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DRAFT

COMPREHENSIVE SITE EVALUATION AND PROPOSED FUTURE ACTION PLAN

at

Chevron Station 9-8139
16304 Foothill Boulevard
San Leandro, California

prepared for

Chevron U.S.A. Products Company
P.O. Box 5004
San Ramon, California 94583-0804

December 20, 1994

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Weiss Associates work for Chevron U.S.A. Products Company, P.O. Box 5004, San Ramon, California, was conducted under my supervision. To the best of my knowledge, the data contained herein are true and accurate and satisfy the specified scope of work prescribed by the client for this project. The data, findings, recommendations, specifications, or professional opinions were prepared solely for the use of Chevron U.S.A. in accordance with generally accepted professional engineering and geologic practice. We make no other warranty, either expressed or implied, and are not responsible for the interpretation by others of these data.

James W. Carmody December 20, 1994
Certified Engineering Geologist
No. 1576

CONTENTS

APPENDICES

APPENDIX A. FIGURES

Site Location Map

Site Location Map and Well Survey Area - January 1990

Site Plan, showing soil vapor sampling points - July 13, 1989

Site Plan - January 1990

Site Vicinity Map - June 28, 1991

Site Vicinity Map - January 14, 1992

Groundwater Elevation Contour Map September 25, 1990

Monitoring Well Location and Ground Water Elevation Contour Map - October 25, 1994

APPENDIX B. TABLES

Concentrations of Hydrocarbon Constituents in Soil Vapor - June 29, 1989

Water wells within a 1/2 mile area

Soil sample analytic results for MW-1 through MW-8 and E-1 - November 1989 through May 1990

Ground water sample analytic results for MW-1 through MW-8 and E-1 - December 1989 through September 1990

Soil sample analytic results for MW-9

Ground water sample analytic results for MW-9, E-2 and E-3

Soil sample analytic results for MW-10 and MW-11

Ground water sample analytic results for MW-10 and MW-11

Water Level Data and Ground Water Analytical Results for MW-1 through MW-11 and E-1 through E-3 - December 1989 through October 1994

SUMMARY

The Chevron site at 16304 Foothill Boulevard, San Leandro, California is an operating Chevron Service Station. In April 1982, an underground storage tank and associated vent line were replaced and in December 1986, a leak in the regular gasoline tank system was discovered and repaired. Between November 29, 1989 and April 22, 1992 eleven monitoring wells were installed in the site vicinity. From August 1991 to June 1994, ground water was extracted from wells E-1, E-2 and E-3. No total petroleum hydrocarbons as gasoline (TPH-G) or benzene have been detected in ground water influent samples since August 18, 1993. In June, 1994 the Alameda County Department of Environmental Health (ACDEH) granted permission to shut down the ground water extraction system. Data collected during subsurface investigations and remediation activities suggest that:

- ***The plume is contained by natural processes, and hydrocarbon concentrations are stable or decreasing:*** Subsurface sediments are comprised of predominantly low permeability, clayey material that attenuate hydrocarbon migration and allow biodegradation processes to decrease plume concentrations. Ground water monitoring data collected over the last five years show that hydrocarbon concentrations are either stable, decreasing or not detected in nearly all site wells.

- ***The site has been remediated to the extent feasible:*** The ground water extraction and treatment system which operated at this site for two and a half years recovered only 7.3 lbs of hydrocarbons. Since it appears that low permeability soils at this site are reducing the effectiveness of ground water extraction, other remedial technologies such as soil vapor extraction or air sparging would most likely be technically infeasible. Therefore, it appears there are no cost-effective technologies that would significantly accelerate the reduction of hydrocarbon concentrations in ground water at this site.

- ***Offsite migration of the plume is attenuated and the plume is contained within the present well network.*** Benzene concentrations in downgradient wells MW-8, MW-9 and MW-10 are several orders of magnitude less than concentrations in onsite well MW-3. In addition, hydrocarbon concentrations in these downgradient wells fluctuate between low levels and non-detect and are generally decreasing over time. The farthest downgradient well, MW-11, has not contained TPH-G or benzene for at least six quarters.

Therefore, Chevron submits that:

- Hydrocarbons remaining in the site subsurface do not present a threat to human health or to the quality of the surrounding aquifer; and

- No technically or economically feasible remedial measures are appropriate for this site to further reduce the contaminant plume.

Chevron requests that the ACDEH declare that the Chevron site is remediated to the extent feasible, and approve a gradual reduction in well sampling frequency and consider establishing a Non-Attainment Area encompassing the residual plume associated with this site.

INTRODUCTION

At the request of Chevron U.S.A (Chevron), Weiss Associates (WA) has prepared this site evaluation for Chevron Service Station 9-8139, located at 16304 Foothill Boulevard, San Leandro, California. The objective of this evaluation is to: 1) provide a comprehensive summary of all investigative and remedial actions performed at the site to date; 2) determine whether the site meets the Regional Water Quality Control Board - San Francisco Bay Region (RWQCB) criteria for establishment of a Non-Attainment Area; and 3) outline a recommended future action plan. The site-specific information presented in this evaluation is compiled from the reports listed in the reference section.

SITE HISTORY

SITE SETTING

Operating Chevron service station 9-8139 is located in a mixed commercial and residential area about 250 feet east of Highway 580 in San Leandro, California, near the foot of the East Bay Hills. Foothill Boulevard is on the southwest side of the site, a church on the northwest side, apartments on the northeast side and a motel on the southeast side (Appendix A). The surrounding topography slopes southwestward toward San Francisco Bay, approximately 6 miles away.

A survey of wells within one-half mile of the site identified nine active and four inactive wells used for agricultural, domestic, municipal and industrial purposes (Appendix A). Most of the wells are located southwest of the site, and the one municipal well is located approximately one half mile upgradient of the site in the East Bay Hills. Well depths range from 40 to 590 feet below ground surface (bgs).

SITE INVESTIGATIONS

April 1982 Leak Confirmation, Tank Replacement and Well Installation: In early 1982, a tank integrity test confirmed that a leak was found on a badly corroded vapor line on the regular fuel piping. The regular fuel tank and associated piping were removed and replaced. Six-inch diameter tank backfill wells W-1 and W-2 were then installed. However, there are no records that ground water samples were collected from these wells.

December 1986 Unconfirmed Leak: In December 1986, Chemical Processors Inc. (Chempro) reported a fuel leak. However, the spill/leak report is inconclusive.

June 1989 Soil Vapor Survey: In response to releases reported in April 1982 and December 1986, EA Science, Engineering and Technology (EA) of Lafayette, California conducted a soil vapor survey at the service station. Benzene was detected in only one sample, V4/C, collected from the west end of the south pump island at 1 part per million (ppm) (Appendix A and Appendix B).

November and December 1989 Subsurface Investigation: In December 1989 Chempro, installed 2-inch diameter monitoring wells MW-1, MW-2, MW-3 and MW-4 (Appendix A). Soil samples collected at approximately 15 feet bgs from wells MW-3 and MW-4 contained 1.1 and 0.29 ppm benzene, respectively. Although 20 ppm total oil and grease was detected in the 25 ft bgs soil sample from well MW-1, no other petroleum hydrocarbons were detected in any of the soil samples collected from MW-1 or MW-2. Ground water samples collected on December 5, 1989 from wells MW-1, MW-2, MW-3 and MW-4, contained up to 2,500 parts per billion (ppb) benzene. Tabulated analytic results for soil and ground water are presented in Appendix B, and boring logs for wells MW-1 through MW-4 are presented in Appendix C.

May and August 1990 Subsurface Investigation: In May 1990, Chempro installed 2-inch diameter monitoring wells MW-5, MW-6, MW-7, and 6-inch diameter extraction well E-1 (Appendix A). In August 1990, Chempro installed 2-inch diameter offsite monitoring well MW-8. Of the five wells installed, benzene was only detected in soil samples collected from MW-5 and E-1, at 1.5 and 0.69 ppm benzene, respectively. Ground water samples collected from MW-5 and E-1 contained benzene at 920 and 260 ppb, respectively. Tabulated analytic results for soil and

ground water are presented in Appendix B and boring logs for wells MW-5 through MW-8 and E-1 are presented in Appendix C.

Hydraulic tests were performed at the site by pumping from well E-1 and monitoring the response at wells MW-3, MW-5 and MW-7. Chempro calculated the average hydraulic conductivity at the site as 4.3×10^{-3} cm/second and the average ground water flow velocity as 5.2×10^{-4} cm/second and the radius of influence from well E-1 is approximately 100 feet.

June 1991 Subsurface Investigation: In June 1991, Burlington Environmental Inc. (BE) of Berkeley, California installed offsite monitoring well MW-9 and converted 2-inch diameter monitoring wells MW-4 and MW-5 to 4-inch diameter extraction wells E-3 and E-2, respectively. A soil sample collected from MW-9 contained 0.08 ppm benzene. Ground water samples collected from wells MW-9, E-2 and E-3 contained 94, 480 and 150 ppb benzene, respectively. Tabulated analytic results of soil and ground water samples from wells MW-9, E-2 and E-3 are presented in Appendix B and boring logs are presented in Appendix C.

April and May 1992 Subsurface Investigation: In April 1992, BE installed offsite monitoring wells MW-10 and MW-11. Benzene was not detected in soil and ground water samples from either well. Tabulated analytic results for soil samples from MW-10 and MW-11 are presented in Appendix B. Tabulated ground water analytic results since 1989 for all site wells are also presented in Appendix B. Boring logs for MW-10 and MW-11 are presented in Appendix C.

REMEDIAL ACTIONS

Ground water extraction and treatment from wells E-1, E-2 and E-3 began on August 1, 1991 and operated almost continuously until June 1994. The remediation system consisted of extracting ground water from wells E-1, E-2 and E-3, and treating the water with an oil/water separator and two 1,000 lb. aqueous phase carbon vessels connected in series. Treated ground water was discharged to the sanitary sewer as permitted by the Oro Loma Sanitary District.

Approximately 666,500 gallons of ground water were remediated since system startup. However, only 7.3 lbs of TPH-G were removed from extracted ground water. Furthermore, no

hydrocarbons have been detected in extracted ground water since July 20, 1993. Based on this data, Scott Seery of the ACDEH granted Chevron permission to shut down the ground water extraction system on June 2, 1994.

EVALUATION OF NON-ATTAINMENT AREA CRITERIA AND FUTURE ACTION PLAN

DISCUSSION OF NON-ATTAINMENT AREA CRITERIA

Based on the site hydrogeology and the configuration and concentrations of the remaining hydrocarbon plume, Chevron recommends this site as a candidate for reduced action and establishment of a Category II Non-Attainment Area (NAA). The site meets all of the criteria for establishment of a Category II NAA, and most of the criteria for a Category I NAA. In the following section, each of the RWQCB criterion for establishment of a NAA is considered for the subject site.

Category I, criterion a) The Discharger has demonstrated (e.g., pump tests, ground water monitoring, transport modeling) and will verify (e.g., ground water monitoring) that no significant pollution migration will occur due to hydrogeologic or chemical characteristics.

Hayward fault zone

Site Hydrogeology: The sediments beneath the site consist primarily of sandy clay and clayey sand with minor silty sand and silty gravely sand to the total depth explored, approximately 41.5 ft (Appendix C). The sediments are predominantly low permeability except for the silty gravel and gravely sand lenses found at about 15 to 20 feet bgs in the soil borings for wells E-1 and MW-3.

Ground Water Flow: The ground surface elevation at the site is approximately 125 ft above msl. The depth to water in site wells has ranged from 9 to 21 ft bgs. Ground water generally flows southwestward. Ground water elevation contour maps are presented in Appendix A. Compiled ground water depth measurements are presented in the Water Level Data and Ground Water Analytic Results table included in Appendix B.

Plume Location: The hydrocarbon plume at this site is constrained primarily to the area around monitoring well MW-3. Trace or low hydrocarbon concentrations have been detected occasionally in downgradient wells MW-8, MW-9 and MW-10 the last four quarters but no TPH-G or benzene

has been detected in the farthest downgradient well, MW-11, for the last six quarters. no separate phase hydrocarbons have been detected at the site since May 22, 1991.

Plume Stability: Since monitoring began in 1989, MW-3 has had the highest hydrocarbon concentrations in ground water, averaging about 20,000 ppb TPH-G. However, hydrocarbon concentrations in all other site wells have always been at least one or two orders of magnitude less than the MW-3 concentrations. Chevron believes the sites' predominantly low permeability, clay-rich sediments have contained the plume, slowing migration sufficiently to allow natural attenuation mechanisms, including sorption, dispersion, volatilization through the unsaturated zone, and/or chemical and biological activity to degrade the hydrocarbons beneath the site.

verify w/ DO conc. measurements

Category I, criterion b. Adequate source removal and/or isolation is undertaken to limit future migration of pollutants to ground water.

Over 660,000 gallons of ground water have been extracted and treated. As discussed under Category II criteria b and c, additional remediation is not justified at this site

Category I, criterion c. Dissolved phase cleanup is not cost-effective due to limited water quality impacts, environmental and human health risks and separate phases have been or are actively being removed.

Ground water impacts associated with the hydrocarbon plume at this site are limited since the only significant hydrocarbon concentrations in ground water are constrained to the area around MW-3. Fluctuating hydrocarbon concentrations found in downgradient wells MW-8 and MW-9 have not exceeded 25 ppb benzene since January 1993. Hydrocarbon concentrations between well MW-3 and wells MW-8 and MW-9 indicate that hydrocarbon concentrations are reduced by orders of magnitude downgradient of the source area. The low permeability soils found at this site naturally attenuate hydrocarbon migration. Since the concentrations found in soil and ground water are not likely to increase, human health risks associated with the two plausible exposure pathways, inhalation and ingestion, are expected to be limited. The sites asphalt covering would prevent significant volatilization of hydrocarbons to the atmosphere, thereby significantly decreasing the risk through inhalation. Since no municipal water supply wells are nearby and

drinking water is not drawn from the upper aquifer in this area, it is very unlikely that significant, long-term ingestion of ground water from beneath this site would occur and therefore, the risk by ingestion is insignificant.

Category I, criterion d. An acceptable plan is submitted and implemented for containing and managing the remaining human health, water quality, and environmental risks, if any, posed by residual soil and ground water pollution.

Our plan for containing and managing the remaining risks posed by residual hydrocarbons at this site includes: 1) continued ground water monitoring for hydrocarbons within and downgradient of the plume, for a limited period of time; and, 2) a contingency plan to be implemented if monitoring indicates significant downgradient migration and/or increasing concentrations in the plume. Our proposed ground water monitoring schedule and contingency plan are presented in the Future Action Plan in the next section.

Category II, criterion d. An appropriate cleanup program including adequate source removal and free product removal has been fully implemented and reliably operated for a period of time which is adequate to understand both the hydrogeology of the site and pollutant dynamics.

The remediation system at this site operated for two and a half years extraction and treating ground water from wells E-1, E-2 and E-3, located in the area immediately downgradient of MW-3. Former monitoring well MW-5 contained separate phase hydrocarbons (SPH) in 1990 and 1991 when it was converted to extraction well E-2. However, all SPHs in E-2 were subsequently removed during operation of the ground water extraction and treatment system. The remediation system was shut down in June 1994 when SPHs and dissolved phase hydrocarbons had not been detected in treatment system influent samples since July 1993.

Category II, criterion b. Ground water pollutant concentrations have reached an asymptotic level (the mass removed from the groundwater is no longer significant) using appropriate technology.

Although 666,500 gallons of ground water have been treated during two and a half years of remediation, only 7.3 lbs of hydrocarbons have been recovered. Using this technology, it is clear

that significant hydrocarbon mass cannot be removed from ground water due to the low permeability of site soils.

Category II, criterion c. Best available technologies are not technically or economically feasible to achieve further significant reduction in pollutant concentrations.

The only appropriate remedial technology for this site, ground water extraction, has not recovered significant hydrocarbon mass to justify its continued operation. Other technologies, such as soil vapor extraction or biosparging would not be appropriate remedial alternatives due to the low permeability sediments. The remediation activities performed at the site to date has removed as much of the hydrocarbons as is technically and economically feasible.

Category II, criterion d. An acceptable plan is submitted and implemented for containing and managing the remaining human health, water quality, and environmental risks, if any, posed by residual soil and ground water pollution.

Our plan for containing and managing the remaining risks posed by residual hydrocarbons at this site is discussed under Category I, criterion a.

FUTURE ACTION PLAN

Continued Ground Water Monitoring: The hydrocarbon plume appears to be limited to the source area near MW-3 with only low levels of hydrocarbons occasionally found in downgradient wells MW-8 and MW-9. Quarterly sampling and analysis of the downgradient wells will provide adequate information and assurance that this small plume is contained and that there are no likely human health or environmental risks. Continued quarterly monitoring of the other site wells will not yield additional significant information concerning hydrocarbon concentrations in ground water at this site. Currently, eleven wells at the site are monitored (i.e. sampled and/or gauged) quarterly for hydrocarbons. To ensure that the plume is contained and to maintain compatibility with health risk concerns while reducing monitoring at this site, Chevron plans to:

1) Discontinue monitoring in wells MW-1, MW-2 and MW-7. Since these wells are north of or upgradient of the plume, they will provide no significant new information.

The ground water flow direction at this site is consistently southward and these wells have contained only low or no hydrocarbon concentrations since sampling was initiated.

2) Conduct quarterly monitoring and reporting of crossgradient well MW-6 through 1995, then annual sampling at the seasonal high water table through 1997. After two years of annual monitoring, cease monitoring unless the contingency plan has been implemented. Monitoring this crossgradient well for this period will confirm the stability of the current plume configuration.

3) Monitor and report analytical data from MW-9, MW-10 and MW-11 semi-annually for 2 years at the seasonal high and low water table (2nd and 4th quarters), then annually for one year at the seasonal high water table. The proposed monitoring schedule will provide additional data confirming that significant hydrocarbons are not migrating from the site. After one year of annual monitoring, cease monitoring entirely unless the contingency plan has been implemented.

3 yrs

4) Discontinue monitoring and reporting at well MW-8 because 1) the other downgradient wells will serve as monitoring points for the plume boundary, and 2) well MW-8 will not contribute significant new information regarding the downgradient edge of the plume.

5) Discontinue reporting and monitoring in wells E-1, E-2 and E-3. These intermediate wells are not necessary since other site monitoring wells can supply sufficient information to adequately monitor the plume extent and the ground water flow direction.

No... These are the only wells downgradient of source and @ site boundaries — continue

6) Reduce monitoring and reporting to semi-annual for well MW-3 through 1995 then to annual at the seasonal high water table through 1997. After two years of annual monitoring and reporting, cease monitoring unless the contingency plan has been implemented. Monitoring this source area well will confirm that source area concentrations are stable or decreasing.

3 yrs

Proposed Monitoring and Sampling Schedule. Chevron Service Station #9-8139

	1995				1996				1997			
Well ID	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
MW-1	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	---	G&S	---	G&S	---	G&S	---	---	---	G&S	---	---
MW-6	G&S	G&S	G&S	G&S	---	G&S	---	---	---	G&S	---	---
MW-7	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	---	---	---	---	---	---	---	---	---	---	---	---
MW-9	---	G&S	---	G&S	---	G&S	---	G&S	---	G&S	---	---
MW-10	---	G&S	---	G&S	---	G&S	---	G&S	---	G&S	---	---
MW-11	---	G&S	---	G&S	---	G&S	---	G&S	---	G&S	---	---
E-1	---	---	---	---	---	---	---	---	---	---	---	---
E-2	---	---	---	---	---	---	---	---	---	---	---	---
E-3	---	---	---	---	---	---	---	---	---	---	---	---

G&S = Gauging and Sampling

Contingency Plan: For each of these sampling points, "baseline" and "trigger" conditions have been defined (Appendix D). Should monitoring indicate that "trigger" concentrations occur in any well for two consecutive monitoring periods, a Contingency Plan for increased ground water monitoring and evaluating an appropriate course of action will go into effect. This plan will ensure that "baseline" conditions are maintained in all wells. Details of the contingency plan are presented in Appendix D.

CONCLUSIONS

Data collected at the site demonstrate the following points;

- Ground water monitoring data collected over the last five years have shown that hydrocarbon concentrations are stable, decreasing or not detected in nearly all site wells;

- Hydrocarbon concentrations in ground water from wells MW-8 and MW-9 fluctuate between relatively low levels and non-detect but are generally decreasing over the long term;

- Subsurface sediments are comprised of predominantly low permeability, clayey material that attenuate hydrocarbon migration and allow biodegradation processes to decrease plume concentrations;

- Because the sediments beneath the site are primarily of low permeability, there are no cost-effective technologies that might significantly accelerate the removal of hydrocarbons in this plume.

Based on the data summarized in this report, it is apparent that no additional remedial measures are necessary. Declaring the downgradient plume boundary wells as the attainment points for achievement of maximum contaminant levels (MCLs) will allow natural processes to continue to contain and degrade the plume. The proposed monitoring and contingency plan will ensure that the risks posed by the residual plume are contained and managed.

Therefore, Chevron requests that ACDEH and the RWQCB accept that drinking water standards cannot be attained near the source area at this site and consider redefining the area of attainment of water quality objectives to the perimeter of the plume. Chevron will continue to monitor the Non-Attainment Area downgradient boundary at downgradient wells MW-9, MW-10 and MW-11 for three more years to confirm the stability of this plume.

REFERENCES

EA Engineering, Science, and Technology, Inc., July 14, 1989. Report of Investigation, Soil Vapor Contaminant Assessment, Chevron SS 9-8139, 16304 Foothill Boulevard, San Leandro, California.

Burlington Environmental Inc., September 23, 1991. Additional Soil and Groundwater Investigation Report, Chevron Service Station No. 9-8139, 16304 Foothill Boulevard, San Leandro, California.

Burlington Environmental Inc., July 28, 1992. Supplemental Soil and Groundwater Investigation Report, Chevron Service Station No. 9-8139, 16304 Foothill Boulevard, San Leandro, California.

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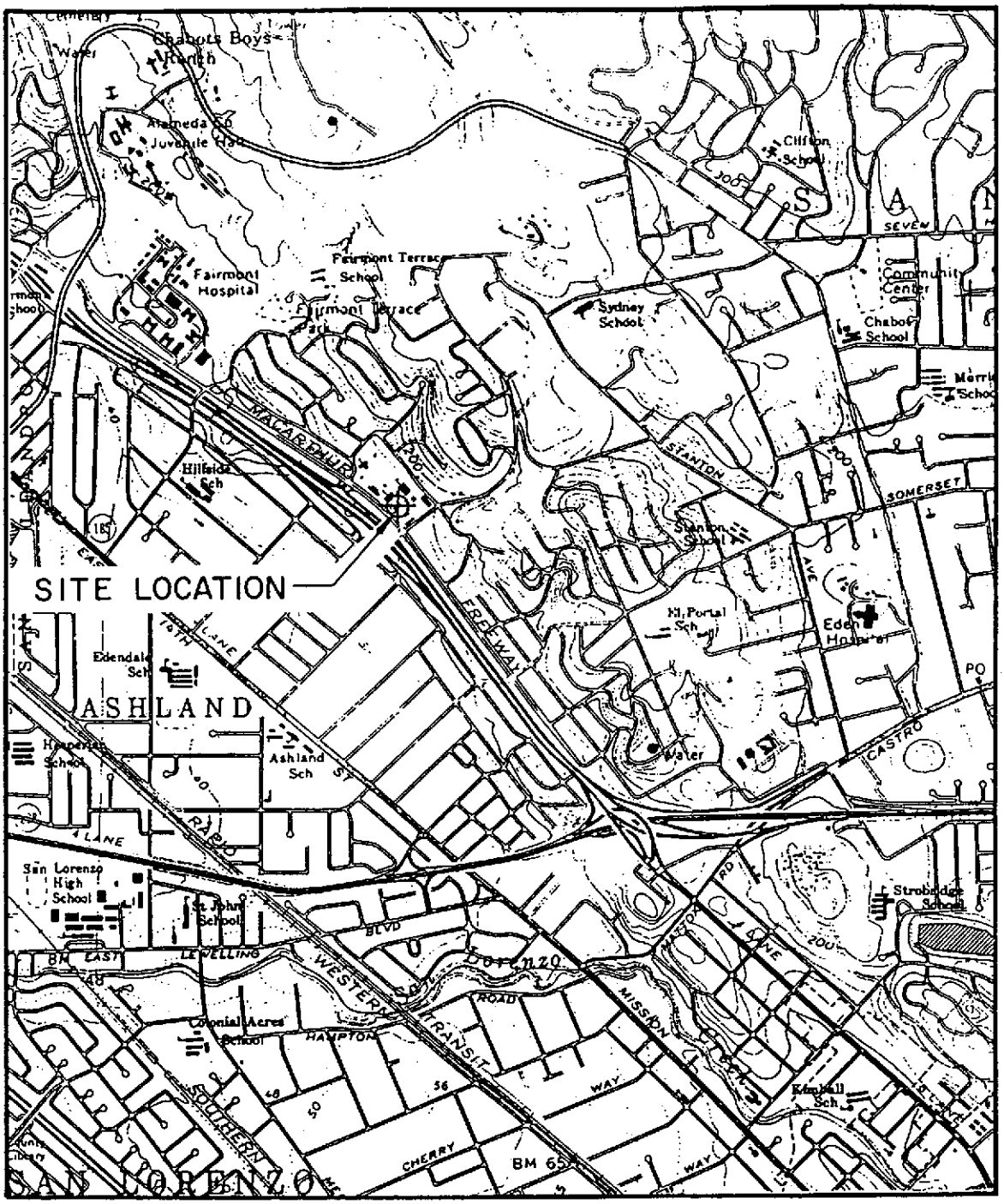
Sierra Environmental Services, May 25, 1994. Quarterly Ground Water Sampling Report, Chevron Service Station # 9-8139, 16304 Foothill Boulevard, San Leandro, California. SES Project #1-289-04.

Weiss Associates, May 10, 1994. Monthly Compliance Report, Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California. WA Job #4-641-54.

RWQCB, August 1994. Ground Water Basin Plan Amendments, 23 pp. plus tables and attachments.



NOTE: (MAP ADAPTED FROM USGS HAYWARD 7.5' QUADRANGLE

CHEMPRO **CHEMICAL PROCESSORS, INC.** **950-B GILMAN STREET** **BERKELEY, CALIFORNIA**	**SITE LOCATION MAP** Chevron Service Station #9-8139 16304 Foothill Boulevard San Leandro, California	FIGURE 1 1158

EXPLANATION

2 ◉ Water-producing well location and designation (see Table 2)
(Estimated locations of wells 1, 4,6,10 are shown)

N

SCALE

0 1000 2000 3000 4000 FEET

Note: Map adapted from Hayward 7.5' Quadrangle

January 1990

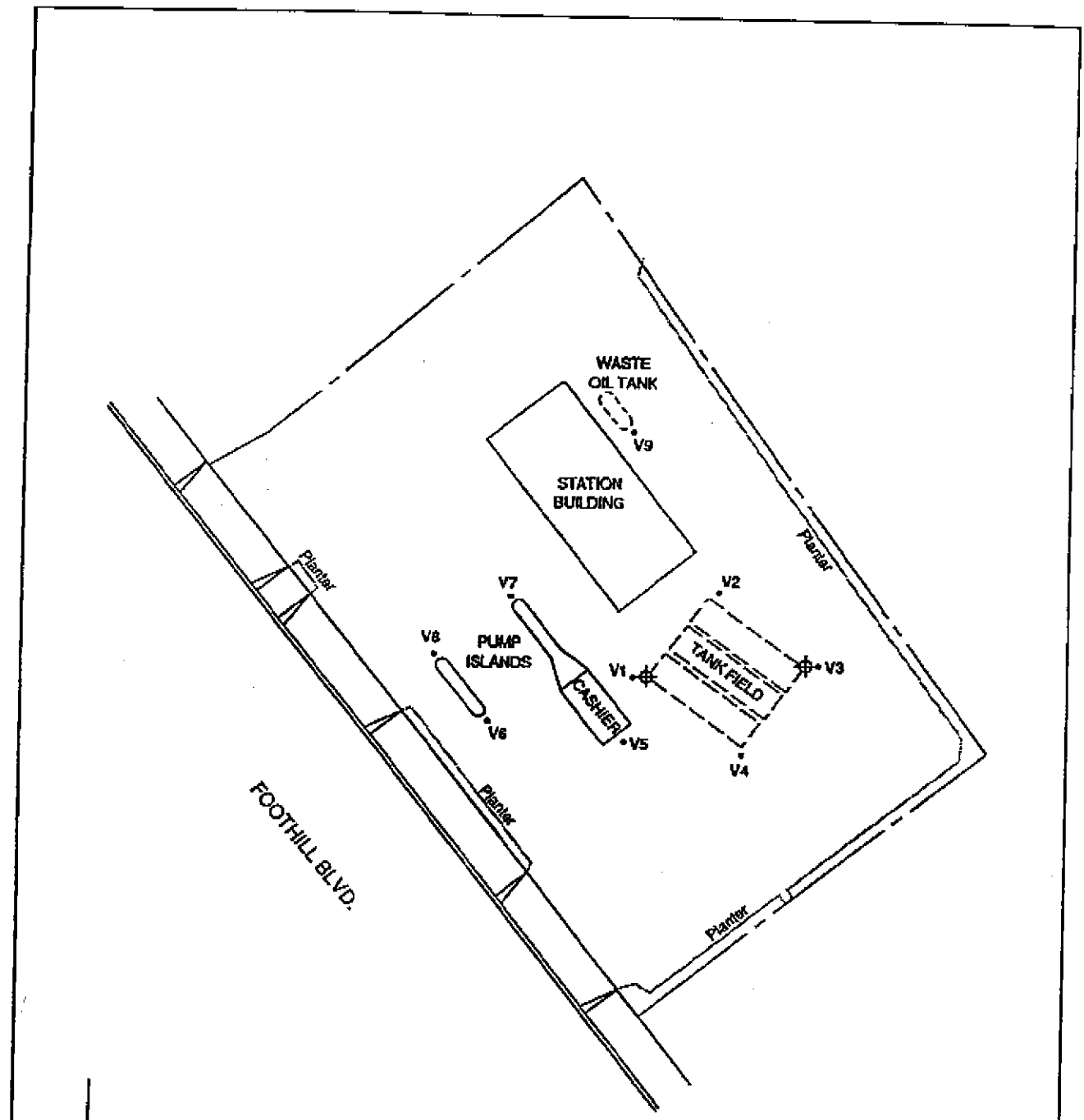
CHEMPRO
A Burlington Environmental Inc. Company

CHEMICAL PROCESSORS, INC.
950 "B" Gilman Street
Berkeley, CA 94710

SITE LOCATION MAP
AND WELL SURVEY AREA
Chevron Service Station No. 9-8139
16304 Foothill Boulevard
San Leandro, California

Figure

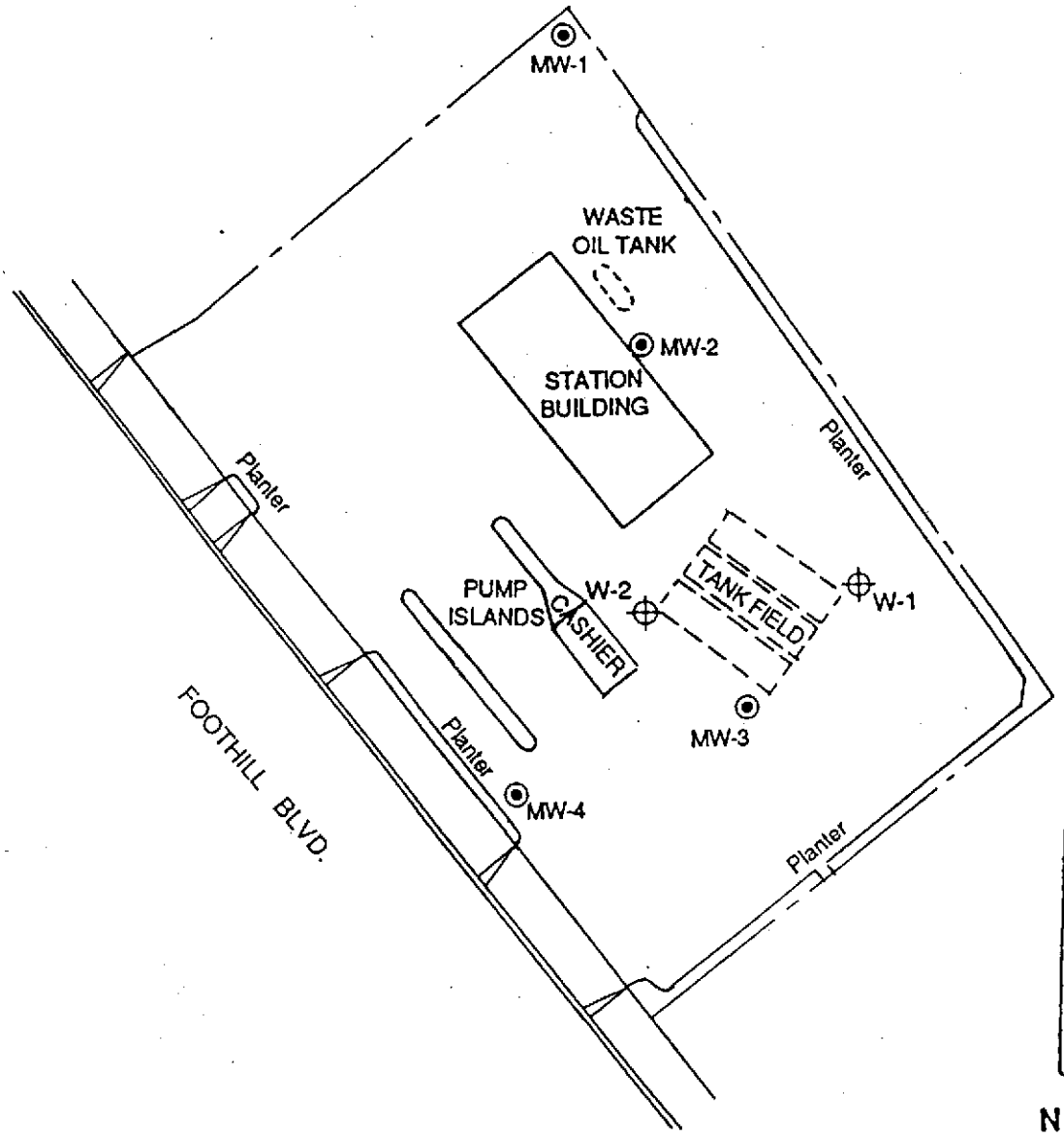
Job No. 987158



EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC.
41 Lafayette Circle
Lafayette, CA. 94549

Figure 2. Site plan, showing soil vapor sampling points, Chevron SS 9-8139, San Leandro, California. 29 June 1989.

Drawn	Date
MG	7-13-89
Reviewed	Date
MO	7-13-89



EXPLANATION

⊕ 6" Well

◉ Groundwater Monitor Well

0 20 40 Feet

January 1990

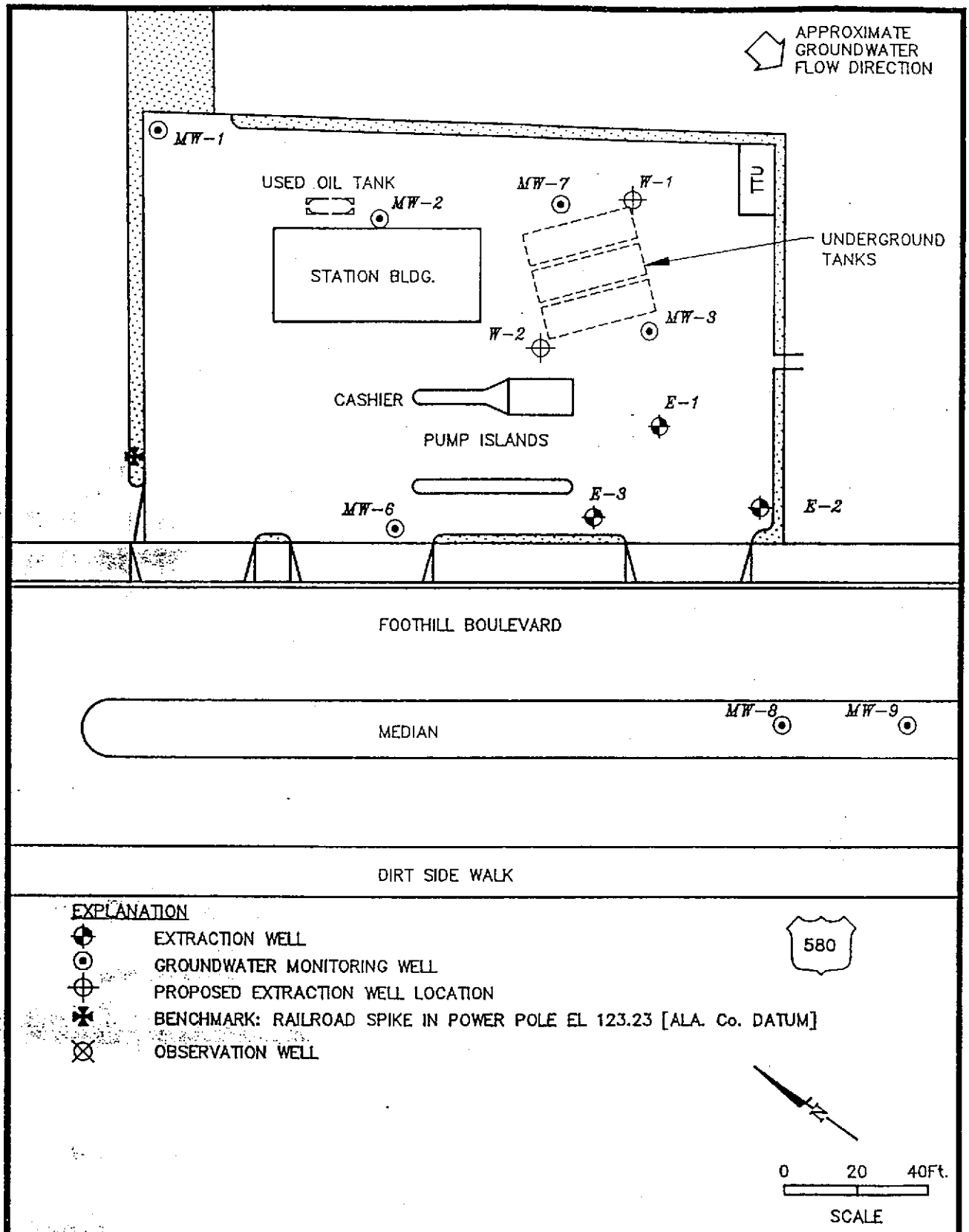
CHEMPRO
A Burlington Environmental Inc Company

CHEMICAL PROCESSORS, INC.
950 "B" Gilman Street
Berkeley, CA 94710

SITE PLAN
Chevron SS 9-8139
16304 Foothill Boulevard
San Leandro, California

Figure 2

Job No. 987158



BURLINGTON ENVIRONMENTAL INC.
CHEMPRO Division

SITE VICINITY MAP
Chevron Service Station No. 9-8139
16304 Foothill Boulevard
San Leandro, California

Figure 1

Project No. CHV149/158

Drawn By PPK | Date 6/28/91

Reviewed By : | Date :

Drawing No. A0615802

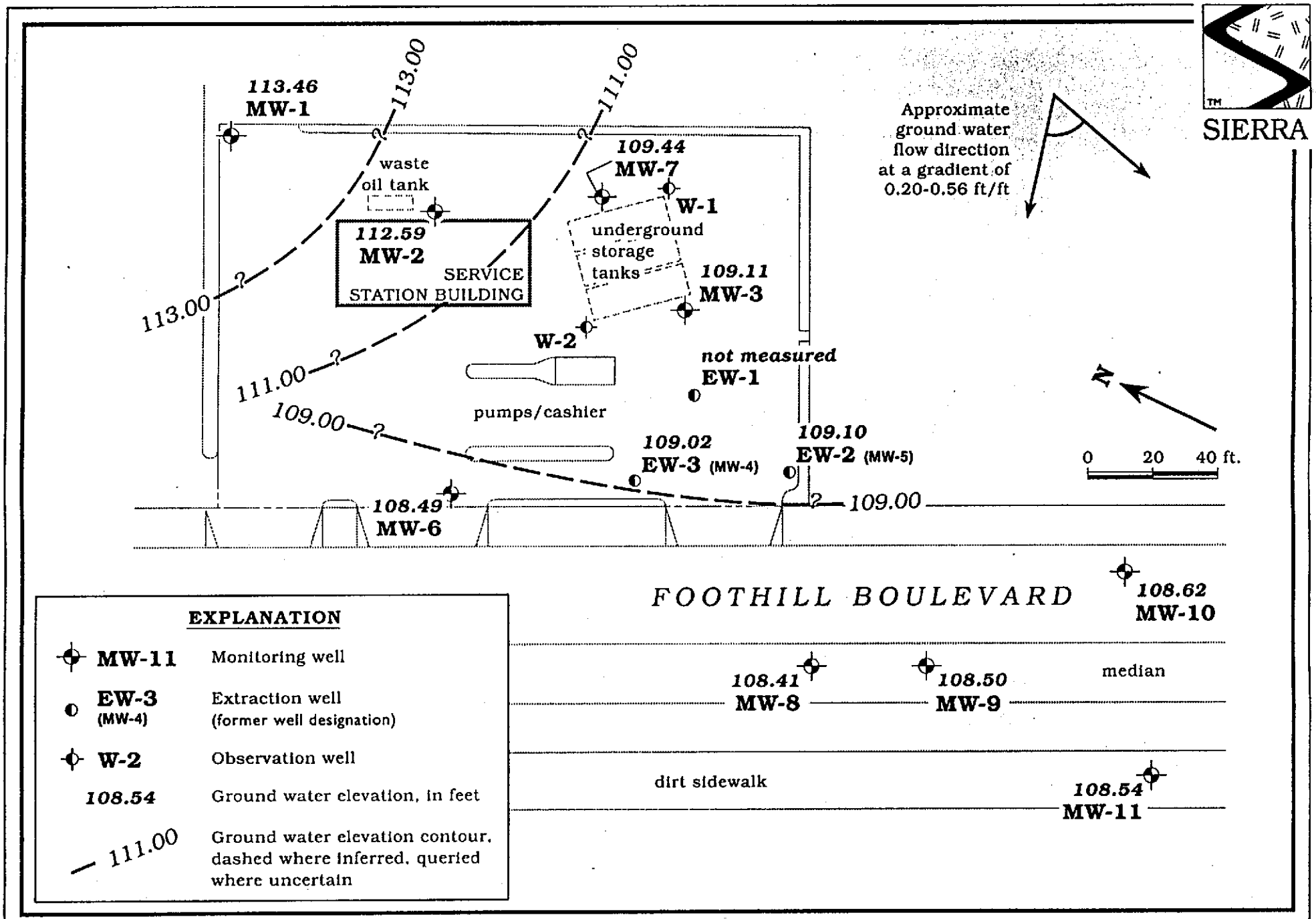


Figure 1. Monitoring Well Locations and Ground Water Elevation Contour Map ~~- October 25, 1994~~ Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California

1-289-04 11/22/94

TABLE 1 CONCENTRATIONS OF HYDROCARBON CONSTITUENTS IN SOIL VAPOR CHEVRON SS 9-8139, 16304 FOOTHILL BOULEVARD, SAN LEANDRO CALIFORNIA, 29 JUNE 1989

Sample Location	Depth (ft)	Vacuum (in. Hg)	Vacuum Release (min)	Peaks Prior to Benzene[a] (ppm)	Benzene (ppm)	Toluene (ppm)	Total Xylenes (ppm)	Ethyl-benzene (ppm)	Unidentified Peaks After benzene (ppm)[b]	Total Volatile Hydro-carbons (ppm)[c]
V1/A	3	24	15	1	<1	<1	<1	<1	<1	1
V1/B	8	24	0.5	<1	<1	<1	<1	<1	<1	<1
V1/C*	10.5	20	0	<1	<1	<1	<1	<1	<1	<1
V2/A	3	22	15	<1	<1	<1	<1	<1	<1	<1
V2/B	8	21	0.5	1	<1	<1	<1	<1	<1	1
V2/C*	10.5	18	0	1	<1	<1	<1	<1	<1	1
V3/A	3	19	0	<1	<1	<1	<1	<1	<1	<1
V3/B	8	21	1	<1	<1	<1	<1	<1	<1	<1
V3/C*	10.5	21	0.2	<1	<1	<1	<1	<1	<1	<1
V4/A	3	24	20	3	<1	<1	<1	<1	<1	3
V4/B	8	24	4	5	<1	<1	<1	<1	<1	5
V4/C	10.5	24	15	38	1	<1	<1	<1	<1	39
V5	3	21	15	16	<1	<1	<1	<1	<1	16
V6	3	22	25	3	<1	<1	<1	<1	<1	3
V7	3	23	15	4	<1	<1	<1	<1	<1	4
V8	3	22	15	47	<1	<1	<1	<1	1	48
V9/A	3	21	3	<1	<1	<1	<1	<1	<1	<1
V9/B	8	14	0	5	<1	<1	<1	<1	<1	5
V9/C	10.5	20	0.1	10	<1	<1	<1	<1	<1	10

a. Early peaks from blank data subtracted from total peaks prior to benzene. Quantification based on V-sec:ppm ratio for pentane (see text).
b. Quantification based on V-sec:ppm ratio for benzene (see text).
c. Summation of all detected constituents (see text).
* Hard subsoil encountered at this depth.

c56/98139

TABLE 1 (Cont.)

BLANK DATA

Test Time	Peaks Prior to Benzene (ppm)[b]	Benzene (ppm)	Toluene (ppm)	o-Xylene (ppm)	m,p-Xylene (ppm)	Ethyl-benzene (ppm)	Unidentified Peaks After Benzene (ppm)[c]	Total Volatile Hydro-carbons (ppm)[d]
0816	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.1	<1

PERCENTAGE OF STANDARD RECOVERED

Test Time	Benzene (ppm)	Toluene (ppm)	o-Xylene (ppm)	m,p-Xylene (ppm)	Ethyl-benzene (ppm)	n-Pentane (ppm)	n-Hexane (ppm)	iso-Octane (ppm)
0827	100	100	100	100	100	100	100	100
0846	89	93	93	94	95	79	83	85
1110	98	100	100	100	96	120	96	97
1339	100	100	100	100	98	100	100	100
1525	100	97	86	88	87	110	100	97

GASOLINE STANDARD[d]

Sample	Peaks Prior to Benzene[a] (ppm)	Benzene (ppm)	Toluene (ppm)	o-Xylene (ppm)	m,p-Xylene (ppm)	Ethyl-benzene (ppm)	Unidentified Peaks After benzene (ppm)[b]	Total Volatile Hydro-carbons (ppm)[c]
Chevron Unleaded	710,000	75,000	140,000	14,000	42,000	16,000	290,000	1,300,000

d. Fresh gasoline sample (1 ul of the headspace) analyzed.

Table 3
WATER SUPPLY WELLS
Chevron Service Station No. 9-8139

	OWNER	WELL LOCATION	WELL DESIGNATION			USE
1)	Hayward Municipal Water System	Julia Street, Castro Valley	3S/2W	5A	14	MUN
2)	UMEKI Nursery	16001 Foothill Blvd,San Leandro	3S/2W	5E	1	IRR
3)	U.S. Nursery	1767 162nd Ave., San Leandro	3S/2W	5E	2	ABN
4)	?	Foothill Blvd., San Leandro	3S/2W	5L	1	ABN
5)	Frank Martinez	1570 164th Ave., San Leandro	3S/2W	5L	2	ABN
6)	A.J. Pitcka	Gravel Rd., San Leandro	3S/2W	5L	3	IRR
7)	Woodward	1595 164th Ave., San Leandro	3S/2W	5L	4	IRR
8)	A. Quilici	1700 163rd Ave., San Leandro	3S/2W	5L	5	IRR
9)	Protez	1480 162nd Ave., San Leandro	3S/2W	5M	2	ABN
10)	Medina	?, San Leandro	3S/2W	5N	1	DOM
11)	Selin	1414 164th Ave., San Leandro	3S/2W	5N	2	IRR
12)	Namura Nursery	1501 163rd Ave., San Leandro	3S/2W	5N	3	IRR
13)	S. Nieda	1537 165th Ave., San Leandro	3S/2W	5P	1	IRR
14)	Nelson Nursery	1601 165th Ave., San Leandro	3S/2W	5P	2	ABN

*USE:
ABN - Abandoned Well
DOM - Domestic Well
IRR - Irrigation Well
MUN - Municipal Well

TABLE 6
SOIL ANALYSES AND ANALYTICAL TECHNIQUES
Chevron Service Station No. 9-8139

SOIL BORING	SAMPLE DEPTH	DATE SAMPLED	SAMPLE NO.	TPH Gasoline	TPH Diesel	TOTAL OIL & GREASE	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENE	TOTAL METALS Pb	Cr	Cd	Zn
Detection Method				8015	8015	503E	8020	8020	8220	8020	7240	7190	7130	7950
Detection Limit (ppm)				1	10	20	0.05	0.05	0.05	0.05	10	0.20	0.20	0.20
MW-1	25	11/29/89	SS-5SL	ND	ND	20	ND	ND	ND	ND	20	50	1.30	31
MW-2	5	11/29/89	SS-9SL	ND	ND	ND	ND	ND	ND	ND	20	28	0.90	48
MW-2	25	11/29/89	SS-13SL	ND	ND	ND	ND	ND	ND	ND	20	33	1.10	32
MW-3	5	12/1/89	SS-20SL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
MW-3	15	12/1/89	SS-21SL	6	NA	NA	1.1	0.64	0.08	0.44	NA	NA	NA	NA
MW-3	20	12/1/89	SS-23SL	ND	NA	NA	0.14	ND	ND	ND	NA	NA	NA	NA
MW-4	10	11/30/89	SS-16SL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
MW-4	15	11/30/89	SS-17SL	24	NA	NA	0.29	3.1	3.3	16	NA	NA	NA	NA
	25	11/30/89	SS-19SL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
MW-5	10	5/17/90	SS-45SL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	15	5/17/90	SS-46SL	130	NA	NA	1.5	3	1.2	7.4	NA	NA	NA	NA
MW-6	10.5	5/14/90	SS-27SL	2	NA	NA	ND	ND	ND	0.16	NA	NA	NA	NA
	15.5	5/14/90	SS-28SL	5	NA	NA	ND	ND	ND	0.11	NA	NA	NA	NA
MW-7	5.5	5/15/90	SS-33SL	ND	NA	NA	ND	ND	ND	0.06	ND	NA	NA	NA
	10.5	5/15/90	SS-34-SL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
MW-8	25	8/30/90	SS-49SL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
EW-1	10.5	5/16/90	SS-40SL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	15.5	5/16/90	SS-41-SL	37	NA	NA	0.69	2.8	0.76	4.2	NA	NA	NA	NA

Soil chemistry values presented in parts per million (ppm)
NA = No Analysis
ND = Less than method detection limit

Table 2
GROUNDWATER ANALYSES AND ANALYTICAL TECHNIQUES
Chevron Service Station No. 9-8139

WELL DESIGNATION	SAMPLE DATE	SAMPLE NO.	TPH Gasoline	TPH Diesel	TOTAL OIL & GREASE	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	Pb	TOTAL Cr	METALS Cd	Zn	ETHYLENE DIBROMIDE
MW-1	12/5/89	WS-1SL	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	20	ND
	5/24/90	WS-1SL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
	9/6/90	1WSSL	ND	NA	NA	ND	0.8	ND	0.5	NA	NA	NA	NA	ND
MW-2	12/5/89	WS-2SL	ND	ND	ND	ND	ND	ND	0.9	ND	ND	ND	10	ND
	5/24/90	WS-2SL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
	9/6/90	2WSSL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	ND
MW-3	12/5/89	WS-3SL	24000	NA	NA	2400	1800	360	2600	NA	NA	NA	NA	ND
	5/24/90	WS-3SL	9000	NA	NA	2600	1700	250	1500	NA	NA	NA	NA	NA
	9/6/90	3WSSL	3500	NA	NA	900	550	110	460	NA	NA	NA	NA	ND
MW-4	12/5/89	WS-4SL	19000	NA	NA	390	1300	460	1800	NA	NA	NA	NA	ND
	5/24/90	WS-5SL	4500	NA	NA	210	440	140	480	NA	NA	NA	NA	NA
	9/6/90	4WSSL	6000	NA	NA	680	520	170	580	NA	NA	NA	NA	ND
MW-5	5/25/90	WS-6SL	28000	NA	NA	920	1100	460	1300	NA	NA	NA	NA	2.40
	9/7/90	NA	<- - - - - - - - - - - - - - 0.04 feet PSH - - - - - - - - - - - - - - ->											
MW-6	5/25/90	WS-7SL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	ND
	9/7/90	6WSSL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	ND
MW-7	5/25/90	WS-8SL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	ND
	9/7/90	7WSSL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	ND
	9/7/90	8WSSL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	ND
MW-8	9/7/90	9WSSL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	ND
E-1	5/25/90	WS-9SL	3900	NA	NA	260	430	64	340	NA	NA	NA	NA	0.03
RINSATE	12/5/89	RS-4SL	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/24/90	RS-1SL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
	9/7/90	1RSSL	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	ND
12/89	Detection Method		8015	8015	413.2	602	602	602	602	7420	7190	7130	7950	504
	Detection Limit		500	1000	5000	0.5	0.5	0.5	0.5	500	100	10	10	0.05
5/90	Detection Method		8015	NA	NA	602/624*	602/624*	602/624*	602/624*	NA	NA	NA	NA	504
	Detection Limit (p		50			0.5/2	0.5/3	0.5/3	0.5/3					0.02
9/90	Detection Method		8015	NA	NA	602	602	602	602	NA	NA	NA	NA	504
	Detection Limit (p		50			0.5	0.5	0.5	0.5					0.05

Groundwater chemistry values presented in parts per billion (ppb)
ND = Less than method detection limit
NA = No Analysis
PSH = Phase Separated Hydrocarbons

* MW-5, MW-6, MW-7 & EW-1 were analyzed for Volatile Organics using EPA Method 8240 (624) with no detections other than those shown

Table 5
SOIL ANALYSES AND ANALYTICAL TECHNIQUES
Chevron Service Station No. 9-8139

SOIL BORING	SAMPLE DEPTH	DATE SAMPLED	SAMPLE NO.	TPH Gasoline	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENE
Detection Method				M8015	8020	8020	8020	8020
Detection Limit (ppm)				1	0.005	0.005	0.005	0.005
MW-9	15	6/11/91	SS-9A-SL	43	0.08	0.11	0.26	1.9

NOTES:
Soil chemistry values presented in parts per million (ppm)

Table 2
GROUNDWATER ANALYSES AND ANALYTICAL TECHNIQUES
Chevron Service Station No. 9-8139

WELL DESIGNATION	SAMPLE DATE	SAMPLE NO.	TPH Gasoline	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES
Detection Method			M8015	8020	8020	8020	8020
Detection Limit (ppb)			50	0.5	0.5	0.5	0.5
MW-9	6/24/91	WS-37-SL	16000	94	300	180	2500
E-2	6/24/91	WS-34-SL	2900	460	130	35	330
Duplicate	6/24/91	WS-35-SL	3000	480	140	37	380
E-3	6/24/91	WS-36-SL	5300	150	130	120	640
RINSATE	6/24/91	RS-5-SL	<50	<0.5	<0.5	<0.5	<0.5
TRIP BLANK	6/24/91	TB-5-SL	<50	<0.5	<0.5	<0.5	<0.5

NOTES:
Groundwater chemistry values presented in parts per billion (ppb)

Table 5
SOIL ANALYSES AND ANALYTICAL TECHNIQUES
Chevron Service Station No. 9-8139
San Leandro, California

SOIL BORING	SAMPLE DEPTH	DATE SAMPLED	SAMPLE NO.	TPH Gasoline	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENE	TOTAL LEAD
Detection Method				M8015	8020	8020	8020	8020	6010
Detection Limit (ppm)				1	0.005	0.005	0.005	0.005	5
MW-10	15-16.5	4/21/92	SS-60-SL	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	6
MW-11	15-16.5	4/21/92	SS-54-SL	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	NA

NOTES:
Soil chemistry values presented in parts per million (ppm)
NA = Not analyzed
ND = Not detected above method detection limit

Table 2

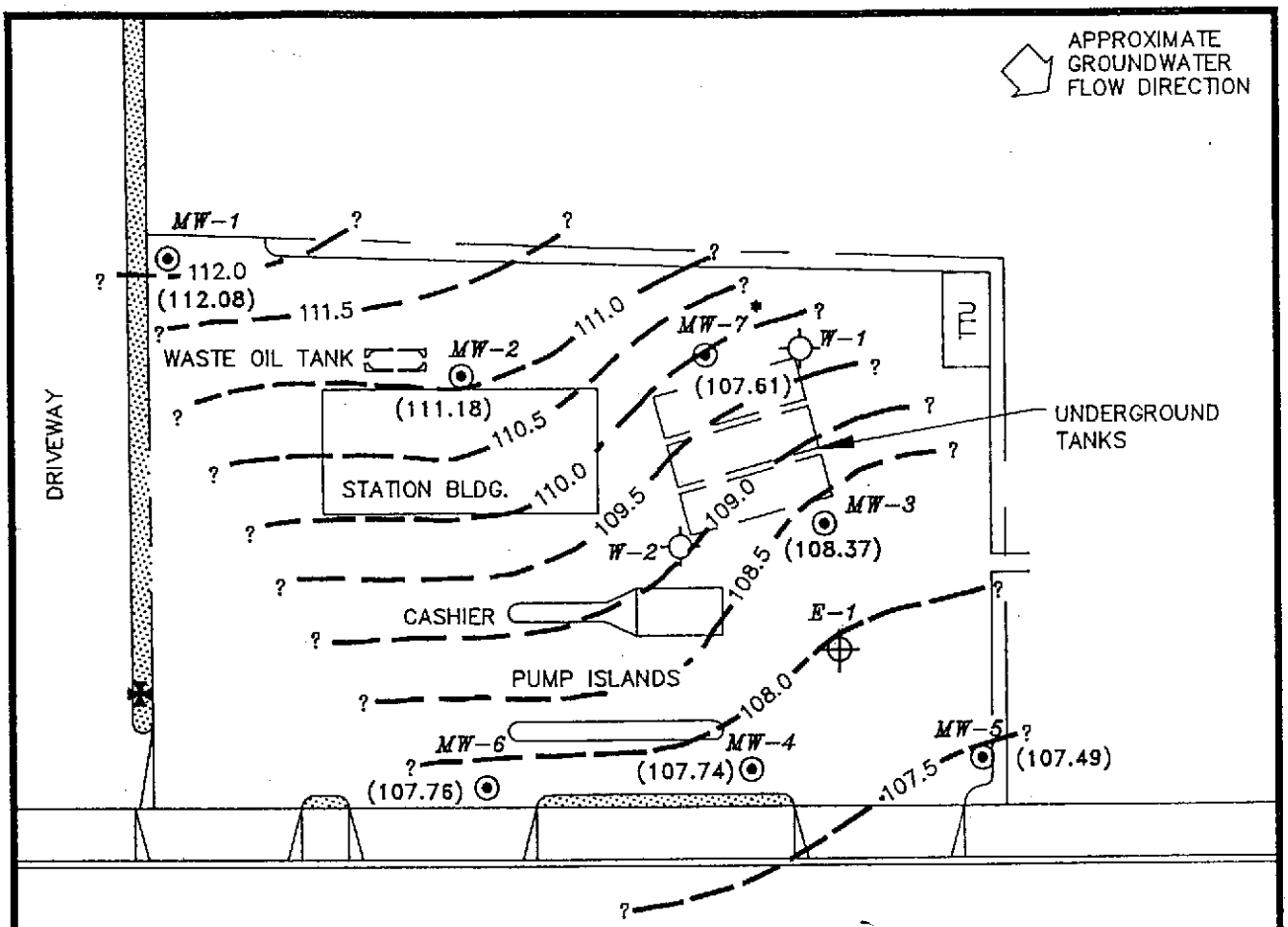
GROUNDWATER ANALYSES AND ANALYTICAL TECHNIQUES

Chevron Service Station No. 9-8139

San Leandro, California

WELL DESIGNATION	SAMPLE DATE	SAMPLE NO.	TPH Gasoline	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES
Detection Method			M8015	8020	8020	8020	8020
Detection Limit (ppb)			50	0.5	0.5	0.5	0.5
MW-10	5/15/92	WS-72-SL	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-11	5/15/92	WS-70-SL	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
TRIP BLANK	5/15/92	TB-LB	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5

NOTES:
Groundwater chemistry values presented in parts per billion (ppb)
ND = Not detected above method detection limit



EXPLANATION

580

- EXTRACTION WELL
- GROUNDWATER MONITORING WELL
- OBSERVATION WELL
- BENCHMARK: RAILROAD SPIKE IN POWER POLE EL 123.23 [ALA. Co. DATUM]
- (112.08) GROUNDWATER ELEVATION (FT–MSL) MEASURED ON: 9/25/90
- 109.5 GROUNDWATER CONTOUR (FT–MSL) GROUNDWATER GRADIENT 0.03 ft/ft
- * MW-7 DATA NOT USED IN CONTOURING

0 20 40

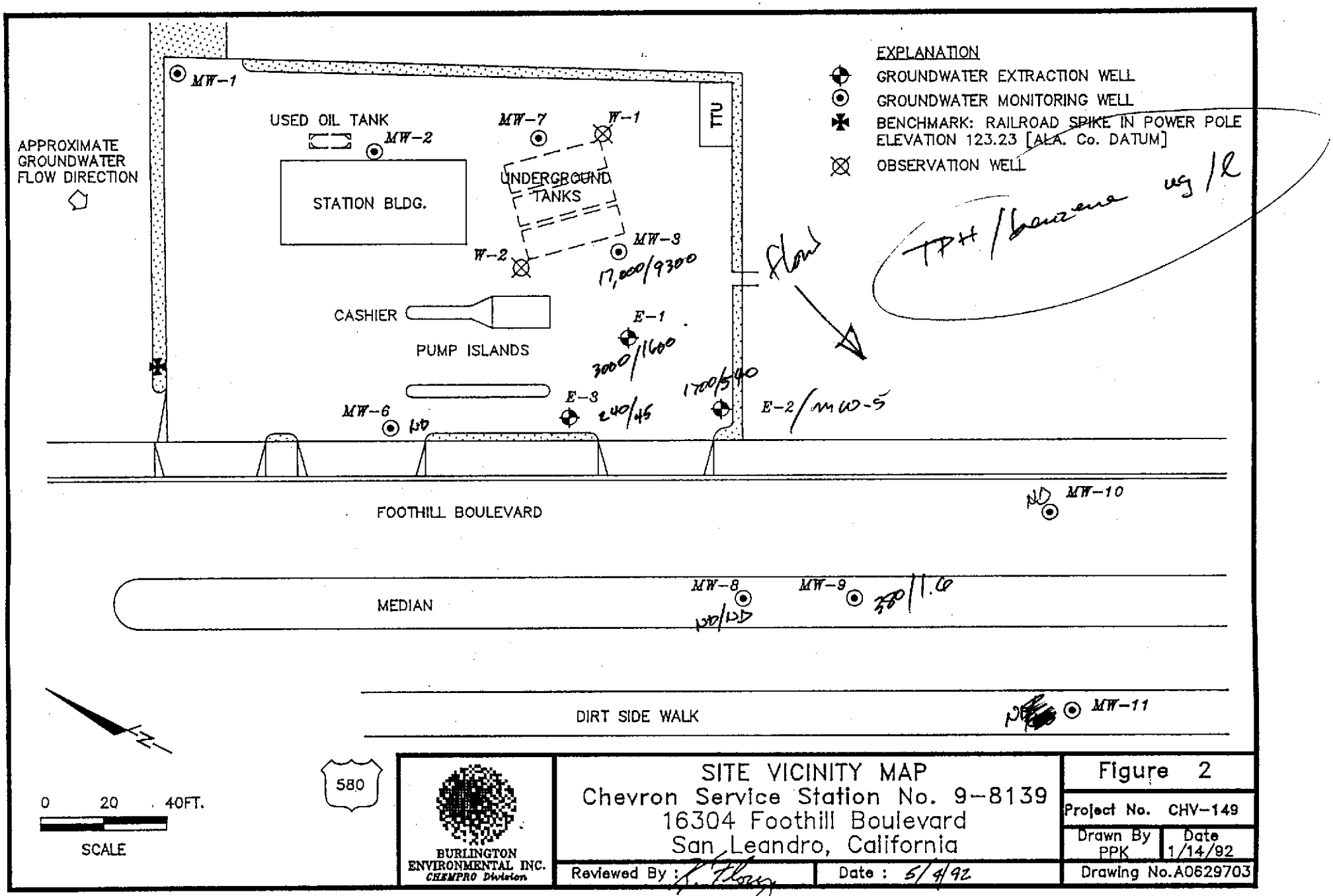
SCALE IN FEET

CHEMICAL PROCESSORS INC.
950 "B" Gilman Street
Berkeley, CA 94710

GROUNDWATER ELEVATION CONTOUR
Chevron Service Station No. 9-8139
16304 Foothill Boulevard
San Leandro, California

PROJECT No. 1158

FIGURE 4


EXPLANATION
GROUNDWATER EXTRACTION WELL
GROUNDWATER MONITORING WELL
BENCHMARK: RAILROAD SPIKE IN POWER POLE ELEVATION 123.23 [ALA. Co. DATUM]
OBSERVATION WELL
APPROXIMATE GROUNDWATER FLOW DIRECTION
MW-1
USED OIL TANK
MW-2
MW-7
W-1
TTU
STATION BLDG.
UNDERGROUND TANKS
W-2
MW-3
17,000/9300
flow
TPH / benzene ug/l
CASHIER
E-1
3000/1600
PUMP ISLANDS
1700/540
E-3
240/46
MW-6
ND
E-2/MW-5
FOOTHILL BOULEVARD
ND
MW-10
MEDIAN
MW-8
ND/ND
MW-9
330/1.6
DIRT SIDE WALK
ND
MW-11
N
0 20 40FT.
SCALE
580
BURLINGTON ENVIRONMENTAL INC.
CHEMPRO Division
SITE VICINITY MAP
Chevron Service Station No. 9-8139
16304 Foothill Boulevard
San Leandro, California
Figure 2
Project No. CHV-149
Drawn By PPK
Date 1/14/92
Reviewed By : S. Flory
Date : 5/4/92
Drawing No. A0629703

SIERRA

Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B	T	E	X	EDB
						<----------ppb---------->					
MW-1/	12/5/89	---	---	---	8015/8020/413/504[1,2]	<500	<0.5	<0.5	<0.5	<0.5	<0.5
127.09	3/23/90	12.92	114.17	0	---	---	---	---	---	---	---
	5/24/90	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	9/6/90	14.68	112.41	0	8015/8020/504	<50	<0.5	0.8	<0.5	0.5	<0.5
	9/25/90	15.01	112.08	0	---	---	---	---	---	---	---
	11/29/90	14.82	112.27	0	8015/8020	<50	0.7	0.9	<0.5	1	---
	2/20/91	14.29	112.80	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/91	12.16	114.93	0	---	---	---	---	---	---	---
	5/22/91	13.69	113.40	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/22/91	15.38	111.71	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/13/91	15.80	111.29	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/30/92	14.71	112.38	0	8015/8020	<50	0.5	<0.5	<0.5	0.5	---
	4/23/92	12.22	114.87	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/27/92	14.30	112.79	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/26/92	15.90	111.19	0	8015/8020	<50	0.6	<0.5	<0.5	<0.5	---
	1/29/93	10.51	116.58	0	8015/8020	<50	3	3	0.7	3	---
	4/30/93	9.90	117.19	0	8015/8020	<50	<0.5	0.7	<0.5	1	---
	7/14/93	12.28	114.81	0	8015/8020	<50	0.7	1	<0.5	3	---
	10/27/93	15.53	111.56	0	8015/8020	<50	0.9	2	<0.5	2	---
	1/13/94	12.24	114.85	0	8015/8020	<50	<0.5	0.9	<0.5	<0.5	---
	4/22/94	12.91	114.18	0	8015/8020	<50	1.1	2.6	1.0	5.5	---
	7/29/94	12.75	114.34	0	8015/8020	<50	<0.5	0.9	<0.5	<0.5	---
	10/25/94	**13.63**	**113.46**	**0**	**8015/8020**	**100**	**0.6**	**1.6**	**<0.5**	**4.1**	---
MW-2/	12/5/89	---	---	---	8015/8020/413/504[1,2]	<500	<0.5	<0.5	<0.5	0.9	<0.5
125.98	3/23/90	12.40	113.58	0	---	---	---	---	---	---	---
	5/24/90	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	9/6/90	14.85	111.13	0	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	9/25/90	14.80	111.18	0	---	---	---	---	---	---	---
	11/29/90	14.40	111.58	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	2/20/91	14.09	111.89	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/91	12.62	113.36	0	---	---	---	---	---	---	---
	5/22/91	12.98	113.00	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/22/91	14.93	111.05	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/13/91	15.42	110.56	0	8015/8020	58	<0.5	0.5	0.7	2.3	---
	1/30/92	14.70	111.28	0	8015/8020	<50	<0.5.	<0.5	<0.5	<0.5	---
	4/23/92	13.83	112.15	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/27/92	15.30	110.68	0	8015/8020	<50	<0.5	<0.5	<0.5	1.1	---

SIERRA

Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B	T	E	X	EDB
						<----------ppb---------->					
MW-2	10/26/92	15.62	110.36	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
(cont)	1/29/93	9.26	116.72	0	8015/8020	<50	3	8	1	5	---
	4/30/93	9.66	116.32	0	8015/8020	<1,300	<13	<13	<13	<13	---
	7/14/93	11.90	114.08	0	8015/8020	<50	0.8	2	0.8	4	---
	10/27/93	13.49	112.49	0	8015/8020	<50	1	2	1	2	---
	1/13/94	11.99	113.99	0	8015/8020	<50	<0.5	0.6	<0.5	<0.5	---
	4/22/94	12.73	113.25	0	8015/8020	<50	0.6	<0.5	<0.5	1.7	---
	7/29/94	12.30	113.68	0	8015/8020	<50	<0.5	0.9	<0.5	<0.5	---
	10/25/94	**13.39**	**112.59**	**0**	**8015/8020**	**<50**	**<0.5**	**0.8**	**<0.5**	**2.1**	**---**
MW-3/	12/5/89	---	---	---	8015/8020/504	24,000	2,400	1,800	360	2,600	<0.5
(d)	12/5/89	---	---	---	8015/8020/413/504[2]	24,000	2,500	1,900	390	2,600	<0.5
127.84	3/23/90	17.50	110.34	0	---	---	---	---	---	---	---
	5/24/90	---	---	---	8015/8020	9,000	2,600	1,700	250	1,500	---
(d)	5/24/90	---	---	---	8015/8020	10,000	2,600	1,800	260	1,600	---
126.77	9/6/90	18.72	108.05	0	8015/8020/504	3,500	900	550	110	460	<0.5
	9/25/90	18.40	108.37	0	---	---	---	---	---	---	---
	11/29/90	18.97	107.80	0	8015/8020	9,200	1,100	1,100	210	1,100	---
	2/20/91	19.20	107.57	0	8015/8020	8,800	960	780	200	920	---
	4/19/91	17.81	108.96	0	---	---	---	---	---	---	---
	5/22/91	17.88	108.89	0	8015/8020	28,000	5,800	1,200	460	2,300	---
	8/1/91	19.23	107.54	0	---	---	---	---	---	---	---
	8/22/91	20.17	106.60	0	8015/8020	21,000	3,100	2,000	480	2,000	---
(d)	8/22/91	---	---	---	8015/8020	19,000	2,700	1,800	420	1,700	---
	11/13/91	19.95	106.82	0	8015/8020	18,000	2,400	1,200	450	2,200	---
	1/30/92	19.14	107.63	0	8015/8020	18,000	3,800	920	700	2,600	---
	4/23/92	17.75	109.02	0	8015/8020	46,000	5,000	1,900	1,000	3,500	---
	7/27/92	19.00	107.77	0	8015/8020	26,000	4,900	1,100	1,200	3,600	---
	10/26/92	19.62	107.15	0	8015/8020	6,600	1,100	41	220	570	---
	1/29/93	15.95	110.82	0	8015/8020	32,000	5,900	2,900	1,300	5,000	---
	4/30/93	15.67	111.10	0	8015/8020	14,000[4]	6,100	98	870	2,400	---
	7/14/93	16.83	109.94	0	8015/8020	12,000[4]	3,100	1,100	720	2,900	---
	10/27/93	17.70	109.07	0	8015/8020	19,000	7,800	400	1,500	3,400	---
	1/13/94	16.54	110.23	0	8015/8020	51,000	3,700	140	720	1,800	---
	4/22/94	17.02	109.75	0	8015/8020	22,000[4]	9,300	89	1,200	2,400	---
	7/29/94	16.95	109.82	0	8015/8020	13,000	4,700	44	580	420	---
	10/25/94	**17.66**	**109.11**	**0**	**8015/8020**	**24,000**	**8,700**	**52**	**1,500**	**1,400**	**---**

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B	T	E	X	EDB
						<--------		ppb			-------->
MW-4/											
125.22	12/5/89	---	---	---	8015/8020/504	19,000	390	1,300	460	1,800	<0.5
	3/23/90	16.02	109.20	0	---	---	---	---	---	---	---
	5/24/90	---	---	---	8015/8020	4,500	210	440	140	480	---
	9/6/90	17.35	107.87	0	8015/8020/504	6,000	680	520	170	580	<0.5
	9/25/90	17.48	107.74	0	---	---	---	---	---	---	---
	11/29/90	17.61	107.61	0	8015/8020	15,000	800	1,000	430	1,700	---
	2/20/91	17.81	107.41	0	8015/8020	15,000	640	390	420	1,600	---
(d)	2/20/91	---	---	---	8015/8020	15,000	680	410	430	1,600	---
	4/19/91	15.80	109.42	0	---	---	---	---	---	---	---
	5/22/91[6]	16.68	108.54	0	8015/8020	9,800	580	140	310	740	---
(d)	5/22/91	---	---	---	8015/8020	7,200	520	130	270	670	---
MW-5/											
125.85	3/23/90	16.89	108.96	0	---	---	---	---	---	---	---
	5/25/90	---	---	---	8015/8020/504	28,000	920	1,100	460	1,300	2.4
	9/7/90	18.46	107.42[5]	0.04	8015/8020	---	---	---	---	---	---
	11/29/90	18.87	107.54[5]	0.71	8015/8020	---	---	---	---	---	---
	2/20/91	18.91	107.31[5]	0.47	8015/8020	---	---	---	---	---	---
	4/19/91	16.99	109.24[5]	0.48	---	---	---	---	---	---	---
	9/25/90	19.30	107.58[5]	1.3	---	---	---	---	---	---	---
	5/22/91[6]	17.69	108.42[5]	0.33	8015/8020	---	---	---	---	---	---
MW-6/											
124.18	3/23/90	18.51	105.67	0	---	---	---	---	---	---	---
	5/25/90	---	---	---	8015/8020/504	<50	<2	<3	<3	<3	<0.02
	9/7/90	16.18	108.00	0	8015/8020/504	<50	<2	<3	<3	<3	<0.05
	9/25/90	16.42	107.76	0	---	---	---	---	---	---	---
	11/29/90	16.11	108.07	0	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	<0.05
	2/20/91	16.09	108.09	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/91	15.15	109.03	0	---	---	---	---	---	---	---
	5/22/91	15.41	108.77	0	8015/8020	<50	0.5	0.7	<0.5	1.1	---
	8/23/91	17.80	106.38	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/14/91	16.52	107.66	0	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	<0.02
(d)	11/14/91	---	---	---	8015/8020/504	<50	<0.5	0.6	<0.5	1.1	<0.05
	1/31/92	16.48	107.70	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
(d)	1/31/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/23/92	16.20	107.98	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---

Table 1. Performance Summary, Chevron Service Station #9-8139, 16304 Foothill Blvd., San Leandro, CA

DATE SAMPLED		EFFLUENT TOTALIZER READING (gallons)	TOTAL FLOW (gallons)	FLOW BETWEEN READINGS (gallons)	DAYS BETWEEN READINGS	AVERAGE FLOW (gpm)	COMMENTS
08/01/91	a	--	1,450	0	0	0	
08/08/91		--	10,937	9,487	7	0.94	
08/30/91		--	31,773	20,836	22	0.66	
09/30/91		--	39,018	7,245	31	0.16	
10/29/91		--	54,838	15,820	29	0.38	
11/25/91		--	77,017	22,179	27	0.57	
12/27/91		--	103,263	26,246	32	0.57	
01/29/92		--	132,654	29,391	33	0.62	
01/31/92		--	133,529	875	2	0.30	
03/24/92	b	159,671	159,671	26,142	53	0.34	
04/29/92		169,869	169,869	10,198	36	0.20	
05/12/92		172,272	172,272	2,403	13	0.13	
06/09/92		176,660	176,660	4,388	28	0.11	
07/14/92		183,240	183,240	6,580	35	0.13	
08/11/92	c	183,240	186,152	2,912	28	0.07	
09/09/92	c	183,240	188,362	2,210	29	0.05	Effluent totalizer repaired.
10/07/92		184,862	189,984	1,622	28	0.04	
11/10/92		184,864	189,986	2	34	0.00	
12/24/92		184,864	189,986	0	44	0.00	
01/22/93		184,927	190,049	63	29	0.00	EW-3 not pumping.
02/10/93		189,700	194,822	4,773	19	0.17	
02/26/93	d	192,972	198,094	3,272	16	0.14	EW-3 pump replaced, controller repaired.
03/10/93		202,305	210,699	12,605	12	0.73	
04/05/93		244,046	252,440	41,741	26	1.11	System off upon arrival, relay contacts repaired, system restarted.
05/11/93		268,926	277,320	24,880	36	0.48	
06/17/93		307,389	315,783	38,463	37	0.72	
07/20/93		324,955	333,349	17,566	33	0.37	System off upon arrival due to clog in effluent line. Line cleared and system restarted.
08/18/93		353,614	362,008	28,659	29	0.69	System effluent routed to bypass irrigation tank. New totalizers installed in EW-1, EW-2, and EW-3.
08/25/93		361,071	369,465	7,457	7	0.74	Discharge hose in well EW-3 leaking. Hose repaired and system restarted.
09/16/93		382,175	390,569	21,104	22	0.67	
10/19/93		415,142	423,536	32,967	33	0.69	
11/11/93		439,806	448,200	24,664	23	0.74	
12/15/93		474,063	482,457	34,257	34	0.70	
01/26/94		524,975	533,369	50,912	42	0.84	
02/15/94		551,487	559,881	26,512	20	0.92	
03/21/94		598,396	606,790	46,909	34	0.96	
04/13/94		628,723	637,117	30,327	23	0.92	

-- Table 1 Contines on Next Page --

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B	T	E	X	EDB
						<----------ppb---------->					
MW-6 (d)	4/23/92	---	---	---	8015/8020	---	---	---	---	---	---
(cont)	7/27/92	16.52	107.66	0	8015/8020	<50	1.2	0.6	<0.5	1.9	---
	10/26/92	17.12	107.06	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/93	13.13	111.05	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/30/93	14.86	109.32	0	8015/8020	<50	<0.5	<0.5	<0.5	0.6	---
	7/14/93	14.61	109.57	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/27/93	15.38	108.80	0	8015/8020	<50	0.9	1	0.6	1	---
	1/13/94	15.34	108.84	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/22/94	15.07	109.11	0	8015/8020	<50	<0.5	<0.5	<0.5	2.5	---
	7/29/94	15.30	108.88	0	8015/8020	<50	7.5	1.2	1.0	1.1	---
	10/25/94	**15.69**	**108.49**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**1.2**	**---**
MW-7/											
126.86	3/23/90	21.40	105.46	0	---	---	---	---	---	---	---
	5/25/90	---	---	---	8015/8020/504	<50	<2	<3	<3	<3	<0.02
	9/7/90	18.38	108.48	0	---	---	---	---	---	---	---
	9/25/90	19.25	107.61	0	---	---	---	---	---	---	---
	9/27/90	---	---	---	8015/8020/504	<50	<2	<3	<3	<3	<0.05
(d)	9/27/90	---	---	---	8015/8020/504	<50	<2	<3	<3	<3	<0.05
	11/29/90	18.55	108.31	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	2/20/91	18.55	108.31	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/91	17.33	109.53	0	---	---	---	---	---	---	---
	5/22/91	17.42	109.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/22/91	19.05	107.81	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/13/91	21.84	105.02	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/30/92	22.42	104.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/23/92	22.04	104.82	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/27/92	22.24	104.62	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/26/92	22.11	104.75	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/93	17.07	109.79	0	8015/8020	<50	4	13	2	8	---
	4/30/93	14.86	112.00	0	8015/8020	<50	<0.5	<0.5	<0.5	0.6	---
	7/14/93	16.10	110.76	0	8015/8020	<50	<0.5	1	<0.5	2	---
	10/27/93	18.71	108.15	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/13/94	17.89	108.97	0	8015/8020	<50	<0.5	0.9	<0.5	1	---
	4/22/94	16.94	109.92	0	8015/8020	<50	<0.5	<0.5	<0.5	1.3	---
	7/29/94	16.70	110.16	0	8015/8020	74	19	8.2	7.8	11	---
	10/25/94	**17.42**	**109.44**	**0**	**8015/8020**	**<50**	**<0.5**	**0.6**	**<0.5**	**1.6**	**---**

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B	T	E	X	EDB
						<----------ppb---------->					
MW-8/											
123.61	9/7/90	16.07	107.54	0	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	<0.05
	9/25/90	16.20	107.41	0	---	---	---	---	---	---	---
	11/29/90	16.30	107.31	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
(d)	11/29/90	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	2/20/91	16.32	107.29	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/91	14.71	108.90	0	---	---	---	---	---	---	---
	5/22/91	15.42	108.19	0	8015/8020	<50	0.6	<0.5	<0.5	1	---
	8/22/91	17.15	106.46	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/14/91	16.99	106.62	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/30/92	16.30	107.31	0	8015/8020	<50	1	0.7	<0.5	1.1	---
	4/23/92	15.05	108.56	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/27/92	16.08	107.53	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/26/92	16.72	106.89	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/93	12.82	110.79	0	8015/8020	1,400	470	470	37	160	--
	4/30/93	13.54	110.07	0	8015/8020	1,600	<13	15	18	29	---
	7/14/93	14.65	108.96	0	8015/8020	<50	<0.5	0.7	<0.5	2	---
	10/27/93	15.04	108.57	0	8015/8020	<50	3	4	2	4	---
	1/13/94	15.14	108.47	0	8015/8020	<50	<0.5	4	<0.5	<0.5	---
system shut-down →	4/22/94	15.01	108.60	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/28/94	14.70	108.91	0	8015/8020	69	7.3	18.0	3.3	12	---
	10/25/94	**15.20**	**108.41**	**0**	**8015/8020**	**<50**	**<0.5**	**0.8**	**<0.5**	**1.6**	---
MW-9/											
124.20	8/22/91	17.60	106.60	0	8015/8020/504	9,600	46	170	98	1,200	<0.05
	11/14/91	17.48	106.72	0	8015/8020/504	11,000	130	58	86	1,500	<0.05
	1/30/92	16.71	107.49	0	8015/8020	11,000	210	29	110	1,900	---
	4/23/92	15.23	108.97	0	8015/8020	17,000	180	25	100	1,900	---
	7/27/92	16.72	107.48	0	8015/8020	2,800	59	1.6	18	280	---
	10/26/92	17.22	106.98	0	8015/8020	3,200	38	<0.5	19	200	---
	1/29/93	13.39	110.81	0	8015/8020	1,300	23	6	8	100	---
	4/30/93	14.00	110.20	0	8015/8020	<1,300	<13	<13	<13	58	---
	7/14/93	15.08	109.12	0	8015/8020	1,300	25	4	15	120	---
	10/27/93	15.62	108.58	0	8015/8020	1,100	21	10	19	73	---
	1/13/94	15.59	108.61	0	8015/8020	80	0.7	3	0.6	3	---
system shut-down →	4/22/94	15.43	108.77	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/29/94	15.20	109.00	0	8015/8020	1,400	19	11	11	69	---
	10/25/94	**15.70**	**108.50**	**0**	**8015/8020**	**1,200**	**11**	**2.0**	**7.6**	**28**	---

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B	T	E	X	EDB
						<--------		ppb			-------->
MW-10/											
125.03	7/27/92	17.52	107.51	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/27/92	18.06	106.97	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/93	14.15	110.88	0	8015/8020	<50	<0.5	<0.5	<0.5	0.7	---
	4/30/93	14.68	110.35	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/14/93	15.80	109.23	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/27/93	16.33	108.70	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/13/94	16.29	108.74	0	8015/8020	<50	<0.5	0.5	<0.5	<0.5	---
	4/22/94	16.15	108.88	0	8015/8020	<50[4]	<0.5	<0.5	<0.5	1.1	---
	7/29/94	15.85	109.18	0	8015/8020	<50[4]	0.8	2.1	0.5	1.3	---
	10/25/94	**16.41**	**108.62**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**
MW-11/											
122.92	7/27/92	15.38	107.54	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/26/92	15.97	106.95	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/93	12.24	110.68	0	8015/8020	<50	8	16	2	10	---
	4/30/93	12.77	110.15	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/14/93	13.84	109.08	0	8015/8020	<50	<0.5	0.7	<0.5	1	---
	10/27/93	14.23	108.69	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/13/94	14.24	108.68	0	8015/8020	<50	<0.5	1	<0.5	<0.5	---
	4/22/94	14.08	108.84	0	8015/8020	<50	<0.5	0.5	<0.5	1.4	---
	7/29/94	13.90	109.02	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/25/94	**14.38**	**108.54**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**
EW-1/	5/25/90	---	---	---	8015/8020/504	3,900	260	430	64	340	0.03
124.95	8/1/91	17.54	107.41	0	---	---	---	---	---	---	---
	10/27/93	---	---	---	8015/8020	350	<0.5	<0.5	<0.5	<0.5	---
	1/13/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/22/94	---	---	---	8015/8020	<50[4]	<0.5	<0.5	<0.5	<0.5	---
	7/29/94	---	---	---	8015/8020	97[4]	0.6	0.5	0.6	5.1	---
EW-2/											
125.79	8/1/91	18.07	107.72	0	---	---	---	---	---	---	---
	4/22/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/25/94	**16.69**	**109.10**	**0**	**---**	**---**	**---**	**---**	**---**	**---**	**---**

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B	T	E	X	EDB
						<----------ppb---------->					
EW-3/ 125.22	8/1/91	17.49	107.73	0	---	---	---	---	---	---	---
	10/27/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/13/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/22/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/29/94	---	---	---	8015/8020	<50[4]	1.3	1.3	0.6	5.3	---
	10/25/94	**16.20**	**109.02**	**0**	---	---	---	---	---	---	---
Rinseate	12/5/89	---	---	---	8015/8020/413/504[2]	<500	<0.5	<0.5	<0.5	<0.5	<0.05
	5/24/90	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	9/7/90	---	---	---	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	<0.05
	2/20/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/22/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/22/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/13/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/30/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/23/92	---	---	---	8015/8020	---	---	---	---	---	---
Trip Blank	2/20/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/22/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/22/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/13/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/30/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/23/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/27/92	---	---	---	8015/8020	<0.5	<0.5	<0.5	<0.5	<0.5	---
	10/26/92	---	---	---	8015/8020	<0.5	<0.5	<0.5	<0.5	<0.5	---
TB-LB	1/29/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/30/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/14/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/27/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/13/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/22/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/29/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/25/94	---	---	---	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	---

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B	T	E	X	EDB
						<----------ppb---------->					
Bailer Blank	1/29/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
BB	4/30/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/14/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/27/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/13/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/22/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

EXPLANATION:

DTW = Depth to water
TOC = Top of casing elevation
GWE = Ground water elevation
msl = Measurements referenced relative to mean sea level
TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
TPH(D) = Total Petroleum Hydrocarbons as Diesel
O&G = Oil and Grease
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
EDB = Ethylene Dibromide
ppb = Parts per billion
(d) = Duplicate sample
--- = Not applicable/Not measured

ANALYTIC METHODS:

8015 = EPA Method 8015/5030 for TPPH(G)
8015 = Modified EPA Method 8015 for TPH(D)
8020 = EPA Method 8020 for BTEX
413 = Method 413 for O&G
504 = EPA Method 504 for EDB

NOTES:

All top of casing elevations compiled from Quarterly Ground Water Monitoring Report prepared for Chevron by Burlington Environmental Inc., December 3, 1992.

Analytic data prior to January 15, 1993 compiled from Quarterly Ground Water Monitoring Report prepared for Chevron by Burlington Environmental Inc., December 3, 1992.

* Product thickness was measured on and after January 29, 1993 with an MMC flexi-dip interface probe.

1 TPH(D) analyzed during this event. Not detected at detection limits of 1,000 ppb.
2 O&G analyzed during this event. Not detected at detection limit of 5,000 ppb.
3 Detection limit raised due to surfactants in sample.
4 Uncategorized compound not included in gasoline hydrocarbon concentration.
5 Ground water elevation level corrected for the presence of free-phase hydrocarbons using assumed density of 0.79. Compiled from the Quarterly Ground Water Monitoring Report prepared for Chevron by Burlington Environmental Inc., December 3, 1992.
6 Monitoring well was converted to a ground water extraction well on June 10, 1991. MW-4 was redesignated EW-3. MW-5 was redesignated EW-2.

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Table 2. Analytic Results for Halogenated Volatile Organic Compounds - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	C	BR	BDM	DBM	Other HVOC's
				<----------ppb---------->				
MW-2	4/30/93	GTEL	8010	77	<0.5	<0.5	<0.5	ND[1]

EXPLANATION:

C = Chloroform
BR = Bromoform
BDM = Bromodichloromethane
DBM = Dibromochloromethane
HVOC = Halogenated Volatile Organic Compound
ND = Not detectable
--- = Not analyzed/Not applicable
ppb = Parts per billion

ANALYTIC METHODS:

8010 = EPA Method 8010 for HVOC's.

ANALYTIC LABORATORIES:

GTEL = Groundwater Technology Environmental Laboratories, Inc. of Concord and Torrance, California.

NOTES:

1 Other HVOC's not detected at detection limits of 0.5 to 1.0 ppb.

28904T.GWV

Table 1. Performance Summary, Chevron Service Station #9-8139, 16304 Foothill Blvd., San Leandro, CA

Abbreviations:
a = Values for 8/1/91 thru 1/31/92 based on data collected by Burlington Environmental Inc., Berkeley, CA
b = Weiss Asssociates begins operation and maintenance on 3/24/92
c = Due to effluent flow meter malfunction, flow between readings and total flow is based on influent totalizer readings taken on 7/14/92, 8/11/92, and 9/9/92
d = Geraghty and Miller, Richmond, California, repairs and readings performed.
gpm = gallons per minute
-- = not available

Table 2. Summary of Analytic Results, Chevron Service Station #9-8139, 16304 Foothill Blvd.
San Leandro, California

SAMPLE POINT	DATE SAMPLED		LAB	TPH-G	B	E	T	X
				<-------parts per billion (ppb)-------->				
SYSTEM INFLUENT	08/01/91	a	SPA	120	0.6	NA	NA	NA
	08/09/91		SPA	NA	NA	NA	NA	NA
	08/30/91		SPA	140	0.8	NA	NA	NA
	09/30/91		SPA	490	0.6	NA	NA	NA
	10/29/91		SPA	46,000	<15	NA	NA	NA
	11/25/91		SPA	<50	<0.5	NA	NA	NA
	12/27/91		SPA	<50	<0.5	NA	NA	NA
	03/24/92		SPA	<50	5.6	0.5	2.9	2.6
	04/29/92		SPA	62	<0.5	<0.5	<0.5	2.0
	05/12/92		SPA	66	<0.5	<0.5	<0.5	3.2
	06/09/92		SPA	<50	<0.5	<0.5	<0.5	1.5
	07/14/92		SPA	<50	<0.5	<0.5	<0.5	3.8
	08/11/92		SPA	<50	<0.5	<0.5	<0.5	<0.5
	09/09/92		SPA	<50	<0.5	<0.5	<0.5	<0.5
	10/07/92	b	SPA	<50	<0.5	<0.5	<0.5	<0.5
	11/10/92		SPA	<50	<0.5	<0.5	<0.5	<0.5
	01/22/93		SPA	4,300	420	42	330	460
	02/10/93		SPA	1,500	160	11	74	130
	03/10/93		SPA	<50	0.9	<0.5	0.6	<1.5
	04/05/93		SPA	3,200	340	58	300	320
	05/11/93		SPA	96	4	1	6.2	11
	06/17/93		SPA	<50	<0.5	<0.5	1.6	<1.5
	07/20/93		SPA	<50	10	<0.5	0.8	2.4
	08/18/93		SPA	<50	<0.5	<0.5	<0.5	<0.5
	09/16/93		SPA	<50	<0.5	<0.5	<0.5	<0.5
	10/19/93		SPA	<50	<0.5	<0.5	<0.5	<0.5
	11/11/93		SPA	<50	<0.5	<0.5	<0.5	<0.5
	12/15/93		SPA	<50	<0.5	<0.5	<0.5	<0.5
	01/26/94		SPA	<50	<0.5	<0.5	<0.5	<0.5
	02/15/94		SPA	<50	<0.5	<0.5	<0.5	<0.5
	03/21/94		SPA	<50	<0.5	<0.5	<0.5	<0.5
	04/13/94		SPA	<50	<0.5	<0.5	<0.5	<0.5
OIL/WATER SEPARATOR EFFLUENT	08/01/91		SPA	NA	NA	NA	NA	NA
	08/09/91		SPA	NA	NA	NA	NA	NA
	08/30/91		SPA	NA	NA	NA	NA	NA
	09/30/91		SPA	950	<0.5	NA	NA	NA
	10/29/91		SPA	810	1.8	NA	NA	NA
	11/25/91		SPA	<50	0.7	NA	NA	NA
	12/27/91		SPA	<50	<0.5	NA	NA	NA
	03/24/92		SPA	NA	NA	NA	NA	NA
SYSTEM MIDPOINT/ FIRST CARBON EFFLUENT	08/01/91		SPA	97	<0.5	NA	NA	NA
	08/09/91		SPA	NA	NA	NA	NA	NA
	08/30/91		SPA	300	0.7	NA	NA	NA
	09/30/91		SPA	<50	<0.5	NA	NA	NA
	10/29/91		SPA	<50	<0.5	NA	NA	NA
	11/25/91		SPA	<50	<0.5	NA	NA	NA

Table 2. Summary of Analytic Results, Chevron Service Station #9-8139, 16304 Foothill Blvd.
San Leandro, California
(continued)

SAMPLE POINT	DATE SAMPLED	LAB	TPH-G	B	E	T	X	pH	COD	TSS
			<-------parts per billion (ppb)-------->						mg/l	mg/l
SYSTEM MIDPOINT (continued)	12/27/91	SPA	<50	<0.5	NA	NA	NA			
	03/24/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	04/29/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	05/12/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	06/09/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	07/14/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	08/11/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	09/09/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	10/07/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	11/10/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	01/22/93	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	02/10/93	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	03/10/93	SPA	<50	<0.5	<0.5	<0.5	<1.5			
	04/05/93	SPA	<50	<0.5	<0.5	<0.5	<1.5			
	05/11/93	SPA	<50	<0.5	<0.5	<0.5	<1.5			
	06/17/93	SPA	<50	<0.5	<0.5	<0.5	<1.5			
	07/20/93	SPA	<50	<0.5	<0.5	<0.5	<1.5			
	08/18/93	SPA	<50	<0.5	<0.5	<0.5	<1.5			
	09/16/93	SPA	<50	<0.5	<0.5	<0.5	<1.5			
	10/19/93	SPA	<50	<0.5	<0.5	<0.5	<1.5			
	11/11/93	SPA	<50	<0.5	<0.5	<0.5	<1.5			
	12/15/93	SPA	<50	<0.5	<0.5	<0.5	<1.5			
	01/26/94	SPA	<50	<0.5	<0.5	<0.5	<1.5			
	02/15/94	SPA	<50	<0.5	<0.5	<0.5	<1.5			
	03/21/94	SPA	<50	<0.5	<0.5	<0.5	<1.5			
	04/13/94	SPA	<50	<0.5	<0.5	<0.5	<0.5			
SYSTEM EFFLUENT/ SECOND CARBON EFFLUENT	08/01/91	SPA	NA	NA	NA	NA	NA	5.4	NA	NA
	08/09/91	SPA	<50	<0.5	NA	NA	NA	8.2	NA	NA
	08/30/91	SPA	<50	<0.5	NA	NA	NA	6.5	NA	NA
	09/30/91	SPA	<50	<0.5	NA	NA	NA	6.1	NA	NA
	10/29/91	SPA	<50	<0.5	NA	NA	NA	5.8	11	<4.0
	11/25/91	SPA	<50	<0.5	NA	NA	NA	7.2	16	<10
	12/27/91	SPA	<50	<0.5	NA	NA	NA	7.8	<20	<4.0
	03/24/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	7.1	<5.0	<4.0
	04/29/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	7.2	13	<4.0
	05/12/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	7.5	<5.0	<4.0
	06/09/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	7.6	10	NA
	07/14/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	7.4	13	<4.0
	08/11/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	7.9	280	<4.0
	09/09/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	8.4	<5.0	<4.0
	10/07/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	7.8	<5.0	<4.0
	11/10/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	8.0	9.0	<4.0
	01/22/93	SPA/GTEL	<50	<0.5	<0.5	<0.5	<0.5	8.0	<5.0	<4.0
	02/10/93	SPA/GTEL	<50	<0.5	<0.5	<0.5	<0.5	6.7	<5.0	<4.0
	03/10/93	SPA/GTEL	<50	<0.5	<0.5	<0.5	<1.5	6.7	5.0	<4.0
	04/05/93 c	SPA	<50	<0.5	<0.5	<0.5	<1.5	NA	NA	NA
	05/11/93	SPA	<50	<0.5	<0.5	<0.5	<1.5	7.4	<20.0	<4.0
	06/17/93	SPA	<50	<0.5	<0.5	<0.5	<1.5	7.2	NA	NA

Table 2. Summary of Analytic Results, Chevron Service Station #9-8139, 16304 Foothill Blvd.
San Leandro, California
(continued)

SAMPLE POINT	DATE SAMPLED	LAB	TPH-G	B	E	T	X	pH	COD mg/l	TSS mg/l
			<-------parts per billion (ppb)-------->							
SYSTEM EFFLUENT/	07/20/93	SPA/SA	<50	<0.5	<0.5	<0.5	<1.5	7.5	<20.0	<4.0
SECOND CARBON	08/18/93	SPA	<50	<0.5	<0.5	<0.5	<1.5	NA	NA	NA
EFFLUENT	09/16/93	SPA	<50	<0.5	<0.5	<0.5	<1.5	NA	NA	NA
	10/19/93	SPA	<50	<0.5	<0.5	<0.5	<1.5	7.6	22.0	<4
	11/11/93	SPA	<50	<0.5	<0.5	<0.5	<1.5	NA	NA	NA
	12/15/93	SPA	<50	<0.5	<0.5	<0.5	<1.5	NA	NA	NA
	01/26/94	SPA	<50	<0.5	<0.5	<0.5	<1.5	7.9	NA	NA
	02/15/94	SPA	<50	<0.5	<0.5	<0.5	<1.5	NA	NA	NA
	03/21/94	SPA	<50	<0.5	<0.5	<0.5	<1.5	NA	NA	NA
	04/13/94	SPA	<50	<0.5	<0.5	<0.5	<0.5	8.24	ND	ND

a = Values for 8/1/91 through 12/27/91 based on data collected by Burlington Environmental Inc., Berkeley, California
b = Field pH measurements begin
c = Sampling frequency for pH, COD, and TSS changed to quarterly, as approved on 4/5/93.
TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Xylenes by EPA Mehtod 8020
COD = Chemical oxygen demand by EPA Method 410.4
TSS = Total suspended solids by EPA Method 160.1
<n = Not detected at detection limit of n ppb
CEC = Clayton Environmental Consultants, Pleasanton, California
GTEL = GTEL Environmental Laboratories, INC., Concord, California
SPA = Superior Precision Analytical Laboratory, Martinez, California
SA = Sequoia Analytical, Redwood City, California
NA = Not Analyzed
mg/l = milligrams per liter

APPENDIX C

BORING LOGS

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158 BORING NO. MW-1

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 1 OF 3

BY K. Elliot DATE 11/29/89 SURFACE ELEV. 127.28 ft.

PID (ppm)	RECOVERY (in/in)	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
							ASPHALT AND GRAVEL FILL	
							SANDY CLAY (CL), very dark gray (5YR, 3/1); 70-80% low plasticity fines; 15-25% coarse sand; trace fine to coarse gravel; occasional roots; stiff; damp.	
9.1	18/18	5 7 14		5				
8.2	18/18	4 8 15	12/4/89	10			@ 10': dark grayish brown (10YR, 4/3); trace fine sand.	
9.1	18/18	5 11 18	11/29/89	15			@ 15': dark yellowish brown (10 YR, 4/4); 5-10% fine sand; very stiff.	
				20				

REMARKS

Boring drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was sealed with neat-cement grout from 30 to 41.5 feet, and converted to a two-inch-diameter monitor well. See attached Well Detail.

David C. Elliot RG#4603

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158 BORING NO. MW-1

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 2 OF 3

BY K. Elliot DATE 11/29/89 SURFACE ELEV. 127.28 ft.

PID (ppm)	RECOVERY (in/in)	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
7.3	18/18	4 8 13					**SANDY CLAY (CL)**, dark yellowish brown (10 YR, 4/4); 70-80% medium plasticity fines; 20-30% fine sand; stiff; damp.	
3.5	17/18	6 10 25		25			@ 25-32': 1/2" to 3/4" diameter caliche clasts.	
5.2	17/18	6 9 15		30			@ 29-30': water-bearing zone.	
6.0	16/18	6 11 23		35			@ 35-36': yellowish brown (10 YR, 5/4); 80-90% low plasticity fines; 10-20% fine sand; very stiff; damp.	
				40				

REMARKS

Boring drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was sealed with neat-cement grout from 30 to 41.5 feet, and converted to a two-inch-diameter monitor well. See attached Well Detail.

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158 BORING NO. MW-1

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 3 OF 3

BY K. Elliot DATE 11/29/89 SURFACE ELEV. 127.28 ft.

PID (ppm)	RECOVERY (in/in)	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
4.6	16/18	5 6 11					SANDY CLAY (CL) (continued). BORING TERMINATED AT 41.5 FEET.	

45

50

55

60

REMARKS

Boring drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was sealed with neat-cement grout from 30 to 41.5 feet, and converted to a two-inch-diameter monitor well. See attached Well Detail.

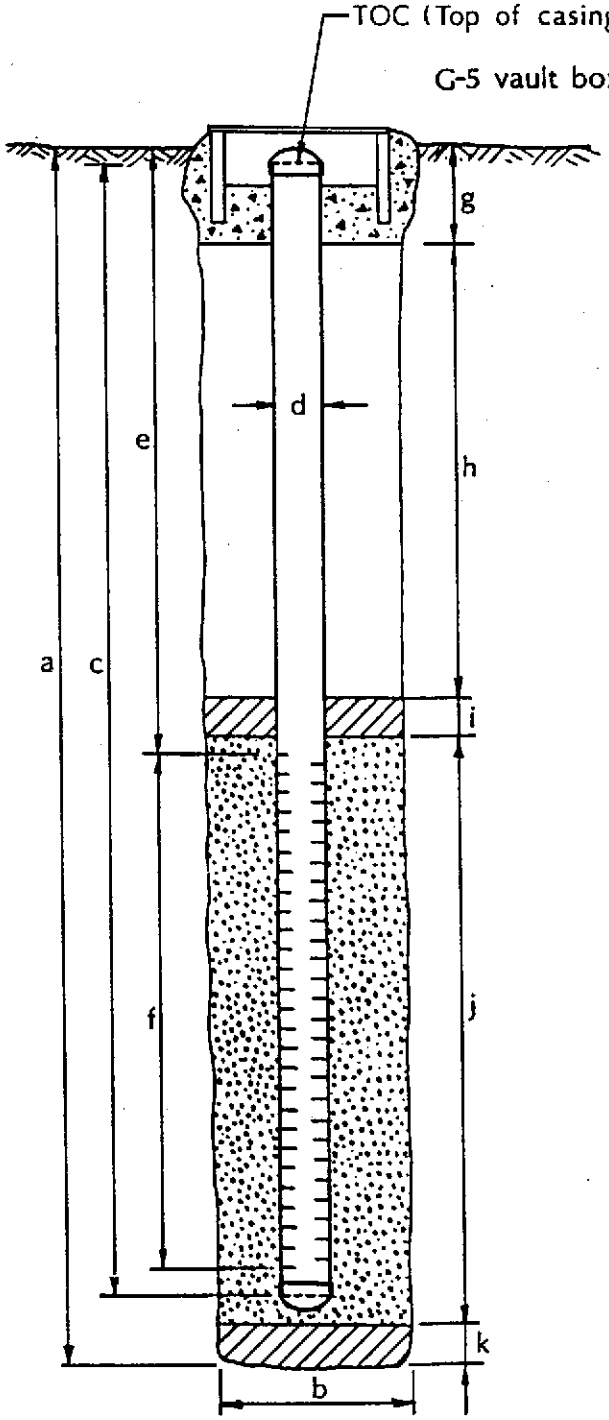
WELL DETAILS

CHEMPRO
A Burlington Environmental Inc. Company

CHEMICAL PROCESSORS, INC.
950 "B" Gilman Street
Berkeley, CA 94710

PROJECT NUMBER 987158
PROJECT NAME SS No. 9-8139
LOCATION 16304 Foothill Blvd.
WELL PERMIT NO. 89676

BORING / WELL NO. MW-1
TOP OF CASING ELEV. 127.09'
GROUND SURFACE ELEV. 127.28'
DATUM MSL
INSTALLATION DATE 12/1/89



EXPLORATORY BORING

a. Total depth 41.5 ft.
b. Diameter 8 in.
Drilling method Hollow-stem Auger

WELL CONSTRUCTION

c. Total casing length 30 ft.
Material Schedule 40 PVC
d. Diameter 2 in.
e. Depth to top perforations 25 ft.
f. Perforated length 5 ft.
Perforated interval from 25 to 30 ft.
Perforation type Machine Slot
Perforation size 0.020"
g. Surface seal 1 ft.
Seal material Concrete
h. Backfill 19.3 ft.
Backfill material Neat Cement
i. Seal 1.5 ft.
Seal material Bentonite
j. Gravel pack 8.2 ft.
Pack material #3 Sand
k. Bottom seal 11.5 ft.
Seal material Neat Cement

Form prepared by _____

PLATE

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158 BORING NO. MW-2

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 1 OF 2

BY K. Elliot DATE 11/29/89 SURFACE ELEV. 126.37 ft.

PID (ppm)	RECOVERY (in/in)	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
							ASPHALT AND DEBRIS FILL	
58.3	18/18	5 10 12		5			SANDY CLAY (CL), brown (10YR, 4/3); 75-85% low plasticity fines; 10-20% fine to coarse sand; trace fine gravel; angular, light colored clasts; stiff; damp.	
							@ 9': clay pipe fragments.	
34.1	18/18	4 8 11	12/4/89 ▼	10			CLAYEY SAND (SC), yellowish brown (10YR, 5/4); 15-25% low plasticity fines; 70-80% fine to medium sand; trace fine gravel; stiff; damp.	
20.5	18/18	5 10 15		15			SANDY CLAY (CL), yellowish brown (10YR, 5/4); 75-85% low plasticity fines; 15-25% fine to medium sand; stiff; damp.	
				20				

REMARKS

Boring was drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was converted to a two-inch-diameter monitor well. See attached Well Detail.

David C Tyler RG#4603

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158 BORING NO. MW-2

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 2 OF 2

BY K. Elliot DATE 11/29/89 SURFACE ELEV. 126.37 ft.

PID (ppm)	RECOVERY (in/in)	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
19.2	18/18	5 9 14					SANDY CLAY (CL) (continued). @ 20': 3/4" diameter caliche clasts.	
19.0	18/18	5 10 22	11/29/89	25				
24.5	16/18	4 18 29		30			BORING TERMINATED AT 31.5 FEET.	
				35				
				40				

REMARKS

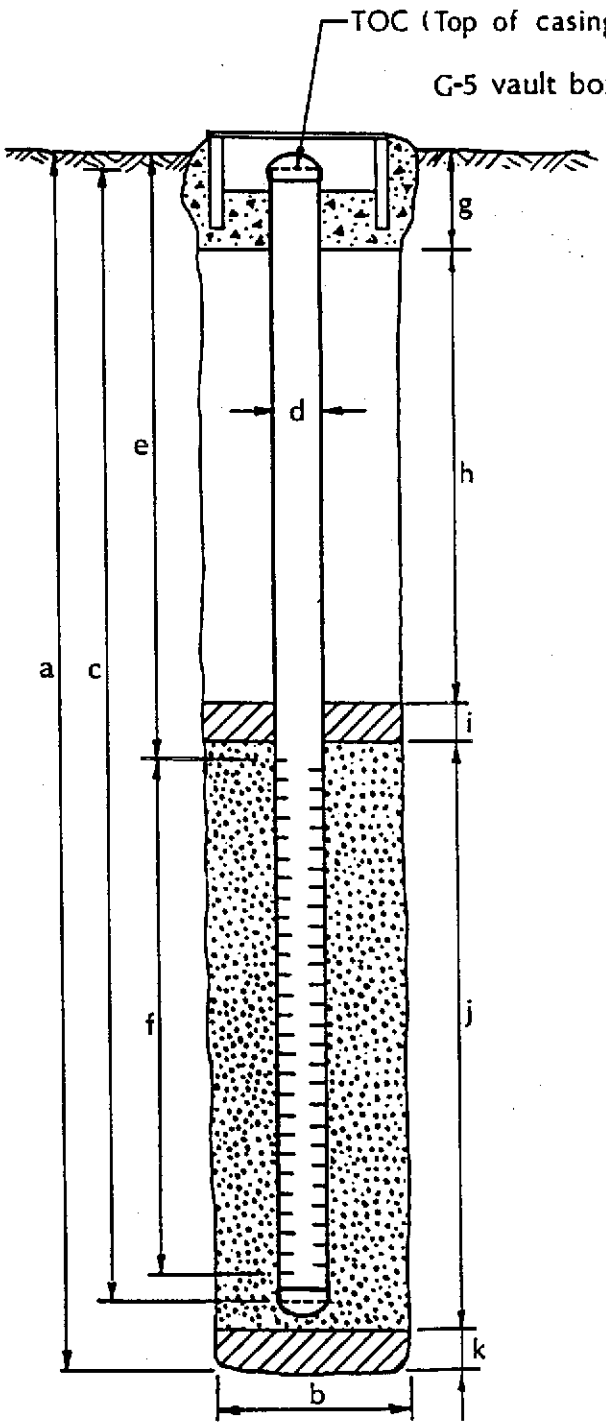
Boring was drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was converted to a two-inch-diameter monitor well. See attached Well Detail.

WELL DETAILS

CHEMICAL PROCESSORS INC
950 "B" Gilman Street
Berkeley, CA 94710

PROJECT NUMBER 987158
PROJECT NAME SS No. 9-8139
LOCATION 16304 Foothill Blvd.
WELL PERMIT NO. 89676

BORING / WELL NO. MW-2
TOP OF CASING ELEV. 125.98'
GROUND SURFACE ELEV. 126.37'
DATUM MSL
INSTALLATION DATE 11/30/89



EXPLORATORY BORING

a. Total depth 31.5 ft.
b. Diameter 8 in.
Drilling method Hollow-stem Auger

WELL CONSTRUCTION

c. Total casing length 30 ft.
Material Schedule 40 PVC
d. Diameter 2 in.
e. Depth to top perforations 25 ft.
f. Perforated length 5 ft.
Perforated interval from 25 to 30 ft.
Perforation type Machine Slot
Perforation size 0.020"
g. Surface seal 1.5 ft.
Seal material Concrete
h. Backfill 20 ft.
Backfill material Neat Cement
i. Seal 1.5 ft.
Seal material Bentonite
j. Gravel pack 8.5 ft.
Pack material #3 Sand
k. Bottom seal N/A ft.
Seal material N/A

Form prepared by _____

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158 BORING NO. MW-3

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 1 OF 2

BY K. Elliot DATE 12/1/89 SURFACE ELEV. 127.04 ft.

PID (ppm)	RECOVERY (in/in)	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
							ASPHALT AND FILL	
							SANDY CLAY (CL), yellowish brown (10YR, 5/4); 60-75% low plasticity fines; 20-30% fine sand; 5-10% coarse sand; very stiff; damp.	
68.4	17/18	9 12 19		5				
[redacted]	12/18	11 11 15		10			**CLAYEY SAND (SC)**, olive brown (2.5Y, 4/4); 15-35% low plasticity fines; 60-75% fine to coarse sand; 5-10% fine gravel: angular clasts, dark iron-oxide staining; very stiff; damp.	
[redacted]	18/18	8 16 25	12/4/89 ▼	15			**GRAVELLY SAND (SW)**, light olive brown (2.5Y, 5/6); 15-25% low plasticity fines; 40-50% fine to coarse sand; 25-35% fine to coarse gravel, 2-3"-thick lenses of coarse gravel; hard; damp; [redacted]	
	12/12	27 refusal						
	18/18	11 25 30						
[redacted]	18/18	6 7		20			@ 19': [redacted]	

REMARKS

Boring was drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was sealed with bentonite from 25.5 to 30 feet, and converted to a two-inch-diameter monitor well. See attached Well Detail.

David C. Wright RG#4603

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158 BORING NO. MW-3

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 2 OF 2

BY K. Elliot DATE 12/1/89 SURFACE ELEV. 127.04 ft.

PID (ppm)	RECOVERY (in/in)	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
[redacted]	18/18	17 5 13 18					SANDY CLAY (CL), light olive brown (2.5Y, 5/6); 55-65% low plasticity fines; 25-35% fine to medium sand; trace coarse sand; trace coarse gravel; [redacted]ing; very stiff; damp.	
			12/1/89				@ 24': auger chatter.	
				25			GRAVELLY CLAY (CL), dark yellowish brown (10YR, 4/4); 65-80% nonplastic fines; 10-15% coarse sand; 10-20% fine to coarse gravel; damp.	
37.8	18/18	5 5 9					SANDY CLAY (CL), yellowish brown (10YR, 5/4); 65-80% medium plasticity fines; 15-25% fine to coarse sand; 5-10% fine gravel; stiff; damp.	
71.8	17/18	7 12 22					@ 28.5-30': 70-80% medium plasticity fines; 20-30% fine to coarse sand.	
				30			BORING TERMINATED AT 30 FEET.	
				35				
				40				

REMARKS

Boring was drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was sealed with bentonite from 25.5 to 30 feet, and converted to a two-inch-diameter monitor well. See attached Well Detail.

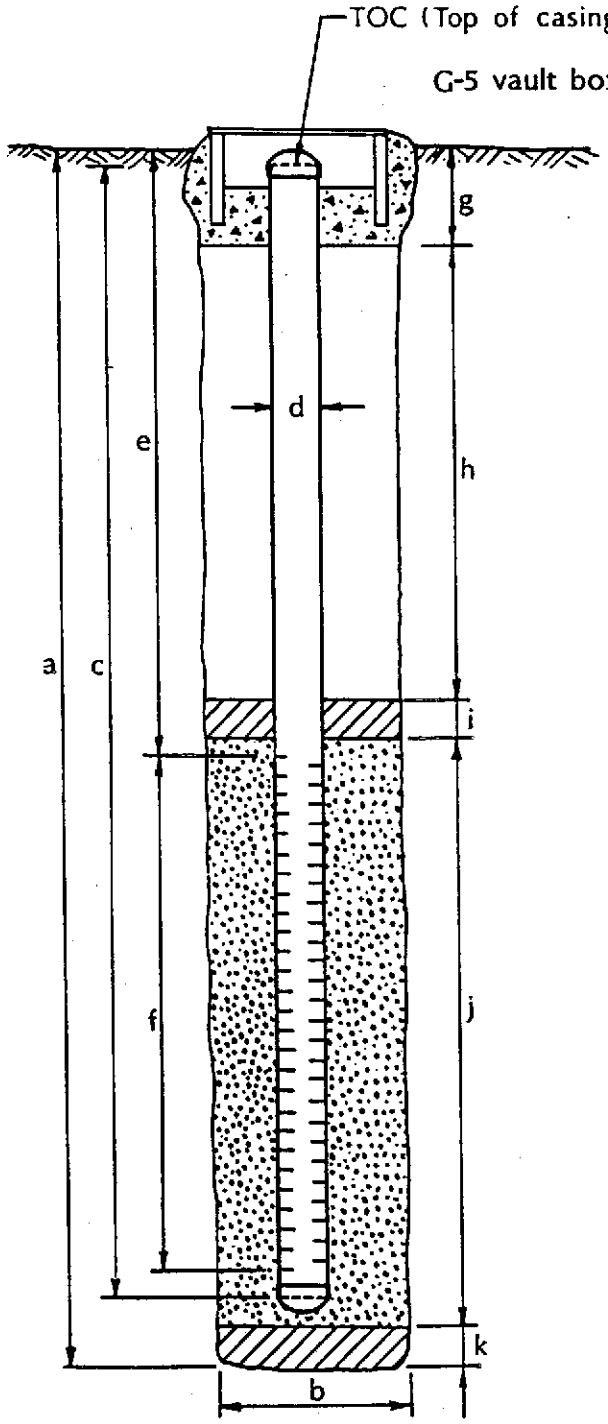
WELL DETAILS

CHEMPRO
A Burlington Environmental Inc. Company

CHEMICAL PROCESSORS, INC.
950 "B" Gilman Street
Berkeley, CA 94710

PROJECT NUMBER 987158
PROJECT NAME SS #9-8139
LOCATION 16304 Foothill Blvd.
WELL PERMIT NO. 89676

BORING / WELL NO. MW-3
TOP OF CASING ELEV. 126.84'
GROUND SURFACE ELEV. 127.04'
DATUM MSL
INSTALLATION DATE 12/1/89



EXPLORATORY BORING

a. Total depth 30 ft.
b. Diameter 8 in.
Drilling method Hollow-stem Auger

WELL CONSTRUCTION

c. Total casing length 25.5 ft.
Material Schedule 40 PVC
d. Diameter 2 in.
e. Depth to top perforations 15.5 ft.
f. Perforated length 10 ft.
Perforated interval from 15.5 to 25.5 ft.
Perforation type Machine Slot
Perforation size 0.020"
g. Surface seal 1 ft.
Seal material Concrete
h. Backfill 9.5 ft.
Backfill material Neat Cement
i. Seal 2 ft.
Seal material Bentonite
j. Gravel pack 13 ft.
Pack material #3 Sand
k. Bottom seal 4.5 ft.
Seal material Bentonite

Form prepared by _____

PLATE

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158 BORING NO. MW-4

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 1 OF 2

BY K. Elliot DATE 11/30/89 SURFACE ELEV. 125.43 ft.

PID (ppm)	RECOVERY (in/in)	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
							ASPHALT AND FILL	
							SANDY CLAY (CL), very dark grayish brown (10YR, 3/2); 75-85% low plasticity fines; 10-20% coarse sand; trace fine gravel; angular clasts; very stiff; damp.	
43.8	16/18	7 13 20		5			@ 5.5': dark yellowish brown (10 YR, 4/6); 60-70% low plasticity fines; 20-30% fine sand; trace coarse sand; trace angular gravel; very stiff; damp.	
51.8	18/18	4 5 9		10			@ 10': decreasing sand content.	
[redacted]	18/18	6 8 17	12/4/89 ▼	15			@ 15': green mottling; [redacted]rocarbo[redacted]	
			11/30/89	20				

REMARKS

Boring was drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was sealed with neat cement grout from 22.75 to 26.5 feet, and converted to a two-inch-diameter monitor well. See attached Well Detail.

David C. Zilka RG#4603

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158 BORING NO. MW-4

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 2 OF 2

BY K. Elliot DATE 11/30/89 SURFACE ELEV. 125.43 ft.

PID (ppm)	RECOVERY (in/in)	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
[redacted]	14/18	5 5 11					SANDY CLAY (CL) (continued). @ 20': damp; no hydrocarbon odor.	
[redacted]	12/18	4 5 8		25			@ 25': 40-50% fine to medium sand; trace angular gravel. BOTTOM OF BORING AT 26.5 FEET.	
				30				
				35				
				40				

REMARKS

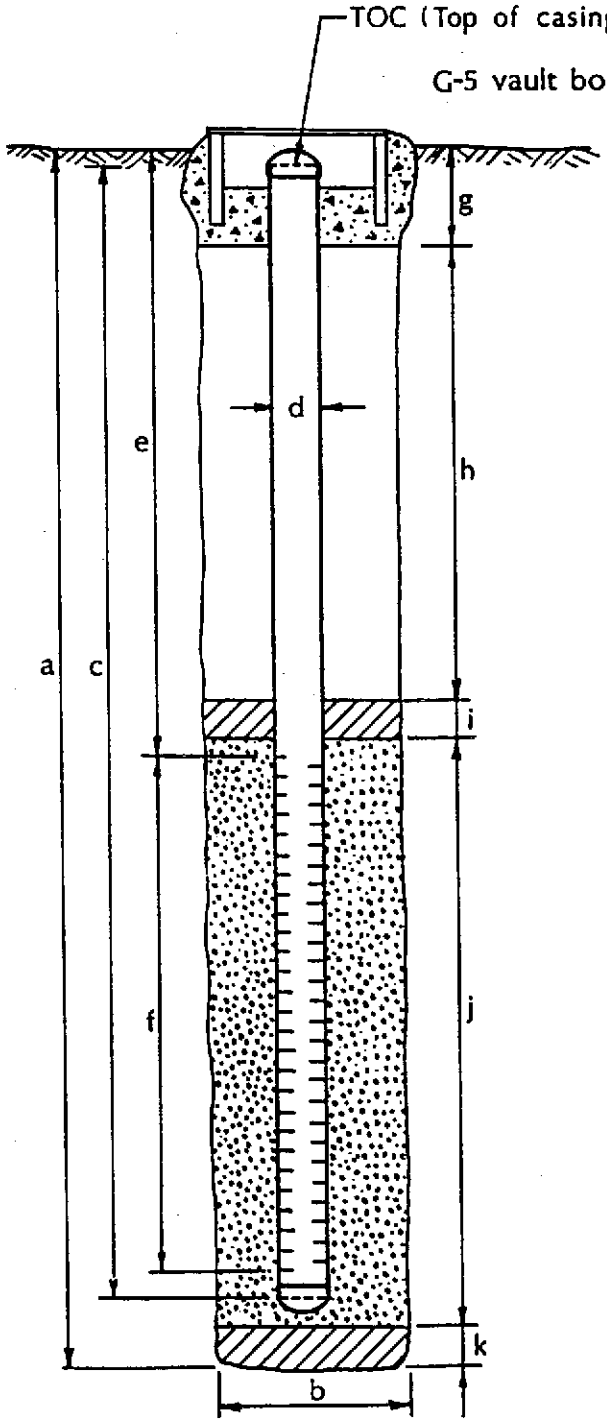
Boring was drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was sealed with neat cement grout from 22.75 to 26.5 feet, and converted to a two-inch-diameter monitor well. See attached Well Detail.

WELL DETAILS

CHEMICAL PROCESSORS INC
950 "B" Gilman Street
Berkeley, CA 94710

PROJECT NUMBER 987158
PROJECT NAME SS #9-8139
LOCATION 16304 Foothill Blvd.
WELL PERMIT NO. 89676

BORING / WELL NO. MW-4
TOP OF CASING ELEV. 125.22'
GROUND SURFACE ELEV. 125.43'
DATUM MSL
INSTALLATION DATE 12/1/89



EXPLORATORY BORING

a. Total depth 26.5 ft.
b. Diameter 8 in.
Drilling method Hollow-stem Auger

WELL CONSTRUCTION

c. Total casing length 22 ft.
Material Schedule 40 PVC
d. Diameter 2 in.
e. Depth to top perforations 12 ft.
f. Perforated length 10 ft.
Perforated interval from 12 to 22 ft.
Perforation type Machine Slot
Perforation size 0.020"
g. Surface seal 1 ft.
Seal material Concrete
h. Backfill 9 ft.
Backfill material Neat Cement
i. Seal 1 ft.
Seal material Bentonite
j. Gravel pack 11.75 ft.
Pack material #3 Sand
k. Bottom seal 3.75 ft.
Seal material Neat Cement

Form prepared by _____

PLATE

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158 BORING NO. [redacted]

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 1 OF 2

BY D. Maupin DATE 5/17/90 SURFACE ELEV. 126.12 ft.

PID (ppm)	POCHET PENETRO-METER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
							ASPHALT. FILL.	
10.2	3.0	6 13 24		5			SANDY CLAY (CL), yellowish brown (10YR, 5/8); 50-60% moderate to high plasticity fines; 40-50% fine to coarse sand; trace very fine gravel; very stiff; damp; no product odor.	
15.5		5 8 11		10			@ 10': light olive brown (2.5Y, 5/4); 60-70% high plasticity fines; 30-40% fine to coarse sand; trace fine gravel; very stiff; damp; no product odor.	
				13				
				14				
[redacted]		6 11 23	5-17-90	15			CLAYEY [redacted] (SC), dark yellowish brown (10YR, 4/6); 30-40% moderate to high plasticity fines; 40-50% fine to coarse sand; 10-20% fine gravel; dense; damp; [redacted] @ 17': 40-50% moderate to high plasticity fines; 50-60% fine to coarse sand; medium dense; [redacted]	
[redacted]	2.7	NA					@ 17.5-18.5': [redacted] sand lense; 50-60% fine to coarse sand; 20-30% fine gravel.	
	2.5	NA	5-17-90				@ 18': olive gray (5Y, 4/2); medium dense; [redacted]	
				20			@ 19.5': gray coated worm holes, dominantly ve[redacted]	

REMARKS

Boring was drilled to 28.5' using 6.5" diameter hollow-stem augers. Soil samples were collected at 5' intervals with a 2" diameter modified California split-spoon sampler for the upper 16.5' of the boring. From 16.5' to 30' soil samples were collected using a 2.5" diameter Moss continuous sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

David C. Tiglet RG#4603 Exp: 6/91

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158 BORING NO. MW-5

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 2 OF 2

BY D. Maupin DATE 5/17/90 SURFACE ELEV. 126.12 ft.

PID (ppm)	POCHET PENETRO-METER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
37.2	2.5	NA					CLAYEY SAND (SC), continued. @ 20': yellowish brown (10YR, 5/6); 35-45% moderate to high plasticity fines; 40-50% fine to coarse sand; 10-15% fine to medium gravel; Mn-oxide staining in soil; medium dense; damp to moist; no product odor.	
		NA						
40.4		NA					@ 21.5': damp to moist, no product odor.	
				25				
40.7	1.5	NA					SANDY CLAY (CL), dark yellowish brown (10YR, 4/4); 65-75% high plasticity fines; 25-35% fine to coarse sand; trace fine gravel, subrounded to rounded; very stiff; moist; no product odor.	
	3.8	NA						
22.1	>4.0	NA					@ 28.5': hard; no product odor.	
				30			BORING TERMINATED AT 28.5' AND SAMPLED TO 30'.	
				35				
				40				

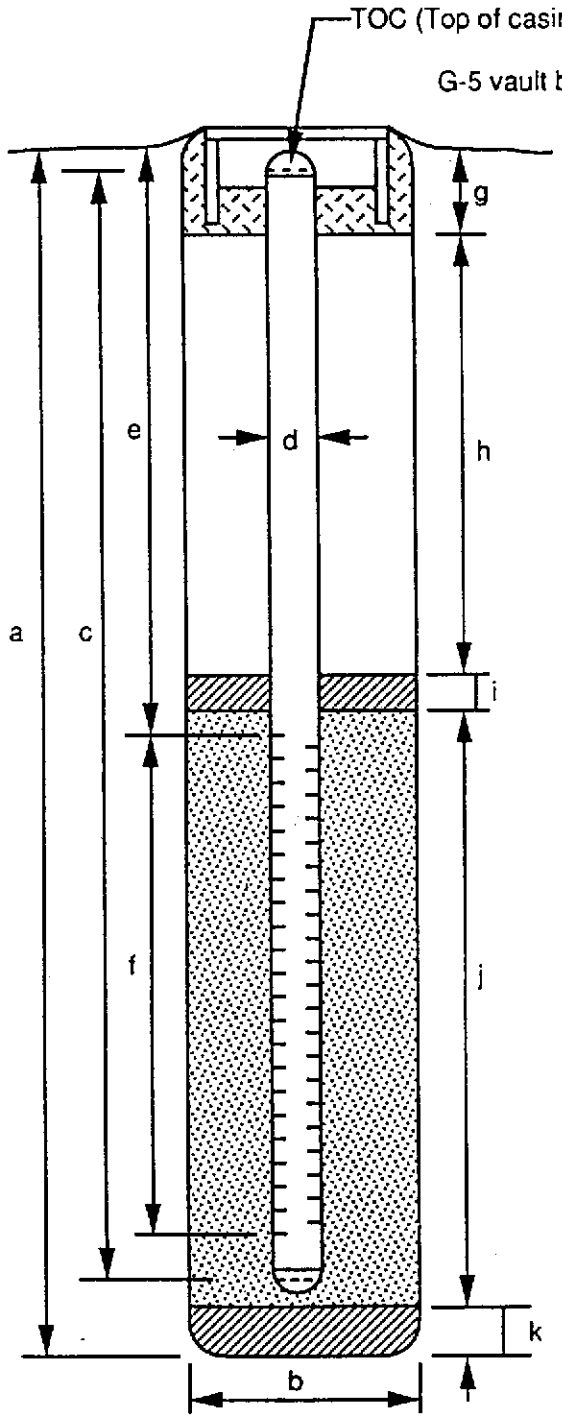
REMARKS

Boring was drilled to 28.5' using 6.5" diameter hollow-stem augers. Soil samples were collected at 5' intervals with a 2" diameter modified California split-spoon sampler for the upper 16.5' of the boring. From 16.5' to 30' soil samples were collected using a 2.5" diameter Moss continuous sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

WELL DETAILS

PROJECT NUMBER 1158
PROJECT NAME Chevron SS No. 9-8139
LOCATION 16304 Foothill Boulevard, San Leandro
WELL PERMIT NO. 90281

BORING / WELL NO. MW-5
TOP OF CASING ELEV. 125.85'
GROUND SURFACE ELEV. 126.12'
DATUM MSL
INSTALLATION DATE 5-17-90



EXPLORATORY BORING

a. Total depth 30 ft.
b. Diameter 6.5 in.
Drilling method Hollow-Stem Auger

WELL CONSTRUCTION

c. Total casing length 23.9 ft.
Material Schedule 40 PVC
d. Diameter 2 in.
e. Depth to top perforations 14.3 ft.
f. Perforated length 9.4 ft.
Perforated interval from 14.3 to 23.7 ft.
Perforation type Machine Slotted PVC
Perforation size 0.020 inch
g. Surface seal 1.5 ft.
Material Concrete
h. Backfill 9.5 ft.
Material Bentonite-Cement Grout
i. Seal 2 ft.
Material Bentonite
j. Gravel pack 12.5 ft.
Gravel pack interval from 13 to 25.5 ft.
Material #3 Sand
k. Bottom seal/fill 4.5 ft.
Material Bentonite

Form prepared by DLM

DeT

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158 — BORING NO. MW-6

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 — PAGE 1 OF 2

BY D. Maupin — DATE 5/14/90 — SURFACE ELEV. 124.83 ft.

PID (ppm)	POCKET PENETRO-METER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
		NA					ASPHALT. FILL: olive green; low plasticity fines, sand, and gravel. @ 1.5': black (5YR, 2.5/1); low plasticity fines, fine sand, and fine gravel; stiff; damp; slight organic odor.	
		NA						
22.8	2.5	4 8 22		5			SANDY CLAY (CL), very dark grayish brown (10YR, 3/2); 65-75% high plasticity fines; 15-20% fine sand; 10-15% fine gravel; stiff; damp; no product odor.	
		NA						
		NA					@ 8': dark brown (7.5YR, 3/4); Mn-oxide staining on sand and gravel grains.	
0.0	4.0	11 17 26		10			@ 10': hard; damp; no product odor.	
		NA					@ 11.5': olive brown (2.5Y, 4/4); 50-60% high plasticity fines; 30-40% fine to coarse sand; trace fine gravel; damp; no product odor.	
	1.5	NA						
222	2.5	8 19 32	5-16-90 ▼	15			CLAYEY SAND (SC), dark grayish brown (2.5Y, 4/2); 30-40% moderate to high plasticity fines; 60-70% fine to coarse sand; trace fine gravel; very dense; damp; no product odor.	
0.0	2.8	NA						
		NA					SANDY CLAY (CL), dark yellowish brown (10YR, 3/6); 50-60% high plsticity fines; 25-35% fine to coarse sand; 5-25% fine gravel; stiff; damp; no product odor.	
				20				

REMARKS

Boring was drilled to 30' using 6.5" diameter hollow-stem augers. Soil samples were collected at 5' intervals and from 30' to 34' with a 2" diameter modified California split-spoon sampler. Between 5' intervals, soil samples were collected with a 2.5" diameter Moss continuous sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

David C. Tiffet RG#4603 Exp: 6/91

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158 BORING NO. MW-6

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 2 OF 2

BY D. Maupin DATE 5/14/90 SURFACE ELEV. 124.83 ft.

PID (ppm)	POCKET PENETRO-METER ton/sq ft	BLOW CT. (blws/6")	DESCRIPTION
0.0		6 10 21	@ 20': 60-70% high plasticity fines; 30-40% fine to medium sand; very stiff; damp; no product odor.
0.0		NA	@ 21.5': sand grains Mn-oxide stained.
0.0	4.0	NA	**CLAYEY SAND (SC)**, yellowish brown (10YR, 5/8); 25-35% moderate to high plasticity fines; 50-60% fine to coarse sand; trace fine gravel; sand and gravel Mn-oxide stained; dense; damp; no product odor.
0.0		5 15 18 NA	@ 25': dense; moist; no product odor. @ 26.5': 20-30% moderate to high plasticity fines; 50-60% fine to coarse sand; 20-30% fine to medium gravel; Fe- and Mn-oxide staining.
	4.0	NA	
0.0	4.0	7 14 25 NA	**SANDY CLAY (CL)**, dark yellowish brown (10YR, 4/4); 60-70% high plasticity fines; 20-30% fine to coarse sand; 5-10% fine gravel; stiff; damp; no product odor.
	3.0	17 27 33	**GRAVELLY CLAY (CL)**, yellowish brown (10yr, 5/4); 45-55% high plasticity fines; 20-30% fine to coarse sand; 25-30% fine to medium gravel; Fe- and Mn-oxide stained sand and gravel; hard, damp to wet; no product odor. **BORING TERMINATED AT 30' AND SAMPLED TO 34'.**

GROUND WATER LEVELS: 5-14-90

DEPTH IN FT.: 25, 30, 35, 40

SAMPLES

LITHO-GRAPHIC COLUMN

WELL DETAIL

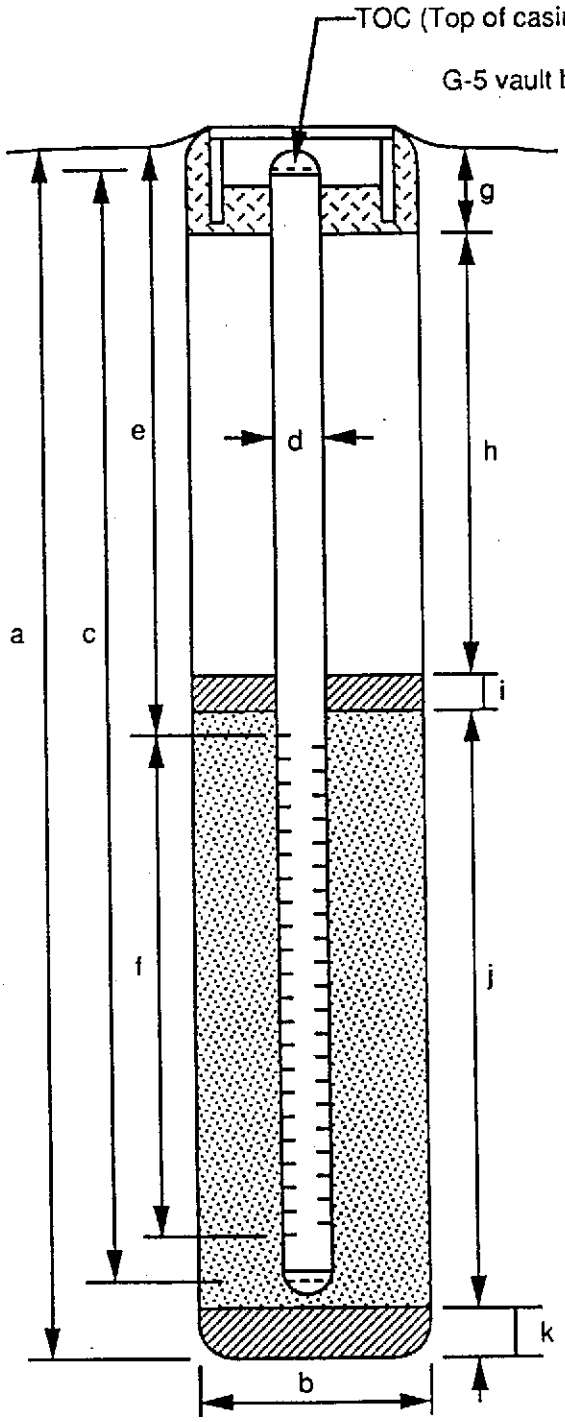
REMARKS

Boring was drilled to 30' using 6.5" diameter hollow-stem augers. Soil samples were collected at 5' intervals and from 30' to 34' with a 2" diameter modified California split-spoon sampler. Between 5' intervals, soil samples were collected with a 2.5" diameter Moss continuous sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

WELL DETAILS

PROJECT NUMBER 1158
PROJECT NAME Chevron SS No. 9-8139
LOCATION 16304 Foothill Boulevard, San Leandro
WELL PERMIT NO. 90281

BORING / WELL NO. MW-6
TOP OF CASING ELEV. 124.18'
GROUND SURFACE ELEV. 124.83'
DATUM MSL
INSTALLATION DATE 5-14-90



EXPLORATORY BORING

a. Total depth 34 ft.
b. Diameter 6.5 in.
Drilling method Hollow-Stem Auger

WELL CONSTRUCTION

c. Total casing length 29.2 ft.
Material Schedule 40 PVC
d. Diameter 2 in.
e. Depth to top perforations 24.6 ft.
f. Perforated length 5 ft.
Perforated interval from 24.6 to 29.6 ft.
Perforation type Machine Slotted PVC
Perforation size 0.020 inch
g. Surface seal 1.5 ft.
Material Concrete
h. Backfill 19.5 ft.
Material Bentonite-Cement Grout
i. Seal 2 ft.
Material Bentonite
j. Gravel pack 11 ft.
Gravel pack interval from 23 to 34 ft.
Material #3 Sand
k. Bottom seal/fill -- ft.
Material None

Form prepared by DLM

DCT

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158 BORING NO. MW-7

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 1 OF 2

BY D. Maupin DATE 5/15/90 SURFACE ELEV. 127.47 ft.

PID (ppm)	POCKET PENETRO-METER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
							ASPHALT. FILL: olive green; low plasticity fines, sand, and gravel.	
1155		18 32 44		5			CLAYEY SAND (SC), dark yellowish brown (10YR, 4/4); 30-40% moderate to high plasticity fines; 60-70% fine to coarse sand; very dense; damp; no product odor.	
339		8 12 15		10			SANDY CLAY (CL), mottled dark yellowish brown (10YR, 4/6) and olive (5Y, 4/4); 50-60% high plasticity fines; 35-45% fine to coarse sand; 5-10% fine gravel; very stiff; damp; no product odor.	
280		7 10 19		15			@ 15': yellowish brown (10YR, 5/4); 50-60% moderate to high plasticity fines; 40-50% fine to coarse sand; trace fine gravel.	
			5-16-90 ▼	20			INTERBEDDED SANDY CLAY AND CLAYEY SAND (CL/SC).	

REMARKS

Boring was drilled to 30' using 6.5" diameter hollow-stem augers. Soil samples were collected to 31.5' using a 2" diameter modified California split-spoon sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

David C. Tyler RG#4603 Exp. 6/91

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158 — BORING NO. MW-7

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 — PAGE 2 OF 2

BY D. Maupin — DATE 5/15/90 — SURFACE ELEV. 127.47 ft.

PID (ppm)	POCHET PENETRO-METER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
114		6 16 17					**INTERBEDDED SANDY CLAY AND CLAYEY SAND (CL/SC)**, dark yellowish brown (10YR, 4/4) to yellowish brown (10YR, 5/8); CL: 50-60% moderate to high plasticity fines; 40-50% fine to coarse sand; trace fine gravel; SC: 30-40% moderate plasticity fines; 60-70% fine to coarse sand; trace fine gravel; very dense; damp; no product odor.	
1.9		10 21 32	▽ 5-15-90	25			**CLAYEY SAND (SC)**, dark yellowish brown (10YR, 3/4); 35-45% moderate to high plasticity fines; 55-65% fine to coarse sand; very dense; [redacted] no product odor. @ 26.4': SANDY CLAY (CL), dark brown (10YR, 3/3); 60-70% high plasticity fines; 30-40% fine to coarse sand, angular grains, Mn-oxide staining; damp; no product odor.	
4.1		9 18 21		30			**CLAYEY SAND (SC)**, light olive brown (2.5Y, 5/6); 20-30% moderate plasticity fines; 70-80% fine to coarse sand; trace fine gravel; dense; damp; no product odor. BORING TERMINATED AT 30' AND SAMPLED TO 31.5'.	
				35				
				40				

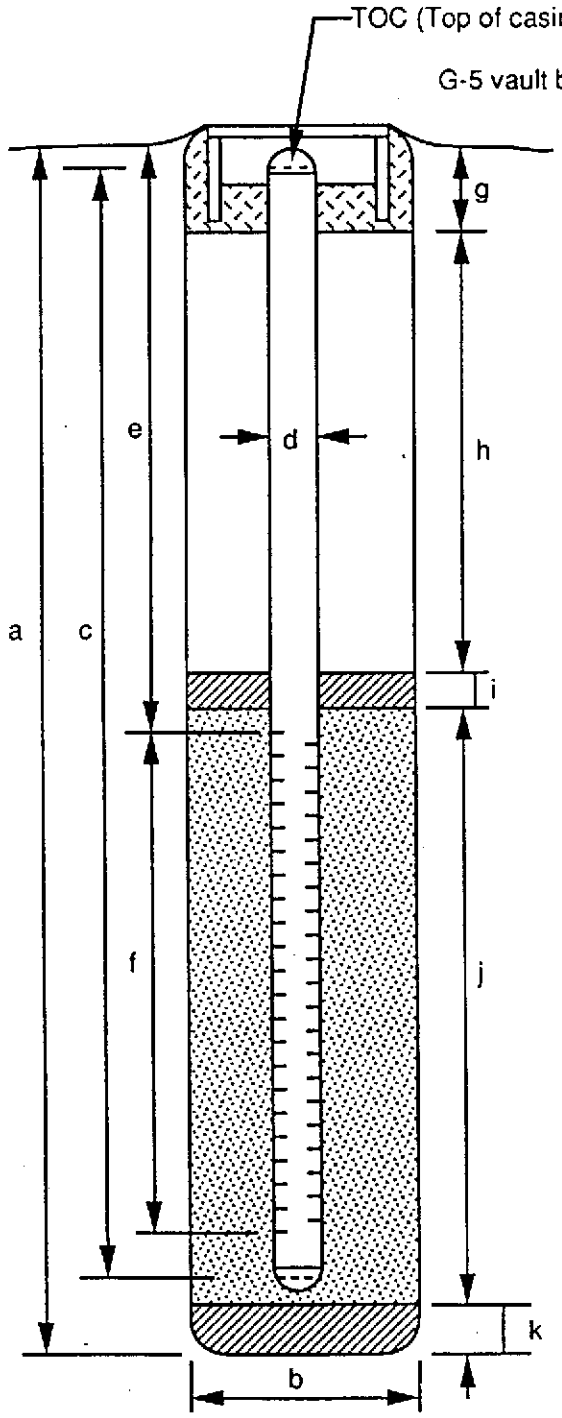
REMARKS

Boring was drilled to 30' using 6.5" diameter hollow-stem augers. Soil samples were collected to 31.5' using a 2" diameter modified California split-spoon sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

WELL DETAILS

PROJECT NUMBER 1158
PROJECT NAME Chevron SS No. 9-8139
LOCATION 16304 Foothill Boulevard, San Leandro
WELL PERMIT NO. 90281

BORING / WELL NO. MW-7
TOP OF CASING ELEV. 126.86'
GROUND SURFACE ELEV. 127.47'
DATUM MSL
INSTALLATION DATE 5-15-90



EXPLORATORY BORING

a. Total depth 31.5 ft.
b. Diameter 6.5 in.
Drilling method Hollow-Stem Auger

WELL CONSTRUCTION

c. Total casing length 26 ft.
Material Schedule 40 PVC
d. Diameter 2 in.
e. Depth to top perforations 21.5 ft.
f. Perforated length 5 ft.
Perforated interval from 21.5 to 26.5 ft.
Perforation type Machine Slotted PVC
Perforation size 0.020 inch
g. Surface seal 1.5 ft.
Material Concrete
h. Backfill 17 ft.
Material Bentonite-Cement Grout
i. Seal 2 ft.
Material Bentonite
j. Gravel pack 6.5 ft.
Gravel pack interval from 20.5 to 27 ft.
Material #3 Sand
k. Bottom seal/fill 4.5 ft.
Material Bentonite

Form prepared by DLM

DCT

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158 — BORING NO. MW-8

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 — PAGE 1 OF 2

BY D. Maupin — DATE 8/30/90 — SURFACE ELEV. 124.25 ft.

PID (ppm)	POCHET PENETRO-METER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
							FILL DIRT.	
13.8		7 14 19		5			CLAYEY SAND (SC), dark yellowish brown (10YR, 4/6); 30-40% moderate plasticity fines; 45-55% fine to coarse sand, angular; 5-15% fine gravel, angular; dense; damp; no product odor. @ 8.2-8.5': medium to coarse gravel lense.	
26.1		7 10 17		10			@ 10': 40-50% moderate plasticity fines; 50-60% fine to coarse sand, angular; trace gravel, angular. @ 12': 35-45% moderate plasticity fines; 5-10% fine gravel, subangular; some sand and gravel grains Fe- and Mn-oxide stained. @ 13': yellowish brown (10YR, 5/6); 35-45% low to moderate plasticity fines; 45-55% fine to coarse sand, angular; 5-15% fine to medium gravel, subangular; sand and gravel Fe- and Mn-oxide stained; some vertical plant rootlets.	
13.2		11 14 18	8-30-90 ▼	15			@ 15.2': 1"x 2" siliceous gravel clast; dense. @ 15.4': 30-40% moderate plasticity fines; 15-25% fine to medium gravel, subangular. @ 18': clayey gravel moderately Fe- and Mn-oxide stained.	
				20				

REMARKS

Boring was drilled to 32.5' using 8" diameter hollow-stem augers. Soil samples were collected at 5' intervals and from 32.5' to 34' using a 2" diameter modified California split-spoon sampler. From 6.5' to 32.5' the boring was continuously sampled between 5' intervals using a 2.5" diameter Moss sampler and a 1.5" diameter Std. Penetration sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

David C. Tight RG#4603 Exp. 6/91

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158 BORING NO. MW-8

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 2 OF 2

BY D. Maupin DATE 8/30/90 SURFACE ELEV. 124.25 ft.

PID (ppm)	POCHET PENETRO-METER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
17.3		3 6 10					CLAYEY SAND (SC), continued. @ 20.1-22': 40-50% high plasticity fines; 45-55% dominantly fine to coarse sand, angular; 5-10% fine gravel; damp to moist; medium dense. @ 22.3': some caliche nodules and stringers. @ 24': 30-40% high plasticity fines; 50-60% fine to coarse sand, angular; 10-20% fine gravel, subangular to subrounded; sand and gravel low to moderate Fe- and Mn-oxide stained; moist; no product odor.	
			8-30-90	25			@ 25': wet.	
13.7		4 5 7					@ 26': SANDY CLAY (CL), strong brown (7.5yr, 4/6); 50-60% high plasticity fines; 40-50% fine to coarse sand, dominantly fine to medium; trace fine gravel; stiff; moist to wet; no product odor. @ 28.5': SILTY SAND (SM), dark yellowish brown (10YR, 4/4); 35-45% low to moderate plasticity fines; 55-65% fine to coarse sand, dominantly fine to medium; trace gravel; damp to moist; no product odor.	
11.2		8 12 16		30			@ 31': CLAYEY SAND (SC), yellowish brown (10YR, 5/8); 20-30% moderate to high plasticity fines; 60-70% fine to coarse sand; 5-15% fine gravel; wet; dense; no product odor. @ 32': damp; no product odor.	
0		9 18 22					BORING TERMINATED AT 32.5' AND SAMPLED TO 34'.	
				35				
				40				

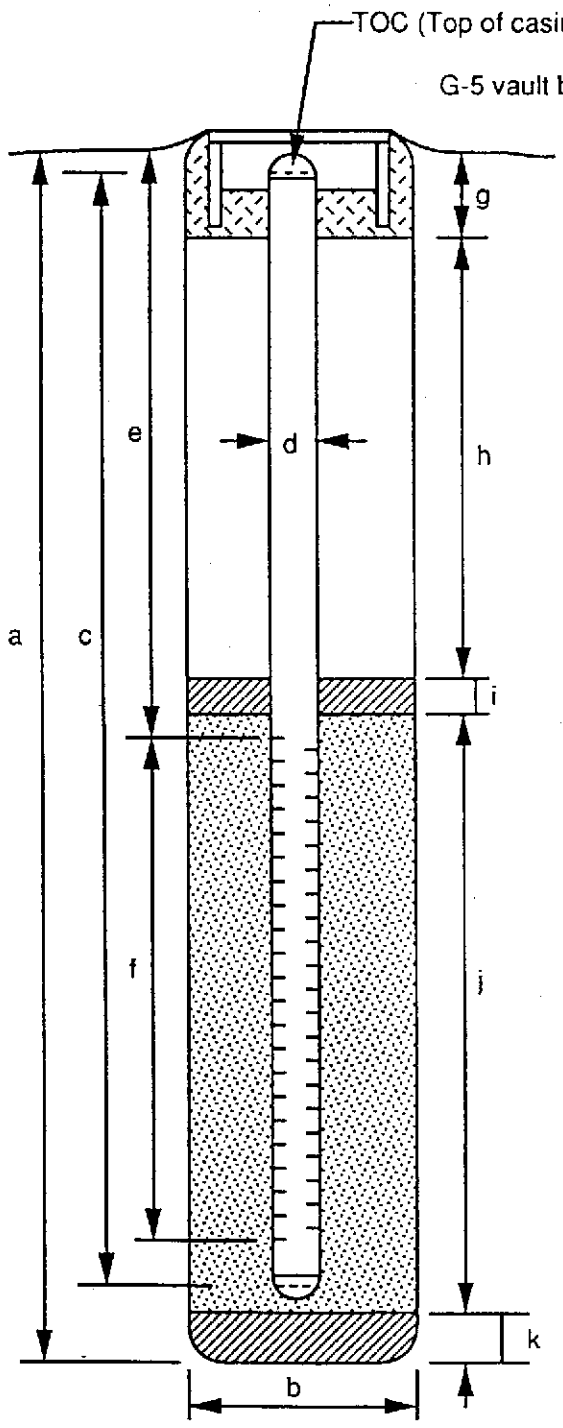
REMARKS

Boring was drilled to 32.5' using 8" diameter hollow-stem augers. Soil samples were collected at 5' intervals and from 32.5' to 34' using a 2" diameter modified California split-spoon sampler. From 6.5' to 32.5' the boring was continuously sampled between 5' intervals using a 2.5" diameter Moss sampler and a 1.5" diameter Std. Penetration sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

WELL DETAILS

PROJECT NUMBER 1158
PROJECT NAME Chevron SS No. 9-8139
LOCATION 16304 Foothill Boulevard, San Leandro
WELL PERMIT NO. 90519

BORING / WELL NO. MW-8
TOP OF CASING ELEV. 123.61'
GROUND SURFACE ELEV. 124.25'
DATUM MSL
INSTALLATION DATE 8-30-90



EXPLORATORY BORING

a. Total depth 34 ft.
b. Diameter 8 in.
Drilling method Hollow-Stem Auger

WELL CONSTRUCTION

c. Total casing length 31 ft.
Material Schedule 40 PVC
d. Diameter 2 in.
e. Depth to top perforations 21.5 ft.
f. Perforated length 9 ft.
Perforated interval from 21.5 to 30.5 ft.
Perforation type Machine Slotted PVC
Perforation size 0.020 inch
g. Surface seal 1 ft.
Material Concrete
h. Backfill 16.5 ft.
Material Bentonite-Cement Grout
i. Seal 3 ft.
Material Bentonite
j. Gravel pack 11 ft.
Gravel pack interval from 20.5 to 31.5 ft.
Material #3 Sand
k. Bottom seal/fill 2.5 ft.
Material Bentonite

Form prepared by DLM

DCT

BORING LOG

PROJ. No.: CHV-149/306
PROJ. NAME: Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
DRAWING No. : A1030603 PAGE: 1 OF 2

MONITORING WELL [redacted]
TOP OF CASING : [redacted]Ft.(MSL)
TOTAL BORING DEPTH 27Ft.
BY: KSF DATE: 6/11/91

Pocket Pene-trometer TSF	Recovery (in./in.)	Blow Count (blows /6")	Sample Depth (feet)	Well Detail	Stratigraphic Column	Description
			0		FILL	**SILTY CLAY,** FILL, brown, silty clay, with sand, gravel, and cobbles.
					CL	**SILTY CLAY** (CL), dark brown (7.5Y, 3/3); 80-90% low plasticity fines; 10-20% very fine to coarse sand; hard; trace limonite nodules; slightly moist; no product odor.
>4.5	18/18	2 8 13	5			
			10			●10Ft: dark yellowish brown (10Y, 3/4), stiff.
2.2	18/18	4 4 9				
			15			●15Ft: 70-80% low plasticity fines; 20-30% fine to very coarse sand; trace fine gravel; very stiff; dry; slight product odor.
3.0 >4.5	18/18	4 8 9				●16Ft: 75-85% low plasticity fines; 10-20% very fine to coarse sand; 0-5% fine gravel; hard; dry; no product odor.
					SC	
			20			

NOTES: Boring was drilled with 8" outside diameter hollow-stem augers. Soil samples were collected at 5ft intervals using a 2" diameter modified-California split-spoon sampler with brass liners. A groundwater monitoring well was installed using 2" diameter sch 40 PVC and 0.010" machine slotted PVC screen.

Donald C. Tuttle RG#4603, Exp 6/30/92

BORING LOG

PROJ. No.: CHV-149/306
PROJ. NAME: Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
DRAWING No. : A1030604 PAGE: 2 OF 2

MONITORING WELL MW-9
TOP OF CASING : 124.20Ft(MSL)
TOTAL BORING DEPTH 27Ft.
BY: KSF DATE: 6/11/91

Pocket Pene-trometer TSF	Recovery (In./In.)	Blow Count (blows /6")	Sample Depth (feet)	Well Detail	Strati-graphic Column	Description
3.5	18/18	5 13 18	20		SC	SANDY CLAY (SC), Dark yellowish brown (10YR, 3/4); 60-70% low plasticity fines; 30-40% fine to very coarse sand, trace fine gravel; stiff; limonite nodules; caliche deposits; no product odor.
1.5	18/18	2 4 6	25		CL	SILTY CLAY (CL), dark yellowish brown (10Y, 3/4), 85-95% low plasticity fines; 5-15% very fine to fine sand; trace limonite nodules; trace Fe-oxide staining; stiff; slightly moist; no product odor.
			30			BORING TERMINATED AT 27.0 FEET
			35			
			40			

NOTES: Boring was drilled with 8" outside diameter hollow-stem augers. Soil samples were collected at 5ft intervals using a 2" diameter modified-California split-spoon sampler with brass liners. A groundwater monitoring well was installed using 2" diameter sch 40 PVC and 0.010" machine slotted PVC screen.

WELL DETAILS

BURLINGTON ENVIRONMENTAL, INC.
CHEMPRO, Division

PROJECT No. CHV-149/306 | Drawing No. : A1030607

PROJECT NAME: Chevron Service Station No. 9-8139

LOCATION 16304 Foothill Boulevard, San Leandro, Ca

WELL PERMIT No. 91134

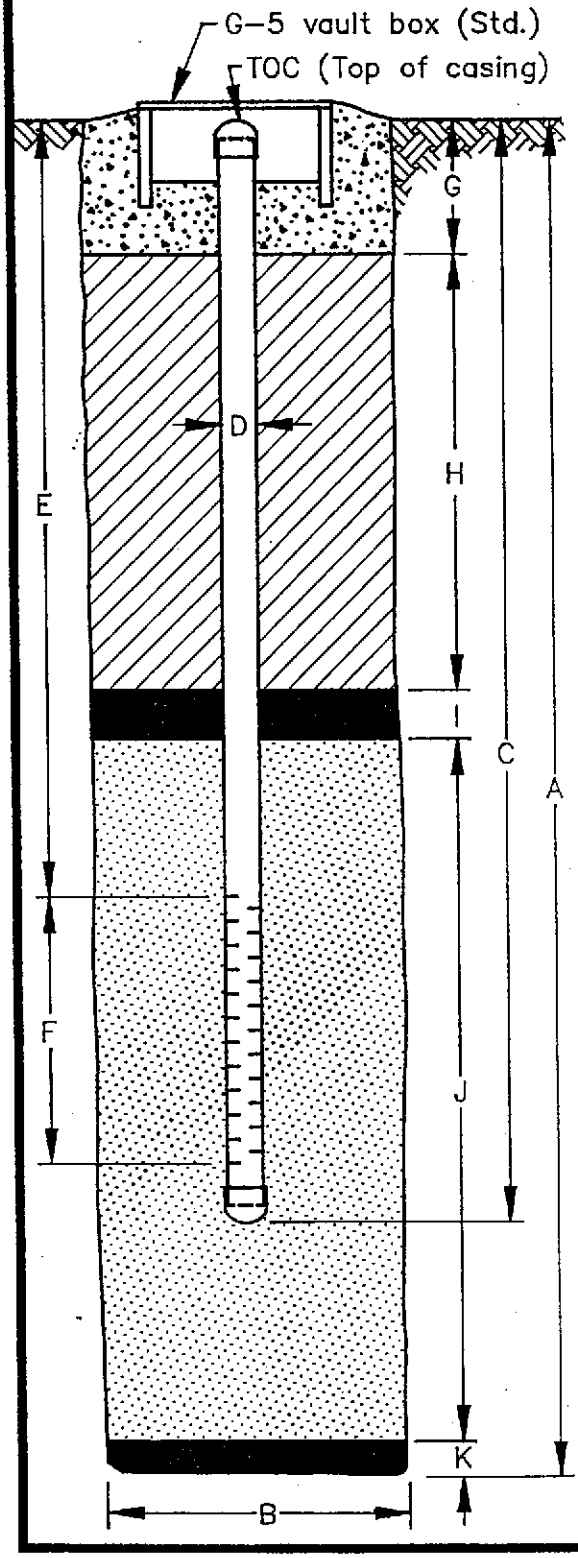
BORING/WELL No. MW-9

TOP OF CASING ELEVATION 124.20Ft.

GROUND SURFACE ELEVATION 124.51Ft.

DATUM MSL

INSTALLATION DATE 6/11/91



EXPLORATORY BORING

A. Total depth: 27 ft.
B. Diameter: 8 in.
Drilling method: 8" HSA

WELL CONSTRUCTION

C. Total casing length: 26.5 ft.
Material: SCH 40 PVC
D. Diameter: 2 in.
E. Depth to top of perforations: 17 ft.
F. Perforated length: 10 ft.
Perforated interval from 17 to 27 ft.
Perforation type: MACHINE-SLOTTED
Perforation size: 0.010 INCH
G. Surface seal: 1 ft.
Seal material: CONCRETE
H. Backfill: 12 ft.
Backfill material: CEMENT-BENTONITE GROUT
I. Seal: 2 ft.
Seal material: BENTONITE PELLETS
J. Gravel pack: 12 ft.
Pack material: No. 2/12 SAND
K. Bottom seal/fill: - ft.
Material: -

Form prepared by KSF

BORING LOG

BURLINGTON ENVIRONMENTAL INC.

Project Number: CHV-149
Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
Drawing No.: A1036601 Page: 1 of 2

Monitoring WELL No.: MW-10
Ground Surface Elev.: Approx. 125.5 ft.(MSL)
Total Boring Depth: 30 ft.
By: K. FLORY Date: 4/21/92

Pocket pene-trometer TSF	Re-covery (in/in)	Blow Count (blows /6")	Sample Depth (feet)	Well Detail	Strati-graphic Column	Description
			0		A	5" ASPHALT
					CONC.	7" CONCRETE
					FILL	4" BASE COARSE
					CL	SANDY CLAY (CL), Dark brown (7.5 YR, 3/3); 70-80% low plasticity fines; 20-30% very fine to fine sand; hard; dry.
4.5	18/18	5 12 22	5			
4.5	18/18	5 6 10	10			@ 13': 50-60% low plasticity fines; 30-40% very fine to coarse sand; 10% gravel: hard, moist.
2.0	18/18	5 8 8	15			@ 15': 80-90% low plasticity fines; 10-20% very fine sand; very stiff.
			20			

NOTES: Boring was drilled using eight-inch outside diameter (OD) hollow-stem augers. Soil samples were collected using a two-inch OD split-spoon sampler at five foot intervals. A groundwater monitoring well was installed using two-inch diameter PVC casing (see attached well detail).

BORING LOG

BURLINGTON ENVIRONMENTAL INC.

Project Number: CHV-149
Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
Drawing No.: A1036602 Page: 2 of 2

Monitoring WELL No.: MW-10
Ground Surface Elev.: Approx. 125.5 ft.(MSL)
Total Boring Depth: 30 ft.
By: K. FLORY Date: 4/21/92

Pocket penetrometer TSF	Recovery (in/in)	Blow Count (blows/6")	Sample Depth (feet)	Well Detail	Stratigraphic Column	Description
–	3/18	8 18 23	20		CL	[redacted]L), Continued ● 20': Cobble in tip of spoon; little recovery; [redacted]
2.25	18/18	6 7 11	25			● 25': 60–70% low plasticity fines; 20–30% very fine to coarse sand; 10% fine gravel; very stiff; moist.
2.5	18/18	8 12 15	30			BORING TERMINATED AT 30'
			35			
			40			

NOTES: Boring was drilled using eight-inch outside diameter (OD) hollow-stem augers. Soil samples were collected using a two-inch OD split-spoon sampler at five foot intervals. A groundwater monitoring well was installed using two-inch diameter PVC casing (see attached well detail).

David C. Smith RG#4603 Exp. 6/30/94

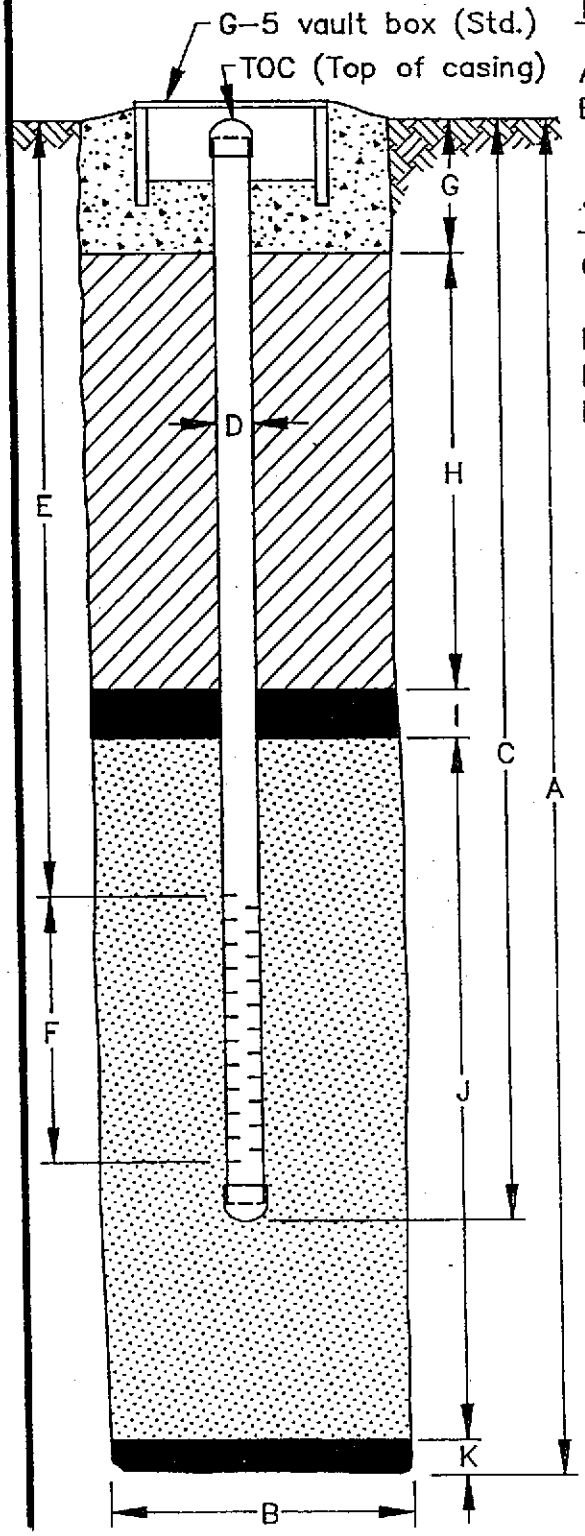
WELL DETAILS

BURLINGTON ENVIRONMENTAL, INC.

Project Number: CHV-149
Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
Drawing No.: A1036605

WELL No.: MW-10
Top of Casing Elev.: 125.03 FT (MSL)
Ground Surface Elev.: APPROX. 125.5ft.(MSL)
Installation Date: 4/21/92

Well Permit No.: 92124



EXPLORATORY BORING

A. Total depth	30	ft.
B. Diameter	8	in.
Drilling method	8"ø HSA	

WELL CONSTRUCTION

C. Total casing length	29.5	ft.
Material	SCH 40 PVC	
D. Diameter	2	in.
E. Depth to top of perforations	14.5	ft.
F. Perforated length	15	ft.
Perforated interval from 14.5 to 29.5		ft.
Perforation type	MACHINE-SLOTTED	
Perforation size	0.010 INCH	
G. Surface seal	2	ft.
Seal material	CONCRETE	
H. Backfill	7	ft.
Backfill material	CEMENT-BENTONITE GROUT	
I. Seal	3	ft.
Seal material	BENTONITE-PELLETS	
J. Gravel pack	18	ft.
Pack material	2/12 SAND	
K. Bottom seal/fill	-	ft.
Material	N/A	

DC?

Form prepared by K. FLORY

BORING LOG

BURLINGTON ENVIRONMENTAL INC.

Project Number: CHV-149
Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
Drawing No.: A1036603 Page: 1 of 2

Monitoring WELL No.: [redacted]
Ground Surface Elev.: Approx. 123.4 ft.(MSL)
Total Boring Depth: 30 ft.
By: K. FLORY Date: 4/21/92

Pocket penetrometer TSF	Recovery (in/in)	Blow Count (blows/6")	Sample Depth (feet)	Well Detail	Stratigraphic Column	Description
2.2	–	–	0		CL	SILTY CLAY (CL), Very dark brown (10 YR, 2/2); 85–95% high plasticity fines; 5–15% very fine to fine sand; trace fine gravel; very stiff; slightly moist.
4.0	18/18	10 11 22	5			● 5': Hard.
3.5	18/18	5 10 13	10		CL	SANDY [redacted] (CL), Dark yellowish brown (10 YR, 4/4); 50–60% low plasticity fines; 30–40% fine to coarse sand; 10–20% fine gravel; very stiff; slightly moist.
0.5	18/18	7 12 14	15			● 15': Dark brown (10 YR, 4/3); 65–75% low plasticity fines; 20–30% fine to coarse sand; 5% fine gravel; soft; slightly moist.
			20			

NOTES: Boring was drilled using eight-inch outside diameter (OD) hollow-stem augers. Soil samples were collected using a two-inch OD split-spoon sampler at five foot intervals. A groundwater monitoring well was installed using two-inch diameter PVC casing (see attached well detail).

BORING LOG

BURLINGTON ENVIRONMENTAL INC.

Project Number: CHV-149
Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
Drawing No.: A1036604 Page: 2 of 2

Monitoring WELL No.: MW-11
Ground Surface Elev.: Approx. 123.4 ft.(MSL)
Total Boring Depth: 30 ft.
By: K. FLORY Date: 4/21/92

Pocket penetrometer TSF	Recovery (in/in)	Blow Count (blows/6")	Sample Depth (feet)	Well Detail	Stratigraphic Column	Description
0.5	18/18	5 6 9	20		CL	SANDY CLAY (CL), Continued. @ 20': Dark yellowish brown (10 YR, 3/4); 60-70% high plasticity fines; 20-30% fine to coarse sand; 10% gravel; soft; wet.
2.75	18/18	9 9 9	25			@ 25': 50-60% low plasticity fines; 30-40% fine to coarse sand; 10% gravel; very stiff; moist.
2.75	18/18	4 5 9	30			BORING TERMINATED AT 30'
			35			
			40			

NOTES: Boring was drilled using eight-inch outside diameter (OD) hollow-stem augers. Soil samples were collected using a two-inch OD split-spoon sampler at five foot intervals. A groundwater monitoring well was installed using two-inch diameter PVC casing (see attached well detail).

David C. Light, RG#4603; Exp. 6/30/94

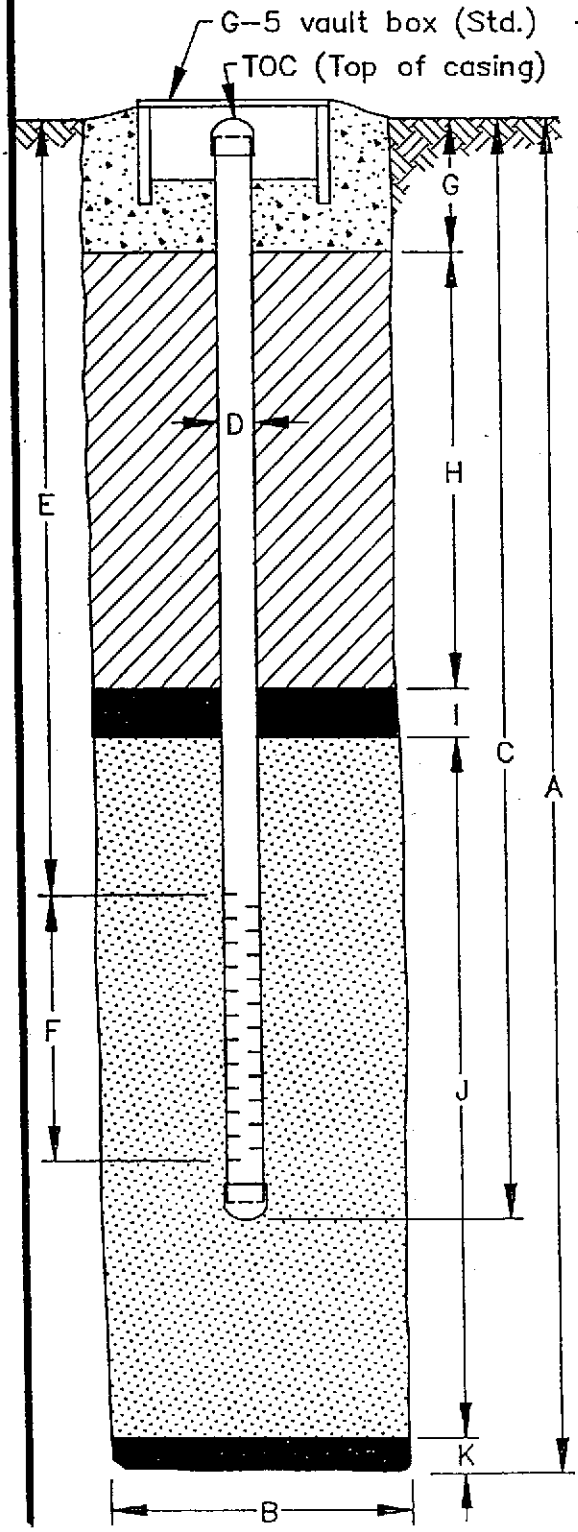
WELL DETAILS

BURLINGTON ENVIRONMENTAL, INC.

Project Number: CHV-149
Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
Drawing No.: A1036606

WELL No.: MW-11
Top of Casing Elev.: 122.92ft.(MSL)
Ground Surface Elev.: APPROX. 123.4ft.(MSL)
Installation Date: 4/21/92

Well Permit No.: 92124



EXPLORATORY BORING

A. Total depth 30 ft.
B. Diameter 8 in.
Drilling method 8"ø HSA

WELL CONSTRUCTION

C. Total casing length 29.5 ft.
Material SCH 40 PVC
D. Diameter 2 in.
E. Depth to top of perforations 14.5 ft.
F. Perforated length 15 ft.
Perforated interval from 14.5 to 29.5 ft.
Perforation type MACHINE-SLOTTED
Perforation size 0.010 INCH
G. Surface seal 2 ft.
Seal material CONCRETE
H. Backfill 6 ft.
Backfill material CEMENT-BENTONITE GROUT
I. Seal 3 ft.
Seal material BENTONITE-PELLETS
J. Gravel pack 19 ft.
Pack material 2/12 SAND
K. Bottom seal/fill – ft.
Material N/A

Form prepared by K. FLORY

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158 — BORING NO. E-1

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 — PAGE 1 OF 2

BY D. Maupin — DATE 5/17/90 — SURFACE ELEV. 127.29 ft.

PID (ppm)	POCKET PENETRO-METER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
54.8	3.2	NA		5			ASPHALT. FILL. CLAYEY SAND (SC), dark yellowish brown (10YR, 4/4); 40-50% moderate to high plasticity fines; 50-60% fine to coarse sand; trace fine gravel; worm borrows upper 4-8"; medium dense; damp; no product odor.	
21.7	3.2	NA					@ 5': 25-35% moderate to high plasticity fines; 50-60% fine to coarse sand; 10-20% fine gravel. @ 6.5': thin lenses of high plasticity fines; some highly altered sandstone gravel.	
47.6		NA					@ 8': dark yellowish brown (10YR, 3/6); 35-45% moderate to high plasticity fines; 55-65% fine to coarse sand; trace Mn-oxide stained fine gravel; damp; weak product odor. @ 10': olive brown (2.5Y, 4/4); 25-35% moderate to high plasticity fines; 65-75% fine to coarse sand, subangular to subrounded; trace fine to medium gravel; organic odor.	
	1.3	NA		10				
39.6	2.3	NA					SANDY CLAY (CL), mottled olive (5Y, 4/3) and dark yellowish brown (10YR, 4/6); 55-65% high plasticity fines; 25-35% fine to medium sand; 10-15% fine gravel; very stiff; damp; no product odor.	
	3.5	NA					[redacted] product odor.	
	3.5	NA		15				
405	2.2	NA					CLAYEY SAND (SC), dark yellowish brown (10YR, 4/4); 20-30% moderate to high plasticity fines; 60-70% fine to coarse sand; 5-15% fine to coarse gravel; medium dense; damp; [redacted].	
	1.5	NA	5-21-90					
295	3.0	NA	5-16-90				GRAVELLY SAND (SP), light olive brown (2.5Y, 5/4); 10-20% moderate plasticity fines; 40-50% fine to coarse sand; 30-40% fine to coarse	
				20				

REMARKS

Boring was drilled to 31.5' using 6.5" diameter hollow-stem augers. Soil samples were collected from 3.5' to 31.5' using a 2.5" diameter Moss continuous sampler. Boring was redrilled with 12.25" diameter hollow-stem augers. A groundwater extraction well was installed using 6" diameter PVC casing (see attached well detail).

David C. Tiffle RG#4603 Exp Date: 6/91

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158 BORING NO. E-1

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139 PAGE 2 OF 2

BY D. Maupin DATE 5/17/90 SURFACE ELEV. 127.29 ft.

PID (ppm)	POCHET PENETRO-METER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
61.5	1.1	NA					gravel, one quartz clast >2" diameter; medium dense; damp to moist; moderate to strong product odor.	
	4.1	NA					@ 17.5': graded to dark olive gray (5Y, 3/2); [redacted] odor.	
[redacted]	2.8	NA					**CLAYEY SAND** (SC), abundant olive mottling; trace medium gravel; strong product odor.	
				25			@ 20': yellowish brown (10YR, 5/6); 25-35% moderate to high plasticity fines; 60-70% fine to coarse sand; 5-10% fine gravel; medium dense; [redacted]; no product odor.	
18.2	0.5	NA					**SANDY CLAY** (CL), yellowish brown (10YR, 5/6); 55-65% high plasticity fines; 30-40% fine to coarse sand; 5-10% fine gravel; very stiff to hard; moist; [redacted] product odor.	
5.0	2.4	NA					**CLAYEY SAND** (SC), dark yellowish brown (10YR, 4/6); 25-35% moderate to high plasticity fines; 50-60% fine to coarse sand; 10-15% fine gravel, angular; loose; damp; weak product odor.	
5.1	2.5	NA					@ 25': 10-20% low to moderate plasticity fines; 60-70% fine to coarse sand; 10-20% fine gravel; [redacted]; no product odor.	
	No	Recovery		30			**SANDY CLAY** (CL), dark yellowish brown (10YR, 4/4); 55-65% high plasticity fines; 35-45% fine to coarse sand, rounded; trace fine gravel; very stiff; damp; no product odor.	
				35			@ 29': sandy lense; 50-60% high plasticity fines; 40-50% fine to coarse sand; trace fine gravel.	
							TERMINATED BORING AT 30' AND SAMPLED TO 31.5'.	
				40				

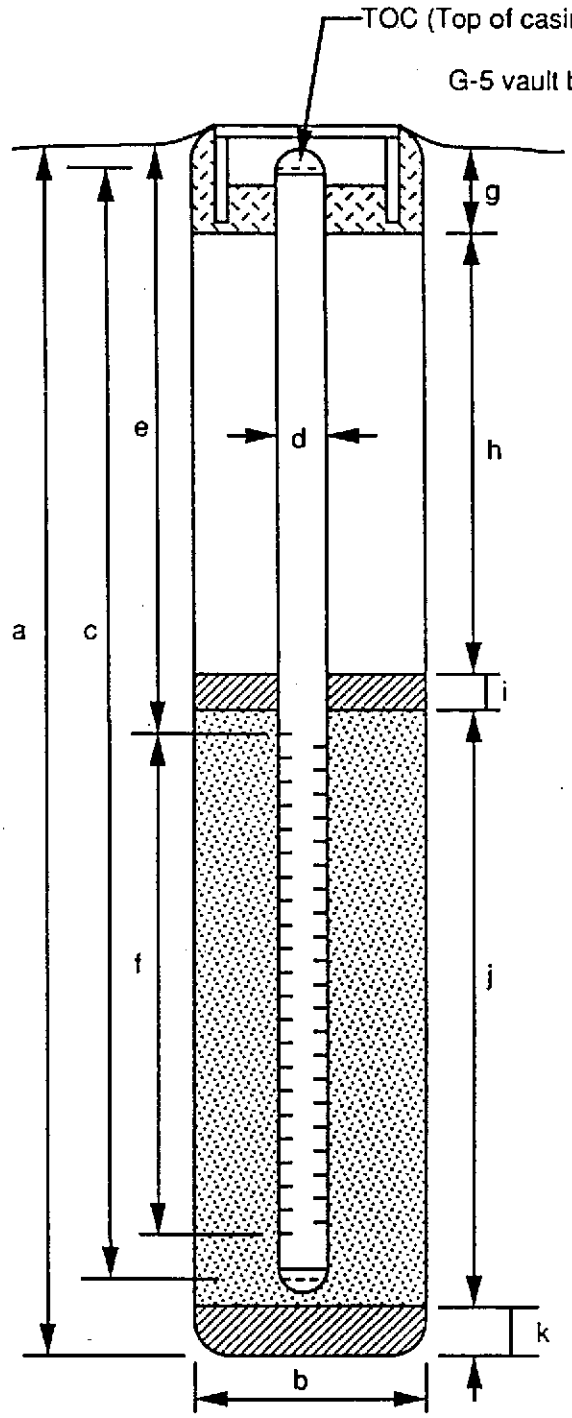
REMARKS

Boring was drilled to 31.5' using 6.5" diameter hollow-stem augers. Soil samples were collected from 3.5' to 31.5' using a 2.5" diameter Moss continuous sampler. Boring was redrilled with 12.25" diameter hollow-stem augers. A groundwater extraction well was installed using 6" diameter PVC casing (see attached well detail).

WELL DETAILS

PROJECT NUMBER 1158
PROJECT NAME Chevron SS No. 9-8139
LOCATION 16304 Foothill Boulevard, San Leandro
WELL PERMIT NO. 90281

BORING / WELL NO. E-1
TOP OF CASING ELEV. 124.95'
GROUND SURFACE ELEV. 127.29'
DATUM MSL
INSTALLATION DATE 5-17-90



EXPLORATORY BORING

a. Total depth 31.5 ft.
b. Diameter 12.25 in.
Drilling method Hollow-Stem Auger

WELL CONSTRUCTION

c. Total casing length * 27.9 ft.
Material Schedule 40 PVC
d. Diameter 6 in.
e. Depth to top perforations 18.1 ft.
f. Perforated length 8.4 ft.
Perforated interval from 18.1 to 26.5 ft.
Perforation type Machine Slotted PVC
Perforation size 0.020 inch
g. Surface seal 1.5 ft.
Material Concrete
h. Backfill 13.5 ft.
Material Bentonite-Cement Grout
i. Seal 2 ft.
Material Bentonite
j. Gravel pack 10 ft.
Gravel pack interval from 17 to 27 ft.
Material #3 Sand
k. Bottom seal/fill 4.5 ft.
Material Bentonite around PVC Sediment Sump *

* 3-foot sediment sump installed below the screened section (26.5 to 29.4 feet BGL).

Form prepared by DLM

DCT

BORING LOG

PROJ. No.: CHV-149/306
PROJ. NAME: Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
DRAWING No. : A1030601 PAGE: 1 OF 1

EXTRACTION WELL E-2
TOP OF CASING : 125.79Ft.(MSL)
TOTAL BORING DEPTH 30.5Ft.
BY: KSF DATE: 6/10/91

Pocket Pene-trometer TSF	Recovery (In./In.)	Blow Count (blows /6")	Sample Depth (feet)	Well Detail	Strati-graphic Column	Description
			0			FOR LITHOLOGIC DETAILS SEE BORING LOG FOR MONITORING WELL MW-5
			10			
			20			
			30			
			40			

NOTES: Monitoring well Mw-5 was decommissioned with 8" diameter hollow-stem augers to 30ft. Boring was reamed with 10" diameter hollow-stem augers to 30.5ft. A groundwater extraction well was installed using 4" diameter sch 40 PVC and 0.010" machine slotted PVC screen.

RG#4603
exp: 6/30/92

WELL DETAILS

BURLINGTON ENVIRONMENTAL, INC. CHEMPRO, Division

PROJECT No. CHV-149/306 Drawing No. : A1030608

PROJECT NAME: Chevron Service Station No. 9-8139

LOCATION 16304 Foothill Boulevard, San Leandro, Ca

WELL PERMIT No. 91134

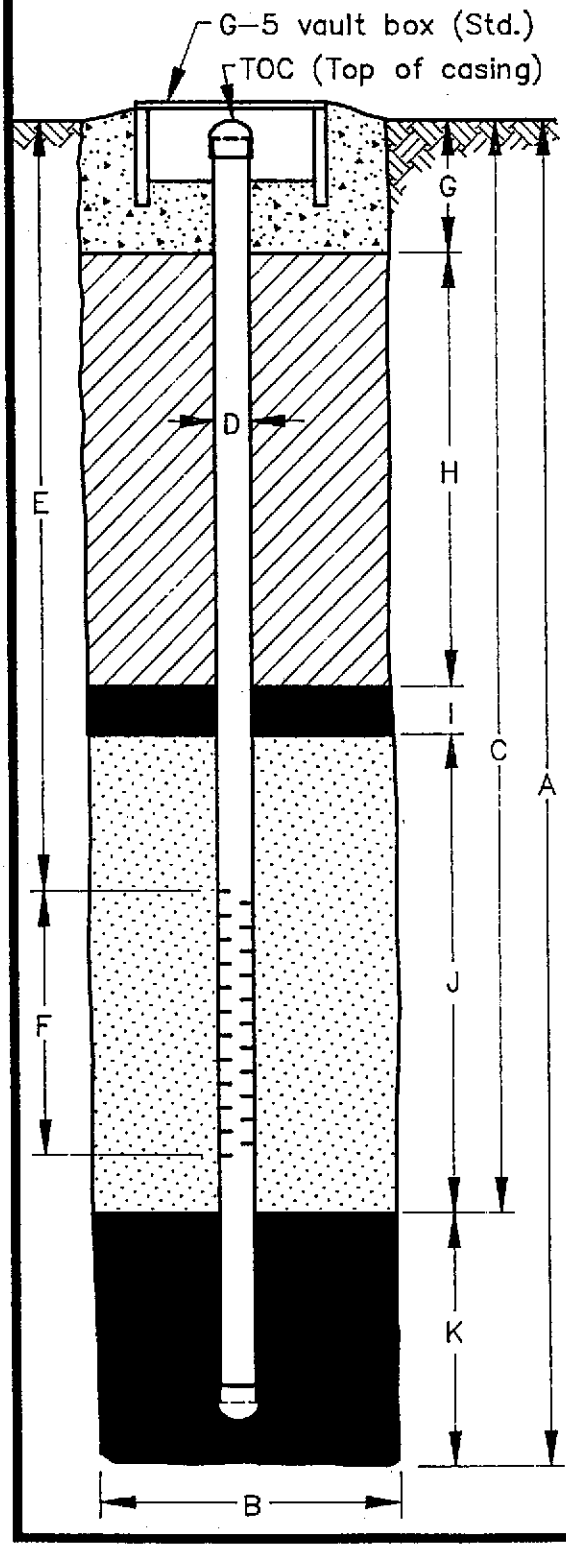
BORING/WELL No. E-2

TOP OF CASING ELEVATION 125.79Ft

GROUND SURFACE ELEVATION 126.15Ft.

DATUM MSL

INSTALLATION DATE 6/10/91



EXPLORATORY BORING

A. Total depth 30.5 ft.

B. Diameter 10 in.

Drilling method 8"ø+10"ø HSA

WELL CONSTRUCTION

C. Total casing length 30 ft.

Material SCH 40 PVC

D. Diameter 4 in.

E. Depth to top of perforations 15 ft.

F. Perforated length 10 ft.

Perforated interval from 15 to 25 ft.

Perforation type MACHINE-SLOTTED

Perforation size 0.010 INCH

G. Surface seal 1.5 ft.

Seal material CONCRETE

H. Backfill 9.5 ft.

Backfill material CEMENT-BENTONITE GROUT

I. Seal 2 ft.

Seal material BENTONITE PELLETS

J. Gravel pack 13 ft.

Pack material No. 2/12 SAND

K. Bottom seal/fill 4.5 ft.

Material HOLE PLUG

Form prepared by KSF

BORING LOG

PROJ. No.: CHV-149/306
PROJ. NAME: Chevron Service Station No. 9-8139
16394 Foothill Boulevard, San Leandro, CA
DRAWING No. :A1030602 PAGE: 1 OF 1

EXTRACTION WELL E-3
TOP OF CASING : 125.22Ft.(MSL)
TOTAL BORING DEPTH 30.5Ft.
BY: KSF DATE: 6/10/91

Pocket Pene-trometer TSF	Recovery (in./in.)	Blow Count (blows /6")	Sample Depth (feet)	Well Detail	Strati-graphic Column	Description
			0			FOR LITHOLOGIC DETAILS SEE BORING LOG FOR MONITORING WELL MW-4
			10			
			20			
			30			
			40			

NOTES: Monitoring well Mw-5 was decommissioned with 8" diameter hollow-stem augers to 30ft. Boring was reamed with 10" diameter hollow-stem augers to 30.5ft. A groundwater extraction well was installed using 4" diameter sch 40 PVC and 0.010" machine slotted PVC screen.

David C. Griffith RG/No.4603
Exp: 6/30/92

WELL DETAILS

BURLINGTON ENVIRONMENTAL, INC.
CHEMPRO, Division

PROJECT No. CHV-149/306 Drawing No. : A1030609

PROJECT NAME: Chevron Service Station No. 9-8139

LOCATION 16304 Foothill Boulevard, San Leandro, Ca

WELL PERMIT No. 91133/91134

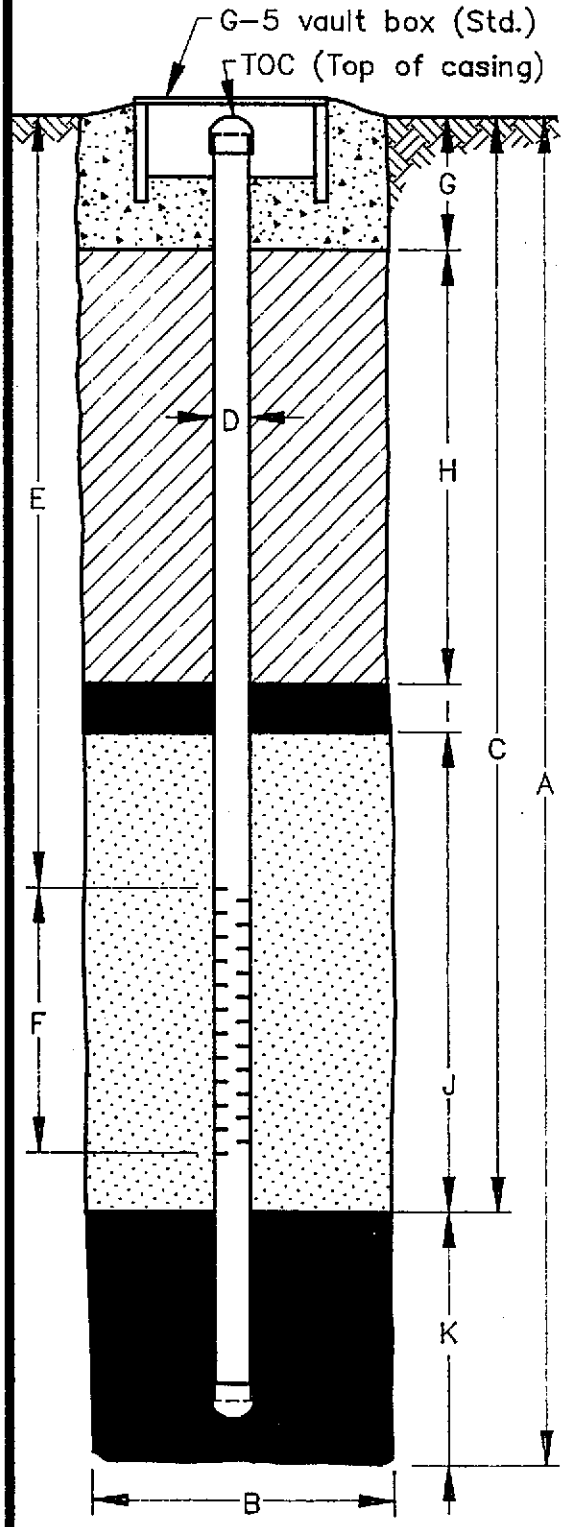
BORING/WELL No. E-3

TOP OF CASING ELEVATION 125.22Ft.

GROUND SURFACE ELEVATION 125.53Ft.

DATUM MSL

INSTALLATION DATE 6/10/91



EXPLORATORY BORING

A. Total depth 30.5 ft.
B. Diameter 10 in.
Drilling method 8"ø+10"ø HSA

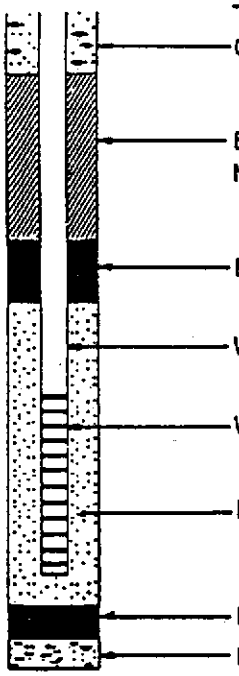
WELL CONSTRUCTION

C. Total casing length 30 ft.
Material SCH 40 PVC
D. Diameter 4 in.
E. Depth to top of perforations 15 ft.
F. Perforated length 10 ft.
Perforated interval from 15 to 25 ft.
Perforation type MACHINE-SLOTTED
Perforation size 0.010 INCH
G. Surface seal 1.5 ft.
Seal material CONCRETE
H. Backfill 9.5 ft.
Backfill material CEMENT-BENTONITE GROUT
I. Seal 2 ft.
Seal material BENTONITE PELLETS
J. Gravel pack 13 ft.
Pack material No. 2/12 SAND
K. Bottom seal/fill 4.5 ft.
Material HOLE PLUG

Form prepared by KSF

EXPLANATION OF SYMBOLS ON EXPLORATORY BORING LOGS

Well Details Column



Sample Column

BAG/BULK SAMPLES

FIVE-FOOT SPLIT BARREL SAMPLER (CONTINUOUS SAMPLER)

MODIFIED CALIFORNIA SPLIT SPOON

OTHER SAMPLERS (SEE REMARKS FOR TYPE AND SIZE)

PITCHER BARREL

ROCK CORE (SEE REMARKS FOR TYPE AND SIZE)

SHELBY TUBE SAMPLER

STANDARD PENETRATION TEST SPLIT SPOON SAMPLER (2" OD)

EXPLANATION OF SYMBOLS ON
EXPLORATORY BORING LOGS
(CONTINUED)

Ground-Water Level Column

DEPTH TO FIRST OBSERVED GROUND WATER

DEPTH TO STABILIZED GROUND WATER

Miscellaneous

2.5 YR 6/2 — Color as field checked to Munsell Soil Color Chart (1975 Edition)

PENETRATION — Blows required to drive sampler 1 foot into soil.
Standard drive hammer weight: 140 pounds.
Standard drop: 30 inches

APPENDIX D

CONTINGENCY PLAN

APPENDIX D

CONTINGENCY PLAN

This Contingency Plan will ensure compliance with the cleanup goals for the site. Hydrocarbon analyses will be performed to ensure that cleanup goals are not exceeded near the downgradient boundary and that compliance with monitoring goals is maintained.

Well MW-3 (Table D-1) will serve as a "guard point" to ensure that the source area concentrations are stable or decreasing. Ground water samples from MW-3 will be analyzed for hydrocarbons semi-annually through 1995, during the seasonal high and low water table, then annually through 1997 during the seasonal high water table. Wells MW-9, MW-10 and MW-11 will serve as "boundary wells" to ensure compliance with cleanup goals. Ground water samples from these three wells will be analyzed for hydrocarbons semi-annually during the seasonal high and low water table through 1996, then annually during the seasonal high water table in 1997. To confirm the plume configuration, ground water samples from MW-6 will be sampled quarterly through 1995, then annually through 1997. If monitoring goals are maintained at these wells, monitoring will cease.

If monitoring data indicate that certain trigger concentrations have occurred, this contingency plan will be implemented. These trigger concentrations and Contingency Plan responses are summarized in Table D-1. A "baseline" benzene concentration has been determined for each well based on trends over the last several years. A "trigger" concentration has been determined which represents a significant concentration increase that may indicate possible future non-compliance with cleanup goals. If a trigger concentration occurs in two consecutive monitoring events, or if concentrations are increasing at a rate such that the trigger concentration might be met or exceeded before the next sampling event, the contingency plan will be implemented.

If triggered, this Contingency Plan calls for three responses:

1) The Alameda County Department of Environmental Health (ACDEH) will be notified;

2) Ground water monitoring will be performed in the triggered well the next quarter; and

3) If elevated concentrations are again detected, quarterly monitoring of that well will continue until an appropriate course of action, identified by Chevron and accepted by the ACDEH, is implemented.

Table D-1. Contingency Plan for Maintaining Compliance, Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California. All conditions are for benzene unless otherwise noted.

	Monitoring Well	Baseline Concentration	Trigger Concentration		Response to Trigger Concentration[1]	Additional Monitoring
~~Guard Well~~	~~MW-3~~	~~5,100 ppb~~	~~10,000 ppb~~	~~1)~~	Notify ACDEH	Quarterly monitoring of triggered well
Guard ~~Boundary~~ Wells	~~MW-6~~ MW-8	2 ppb	~~10~~ 30 ppb	2)	Sample triggered well in the next quarter	
	MW-9	50 ppb	~~80~~ 50 ppb			
	MW-10	<0.5 ppb	2 ppb			
Boundary	MW-11	<0.5 ppb	2 ppb	3)	Identify an appropriate course of action based upon determination of source	

Footnotes:

[1] Response is triggered when the trigger concentration is met or exceeded, or when concentrations are increasing at a rate such that the trigger concentration might be met or exceeded before the next sampling event.

60 days