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TECHNOLOGIES, INC.

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PHASE II
SUBSURFACE INVESTIGATION AND QUARTERLY MONITORING REPORT

Former Mobil Service Station No. 10-L1X
15884 Hesperian Boulevard
San Lorenzo, California

Prepared for:

MOBIL OIL CORPORATION
3800 West Alameda Avenue, Suite 2000
Burbank, California 91505

Prepared by:

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.
2363 Mariner Square Drive, Suite 243
Alameda, California 94501
HETI Job No. 8-019

September 16, 1993

HYDRO ENVIRONMENTAL TECHNOLOGIES, INC.

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1.0 INTRODUCTION

1.1 Purpose and Scope

Mobil Oil Corporation (Mobil) retained Hydro-Environmental Technologies, Inc. (HETI) in June 1993 to conduct a Phase II Subsurface Investigation at Former Mobil Service Station No. 10-L1X, located at 15884 Hesperian Boulevard in San Lorenzo, California. A site location map is attached as Figure 1. This phase of the investigation was conducted to further assess the extent of petroleum hydrocarbons in the subsurface soil and ground water at the site.

The tasks performed for this investigation included the following:

- Drilled and logged one soil boring and collected soil samples.
- Installed one 2-inch diameter monitoring well.
- Developed and surveyed the new monitoring well.
- Collected ground water samples from all five wells at the site to be analyzed for dissolved hydrocarbons.

1.2 Site Location, Description and Background

The site was previously a Mobil gasoline service station located at the northern corner of the intersection of Hesperian Boulevard and Post Office Street in San Lorenzo, California. It is presently paved over and serves as a parking lot for a shopping mall. Figure 2 shows the vicinity of the site and Figure 3 shows the layout of the site and the location of existing monitoring wells.

In July 1986, Kaprealian Engineering, Inc. (KEI) installed four two-inch diameter monitoring wells (MW-1 through MW-4) on-site. In December 1987, in preparation to abandon the site, the underground storage tanks were removed and the tank pit was over-excavated.

In October 1991, HETI continued with further subsurface investigation. After HETI's initial site inspection to locate the wells, the following conditions were observed: Monitoring well MW-2 was found in good condition, the casing to MW-3 was broken off and debris had filled in the well, and wells MW-1 and MW-4 could not be located and their existence/condition is unknown.

In January 1992, HETI installed three monitoring wells on-site (MW-5, MW-6 and MW-7) and properly abandoned monitoring well MW-3. Monitoring well locations are shown on the Site Plan (Figure 3). Results of that phase of the investigation and a detailed project history are presented in HETI's "Phase I Report" dated May 7, 1992.

2.0 FIELD ACTIVITIES

All drilling, well construction and sampling was performed in accordance with recommended guidelines and procedures of the Alameda County Department of Environmental Health (ACDEH) and the Regional Water Quality Control Board (RWQCB). A copy of standard field protocols for drilling, well construction and sampling was submitted as an attachment to the Phase I Report. Copies of Alameda County Flood Control and Water Conservation District (Zone Seven) well installation permits are included in Appendix A.

2.1 Soil Borehole Drilling and Soil Sampling

HETI conducted a safety briefing with the drilling subcontractors prior to the start of drilling. At the end of the briefing, all on-site personnel reviewed and signed the Health and Safety Plan prepared for this work; a copy is included in Appendix A.

On August 10, 1993 one off-site soil boring (MW-8) was drilled by Bayland Drilling of Menlo Park, California using a truck-mounted CME-55 hollow-stem auger drill rig. Boring MW-8 was completed at an approximate depth of 23 feet below grade, across Hesperian Boulevard in the southwest corner of the intersection (Figure 3). Ground water was initially encountered at an approximate depth of 15 feet below grade.

A California-modified split spoon sampler, lined with brass tubes, was used to collect soil samples for laboratory analyses at depths of six and a half feet and eleven feet below grade. The soil samples were labeled, documented on a chain-of-custody form and placed in a cooler for transport to Sequoia Analytical, a state DHS-certified laboratory located in Redwood City, California. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Methods 8015 and 8020 (modified).

Portions of each split spoon soil sample were retained for visual lithologic description by a HETI geologist using the Unified Soil Classification System, and for volatile headspace analysis using a Thermo-Environmental Instruments Model 580B organic vapor meter (OVM). OVM readings for specific soil samples, along with complete sample depths and sample descriptions, are presented on the Soil Boring and Well Construction Log in Appendix A. Organic vapor readings displayed by the OVM are not a quantitative assessment of true hydrocarbon

concentrations in the soil samples, but they are useful for evaluating the relative magnitude of hydrocarbon concentrations. Soil generated during drilling was covered with plastic and stored on-site pending future removal.

2.2 Monitoring Well Installation, Development and Survey

On August 10, 1993 soil boring MW-8 was converted to a 2-inch diameter monitoring well with the same designation. Refer to the Soil Boring and Well Construction Log in Appendix A for well construction details. On August 19, 1993 the new monitoring well was developed by a combination of surging and bailing. Following development, the elevation of the top-of-casing of the monitoring well was surveyed relative to a temporary benchmark. The elevation is shown on Table 2.

2.3 Ground Water Gauging, Sampling and Analysis

All monitoring wells were gauged on August 19, 1993. Separate phase petroleum was not detected in any of the monitoring wells. All five monitoring wells were purged of at least three well volumes or until dry prior to sampling. Purge water was stored on-site in 55 gallon drums. Well purging information is provided on the Purge/Sample Data Sheets in Appendix B.

Following recovery of water levels to at least 80% of their original levels, ground water samples were collected from all the monitoring wells using dedicated polyethylene bailers. Samples were labelled, documented on a chain-of-custody form, and stored in a cooler for transport to Sequoia Analytical. The samples were analyzed for TPHg and BTEX.

3.0 RESULTS OF INVESTIGATION

3.1 Site Stratigraphy

Sediments encountered during drilling consisted primarily of sandy silt, clayey silt and lean clay with sand and silt. Individual sample descriptions are presented on the Soil Boring and Well Construction Log in Appendix A.

3.2 Results of Soil Sample Analysis

Neither TPHg nor BTEX were detected in concentrations exceeding the method detection limits in either soil samples collected from boring MW-8. A summary of analytical results for the samples collected from boring MW-8, as well as results from

HETI's previous borings, are presented in Table 1. Copies of the laboratory reports and chain-of-custody are attached in Appendix C.

3.3 Ground Water Gradient

On August 19, 1993 depth to ground water in the wells ranged between 12.21 to 13.48 feet below grade. Depth to water measurements and calculated ground water elevations in the wells are presented on Table 2. The depth to water measurements and the wellhead elevation data were used to calculate ground water elevation contours. These contours are shown on Figure 4, the Ground Water Contour Map. Figure 4 shows ground water flow to be towards the southwest at an approximate gradient of 0.0023 ft/ft (0.23%).

3.4 Results of Ground Water Sample Analysis

Neither TPHg nor BTEX were detected in concentrations exceeding the method detection limits in the ground water samples collected from any of the monitoring wells except well MW-7. TPHg and benzene were detected in the ground water sample collected from well MW-7 at concentrations of 88 ppb and 1.7 ppb, respectively.

Analytical results are presented graphically on Figure 5, the Hydrocarbon Concentration Map. A summary of ground water analytical results is presented on Table 2. Copies of the laboratory reports and the chain-of-custody forms are attached in Appendix C.

4.0 SUMMARY

The results of the field activities and laboratory analyses of soil and ground water samples collected during this investigation are discussed below.

- One ground water monitoring well (MW-8) was installed off-site on August 10, 1993.

- Soil types encountered during drilling generally consisted of sandy silt, clayey silt and lean clay with sand and silt.

- Neither TPHg nor BTEX were detected in concentrations exceeding the method detection limits in soil samples collected from boring MW-8 at depths of 6.5 feet and 11 feet below grade.

- Stabilized ground water levels measured in all the wells ranged from 12.21 to 13.48 feet below grade. The ground water gradient was calculated to be approximately 0.0023 ft/ft in a general southwesterly direction across the site.

- Separate phase petroleum was not detected in any of the monitoring wells.

- Neither TPHg nor BTEX were detected in the ground water samples collected from any of the monitoring wells except MW-7.

- The results of this phase of the investigation indicate that the downgradient extent of both the adsorbed and dissolved phase hydrocarbon plumes do not extend laterally beyond well MW-8. Clean water samples from wells MW-2 and MW-6 in the northwest portion of the site and from well MW-5 in the northern portion of the site, combined with wells to the southeast on the Chevron property (Alton Geoscience report dated February 28, 1992), serve to delineate the contaminate plume in all other directions. Therefore, no additional subsurface investigation is recommended.

  In addition, dissolved hydrocarbon concentrations show a declining trend, most likely attributable to natural biodegradation. Therefore, HETI recommends that quarterly monitoring be continued, but active remediation of the site may not be required.

5.0 CERTIFICATION

This report was prepared under the supervision of a registered professional engineer. All statements, conclusions and recommendations are based solely upon field observations and analytical analyses performed by a state-certified laboratory related to work performed by Hydro-Environmental Technologies, Inc.

It is possible that variations in soil or ground water conditions exist beyond the points explored in this investigation. Also, site conditions are subject to change at some time in the future due to variations in rainfall, temperature, regional water usage, or other factors.

The service performed by Hydro-Environmental Technologies, Inc. has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

Hydro-Environmental Technologies, Inc. includes in this report chemical analytical data from a state-certified laboratory. These analyses are performed according to procedures suggested by the U.S. EPA and the State of California. Hydro-Environmental Technologies, Inc. is not responsible for laboratory errors in procedure or result reporting.

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

Prepared by:

FRANCES MARONI

Frances Maroni
Staff Engineer

Reviewed by:

S. Kellstedt

Scott Kellstedt
Project Manager

Reviewed by:

9/30/94

John Turney P.E.
Senior Engineer

Table 1

SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

Former Mobil Station No. 10-L1X
15884 Hesperian Boulevard
San Lorenzo, California

Boring No.	Date	Depth (feet)	TPHg (ppm)	B (ppm)	T (ppm)	E (ppm)	X (ppm)
MW-5	1/27/91	5	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
		10	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
		15	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-6	1/27/91	4.5	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
		9.5	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
		14.5	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B-7	1/27/91	6	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
		11	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-7	1/27/91	6	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
		11	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
		16	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-8	8/10/93	6.5	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
		11	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005

Boring No.	Date	Depth (feet)	TOG (ppm)	TPHd (ppm)	O-Pb (ppm)	HVO (ppm)	Cd, Cr, Ni, Zn (ppm)
MW-5	1/27/91	5	4.2	ND<1.0	ND<0.05	ND<0.005	ND<0.5, 31, 38, 58
		10	4.8	ND<1.0	ND<0.05	ND<0.005	ND<0.5, 43,43, 58
		15	4.8	ND<1.0	ND<0.05	ND<0.005	0.53, 29, 36, 48

Notes:

Boring No. : Soil boring number
Date : Soil sample collection date
Depth : Depth of soil sample
TPHg : Total petroleum hydrocarbons as gasoline by EPA Method 8015
BTEX : Benzene, Toluene, Ethylbenzene and total Xylenes by EPA Method 8020
ppm : Parts per million (milligrams per kilogram)
ND : Not detected in concentrations exceeding the indicated laboratory method detection limit
TPHd : Total petroleum hydrocarbons as diesel by EPA Method 8015
TOG : Total oil and grease by EPA Method 413.2 (I.R.)
O-Pb : Organic lead by California LUFT Manual, 12/87
Cd, Cr, Ni, Zn : Cadmium, Chromium, Nickel and Zinc by EPA Method 6000 series
HVO : Halogenated volatile organics by EPA Method 8010

Table 2

SUMMARY OF GROUND WATER ELEVATIONS AND ANALYTICAL RESULTS

Former Mobil Station No. 10-L1X
15884 Hesperian Boulevard
San Lorenzo, California

MW-No.	Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHd (ppb)	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)
MW-2	2/12/92	31.81	12.74	19.07	NT	190	4.4	ND<0.3	4.7	3.8
	5/4/92	31.81	11.36	20.45	NT	480	9.1	1.4	4.4	2.3
	8/20/92	31.81	13.80	18.01	NT	ND<50	0.99	ND<0.5	ND<0.5	ND<0.5
	11/27/92	31.81	14.30	17.51	NT	56	3.2	ND<0.5	0.87	2.1
	2/24/93	31.81	9.73	22.08	NT	330	14	ND<0.5	ND<0.5	ND<0.5
	5/19/93	31.81	11.82	19.99	NT	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/19/93	31.81	12.27	19.54	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-5	2/12/92	32.92	13.59	19.33	ND<50	0.3	ND<0.3	ND<0.3	ND<0.3	ND<0.3
	5/4/92	32.92	12.25	20.67	ND<50	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3
	8/20/92	32.92	14.62	18.30	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/27/92	32.92	15.14	17.78	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	2/24/93	32.92	10.57	22.35	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	5/19/93	32.92	11.66	21.26	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/19/93	32.92	13.01	19.91	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-6	2/12/92	32.68	13.57	19.11	NT	2700	14	3.5	27	39
	5/4/92	32.68	12.23	20.45	NT	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3
	8/20/92	32.68	14.64	18.04	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	3.8
	11/27/92	32.68	15.14	17.54	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	2/24/93	32.68	10.62	22.06	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	5/19/93	32.68	11.66	21.02	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/19/93	32.68	13.06	19.62	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-7	2/12/92	33.08	13.90	19.18	NT	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3
	5/4/92	33.08	12.60	20.48	NT	640	4.5	ND<0.6	11	14
	8/20/92	33.08	14.96	18.12	NT	220	1.2	ND<0.5	3.8	4.3
	11/27/92	33.08	15.49	17.59	NT	82	1.6	ND<0.5	4.3	3.6
	2/24/93	33.08	10.97	22.11	NT	82	1.5	ND<0.5	6.0	4.0
	5/19/93	33.08	12.09	20.99	NT	67	0.85	ND<0.5	6.4	3.8
	8/19/93	33.08	13.48	19.60	NT	88	1.7	ND<0.5	9.0	4.8
MW-8	8/19/93	31.31	12.21	19.10	NT	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5

Table 2

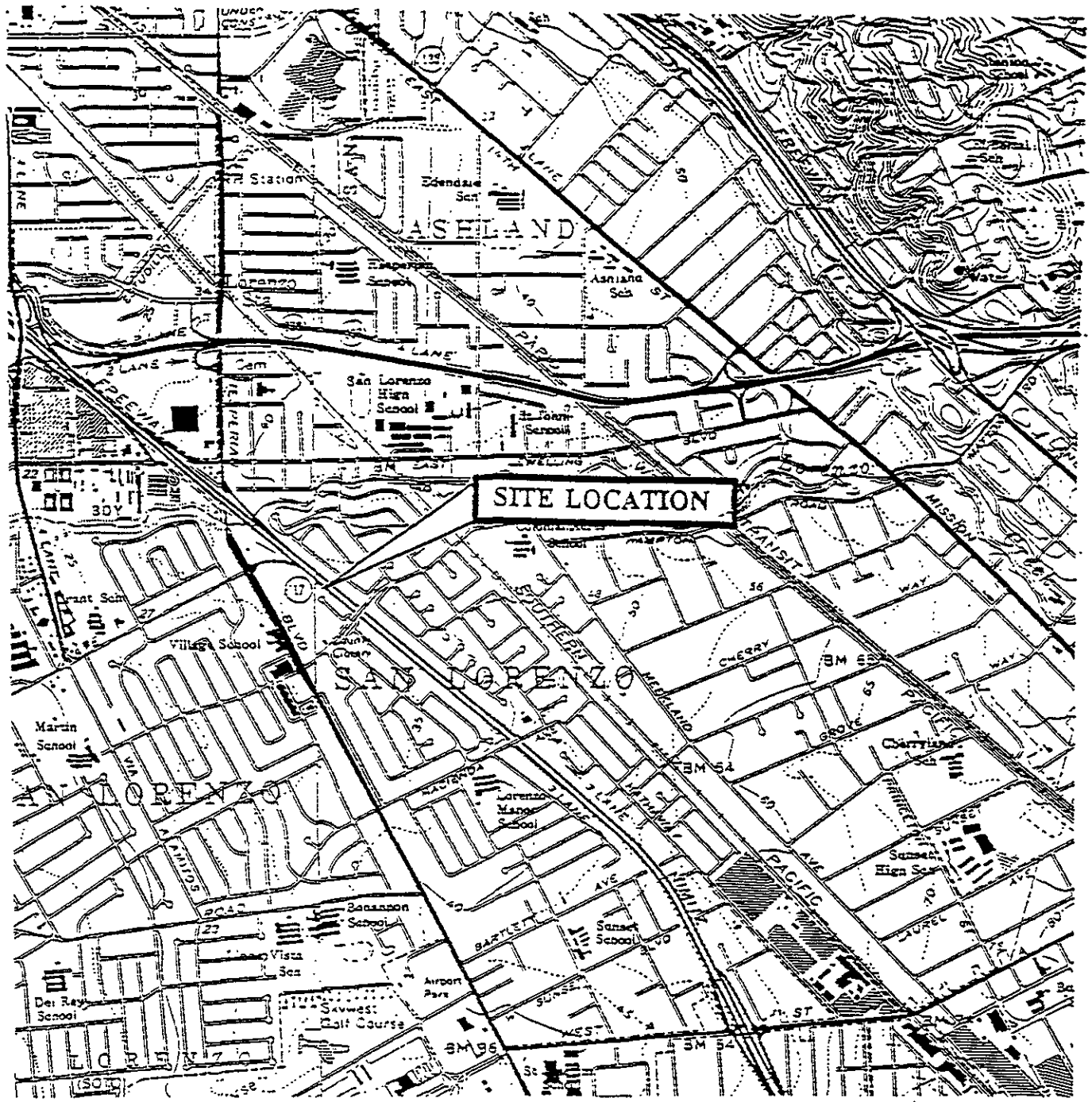
SUMMARY OF GROUND WATER ELEVATIONS AND ANALYTICAL RESULTS

Former Mobil Station No. 10-L1X
15884 Hesperian Boulevard
San Lorenzo, California

MW-No.	Date	TOG (ppm)	HVO (ppb)	SVO (ppb)	PCB (ppb)	Cd (ppm)	Cr (ppm)	Ni (ppm)	Zn (ppm)	O-Pb (ppm)
MW-5	2/12/92	ND<1.0	ND<0.5-5.0	NT	NT	ND<0.010	ND<0.010	ND<0.050	ND<0.010	ND<0.050
	5/4/92	ND<1.0	ND<0.5-5.0	NT	NT	ND<0.010	ND<0.010	ND<0.050	ND<0.010	ND<0.050
	8/20/92	ND<1.0	ND<0.5-5.0	ND<2-10	ND<0.5-2.0	ND<0.010	ND<0.010	ND<0.050	0.012	ND<0.050
	11/27/92	NT	NT	NT	NT	NT	NT	NT	NT	NT
	2/24/93	NT	NT	NT	NT	NT	NT	NT	NT	NT
	5/19/93	NT	NT	NT	NT	NT	NT	NT	NT	NT

Notes:

MW No. :	Monitoring well number
Date :	Ground water sample collection date
TOC :	Elevation at the north side of the top of the well casing referenced to mean sea level
DTW :	Depth to water
GWE :	Ground water elevation
TPHd :	Total petroleum hydrocarbons as diesel by EPA Method 8015
TPHg :	Total petroleum hydrocarbons as gasoline by EPA Method 8015
BTEX :	Benzene, Toluene, Ethylbenzene and total Xylenes by EPA Method 8020
TOG :	Total oil and grease by EPA Method 413.2 (I.R.)
HVO :	Halogenated volatile organics by EPA Method 8010
SVO:	Semi-volatile organics by EPA Method 8270 GC/MS
PCB:	Polychlorinated biphenyls by EPA Method 8080
Cd, Cr, Ni, Zn :	Cadmium, chromium, nickel and zinc by EPA Method 6000
O-Pb	Organic lead by California LUFT Manual (revised)
ppb :	Parts per billion (µg/L)
ppm :	Parts per million (mg/L)
ND :	Not detected in concentrations exceeding the indicated laboratory method detection limit
NT :	Not tested



Source: U.S.Geological Survey
7.5 Minute Quadrangle Maps
Entitled: "San Leandro, California"
and "Hayward, California"
Revised 1980

Scale 1:24,000

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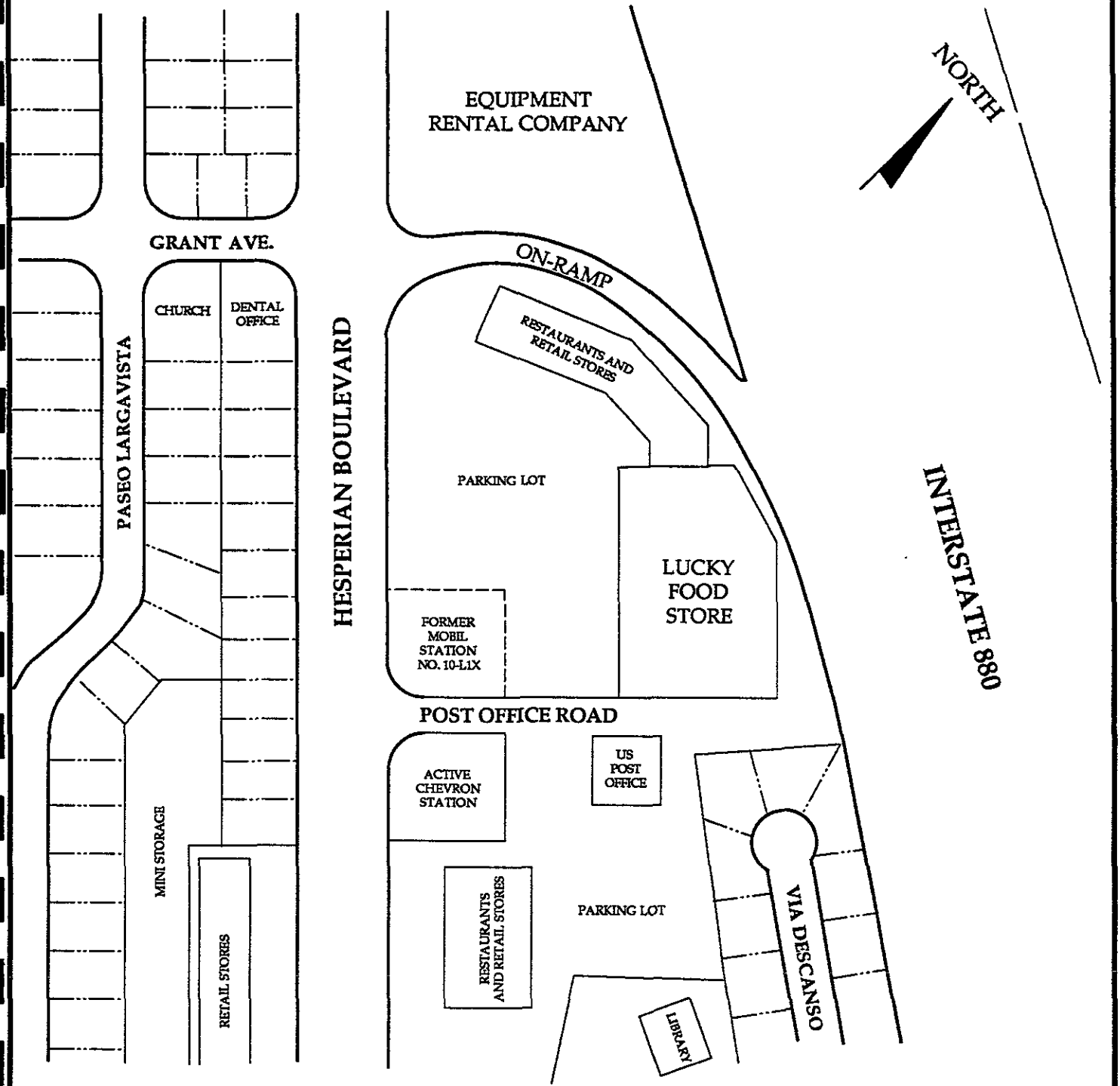
SITE LOCATION MAP
Former Mobil Service Station No. 10-L1X
15884 Hesperian Boulevard
San Lorenzo, California

Job No.
8-019
Figure
1



LEGEND

——·——·—— = Residential Property Line

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ENVIR◆NMENTAL
TECHN◆LOGIES, INC.

SITE VICINITY MAP
Former Mobil Service Station No. 10-L1X
15884 Hesperian Boulevard
San Lorenzo, California

Figure
2

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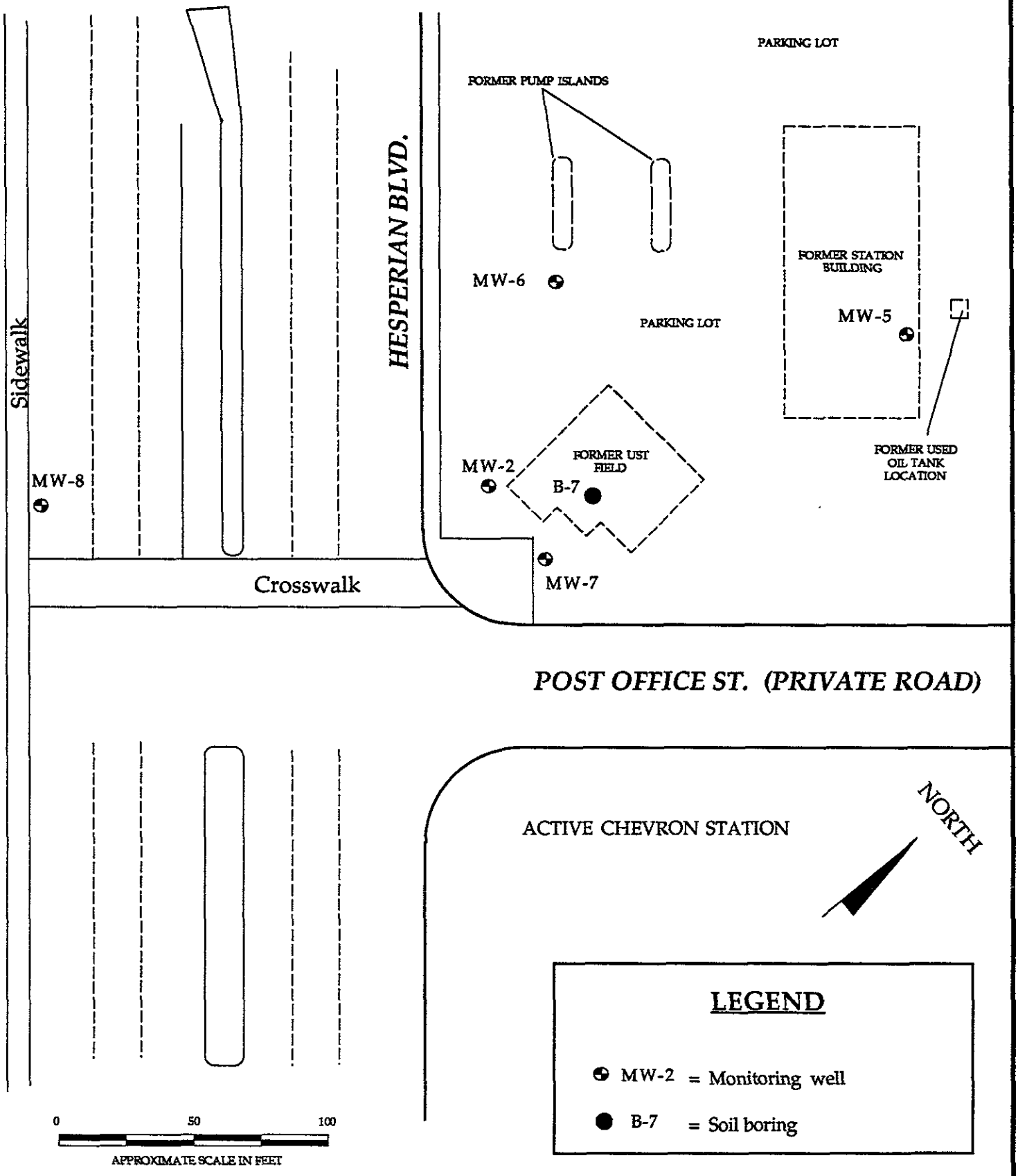

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SITE PLAN

Former Mobil Service Station No. 10-L1X
15884 Hesperian Blvd.
San Lorenzo, California

Figure 3

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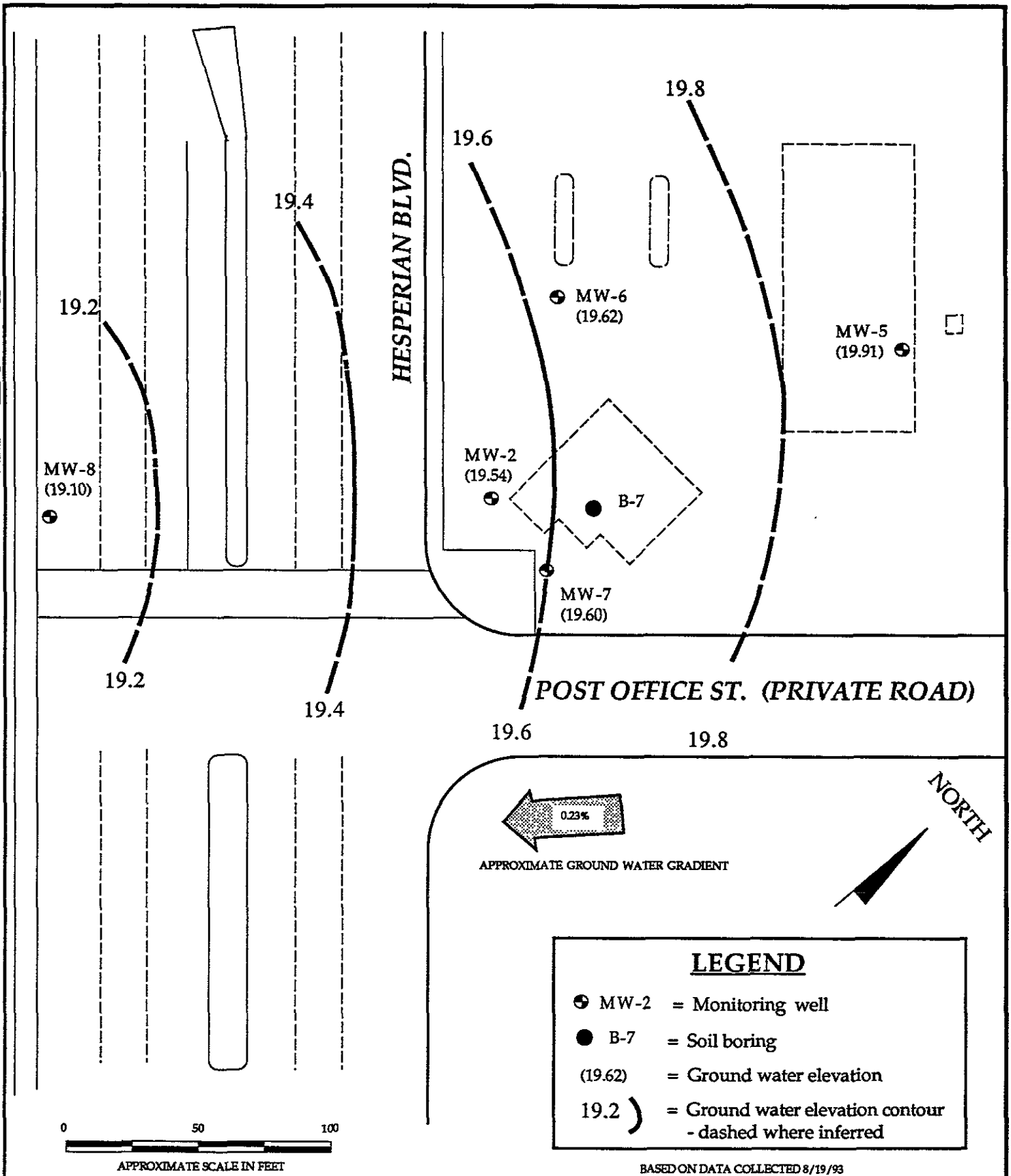

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

GROUND WATER CONTOUR MAP
Former Mobil Service Station No. 10-L1X
15884 Hesperian Blvd.
San Lorenzo, California

Figure 4

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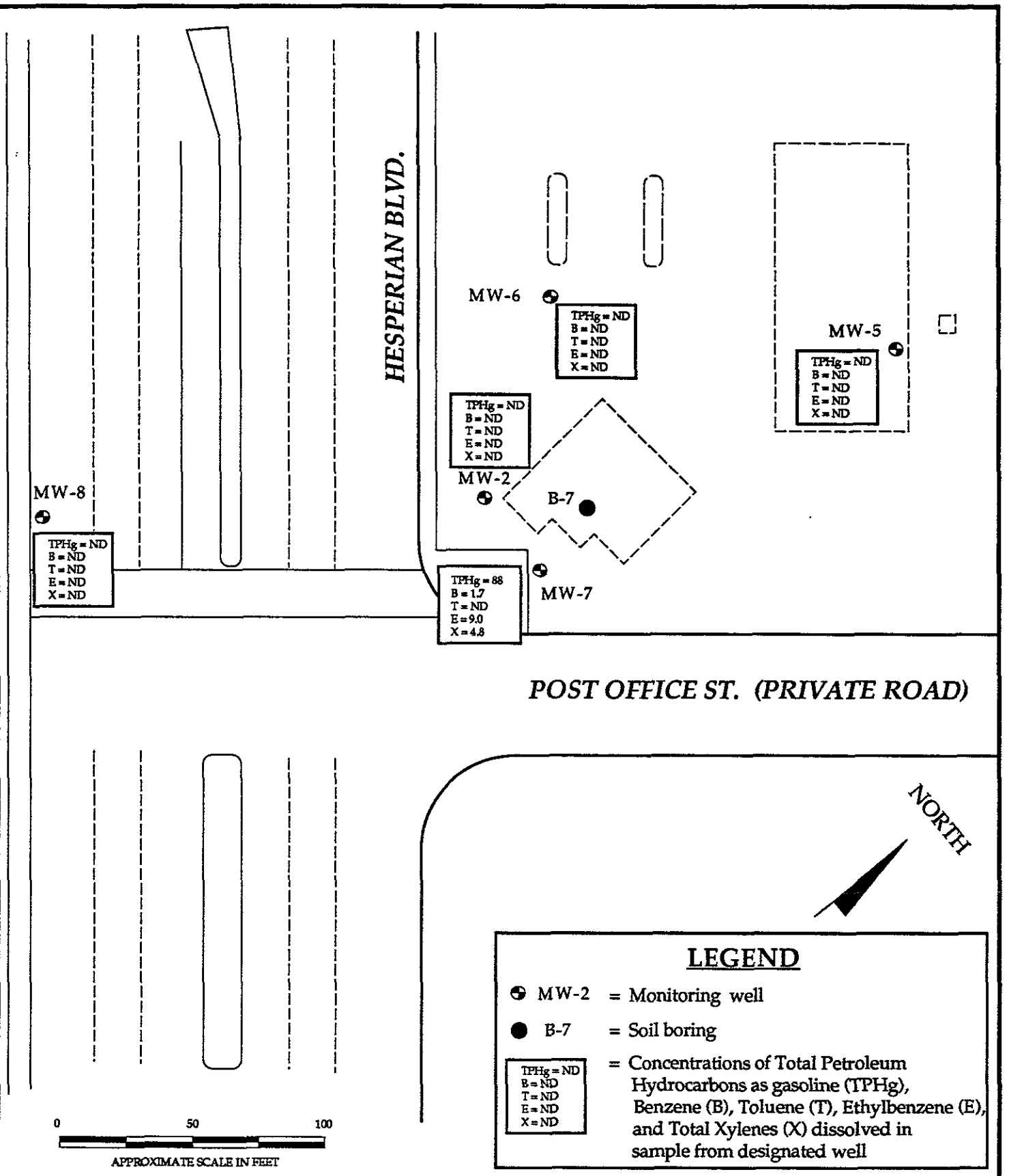

LEGEND

- MW-2 = Monitoring well
- B-7 = Soil boring
- TPHg = ND, B = ND, T = ND, E = ND, X = ND = Concentrations of Total Petroleum Hydrocarbons as gasoline (TPHg), Benzene (B), Toluene (T), Ethylbenzene (E), and Total Xylenes (X) dissolved in sample from designated well

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

HYDROCARBON CONCENTRATION MAP
Former Mobil Service Station No. 10-L1X
15884 Hesperian Blvd.
San Lorenzo, California

Figure 5

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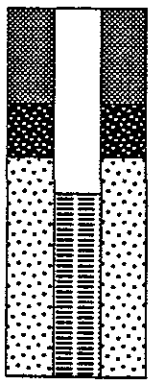
UNIFIED SOIL CLASSIFICATION SYSTEM - VISUAL CLASSIFICATION OF SOILS
(ASTM D-2488)

MAJOR DIVISIONS		GROUP SYMBOL	GROUP NAME	DESCRIPTION
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW	Well-graded gravel Well-graded gravel with sand	Well-graded gravels or gravel-sand mixtures, little or no fines.
		GP	Poorly-graded gravel Poorly-graded gravel with sand	Poorly-graded gravels or gravel sand mixture, little or no fines.
		GM	Silty gravel Silty gravel with sand	Silty gravels, gravel-sand-silt mixtures.
		GC	Clayey gravel Clayey gravel with sand	Clayey gravels, gravel-sand-clay mixtures.
	SAND AND SANDY SOILS	SW	Well-graded sand Well-graded sand with gravel	Well-graded sands or gravelly sands, little or no fines.
		SP	Poorly-graded sand Poorly-graded sand with gravel	Poorly-graded sands or gravelly sands, little or no fines.
		SM	Silty sand Silty sand with gravel	Silty sands, sand-silt mixtures.
		SC	Clayey sand Clayey sand with gravel	Clayey sands, sand-clay mixtures.
FINE GRAINED SOILS	SILTS AND CLAYS	ML	Silt; Silt with sand; Silt with gravel; Sandy silt; Sandy silt with gravel; Gravelly silt; Gravelly silt with sand	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
		CL	Lean clay; Lean clay with sand; Lean clay with gravel Sandy lean clay; Sandy lean clay with gravel Gravelly lean clay; Gravelly lean clay with sand	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
	ELASTIC SILTS AND CLAYS	MH	Elastic silt; Elastic silt with sand; Elastic silt with gravel Sandy elastic silt; Sandy elastic silt with gravel Gravelly elastic silt; Gravelly elastic silt with sand	Inorganic silts, micaceous or diatamaceous fine sandy or silty soils, elastic silts.
		CH	Fat clay; Fat clay with sand; Fat clay with gravel Sandy fat clay; Sandy fat clay with gravel Gravelly fat clay; Gravelly fat clay with sand	Inorganic clays of high plasticity, fat clays.
HIGHLY ORGANIC SOILS		OL/OH	Organic soil; Organic soil with sand; Organic soil with gravel Sandy organic soil; Sandy organic soil with gravel Gravelly organic soil; Gravelly organic soil with sand	Organic silts and organic silt-clays of low plasticity. Organic clays of medium to high plasticity.
		Pt	Peat	Peat and other highly organic soils.
BEDROCK		Br	Bedrock	Igneous, metamorphic and sedimentary rocks

WELL CONSTRUCTION DETAILS



= Cement

= Bentonite

= Filter pack

= PVC Blank

= PVC Screen

NOTE: Blow count represents the number of blows of a 140-lb hammer falling 30 inches per blow required to drive a sampler through the last 12 inches of an 18-inch penetration.

No warranty is provided as to the continuity of soil strata between borings. Logs represent the soil section observed at the boring location on the date of drilling only.

S = Sampler sank into medium under the weight of the hammer (no blow count)
P = Sampler was pushed into medium by drilling rig (no blow count)
NR = No Recovery

Approximate first encountered water level

Approximate stabilized water level

Retained for Analysis } Sample Interval

SANDS & GRAVELS	BLOWS/FT
VERY LOOSE	0 - 5
LOOSE	5 - 12
MED. DENSE	12 - 37
DENSE	37 - 62
VERY DENSE	OVER 62

SILTS & CLAYS	BLOWS/FT
SOFT	0 - 5
FIRM	5 - 10
STIFF	10 - 20
VERY STIFF	20 - 40
HARD	OVER 40

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

SOIL BORING AND WELL CONSTRUCTION LOG LEGEND

APPENDIX A

PLATE A-1

SITE/LOCATION	BEGUN	BORING DIAMETER	ANGLE/BEARING	BORING NO
15884 Hesperian Blvd, San Lorenzo	8/10/93	8 Inches	90 Degrees	MW-8
DRILLING CONTRACTOR	**COMPLETED**	**FIRST ENCOUNTERED WATER DEPTH**		**BOTTOM OF BORING**
West Hazmat Drilling	8/10/93	15 Feet		23 Feet
OPERATOR	**LOGGED BY**	**STATIC WATER DEPTH/DATE**		**WELL NO.**
Eugene Mier	Ruary Allan	14.5 Feet		MW-8
DRILL MAKE & MODEL	**SAMPLING METHOD**			**BOTTOM OF WELL**
CME 55	California modified split spoon sampler			23 Feet
WELL MATERIAL	**SLOT SIZE**	**FILTER PACK**	**WELL SEAL**	**PLANNED USE**
2" SCH 40 PVC	0.020"	#3	Neat cement	Monitoring

BLOWS/FOOT	PID FIELD HEADSPACE (ppm)	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1–4					ASPHALT BASEROCK
6 7 14		5–7					Sandy SILT (ML); light olive-brown; loose; ~30% well graded fine sand; slightly cohesive; dry.
10 17 20		8–12					Sandy lean CLAY (CL); dark brown; silty; ~20% very fine sand; 10-20% silt; medium to low plasticity; tree rootlets; damp.
9 7 9		13–17		▼ ▽			Clayey SILT (ML); medium yellow-brown; soft; medium plasticity; moderate to high dilatancy; organics with black mottling; wet.
12 16 18		18–23					Lean CLAY (CL); medium yellow-brown; firm; medium plasricity; ~20% silty; trace very fine sand; ~3% organics with black mottling; damp.
		24–30					

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE: September 9, 1993

APPROVED BY: John Turney P.E.

SOIL BORING AND WELL CONSTRUCTION LOG MW-8

Former Mobil S/S No. 10-L1X
15884 Hesperian Boulevard
San Lorenzo, California

PLATE
A-2
SHEET 1 OF 1

JOB NO.
8-019

FIELD CREW HEALTH & SAFETY PLAN

PRE-ACTIVITY BRIEFING

Project Location: 15844 Hesperian Blvd., San Lorenzo CA

Client: Mobil Oil Corp. Job #: 8-019

POTENTIAL PHYSICAL HAZARDS AT WORKSITE: Underground/overhead utility lines; fires, explosion, electrical shock; flying/falling objects; pinch points/caught between objects; exertion or strain; lifting, slipping, tripping, falling; heavy equipment and vehicle traffic at worksite; noise; burns from steam or engine parts; heat stress or exhaustion; trash with nails, broken glass, etc.; excavation collapses.

CHEMICAL HAZARDS: Constituents of petroleum fuels, solvents, other organic compounds, in vapor, liquid or dissolved form, methane and hydrogen sulfide gas. Routes of entry include inhalation, absorbtion, contact and ingestion.

RESPIRATORY PROTECTIVE EQUIPMENT: None required unless organic vapor levels exceed 10 ppm in breathing zone as measured by OVM, then half-face respirator with appropriate vapor filter cartridge as required.

PROTECTIVE CLOTHING AND EQUIPMENT: Level D clothing: Hardhat mandatory for all personnel working at site; steel-toed boots recommended for geologist, required for driller and helper. Ear and eye protection as needed. Chemically hazardous conditions require nitrile gloves, Tyvek coveralls, and respirators.

SITE SPECIFIC INSTRUCTIONS: Driller will examine all wires/cables and ropes daily. Drilling equipment will be maintained in safe operating condition and meet state safety requirements. Know location of first aid kit, fire extinguisher, and telephone. Block/chock rig as required. No drilling or working at site without project geologist being present. Use hand tools safely.

Driller's Signature: Eugene J. Nunn Date: 8-10-93

Helper's Signature: Robert Pappa Date: 8-10-93

Geologist's Signature: Henry Hutsmans Date: 8-10-93

NEAREST HOSPITAL OR CLINIC: Kaiser Permanente Med. Center

HOSPITAL ADDRESS & DIRECTIONS FROM JOB SITE: Proceed south on Hesperian Blvd. (~4 mi). Hospital @ Hesperian Blvd. & W. Tennyson Rd.

EMERGENCY PROCEDURE: **Begin appropriate first-aid.**
Send person for help. Call 911.

FILE 8041 PERMITS

ZONE 7 WATER RESOURCES MANAGEMENT

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (510) 484-2600

6 August 1993

Hydro Environmental Technologies, Inc.
2363 Mariner Square Drive, Suite 243
Alameda, CA 94501

Gentlemen:

Enclosed is drilling permit 93431 for a monitoring well construction project at Hesperian Boulevard and Post Street in San Lorenzo for Mobil Oil Corporation.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or me at 484-2600.

Very truly yours,

Craig A. Mayfield

Craig A. Mayfield
Water Resources Engineer III

WH:mm
Enc.

ALAMEDA COUNTY PUBLIC WORKS
399 ELMHURST STREET, HAYWARD, CALIFORNIA 94544
ROAD ENCROACHMENT PERMIT

(In accordance with Chapter 1 of Title 5, Streets and Highways, Ordinance Code, County of Alameda, an ordinance providing for the protection of Public Highways and rights of way thereof regulating the use thereof; and the manner in which the same may be altered, excavated under, obstructed or encroached upon; and providing penalties for the violation of the provisions thereof)

Issued To: HYDRO-ENVIRONMENTAL
2363 MARINER SQUARE DRIVE
ALAMEDA, CA 94501
Phone: 521-2684

Permit Number: R00-930668
Issue Date: 7/16/1993
Expiration Date: 7/16/94
Permit Issue Receipt: 004769
Assessor Number: - - -
Work Order Number: 85258

Job Site: HESPERIAN BL., AT POST
Township: SL2

In compliance with and subject to all the terms, conditions and restrictions contained in Chapter 1 of Title 5 of said Ordinance Code and as stated below or printed as general or special provisions on any part of or attached to and made a part of this encroachment permit,

THE ABOVE APPLICANT HEREBY REQUESTS PERMISSION TO:
INSTALL AND OPERATE FOR THE PERIOD OF ONE YEAR A GROUNDWATER MONITORING WELL IN THE RIGHT-OF-WAY OF HESPERIAN BOULEVARD, OPPOSITE FROM THE FORMER MOBIL STATION LOCATED AT 15884 HESPERIAN.

Attention is directed to the general provisions printed on the attached sheets of this permit and to the special provisions attached hereto and made a part hereof.

ALL MISCELLANEOUS GENERAL PROVISIONS AND THE FOLLOWING SPECIAL PROVISIONS:

C, K, L, Q, R

THE PLANNED EXCAVATION IS WITHIN 500 FEET OF AN EXISTING TRAFFIC SIGNAL. CONTACT ERIC DAYTON AT 670-5537 TWO DAYS PRIOR TO START OF WORK.

THIS PERMIT AUTHORIZES THE INSTALLATION AND OPERATION, FOR THE PERIOD OF ONE YEAR, OF THE SUBJECT WELL; CONTINUED OPERATION WILL REQUIRE THE AMENDMENT OF THIS PERMIT. A SEPARATE ENCROACHMENT PERMIT WILL BE REQUIRED TO DESTROY OR REMOVE THE WELL.

THE SURETY BOND FURNISHED WITH THE APPLICATION FOR THIS PERMIT WILL BE HELD, PENDING THE FINAL RESTORATION OF THE SITE.

THE WELL SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO THE WESTERLY CURBLINE OF HESPERIAN, BUT SHOULD NOT BE INSTALLED IN THE GUTTER.

This permit does not authorize, and it shall not be construed to authorize any infringement upon the property rights of owners of the fee title of the highway referred to herein. Notice of start of work and other required notices shall be given to the field office, 22341 Redwood Road, Castro Valley Phone (510) 670-5762.

Other Required Permits: ZONE 7 WELL PERMIT #92606
Bond Information: $3000 SURETY
Inspection ~~Deposit~~ Fee: $125 CASH

By SEE APP Applicant Reviewed By: JKR
Work Completed: __/__/__

By J K Kozar ALAMEDA COUNTY Inspector: _____

Where no maps or plats are furnished, a sketch of the proposed work, showing location, name of road and other information must be made on a separate sheet, in triplicate.

PURGED/SAMPLED BY: TR/RA DATE: 8/19/93

GAUGING DATA:

Depth to bottom: 26.49 ft.

Depth to water: 12.27 ft.

Saturated Thickness: 14.13 ft.

Conversion	
diam.	gals/ft.
2 in.	x 0.16
4 in.	x 0.65
6 in.	x 1.44

Well casing volume 2.26 gallons

volumes to purge x 3 vols.

*Total volume to purge = 6.78 gallons

* unless chemical parameters stabilize earlier

PURGING DATA:

Purge method: PVC bailer / Submersible pump/ Suction lift pump/ _____ (circle one)

Time	Volume (gallons)	Temp. (°F)	Conductivity (mS/cm)	pH
2153	0	—	—	—
↓	3			
↓	6	meter broke		
2159	7			

Color: tan Turbidity: slight

Recharge: fair SPP 0 ft.

SAMPLING DATA:

Sampling method: Dedicated bailer / _____

Sample for: (circle)

TPHg/BTEX	METALS	TOG	8010	
TPHd	O-Pb	TEL	8020	
TPH mo	Total Pb	EDB	8240	
601	602	Nitrates	8260	8270

Other: _____

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

PURGE/SAMPLE SHEET

WELL # MW-2

LOCATION: Mobil - San Lorenzo

Job No. 8-019

SHEET 1 of 1

PURGED/SAMPLED BY: TR/RA DATE: 8/19/93

GAUGING DATA:

Depth to bottom: 22.21 ft.

Depth to water: 13.01 ft.

Saturated Thickness: 9.20 ft.

Conversion	
diam.	gals/ft.
2 in.	x 0.16
4 in.	x 0.65
6 in.	x 1.44

Well casing volume 5.98 gallons

volumes to purge x 3 vols.

*Total volume to purge = 18.0 gallons

* unless chemical parameters stabilize earlier

PURGING DATA:

Purge method: PVC bailer / Submersible pump/ Suction lift pump/ _____ (circle one)

Time	Volume (gallons)	Temp. (°C)	Conductivity (mS/cm)	pH
2:16	0	—	—	—
↓	5	21.3	1.519	7.63
↓	10	21.9	1.536	7.52
DRY 2:24	12	22.4	1.528	7.41

Color: tan Turbidity: slight

Recharge: poor SPP 0 ft.

SAMPLING DATA:

Sampling method: Dedicated bailer / _____

Sample for: (circle)

TPHg/BTEX	METALS	TOG	8010	
TPHd	O-Pb	TEL	8020	
TPH mo	Total Pb	EDB	8240	
601	602	Nitrates	8260	8270

Other: _____

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

PURGE/SAMPLE SHEET

WELL # MW-5

LOCATION: Mobil - San Lorenzo

Job No. 8-019

SHEET 1 of 1

PURGED/SAMPLED BY: TR/RA DATE: 8/19/93

GAUGING DATA:

Depth to bottom: 22.25 ft.

Depth to water: 13.06 ft.

Saturated Thickness: 9.19 ft.

Conversion	
diam.	gals/ft.
2 in.	x 0.16
4 in.	x 0.65
6 in.	x 1.44

Well casing volume 5.97 gallons

volumes to purge x 3 vols.

*Total volume to purge = 17.91 gallons

* unless chemical parameters stabilize earlier

PURGING DATA:

Purge method: PVC bailer / Submersible pump/ Suction lift pump/ _____ (circle one)

Time	Volume (gallons)	Temp. (°C)	Conductivity (mS/cm)	pH
1:52p	0	—	—	—
|	5	23.1	1.408	7.71
|	10	22.4	1.392	7.60
↓	15	22.2	1.388	7.46
2:06p	16	22.6	1.386	7.43

Dry

Color: tan Turbidity: slight

Recharge: poor SPP 0 ft.

SAMPLING DATA:

Sampling method: Dedicated bailer /_____

Sample for: (circle)

TPHg/BTEX	METALS	TOG	8010	
TPHd	O-Pb	TEL	8020	
TPH mo	Total Pb	EDB	8240	
601	602	Nitrates	8260	8270

Other: _____

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

PURGE/SAMPLE SHEET

WELL # MW-6

LOCATION: Mobil - San Lorenzo

Job No. 8-019

SHEET 1 of 1

PURGED/SAMPLED BY: TR/RA DATE: 8/19/93

GAUGING DATA:

Depth to bottom: 23.84 ft.

Depth to water: 13.48 ft.

Saturated Thickness: 10.36 ft.

Conversion	
diam.	gals/ft.
2 in.	x 0.16
4 in.	x 0.65
6 in.	x 1.44

Well casing volume 7.38 gallons

volumes to purge x 3 vols.

*Total volume to purge = 22.14 gallons

* unless chemical parameters stabilize earlier

PURGING DATA:

Purge method: PVC bailer / Submersible pump/ Suction lift pump/ _____ (circle one)

Time	Volume (gallons)	Temp. (°F)	Conductivity (mS/cm)	pH
2:39	0	—	—	—
↓	5			10.80
↓	10	Meter broke		
2:48	12			

DRY

Color: tan Turbidity: light

Recharge: good SPP 0 ft.

SAMPLING DATA:

Sampling method: Dedicated bailer / _____

Sample for: (circle)

TPHg/BTEX	METALS	TOG	8010	
TPHd	O-Pb	TEL	8020	
TPH mo	Total Pb	EDB	8240	
601	602	Nitrates	8260	8270

Other: _____

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

PURGE/SAMPLE SHEET

WELL # MW-7

LOCATION: Mobil - San Lorenzo

Job No. 8-019

SHEET 1 of 1

PURGED/SAMPLED BY: TR/RA DATE: 8/19/93

GAUGING DATA:

Depth to bottom: 22.43 ft.

Depth to water: 12.21 ft.

Saturated Thickness: 10.22 ft.

Conversion	
diam.	gals/ft.
2 in.	x 0.16
4 in.	x 0.65
6 in.	x 1.44

Well casing volume 1.64 gallons

volumes to purge x 10 vols.

*Total volume to purge = 16.4 gallons

* unless chemical parameters stabilize earlier

PURGING DATA:

Purge method: PVC bailer / Submersible pump/ Suction lift pump/ _____ (circle one)

Time	Volume (gallons)	Temp. (°F)C	Conductivity (mS/cm)	pH
2:15p	0	—	—	—
↓	5	20.4	1.036	7.72
	10	19.9	1.068	7.63
↓	15	19.9	0.941	7.55
2:32p	20	20.0	1.025	7.51

Color: Lt. Brown Turbidity: High

Recharge: Good SPP ∅ ft.

SAMPLING DATA:

Sampling method: Dedicated bailer / _____

Sample for: (circle)

TPHg/BTEX	METALS	TOG	8010	
TPHd	O-Pb	TEL	8020	
TPH mo	Total Pb	EDB	8240	
601	602	Nitrates	8260	8270

Other: _____

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

PURGE/SAMPLE SHEET

WELL # MW-8

LOCATION: Mobil - San Lorenzo

Job No. 8-019

SHEET 1 of 1

FILE 8-019 ANALYTICAL

RECEIVED SEP 9 1993

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Hydro Environmental	Client Project ID:	Mobil, 8-019	Sampled:	Aug 10, 1993
2363 Mariner Square Dr., Bldg. 3, Ste 243	Sample Matrix:	Soil	Received:	Aug 11, 1993
Alameda, CA 94501	Analysis Method:	EPA 5030/8015/8020	Reported:	Aug 17, 1993
Attention: Scott Kellstedt	First Sample #:	3H48901		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 3H48901 MW-8-6.5'	Sample I.D. 3H48902 MW-8-11'	Sample I.D.	Sample I.D.	Sample I.D.	Sample I.D.
Purgeable Hydrocarbons	1.0	N.D.	N.D.				
Benzene	0.0050	N.D.	N.D.				
Toluene	0.0050	N.D.	N.D.				
Ethyl Benzene	0.0050	N.D.	N.D.				
Total Xylenes	0.0050	N.D.	N.D.				
Chromatogram Pattern:		--	--				

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	8/12/93	8/12/93
Instrument Identification:	GCHP-6	GCHP-6
Surrogate Recovery, %: (QC Limits = 70-130%)	99	102

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maile A. Springer
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Hydro Environmental	Client Project ID:	Mobil, 8-019
2363 Mariner Square Dr., Bldg. 3, Ste 243	Matrix:	Water
Alameda, CA 94501		
Attention: Scott Kellstedt	QC Sample Group: 3H48901 - 02	Reported: Aug 17, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	C. Donohue	C. Donohue	C. Donohue	C. Donohue
Conc. Spiked:	0.20	0.20	0.20	0.60
Units:	mg/kg	mg/kg	mg/kg	mg/kg
LCS Batch#:	GBLK081293	GBLK081293	GBLK081293	GBLK081293
Date Prepared:	8/12/93	8/12/93	8/12/93	8/12/93
Date Analyzed:	8/12/93	8/12/93	8/12/93	8/12/93
Instrument I.D.#:	GCHP-6	GCHP-6	GCHP-6	GCHP-6
LCS % Recovery:	100	100	100	100
Control Limits:	60-140	60-140	60-140	60-140
MS/MSD Batch #:	G3H43908	G3H43908	G3H43908	G3H43908
Date Prepared:	8/12/93	8/12/93	8/12/93	8/12/93
Date Analyzed:	8/12/93	8/12/93	8/12/93	8/12/93
Instrument I.D.#:	GCHP-6	GCHP-6	GCHP-6	GCHP-6
Matrix Spike % Recovery:	90	90	95	93
Matrix Spike Duplicate % Recovery:	95	100	100	97
Relative % Difference:	5.4	11	5.1	3.5

SEQUOIA ANALYTICAL

Maile A. Springer
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

Mobil Chain of Custody

SEQUOIA ANALYTICAL

Redwood City: (415) 364-9600
Concord: (510) 686-9600
Sacramento: (916) 921-9600

Consulting Firm Name: HYDRO-ENVIRONMENTAL	Site SS #: 10-LIX	Phase of Work:	
Address: 2363 MARINER SQ. DR. #243	Mobil Site Address: 15884 Hesperian	☐ A. Emrg. Response	
City: ALAMEDA State: CA Zip Code: 94501	Mobil Engineer: S. PAO	☑ B. Site Assessment	
Telephone: (510) 521-2684 FAX #: 521-5078	Consultant Project #: 8-019	☐ C. Remediation	
Project Contact: Scott Kellstedt	Sampled by: R. Allan	☐ D. Monitoring	
	Sequoia's Work Order Release #:	☐ E. OGC/Claims	

Turnaround Time: ☒ Standard TAT (5 - 10 Working Days)
☐ Other _____

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease EPA 413.2					Comments
1. MW8-6½'	10-8-93 AM	Soil	1 Brass tube		X								cool 4°C
2. MW-8-11'	10-8-93	Soil	1 brass tube		X								"
3.													
4.													
5.													
6.													
7.													
8.													
9.													
10.													

Relinquished By: Ryan Allan	Date: 8/10/93	Time: 5PM	Received By: N. Kellstedt	Date: 8/10/93	Time: 5PM
Relinquished By: N. Kellstedt	Date: 8/11/93	Time: 12:40	Received By: Eric Von	Date: 8/11/93	Time: 1240
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Method of Shipment Carrier (Seq.)

FILE 8-014
ANALYTICAL

RECEIVED SEP 1 1993

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Hydro Environmental	Client Project ID:	Mobil 10-LIX	Sampled:	Aug 19, 1993
2363 Mariner Square Dr., Bldg. 3, Ste 243	Sample Matrix:	Water	Received:	Aug 23, 1993
Alameda, CA 94501	Analysis Method:	EPA 5030/8015/8020	Reported:	Aug 31, 1993
Attention: Scott Kellstedt	First Sample #:	3H95701		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 3H95701 MW-2	Sample I.D. 3H95702 MW-5	Sample I.D. 3H95703 MW-6	Sample I.D. 3H95704 MW-7	Sample I.D. 3H95705 MW-8	Sample I.D.
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	88	N.D.	
Benzene	0.50	N.D.	N.D.	N.D.	1.7	N.D.	
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	9.0	N.D.	
Total Xylenes	0.50	N.D.	N.D.	N.D.	4.8	N.D.	
Chromatogram Pattern:		--	--	--	Gas	--	

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	8/25/93	8/25/93	8/25/93	8/25/93	8/25/93
Instrument Identification:	GCHP-18	GCHP-18	GCHP-18	GCHP-18	GCHP-18
Surrogate Recovery, %: (QC Limits = 70-130%)	93	94	95	107	94

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maile A. Springer
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Hydro Environmental
2363 Mariner Square Dr., Bldg. 3, Ste 243
Alameda, CA 94501
Attention: Scott Kellstedt

Client Project ID: Mobil 10-LIX
Matrix: Water
QC Sample Group: 3H95701 - 05

Reported: Aug 31, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
Conc. Spiked:	10	10	10	30
Units:	µg/L	µg/L	µg/L	µg/L
LCS Batch#:	GBLK082593	GBLK082593	GBLK082593	GBLK082593
Date Prepared:	8/25/93	8/25/93	8/25/93	8/25/93
Date Analyzed:	8/25/93	8/25/93	8/25/93	8/25/93
Instrument I.D.#:	GCHP-18	GCHP-18	GCHP-18	GCHP-18
LCS % Recovery:	94	95	94	93
Control Limits:	80-120	80-120	80-120	80-120
MS/MSD Batch #:	P3HA3703	P3HA3703	P3HA3703	P3HA3703
Date Prepared:	8/25/93	8/25/93	8/25/93	8/25/93
Date Analyzed:	8/25/93	8/25/93	8/25/93	8/25/93
Instrument I.D.#:	GCHP-18	GCHP-18	GCHP-18	GCHP-18
Matrix Spike % Recovery:	91	91	91	90
Matrix Spike Duplicate % Recovery:	99	99	99	100
Relative % Difference:	8.4	8.4	8.4	10

SEQUOIA ANALYTICAL

Maile A. Springer
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

Mobil Chain of Custody

SEQUOIA ANALYTICAL

Redwood City: (415) 364-9600
Concord: (510) 686-9600
Sacramento: (916) 921-9600

Consulting Firm Name: Hydro-Environmental Tech., Inc.	Site SS #: 10 - [redacted] LIX	Phase of Work:
Address: 2363 Mariner Square Dr., Suite 243	Mobil Site Address: 15884 Hesperian Blvd San Lorenzo CA	☐ A. Emrg. Response
City: Alameda State: CA Zip Code: 94501	Mobil Engineer: Steve Pao	☐ B. Site Assessment
Telephone: 510-521-2684 FAX #: 510-521-5078	Consultant Project #: 8-019	☐ C. Remediation
Project Contact: Scott Kellstedt Sampled by: Tony Ramirez	Sequoia's Work Order Release #:	☒ D. Monitoring
		☐ E. OGC/Claims

Turnaround Time: ☒ Standard TAT (5 - 10 Working Days)
☐ Other _____

Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease EPA 413.2	Comments
1. MW-2	8/19/93	H2O	2	9308957	X				all samples cool 4°C
2. MW-5	"	"	"		X				
3. MW-6	"	"	"		X				
4. MW-7	"	"	"		X				
5. MW-8	"	"	"		X				
6.									
7.									
8.									
9.									
10.									

Relinquished By: [signature]	Date: 8/20/93	Time: 8:40	Received By: [signature]	Date: 8/21/93	Time: 8:00am
Relinquished By: [signature]	Date: 8/20/93	Time:	Received By: [signature]	Date: 8/23/93	Time: 2:28
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Method of Shipment Courier (SEQ)

Mobil Oil Corporation

3800 WEST ALAMEDA
BURBANK, CALIFORNIA 91505-4331

93 NOV -5 PM 12:32

October 29, 1993

Ms. Juliet Shin
Alameda County Dept. of
Environmental Health
Hazardous Materials Division
80 Swan Way Room 200
Oakland, CA 94621

MOBIL OIL CORP.
FORMER S/S #10-L1X
15884 HESPERIAN BLVD
SAN LORENZO, CA

Dear Ms. Shin:

Enclosed for your information is the phase II subsurface investigation and quarterly monitoring and sampling report dated September 16, 1993 for subject location.

If you have any questions, please feel free to contact me at (818) 953-2626.

Sincerely,

S. Pao

Stephen Pao
Field Engineer II

enclosure

cc: Mr. Rich Hiett (w/ enclosure)
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

G. G. Smith (w/o)

Environmental
Awareness