
CASTRO VALLEY BOULEVARD
MEDIAN
MEDIAN
CHABOT CINEMA
PARKING LOT
BUILDING
SIDEWALK

N
0 10 30ft

0°
90°
180°
270°
HISTORICAL GROUNDWATER FLOW DIRECTION

figure 6

TPHg GROUNDWATER ISOCONCENTRATION MAP
CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
Castro Valley, California

LEGEND

MW-1 ● SITE MONITORING WELL LOCATION
SB-5 ■ SITE SOIL BORING LOCATION
MW-1 ◪ FORMER SERVICE STATION MONITORING WELL LOCATION
B-1 ⊠ FORMER SERVICE STATION SOIL BORING LOCATION
1990 EXCAVATION LIMITS
STM STORM DRAIN
W WATER LINE
SAN SANITARY SEWER
10 MTBE CONCENTRATION CONTOUR DASHED WHERE INFERRED
(1,200) MTBE CONCENTRATIONS ARE IN MICROGRAMS PER LITER (µg/L)
* SAMPLED SEPTEMBER 21, 2010
(NM) NOT MONITORED

QUALITY AUTO CARE
FORMER SERVICE STATION
2896 CASTRO VALLEY BLVD.

ANITA AVENUE
SIDEWALK
PLANTER
FORMER WASTE OIL TANK
EXCAVATED TO 15 FBG
MW-1 (<0.5)
MW-5 (NM)
DISPENSER ISLAND
BUILDING
DISPENSER ISLAND
LOCATION OF FORMER GASOLINE UST
EXCAVATED TO 9-11 FBG
EXCAVATED TO 3 FBG
EXCAVATED TO 7 FBG
EXISTING GASOLINE USTs
FORMER DISPENSER ISLANDS
5
50
MW-2 (91)
SB-5
SB-6
SB-7
MW-7 (0.6)
MW-4 (<0.5)
MW-3 (NM)
SB-3
SB-1
SB-4
SB-2
MW-6 * (3)
B-1
B-2
B-3
B-4
MW-1
MW-2
MW-3
MEDIAN
CASTRO VALLEY BOULEVARD
CHABOT CINEMA
PARKING LOT
BUILDING

0 10 30ft

0°
90°
180°
270°
HISTORICAL GROUNDWATER FLOW DIRECTION

figure 7

MTBE GROUNDWATER ISOCONCENTRATION MAP
CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
Castro Valley, California

611633-400(009)GN-WA009 JUN 03/2011

TABLES

TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS
CHEVRON STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

Boring/ Sample ID	*Sample Depth (fbg)*	*Sample Date*	*TOG*	*TPHd*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*VOCs*	*HVOCs*	*DIPE*	*ETBE*	*TAME*	*TBA*	*1,2-DCA*	*EDB*
			← Concentrations reported in milligrams per kilogram (mg/kg) →															
Used-Oil UST Removal and Over-Excavation																		
WOM	11	9/11/90	**2,000**	--	**15**	**0.07**	**<0.005**	**0.01**	**0.05**	--	ND[a]	--	--	--	--	--	--	--
AW	8	9/11/90	**830**	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--
AE	8	9/11/90	**1,400**	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--
WOW15	15	9/18/90	**780**	<10	**26**	ND	ND	ND	ND	--	ND	--	--	--	--	--	--	--
WOE15	15	9/18/90	**160**	<10	<10	ND	ND	ND	ND	--	ND	--	--	--	--	--	--	--
WOM15	15	9/18/90	**480**	<10	**13**	ND	ND	ND	ND	--	ND	--	--	--	--	--	--	--
A-1	12	9/20/90	**710**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2A	12	9/20/90	**1,500**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3A	12	9/20/90	**510**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6A	12	9/20/90	**3,200**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4A	12	9/20/90	**39**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5A	12	9/20/90	**68**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PH1-6	6	9/20/90	**42**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PH1-10	10	9/20/90	**480**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PH2-6	6	9/20/90	**58**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PH2-10	10	9/20/90	**38**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PH3-6	6	9/20/90	**22**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PH3-10	10	9/20/90	**35**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-1-10	10	9/20/90	**12**	ND	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
E-2-10	10	9/20/90	**11**	ND	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
E-3-2	2	9/20/90	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-3-1	1	9/20/90	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-3-1-10	10	9/21/90	**14**	ND	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
E-3-2-10	10	9/21/90	**12**	ND	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
E-4-10	10	9/20/90	**11**	ND	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
E-5-10	10	9/20/90	**<10**	ND	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
E-6-10	10	9/20/90	**<10**	ND	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Gasoline UST Excavation																		
PITW	11	9/11/90	**--**	--	<1	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--
PITNC	9	9/11/90	**--**	--	**63**	**0.05**	**0.01**	**0.52**	**2**	--	--	--	--	--	--	--	--	--
PITE	11	9/11/90	**--**	--	**1**	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--
Product Line Removal and Over-Excavation																		
TNW	3	9/11/90	**--**	--	**5**	**0.24**	<0.005	**0.09**	**0.24**	--	--	--	--	--	--	--	--	--
TNE	3	9/11/90	**--**	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TSW	3	9/11/90	**--**	--	**52**	**0.16**	<0.005	**0.57**	**0.53**	--	--	--	--	--	--	--	--	--
TSE	3	9/11/90	**--**	**1,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS
CHEVRON STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

Boring/ Sample ID	*Sample Depth (fbg)*	*Sample Date*	*TOG*	*TPHd*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*VOCs*	*HVOCs*	*DIPE*	*ETBE*	*TAME*	*TBA*	*1,2-DCA*	*EDB*
			← Concentrations reported in milligrams per kilogram (mg/kg) →															
TE	5	9/18/90	**--**	**150**	--	**0.01**	**0.01**	**0.01**	**0.02**	--	--	--	--	--	--	--	--	--
TW	5	9/18/90	**--**	--	**21**	**0.1**	**0.01**	**0.02**	**0.1**	--	--	--	--	--	--	--	--	--
PT-N-7	7	9/20/90	**--**	**140**	<1	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--
PT-S-7	7	9/20/90	--	**58**	<1	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--
PT-S-1-7	7	9/20/90	**16**	ND	<1	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--
PT-S-2-7	7	9/20/90	**41**	ND	<1	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--
PT1	Unk	9/20/90	**190**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
PT2	Unk	9/20/90	**290**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
PTS WALL	Unk	9/20/90	**380**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
PTN WALL	Unk	9/20/90	**33**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Exploratory and Monitoring Well Borings																		
MW-1A	9	9/23/91	<50	--	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--
MW-2A	5	9/23/91	--	--	<1	<0.005	**0.005**	**0.006**	**0.014**	--	--	--	--	--	--	--	--	--
MW-2B	10	9/23/91	--	--	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--
MW-3A	6	9/30/91	--	--	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--
MW-3C	10	9/30/91	--	--	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--
MW-4	5	9/25/92	--	<1	<1	<0.005	**0.03**	<0.005	<0.005	--	--	--	--	--	--	--	--	--
	10	9/25/92	--	<1	<1	<0.005	**0.042**	<0.005	<0.005	--	--	--	--	--	--	--	--	--
	20	9/25/92	--	<1	<1	<0.005	**0.03**	<0.005	<0.005	--	--	--	--	--	--	--	--	--
MW-5	5	9/25/92	--	<1	<1	<0.005	**0.052**	<0.005	<0.005	--	--	--	--	--	--	--	--	--
	10	9/25/92	--	<1	<1	<0.005	**0.067**	<0.005	<0.005	--	--	--	--	--	--	--	--	--
MW-6	5	9/25/92	--	**5**	<1	<0.005	**0.26**	<0.005	**0.011**	--	--	--	--	--	--	--	--	--
	10	9/25/92	--	<1	<1	<0.005	**0.021**	<0.005	**0.008**	--	--	--	--	--	--	--	--	--
MW-7	5.5	8/30/95	--	--	<1.0	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--
	12	8/30/95	--	--	**3.7**	<0.005	**0.009**	**0.006**	<0.015	--	--	--	--	--	--	--	--	--
	21	8/30/95	--	--	<1.0	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--
SB-1	5	3/6/02	--	<10	<1.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050	--	--	--	--	--	--	--	--
	10	3/6/02	--	<10	<1.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050	--	--	--	--	--	--	--	--
SB-2	5.5	3/6/02	--	<10	<1.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050	--	--	--	--	--	--	--	--

TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS
CHEVRON STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

Boring/ Sample ID	*Sample Depth (fbg)*	*Sample Date*	*TOG*	*TPHd*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*VOCs*	*HVOCs*	*DIPE*	*ETBE*	*TAME*	*TBA*	*1,2-DCA*	*EDB*
			← Concentrations reported in milligrams per kilogram (mg/kg) →															
SB-3	5.5	3/6/02	--	<10	<1.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050	--	--	--	--	--	--	--	--
SB-5	5	3/6/02	--	<10	**1.1**	<0.0050	<0.0050	<0.0050	<0.015	<0.050	--	--	--	--	--	--	--	--
	10	3/6/02	--	**53**	**250**	<0.05	<0.20	<0.50	**0.99**	<0.50	--	--	--	--	--	--	--	--
SB-6	5	3/6/02	--	<10	<1.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050	--	--	--	--	--	--	--	--
SB-7	8	7/29/03	--	**36**	**25**	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001
	11.5	7/29/03	--	**110**	**180**	<0.001	<0.001	**0.018**	**0.001**	<0.001	--	--	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001
	13	7/29/03	--	**60**	**430**	<0.005	<0.005	**0.044**	**0.005**	<0.005	--	--	<0.005	<0.005	<0.005	<0.098	<0.005	<0.005
	15.5	7/29/03	--	<10	<1.0	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001
	17	7/29/03	--	<10	<1.0	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001
	19.5	7/29/03	--	<10	<1.0	<0.001	<0.001	<0.001	<0.001	**0.001**	--	--	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001

Abbreviations/Notes:
fbg = feet below grade
TOG = Total oil and grease
TPHd/TPHg = Total petroleum hydrocarbons as diesel and gasoline, respectively
MTBE = Methyl tertiary butyl ether
VOCs = Volatile organic compounds
HVOCs = Halogenated volatile organic compounds
DIPE = Di-isopropyl ether
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether
TBA = Tertiary butyl alcohol
1,2-DCA = 1,2-dichloroethane
EDB = 1,2-dibromoethane
<x = Not detected at or above stated laboratory reporting limit
-- = Not analyzed
ND = Not detected; reporting limits vary or are unknown
a = Not detected except BTEX and 1,2-Dichlorobenzene (0.0078 mg/kg)
Unk = Sample depth unknown
Note: Shaded samples were collected from soil that was later excavated

TABLE 2

GROUNDWATER SAMPLE ANALYTICAL RESULTS
CHEVRON STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

Boring/ Sample ID	*Sample Date*	*TPHd*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*TBA*	*ETBE*	*DIPE*	*TAME*
		← Concentrations reported in micrograms per liter (ug/L) →										
Gasoline UST Excavation												
PITWTR1	9/11/90	--	**51,000**	**5,800**	**9,600**	**960**	**13,000**	--	--	--	--	--
PITWTR2	9/11/90	--	**54,000**	**6,200**	**10,000**	**1,100**	**14,000**	--	--	--	--	--
Used-Oil UST Excavation												
WOWAT1	9/18/90	--	**1,400**	--	--	--	--	--	--	--	--	--
WOWAT2	9/18/90	--	**510**	--	--	--	--	--	--	--	--	--
Exploratory Borings												
SB1	3/6/02	<200	<50	<0.50	<0.50	<0.50	<1.5	<0.5	<5.0	<0.5	<0.5	<0.5
SB2	3/6/02	**200**	<50	<0.50	<0.50	<0.50	<1.5	<0.5	<5.0	<0.5	<0.5	<0.5
SB3	3/6/02	**960**	**990**	**0.59**	**0.7**	**1.4**	<1.5	**8**	<5.0	<0.5	<0.5	<0.5
SB6	3/6/02	<200	<50	<0.50	<0.50	<0.50	<1.5	<0.5	<5.0	<0.5	<0.5	<0.5
SB7	7/29/03	<50	<50	<0.50	<0.50	<0.50	<0.50	**0.9**	<5.0	<0.5	<0.5	<0.5

Abbreviations/Notes:

TPHd/TPHg = Total petroleum hydrocarbons as diesel and gasoline, respectively
MTBE = Methyl tertiary butyl ether
TBA = Tertiary butyl alcohol
ETBE = Ethyl tertiary butyl ether
DIPE = Di-isopropyl ether
TAME = Tertiary amyl methyl ether
-- = Not analyzed
<x = Not detected at or above stated laboratory reporting limit

APPENDIX A

SUMMARY OF ENVIRONMENTAL INVESTIGATION AND REMEDIATION

SUMMARY OF ENVIRONMENTAL INVESTIGATION AND REMEDIATION
CHEVRON STATION 9-6991
2920 CASTRO VALLEY BLVD, CASTRO VALLEY, CA

1983 Underground Storage Tank (UST) Replacement
According to Chevron records, all USTs were replaced in 1983, and the storage and sale of diesel fuel was discontinued. No other information is available.

September 1990 UST Removal/Station Remodel
Groundwater Technology, Inc. (GTI) observed the removal of a 1,000-gallon used-oil UST and a 6,000-gallon unleaded gasoline UST. Three 10,000-gallon fuel USTs were left in place, but the product piping was replaced. Soil samples collected at 9 or 11 feet below grade (fbg) beneath the gasoline UST contained maximums of only 63 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg) and 0.05 mg/kg benzene (one sample). Two groundwater samples collected from the excavation contained up to 54,000 micrograms per liter (µg/L) TPHg and 6,200 µg/L benzene.

Based on confirmation sample results beneath the used-oil UST at 8 fbg and 11 fbg, the excavation was deepened to 15 fbg. Soil samples collected from the excavation bottom contained up to 780 mg/kg total oil and grease (TOG) and 26 mg/kg TPHg, but no benzene. Two groundwater samples collected from the excavation contained up to 1,400 µg/L TPHg. The excavation was subsequently extended laterally until petroleum hydrocarbon concentrations in soil were near or below detection limits. The final confirmation soil samples contained a maximum of only 14 mg/kg TOG. The approximate final dimensions of the excavation were 40 feet by 16 feet by 15 feet deep.

Soil samples collected at 3 fbg beneath the product piping contained up to 1,000 mg/kg TPH as diesel (TPHd), 52 mg/kg TPHg, and 0.24 mg/kg benzene. The southern product line trench was deepened to 7 fbg; soil samples collected from the sidewalls contained up to 140 mg/kg TPHd, but no TPHg or benzene. Excavation could not continue to the south due to the sidewalk; the approximate final dimensions were 10 feet by 4 feet by 7 feet deep.

Approximately 700 cubic yards of source mass soil with the highest hydrocarbon concentrations was removed and disposed offsite, and the excavations were backfilled with clean imported material. Details were presented in GTI's December 1990 *Summary Tank Excavation Report*.

September 1991 Well Installations
GTI installed wells MW-1, MW-2, and MW-3 (¾-inch diameter). No TOG, TPHg, or benzene were detected in soil. Details were presented in GTI's November 11, 1991 *Well Installation Report*.

September and October 1992 Well Installations
GTI installed onsite well MW-4 and offsite wells MW-5 and MW-6. One soil sample contained 5 mg/kg TPHd. No TPHg or benzene were detected in soil. Details were presented in GTI's December 11, 1992 *Environmental Assessment Report*.

March 1993 Offsite Source Investigation
GTI performed a site reconnaissance, reviewed files at the Regional Water Quality Control

Board (RWQCB) and ACEH, and reviewed Castro Valley Sanitary District maps to identify potential sources of the hydrocarbons detected in groundwater in MW-6. A former service station at 2896 Castro Valley Boulevard to the west of the site was identified as a possible source, as was an underground utility adjacent to MW-6. Further details were presented in Weiss Associates' December 20, 1994 *Comprehensive Site Evaluation and Proposed Future Action Plan*.

August 1995 Well Installation

Gettler-Ryan Inc. (G-R) installed well MW-7. The highest TPHg concentration detected in soil was only 3.7 mg/kg; no benzene was detected. Details were presented in G-R's October 27, 1995 *Well Installation Report*.

March 2002 Subsurface Investigation

Delta Environmental Consultants, Inc. (Delta) advanced exploratory borings SB-1 through SB-6 in the vicinity of nearby utility trenches to further evaluate the extent of hydrocarbons in groundwater and to evaluate if the trenches were potentially acting as preferential pathways for hydrocarbon migration. Soil samples collected from each boring except SB-4 (refusal at 3.5 fbg) contained up to 53 mg/kg TPHd and 250 mg/kg TPHg; no benzene or methyl tertiary butyl ether (MTBE) were detected. Groundwater samples collected from borings SB-1, SB-2, SB-3, and SB-6 contained up to 960 µg/L TPHd, 990 µg/L TPHg, 0.59 µg/L benzene, and 8 µg/L MTBE. The groundwater sample collected from SB-5 was not analyzed due to the reported presence of light non-aqueous phase liquid (LNAPL). However, on the boring log for SB-5 only a sheen was indicated. Further details were presented in Delta's April 29, 2002 *Soil Boring and Utility Trench Investigation Report.*

July 2003 Subsurface Investigation

Cambria Environmental Technology, Inc. (Cambria [now CRA]) advanced exploratory boring SB-7 to further evaluate the reported LNAPL in previous boring SB-5. Soil samples collected from the boring at 8, 11.5, 13, 15.5, 17, and 19.5 fbg contained up to 110 mg/kg TPHd, 430 mg/kg TPHg, and 0.001 mg/kg MTBE (one sample), but no benzene. A grab-groundwater sample collected from the boring contained 0.9 µg/L MTBE, but no TPHd, TPHg or benzene were detected. Based on the results, it was concluded that the previously reported LNAPL in SB-5 was erroneous. Further details were presented in Cambria's September 16, 2003 *Site Assessment/Summary*.

APPENDIX B

PREVIOUS EXCAVATION SITE PLANS

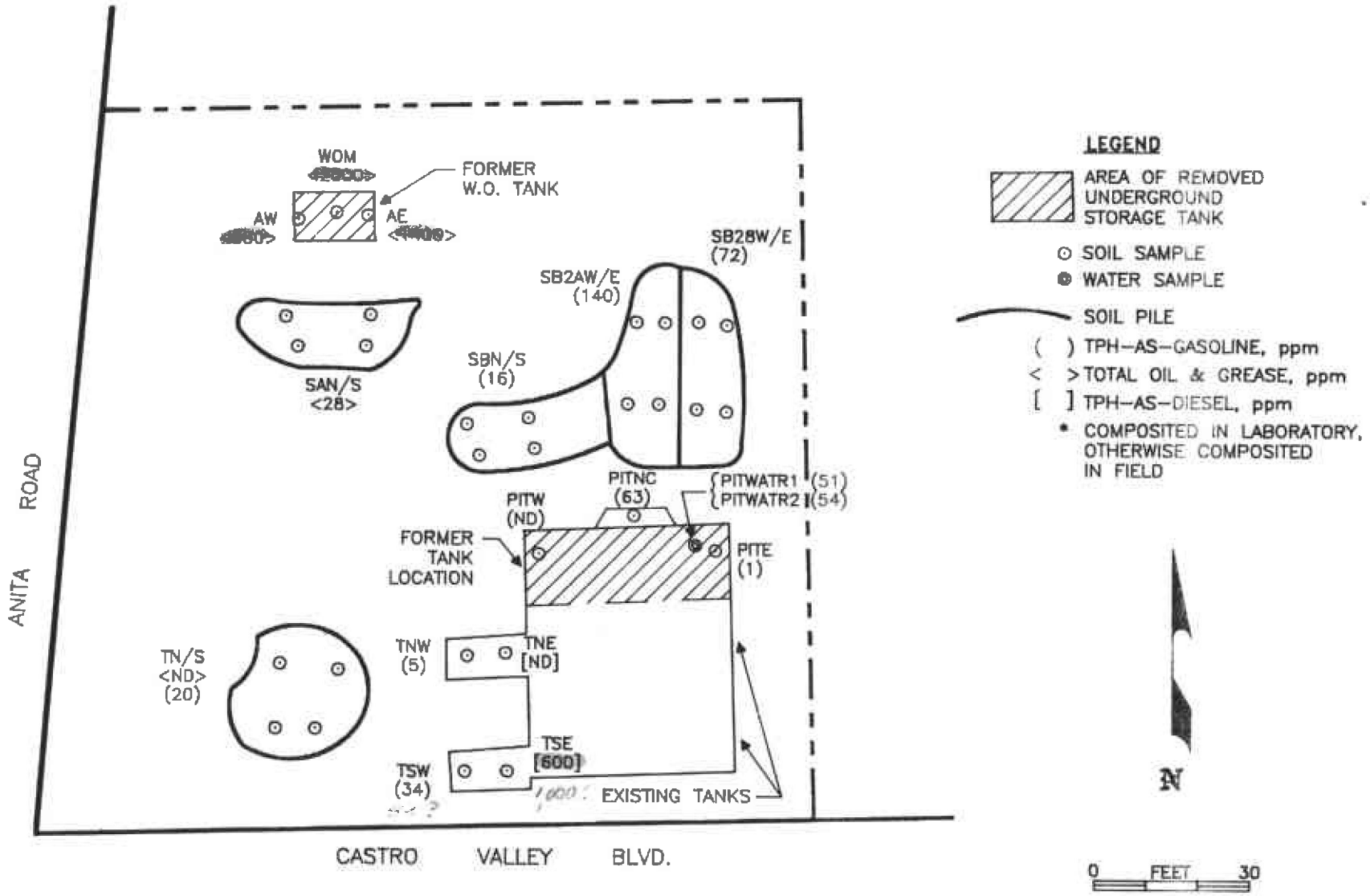


FIGURE 3
INITIAL SAMPLE LOCATIONS FOR
TANK EXCAVATIONS AND SOIL PILES
(9/11/90)

CHEVRON, USA
CASTRO VALLEY, CALIFORNIA

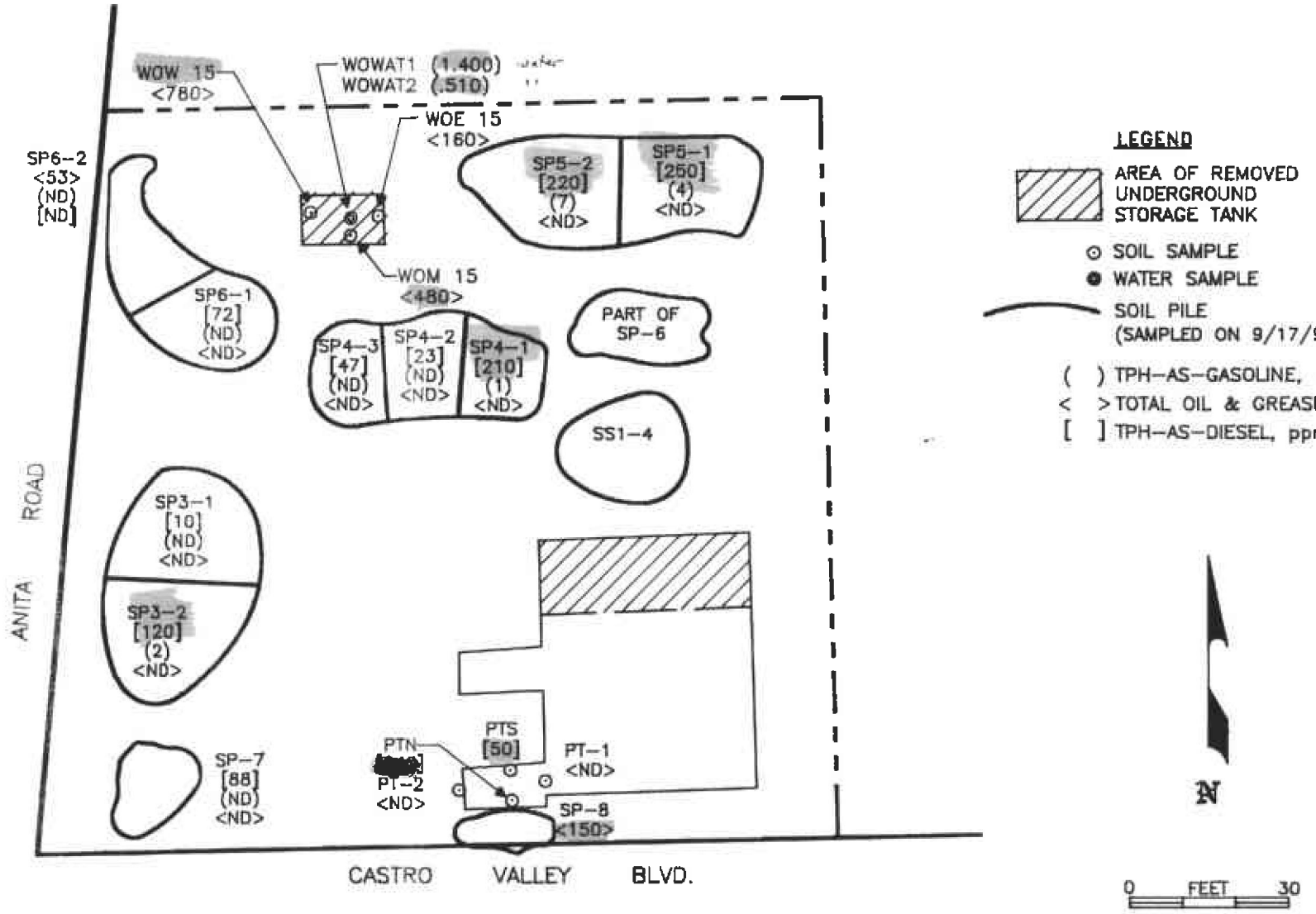


FIGURE 4
EXCAVATION AND SOIL PILE
SAMPLE LOCATIONS
(9/17-22/90)

CHEVRON, USA
CASTRO VALLEY, CALIFORNIA

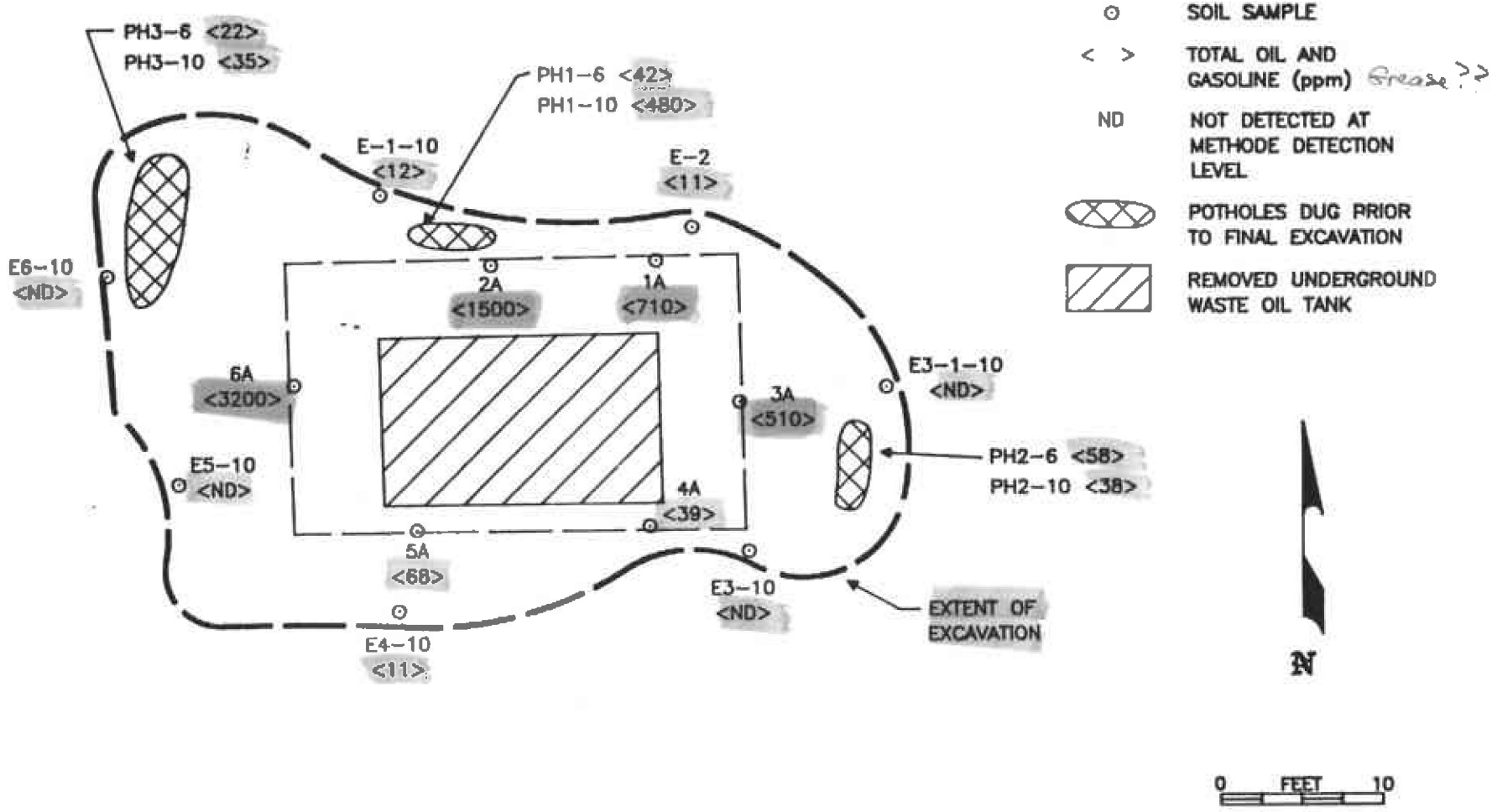


FIGURE 5
WASTE OIL TANK PIT
ADDITIONAL EXCAVATION SOIL SAMPLES
(9/21/90)

CHEVRON, USA
CASTRO VALLEY, CALIFORNIA

APPENDIX C

HISTORICAL BORING LOGS

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well MW-1

Project CHV/2920 Castro Valley Blvd. Owner Chevron U.S.A. Inc.
Location Castro Valley, CA Project Number 020301038
Date Drilled 9/24/91 Total Depth of Hole 21.0 ft. Diameter 2 in.
Top of Casing ____ Water Level Initial 11 ft. Static ____
Screen: Dia .75 in. Length 15 ft. Slot Size .020 in.
Casing: Dia .75 in. Length 3.0 ft. Type SCH 80 PVC
Filter Pack Material No 2/12 Labis Lustre Rig/Core Type ____
Drilling Company Power Core Dril./Mon. Method Percussion Hammer / PID
Driller Michael Nosewicz Log By Glen Mitchell
Geologist/Engineer David Kleesattel License No 5136

See Site Map For Boring Location

NOTES:

Depth (feet)	Well Completion	PID (ppm)	Sample ID	Graphic Log	Soil Class	Description (Color, Texture, Structure)
0		PID				Six inches ASPHALT
2					GC	light gray clayey GRAVEL (loose, dry)
4					SC	Brown clayey SAND (loose, dry)
6		0			SP	Tan gravelly SAND (loose, moist)
8						
10		0	A			
12					GP	*Encountered water 9/24/91 (09:32 hours)* *Tan sandy gravel (loose, saturated)*
14					CL	*Mottled tan and dark brown silty CLAY (soft, saturated)*
16					GC	*Tan clayey GRAVEL (loose, saturated)*
18					CL	*Dark brown silty CLAY (soft, saturated)*
20					GC	*Tan clayey GRAVEL (loose, saturated)*
22					CL	*Mottled tan and gray silty CLAY (firm, moist)*
24						*End of boring at 21.0 feet. Constructed monitoring well.*
26						

11/11/1991 gtibasic oct

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well MW-2

Project CHV/2920 Castro Valley Blvd. Owner Chevron U.S.A. Inc.

Location Castro Valley, CA Project Number 020301038

Date Drilled 9/24/91 Total Depth of Hole 21.0 ft. Diameter 2 in.

Top of Casing ____ Water Level Initial 11 ft. Static ____

Screen: Dia .75 in. Length 15 ft. Slot Size .020 in.

Casing: Dia .75 in. Length 6.0 ft. Type SCH 80 PVC

Filter Pack Material No 2/12 Labis Lustre Rig/Core Type ____

Drilling Company Power Core Dril./Mon. Method Percussion Hammer / PID

Driller Michael Nosewicz Log By Glen Mitchell

Geologist/Engineer David Kleesattel License No 5136

See Site Map For Boring Location

NOTES:

Depth (feet)	Well Completion	PID (ppm)	Sample ID	Graphic Log	Soil Class	Description (Color, Texture, Structure)
0		PID				ASPHALT
						gravel FILL
2		8				Gray brown silty CLAY (firm, moist)
						Dark gray silty CLAY (firm, moist)
4			A			
6		4.4			CL	Mottled gray and tan silty CLAY (firm, moist) Grades with minor gravel
8						
		1.0 .4				
10			B			
						Encountered water 9/24/91 (12:00 hours)
12		89.0				*Gray brown clayey SILT with fine sand (firm, moist)*
14					ML	
						Tan silty SAND (hard, saturated)
16						
						Gray clayey fine SAND (hard, saturated)
18					SC	*Gray and rusty sandy CLAY (saturated.)*
20						*Gray silty CLAY (saturated)*
					CL	
22						*End of boring at 21.0 feet. Constructed groundwater monitoring well.*
24						
26						

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well MW-3

Project CHV/2920 Castro Valley Blvd. Owner Chevron U.S.A. Inc.

Location Castro Valley, CA Project Number 020301038

Date Drilled 9/30/91 Total Depth of Hole 20.0 ft. Diameter 2 in.

Top of Casing ____ Water Level Initial ____ Static ____

Screen: Dia .75 in. Length 15 ft. Slot Size .020 in.

Casing: Dia .75 in. Length 5.0 ft. Type SCH 80 PVC

Filter Pack Material No 2/12 Labis Lustre Rig/Core Type ____

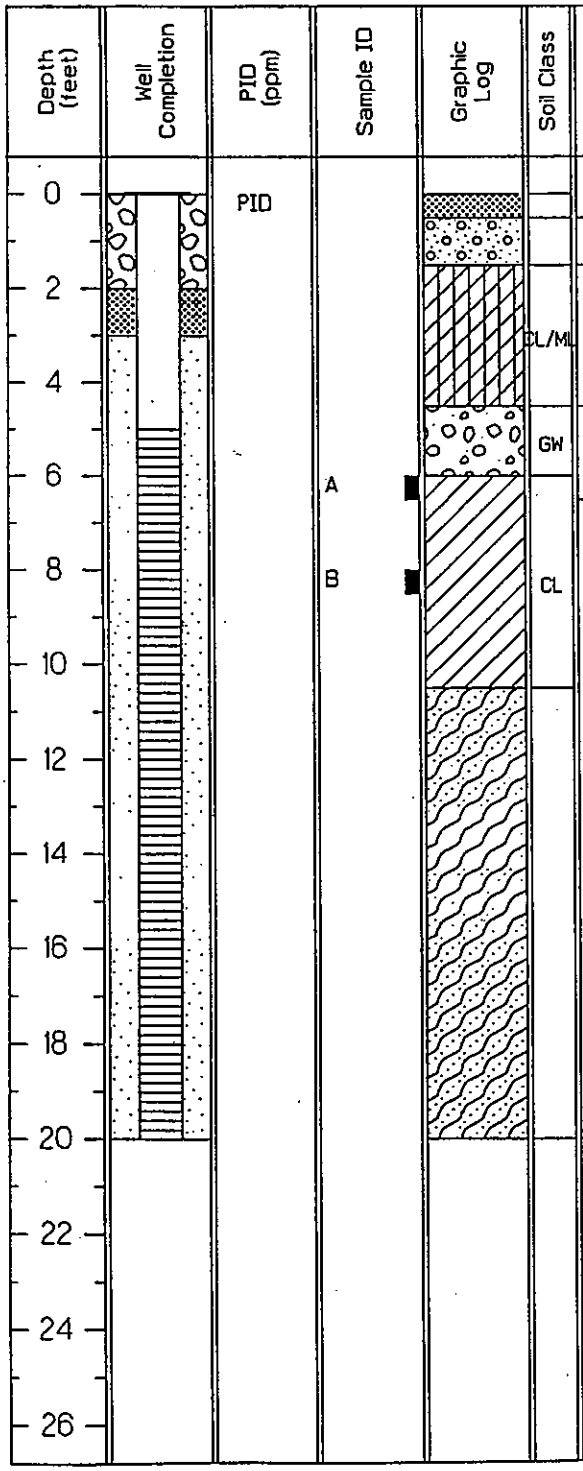
Drilling Company Power Core Dril./Mon. Method Percussion Hammer / PID

Driller Michael Nosewicz Log By Greg Mischel

Geologist/Engineer David Kleesattel License No RG 5136

See Site Map For Boring Location

NOTES:



Description (Color, Texture, Structure)

Six inches asphalt

Pea gravel FILL (saturated from local inflow)

Brown to black silty CLAY (moist)
Poor recovery

Grades to black clayey SILT (moist)

Sandy GRAVEL

Black clayey SILT

Brown and gray silty gravelly CLAY (moist)

Slough in hole. No samples.

End of boring at 20.0 feet. Constructed groundwater monitoring well.

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well MW-4

Project CHV/2920 Castro Valley Blvd. Owner Chevron U.S.A. Products Co.
Location Castro Valley, CA Project No. 02020 2778 Date drilled 09/25/92
Surface Elev. 169.43 ft. Total Hole Depth 21.5 ft. Diameter 8 inches
Top of Casing 169.18 ft. Water Level Initial 14 ft. Static 10/27/92 11.39 ft.
Screen: Dia 2 in. Length 15 ft. Type/Size 0.020 in.
Casing: Dia 2 in. Length 5 ft. Type SCH 40 PVC
Filter Pack Material Lapis Lustre #3 Rig/Core Type Mobile B-53/Split Spoon
Drilling Company Kvilhaug Well Drilling Method Hollow Stem Auger Permit # 92365
Driller Joel Visil Log By Jason Fedota
Checked By David Kleesattel License No. RG# 5136 David Kleesattel

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0						
2						
4						
6		0	9 11 13			Orange mottled brown CLAY (stiff and moist)
8						
10		0	7 11 16		CL	Orange mottled brown silty CLAY (stiff and moist)
12						
14						▽ *Encountered groundwater at 14 feet on 09/25/92.*
16		0	4 6 10			Orange mottled brown silty CLAY (saturated).
18						
20			10 11 12			Orange mottled brown silty CLAY (saturated).
22						End of boring at 21.5 feet. Installed groundwater monitoring well.
24						

Drilling Log

GROUNDWATER TECHNOLOGY

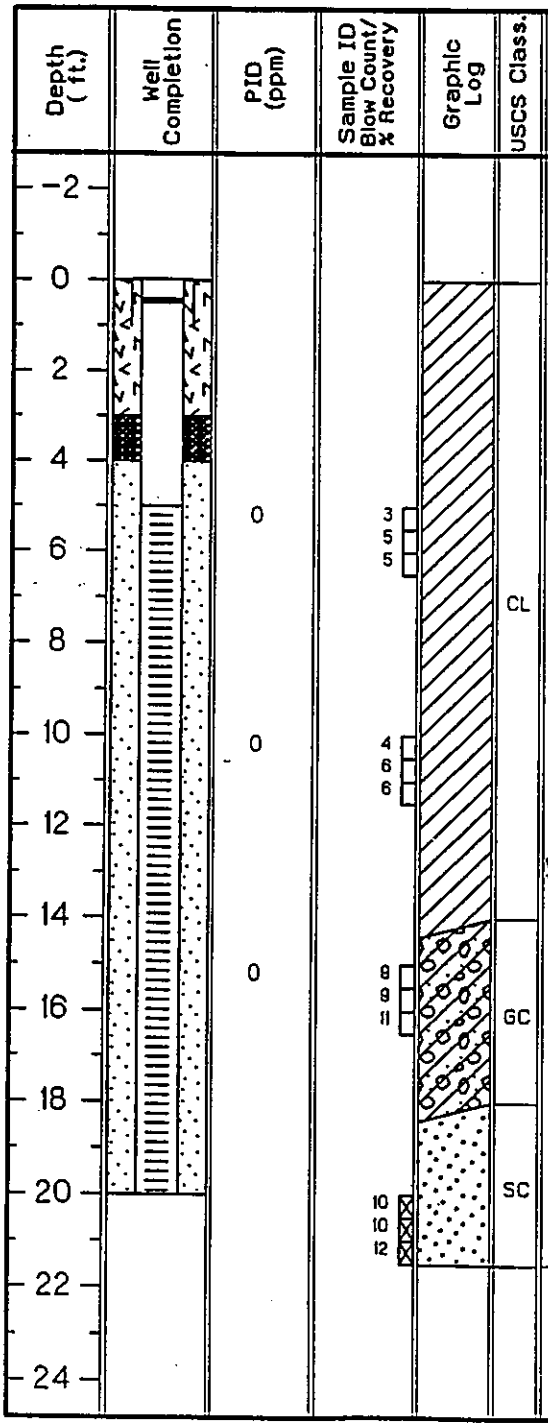
Monitoring Well MW-5

Project CHV/2920 Castro Valley Blvd. Owner Chevron U.S.A. Products Co.
Location Castro Valley, CA Project No. 02020 2778 Date drilled 10/08/92
Surface Elev. 168.0 ft. Total Hole Depth 21.5 ft. Diameter 8 inches
Top of Casing 167.41 ft. Water Level Initial 13 ft. Static 10/27/92 9.95 ft.
Screen: Dia 2 in. Length 15 ft. Type/Size 0.020 in.
Casing: Dia 2 in. Length 5 ft. Type SCH 40 PVC
Filter Pack Material Lapis Lustre #3 Rig/Core Type Mobile B-53/Split Spoon
Drilling Company Kvilhaug Well Drilling Method Hollow Stem Auger Permit # 92365
Driller Joel Visil Log By Jason Fedota
Checked By David Kleesattel License No. RG# 5136 David Kleesattel

See Site Map For Boring Location

COMMENTS:

Orginal soilboring for MW-5 was abandoned on September 25, 1992, because flowing sands obstructed installation of the well. The second boring for MW-5 was relocated approximately 5 feet from the orginal boring on October 10, 1992.



Description
(Color, Texture, Structure)
Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%

Dark brown CLAY (soft and moist)
(abundant roots)

Orange mottled brown silty CLAY (soft and moist)

Encountered groundwater at 13 feet on 09/25/92.

Brown clayey sandy GRAVEL (loose and saturated).

Brown gravelly clayey fine SAND (loose and saturated).

End of boring at 21.5 feet. Installed groundwater monitoring well.

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well MW-6

Project CHV/2920 Castro Valley Blvd. Owner Chevron U.S.A. Products Co.
Location Castro Valley, CA Project No. 02020 2778 Date drilled 09/25/92
Surface Elev. 166.68 ft. Total Hole Depth 26.5 ft. Diameter 8 inches
Top of Casing 166.46 ft. Water Level Initial 15 ft. Static 10/27/92 12.54 ft.
Screen: Dia 2 in. Length 15 ft. Type/Size 0.020 in.
Casing: Dia 2 in. Length 9 ft. Type SCH 40 PVC
Filter Pack Material Lapis Lustre #3 Rig/Core Type Mobile B-53/Split Spoon
Drilling Company Kvilhaug Well Drilling Method Hollow Stem Auger Permit # 92365
Driller Joel Visil Log By Jason Fedota
Checked By David Kleesattel License No. RG# 5136 David F. Kleesattel

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2 to 24		0	4, 5, 8		CL	Black CLAY (soft and moist)
		0	4, 8, 7		CL	Brown sandy silty CLAY (soft and moist)
		0	9, 8, 12		CL	▽ *Encountered groundwater at 15 feet on 09/25/92 (0925).*
		0	7, 10, 11		SM	Brown gravelly silty fine to medium SAND (saturated)
					CL	Orange mottled brown sandy silty CLAY (stiff and saturated)

GROUNDWATER TECHNOLOGY

Drilling Log

Monitoring Well MW-6

Project CHV/2920 Castro Valley Blvd. Owner Chevron U.S.A. Products Co.
Location Castro Valley, CA Project No. 02020 2778 Date drilled 09/25/92

Depth (ft.)	Well Completion	PID (ppm)	Sample ID Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
24					CL	Brown silty clayey SAND (firm and saturated)
26		0	8 27 40		SC	
						End of boring at 26.5 feet. Installed groundwater monitoring well.
28						
30						
32						
34						
36						
38						
40						
42						
44						
46						
48						
50						
52						
54						
56						

Gettler-Ryan, Inc.

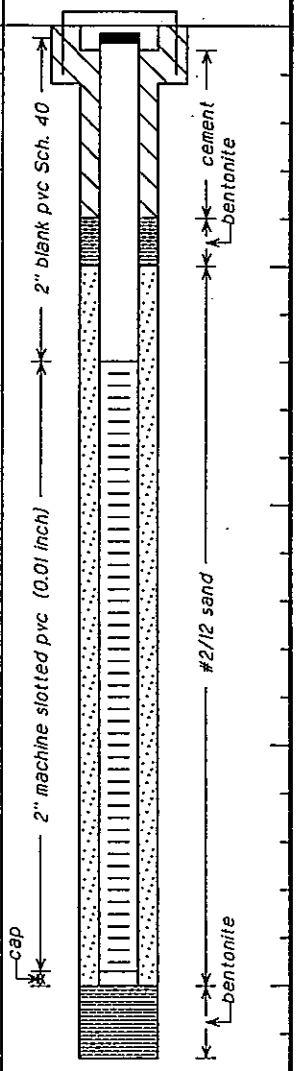
Log of Boring MW-7

PROJECT: *Chevron SS# 9-6991*	LOCATION: *2920 Castro Valley Blvd, Castro Valley, CA*
G-R PROJECT NO. : *5296.01*	SURFACE ELEVATION: *168.80 feet MSL*
DATE STARTED: *08/30/95*	WL (ft. bgs): *12.0* DATE: *08/30/95* TIME: *16:30*
DATE FINISHED: *08/30/95*	WL (ft. bgs): *12.0* DATE: *08/30/95* TIME: *17:40*
DRILLING METHOD: *8 in. Hollow Stem Auger*	TOTAL DEPTH: *21.5 Feet*
DRILLING COMPANY: *Bay Area Exploration, Inc.*	GEOLOGIST: *B. Sieminski*

DEPTH feet	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SOIL CLASS	GEOLOGIC DESCRIPTION
				CL	PAVEMENT - 4 inches of asphalt over baserock.
				GC	SANDY CLAY WITH GRAVEL (CL) - black (10YR 1/2), damp, medium stiff, low plasticity; 50% fines, 30% fine to coarse sand, 20% gravel; fill.
				CL	CLAYEY GRAVEL (GC) - dark yellowish brown (10YR 4/3), damp, very dense; 70% gravel and cobbles, 20% fines, 10% fine to coarse sand; cobbles subangular up to 4 inches in diameter; fill.
5	10.4	13	MW7-5.5		SILTY CLAY WITH SAND (CL) - dark greenish gray (5GY 4/1), damp, stiff, low plasticity; 80% fines, 20% fine sand.
					Color change to black (7.5YR 2/0), decreasing sand, medium plasticity at 4 feet.
	16.6	13	MW7-9.5		Color change to grayish green (5G 5/2) mottled olive (5Y 5/4), 30% fine to coarse sand; noticeable hydrocarbon odor at 9 feet; increasing sand to 40%, becomes moist, trace fine gravel at 10 feet.
10				SC	
	199	22	MW7-12		CLAYEY SAND WITH GRAVEL (SC) - dark grayish green (5GY 4/1) mottled olive (5Y 4/4), moist, medium dense; 50% fine to coarse sand, 40% fines, 10% fine gravel; obvious hydrocarbon odor. Becomes saturated at 12 feet.
15	0	14	MW7-15.5		Color change to light olive brown (2.5Y 5/4) mottled dark yellowish brown (10YR 4/6) at 15 feet.
				CL	
20	0	15	MW7-21		SANDY CLAY (CL) - dark bluish gray (5B 4/1), moist, stiff, low plasticity; 75% clay, 25% fine sand.
					Becomes damp at 21 feet.
25					Bottom of boring at 21.5 feet, 08/30/95.

(* = converted to equivalent standard penetration blows/ft.)

WELL DIAGRAM



Gettler-Ryan, Inc.

Log of Boring SB1

PROJECT: *Chevron Service Station No. 9-6991*	LOCATION: *2920 Castro Valley Blvd., Castro Valley, CA*
GR PROJECT NO.: *DG9699IG.4CTI*	SURFACE ELEVATION:
DATE STARTED: *03/06/02*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *03/06/02*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *3 1/4 in. Hand Auger*	TOTAL DEPTH: *12 feet*
DRILLING COMPANY: *Gettler-Ryan, Inc.*	GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
0				CL	CLAY WITH SAND (CL) – dark brown (10YR 3/3), moist; 80% clay, 20% fine sand.	Boring backfilled with excavated soil to surface grade.
3						
	SB1-5				CLAY (CL) – dark brown (10YR 3/3), moist; 90% clay, 10% fine sand, trace organic matter.	
6						
9						
	SB1-10				Becomes wet.	
					SANDY CLAY (CL) – brown (10YR 5/3), wet; 70% clay, 30% fine to medium sand.	
12	SB1-W				Bottom of boring at 12 feet bgs.	Grab groundwater sample SB1-W collected at 12 feet.
15						
18						
21						

JOB NUMBER: *DG9699IG.4CTI*

Gettler-Ryan, Inc.

Log of Boring SB2

PROJECT: *Chevron Service Station No. 9-6991*	LOCATION: *2920 Castro Valley Blvd., Castro Valley, CA*
GR PROJECT NO. : *DG6991G.4CT1*	SURFACE ELEVATION:
DATE STARTED: *03/06/02*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *03/06/02*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *3 1/4 in. Hand Auger*	TOTAL DEPTH: *16 feet*
DRILLING COMPANY: *Gettler-Ryan, Inc.*	GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
					Concrete and base rock – 9 inches thick.	Boring backfilled with excavated soil to 6 inches bgs. Concrete used to surface grade.
					Asphalt – 6 inches thick.	
					Concrete and base rock – 12 inches thick.	
3				CL	CLAY (CL) – greenish gray (5G 5/1), moist; 90% clay, 10% fine sand.	
	SB2-5.5					
6						
9						
12						
				SC	CLAYEY SAND (SC) – brown (10YR 5/3), wet; 70% fine to medium sand, 30% clay.	
15						
	SB2-W				Bottom of boring at 16 feet bgs.	Grab groundwater sample SB2-W collected at 16 feet.
18						
21						

JOB NUMBER: *DG6991G.4CT1*

Gettler-Ryan, Inc.

Log of Boring SB3

PROJECT: *Chevron Service Station No. 9-6991*	LOCATION: *2920 Castro Valley Blvd., Castro Valley, CA*
GR PROJECT NO.: *DG969916.4CT1*	SURFACE ELEVATION:
DATE STARTED: *03/06/02*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *03/06/02*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *3 1/4 in. Hand Auger*	TOTAL DEPTH: *6 feet*
DRILLING COMPANY: *Gettler-Ryan, Inc.*	GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
3				CL	CLAY WITH SAND (CL) – black (7.5YR 2/0), moist; 80% clay, 20% fine to medium sand.	Boring backfilled with excavated soil to surface grade.
					CLAY (CL) – dark brown (10YR 3/3), wet; 90% clay, 10% fine sand.	
6	SB3-5.5 SB3-W				Bottom of boring at 6 feet bgs.	Grab groundwater sample SB3-W collected at 6 feet.
9						
12						
15						
18						
21						

JOB NUMBER: *DG969916.4CT1*

Gettler-Ryan, Inc.

Log of Boring SB4

PROJECT: *Chevron Service Station No. 9-6991*	LOCATION: *2920 Castro Valley Blvd., Castro Valley, CA*
GR PROJECT NO.: *DG96991G.4CT1*	SURFACE ELEVATION:
DATE STARTED: *03/06/02*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *03/06/02*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *3 1/4 in. Hand Auger*	TOTAL DEPTH: *3.5 feet*
DRILLING COMPANY: *Gettler-Ryan, Inc.*	GEOLOGIST: *Tony Mikacich*

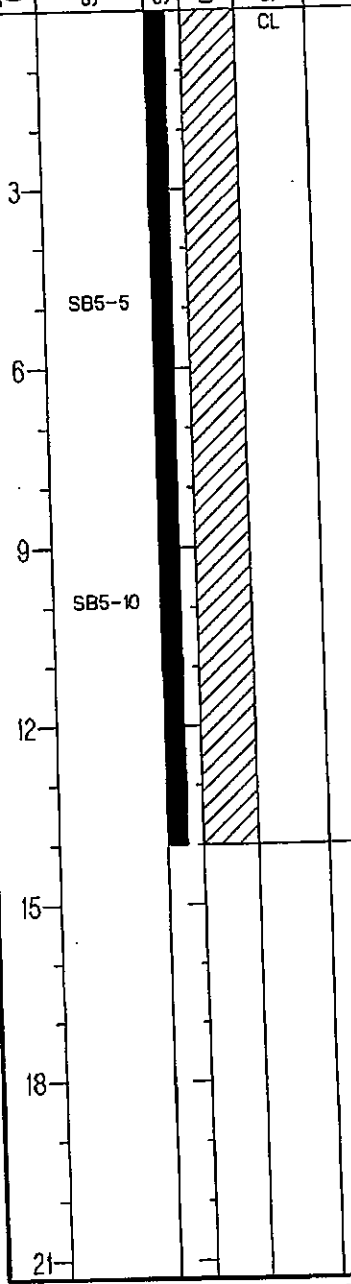
DEPTH (feet)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
					Concrete and base rock – 9 inches thick.	Boring backfilled with excavated soil to 6 inches bgs. Concrete used to surface grade.
					Asphalt – 4 inches thick.	
					Concrete and base rock – 12 inches thick.	
				CL	SANDY CLAY (CL) – brown (10YR 5/3), moist; 70% clay, 30% sand.	
3					Bottom of boring at 3.5 feet bgs.	
6						
9						
12						
15						
18						
21						

JOB NUMBER: *DG96991G.4CT1*

Gettler-Ryan, Inc.

Log of Boring SB5

PROJECT: *Chevron Service Station No. 9-6991*	LOCATION: *2920 Castro Valley Blvd., Castro Valley, CA*
GR PROJECT NO.: *DG969916.4CT1*	SURFACE ELEVATION:
DATE STARTED: *03/06/02*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *03/06/02*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *3 1/4 in. Hand Auger*	TOTAL DEPTH: *14 feet*
DRILLING COMPANY: *Gettler-Ryan, Inc.*	GEOLOGIST: *Tony Mikacich*



GEOLOGIC DESCRIPTION	REMARKS
CLAY (CL) - black (7.5YR 2/0), moist; 90% clay, 10% fine sand, trace organic matter and odor.	Boring backfilled with excavated soil to surface grade.
Includes hydrocarbon odor.	
At approximately 13 feet Becomes saturated; includes hydrocarbon sheen.	
Bottom of boring at 14 feet bgs.	

JOB NUMBER: *DG969916.4CT1*

Gettler-Ryan, Inc.

Log of Boring SB6

PROJECT: *Chevron Service Station No. 9-6991*	LOCATION: *2920 Castro Valley Blvd., Castro Valley, CA*
GR PROJECT NO. : *DG969916.4CT1*	SURFACE ELEVATION:
DATE STARTED: *03/06/02*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *03/06/02*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *3 1/4 in. Hand Auger*	TOTAL DEPTH: *12 feet*
DRILLING COMPANY: *Gettler-Ryan, Inc.*	GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
					Asphalt and base rock – 11 inches thick.	Boring backfilled with excavated soil to 6 inches bgs. Asphalt used to surface grade.
				CL	CLAY (CL) – brown (10YR 5/3), moist; 90% clay, 10% fine to medium sand.	
3						
	SB6-5					
6						
9						
					SANDY CLAY (CL) – brown (10YR 5/3), saturated; 70% clay, 30% fine to medium sand.	
12	SB6-W				Bottom of boring at 12 feet bgs.	Grab groundwater sample SB6-W collected at 12 feet.
15						
18						
21						

JOB NUMBER: *DG969916.4CT1*

Cambria Environmental Technology, Inc.
4111 Citrus Ave. Suite 12
Rocklin, CA
Telephone: 916.630.1855
Fax: 916.630.1856

BORING/WELL LOG

CLIENT NAME	Chevron Products Company	**BORING/WELL NAME**	SB-7
JOB/SITE NAME	Chevron Service Station 9-6991	**DRILLING STARTED**	29-Jul-03
LOCATION	2920 Castro Valley Blvd., Castro Valley, CA	**DRILLING COMPLETED**	29-Jul-03
PROJECT NUMBER	41D-1633	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Woodward Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA; NA
LOGGED BY	I. Robb	**DEPTH TO WATER (First Encountered)**	14.0 ft (29-Jul-03) ▽
REVIEWED BY	B. Foss, RG# 7445	**DEPTH TO WATER (Static)**	▽ NA; NA ▽
REMARKS			

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
				5			Large gravel with fines (Fill)	8.0	
25	NA	SB-7@ 8'		10	ML		**Clayey SILT**: Greenish Gray; dry; 60% silt, 40% clay; high plasticity; low estimated permeability.		◄ Portland Type I/II
180	NA	SB-7@ 11.5'							
430	NA	SB-7@ 13'					▽	14.0	
<1.0	NA	SB-7@ 15.5'		15	ML		**Clayey SILT**: Greenish Gray; moist; 80% silt, 20% clay; moderate plasticity; low estimated permeability.	16.5	
<1.0	NA	SB-7@ 17'			ML		**Sandy SILT**: Bown; moist; 60% silt, 20% sand, 10% clay, 10% gravel; low plasticity; medium estimated permeability.	18.0	
					ML		**Sandy SILT**: Light Brown; moist; 50% silt, 40% sand, 10% clay; low plasticity; medium estimated permeability.	19.0	
<1.0	NA	SB-7@ 19.5'		20	ML		**Sandy SILT**: Bown; moist; 60% silt, 20% sand, 10% clay, 10%gravel; low plasticity; medium estimated permeability.	20.0	Bottom of Boring @ 20 ft

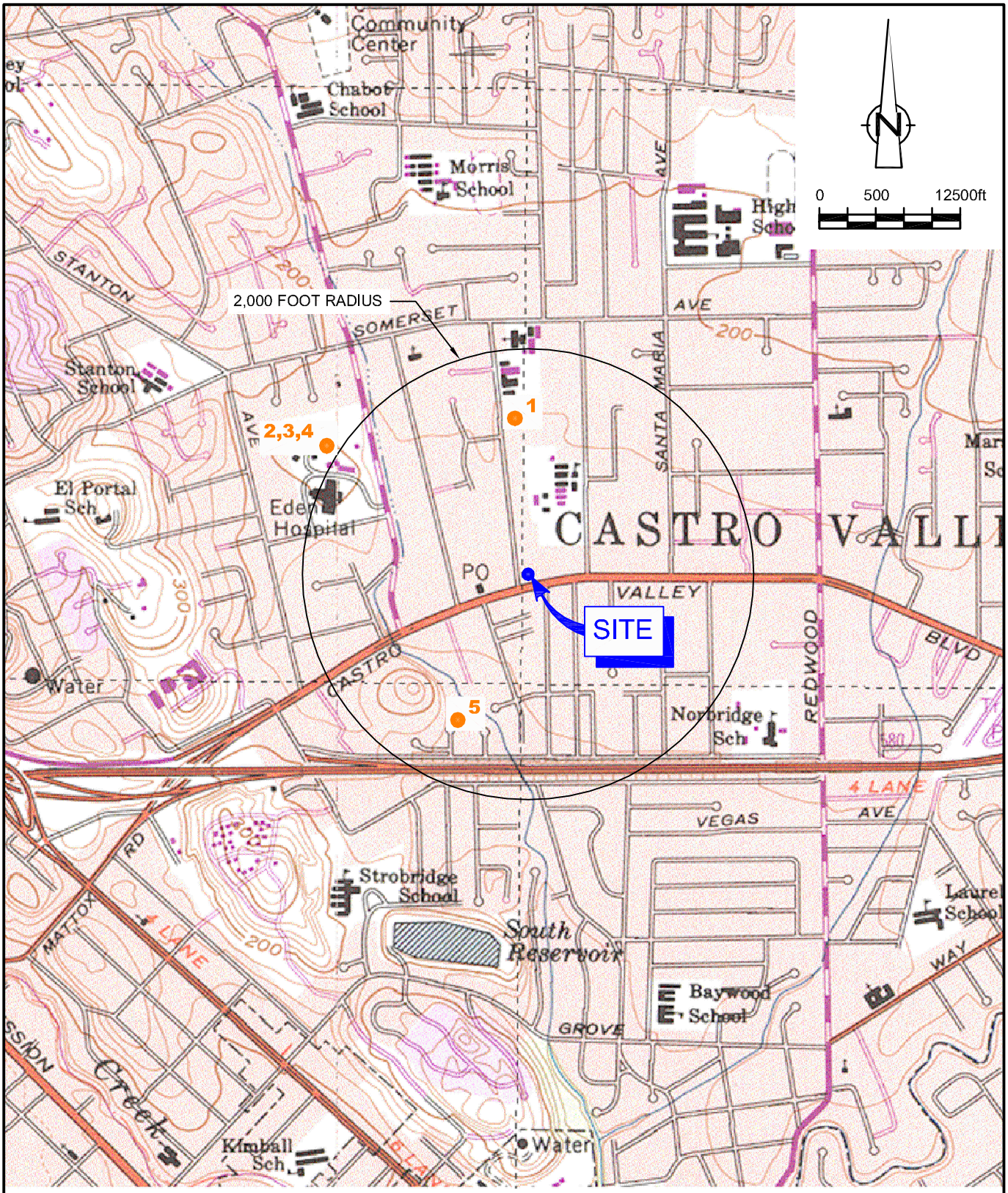
WELL LOG (NESTED/TPHG) R:\9-6991-119-6991-219-6991.2003.GPJ DEFAULT.GDT 8/8/06

APPENDIX D

WELL SURVEY INFORMATION

WELL SURVEY RESULTS
CHEVRON STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

Well No./ Figure ID	*Well Owner*	*Well Address Street*	*City*	*Total Well Depth (ft)*	*Date Installed*	*Distance/Direction from Site (ft) (approx)*	*Well Use*
1	Private	20036 Anita Avenue Lake Chabot Road	Castro Valley	51	2/19/1953	1,400 N	Domestic
2	Eden Township Hospital	1,000' south of Williams	Castro Valley	150	9/30/1953	2,000 NW	Test well
3	Eden Township Hospital	Eden Township Hospital	Castro Valley	250	9/9/1952	2,000 NW	Domestic
4	Eden Township Hospital	Eden Township Hospital	Castro Valley	60	7/11/1952	2,000 NW	Cooling system return
5	Sam Wallace	Tyee Court	Castro Valley	52	7/3/1953	1,400 S-SW	Domestic



SOURCE: TOPO! MAPS.

LEGEND

- APPROXIMATE WELL LOCATION

WELL SURVEY MAP
CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
Castro Valley, California

APPENDIX E

FIRST SEMI-ANNUAL 2011 GROUNDWATER MONITORING REPORT

GETTLER-RYAN INC.

TRANSMITTAL

April 20, 2011
G-R #385296

TO: Mr. James Kiernan
Conestoga-Rovers & Associates
10969 Trade Center Drive, Suite 107
Rancho Cordova, CA 95670

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Chevron Service Station
#9-6991 (MTI)
2920 Castro Valley Boulevard
Castro Valley, California
RO 0000475

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	April 12, 2011	Groundwater Monitoring and Sampling Report **First Semi-Annual Event of March 23, 2011**

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced report for **your use and distribution to the following (including PDF submittal of the entire report to GeoTracker):**

Ms. Stacie H. Frerichs, Chevron Environmental Management Company, 6111 Bollinger Canyon Road, Room 3596, San Ramon, CA 94583 ***(PDF ONLY)***
Mr. Chuck Headlee, RWQCB-San Francisco Bay Region, 1515 Clay Street, Oakland, CA 94612 **(No Hard Copy)**
K & K Petroleum, (Property Owner), 2920 Castro Valley Blvd., Castro Valley, CA 94546
Mr. Mark Detterman, Alameda County Health Care Services, Dept. of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577
(No Hard Copy-CRA UPLOAD TO ALAMEDA CO.)

6747 Sierra Court, Suite J • Dublin, California 94568 • (925) 551-7555

WELL CONDITION STATUS SHEET

Client/Facility #: Chevron #9-6991
Site Address: 2920 Castro Valley Blvd
City: Castro Valley, CA

Job # 385296
Event Date: 3-23-11
Sampler: Joe

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y / N	REPLACE CAP Y / N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
mw-1	O.K	O.K	O.K	2-S	O.K	O.K	O.K	N	N	8" morrison / 2	No
mw-2	↓	↓	↓	2-S	↓	↓	↓	↓	↓	8" morrison / 2	No
mw-4	↓	↓	↓	2-S	↓	↓	↓	↓	↓	12" Universal / 2	No
mw-6	↓	parked over all day. Took pictures									Yes
mw-7	↓	M	↓	3-S	↓	↓	↓	↓	↓	12" POMECO / 3	No

Comments

GETTLER-RYAN INC.

April 12, 2011
G-R Job #385296

Ms. Stacie H. Frerichs
Chevron Environmental Management Company
6111 Bollinger Canyon Road, Room 3596
San Ramon, CA 94583

RE: First Semi-Annual Event of March 23, 2011
Groundwater Monitoring & Sampling Report
Chevron Service Station #9-6991
2920 Castro Valley Boulevard
Castro Valley, California

Dear Ms. Frerichs:

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

Static groundwater levels were measured and the wells were checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevations, and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. The chain of custody document and the laboratory analytical reports are also attached. All groundwater and decontamination water generated during sampling activities was removed from the site, per the Standard Operating Procedure.

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

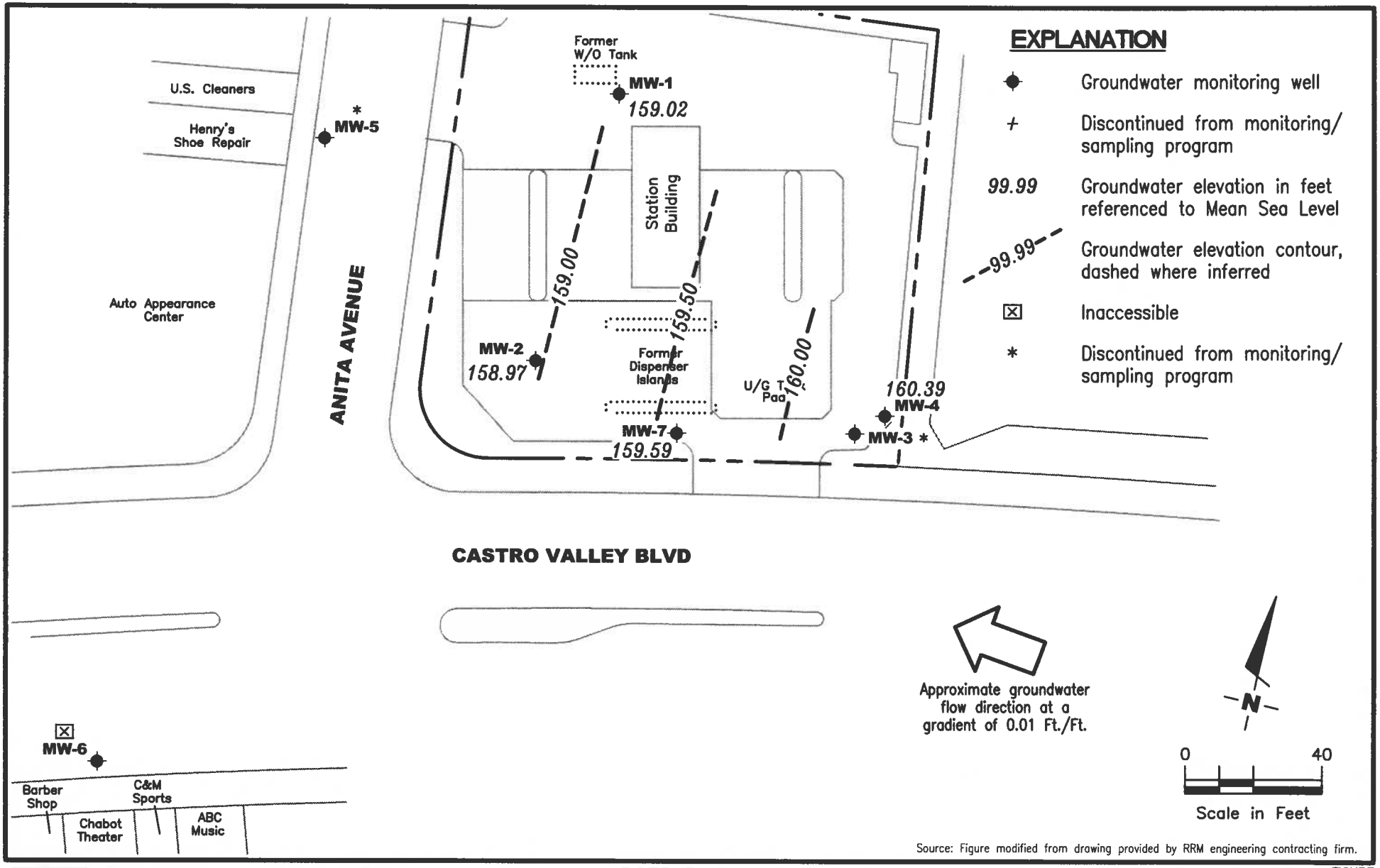
Sincerely,

Deanna L. Harding
Project Coordinator

Douglas J. Lee
Senior Geologist, P.G. No. 6882

PROFESSIONAL GEOLOGIST
DOUGLAS J. LEE
No. 6882
STATE OF CALIFORNIA

Figure 1: Potentiometric Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Field Measurements and Analytical Results
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports



Source: Figure modified from drawing provided by RRM engineering contracting firm.

GETTLER - RYAN INC.
6747 Sierra Court, Suite J
Dublin, CA 94568 (925) 551-7555

POTENTIOMETRIC MAP
Chevron Service Station #9-6991
2920 Castro Valley Boulevard
Castro Valley, California

FIGURE
1

PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
385296		March 23, 2011	

FILE NAME: P:\Enviro\Chevron\9-6991\Q11-9-6991.DWG | Layout Tab: Pot1

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-6991
2920 Castro Valley Boulevard
Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
MW-1												
10/08/91	169.30	158.20	11.10	--	230	45	<0.5	0.9	9.1	--	<5,000	--
11/04/91	169.30	158.27	11.03	--	340	120	<0.5	<0.5	6.1	--	--	--
12/04/91	169.30	158.25	11.05	170	<50	3.9	<0.5	<0.5	<0.5	--	<5,000	--
06/05/92	169.30	158.26	11.04	<50	100	26	0.6	0.5	1.0	--	--	--
10/27/92	169.30	158.20	11.10	54	<50	11	<0.5	<0.5	<0.5	--	--	--
12/30/92	169.30	--	--	170	<50	24	<0.5	<0.5	<0.5	--	--	--
01/27/93	169.30	158.67	10.63	--	--	--	--	--	--	--	--	--
03/05/93	169.30	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/17/93	169.30	158.59	10.71	--	--	--	--	--	--	--	--	--
06/18/93	169.30	158.29	11.01	<50	<50	0.6	<0.5	<0.5	<1.5	--	--	--
09/28/93	169.30	157.35	11.95	<50	<50	0.8	<0.5	<0.5	<1.5	--	--	--
12/30/93	169.30	158.34	10.96	<50	<50	8.5	<0.5	<0.5	<0.5	--	--	--
04/07/94	169.30	158.49	10.81	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/31/94	169.30	158.38	10.92	<50	<50	1.0	<0.5	<0.5	<0.5	--	--	--
09/23/94	169.30	158.40	10.90	<50	<50	1.3	<0.5	<0.5	<0.5	--	--	--
11/30/94	169.30	158.76	10.54	570[2]	<50	8.9	<0.5	<0.5	<0.5	--	--	--
03/30/95	169.30	158.60	10.70	110[1]	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/06/95	169.30	158.38	10.92	570[1]	61	15	<0.5	<0.5	<0.5	--	--	--
09/25/95	169.30	158.30	11.00	550[1]	<50	4.7	<0.5	<0.5	<0.5	--	--	--
12/28/95	169.30	158.50	10.80	330[1]	72	9.1	0.65	<0.5	<0.5	6.0	--	--
03/05/96	169.30	159.20	10.10	780[1]	<50	7.8	<0.5	<0.5	<0.5	<2.5	--	--
09/13/96	169.30	158.28	11.02	SAMPLED ANNUALLY		--	--	--	--	--	--	--
12/19/96	169.30	158.08	11.22	--	--	--	--	--	--	--	--	--
03/20/97	169.30	158.40	10.90	350[1]	<50	2.2	<0.5	<0.5	<0.5	<2.5	--	--
06/27/97	169.30	158.27	11.03	--	--	--	--	--	--	--	--	--
09/19/97	169.30	158.34	10.96	--	--	--	--	--	--	--	--	--
12/05/97	169.30	158.62	10.68	--	--	--	--	--	--	--	--	--
03/31/98	169.30	158.67	10.63	760[1]	<50	6.7	<0.5	<0.5	<0.5	<2.5	--	--
06/19/98	169.30	159.62	9.68	--	--	--	--	--	--	--	--	--
08/13/98	169.30	157.67	11.63	--	--	--	--	--	--	--	--	--
12/17/98	169.30	158.25	11.05	--	--	--	--	--	--	--	--	--
03/19/99	169.30	158.35	10.95	890[1]	124	14.8	<0.5	<0.5	<0.5	6.49/<2.5[13]	--	--
06/23/99	169.30	158.23	11.07	--	--	--	--	--	--	--	--	--
09/16/99	169.30	158.41	10.89	--	--	--	--	--	--	--	--	--
12/16/99	169.30	158.46	10.84	--	--	--	--	--	--	--	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-6991

2920 Castro Valley Boulevard

Castro Valley, California

WELL ID/ DATE		TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
MW-1 (cont)													
03/02/00		169.30	158.83	10.47	2,300[1]	155	10.4	<0.5	<0.5	<0.5	10.3	--	--
06/30/00		169.30	159.04	10.26	--	--	--	--	--	--	--	--	--
09/30/00	NP	169.30	158.30	11.00	--	--	--	--	--	--	--	--	--
12/19/00		169.30	158.44	10.86	--	--	--	--	--	--	--	--	--
03/13/01	NP	169.30	158.45	10.85	--[14]	50.4	4.50	0.553	0.522	2.10	1.65	--	--
06/12/01		169.30	158.28	11.02	SAMPLED ANNUALLY		--	--	--	--	--	--	--
09/18/01		169.30	158.23	11.07	SAMPLED ANNUALLY		--	--	--	--	--	--	--
12/17/01		169.30	158.59	10.71	SAMPLED ANNUALLY		--	--	--	--	--	--	--
03/21/02		169.30	158.54	10.76	--[14]	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--
06/08/02		169.30	158.33	10.97	SAMPLED ANNUALLY		--	--	--	--	--	--	--
09/13/02		169.30	158.28	11.02	SAMPLED ANNUALLY		--	--	--	--	--	--	--
12/13/02		169.30	158.47	10.83	SAMPLED ANNUALLY		--	--	--	--	--	--	--
03/17/03		169.30	158.60	10.70	250	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--
06/16/03		169.30	158.34	10.96	SAMPLED ANNUALLY		--	--	--	--	--	--	--
09/15/03		169.30	158.28	11.02	SAMPLED ANNUALLY		--	--	--	--	--	--	--
12/15/03		169.30	158.71	10.59	SAMPLED ANNUALLY		--	--	--	--	--	--	--
03/01/04		169.30	158.78	10.52	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--	--
06/28/04		169.30	158.27	11.03	SAMPLED ANNUALLY		--	--	--	--	--	--	--
09/13/04		169.30	156.96	12.34	SAMPLED ANNUALLY		--	--	--	--	--	--	--
12/22/04		169.30	158.38	10.92	SAMPLED ANNUALLY		--	--	--	--	--	--	--
03/04/05		169.30	158.81	10.49	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--	--
06/30/05		169.30	158.54	10.76	SAMPLED ANNUALLY		--	--	--	--	--	--	--
09/16/05		169.30	158.33	10.97	SAMPLED ANNUALLY		--	--	--	--	--	--	--
12/21/05		169.30	158.70	10.60	--	--	--	--	--	--	--	--	--
03/21/06[16]		169.30	158.93	10.37	1,100	<50	0.6	<0.5	<0.5	<0.5	1	--	<50
06/21/06		169.30	158.37	10.93	SAMPLED ANNUALLY		--	--	--	--	--	--	--
09/05/06		169.30	158.32	10.98	SAMPLED ANNUALLY		--	--	--	--	--	--	--
12/28/06		169.30	157.52	11.78	SAMPLED ANNUALLY		--	--	--	--	--	--	--
03/26/07[16]		169.30	158.39	10.91	730	<50	0.6	<0.5	<0.5	<0.5	<0.5	--	<50
06/26/07		169.30	158.30	11.00	SAMPLED ANNUALLY		--	--	--	--	--	--	--
09/26/07		169.30	158.26	11.04	SAMPLED ANNUALLY		--	--	--	--	--	--	--
12/20/07		169.30	158.66	10.64	SAMPLED ANNUALLY		--	--	--	--	--	--	--
02/29/08[16]	PER	169.30	158.57	10.73	64	87	4	<0.5	<0.5	<0.5	1	--	<50
05/09/08		169.30	158.38	10.92	SAMPLED ANNUALLY		--	--	--	--	--	--	--
09/19/08		169.30	158.28	11.02	SAMPLED ANNUALLY		--	--	--	--	--	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-6991

2920 Castro Valley Boulevard

Castro Valley, California

WELL ID/ DATE		TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
MW-1 (cont)													
12/04/08		169.30	158.28	11.02	SAMPLED ANNUALLY		--	--	--	--	--	--	--
03/05/09[16]	PER-NP[23]	169.30	159.10	10.20	77	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<50
06/23/09		169.30	158.36	10.94	SAMPLED ANNUALLY		--	--	--	--	--	--	--
09/01/09		169.30	158.26	11.04	SAMPLED ANNUALLY		--	--	--	--	--	--	--
03/16/10[16]	PER	169.30	158.75	10.55	1,200	70	3	<0.5	<0.5	<0.5	1	--	--
09/21/10		169.30	158.20	11.10	SAMPLED ANNUALLY		--	--	--	--	--	--	--
03/23/11[16]	**PER**	**169.30**	**159.02**	**10.28**	**180**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**--**	**--**
MW-2													
10/08/91		169.15	157.20	11.95	--	110	5.1	1.1	0.8	26	--	--	--
11/19/91		169.15	157.40	11.75	--	120	11	1.1	<0.5	17	--	--	--
12/04/91		169.15	157.35	11.80	130	440	30	2.5	<0.5	52	--	--	--
06/05/92		169.15	157.35	11.80	130	80	13	<0.5	<0.5	1.0	--	--	--
10/27/92		169.15	157.15	12.00	110	54	13	<0.5	<0.5	<0.5	--	--	--
12/30/92		169.15	--	--	92	180	30	<0.5	<0.5	1.0	--	--	--
01/27/93		169.15	158.24	10.91	--	--	--	--	--	--	--	--	--
03/05/93		169.15	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/17/93		169.15	158.26	10.89	--	--	--	--	--	--	--	--	--
06/18/93		169.15	157.41	11.74	<50	<50	1.4	<0.5	<0.5	<1.5	--	--	--
09/28/93		169.15	157.97	11.18	<50	<50	0.6	<0.5	<0.5	<1.5	--	--	--
12/30/93		169.15	158.34	21.00	<50	<50	0.9	<0.5	<0.5	<0.5	--	--	--
04/07/94		169.15	158.40	10.75	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/31/94		169.15	158.35	10.80	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/23/94		169.15	157.50	11.65	120	<50	0.7	<0.5	<0.5	<0.5	--	--	--
11/30/94		169.15	158.41	10.74	570[4]	55	2.9	<0.5	1.4	0.94	--	--	--
03/30/95		169.15	158.25	10.90	430[1]	91	4.5	<0.5	3.8	<0.5	--	--	--
06/06/95		169.15	157.73	11.42	410[1]	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/25/95		169.15	157.52	11.63	220[1]	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/28/95		169.15	157.98	11.17	120[1]	<2,000	<20	<20	<20	<20	5,000	--	--
03/05/96		169.15	159.09	10.06	860[1]	<2,000	<20	<20	<20	<20	10,000	--	--
09/13/96		169.15	157.37	11.78	1,300	1,100	25	<10	<10	<10	20,000	--	--
12/19/96		169.15	158.30	10.85	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
03/20/97		169.15	157.75	11.40	190[1]	2400	<10	<10	46	<10	6,200	--	--
06/27/97		169.15	157.35	11.80	--	--	--	--	--	--	--	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-6991
2920 Castro Valley Boulevard
Castro Valley, California

WELL ID/ DATE		TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
MW-2 (cont)													
09/19/97		169.15	157.43	11.72	60[1]	<50	<0.5	<0.5	<0.5	<0.5	280	--	--
12/08/97		169.15	158.27	10.88	--	--	--	--	--	--	--	--	--
03/31/98		169.15	158.46	10.69	220[1]	110	30	0.74	0.74	0.59	1,000	--	--
06/19/98		169.15	159.31	9.84	--	--	--	--	--	--	--	--	--
08/31/98		169.15	157.43	11.72	380[1]	<100	3.4	<1.0	<1.0	<1.0	980	--	--
12/17/98		169.15	157.60	11.55	--	--	--	--	--	--	480	--	--
03/19/99		169.15	158.63	10.52	107[4]	<250	12.7	<2.5	<2.5	<2.5	1,040/819[13]	--	--
06/23/99		169.15	159.61	9.54	--	--	--	--	--	--	--	--	--
09/16/99		169.15	157.54	11.61	84.9	<100	<1.0	<1.0	<1.0	<1.0	216	--	--
12/16/99		169.15	157.86	11.29	--	--	--	--	--	--	--	--	--
03/02/00		169.15	158.70	10.45	<50	84.8	21.5	<0.5	<0.5	0.636	413	--	--
06/30/00		169.15	159.08	10.07	--	--	--	--	--	--	--	--	--
09/30/00	NP	169.15	157.54	11.61	100[11]	<50	<0.50	0.57	<0.50	1.0	2,800	--	--
12/19/00		169.15	158.04	11.11	--	--	--	--	--	--	--	--	--
03/13/01	NP	169.15	158.22	10.93	--[14]	179	11.6	2.01	0.856	3.66	1,290	--	--
06/12/01		169.15	157.52	11.63	--	--	--	--	--	--	--	--	--
09/18/01	NP	169.15	157.37	11.78	100	<50	<0.50	<0.50	<0.50	<1.5	670	--	--
12/17/01		169.15	158.29	10.86	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
09/13/02		169.15	157.50	11.65	200	<50	<0.50	<0.50	<0.50	<1.5	260	--	--
12/13/02		169.15	158.07	11.08	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
03/17/03		169.15	158.38	10.77	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--	--
06/16/03		169.15	157.77	11.38	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
09/15/03[16,17]		169.15	157.55	11.60	110	<50	<0.5	<0.5	<0.5	0.6	400	--	--
12/15/03		169.15	158.40	10.75	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
03/01/04		169.15	158.49	10.66	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--	--
06/28/04		169.15	157.63	11.52	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
09/13/04		169.15	156.27	12.88	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--	--
12/22/04		169.15	157.93	11.22	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
03/04/05		169.15	158.58	10.57	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--	--
06/30/05		169.15	158.08	11.07	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
09/16/05[16]	NP	169.15	156.64	12.51	130	<50	<0.5	<0.5	<0.5	<0.5	140	--	<50
12/21/05		169.15	158.41	10.74	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
03/21/06[16]		169.15	158.74	10.41	72	<50	<0.5	<0.5	<0.5	<0.5	530	--	<50
06/21/06		169.15	157.64	11.51	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
09/05/06[16]		169.15	157.51	11.64	620	<50	<0.5	<0.5	<0.5	<0.5	150	--	<50

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Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-6991
2920 Castro Valley Boulevard
Castro Valley, California

WELL ID/ DATE		TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
MW-2 (cont)													
12/28/06		169.15	158.19	10.96	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
03/26/07[16]		169.15	157.74	11.41	86	<50	<0.5	<0.5	<0.5	<0.5	160	--	<50
06/26/07		169.15	157.60	11.55	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
09/26/07[16]		169.15	157.52	11.63	140	<50	<0.5	<0.5	<0.5	<0.5	69	--	<50
12/20/07		169.15	158.50	10.65	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
02/29/08[16]	PER	169.15	158.18	10.97	73	<50	<0.5	<0.5	<0.5	<0.5	54	--	<50
05/09/08		169.15	157.74	11.41	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
09/19/08	PER	169.15	157.48	11.67	120	<50	<0.5	<0.5	<0.5	<0.5	12	--	<50
12/04/08		169.15	157.67	11.48	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
03/05/09[16]	PER-NP[23]	169.15	158.65	10.50	<50	<50	<0.5	<0.5	<0.5	<0.5	55	--	<50
06/23/09		169.15	157.65	11.50	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
09/01/09[16]	PER	169.15	157.55	11.60	75	<50	<0.5	<0.5	<0.5	<0.5	10	--	--
03/16/10[16]	PER	169.15	158.50	10.65	120[24]	<50	<0.5	<0.5	<0.5	<0.5	23	--	--
09/21/10[16]	PER	169.15	157.67	11.48	84	<50	1	<0.5	<0.5	<0.5	32	--	--
03/23/11[16]	**PER**	**169.15**	**158.97**	**10.18**	**570**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**91**	**--**	**--**
MW-4													
10/27/92		169.18	157.79	11.39	<50	<50	<0.5	0.6	0.5	4.3	--	--	--
12/30/92		169.18	159.05	10.13	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
01/27/93		169.18	160.09	9.09	--	--	--	--	--	--	--	--	--
03/05/93		169.18	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/17/93		169.18	159.28	9.90	--	--	--	--	--	--	--	--	--
06/18/93		169.18	158.50	10.68	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--	--
09/28/93		169.18	159.82	9.36	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--	--
12/30/93		169.18	159.91	9.27	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
04/07/94		169.18	160.37	8.81	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/31/94		169.18	160.27	8.91	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/23/94		169.18	158.79	10.39	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
11/30/94		169.18	160.08	9.10	58[2]	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/30/95		169.18	160.66	8.52	61[1]	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/06/95		169.18	158.70	10.48	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/25/95		169.18	158.38	10.80	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/28/95		169.18	159.23	9.95	<50	<50	<0.5	<0.5	<0.5	<0.5	9.9	--	--
12/21/05[16]		169.18	159.65	9.53	76[18]	<50	<0.5	<0.5	<0.5	<0.5	0.7	--	<50

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WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
MW-4 (cont)												
03/21/06[16]	169.18	160.35	8.83	<50	<50	<0.5	<0.5	<0.5	<0.5	0.5	--	<50
06/21/06[16]	169.18	158.55	10.63	<50	<50	<0.5	<0.5	<0.5	<0.5	0.8	--	<50
09/05/06[16]	169.18	158.24	10.94	170	<50	<0.5	<0.5	<0.5	<0.5	1	--	<50
12/28/06[16]	169.18	159.06	10.12	120	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<50
03/26/07[16]	169.18	158.73	10.45	290	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<50
06/26/07[16]	169.18	158.22	10.96	<50	<50	<0.5	<0.5	<0.5	<0.5	1	--	<50
09/26/07[16]	169.18	157.98	11.20	<50	<50	<0.5	<0.5	<0.5	<0.5	0.8	--	<50
12/20/07[16]	169.18	159.01	10.17	62	<50	<0.5	<0.5	<0.5	<0.5	0.5	--	<50
02/29/08[16]	169.18	159.32	9.86	180	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<50
05/09/08[16]	169.18	158.41	10.77	80	<50	<0.5	<0.5	<0.5	<0.5	0.6	--	<50
09/19/08[16]	169.18	157.97	11.21	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<50
12/04/08[16]	169.18	158.20	10.98	58	<50	<0.5	<0.5	<0.5	<0.5	0.8	--	<50
03/05/09[16]	169.18	159.36	9.82	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<50
06/23/09	169.18	158.45	10.73	SAMPLED ANNUALLY		--	--	--	--	--	--	--
09/01/09	169.18	158.10	11.08	SAMPLED ANNUALLY		--	--	--	--	--	--	--
03/16/10[16]	169.18	159.81	9.37	60[25]	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/21/10	169.18	158.06	11.12	SAMPLED ANNUALLY		--	--	--	--	--	--	--
03/23/11[16]	**169.18**	**160.39**	**8.79**	**<50**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	--	--
MW-6												
10/27/92	166.46	153.92	12.54	<50	600	22	22	24	130	--	--	--
12/30/92	166.46	156.26	10.20	470	1,700	170	16	46	160	--	--	--
01/27/93	166.46	156.44	10.02	--	--	--	--	--	--	--	--	--
03/05/93	166.46	--	--	150	480	76	0.9	3.1	7.1	--	--	--
03/17/93	166.46	155.79	10.67	--	--	--	--	--	--	--	--	--
06/18/93	166.46	154.63	11.83	51	240	37	3.4	2.9	18	--	--	--
09/28/93	166.46	154.90	11.56	120	150	11	1.2	1.3	4.3	--	--	--
12/30/93	166.46	154.81	11.65	290	680	77	5.1	5.5	13	--	--	--
04/07/94	166.46	155.34	11.12	<10	190	24	2.9	1.9	8.0	--	--	--
05/31/94	166.46	--	--	--	--	--	--	--	--	--	--	--
09/23/94	166.46	155.05	11.41	--	--	--	--	--	--	--	--	--
11/30/94	166.46	156.58	9.88	150[2]	320	49	0.58	1.4	1.2	--	--	--
12/15/03[16]	166.46	156.60	9.86	71	210	0.5	0.9	0.7	2	14	--	<50
03/01/04[16,21]	166.46	157.16	9.30	<250	150	<0.5	4	3	18	10	--	<50

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Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
MW-6 (cont)												
06/28/04[16,21]	166.46	155.13	11.33	66	100	<0.5	<0.5	<0.5	<0.5	18	--	--
09/13/04[16,21]	166.46	154.88	11.58	<50	<50	<0.5	<0.5	<0.5	<0.5	17	--	<50
12/22/04[16,21]	166.46	155.75	10.71	300	440	1	1	2	3	10	--	<50
03/04/05[16,21]	166.46	157.25	9.21	75	65	<0.5	<0.5	<0.5	1	8	--	<50
06/30/05[16,21]	166.46	155.49	10.97	73	<50	<0.5	<0.5	<0.5	<0.5	7	--	<50
09/16/05[16,21]	166.46	155.02	11.44	58[17]	<50	<0.5	<0.5	<0.5	<0.5	13	--	<50
12/21/05[16,21]	166.46	156.66	9.80	120[19]	140	<0.5	<0.5	<0.5	1	8	--	<50
03/21/06[16,21]	166.46	157.54	8.92	75	52	<0.5	<0.5	0.9	3	8	--	<50
06/21/06[16,21]	166.46	155.38	11.08	56	92	<0.5	<0.5	0.5	2	10	--	<50
09/05/06[16,21]	166.46	155.07	11.39	67	62	<0.5	<0.5	<0.5	<0.5	9	--	<50
12/28/06[16,21]	166.46	156.32	10.14	300	260	<0.5	0.5	<0.5	1	3	--	<50
03/26/07[21]	166.46	INACCESSIBLE - VEHICLE PARKED OVER WELL					--	--	--	--	--	--
06/26/07[16]	166.46	155.32	11.14	67	<50	<0.5	<0.5	<0.5	<0.5	8	--	<50
09/26/07[16]	166.46	155.02	11.44	84	180	<0.5	0.5	3	5	6	--	--
12/20/07[16]	166.46	156.41	10.05	220	530	<0.5	0.7	1	7	2	--	--[22]
02/29/08[16]	166.46	156.49	9.97	110	110	<0.5	<0.5	1	4	4	--	<50
05/09/08[16]	166.46	155.19	11.27	100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<50
09/19/08[16]	166.46	154.85	11.61	<50	<50	<0.5	<0.5	<0.5	<0.5	5	--	<50
12/04/08[16]	166.46	155.08	11.38	<50	<50	<0.5	<0.5	<0.5	<0.5	5	--	<50
03/05/09[16]	166.46	157.57	8.89	140	160	<0.5	<0.5	1	7	2	--	<50
06/23/09	166.46	155.14	11.32	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
09/01/09[16]	166.46	154.82	11.64	52	<50	<0.5	<0.5	<0.5	<0.5	5	--	--
03/16/10[16]	166.46	156.78	9.68	76[25]	100	<0.5	<0.5	0.7	7	0.7	--	--
09/21/10[16]	166.46	154.98	11.48	51	<50	<0.5	<0.5	<0.5	<0.5	3	--	--
03/23/11	**166.46**	**INACCESSIBLE - VEHICLE PARKED OVER WELL**					--	--	--	--	--	--
MW-7												
09/25/95	168.80	157.20	11.60	1,400[1]	220	0.79	<0.5	0.67	<0.5	--	--	--
12/28/95	168.80	158.14	10.66	590[1]	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
03/05/96	168.80	159.74	9.06	320[1]	1,400	<10	<10	47	<10	5,300	--	--
06/27/96	168.80	157.27	11.53	630[1]	<2,500	<25	<25	<25	<25	14,000	--	--
09/13/96	168.80	156.88	11.92	1,400	1,100	26	<10	24	<10	20,000	--	--
12/19/96	168.80	158.29	10.51	1,100[3]	<5,000	<50	<50	<50	<50	12,000	--	--
03/20/97	168.80	157.84	10.96	1,600[3]	<1,000	<10	<10	<10	<10	2,100/2,000[13]	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-6991

2920 Castro Valley Boulevard

Castro Valley, California

WELL ID/ DATE		TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
MW-7 (cont)													
06/27/97		168.80	157.02	11.78	1,600[1]	2,000	<20	<20	<20	<20	11,000	--	--
09/19/97		168.80	156.87	11.93	1,900[1]	<1,000	35	<10	<10	<10	13,000	--	--
12/05/97		168.80	158.40	10.40	1,100[1]	2,100	47	2.7	28	<2.5	15,000	--	--
03/31/98		168.80	158.89	9.91	780[1]	410	4.0	0.61	2.2	<0.5	<2.5	--	--
06/19/98		168.80	159.09	9.71	480[1]	1,100	16	<10	17	<10	12,000	--	--
08/31/98		168.80	157.11	11.69	580[1]	<500	350	22	<5.0	<5.0	47,000	--	--
12/17/98		168.80	157.70	11.10	970	1,800	<10	<10	24	<10	13,000/14,000[13]	--	--
03/19/99		168.80	158.51	10.29	615[1]	1,280	<5.0	5.0	16.3	<5.0	2,240/2,910[13]	--	--
06/23/99		168.80	157.25	11.55	1,240[1]	<5,000	<50	<50	<50	<50	18,000	--	--
09/16/99		168.80	157.31	11.49	2,230	<5,000	<50	<50	<50	<50	13,700	--	--
12/16/99		168.80	158.27	10.53	973[1]	1,330	<1.0	6.44	14	5.17	10,800	--	--
03/02/00		168.80	159.25	9.55	880[1]	1,980	7.22	<5.0	6.11	<5.0	4,230	--	--
06/30/00		168.80	157.68	11.12	620[7]	2,500[6]	6.0	8.5	16	72	6,900	--	--
09/30/00	NP	168.80	157.23	11.57	1,600[7]	1,700[10]	750	<5.0	<5.0	<5.0	7,300	--	--
12/19/00		168.80	158.26	10.54	1,100[12]	1,800[10]	<10	<10	<10	<10	4,900	--	--
03/13/01		168.80	158.74	10.06	1,500[12]	1,470	9.34	5.09	6.08	2.69	2,920	--	--
06/12/01		168.80	157.45	11.35	910[15]	920[10]	260	4.2	9.7	2.8	4,500	--	--
09/18/01		168.80	156.87	11.93	3,000	2,000	<0.50	<0.50	<0.50	<1.5	5,300	--	--
12/17/01		168.80	157.99	10.81	7,000	1,700	<5.0	<0.50	7.1	<1.5	4,100	--	--
03/21/02		168.80	158.56	10.24	13,000	3,200	<5.0	<0.50	24	<1.5	980	--	--
06/08/02		168.80	157.32	11.48	3,500	1,500	3.6	<0.50	8.5	<1.5	2,800	--	--
09/13/02		168.80	157.02	11.78	2,400	1,200	1.8	<1.0	2.8	<1.5	3,300	--	--
12/13/02		168.80	157.97	10.83	3,400	1,100	2.4	<0.50	2.3	<1.5	2,000	--	--
03/17/03		168.80	158.71	10.09	3,700	1,600	<10	<0.50	5.1	<1.5	1,000	--	--
06/16/03[16]		168.80	157.81	10.99	4,400	2,500	1	0.5	14	<0.5	260	--	--
09/15/03[16]		168.80	157.38	11.42	4,700	1,700	1	<0.5	6	0.5	790	--	<50
12/15/03[16]		168.80	158.58	10.22	3,200	610	<0.5	<0.5	1	<0.5	780	--	<50
03/01/04[16]		168.80	159.19	9.61	2,200	1,500	<0.5	<0.5	4	<0.5	16	--	<50
06/28/04[16]		168.80	157.38	11.42	3,700	2,500	2	<0.5	8	<0.5	300	--	--
09/13/04[16]		168.80	156.78	12.02	2,000	2,000	1	<1	4	<1	700	--	<100
12/22/04[16]		168.80	158.39	10.41	1,300	970	0.8	<0.5	5	<0.5	370	--	<50
03/04/05[16]		168.80	159.12	9.68	890	790	<0.5	<0.5	1	<0.5	5	--	<50
06/30/05[16]		168.80	157.63	11.17	2,600	1,300	<0.5	<0.5	3	<0.5	68	--	<50
09/16/05[16]		168.80	157.29	11.51	1,300	1,200	<0.5	<0.5	1	<0.5	380	--	<50
12/21/05[16]		168.80	158.74	10.06	1,600[20]	1,300	<0.5	<0.5	2	<0.5	170	--	<50

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-6991

2920 Castro Valley Boulevard

Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
MW-7 (cont)												
03/21/06[16]	168.80	159.28	9.52	2,800	810	<0.5	<0.5	<0.5	<0.5	200	--	<50
06/21/06[16]	168.80	157.35	11.45	1,100	1,800	0.5	<0.5	2	<0.5	260	--	<50
09/05/06[16]	168.80	157.01	11.79	2,100	910	<0.5	<0.5	<0.5	<0.5	370	--	<50
12/28/06[16]	168.80	158.34	10.46	7,200	2,700	0.5	<0.5	3	<0.5	140	--	<50
03/26/07[16]	168.80	157.46	11.34	6,500	1,300	<0.5	<0.5	1	<0.5	150	--	<50
06/26/07[16]	168.80	157.15	11.65	2,100	1,900	0.6	<0.5	2	<0.5	170	--	<50
09/26/07[16]	168.80	156.98	11.82	2,200	670	<0.5	<0.5	<0.5	<0.5	420	--	<50
12/20/07[16]	168.80	158.23	10.57	4,300	2,600	0.8	<0.5	4	<0.5	130	--	<50
02/29/08[16]	168.80	158.56	10.24	2,400	1,400	<0.5	<0.5	2	<0.5	35	--	<50
05/09/08[16]	168.80	157.27	11.53	1,700	2,200	0.6	0.6	2	<0.5	76	--	<50
09/19/08[16]	168.80	156.86	11.94	10,000	610	<0.5	<0.5	<0.5	<0.5	430	--	<50
12/04/08[16]	168.80	157.16	11.64	3,000	1,100	<0.5	<0.5	<0.5	<0.5	440	--	<50
03/05/09[16]	168.80	159.46	9.34	1,000	2,100	<0.5	<0.5	3	<0.5	57	--	<50
06/23/09[16]	168.80	157.41	11.39	2,300	1,800	<0.5	<0.5	1	<0.5	100	--	--
09/01/09[16]	168.80	156.88	11.92	6,800	2,100	<0.5	<0.5	1	<0.5	150	--	--
03/16/10[16]	168.80	158.99	9.81	5,500	1,700	<0.5	<0.5	2	<0.5	9	--	--
09/21/10[16]	168.80	157.19	11.61	1,200	2,800	<0.5	<0.5	0.7	<0.5	16	--	--
03/23/11[16]	**168.80**	**159.59**	**9.21**	**360**	**76**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**0.6**	**--**	**--**
MW-3												
10/08/91	169.11	160.84	8.27	--	81	1.9	0.7	0.8	2.4	--	--	--
11/04/91	169.11	158.26	10.85	--	60	<0.5	<0.5	<0.5	<0.5	--	--	--
12/04/91	169.11	158.06	11.05	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/05/92	169.11	157.96	11.15	170	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
10/27/92	169.11	157.51	11.60	120	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/30/92	169.11	--	--	170	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
01/27/93	169.11	160.00	9.11	--	--	--	--	--	--	--	--	--
03/05/93	169.11	--	--	--	--	--	--	--	--	--	--	--
03/17/93	169.11	159.16	9.95	--	--	--	--	--	--	--	--	--
06/18/93	169.11	158.22	10.89	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--	--
09/28/93	169.11	159.49	9.62	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--	--
12/30/93	169.11	159.80	9.31	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
04/07/94	169.11	160.30	8.81	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/31/94	169.11	160.21	8.90	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-6991

2920 Castro Valley Boulevard

Castro Valley, California

WELL ID/ DATE		TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
MW-3 (cont)													
09/23/94		169.11	158.48	10.63	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
11/30/94		169.11	160.19	8.92	--	--	--	--	--	--	--	--	--
03/30/95		169.11	160.01	9.10	290[1]	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/06/95		169.11	158.79	10.32	150[1]	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/25/95		169.11	158.11	11.00	260[1]	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/28/95		169.11	158.96	10.15	200[1]	<250	<2.5	<2.5	<2.5	<2.5	1,400	--	--
12/17/98		169.11	158.86	10.25	130[1]	<250	<2.5	<2.5	<2.5	<2.5	62,000	--	--
03/19/99		169.11	159.37	9.74	139[1]	<1,000	<10	<10	<10	<10	5,650/5,850[13]	--	--
06/23/99		169.11	158.40	10.71	61.6[1]	<2,000	<20	<20	<20	<20	6,700	--	--
09/16/99		169.11	157.44	11.67	122	<1,000	<10	<10	<10	<10	1,910	--	--
12/16/99		169.11	158.79	10.32	--	--	--	--	--	--	5,850	--	--
12/20/00		169.11	158.91	10.20	96.8[1]	65.2	<0.5	<0.5	<0.5	<0.5	1,790	--	--
03/02/00		169.11	160.26	8.85	<50	<50	<0.5	<0.5	<0.5	<0.5	5,600	--	--
06/30/00		169.11	158.81	10.30	<50	360[5]	<0.50	<0.50	<0.50	<0.50	1,300	--	--
09/30/00	NP	169.11	158.07	11.04	--	150[9]	75	<1.3	<1.3	<1.3	8,200	--	--
12/19/00	NP	169.11	159.06	10.05	--[14]	<1,000	<10	<10	<10	<10	4,600	--	--
03/13/01	NP	169.11	159.76	9.35	--[14]	284	0.601	1.00	<0.500	1.27	3,670	--	--
06/12/01	NP	169.11	158.08	11.03	<50	140[9]	67	<0.50	<0.50	<0.50	2,600	--	--
09/18/01	NP	169.11	157.96	11.15	100	240	<0.50	<0.50	<0.50	<1.5	3,200	--	--
12/17/01		169.11	159.22	9.89	270	55	<0.50	<0.50	<0.50	<1.5	930	--	--
03/21/02		169.11	159.38	9.73	290	190	<0.50	<0.50	<0.50	<1.5	2,600	--	--
06/08/02		169.11	158.21	10.90	110	110	<0.50	<0.50	<0.50	<1.5	2,200	--	--
09/13/02		169.11	158.26	10.85	<50	<50	<0.50	<0.50	<0.50	<1.5	650	--	--
12/13/02		169.11	159.11	10.00	120	<50	<0.50	<0.50	<0.50	<1.5	450	--	--
03/17/03		169.11	159.66	9.45	370	80	<0.50	<0.50	<0.50	<1.5	1,600	--	--
06/16/03		169.11	158.98	10.13	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--	--
09/15/03		169.11	157.85	11.26	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--	--
12/15/03[16]		169.11	159.78	9.33	--[14]	<50	<0.5	3	0.6	4	220	--	<50
03/01/04		169.11	159.22	9.89	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--	--
06/28/04[16]		169.11	158.26	10.85	95	<50	<0.5	<0.5	<0.5	<0.5	980	--	--
09/13/04		169.11	DRY AT 12.96 FEET		--	--	--	--	--	--	--	--	--
12/22/04[16]	NP	169.11	159.14	9.97	--[14]	53	<0.5	<0.5	<0.5	<0.5	110	--	<50

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-6991

2920 Castro Valley Boulevard

Castro Valley, California

WELL ID/ DATE		TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
MW-3 (cont)													
03/04/05[16]	NP	169.11	159.68	9.43	<50	<50	<0.5	<0.5	<0.5	<0.5	460	--	<50
06/30/05[16]	NP	169.11	158.66	10.45	58[17]	<50	<0.5	<0.5	<0.5	<0.5	600	--	<50
09/16/05[16]	NP	169.11	158.26	10.85	--[14]	<50	<0.5	<0.5	<0.5	<0.5	530	--	<50
NOT MONITORED/SAMPLED													
MW-5													
10/27/92		167.41	157.46	9.95	<50	74	<0.5	<0.5	0.6	7.1	--	--	--
12/30/92		167.41	158.21	9.20	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
01/27/93		167.41	157.80	9.61	--	--	--	--	--	--	--	--	--
03/05/93		167.41	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/17/93		167.41	157.90	9.51	--	--	--	--	--	--	--	--	--
06/18/93		167.41	157.56	9.85	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/28/93		167.41	157.55	9.86	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--	--
12/30/93		167.41	157.08	10.33	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
04/07/94		167.41	157.69	9.72	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/31/94		167.41	157.68	9.73	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/23/94		167.41	157.56	9.85	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
11/30/94		167.41	157.73	9.68	79[2]	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/30/95		167.41	157.79	9.62	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/06/95		167.41	157.55	9.86	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/25/95		167.41	157.56	9.85	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/28/95		167.41	157.67	9.74	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
NOT MONITORED/SAMPLED													
TRIP BLANK													
10/08/91		--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
11/04/91		--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/04/91		--	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/05/92		--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/30/92		--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
01/27/93		--	--	--	<50	--	--	--	--	--	--	--	--
03/05/93		--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/17/93		--	--	--	--	--	--	--	--	--	--	--	--
06/18/93		--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	--

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Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-6991

2920 Castro Valley Boulevard

Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
TRIP BLANK (cont)												
09/28/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/30/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
04/07/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/31/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/23/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
11/30/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/30/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/06/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/25/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/28/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/05/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/27/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/13/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/19/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
03/20/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
06/27/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
09/19/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
12/05/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
03/31/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
06/19/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
08/31/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
03/19/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0	--	--
09/16/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
12/16/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
12/20/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
03/02/00	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
06/30/00[8]	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
09/30/00	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
12/19/00	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
03/13/01	--	--	--	--	<50.0	<0.500	0.534	<0.500	1.25	<0.500	--	--
06/12/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
09/18/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-6991

2920 Castro Valley Boulevard

Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
QA												
12/17/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--
03/21/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--
06/08/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--
09/13/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--
12/13/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--
03/17/03	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--
06/16/03[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/15/03[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
12/15/03[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
03/01/04[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
06/28/04[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/13/04[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
12/22/04[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
03/04/05[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
06/30/05[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/16/05[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
12/21/05[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
03/21/06[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
06/21/06[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/05/06[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
12/28/06[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
03/26/07[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
06/26/07[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/26/07[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
12/20/07[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
02/29/08[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
05/09/08[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/19/08[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
12/04/08[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
03/05/09[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
06/23/09[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/01/09[16]	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
DISCONTINUED												

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-6991

2920 Castro Valley Boulevard

Castro Valley, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to June 30, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TOC = Top of Casing
(ft.) = Feet
GWE = Groundwater Elevation
(msl) = Mean sea level
DTW = Depth to Water
TPH = Total Petroleum Hydrocarbons
DRO = Diesel Range Organics
GRO = Gasoline Range Organics
TPH-D = Total Petroleum Hydrocarbons as Diesel
TOG = Total Oil and Grease
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl Tertiary Butyl Ether
(µg/L) = Micrograms per liter
-- = Not Measured/Not Analyzed
NP = No Purge
PER = Peristaltic Pump
QA = Quality Assurance/Trip Blank

1 Chromatogram pattern indicates an unidentified hydrocarbon.
2 Chromatogram pattern indicates a non-diesel mix.
3 Chromatogram pattern indicates an unidentified hydrocarbon and weathered diesel.
4 Chromatogram pattern indicates a non-diesel mix + discrete peaks.
5 Laboratory report indicates unidentified hydrocarbons C6-C12.
6 Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons C6-C12.
7 Laboratory report indicates unidentified hydrocarbons C9-C24.
8 Laboratory report indicates this sample was analyzed outside of the EPA recommended holding time.
9 Laboratory report indicates discrete peaks.
10 Laboratory report indicates gasoline C6-C12.
11 Laboratory report indicates unidentified hydrocarbons >C16.
12 Laboratory report indicates diesel C9-C24 + unidentified hydrocarbons <C16.
13 Confirmation run.
14 Insufficient water to obtain sample for TPH-D.
15 Laboratory report indicates unidentified hydrocarbons C9-C17.
16 BTEX and MTBE by EPA Method 8260.
17 Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. The reported result is due to individual peak(s) eluting in the DRO range.
18 Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. It elutes in the DRO range later than #2 fuel and contains individual peaks eluting in the DRO range.
19 Laboratory report indicates the observed sample pattern includes #2 fuel/diesel, an additional pattern which elutes later in the DRO range, and individual peaks eluting in the DRO range.
20 Laboratory report indicates the observed sample pattern includes #2 fuel/diesel and additional patterns which elute earlier and later in the DRO range.
21 Incorrect TOC elevation (168.80) was used in past reports. Correct TOC and GWE are shown.
22 Analysis inadvertently missed in the field.
23 No Purge due to insufficient water.
24 Laboratory report indincates DRO was detected in the method blank at a concentration of 38 µg/L. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.
25 Laboratory report indincates DRO was detected in the method blank at a concentration of 38 µg/L. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. The DRO result for the reextract is ND.

Table 2

Field Measurements and Analytical Results

Chevron Service Station #9-6991

2920 Castro Valley Boulevard

Castro Valley, California

WELL ID	DATE	D.O. (mg/L)	ORP (mV)	ALKALINITY (ug/L)	SULFATE (ug/L)	NITRATE as NITROGEN (ug/L)	FERROUS IRON (ug/L)
MW-1	12/21/05	3.7	151	581,000	184,000	6,400	29
	03/21/06	4.7	32	546,000	147,000	5,800	600
	06/21/06	SAMPLED ANNUALLY		--	--	--	--
	09/05/06	SAMPLED ANNUALLY		--	--	--	--
	12/28/06	SAMPLED ANNUALLY		--	--	--	--
	03/26/07	3.4	47	844,000[3]	112,000	3,600	22,400
	02/29/08	2.6	153	[1]<460/584,000[2]	158,000	4,500	730
MW-4	12/21/05	1.4	89	396,000	137,000	2,300	<8.0
	03/21/06	3.0	82	407,000	139,000	2,200	<8.0
	06/21/06	0.3	86	[1]710/403,000[2]	136,000	2,700	12
	09/05/06	2.1	106	[1]<460/412,000[2]	147,000	2,700	210
	12/28/06	1.1	114	[1]<460/396,000[2]	175,000	2,500	<8.0
	03/26/07	1.2	188	393,000[3]	151,000	1,800	190
	06/26/07	1.9	31	392,000	179,000	2,900	<8.0
	09/26/07	2.3	110	[1]<460/412,000[2]	182,000	1,600	<8.0
	12/20/07	2.1	76	[1]<460/402,000[2]	169,000	1,400	<8.0
	02/29/08	1.6	88	[1]<460/396,000[2]	193,000	1,500	15
	05/09/08	1.1	77	[1]<460/399,000[2]	165,000	1,500	23
	09/19/08	1.7	43	[1]<460/420,000[2]	167,000	2,500	<8.0
MW-7	12/21/05	1.4	53	475,000	2,700	<400	820
	03/21/06	2.5	12	439,000	3,800	<400	3,800
	06/21/06	0.1	-62	[1]1,400/480,000[2]	1,600	<250	5,000
	09/05/06	1.2	-23	[1]<460/419,000[2]	1,700	<250	3,500
	12/28/06	0.80	-36	[1]<460/498,000[2]	2,100	<250	1,000
	03/26/07	1.1	-24	490,000[3]	2,000	<250	2,200
	06/26/07	1.0	-72	426,000	1,800	<250	4,700
	09/26/07	.90	26	[1]<460/423,000[2]	2,400	<250	3,800
	12/20/07	1.3	-8	[1]<460/539,000[2]	3,200	<250	910
	02/29/08	1.2	80	[1]<460/510,000[2]	8,100	<250	690
	05/09/08	1.0	65	[1]<460/157,000[2]	2,700	<250	1,800
	09/19/08	1.7	25	[1]<460/403,000[2]	8,100	<250	8,000

Table 2

Field Measurements and Analytical Results

Chevron Service Station #9-6991

2920 Castro Valley Boulevard

Castro Valley, California

EXPLANATIONS:

D.O. = Dissolved Oxygen
(mg/L) = milligrams per liter
ORP = Oxidation Reduction Potential
(mV) = millivolts
-- = Not Analyzed
(µg/L) = Micrograms per liter

[1] pH 8.3.
[2] pH 4.5.
[3] Laboratory report indicates this sample was analyzed past the 14-day hold time.

ANALYTICAL METHODS:

Alkalinity by EPA Method SM20 2320 B for Alkalinity to pH 8.3
Alkalinity by EPA Method SM20 2320 B for Alkalinity to pH 4.5
Sulfate by EPA Method 300.0
Nitrate as Nitrogen by EPA Method 300.00
Ferrous Iron by EPA Method SM20 3500-Fe B

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

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

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize.

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

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

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by IWM to Chemical Waste Management located in Kettleman Hills, California.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #9-6991** Job Number: **385296**
Site Address: **2920 Castro Valley Blvd** Event Date: 3-23-11 (inclusive)
City: **Castro Valley, CA** Sampler: Joe

Well ID **MW-1** Date Monitored: 3-23-11
Well Diameter (3/4) 1 2 in.
Total Depth 17.71 ft.
Depth to Water 10.28 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

7.43 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other: Perist. Pump

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Discrete Bailer
Peristaltic Pump
QED Bladder Pump
Other: Perist. Pump

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0815 Weather Conditions: Rain
Sample Time/Date: 0823 / 3-23-11 Water Color: clear Odor: (Y) / N faint
Approx. Flow Rate: — gpm. Sediment Description: none
Did well de-water? no If yes, Time: — Volume: — gal. DTW @ Sampling: —

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (mS))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
—	—	6.81	1096	15.6		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	2 x 500ml ambers	YES	NO	LANCASTER	TPH-DRO (8015)

COMMENTS: slow recovery.

Add/Replaced Lock: Add/Replaced Plug:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #9-6991** Job Number: **385296**

Site Address: **2920 Castro Valley Blvd** Event Date: 3-23-11 (inclusive)

City: **Castro Valley, CA** Sampler: Joe

Well ID **MW-2** Date Monitored: 3-23-11

Well Diameter (3/4) 1 2 in.

Total Depth 14.69 ft.

Depth to Water 10.18 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

4.51 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:

Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other: Perist. pump

Sampling Equipment:

Disposable Bailer
Pressure Bailer
Discrete Bailer
Peristaltic Pump
QED Bladder Pump
Other: Perist. pump

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0835 Weather Conditions: Rain

Sample Time/Date: 0845 / 3-23-11 Water Color: clear Odor: Y / (N)

Approx. Flow Rate: — gpm. Sediment Description: none

Did well de-water? no If yes, Time: — Volume: — gal. DTW @ Sampling: —

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (mS))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
		7.46	1251	15.9		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- 2	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	2x 500ml ambers	YES	NO	LANCASTER	TPH-DRO (8015)

COMMENTS: slow recovery

Add/Replaced Lock: Add/Replaced Plug:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-6991 | Job Number: 385296
Site Address: 2920 Castro Valley Blvd | Event Date: 3-23-11 (inclusive)
City: Castro Valley, CA | Sampler: Joe

Well ID: MW-4 | Date Monitored: 3-23-11
Well Diameter: 3/4 1(2) in.
Total Depth: 19.74 ft.
Depth to Water: 8.79 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

10.93 xVF 0.17 = 1.86 x3 case volume = Estimated Purge Volume: 6 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.98

Purge Equipment:

Disposable Bailer	✓
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	✓
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: / ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0900 | Weather Conditions: Rain
Sample Time/Date: 0930 13-23-11 | Water Color: clear | Odor: Y / N
Approx. Flow Rate: — gpm. | Sediment Description: none
Did well de-water? no | If yes, Time: — | Volume: — gal. | DTW @ Sampling: 9.22

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0908	2	7.36	1154	16.2		
0913	4	7.30	1150	15.7		
0918	6	7.33	1157	15.8		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	2 x 500ml ambers	YES	NO	LANCASTER	TPH-DRO (8015)

COMMENTS:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #9-6991** Job Number: **385296**

Site Address: **2920 Castro Valley Blvd** Event Date: 3-23-11 (inclusive)

City: **Castro Valley, CA** Sampler: Joe

Well ID **MW-6** Date Monitored: _____

Well Diameter 3/4 /(2) in.

Total Depth _____ ft.

Depth to Water _____ ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

_____ xVF _____ = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:

Disposable Bailer _____
Stainless Steel Bailer _____
Stack Pump _____
Suction Pump _____
Grundfos _____
Peristaltic Pump _____
QED Bladder Pump _____
Other: _____

Sampling Equipment:

Disposable Bailer _____
Pressure Bailer _____
Discrete Bailer _____
Peristaltic Pump _____
QED Bladder Pump _____
Other: _____

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____
Product Transferred to: _____

Start Time (purge): _____ Weather Conditions: _____

Sample Time/Date: _____ / _____ Water Color: _____ Odor: Y / N _____

Approx. Flow Rate: _____ gpm. Sediment Description: _____

Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)

LABORATORY INFORMATION

SAMPLE ID	(#)/CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	x 500ml ambers	YES	NO	LANCASTER	TPH-DRO (8015)

COMMENTS: Was packed over all day. Picture taken.

Add/Replaced Lock: Add/Replaced Plug:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #9-6991** Job Number: **385296**
Site Address: **2920 Castro Valley Blvd** Event Date: 3-23-11 (inclusive)
City: **Castro Valley, CA** Sampler: Joe

Well ID **MW-7** Date Monitored: 3-23-11
Well Diameter 3/4 (2) in.
Total Depth 19.68 ft.
Depth to Water 9.21 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

10.47 xVF 0.17 = 1.78 x3 case volume = Estimated Purge Volume: 5.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.30

Purge Equipment:
- Disposable Bailer: ✓
- Stainless Steel Bailer:
- Stack Pump:
- Suction Pump:
- Grundfos:
- Peristaltic Pump:
- QED Bladder Pump:
- Other:

Sampling Equipment:
- Disposable Bailer: ✓
- Pressure Bailer:
- Discrete Bailer:
- Peristaltic Pump:
- QED Bladder Pump:
- Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0945 Weather Conditions: Rain
Sample Time/Date: 1010 / 3-23-11 Water Color: clear Odor: Y / N light
Approx. Flow Rate: ~ gpm. Sediment Description: none
Did well de-water? no If yes, Time: ~ Volume: gal. DTW @ Sampling: 10.16

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0952	1.5	6.96	925	16.1		
0956	3.5	6.90	915	16.4		
0959	5.5	6.87	919	16.2		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	2 x 500ml ambers	YES	NO	LANCASTER	TPH-DRO (8015)

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories

Ø32311-Ø7

For Lancaster Laboratories use only
Acct. #: 12099 Sample # 6238090-93 Group #: 005934

C#1238748

CRA MTI Project #: 61H-1633

Facility #: SS#9-6991 G-R#385296 Global ID#T0600100324
Site Address: 2920 CASTRO VALLEY BLVD, CASTRO VALLEY, CA
Chevron PM: MTI Lead Consultant: CRAKJ Kiernan
Consultant/Office: G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568
Consultant Prj. Mgr.: Deanna L. Harding (deanna@grinc.com)
Consultant Phone #: 925-551-7555 Fax #: 925-551-7899
Sampler:

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Matrix: Water (☐ Potable ☐ NPDES)	Matrix: Oil ☐ Air	Total Number of Containers	Analyses Requested / Preservation Codes: BTEX + MTBE 8260 ☒ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates	Total Lead Method	Dissolved Lead Method
MW-1	3-23-11	0823	✓			✓		8	✓	✓	✓				
MW-2	↓	0845	↓			↓		8	✓	✓	✓				
MW-4		0930						8	✓	✓	✓				
MW-7	↓	1010	↓			↓		8	✓	✓	✓				

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☒ Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks

Turnaround Time Requested (TAT) (please circle)
STD. TAT 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required) EDF/EDD
QC Summary Type I - Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by:	3-23-11	1155	Received by: GETTLER-RYAN FRIDGE	03-23-11	1155
Relinquished by:	23MAR11	1335	Received by:	23MAR11	1335
Relinquished by:	3/23/11	1630	Received by: FE		
Relinquished by Commercial Carrier: UPS FedEx Other			Received by:		
Temperature Upon Receipt 0.7-1.9 C°			Custody Seals Intact? Yes No		

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron c/o CRA
Suite 107
10969 Trade Center Dr
Rancho Cordova CA 95670

March 31, 2011

Project: 96991

Submittal Date: 03/24/2011
Group Number: 1238748
PO Number: 96991
Release Number: MTI
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
MW-1-W-110323 Grab Water	6238090
MW-2-W-110323 Grab Water	6238091
MW-4-W-110323 Grab Water	6238092
MW-7-W-110323 Grab Water	6238093

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Gettler-Ryan, Inc.	Attn: Rachelle Munoz
ELECTRONIC COPY TO	Chevron c/o CRA	Attn: Report Contact
ELECTRONIC COPY TO	Chevron	Attn: Anna Avina

Lancaster Laboratories

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Analysis Report

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,

Robin C. Runkle
Senior Specialist

Lancaster Laboratories

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Analysis Report

Sample Description: MW-1-W-110323 Grab Water
Facility# 96991 Job# 385296 MTI# 61H-1633 GRD
2920 Castro Valley-Castro T0600100324 MW-1

LLI Sample # WW 6238090
LLI Group # 1238748
Account # 12099

Project Name: 96991

Collected: 03/23/2011 08:23

Submitted: 03/24/2011 09:45
Reported: 03/31/2011 15:46

Chevron c/o CRA
Suite 107
10969 Trade Center Dr
Rancho Cordova CA 95670

CVC01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
GC Extractable TPH	**SW-846 8015B**		ug/l	ug/l	
06609	TPH-DRO CA C10-C28	n.a.	180	50	1

General Sample Comments

State of California Lab Certification No. 2501
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F110872AA	03/28/2011 12:59	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F110872AA	03/28/2011 12:59	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11087C20A	03/29/2011 17:37	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11087C20A	03/29/2011 17:37	Elizabeth J Marin	1
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	110830027A	03/29/2011 21:43	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	110830027A	03/25/2011 09:55	Denise L Trimby	1

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Analysis Report

Sample Description: MW-2-W-110323 Grab Water
Facility# 96991 Job# 385296 MTI# 61H-1633 GRD
2920 Castro Valley-Castro T0600100324 MW-2

LLI Sample # WW 6238091
LLI Group # 1238748
Account # 12099

Project Name: 96991

Collected: 03/23/2011 08:45

Submitted: 03/24/2011 09:45
Reported: 03/31/2011 15:46

Chevron c/o CRA
Suite 107
10969 Trade Center Dr
Rancho Cordova CA 95670

CVC02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	91	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
GC Extractable TPH	**SW-846 8015B**		ug/l	ug/l	
06609	TPH-DRO CA C10-C28	n.a.	570	50	1

General Sample Comments

State of California Lab Certification No. 2501
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F110872AA	03/28/2011 13:21	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F110872AA	03/28/2011 13:21	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11087C20A	03/29/2011 17:59	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11087C20A	03/29/2011 17:59	Elizabeth J Marin	1
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	110830027A	03/29/2011 22:00	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	110830027A	03/25/2011 09:55	Denise L Trimby	1

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Analysis Report

Sample Description: MW-4-W-110323 Grab Water
Facility# 96991 Job# 385296 MTI# 61H-1633 GRD
2920 Castro Valley-Castro T0600100324 MW-4

LLI Sample # WW 6238092
LLI Group # 1238748
Account # 12099

Project Name: 96991

Collected: 03/23/2011 09:30

Submitted: 03/24/2011 09:45
Reported: 03/31/2011 15:46

Chevron c/o CRA
Suite 107
10969 Trade Center Dr
Rancho Cordova CA 95670

CVC04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
GC Extractable TPH	**SW-846 8015B**		ug/l	ug/l	
06609	TPH-DRO CA C10-C28	n.a.	N.D.	50	1

General Sample Comments

State of California Lab Certification No. 2501
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F110872AA	03/28/2011 13:43	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F110872AA	03/28/2011 13:43	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11087C20A	03/29/2011 18:21	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11087C20A	03/29/2011 18:21	Elizabeth J Marin	1
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	110830027A	03/29/2011 21:08	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	110830027A	03/25/2011 09:55	Denise L Trimby	1

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Analysis Report

Sample Description: MW-7-W-110323 Grab Water
Facility# 96991 Job# 385296 MTI# 61H-1633 GRD
2920 Castro Valley-Castro T0600100324 MW-7

LLI Sample # WW 6238093
LLI Group # 1238748
Account # 12099

Project Name: 96991

Collected: 03/23/2011 10:10

Submitted: 03/24/2011 09:45
Reported: 03/31/2011 15:46

Chevron c/o CRA
Suite 107
10969 Trade Center Dr
Rancho Cordova CA 95670

CVC07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	0.6	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	76	50	1
GC Extractable TPH	**SW-846 8015B**		ug/l	ug/l	
06609	TPH-DRO CA C10-C28	n.a.	360	50	1

General Sample Comments

State of California Lab Certification No. 2501
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	P110872AA	03/28/2011 11:30	Nicholas R Rossi	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P110872AA	03/28/2011 11:30	Nicholas R Rossi	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11087C20A	03/29/2011 18:43	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11087C20A	03/29/2011 18:43	Elizabeth J Marin	1
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	110830027A	03/29/2011 21:26	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	110830027A	03/25/2011 09:55	Denise L Trimby	1

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Analysis Report

Quality Control Summary

Client Name: Chevron c/o CRA
Reported: 03/31/11 at 03:46 PM

Group Number: 1238748

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

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F110872AA	Sample number(s): 6238090-6238092							
Benzene	N.D.	0.5	ug/l	97	97	79-120	0	30
Ethylbenzene	N.D.	0.5	ug/l	94	92	79-120	2	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	96	97	76-120	1	30
Toluene	N.D.	0.5	ug/l	92	91	79-120	1	30
Xylene (Total)	N.D.	0.5	ug/l	95	93	80-120	2	30
Batch number: P110872AA	Sample number(s): 6238093							
Benzene	N.D.	0.5	ug/l	103	106	79-120	3	30
Ethylbenzene	N.D.	0.5	ug/l	97	100	79-120	3	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	103	109	76-120	6	30
Toluene	N.D.	0.5	ug/l	100	103	79-120	3	30
Xylene (Total)	N.D.	0.5	ug/l	96	99	80-120	4	30
Batch number: 11087C20A	Sample number(s): 6238090-6238093							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	118	127	75-135	7	30
Batch number: 110830027A	Sample number(s): 6238090-6238093							
TPH-DRO CA C10-C28	N.D.	32.	ug/l	99	104	56-122	5	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: UST VOCs by 8260B - Water
Batch number: F110872AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6238090	99	100	97	91
6238091	99	100	98	91
6238092	100	100	98	90
Blank	101	101	97	93
LCS	99	98	97	101
LCSD	98	99	97	99
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water
Batch number: P110872AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene

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

Quality Control Summary

Client Name: Chevron c/o CRA
Reported: 03/31/11 at 03:46 PM

Group Number: 1238748

Surrogate Quality Control

6238093	99	99	100	95
Blank	98	100	99	94
LCS	97	100	99	95
LCSD	98	102	100	96
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 11087C20A

	Trifluorotoluene-F
6238090	75
6238091	75
6238092	76
6238093	76
Blank	75
LCS	116
LCSD	125
Limits:	63-135

Analysis Name: TPH-DRO CA C10-C28
Batch number: 110830027A

	Orthoterphenyl
6238090	109
6238091	115
6238092	111
6238093	109
Blank	105
LCS	108
LCSD	110
Limits:	59-131

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

Explanation of Symbols and Abbreviations

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

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

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

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

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

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APPENDIX F

MASS CALCULATIONS

ESTIMATED TPHd MASS REMAINING IN GROUNDWATER
CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

Impacted GW Thickness (ft)	*Impacted GW Area (sq-ft)*	*Aquifer Volume (cu-ft)*	*Estimated Aquifer Porosity*	*Impacted GW Volume (gallons)*	*Representative TPHd Concentration (ug/l)*	*Total Dissolved TPHd Mass (lb)*	*Total Dissolved TPHd Volume (gallons)*
10.0	236	2,360	0.4	7,061	140	0.008	0.001
10.0	2,975	29,750	0.4	89,012	283	0.210	0.028
					Total Estimated Residual TPHd:	0.218	0.030

Notes:

Aquifer Volume = Impacted GW thickness x impacted GW area [excludes aquifer volume of greater impact]

Impacted GW Volume = Aquifer volume (cu-ft) x est. porosity (%) x 7.48 (gals/cu-ft)

Total Dissolved TPHd Mass = GW volume (gals) x 3.785 (l/gal) x Concentration (ug/l) x 2.205 lb/kg / 1,000,000,000 (ug/kg)

Total Dissolved TPHd Volume = Mass (lb) / 7.39 (lbs/gal)

Approximate density TPHd (diesel) = 7.39 lb/gal

Abbreviations:

GW = Groundwater
ft = feet
sq-ft = square feet
cu-ft = cubic feet
gals = gallons
kg = kilograms
lb = pound
ug/l = micrograms per liter

Soil Type:	Porosity
Gravel	25-40
Sand	25-50
Silt	35-50
Clay	40-70

From: Groundwater; Freeze & Cherry, *1979* , Prentice-Hall, Inc., pg. 37. (based on Davis, 1969)

ESTIMATED TPHg MASS REMAINING IN GROUNDWATER
CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

Impacted GW Thickness (ft)	*Impacted GW Area (sq-ft)*	*Aquifer Volume (cu-ft)*	*Estimated Aquifer Porosity*	*Impacted GW Volume (gallons)*	*Representative TPHg Concentration (ug/l)*	*Total Dissolved TPHg Mass (lb)*	*Total Dissolved TPHg Volume (gallons)*
10.0	240	2,400	0.4	7,181	63	0.004	0.001
				Total Estimated Residual TPHg:		0.004	0.001

Notes:

Aquifer Volume = Impacted GW thickness x impacted GW area [excludes aquifer volume of greater impact]

Impacted GW Volume = Aquifer volume (cu-ft) x est. porosity (%) x 7.48 (gals/cu-ft)

Total Dissolved TPHg Mass = GW volume (gals) x 3.785 (l/gal) x Concentration (ug/l) x 2.205 lb/kg / 1,000,000,000 (ug/kg)

Total Dissolved TPHg Volume = Mass (lb) / 6.14 (lbs/gal)

Approximate density TPHg (gasoline) = 6.14 lb/gal

Abbreviations:

GW = Groundwater
ft = feet
sq-ft = square feet
cu-ft = cubic feet
gals = gallons
kg = kilograms
lb = pound
ug/l = micrograms per liter

Soil Type:	Porosity
Gravel	25-40
Sand	25-50
Silt	35-50
Clay	40-70

From: Groundwater; Freeze & Cherry, *1979* , Prentice-Hall, Inc., pg. 37. (based on Davis, 1969)

ESTIMATED MTBE MASS REMAINING IN GROUNDWATER
CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

Impacted GW Thickness (ft)	*Impacted GW Area (sq-ft)*	*Aquifer Volume (cu-ft)*	*Estimated Aquifer Porosity*	*Impacted GW Volume (gallons)*	*Representative MTBE Concentration (ug/l)*	*Total Dissolved MTBE Mass (lb)*	*Total Dissolved MTBE Volume (gallons)*
10.0	3,421	34,210	0.4	102,356	27.5	0.023	0.004
10.0	939	9,390	0.4	28,095	70.5	0.01653	0.003
					Total Estimated Residual MTBE:	0.040	0.006

Notes:

Aquifer Volume = Impacted GW thickness x impacted GW area [excludes aquifer volume of greater impact]
Impacted GW Volume = Aquifer volume (cu-ft) x est. porosity (%) x 7.48 (gals/cu-ft)
Total Dissolved MTBE Mass = Impacted GW volume (gals) x 3.785 (l/gal) x Concentration (ug/l) x 2.205 lb/kg / 1,000,000,000 (ug/kg)
Total Dissolved MTBE Volume = Mass (lb) / 6.19 (lbs/gal)
Approximate density of MTBE = 6.19 lb/gal

Abbreviations:

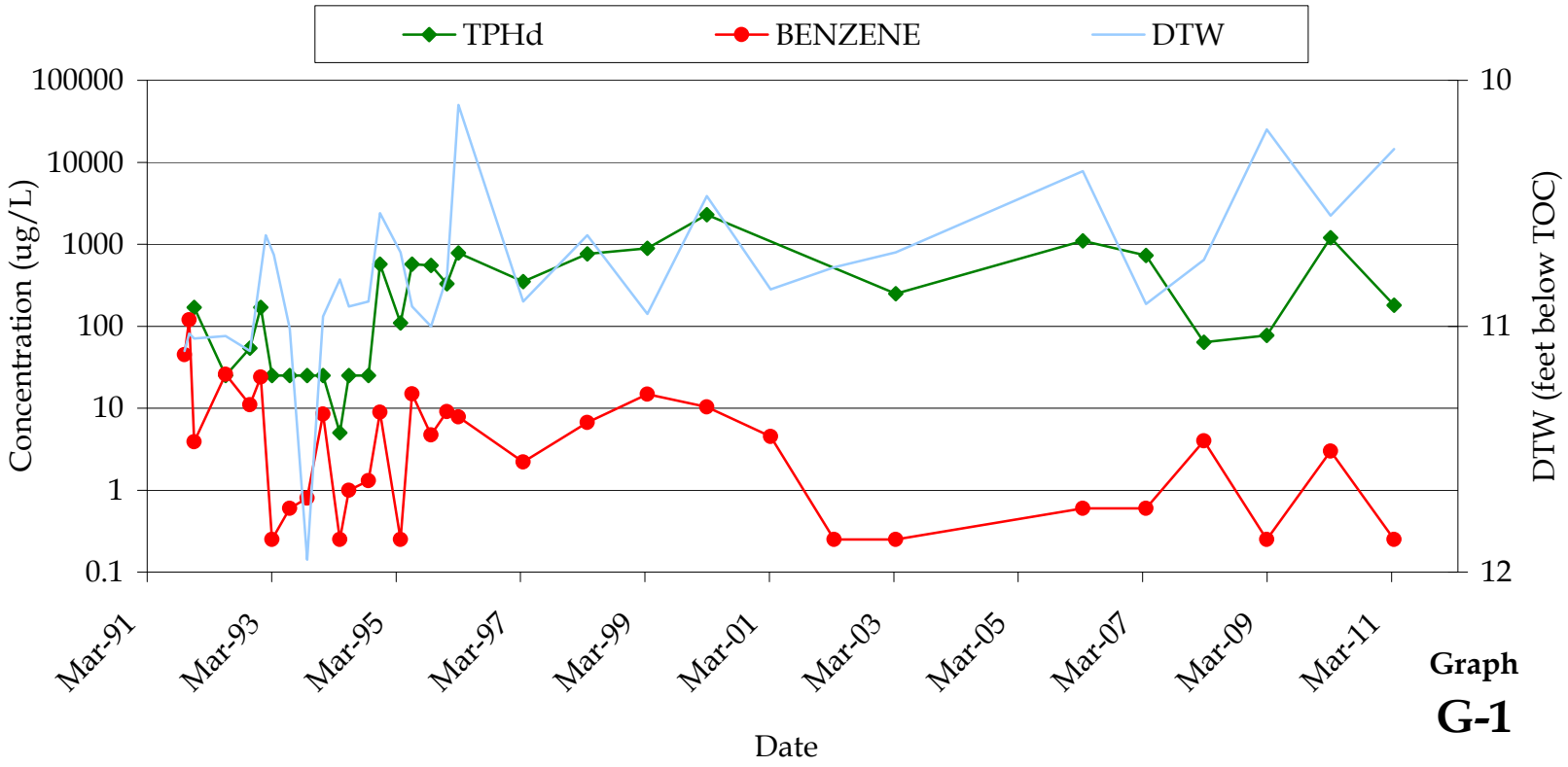
GW = Groundwater
ft = feet
sq-ft = square feet
cu-ft = cubic feet
gals = gallons
kg = kilograms
lb = pound
ug/l = micrograms per liter

Soil Type:	Porosity
Gravel	25-40
Sand	25-50
Silt	35-50
Clay	40-70

From: Groundwater; Freeze & Cherry, *1979* , Prentice-Hall, Inc., pg. 37. (based on Davis, 1969)

APPENDIX G

CONCENTRATION VERSUS TIME AND TREND GRAPHS AND DEGRADATION CALCULATIONS



Graph

G-1

CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

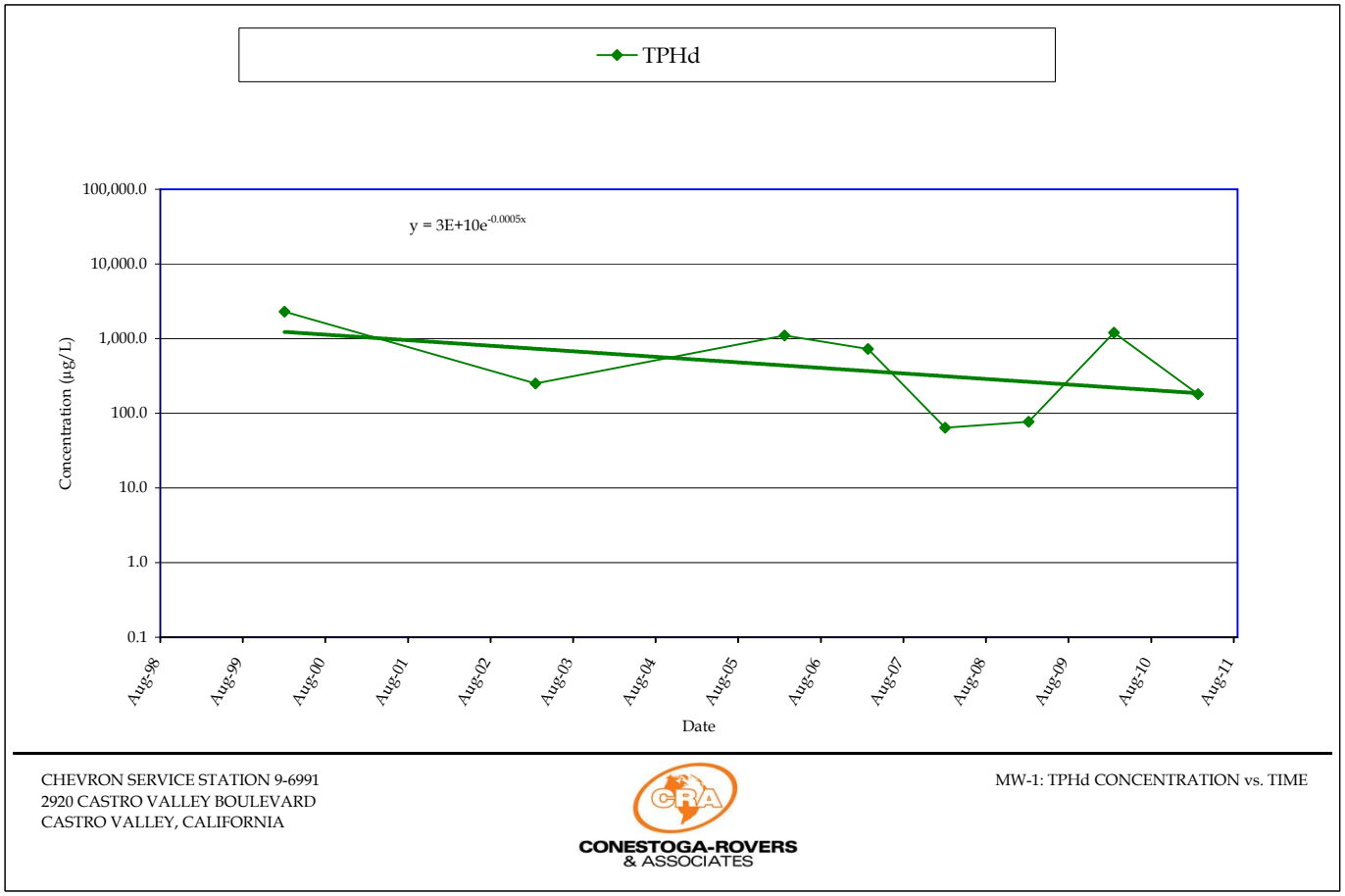
MW-1: TPHd AND BENZENE
CONCENTRATION vs. TIME

PREDICTED TIME TO REACH TPHd ESL IN MW-1
CHEVRON STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

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

where: y = concentration in µg/L — a = decay constant
b = concentration at time (x) — x = time in days

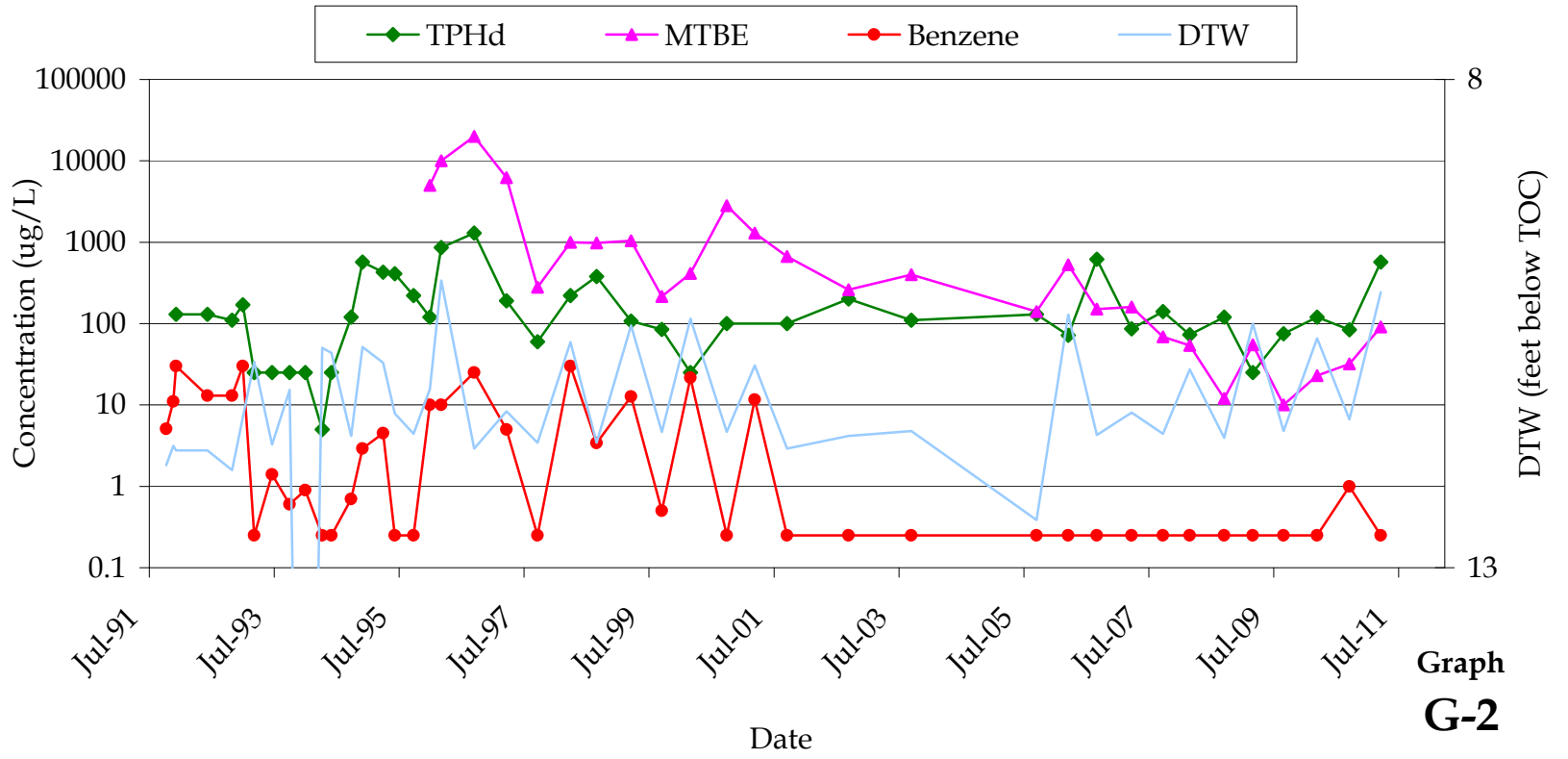
	Constituent	Total Petroleum Hydrocarbons as Diesel (TPHd)
Given		
ESL:	y	100
Constant:	b	3.39E+10
Constant:	a	-4.68E-04
Starting date for current trend:		3/2/2000
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	4.05
Estimated Date to Reach ESL:	(x = ln(y/b) / a)	Nov 2014



CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-1: TPHd CONCENTRATION vs. TIME



Graph

G-2

CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

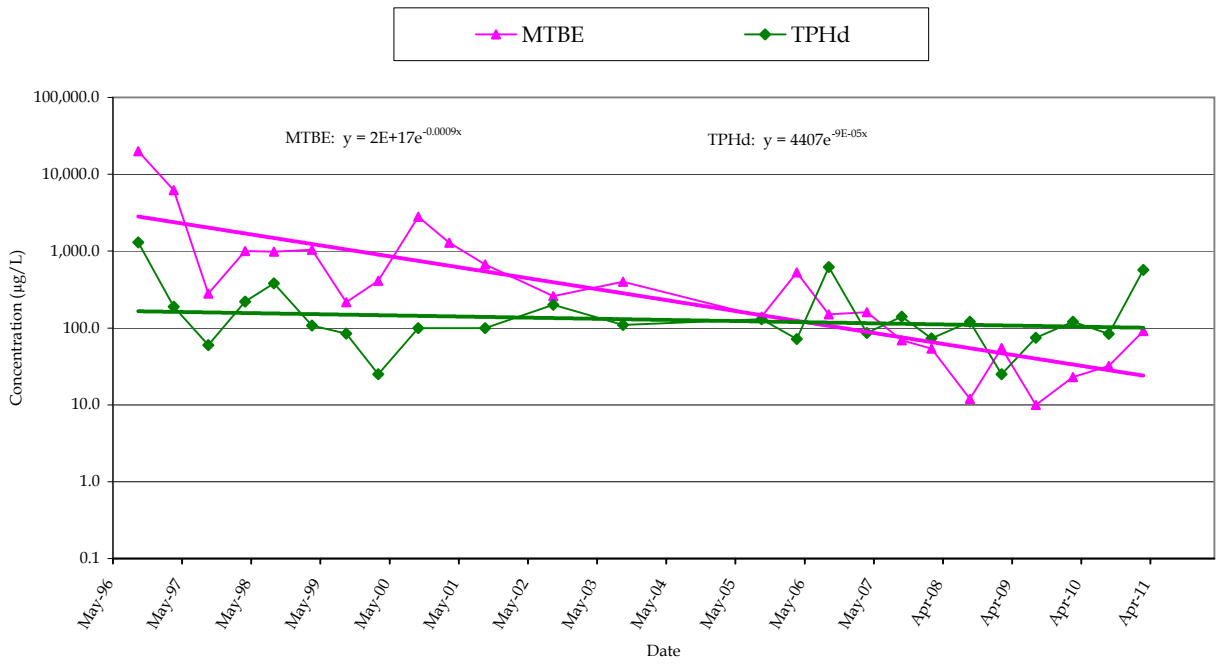
MW-2: TPHd, BENZENE AND MTBE CONCENTRATION vs. TIME

PREDICTED TIME TO REACH TPHd AND MTBE ESLs IN MW-2
CHEVRON STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

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

where: y = concentration in µg/L — a = decay constant
b = concentration at time (x) — x = time in days

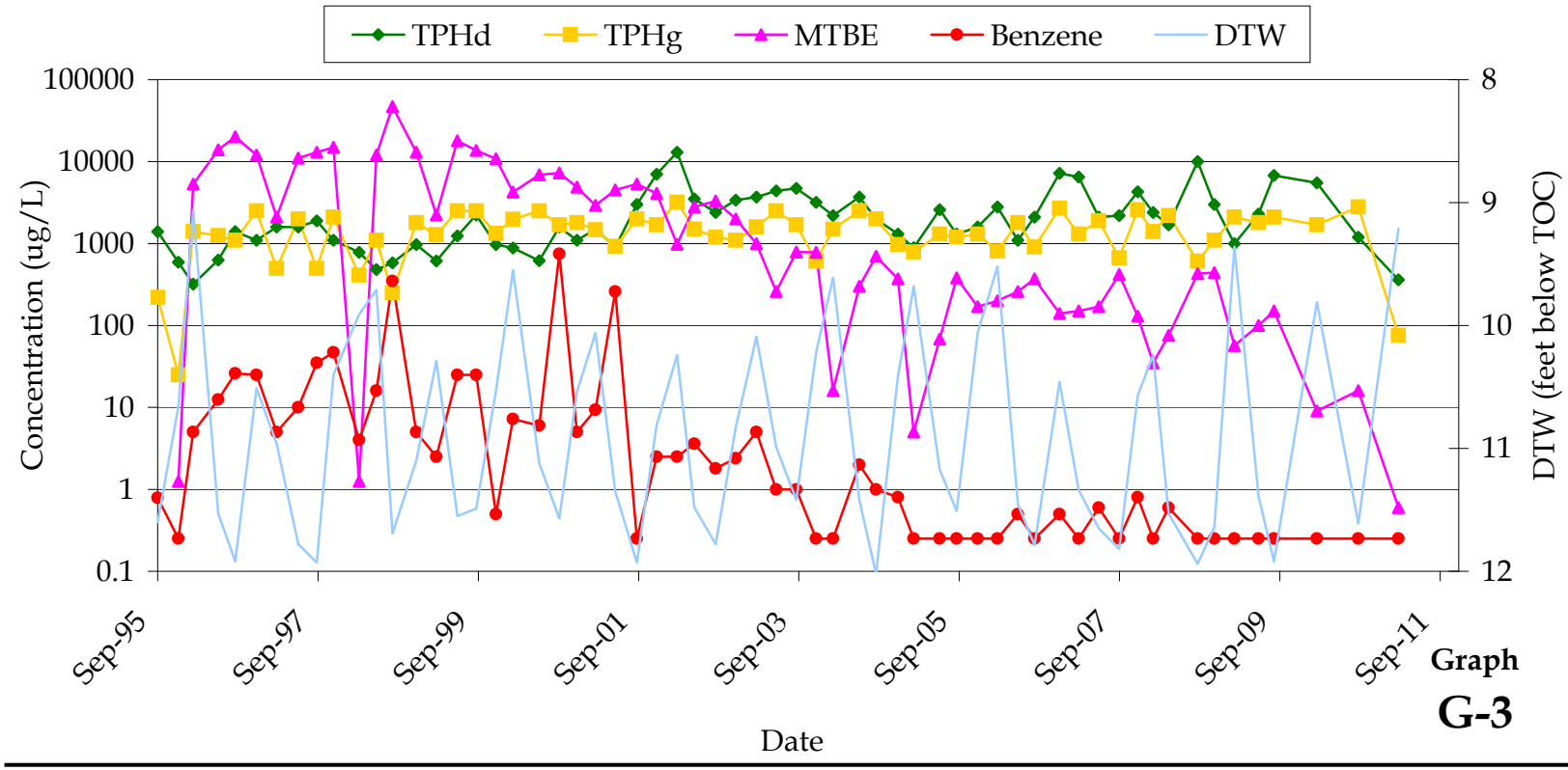
		Constituent	MTBE	Total Petroleum Hydrocarbons as Diesel (TPHd)
Given				
ESL:		y	5	100
Constant:		b	1.73E+17	4407.033162
Constant:		a	-8.99E-04	-9.30E-05
Starting date for current trend:			9/13/1996	9/13/1996
Calculate				
Attenuation Half Life (years):	(-ln(2)/a)/365.25		2.11	20.41
Estimated Date to Reach ESL:	(x = ln(y/b) / a)		Dec 2015	Jun 2011



CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-2: TPHd and MTBE CONCENTRATION vs. TIME



Graph

G-3

CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

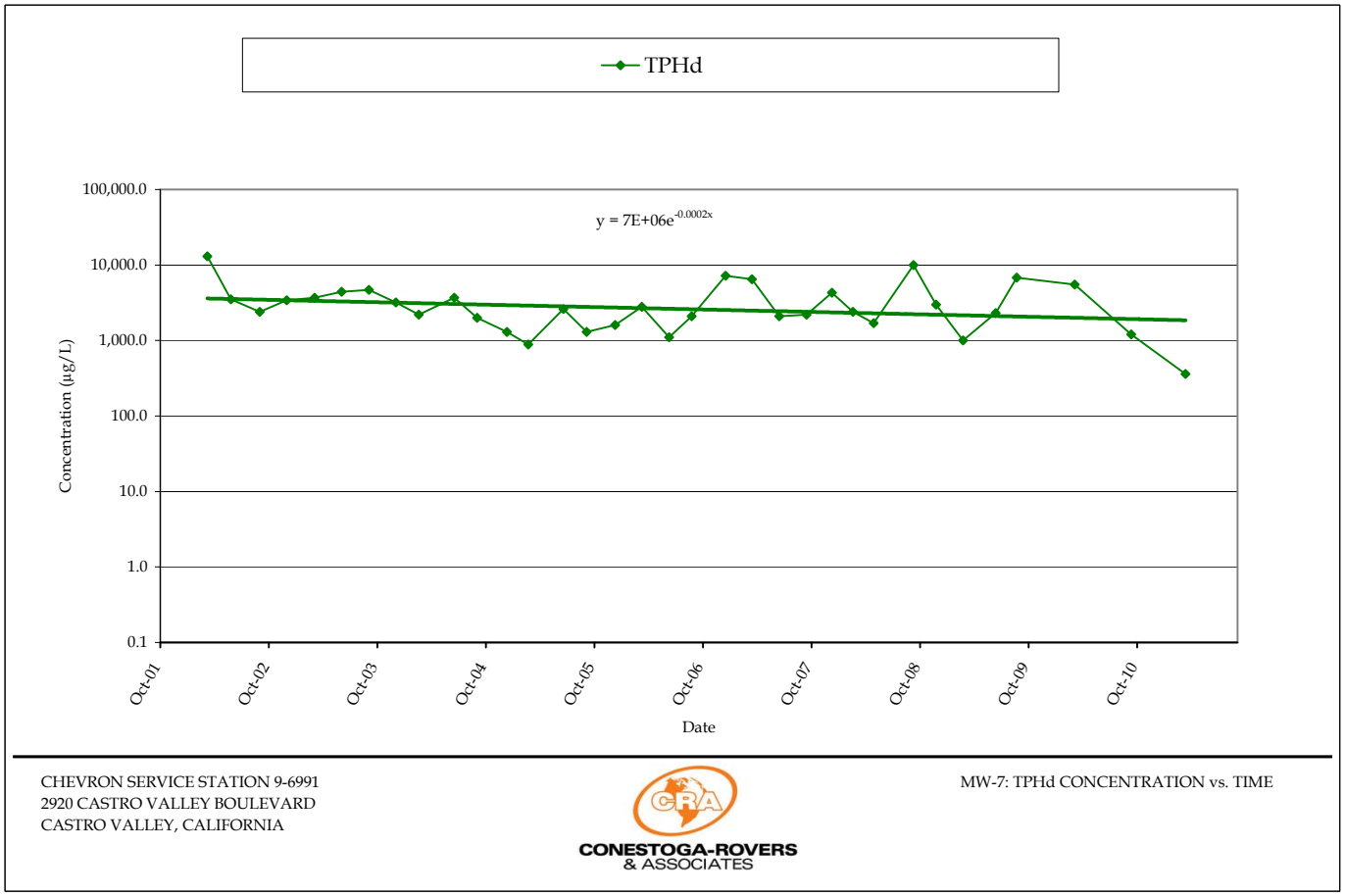
MW-7: TPHd, TPHg, BENZENE AND MTBE CONCENTRATION vs. TIME

PREDICTED TIME TO REACH TPHd ESL IN MW-7
CHEVRON STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

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

where: y = concentration in µg/L — a = decay constant
b = concentration at time (x) — x = time in days

	Constituent	Total Petroleum Hydrocarbons as Diesel (TPHd)
Given		
ESL:	y	100
Constant:	b	6.78E+06
Constant:	a	-2.02E-04
Starting date for current trend:		3/21/2002
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	9.40
Estimated Date to Reach ESL:	(x = ln(y/b) / a)	Oct 2050



CHEVRON SERVICE STATION 9-6991
2920 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-7: TPHd CONCENTRATION vs. TIME