

**ExxonMobil**  
**Refining & Supply Company**  
Global Remediation

Gene N. Ortega  
Territory Manager  
Global Remediation – US Retail

2300 Clayton Road, Suite 1250  
Concord, CA 94520  
(925) 246-8747 Telephone  
(925) 246-8798 Facsimile  
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**ExxonMobil**  
*Refining & Supply*

October 29, 2002

Mr. Don Hwang  
Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

**Alameda County**  
NOV 01 2002  
**Environmental Health**

**RE: Former Exxon RAS #7-0235/2225 Telegraph Avenue, Oakland, California.**

Dear Mr. Hwang:

Attached for your review and comment is a letter report entitled *Response to Agency Comments*, dated October 29, 2002, for the above-referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) of Novato, California, and presents a response to agency comments regarding the subject site.

If you have any questions or comments, please contact me at (925) 246-8747.

Sincerely,

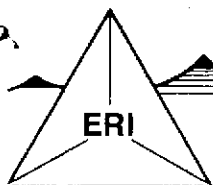


Gene N. Ortega  
Territory Manager

Attachment: ERI's Response to Agency Comments, dated October 29, 2002.

cc: w/ attachment  
Mr. Chuck Headlee, California Regional Water Quality Control Board, San Francisco Bay Region  
Mr. Joseph A. Aldridge, Valero Energy Corporation

w/o attachment  
Ms. Paula Sime, Environmental Resolutions, Inc.



October 29, 2002  
ERI 222903GO.L08

Alameda County

NOV 01 2002

Environmental Health

Mr. Gene N. Ortega  
ExxonMobil Oil Corporation  
2300 Clayton Road, Suite 1250  
Concord, California 94520

Subject: Response to Agency Comments, Former Exxon Service Station 7-0235,  
2225 Telegraph Avenue, Oakland, California.

Mr. Ortega:

At the request of ExxonMobil Oil Corporation (ExxonMobil), Environmental Resolutions, Inc. (ERI) has prepared this response to the Alameda County Health Care Services Agency (the County) technical comments and requests for information provided in a letter dated September 11, 2002 (Attachment A).

#### RESPONSE TO AGENCY COMMENTS

In the September 11, 2002 letter, the County requested the following specific information. The County's requests are paraphrased in bold text, and ERI's responses follow.

**Conduit Study** - The groundwater monitoring wells downgradient and closer to the former tank location and dispensers, MW6H, RW1, and RW2, found concentrations as high as 47,100 ug/l TPHG, 7,880 ug/l benzene, and 7,760 ug/l MTBE, since 2001. Further downgradient groundwater monitoring wells, MW6I and MW6J, have almost always been Non-Detectable (ND) for all contaminants of concern. A conduit study is needed to determine if preferential pathways exist.

ERI is currently performing a preferential pathway study in the vicinity of the site. The results of the study will be incorporated into a Work Plan for Off-Site Delineation (see below) under separate cover.

**Site Characterization** - The groundwater plume appears to be migrating off the east side of the property. Submit a proposal for additional groundwater sampling to delineate the plume.

ERI has prepared a Work Plan for Off-Site Delineation, which will be submitted under separate cover. Upon authorization from ExxonMobil, ERI intends to submit the Work Plan by November 27, 2002.

**DPE Interim Remediation** - "Dual-Phase Extraction (DPE) Pilot Test" dated October 19, 2001, determined that DPE was effective at this site. Submit your recommendation and specifications for DPE on a full scale.

ERI will prepare a Corrective Action Plan (CAP), which will evaluate remedial alternatives, including DPE, at this site. Upon authorization from ExxonMobil, ERI intends to submit the CAP by June 30, 2002.

**Groundwater Monitoring – Include fuel oxygenates, Tertiary Amyl Methyl Ether (TAME), Ethyl Tertiary Butyl Ether (ETBE), Di-Isopropyl Ether (DIPE), Tertiary Butyl Alcohol (TBA), and Ethanol. Also, include lead scavengers, Ethylene Dibromide (EDB), and Ethylene Dichloride (EDC). In your discussion of the results, provide recommendation as to whether these analyses should be continued.**

Fuel oxygenates and lead scavengers will be analyzed on a quarterly basis beginning first quarter 2003. After receiving laboratory analytical results of groundwater samples taken during the first quarter 2003 sampling event, ERI will evaluate whether these analyses should continue.

**Soil Sample Analyses for MW6A, MW6B, MW6C, and MW6D (drilled June & July 1988) are missing. Submit.**

The well installation report for MW6A through MW6D, entitled *Subsurface Investigation*, submitted by Harding Lawson Associates (HLA) on July 20, 1988, is included in Attachment B. According to this report, HLA analyzed soil samples in the field using a photo-ionization detector (PID), but did not retain soil samples for laboratory analyses.

**You were previously requested to submit a "list of landowners" in a letter dated May 4, 1999. No response was found in our files. Enclosed is a copy of our letter. You must inform all current record owners of fee title to the site of proposed actions and certify to us that they have been informed. Please submit a list of landowners.**

The name and mailing address for the current site property owner is as follows:

Fee Title Holder: Mr. Lam H. Truong  
Mailing Address: 2225 Telegraph Avenue  
Oakland, California 94612-2315

The *Metroscan Property Profile*, provided by First American Title Company of Alameda, California, is included in Attachment C.

Based on the above, ERI formally requests an extension for submittal of the Work Plan to November 27, 2002 to allow inclusion of the conduit study and review of the data to evaluate potential off site drilling locations.

## DOCUMENT DISTRIBUTION

ERI recommends forwarding copies of this report to:

Mr. Don Hwang  
Alameda County Health Care Services Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Mr. Chuck Headlee  
California Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, California 94612

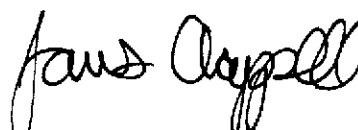
Mr. Joseph A. Aldridge  
Valero Energy Corporation  
685 West Third Street  
Hanford, California 93230

Please call Ms. Paula Sime, ERI's senior staff geologist for this site, at (415) 382-4324 with any questions regarding this site.

Sincerely,  
Environmental Resolutions, Inc.



Paula Sime  
Senior Staff Geologist



James F. Chappell  
Program Manager

Attachment A: Alameda County Health Care Services Agency Letter,  
Dated September 11, 2002

Attachment B: Subsurface Investigation (Harding Lawson Associates, July 20, 1988)

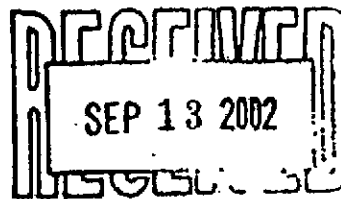
Attachment C: Metroscan Property Profile from First American Title  
Company, Alameda, California

**ATTACHMENT A**

**ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY LETTER,  
DATED SEPTEMBER 11, 2002**

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID, J. KEARS, Agency Director



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

September 11, 2002

Gene Ortega, Territory Manager Global Remediation – US Retail  
ExxonMobil  
Refining & Supply Co.  
Global Remediation  
2300 Clayton Rd., Suite 1250  
Concord, CA 94520

Dear Mr. Ortega:

Subject: Fuel Leak Case No. RO0000358, Exxon #7-0235,  
2225 Telegraph Ave., Oakland, CA

Alameda County Environmental Health staff reviewed "Well Installation Report ..." dated September 7, 2001; "Dual-Phase Extraction Pilot Test" dated October 19, 2001, and quarterly groundwater monitoring reports including "...2<sup>nd</sup> Quarter 2002", all prepared by Environmental Resolutions, Inc.

**TECHNICAL COMMENTS**

- 1) Conduit Study – The groundwater monitoring wells downgradient and closer to the former tank location and dispensers, MW6H, RW1, and RW2, found concentrations as high as 47,100 ug/l TPHG, 7,880 ug/l benzene and 7,760 ug/l MTBE, since 2001. Further downgradient groundwater monitoring wells, MW6I and MW6J, have almost always been NonDetectable (ND) for all contaminants of concern. A conduit study is needed to determine if preferential pathways exist.
- 2) Site Characterization - The groundwater plume appears to be migrating off the eastside of the property. Submit a proposal for additional groundwater sampling to delineate the plume.

- 3) DPE Interim Remediation - "Dual-Phase Extraction (DPE) Pilot Test" dated October 19, 2001 determined that DPE was effective at this site. Submit your recommendation and specifications for DPE on a full scale.
- 4) Groundwater Monitoring - Include fuel oxygenates, Tertiary Amyl Methyl Ether (TAME), Ethyl Tertiary Butyl Ether (ETBE), Di-Isopropyl Ether (DIPE), Tertiary Butyl Alcohol (TBA), and Ethanol. Also, include lead scavengers, Ethylene Dibromide (EDB), Ethylene Dichloride (EDC). In your discussion of the results, provide recommendation as to whether these analyses should be continued.
- 5) Soil Sample Analyses for MW6A, MW6B, MW6C, MW6D (drilled June & July 1988) - Missing. Submit.

#### REQUEST FOR INFORMATION

You were previously requested to submit a "list of landowners" in a letter dated May 4, 1999. No response was found in our files. Enclosed is a copy of our letter. You must inform all current record owners of fee title to the site of proposed actions and certify to us that they have been informed. Please submit a "list of landowners".

#### TECHNICAL REPORT REQUEST

Please submit the following technical reports to the Alameda County Environmental Health (Attention: Don Hwang), according to the following schedule:

October 31, 2002 - Work Plan

October 31, 2002 - Quarterly Groundwater Monitoring Report, 3<sup>rd</sup> Quarter 2002

October 31, 2002 - Soil Sample Report for MW6A, MW6B, MW6C, MW6D

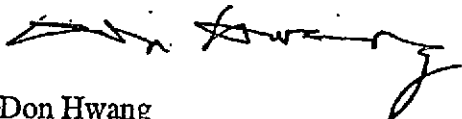
January 31, 2003 - Quarterly Groundwater Monitoring Report, 4<sup>th</sup> Quarter 2002

April 30, 2003 - Quarterly Groundwater Monitoring Report, 1<sup>st</sup> Quarter 2003

July 31, 2003 - Quarterly Groundwater Monitoring Report, 2<sup>nd</sup> Quarter 2003

If you have any questions, you may call me at 510/567-6746.

Sincerely,



Don Hwang  
Hazardous Materials Specialist  
Local Oversight Program

c: Paula Sime, Environmental Resolutions, Inc., 73 Digital Dr., Novato, CA 94949-5791

File

**ATTACHMENT B**

**SUBSURFACE INVESTIGATION  
(HARDING LAWSON ASSOCIATES, JULY 20, 1988)**




A Report Prepared for


Texaco Refining and Marketing, Inc.  
10 Universal City Plaza  
Universal City, California 91608

**SUBSURFACE INVESTIGATION  
TEXACO STATION NO. 62488000195  
2225 TELEGRAPH AVENUE  
OAKLAND, CALIFORNIA**

HLA Job No. 2251,052.04

by

  
James Ordons  
Project Geologist

  
Stephen J. Osborne  
Civil Engineer



Harding Lawson Associates  
666 Howard Street  
San Francisco, California 94105  
415/543-8422

July 20, 1988



ETX000172384

INTRODUCTION

This report presents the results of the subsurface investigation performed by Harding Lawson Associates (HLA) at Texaco Service Station No. 62488000195, located at 2225 Telegraph Avenue, Oakland, California (see Plate 1). The work was verbally authorized by Mr. Robert Robles, Environmental Conservation Coordinator for Texaco Refining and Marketing, Inc. Our scope of services was provided by Texaco Refining and Marketing, Inc., and it included the following tasks:

1. Obtain utility clearances and well permits
2. Install, develop, and sample three monitoring wells
3. Survey wells and measure water levels
4. Calculate the direction of ground-water flow; if required, install a fourth well at the downgradient property corner
5. Analyze one ground-water sample from each monitoring well for benzene, ethylbenzene, toluene, and xylenes (BETX)
6. Document the results of our investigation in a report.

FIELD INVESTIGATION

Drilling and Sampling

HLA explored subsurface conditions at the site by drilling and sampling four soil borings on June 15 and July 6, 1988. Their locations are shown on Plate 2. The borings were advanced using truck-mounted, 6- and 8-inch-diameter flight auger drilling equipment. They were sampled using a Standard Penetration Test split-barrel sampler. An HLA field geologist directed the drilling and logged the borings. The boring logs are presented on Plates 3 through 6, and the soils have been described in accordance with the Unified Soil Classification System shown on Plate 7. The logs include the blow



counts obtained during sampling; the blow counts have been converted to standard penetration blow counts (N-values).\*

The soil samples were screened in the field with a photoionization detector (PID). The PID readings were used to indicate relative concentrations of volatile organic compounds in the soil; they are presented on the logs. No soil samples were retained for chemical testing.

All drill cuttings were placed in Department of Transportation (DOT)-approved drums for subsequent disposal by Texaco Refining and Marketing, Inc. Sampling equipment was washed with a trisodium phosphate (TSP) solution and rinsed with clean water between samples. All drilling equipment was steam-cleaned before and after each boring.

#### Monitoring Well Installation

We installed a monitoring well in each boring under a permit issued by the Alameda County Flood Control District. The wells were constructed of steam-cleaned, 2-inch-diameter, Schedule 40 PVC casing, as shown on the well construction details, Plates 3 through 6. The annular space between the casing and the borehole wall was filled with No. 3 Monterey sand to approximately 2 feet above the top of the screened casing. A 1- to 2.5-foot-thick bentonite seal was placed above the sand pack, and the remainder of the annulus was filled with a cement/bentonite grout to just below the ground surface. The top of each well was placed slightly below the ground surface. The wells were equipped with locking watertight caps to prevent the inflow of surface water, and a watertight locking traffic box, set slightly above the surrounding grade, was

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\* Standard penetration N-values are defined as the number of blows of a 140-pound hammer falling 30 inches required to advance a standard sampler (2 inches O.D. and 1.5 inches I.D.) the final 12 inches of an 18-inch drive. The standard hammer driving mechanism utilizes a cathead-drum and rope and pulley system.



installed over each well. Monitoring Wells MW-6A, MW-6B, MW-6C, and MW-6D were completed to depths of 19.5, 19, 19.5, and 19.5 feet below grade, respectively. MW-6D was placed immediately downgradient of the underground tanks; the ground-water gradient was based on the ground-water elevations taken on June 24, 1988.

Well Development and Sampling

On June 24, 1988, Monitoring Wells MW-6A, MW-6B, and MW-6C were developed, sampled, and surveyed by an HLA technician. The sample container from MW-6A was broken during transport to the laboratory; another sample was collected on June 28, 1988. MW-6D was developed, sampled, and surveyed on July 11, 1988. Prior to and after development, a clear lucite bailer was lowered into the well to check for free product. Each well was developed by bailing 10 to 14 well casing volumes with a stainless-steel bailer. The temperature, pH, and conductivity of the purged water were monitored during the development of the well. Purged water was placed in DOT-approved drums for subsequent disposal by Texaco Refining and Marketing, Inc.

Ground-water samples were collected from each well using a clean stainless-steel bailer. The ground-water samples were decanted from the bailer into laboratory-prepared, 40-milliliter volatile organic analysis (VOA) vials. The sample vials were immediately sealed, labeled, and placed in a cooler with ice until delivery to ChemWest Analytical Laboratories, Inc., in Sacramento, California, for chemical testing. All sampling equipment was washed with a TSP solution and rinsed in clean water and distilled water between sampling of each well.

Appropriate quality assurance and quality control (QA/QC) measures were employed during the field investigation. HLA maintains an internal QA/QC program that includes provisions for avoiding cross-contamination during site investigation and



procedures for decontamination, sample handling and preservation, and chain-of-custody.

Well Surveying

The top of each well casing was surveyed to a temporary datum located at the western end of the dispenser island nearest West Grand Avenue with an assumed elevation of 100 feet (HLA datum, Plate 2). Well monitoring and survey data are presented in Table 1.

Table 1. Well Monitoring and Survey Data

Well No.	Top of Casing Elevation* (feet)	Depth to** Ground Water (feet)	Ground-Water Surface Elevation (feet)	Comments
MW-6A	98.99	13.25	85.74	No petroleum odors were noticed in the ground-water samples from Wells 6A, 6B, or 6C.
MW-6B	98.81	12.86	85.95	
MW-6C	99.89	14.21	85.68	
MW-6D	98.72	13.48	85.24	1/40 inch of floating product was noticed in MW-6D.

\* HLA datum.  
\*\* On July 11, 1988.



## RESULTS AND CONCLUSIONS

### Surface and Subsurface Conditions

The site is relatively flat and paved with 4 inches of asphaltic concrete and 4 inches of aggregate baserock. Discontinuous layers of sand and clay of both estuarine and continental origins, with an aggregate thickness of as much as 21.5 feet, were encountered. Petroleum odors were noticed in the soil samples from MW-6C and MW-6D. The strongest odors were noticed in the samples from MW-6D taken between depths of 12.5 and 15.5 feet below the ground surface.

### Ground Water

The depth to ground water across the site ranges from 13 to 14.5 feet below the ground surface. The calculated ground-water flow is to the southwest, as shown on Plate 2. The ground-water gradient of the upper aquifer is 0.002 feet per foot, based on the information in Table 1.

### Chemical Analysis

Ground-water samples from each well were analyzed for BETX using EPA Method 602, and the reportable concentrations are summarized in Table 2. The laboratory reports are presented in the Appendix. The drinking water action levels\* (DWAL) for benzene, ethylbenzene, toluene, and xylenes are 0.7, 680, 100, and 620 parts per billion (ppb), respectively. As indicated, the concentrations measured in the samples from MW-6A and MW-6B are below the DWALs. The concentrations measured in the sample from MW-6C exceed the DWAL for benzene and xylenes. The sample from MW-6D exceeds the DWAL for benzene.

\* Drinking water action levels were recommended by the State Department of Health Services in their letter dated October 1987.



Harding Lawson Associates

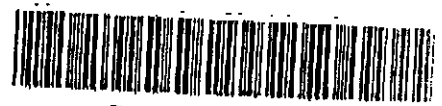
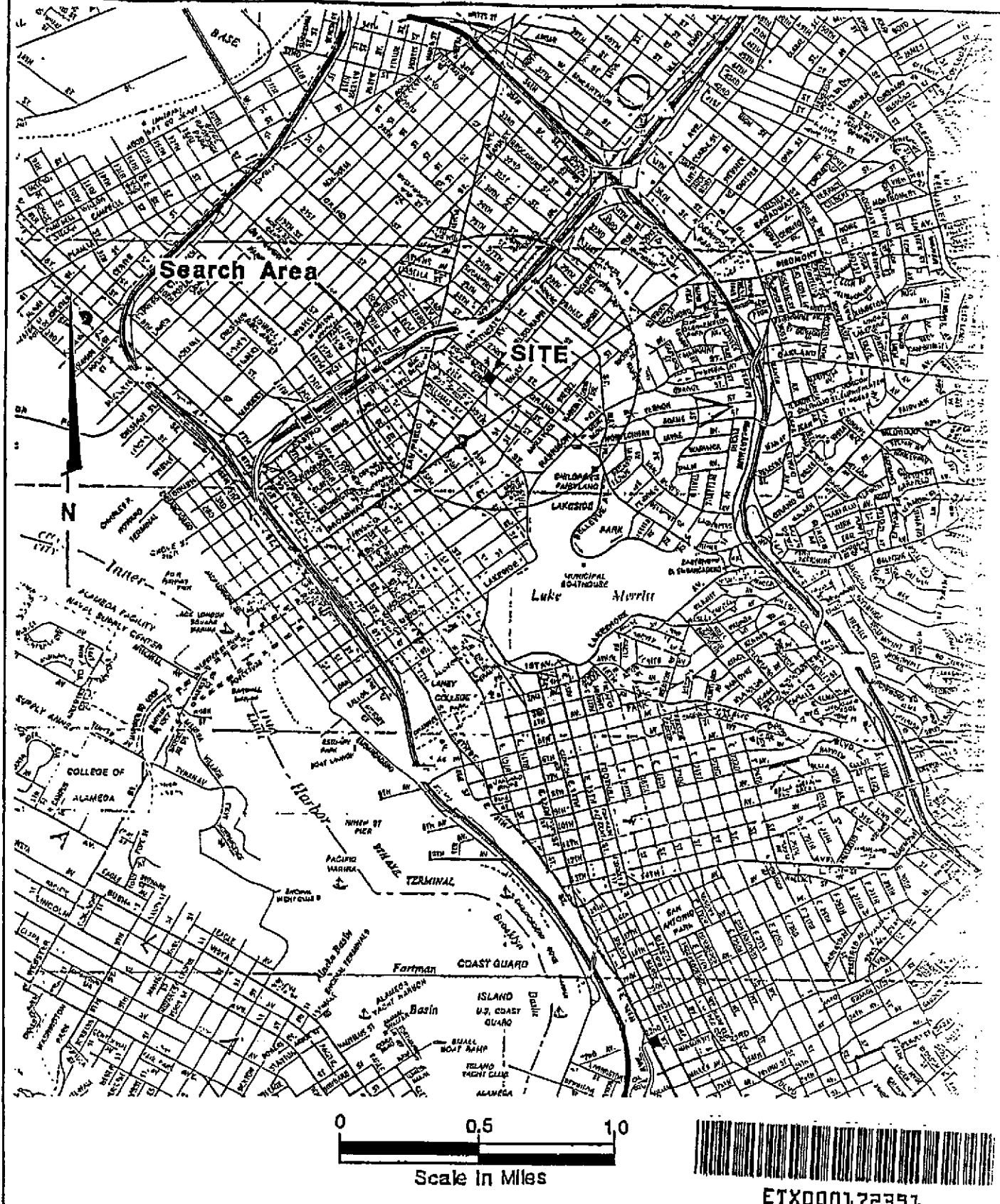
**Table 2. Results of Ground-Water Analyses  
(concentrations in micrograms per liter [ $\mu\text{g}/\text{l}$ ])**

Well No.	Benzene	Ethyl-benzene	Toluene	Xylenes
MW-6A	ND (0.5)	ND (2)	ND (1)	ND (1)
MW-6B	ND (0.5)	ND (2)	ND (1)	5.0
MW-6C	7400	170	7.1	2300
MW-6D	220	ND (20)	27	ND (10)
DWAL	0.7	680	100	620

ND = Nondetectable.  
Detection limits are given in parentheses.



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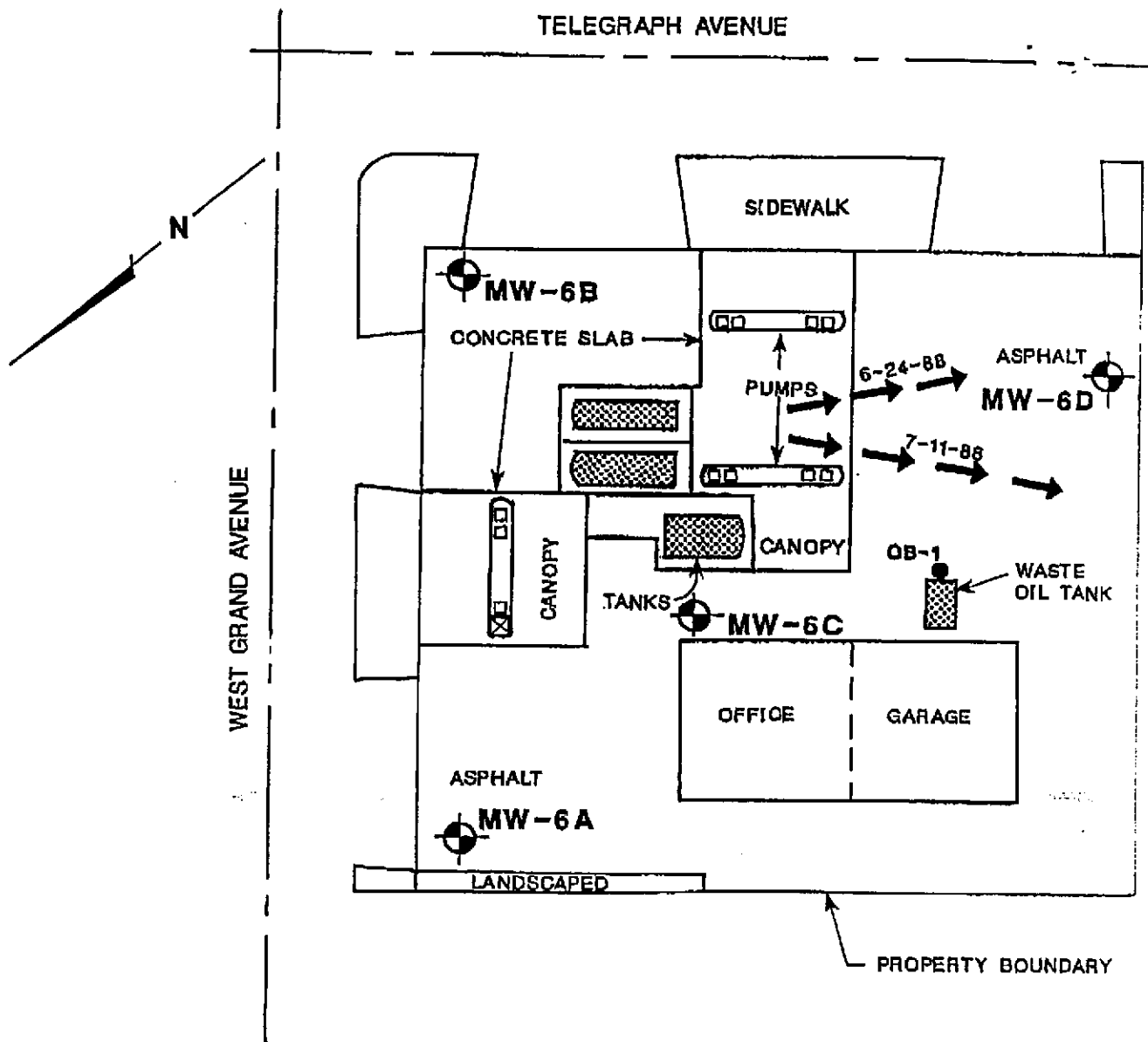


**Harding Lawson Associates**  
Engineers and Geoscientists

**Vicinity Map:**  
Texaco Station -62488000195  
2225 Telegraph Avenue  
Oakland, California

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
	2251.052.04	AC	5/88		





### EXPLANATION

- MW-6A Monitoring Well Location and Number
- OB-1 Observation Well Location and Number
- Ground-water Flow Direction
- Bench Mark (HLA Datum El. = 100 feet)



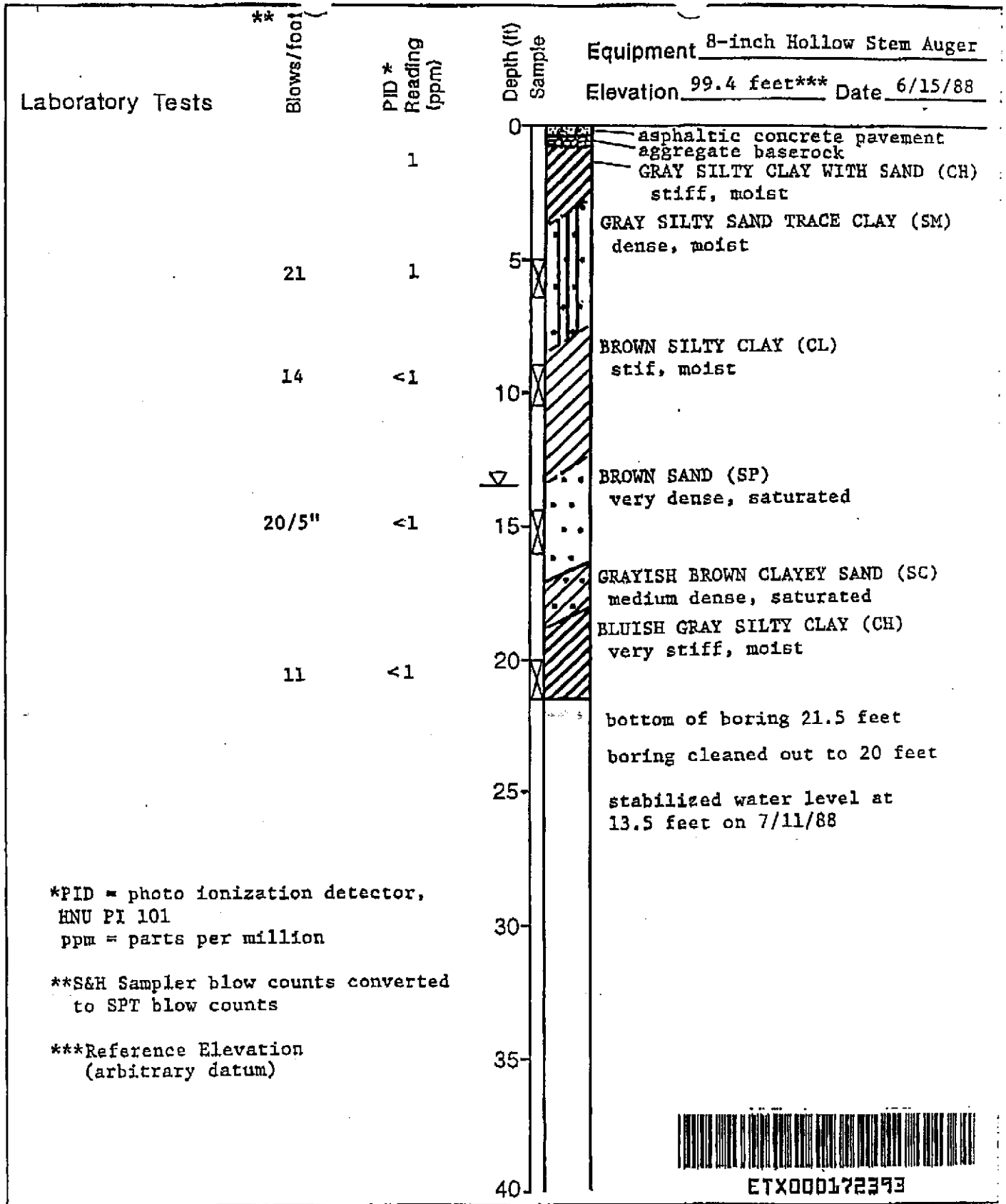
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**HLA** **Harding Lawson Associates**  
Engineers and Geoscientists

**Site Plan**  
Texaco Station-62488000195  
2225 Telegraph Avenue  
Oakland, California

PL-1  
**2**

DRAWN AG	JOB NUMBER 2251,052.04	APPROVED DO	DATE 5/88	REVISED	DATE
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\*PID = photo ionization detector,  
HNU PI 101  
ppm = parts per million

\*\*S&H Sampler blow counts converted  
to SPT blow counts

\*\*\*Reference Elevation  
(arbitrary datum)

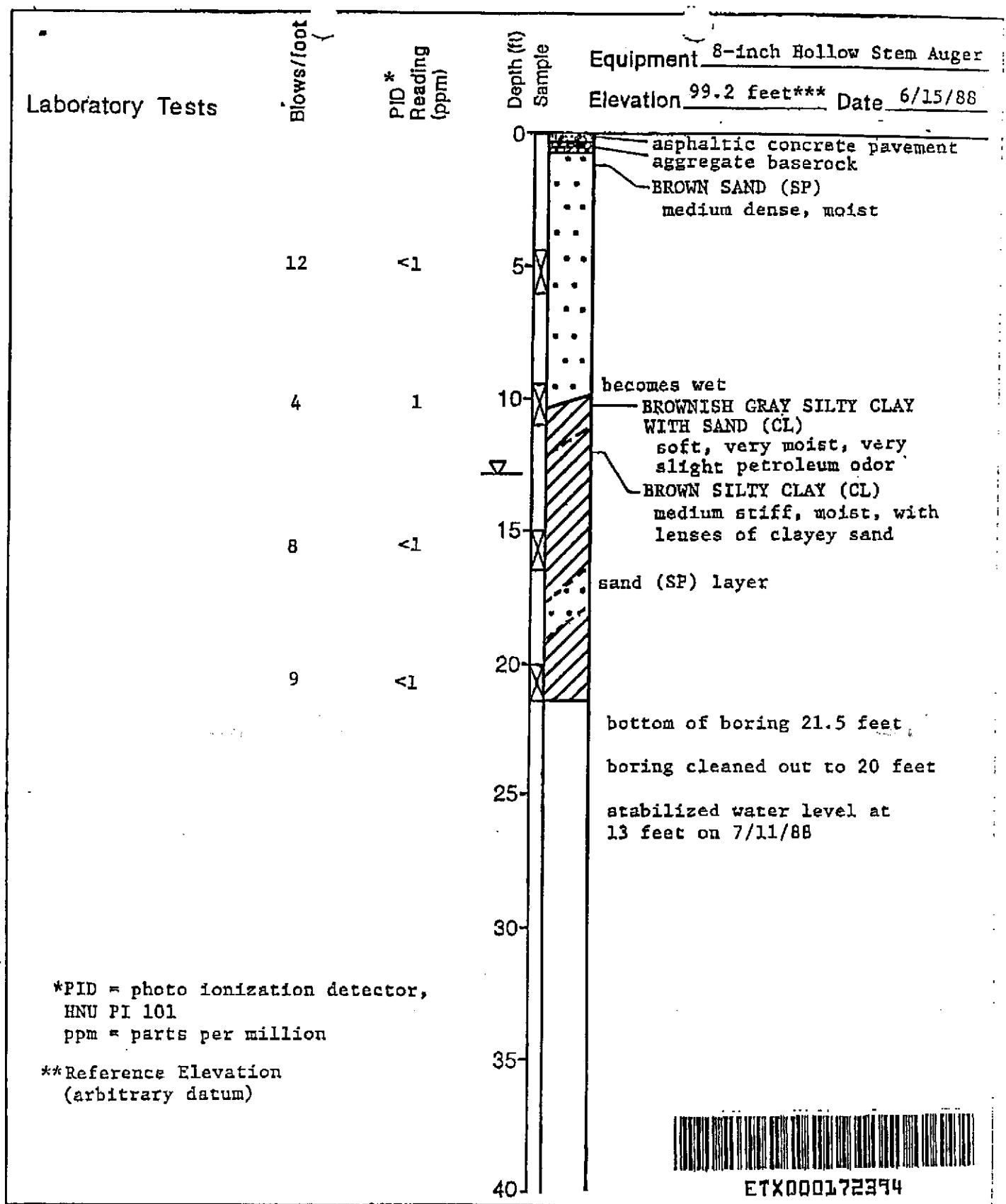


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**HLA** **Harding Lawson Associates**  
Engineers, Geologists  
& Geophysicists

**Log of Boring MW-6A**  
Texaco Station - 62488000195  
2225 Telegraph Avenue  
Oakland, California

PLATE  
**3**

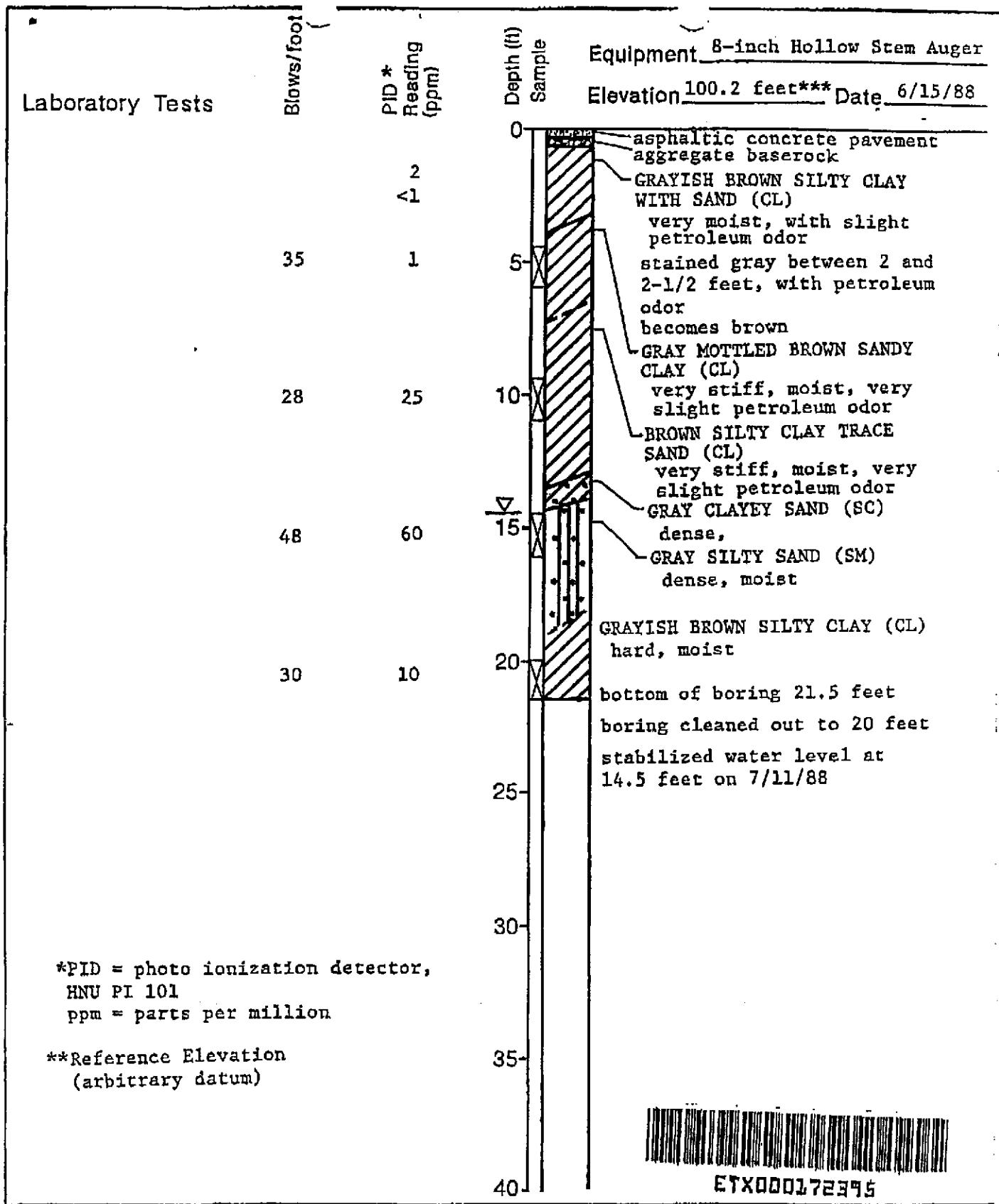


\*PID = photo ionization detector,  
 HNU PI 101  
 ppm = parts per million

\*\*Reference Elevation  
 (arbitrary datum)

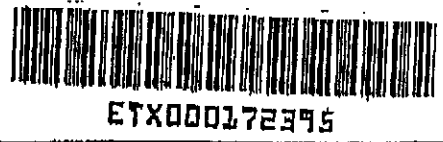


ETX000172374



\*PID = photo ionization detector,  
HNU PI 101  
ppm = parts per million

\*\*Reference Elevation  
(arbitrary datum)

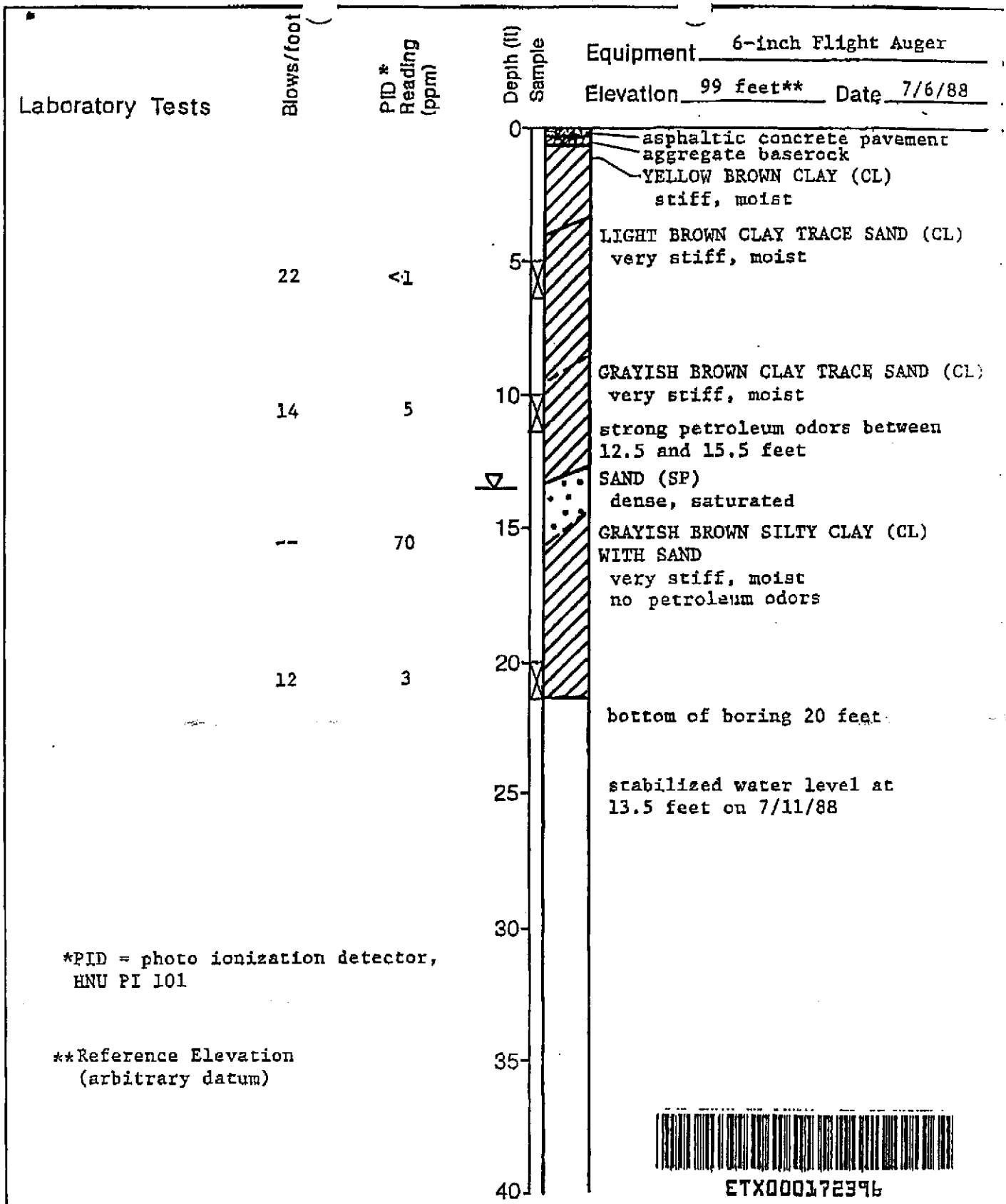


**Harding Lawson Associates**  
Engineers, Geologists  
& Geophysicists

**Log of Boring MW-6C**  
Texaco Station - 62488000195  
2225 Telegraph Avenue  
Oakland, California

PLATE  
**5**

DRAWN RS	JOB NUMBER 2251,052.04	APPROVED [Signature]	DATE 7/88	REVISED	DATE
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\*PID = photo ionization detector,  
HNU PI 101

\*\*Reference Elevation  
(arbitrary datum)



ETX000172396



**Harding Lawson Associates**  
Engineers, Geologists  
& Geophysicists

**Log of Boring MW-6D**  
Texaco Station - 62488000195  
2225 Telegraph Avenue  
Oakland, California

6-12

**6**

DRAWN  
RS

JOB NUMBER  
2251,052.04

APPROVED  
AO

DATE  
7/88

REVISED

DATE

MAJOR DIVISIONS					TYPICAL NAMES
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVELS  MORE THAN HALF COARSE FRACTION IS LARGER THAN No. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		WELL GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
			GP		POORLY GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
		GRAVELS WITH OVER 12% FINES	GM		SILTY GRAVELS, SILTY GRAVELS WITH SAND
			GC		CLAYEY GRAVELS, CLAYEY GRAVELS WITH SAND
	SANDS  MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW		WELL GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
			SP		POORLY GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
		SANDS WITH OVER 12% FINES	SM		SILTY SANDS WITH OR WITHOUT GRAVEL
			SC		CLAYEY SANDS WITH OR WITHOUT GRAVEL
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS	ML		INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTS WITH SANDS AND GRAVELS	
		CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, CLAYS WITH SANDS AND GRAVELS, LEAN CLAYS	
		OL		ORGANIC SILTS OR CLAYS OF LOW PLASTICITY	
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%	MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS, FINE SANDY OR SILTY SOILS, ELASTIC SILTS	
		CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
		OH		ORGANIC SILTS OR CLAYS OF MEDIUM TO HIGH PLASTICITY	
HIGHLY ORGANIC SOILS		Pt		PEAT AND OTHER HIGHLY ORGANIC SOILS	

UNIFIED SOIL CLASSIFICATION - ASTM D2487-85

Perm	Consol	LL	PI	G <sub>s</sub>	MA	■	⊠	Shear Strength (psf)	Confining Pressure	
—	—	—	—	—	—	—	—	TxUU 3200 (FM) or (S)	(2600)	Unconsolidated Undrained Triaxial Shear (field moisture or saturated)
—	—	—	—	—	—	—	—	TxCU 3200 (P)	(2600)	Consolidated Undrained Triaxial Shear (with or without pore pressure measurement)
—	—	—	—	—	—	—	—	TxOD 3200 (P)	(2600)	Consolidated Drained Triaxial Shear
—	—	—	—	—	—	—	—	SSCU 3200 (P)	(2600)	Simple Shear Consolidated Undrained (with or without pore pressure measurement)
—	—	—	—	—	—	—	—	SSCD 3200 (P)	(2600)	Simple Shear Consolidated Drained
—	—	—	—	—	—	—	—	DSCD 2700	(2000)	Consolidated Drained Direct Shear
—	—	—	—	—	—	—	—	UC 470		Unconfined Compression
—	—	—	—	—	—	—	—	LVS 700		Laboratory Vane Shear



KEY TO TEST DATA

ETX000172377



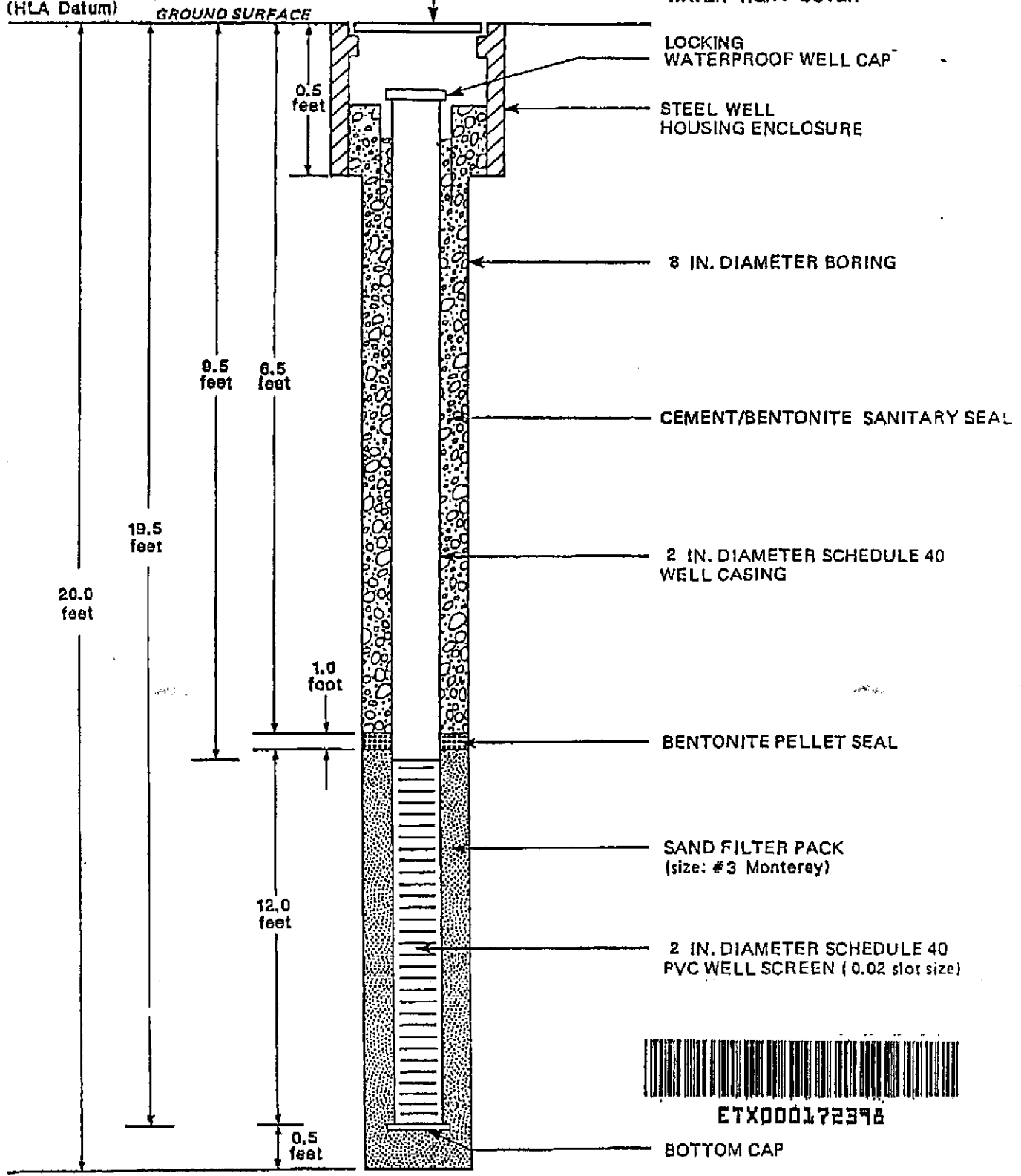
Harding Lawson Associates  
Engineers and Geoscientists

Soil Classification Chart  
and Key to Test Data  
Texaco Station - 62488000195  
2225 Telegraph Avenue  
Oakland, California

PL-47

7

Top of PVC Casing  
Elevation 98.99 feet  
(HLA Datum)



NOT TO SCALE



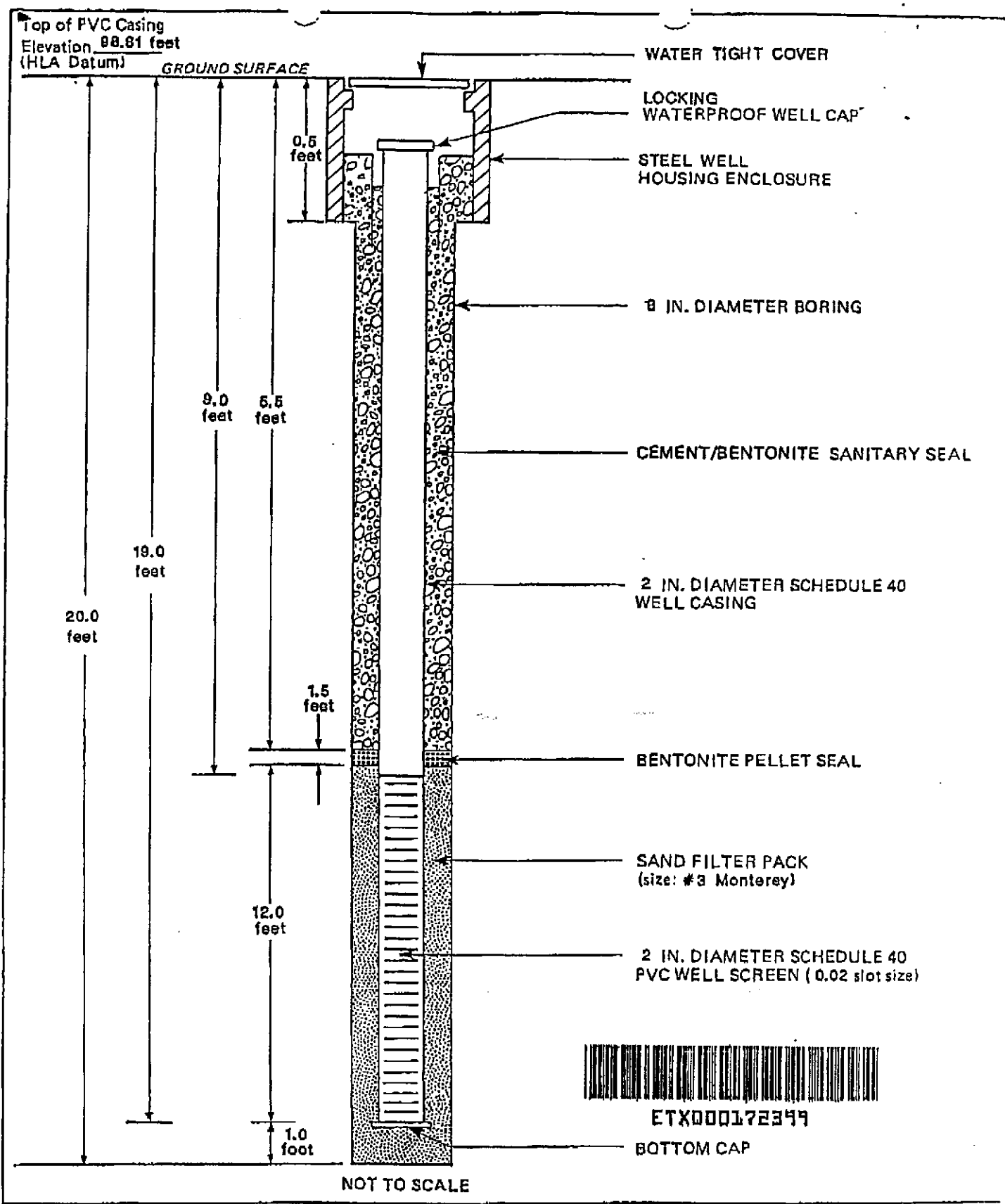
ETX000172398

**HLA** **Harding Lawson Associates**  
 Engineers, Geologists  
 & Geophysicists

**Monitoring Well MW-6A  
 Completion Detail**  
 Texaco Station - 62488000195  
 2225 Telegraph Avenue  
 Oakland, California

8

DRAWN	JOB NUMBER 2251,052.04	APPROVED [Signature]	DATE 7/88	REVISED	DATE
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ETX000172344

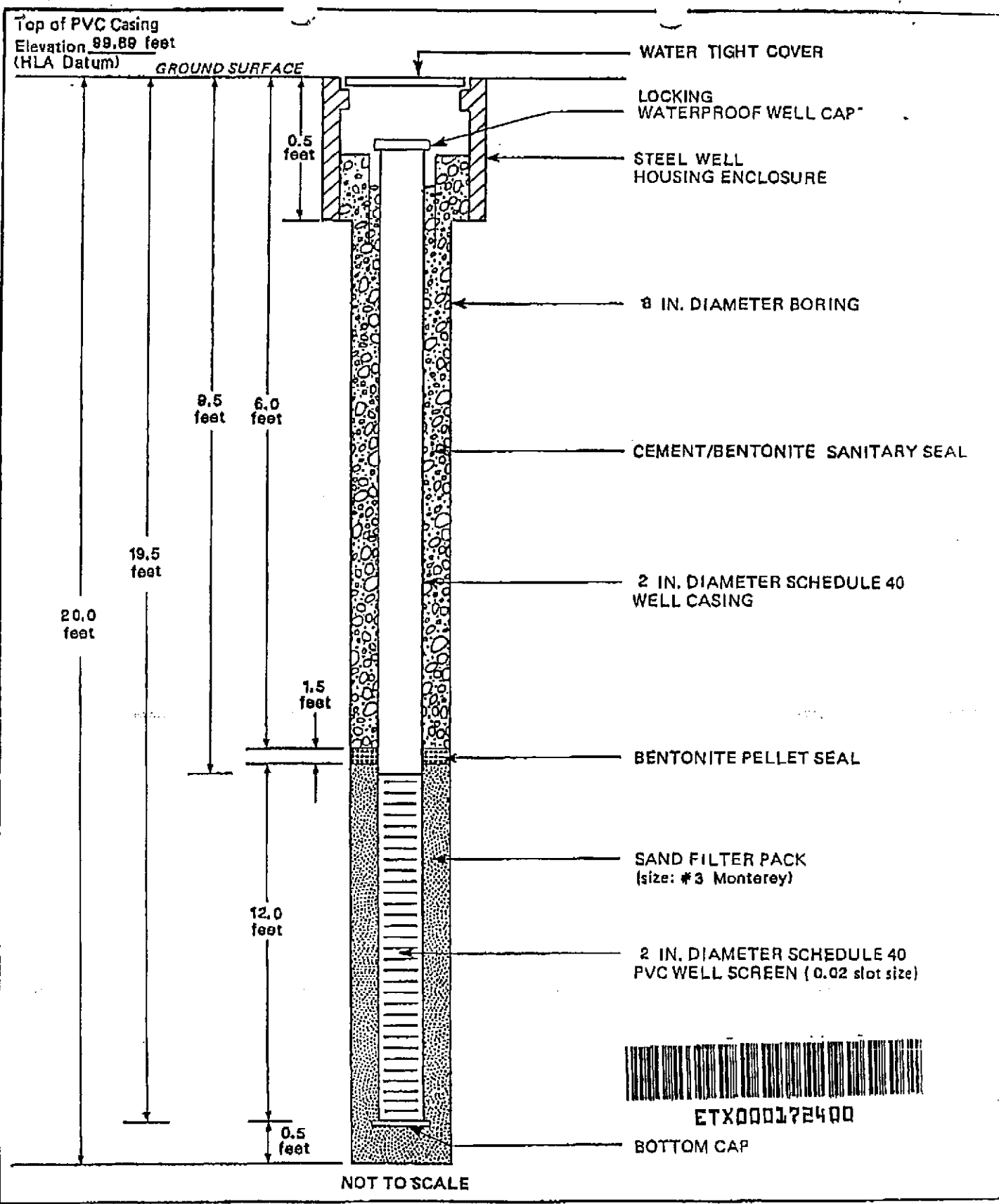
**HLA** **Harding Lawson Associates**  
Engineers, Geologists  
& Geophysicists

**Monitoring Well MW-6B**  
**Completion Detail**  
Texaco Station - 62488000195  
2225 Telegraph Avenue  
Oakland, California



DRAWN	JOB NUMBER 2251,052.04	APPROVED [Signature]	DATE 7/88	REVISED	DATE
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NOT TO SCALE

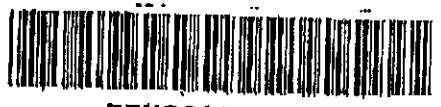
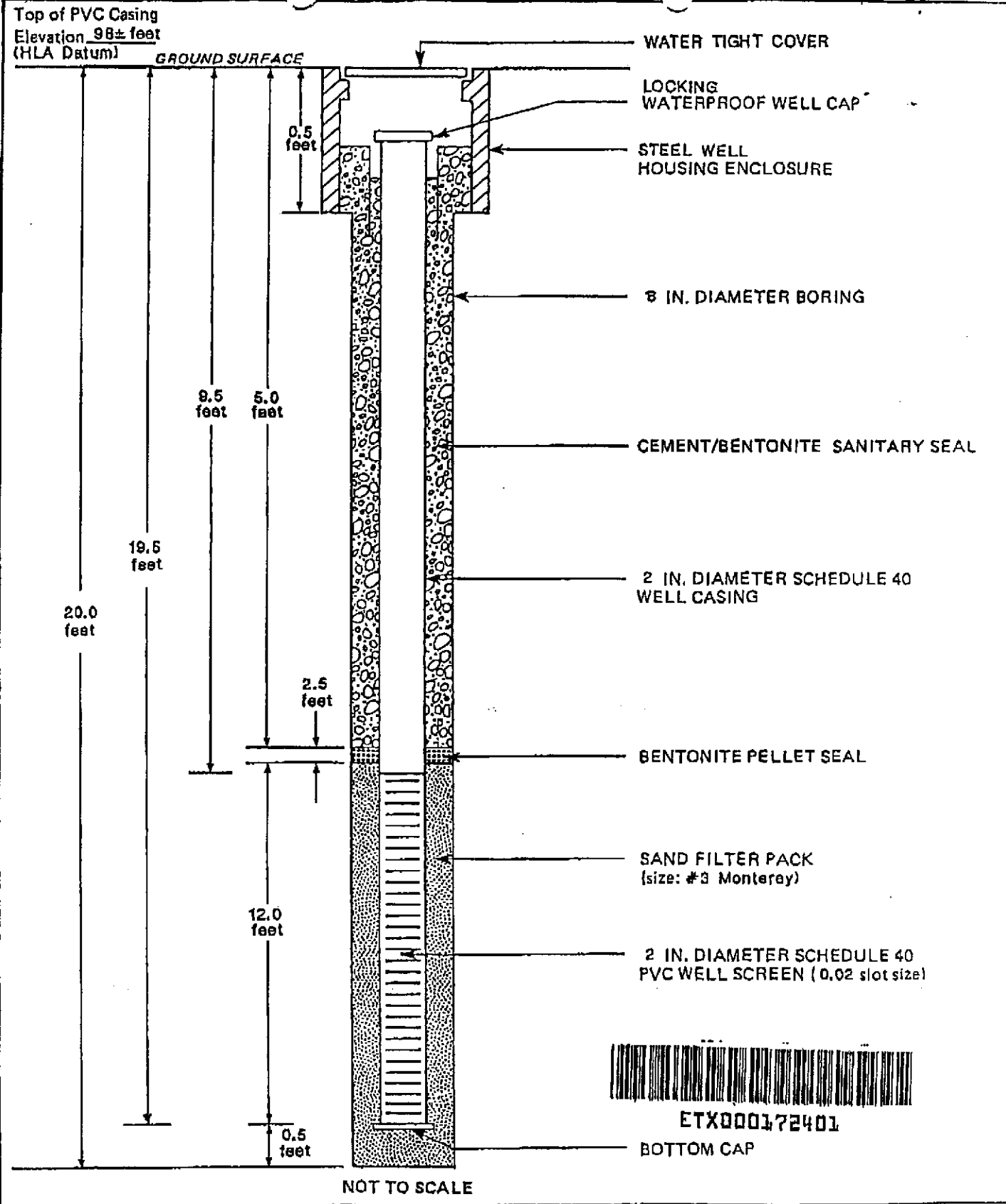
ETX000172400

**HLA** **Harding Lawson Associates**  
 Engineers, Geologists  
 & Geophysicists

**Monitoring Well MW-6C**  
**Completion Detail**  
 Texaco Station - 62488000195  
 2225 Telegraph Avenue  
 Oakland, California

10

DRAWN \_\_\_\_\_ JOB NUMBER 2251,052.04 APPROVED  DATE 7/88 REVISED \_\_\_\_\_ DATE \_\_\_\_\_



ETX000172401

BOTTOM CAP

**HLA** Harding Lawson Associates  
Engineers, Geologists  
& Geophysicists

**Monitoring Well MW-6D  
Completion Detail**  
Texaco Station - 62488000195  
2225 Telegraph Avenue  
Oakland, California

11

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
	2251,052.04	AO	7/88		

Harding Lawson Associates

**Appendix**  
**LABORATORY ANALYSIS REPORTS**

B1447-R6  
July 20, 1988



ETX000172402



July 6, 1988

Harding Lawson  
1355 Willow Way, Suite 109  
Concord, CA 94520

Attention: Mr. Greg Fasiano

Subject: Report of Data - Case Number 1802

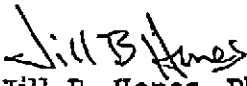
Dear Mr. Fasiano:


The technical staff at CHEMWEST is pleased to provide our report for the analysis you requested; BTEX - EPA Method 602.

Two water samples for Project number 2251-052-03 were received June 27, 1988 in good condition. Results of the analysis along with the analytical methodology and appropriate reporting limits are presented on the following page(s).

Thank you for choosing CHEMWEST Laboratories. Should you have questions concerning this data report or the analytical methods employed, please do not hesitate to contact Margie Namba, our sales representative or your project manager. We hope that you will consider CHEMWEST Laboratories for your future analytical support and service requirements.

Sincerely,

  
Jill B. Henes, Ph.D.  
Vice President of Technical Services

and   
Joel Bird  
Project Manager

JB:ds

cc: Joel Bird, President

File



ETX000172403

600W North Market Boulevard • Sacramento, CA 95834 • Phone (916) 923-0840 • FAX (916) 923-1938

## ANALYTICAL METHODOLOGY

BTEX (Benzene, Toluene, Ethyl Benzene, and Xylenes) by Purge & Trap and GC-PID

WATER - Method 602 or 8020

A 5 ml sample volume, or 5 ml of a suitable dilution, is purged on a suitable purge and trap system with helium. The purged sample is analyzed on a Gas Chromatograph equipped with a Photoionization Detector (PID). A packed column is used to separate the compounds.

SOIL - Method 8020

A 10 gram, or other appropriate aliquot of soil, is weighed into a clean VOA vial. Soils received in brass core tubes are sampled by discarding 2-5 centimeters of soil from each end of the tubes (this is done to reduce the possibility of analyzing a portion of soil that has been exposed to sampling technique contamination). Equal aliquots of soil are then removed from each end of the tube and combined in the VOA vial. Soil in jars or bags is aliquoted using a similar technique, which discards exposed sample surfaces. A 10 ml, or other appropriate volume of methanol, is added to the soil and the soil is shaken with the solvent. 100 ul of the extract, or a reduced aliquot or volume of a suitable dilution, is injected into 5 ml of laboratory blank water and analyzed by the same technique used for water samples.



ETX000172404

CHEMWEST ANALYTICAL LABORATORIES, INC.

CHEMWEST ANALYTICAL LABORATORIES  
BENZENE, TOLUENE, ETHYL BENZENE, XYLENES

Client I.D.: 6B  
Date(s) Analyzed: 07/05/88  
thru : 07/05/88

CHEMWEST I.D.: 1802 -1  
Matrix : Water

Compound	Amount Detected (ug/L)	RL (ug/L)
Benzene	BRL	0.5
Toluene	BRL	1
Ethyl Benzene	BRL	2
Total-Xylenes (1)	5.0	1

Surrogate	% Recovery	Acceptance Window
ortho-Chlorotoluene	106%	50-150%

BRL: Below Reporting Limit.  
RL: Reporting Limit.

(1): Total of P-, M-, and O- Xylenes.

Approved by: SP



ETX000172405

CHEMWEST ANALYTICAL LABORATORIES, INC.

REV2:1.88

CHEMWEST ANALYTICAL LABORATORIES  
 BENZENE, TOLUENE, ETHYL BENZENE, XYLENES

Client I.D.: 6C  
 Date(s) Analyzed: 07/05/88  
 thru : 07/05/88

CHEMWEST I.D.: 1802-2  
 Matrix : Water

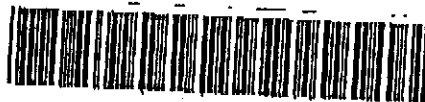
Compound	Amount Detected (ug/L)	RL (ug/L)
Benzene	7400	0.5
Toluene	170	1
Ethyl Benzene	7.1	2
Total-Xylenes (1)	2300	1

Surrogate	% Recovery	Acceptance Window
ortho-Chlorotoluene	91%	50-150%

BRL: Below Reporting Limit.  
 RL: Reporting Limit.

(1): Total of P-, M-, and O- Xylenes.

Approved by: HP



ETX000172406

REV2:1.88

CHEM WEST ANALYTICAL LABORATORIES, INC.  
600 West North Market Blvd.  
Sacramento, California 95834  
(916) 923-0840 FAX (916) 923-1938

Order No. 1802  
Date Rec'd. 6/27/88 @ 1045  
Compl. Date \_\_\_\_\_  
Section Joel Bird

CLIENT: HARDING LANSON ASSOCIATES Project Name: TEXACO SLL6  
1355 WILLOW WAY Project No. 225105203  
SUITE 109 P.O. NO. \_\_\_\_\_  
CONCORD, CA 94520 Contact: GREG FARIANO  
Phone: (415) 687-9660

ANALYSIS: Two (2) water samples received under  
chain of custody in duplicate in  
40ml vva vials (4) to be analyzed  
for BTEX.

\*NOTE: Sample I.D.: 6B (1) vva vial broken  
upon received and chain of custody does not  
note analysis.

Sample I.D.	Loc.	Time	DATE	ANALYSIS	Matrix	Container
1802-1	6B	MV-2 Site	1610	6/24/88	BTEX	Water 1-40ml vva vial
-2	6C	MV-3 Site	1600	6/24/88	BTEX	Water 2-40ml vva vial

\*NOTE: SEVEN (7) DAY TURN AROUND

GC  
MJ - Martina Jarvis



CHEMWEST  
COURIER

SAMPLE WILL BE HELD 30 DAYS UNLESS LONGER TIME IS ARRANGED







July 11, 1988

Harding & Lawson Associates  
1355 Willow Way, Suite 109  
Concord, CA 94520

Attention: Greg Fasiano

Subject: Report of Data - Case Number 1838

Dear Mr. Fasiano:

The technical staff at CHEMWEST is pleased to provide our report for the analysis you requested: BTEX - EPA Method 602.

One water samples for Project Texaco SL 6, Project Number 225105204, was received July 1, 1988 in good condition. Results of the analysis, along with the analytical methodology and appropriate reporting limits, are presented on the following pages.

Thank you for choosing CHEMWEST Laboratories. Should you have questions concerning this data report or the analytical methods employed, please do not hesitate to contact either Margie Namba, our Sales Representative or your Project Manager. We hope that you will consider CHEMWEST Laboratories for your future analytical support and service requirements.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jill B. Henes for".

Jill B. Henes, Ph. D.  
Vice President of Technical Services

and

A handwritten signature in cursive script, appearing to read "Joel Bird".

Joel Bird  
Project Manager

JB:mc

cc: File



ETX000172409

600W North Market Boulevard • Sacramento, CA 95834 • Phone (916) 923-0840 • FAX (916) 923-1938

## ANALYTICAL METHODOLOGY

BTEX (Benzene, Toluene, Ethyl Benzene, and Xylenes) by Purge & Trap and GC-PID

WATER - Method 602 or 8020

A 5 ml sample volume, or 5 ml of a suitable dilution, is purged on a suitable purge and trap system with helium. The purged sample is analyzed on a Gas Chromatograph equipped with a Photoionization Detector (PID). A packed column is used to separate the compounds.

SOIL - Method 8020

A 10 gram, or other appropriate aliquot of soil, is weighed into a clean VOA vial. Soils received in brass core tubes are sampled by discarding 2-5 centimeters of soil from each end of the tubes (this is done to reduce the possibility of analyzing a portion of soil that has been exposed to sampling technique contamination). Equal aliquots of soil are then removed from each end of the tube and combined in the VOA vial. Soil in jars or bags is aliquoted using a similar technique, which discards exposed sample surfaces. A 10 ml, or other appropriate volume of methanol, is added to the soil and the soil is shaken with the solvent. 100 ul of the extract, or a reduced aliquot or volume of a suitable dilution, is injected into 5 ml of laboratory blank water and analyzed by the same technique used for water samples.



ETX000172410

**CHEMWEST ANALYTICAL LABORATORIES**  
**BENZENE, TOLUENE, ETHYL BENZENE, XYLENES**

Client I.D.: 6-A  
 Date(s) Analyzed: 7/07/88  
 thru : 7/08/88

CHEMWEST I.D.: 1838  
 Matrix : Water

Compound	Amount Detected (ug/L)	RL (ug/L)
Benzene	BRL	0.5
Toluene	BRL	1
Ethyl Benzene	BRL	2
Total-Xylenes (1)	BRL	1

Surrogate	% Recovery	Acceptance Window
ortho-Chlorotoluene	150%	50-150%

BRL: Below Reporting Limit.  
 RL: Reporting Limit.

(1): Total of P-, M-, and O- Xylenes.

Approved by:     *W*    



ETX000172411

REV2:1.88

CHEM WEST ANALYTICAL LABORATORIES, INC.  
600 West North Market Blvd.  
Sacramento, California 95834  
(916) 923-0840 FAX (916) 923-1938

# CLIENT

Order No. 1838  
Date Rec'd. 7/1/88 @ 1740  
Compl. Date \_\_\_\_\_  
Section Joel Bird

CLIENT: Harding Lawson Associates  
1355 Willow Way  
Suite 109  
Concord, CA 94520

Project Name: TEXACO SL 6  
Project No. 225105204  
P.O. NO. \_\_\_\_\_  
Contact Greta Fasiano / Steve Osborne  
Phone (415) 687-9660

ANALYSIS: One (1) water sample received under  
claim of custody in 40ml voa vial (2)  
duplicated, to be analyzed for BTEX

Sample ID	Time Rec.	Loc.	Date	Analysis	Matrix	Container
1838-6-A	1030	MH-1	SL6	6/28/88	BTEX	Water 2-40ml voa vial

\*NOTE: SEVEN (7) DAY TURN AROUND TIME

GC  
RT - Martina Jarvis



CHEM WEST  
COURIER

ETX000172412

SAMPLE WILL BE HELD 30 DAYS UNLESS LONGER TIME IS ARRANGED



Harding Lawson Associates  
 1355 Willow Way, Suite 109  
 Concord, California 94520  
 415/687-9660  
 Telecopy: 415/687-9673

# CHAIN OF CUSTODY FORM

Lab: Chem West

Job Number: 2251 052 04

Samplers: Patricia L...

Name/Location: Travis St 6

Recorder: [Signature]  
 (Signature Required)

Project Manager: Greg...

SOURCE CODE	MATRIX				#CONTAINERS & PRESERV.				SAMPLE NUMBER OR LAB NUMBER			DATE				
	Water	Sediment	Soil	Oil	Unpres.	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCL/10A	Yr	Wk	Seq	Yr	Mo	Dy	Time	
23	X						2	6	A			8	8	06	28	1030

STATION DESCRIPTION/NOTES
7 DAY Turn-around

ANALYSIS REQUESTED										
EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pknt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.				

LAB NUMBER			DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
Yr	Wk	Seq				

CHAIN OF CUSTODY RECORD		
RELINQUISHED BY: (Signature) <u>[Signature]</u>	RECEIVED BY: (Signature) <u>[Signature]</u>	DATE/TIME 7/2/88 1510
RELINQUISHED BY: (Signature) <u>[Signature]</u>	RECEIVED BY: (Signature) <u>[Signature]</u>	DATE/TIME 7/2/88 1740
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) <u>[Signature]</u>	DATE/TIME	RECEIVED FOR LAB BY: (Signature) <u>[Signature]</u>
METHOD OF SHIPMENT CHEMWEST COURIER		

ETX000172413





July 19, 1988

Harding & Lawson  
1355 Willow Way, Suite 109  
Concord, CA 94520

Attention: Mr. Steve Osborne

Subject: Report of Data - Case Number 1899

Dear Mr. Osborne:

The technical staff at CHEMWEST is pleased to provide our report for the analysis you requested: BTEX - EPA Method 602.

One water sample for Project Texaco - Station #6, Project Name 2251,052.04 was received June 12, 1988 in good condition. Results of the analysis, along with the analytical methodology and appropriate reporting limits, are presented on the following page(s).

Thank you for choosing CHEMWEST Laboratories. Should you have questions concerning this data report or the analytical methods employed, please do not hesitate to contact Margie Namba, our sales representative or your project manager. We hope that you will consider CHEMWEST Laboratories for your future analytical support and service requirements.

Sincerely,

*Jill B. Henes*  
Jill B. Henes, Ph.D.  
Vice President of Technical Services

and *Joel Bird*  
Joel Bird  
Project Manager

JB:rbh

cc: File



ETX000172414

600W North Market Boulevard • Sacramento, CA 95834 • Phone (916) 923-0840 • FAX (916) 923-1938

ANALYTICAL METHODOLOGY

BTEX (Benzene, Toluene, Ethyl Benzene, and Xylenes) by Purge & Trap and GC-PID

WATER - Method 602 or 8020

A 5 ml sample volume, or 5 ml of a suitable dilution, is purged on a suitable purge and trap system with helium. The purged sample is analyzed on a Gas Chromatograph equipped with a Photoionization Detector (PID). A packed column is used to separate the compounds.

SOIL - Method 8020

A 10 gram, or other appropriate aliquot of soil, is weighed into a clean VOA vial. Soils received in brass core tubes are sampled by discarding 2-5 centimeters of soil from each end of the tubes (this is done to reduce the possibility of analyzing a portion of soil that has been exposed to sampling technique contamination). Equal aliquots of soil are then removed from each end of the tube and combined in the VOA vial. Soil in jars or bags is aliquoted using a similar technique, which discards exposed sample surfaces. A 10 ml, or other appropriate volume of methanol, is added to the soil and the soil is shaken with the solvent. 100 ul of the extract, or a reduced aliquot or volume of a suitable dilution, is injected into 5 ml of laboratory blank water and analyzed by the same technique used for water samples.



ETX000172415



CHEMWEST ANALYTICAL LABORATORIES  
 BENZENE, TOLUENE, ETHYL BENZENE, XYLENES

Client I.D.: TEX-006-D-1 & 2  
 Date(s) Analyzed: 07/13/88

CHEMWEST I.D.: 1899-1  
 Matrix : Water

Compound	Amount Detected (ug/L)	RL (ug/L)
Benzene	220	5.0
Toluene	27	10
Ethyl Benzene	BRL	20
Total-Xylenes (1)	BRL	10

Surrogate	% Recovery	Acceptance Window
ortho-Chlorotoluene	*	50-150%

BRL: Below Reporting Limit.  
 RL: Reporting Limit.

(1): Total of P-, M-, and O- Xylenes.  
 \*: Matrix interference.

Approved by: 



ETX000172416

CHEMWEST ANALYTICAL LABORATORIES, INC.

REV2:1.88

CHEM WEST ANALYTICAL LABORATORIES, INC.  
600 West North Market Blvd.  
Sacramento, California 95834  
(916) 923-0840 FAX (916) 923-1938

Order No. 1899  
Date Rec'd. 7/12/88  
Compl. Date 7/14/88  
Section Joel Bird

# CLIENT

CLIENT: Harding & Woodcock Assoc.  
1355 Willow Way Suite 109  
Concord, CA 94520

Project Name: Texaco Station #10  
Project No. 2251,052 04  
P.O. NO. \_\_\_\_\_  
Contact Steve Osborne  
Phone (415) 2087-9600

ANALYSIS: one water sample rec'd. under chain of  
custody in 40ml vial (2) to be analyzed for  
BTEX (7 day turnaround)

sample Id	DATE	TIME	MATRIX	CONTAINER
1899 Tex-co-D-1+2	7/11/88	1300	WATER	2-40ml vials

GC

M.T. MICHELLE TOLVER



ETX000172417

Chem West Courier

SAMPLE WILL BE HELD 30 DAYS UNLESS LONGER TIME IS ARRANGED



Harding Law Firm Association  
 1555 Lincoln Way North  
 Concord, California 94520  
 415/687-9660  
 Telecopy: 415/687-9673

# CHAIN OF CUSTODY FORM

Lab: Chapman

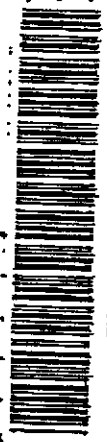
Job Number: 2251 052.04  
 Name/Location: TEXACO - Station # 6  
 Project Manager: \_\_\_\_\_

Samplers: David R. Hoar  
 Recorder: David R. Hoar  
 (Signature Required)

SOURCE CODE	MATRIX				#CONTAINERS & PRESERV.				SAMPLE NUMBER OR LAB NUMBER			DATE			
	Water	Sediment	Soil	Oil	Unpres.	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	VDA	HCL	Yr	Wk	Seq	Yr	Mo	Dy
23	X							XX		TX	00601	88	07	11	1300
23	X							XX		TX	00602	88	07	11	1306

STATION DESCRIPTION/NOTES  
7 day Turnaround

ANALYSIS REQUESTED										
EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 825/8270	Priority Plltnt. Metals	Benzene/Toluene/Xylene & P	Total Petrol. Hydrocarb.				
				X	X					



PT4217000X12  
 87X00017241A

LAB NUMBER	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS

CHAIN OF CUSTODY RECORD		
RELINQUISHED BY: (Signature) <u>David R. Hoar</u>	RECEIVED BY: (Signature) <u>Thomas White</u>	DATE/TIME <u>7/2/88 1430</u>
RELINQUISHED BY: (Signature) <u>Thomas White</u>	RECEIVED BY: (Signature)	DATE/TIME <u>7/12/88 1745</u>
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature)	DATE/TIME	RECEIVED FOR LAB BY: (Signature) <u>Michelle Joliver</u>
METHOD OF SHIPMENT		

**ATTACHMENT C**

**METROSCAN PROPERTY PROFILE FROM  
FIRST AMERICAN TITLE COMPANY,  
ALAMEDA, CALIFORNIA**

**= METROSCAN PROPERTY PROFILE =**  
**Alameda (CA)**

**OWNERSHIP INFORMATION**

Parcel Number : 008 0659 002 01  
 Owner : Truong Lam H  
 CoOwner :  
 Site Address : 2225 Telegraph Ave Oakland 94612  
 Mail Address : 2225 Telegraph Ave Oakland Ca 94612  
 Owner Phone : 510-835-1232  
 Tenant Phone :

**SALES AND LOAN INFORMATION**

Transferred	: 06/01/2001	Loan Amount	: \$705,500
Document #	: 186312	Lender	: General Electric Cap Busn Asse
Sale Price	:	Loan Type	: Conventional
Deed Type	: Interspousal	Interest Rate	: Fixed
% Owned	: 100	Vesting Type	: Sole And Separ

**ASSESSMENT AND TAX INFORMATION**

Land	: \$519,180	Exempt Type	:
Structure	: \$76,500	Exempt Amount	:
Other	:	Incorporated	: Yes
Total	: \$595,680	Tax Rate Area	: 17022
% Improved	: 13	01-02 Taxes	: \$12,388.42

**PROPERTY DESCRIPTION**

Map Grid : 649 G3  
 Census : Tract : 4028.00 Block : 1  
 Land Use : 850 Com,Service Stations

**PROPERTY CHARACTERISTICS**

TotalRms	:	Pool	:	Lot Acres	: .36	Bldg Matl	: Other
Bedrooms	:	Units	: 1	Lor SqFt	: 15,893	Bldg Shape	:
Bathrooms	:	Bldg Num	: 1	Bldg SqFt	: 1,731	Bldg Class	: 7.0
Stories	: 1	Elevator	:	Year Blt	:	View Qual	:
Unit Flr	:	Garage	:	Eff YrBlt	: 1964	Topography	:

*Information compiled from various sources. Real Estate Solutions makes no representations or warranties as to the accuracy or completeness of information contained in this report.*