

ALL ENVIRONMENTAL, INC.

Environmental Engineering & Construction

October 3, 1995
Job No. 1255

Ms. Jennifer Eberle
Alameda County Health Care Services Agency
1131 Harbour Way Parkway, 2nd Floor
Alameda, CA 94502-6577

Subject: **Monitoring Well Installation and First Quarterly Groundwater Sampling
245 8th Street, Oakland, CA.**

Dear Ms. Eberle:

We are enclosing a copy of the referenced report for your review, which presents results of the subsurface investigation and quarterly monitoring at 245 8th Street in Oakland. If you have any questions or comments regarding the findings presented in this report, please call me at (510) 820-3224.

Sincerely,



Jennifer Anderson
Project Manager

cc: Victor Lum

ENVIRONMENTAL
PROTECTION
95 OCT 13 PM 2:35

**SUBSURFACE INVESTIGATION
AND
QUARTERLY GROUNDWATER MONITORING
AND SAMPLING REPORT**

10-3-95

**Vic's Automotive
245 8th Street
Oakland, CA**

Prepared For

**Mr. Victor Lum
245 8th Street
Oakland, California 94607**

Prepared By

**All Environmental, Inc.
2641 Crow Canyon Road, Suite 5
San Ramon, CA 94583**



October 3, 1995

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FIGURE 1 SITE LOCATION MAP

FIGURE 2 SITE PLAN

APPENDIX A PERMITS and NOTIFICATION DOCUMENTS

APPENDIX B BORING and WELL LOGS, and WELL SAMPLING FIELD LOGS

APPENDIX C ANALYTICAL RESULTS

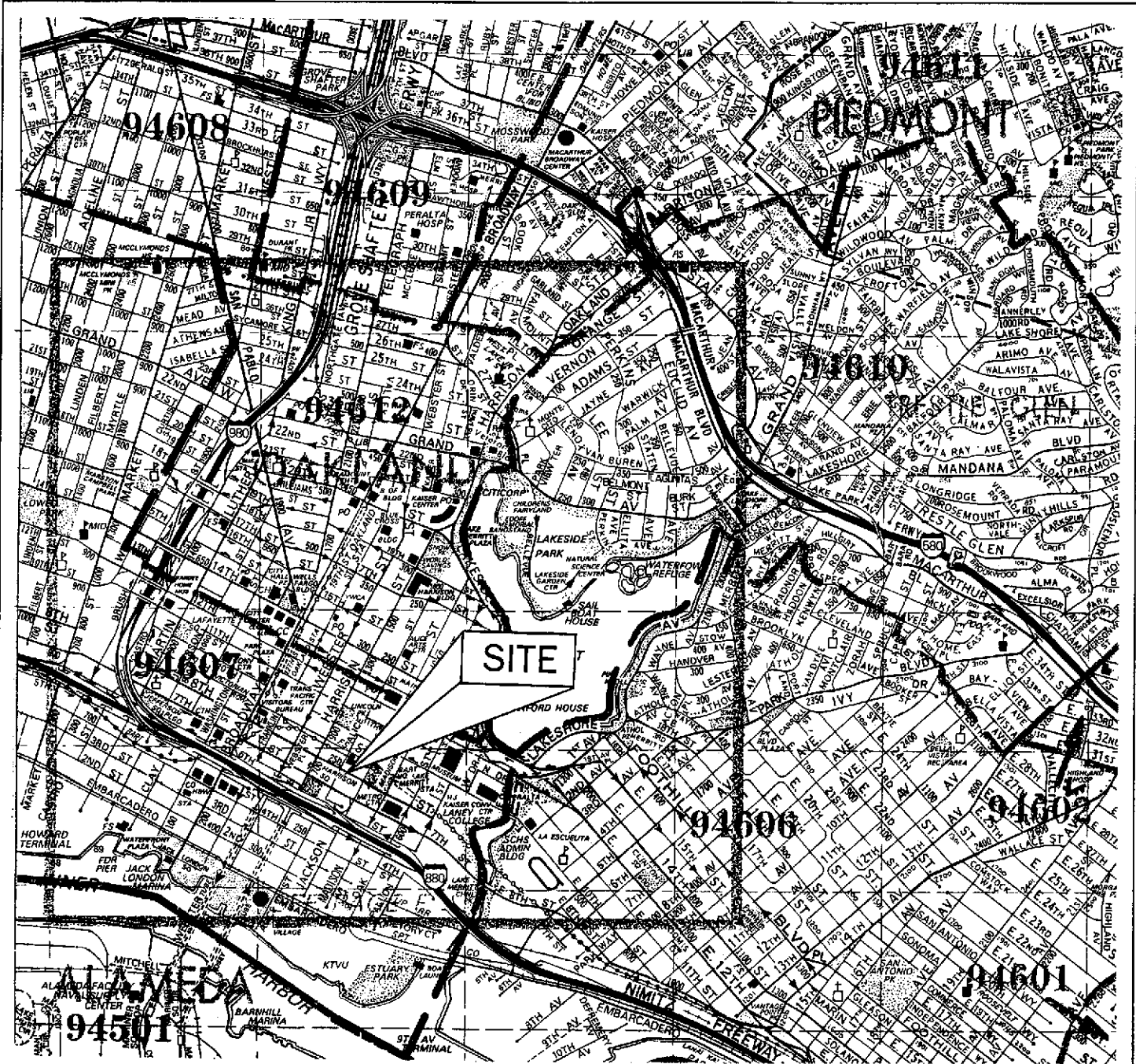
1.0 INTRODUCTION

All Environmental, Inc. (AEI) has prepared this report on behalf of Victor Lum, in response to his request for a soil and groundwater investigation at 245 8th Street in Oakland, California (Figure 1: Site Location Map). The investigation was initiated by the property owner in accordance with the requirements of the Alameda County Health Care Services Agency (ACHCSA), Department of Environmental Health. The investigation was conducted to assess contaminant levels in soil and groundwater following the removal of six underground fuel tanks from the property.

AEI drilled two soil borings and converted each boring into a groundwater monitoring well on July 14, 1995. This subsurface investigation included logging boreholes under the supervision of a Registered Civil Engineer, soil sampling and analyses, well development, and groundwater sampling and analyses. Prior to drilling, a work plan compiled by AEI was approved by Jennifer Eberle, Hazardous Materials Specialist for ACHCSA. A Drilling Permit was obtained from Zone 7 Water Agency, and the property owner was verbally notified.

AEI performed quarterly groundwater monitoring and sampling on July 21, 1995. This phase of work included taking groundwater level measurements in order to establish groundwater flow and gradient at the site, and obtaining and analyzing well water samples in order to establish contaminant levels. In order to measure the groundwater gradient, two off-site wells were surveyed. These wells were installed for a subsurface investigation at a neighboring site by Aqua Science Engineers (ASE).

good!



FROM:
THOMAS BROS. MAPS
1995

ALL ENVIRONMENTAL, INC.		
2641 CROW CANYON ROAD, SAN RAMON		
SCALE: 1" = 1/4 MI	APPROVED BY:	DRAWN BY:
DATE: 3 OCTOBER 95		REVISED:
SITE LOCATION MAP		
245 8TH STREET, OAKLAND		DRAWING NUMBER: FIGURE 1

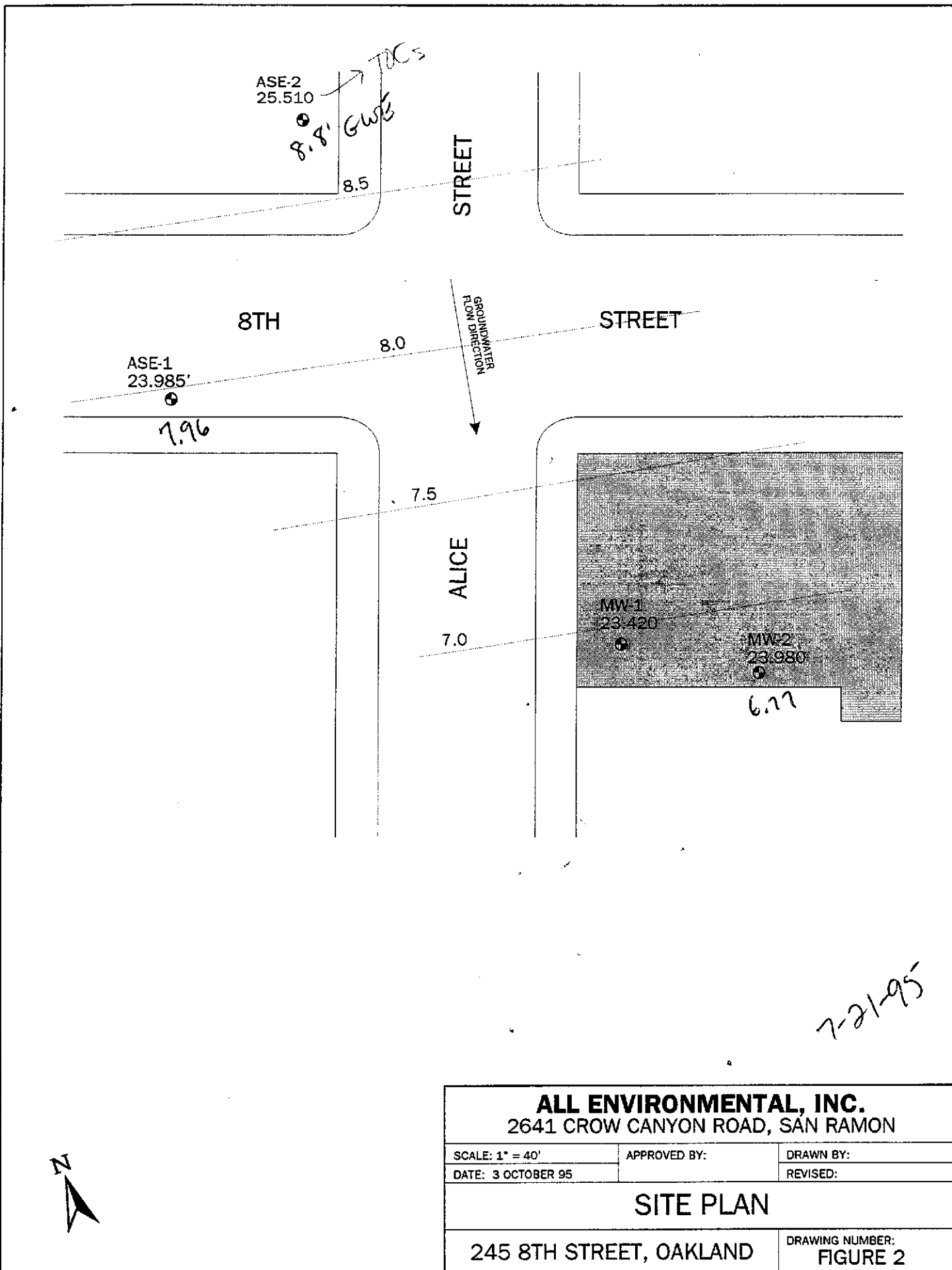
2.0 SITE DESCRIPTION AND BACKGROUND

The site is located in a commercial zone at the corner of 8th Street and Alice Street in Oakland (Figure 1: Site Location Map). The topography of the site is relatively flat, with an elevation of approximately 32 feet. The nearest significant surface water is Lake Merritt, located approximately 2200 feet to the northeast, and the Alameda Inner Harbor located about 2400 feet to the south-southwest. The narrow waterway connecting Lake Merritt with the Inner Harbor lies approximately 2200 feet to the southeast.

One building is located on the property, which contains both an auto repair shop and office for Vic's Automotive. The building is surrounded by an asphalt paved parking lot (Figure 2: Site Plan).

Five underground storage tanks were removed from the site in June, 1993 by AEI. The tanks consisted of four 1,000-gallon gasoline tanks, and one 250-gallon waste oil tank. Prior to removal, approximately 425 gallons of waste product were pumped from the tanks. Two additional 6,000-gallon gasoline tanks were removed by AEI in August of 1994.

Soils taken from the excavations were found to be contaminated, with as much as 3700 ppm Total Petroleum Hydrocarbons (TPH) as gasoline in stockpiled soil, and 160 ppm TPH-gasoline in soils taken from the bottom of one of the excavations. There is a known source of hydrocarbon contamination of groundwater across the intersection from the site, in an upgradient direction. The excavations were backfilled with clean import material.



ALL ENVIRONMENTAL, INC.
 2641 CROW CANYON ROAD, SAN RAMON

SCALE: 1" = 40'

APPROVED BY:

DRAWN BY:

DATE: 3 OCTOBER 95

REVISED:

SITE PLAN

245 8TH STREET, OAKLAND

DRAWING NUMBER:
FIGURE 2

7-21-95

ASE-2
 25.510
 8.8' GWB
 TDC's

ASE-1
 23.985'

7.96

8.0

GROUNDWATER
 FLOW DIRECTION

7.5

ALICE

7.0

MW-1
 23.420

MW-2
 23.980

6.77

STREET

STREET

8TH



3.0 PERMITS

Drilling permit number 95462 was obtained from the Alameda County Flood Control and Water Conservation District (Zone 7) for the installation of the groundwater monitoring wells. Mr. Craig A. Mayfield, Water Resources Engineer III approved the permit for the District. The drilling permit is included in Appendix A.

4.0 GEOLOGY AND HYDROGEOLOGY

Soil boring logs recorded on-site by one of AEI's geologists are included in Appendix B. According to the logs, the near-surface geology of the site consisted of gravelly or clayey sand from the surface to about 28 feet below ground surface.

Groundwater was first encountered in sand-bearing soil during drilling at a depth of about 15 feet below ground surface. Refer to Appendix B for the Groundwater Monitoring Well Field Sampling Forms. Water level measurements made during the first quarterly groundwater monitoring and sampling episode of July 21, 1995 indicated that the static water was at about 7 feet below ground surface in MW-2. Approximately 2 feet of free floating product was discovered in MW-1. Groundwater level measurements were collected from wells installed by ASE at a neighboring site. The groundwater flow based on these measurements is nearly due south, and the gradient is at approximately 0.01 foot per foot. The water level elevations used in arriving at the groundwater gradient and flow direction are shown in Figure 2, Site Plan, and are summarized in the table below:

↓
7-95

Table 1 - Water Level Measurements - July, 1995

7-21-95

Well	Depth to Water (feet)	Top of Casing Elevation (feet)	Groundwater Elevation (feet)
MW-2	17.21	23.980	6.77
ASE-1	16.02	23.985	7.965
ASE-2	16.71	25.510	8.80

5.0 SOIL BORINGS

On July 14, 1995, two soil borings were advanced and converted into monitoring wells MW-1 and MW-2 at the locations shown in Figure 2. A Mobile B-61 hydraulic stem rotary drill with 6.25" I.D./10.5" O.D. hollow stem augers was used to drill the borings. The borings were drilled to a depth of 28 feet below ground surface. Boring logs were maintained during drilling by one of AEI's geologists using the Unified Soil Classification System. Boring logs are presented in Appendix B.

Undisturbed soil samples were obtained with a hammer-driven California Modified split spoon sampler. The sampler, containing two-inch diameter brass sample tubes, was advanced ahead of the auger tip by successive hammer blows. Soil samples were collected at approximately 5 foot intervals in each of the borings.

Cuttings generated during drilling were stored on-site in 55 gallon drums. On-site treatment or off-site disposal of contaminated drill cuttings is not a part of this work scope. It is likely that a licensed hauler will be contracted to transport the soils as non-hazardous waste, under

appropriate manifests, to a local landfill facility. The costs associated with disposal of the soils will depend on the nature and degree of contamination of the soil.

6.0 WELL CONSTRUCTION

The two soil borings were drilled and converted into monitoring wells at the locations shown in Figure 2. BH-1 was converted to MW-1 and BH-2 was converted to MW-2. MW-1 was constructed with 8 feet of 4" flush threaded blank Schedule 40 PVC blank casing, and 20 feet of .020" factory-slotted well screen that was installed through the hollow auger. MW-2 was constructed with 8 feet of 2" flush threaded blank Schedule 40 PVC blank casing, and 20 feet of .020" factory-slotted well screen. The blank casing extends from about 0.5 feet to 8.0 feet below ground surface in both wells. The slotted casing extends from 8.0 feet to near the total depth of the borings of 28.0 feet. The well screen was fitted with a flush-threaded bottom cap. No. 3 Monterey sand was poured through the auger to form a sand pack from the total depth of 28.0 feet to 6.0 feet below ground surface (2 feet above the slotted well screen). Approximately 1 foot of bentonite pellets were placed above the sand and hydrated with tap water. The remainder of the boring was filled to about 0.5 feet below grade with neat cement grout. A flush mounted traffic rated well box was installed over the casing, and an expanding, locking water tight inner cap was placed on the casing top (refer to Appendix B).

7.0 SOIL SAMPLING

Soil samples were collected for chemical analyses to assess the extent of any contamination in soil resulting from unauthorized releases of petroleum hydrocarbons. The soil samples were submitted for chemical analyses for Total Petroleum Hydrocarbons as gasoline (TPHg),

Benzene, Toluene, Ethylbenzene, and Xylene (BTEX), and Total Lead to a California State Certified Laboratory, Priority Environmental Labs of Milpitas, California. The two samples from boring BH-2 were also submitted for Total Oil & Grease (TOG) analysis.

Soil sampling equipment was decontaminated prior to each use with a TSP solution and rinsed with tap water in plastic buckets. The drill rig and augers were steam-cleaned prior to drilling and on-site before departure. Decontamination water was placed into labeled drums for proper disposal.

Soil samples were sealed using aluminum foil, Teflon caps and duct tape. The samples were put in an ice chest containing ice and transported under chain of custody procedures for submittal to Priority Environmental Labs, Inc., of Milpitas, California, a California State Certified Laboratory.

8.0 WELL DEVELOPMENT AND SAMPLING

Monitoring well MW-2 was developed by surging twice and bailing well water into a DOT 17H drum until the water appeared to be reasonably clear with a minimum of 5 well volumes removed. The bailed water was turbid at first, but became nearly clear by the end of the well development. The water level returned to a static level in a few minutes. The Groundwater Well Sampling Field Log is included in Appendix B.

Sampling was performed on July 21, 1995, about 72 hours following well development, to allow the wells to recharge at or near one-hundred percent. Groundwater was checked for sheen and free product prior to purging and sampling. Floating product was observed in MW-1. The thickness of the product was measured at 2.22 feet using an oil-water interface meter. No

floating product was observed in MW-2; however, a sheen was present on groundwater samples collected from the well. The MW-2 samples were taken using a clean disposable bailer. Water was poured from the bailer into amber liter bottles and 40 ml VOA vials and capped so that no head space or visible air bubbles were within the sample containers. The samples were labeled and placed on ice in an ice chest for transportation to Priority Environmental Labs under chain of custody protocol for analysis. No water samples were collected from MW-1 due to the presence of free floating product.

9.0 ANALYTICAL RESULTS OF SAMPLES

All environmental soil and water samples were analyzed at a California State Certified Laboratory, Priority Environmental Labs of Milpitas, California. A total of four soil samples, two from each boring, were submitted for chemical analyses. Soil samples collected from 6.0 feet and 11.0 feet below ground surface in each boring were analyzed. All soil samples were analyzed for TPHg, BTEX and Total Lead. The two soil samples obtained from BH-2 were also analyzed for TOG. Laboratory results and chain of custody documents are included in Appendix B. Soil samples collected from BH-1 and BH-2 indicated TPHg concentrations ranging from non-detect (ND) to 390 ppm. Benzene was present in the soil at concentrations between ND and 300 ppb. TOG was present in soil samples collected from BH-2 at concentrations ranging from 24 ppm to 38 ppm. Analytical results of soil samples are presented in the table below:

depths?

Table 2 - Soil Analyses

Sample Number	TPHg mg/Kg	Benzene ug/Kg	Toluene ug/Kg	Ethyl-benzene ug/Kg	Xylene ug/Kg	Total Lead mg/Kg	Total Oil & Grease mg/Kg
BH-1 (S-2)	390	280	290	250	620	3.0	NA
BH-1 (S-3)	370	240	240	230	610	2.6	NA
BH-2 (S-2)	ND	ND	ND	ND	ND	1.2	24
BH-2 (S-3)	390	300	230	240	630	3.0	38

5520

24

38

NA

NA

11'

16'

11'

16'

mg/Kg = ppm

ug/Kg = ppb

ND = Not Detected

NA = Not analyzed

Water samples were collected from MW-2 and analyzed for TPHg, BTEX, TOG and Total Lead. Laboratory results and chain of custody documents are included in Appendix C. Up to 68,000 ppb of TPHg was discovered in the water samples collected from MW-2. Benzene was present at concentrations of up to 480 ppb. Analytical results of the water sample analyses are presented below in table form:

7-21-95

Table 3 - Water Analyses, July, 1995

Sample Number	TPHg ug/L	Benzene ug/L	Toluene ug/L	Ethyl-benzene ug/L	Xylene ug/L	Total Lead mg/L	Total Oil & Grease mg/L
MW-2	68000	480	240	110	350	N.D.	0.6

5520

mg/Kg = ppm

ug/Kg = ppb

ND = Not Detected

NA = Not analyzed

10.0 CONCLUSIONS AND RECOMMENDATIONS

AEI conducted a soil and groundwater investigation on June 22, 1995, beginning with the advancement of two soil borings in order to determine the presence of contamination in soil and groundwater beneath the site. The two soil borings were converted to groundwater monitoring wells. Analyses of soil samples collected from the borings indicated up to 390 ppm TPHg, 300 ppb Benzene, 290 ppb Toluene, 250 ppb Ethylbenzene, 630 ppb Xylene and 38 ppm Total Oil & Grease present.

Approximately 2 feet of free floating product was measured in MW-1. No water samples were collected from MW-1 due to the presence of free floating product. Samples obtained from MW-2 indicated concentrations of 68,000 ppb TPHg and 480 ppb Benzene present in the groundwater.

All Environmental recommends the manually bailing free floating product from MW-1 to occur every two weeks. Quarterly well monitoring for MW-2 should be continued for a period of at least one year. The next quarterly sampling will be conducted in October, 1995.

11.0 REPORT LIMITATIONS

This report presents a summary of work completed by All Environmental, Inc., including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide required information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses, observations, and governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

AEI warrants that all services were performed in accordance with the generally accepted practices in the environmental engineering and construction field which existed at the time and location of the work.



ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588

VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT

245 8th Street
Oakland, CA 94607

PERMIT NUMBER 95462
LOCATION NUMBER

CLIENT

Name Victor Lum
Address 245 8th Street Voice (510) 832-9014
City Oakland Zip 94607

PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT

Name All Environmental, Inc.
Jennifer Anderson Fax (510) 838-2687
Address 2641 Crow Canyon Voice (510) 820-3224
City Rd., Suite 5 Zip 94583
San Ramon

A. GENERAL

1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

TYPE OF PROJECT

Well Construction	_____	Geotechnical Investigation	_____
Cathodic Protection	_____	General	_____
Water Supply	_____	Contamination	_____
Monitoring	<u> x </u>	Well Destruction	_____

PROPOSED WATER SUPPLY WELL USE

Domestic	_____	Industrial	_____	Other	_____
Municipal	_____	Irrigation	_____		

FILLING METHOD:

Mud Rotary	_____	Air Rotary	_____	Auger	<u> x </u>
Cable	_____	Other	_____		

DRIILLER'S LICENSE NO. 485165

WELL PROJECTS

Drill Hole Diameter	<u> 8.25 </u> in.	Maximum	
Casing Diameter	<u> 2.4 </u> in.	Depth	<u> 35 </u> ft.
Surface Seal Depth	<u> 5 </u> ft.	Number	<u> 3 </u>

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum	
Hole Diameter	_____ in.	Depth	_____ ft.

ESTIMATED STARTING DATE 7/13/95

ESTIMATED COMPLETION DATE 7/13/95

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

Approved Wyman Hong Date 26 Jul 95
Wyman Hong

APPLICANT'S SIGNATURE J. Anderson Date 7/6/95

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF
ENVIRONMENTAL HEALTH
Hazardous Materials Inspection Form

1131 Harbor Bay Pkwy
Alameda CA 94502
510/567-6700

II, III

Site ID # _____ Site Name Vic Lum / Rino Today's Date 7,14,95
Site Address 245-8th St.
City Oakland Zip 94607 Phone _____

____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

- ____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
____ II. Hazardous Materials Business Plan, Acutely Hazardous Materials
____ III. Under ground Storage Tanks

drilling wells

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments:

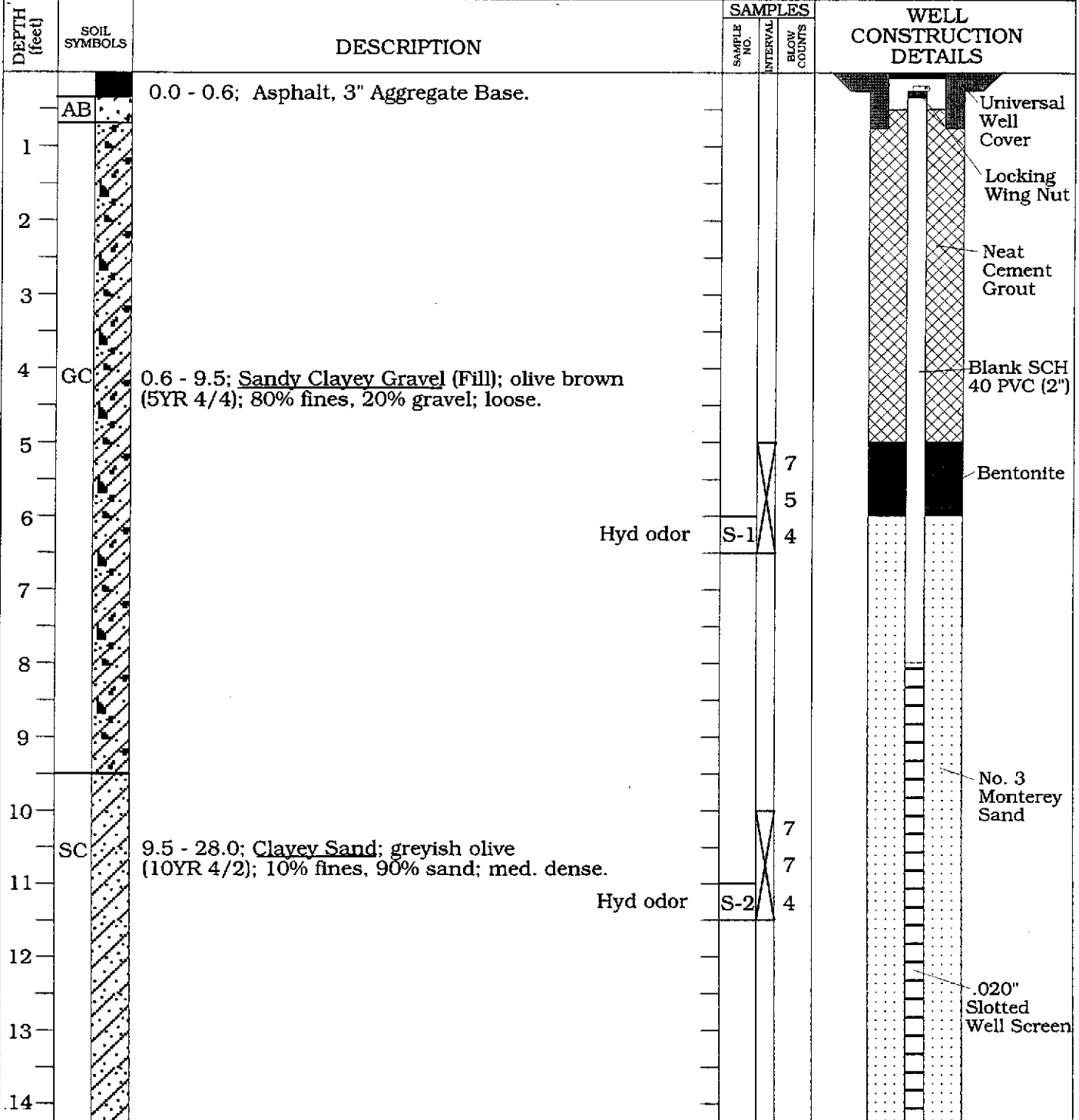
11:30 arrived on site. MW1 (4" RW) is already drilled, but not yet grouted. General said MW1 soil appeared very contaminated; 1st water was at ~15' bgs. MW2 (near waste oil UST) had an odor at ~10' bgs, + 1st water was at ~15' bgs.
11:45, grouted MW1
Wells are properly placed.

Contact Jennifer Anderson
Title Project Manager
Signature J. Anderson

Inspector J. Sberle
Signature J. Sberle

II, III

PROJECT: LUM #1255		LOG OF WELL NUMBER: MW-1	
BORING LOC.: IN LOCATION OF FORMER 6,000 GALLON GASOLINE TANK		ELEVATION, TOC: 23.420	
DRILLING CONTRACTOR: GREGG DRILLING		START DATE: 7/14/95	END DATE: 7/14/95
DRILLING METHOD: HOLLOW STEM AUGER		TOTAL DEPTH: 28'	SCREEN INT: 8-28'
DRILLING EQUIPMENT: MOBILE B-61		DEPTH TO WATER: 17'	CASING: 4" PVC
SAMPLING METHOD: 2" DRIVE SAMPLER		LOGGED BY: JSA	
HAMMER WEIGHT and FALL: 140 lb, 30"		RESPONSIBLE PROFESSIONAL: MCP	

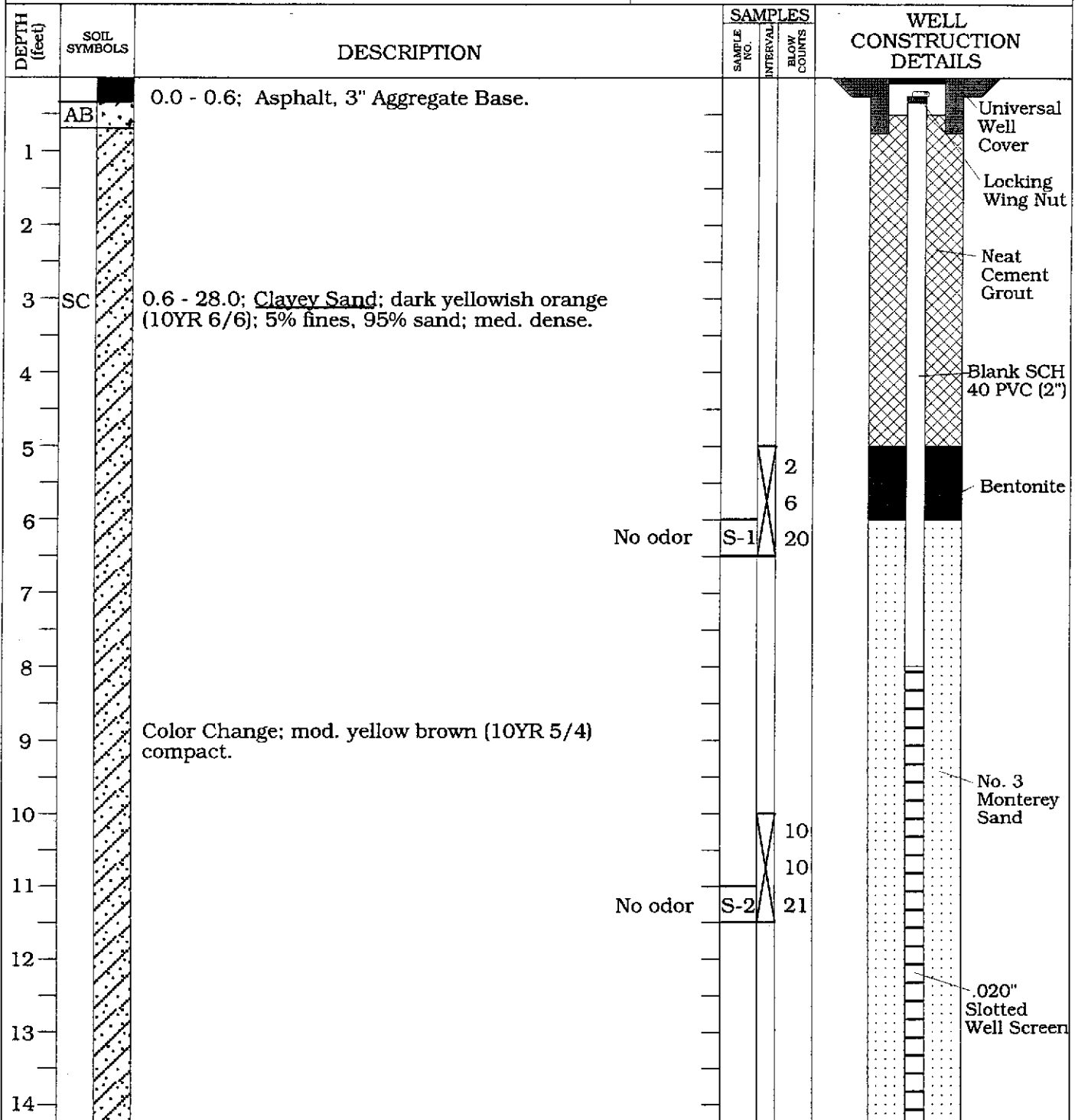


PROJECT: LUM #1255

LOG OF BOREHOLE: MW-1

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES		WELL CONSTRUCTION DETAILS
			SAMPLE NO.	INTERVAL BLOW COUNTS	
15	SC	9.5 - 28.0; <u>Clayey Sand</u> (cont.)			
16		Color Change; light olive brown (5YR 5/6); compact, moist.			
17		Hyd odor	S-3	4 11 24	
18					
19					
20		Same.			
21			S-4	17 19 31	
22					
23					
24					
25					
26					
27					
28		Terminated at 28.0'			End Cap
29					
30					
31					

PROJECT: LUM #1255		LOG OF WELL NUMBER: MW-2	
BORING LOC.: SOUTH OF FORMER WASTE OIL TANK		ELEVATION, TOC: 23.980	
DRILLING CONTRACTOR: GREGG DRILLING		START DATE: 7/14/95	END DATE: 7/14/95
DRILLING METHOD: HOLLOW STEM AUGER		TOTAL DEPTH: 28'	SCREEN INT: 8-28'
DRILLING EQUIPMENT: MOBILE B-61		DEPTH TO WATER: 18'	CASING: 4" PVC
SAMPLING METHOD: 2" DRIVE SAMPLER		LOGGED BY: JSA	
HAMMER WEIGHT and FALL: 140 lb, 30"		RESPONSIBLE PROFESSIONAL: MCP	



DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES			WELL CONSTRUCTION DETAILS	
			SAMPLE NO.	INTERVAL	BLOW COUNTS		
15	SC	0.6 - 28.0; <u>Clayey Sand</u> (cont.)					
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							End Cap
29			Terminated at 28.0'				
30							
31							

Hyd odor

S-3

5
9
19

Same.

Terminated at 28.0'

End Cap

ALL ENVIRONMENTAL INC. -- GROUNDWATER MONITORING WELL FIELD SAMPLING FORM	
Monitoring Well Number: MW-1	
Project Name	Lum
Job Number	1255
Project Address	245 8th Street
	Oakland, CA
Date of Sampling	7/21/95 ✓
Name of Sampler	Mr. Dusty Roy
MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	4"
Seal at Grade -- Type and Condition	cement/good
Well Cap & Lock -- OK/Replace	lock & expand/good
Elevation of Top of Casing	23.420
Depth of Well	28.0'
Depth to Water/Product	17.98'/15.76'
Water Elevation	-----
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	-----
4" casing: (TD - DTW)(0.65)(3)	-----
6" casing: (TD - DTW)(1.44)(3)	-----
Actual Volume Purged (gallons)	-----
Appearance of Purge Water	-----
GROUNDWATER SAMPLES	
Number of Samples/Container Size	-----
Groundwater Temp/pH/Conductivity:	-----
Samples ices and Chain of Custody?	-----
Sampling Equipment	-----
Appearance of Groundwater Samples	free-floating product
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)	
2.22 feet of floating product	

TD - Total Depth of Well
DTW - Depth To Water

**ALL ENVIRONMENTAL INC. -- GROUNDWATER MONITORING WELL
FIELD SAMPLING FORM**

Monitoring Well Number: MW-2

Project Name	Lum
Job Number	1255
Project Address	245 8th Street
	Oakland, CA
Date of Sampling	7/21/95
Name of Sampler	Mr. Dusty Roy

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	cement/good
Well Cap & Lock -- OK/Replace	lock & expand/good
Elevation of Top of Casing	23.980
Depth of Well	28.0'
Depth to Water	17.21'
Water Elevation	6.77'
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	5.18
4" casing: (TD - DTW)(0.65)(3)	-----
6" casing: (TD - DTW)(1.44)(3)	-----
Actual Volume Purged (gallons)	11
Appearance of Purge Water	clear

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 liter / 2-40ml vov's
Groundwater Temp/pH/Conductivity:	76.5 / 7.64 / 830
Samples ices and Chain of Custody?	yes
Sampling Equipment	submersible pump/disposable bailer
Appearance of Groundwater Samples	clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Strong Odor, slight sheen	
Fast recharge	

TD - Total Depth of Well
DTW - Depth To Water



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

July 17, 1995

PEL # 9507026

ALL ENVIRONMENTAL, INC.

Attn: Jennifer Anderson

Re: Four soil samples for Gasoline/BTEX and Oil & Grease analyses.

Project name: LUM

Project number: 1255

Date sampled: Jul 14, 1995


Date submitted: Jul 14, 1995

Date extracted: Jul 14-15, 1995

Date analyzed: Jul 14-15, 1995

RESULTS:

SAMPLE I.D.	Gasoline (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylene (ug/Kg)	Oil & Grease (mg/Kg)
BH-1(S-2)	390 ✓	280 ✓	290	250	620	24 ✓
BH-1(S-3)	370 ✓	240 ✓	240	230	610	38 ✓
BH-2(S-2)	N.D. ✓	N.D. ✓	N.D.	N.D.	N.D.	---
BH-2(S-3)	390 ✓	300 ✓	230	240	630	---
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	87.1%	87.4%	94.8%	104.9%	96.7%	---
Detection limit	1.0	5.0	5.0	5.0	5.0	10
Method of Analysis	5030 / 8015	8020	8020	8020	8020	5520 D & F


David Duong
Laboratory Director



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

July 17, 1995

PEL # 9507026

ALL ENVIRONMENTAL, INC.

Attn: Jennifer Anderson

Re: Four soil samples for total Lead analysis.

Project name: LUM

Project number: 1255

Date sampled: Jul 14, 1995

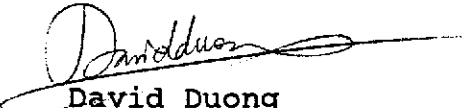
Date extracted: Jul 14-17, 1995

Date submitted: Jul 14, 1995

Date analyzed: Jul 14-17, 1995

RESULTS:

SAMPLE I.D.	Lead (mg/Kg)
BH-1(S-2)	3.0 /
BH-1(S-3)	2.6 /
BH-2(S-2)	1.2 /
BH-2(S-3)	3.0 /
Blank	N.D.
Detection limit	1.0
Method of Analysis	7420


David Duong
Laboratory Director

ALL ENVIRONMENTAL, INC.
 2641 Crow Canyon Road, Ste. 5
 San Ramon, CA 94583
 (510) 820-3224 FAX: (510) 838-2687

PEL # 9507026

INV # 26144

Chain of Custody

DATE: 7/14/95 PAGE: 1 OF: 1

AEI PROJECT MANAGER: JENNIFER ANDERSON
 PROJECT NAME: LUM
 PROJECT NUMBER: 1255
 SIGNATURE: J. Anderson
 TOTAL # OF CONTAINERS: 8
 RECD. GOOD COND./COLD: YES

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	MATRIX	TPH Gasoline (EPA 5030,8015)	TPH Gasoline (EPA 5030,8015) w/ BTEX (EPA 602,8020)	TPH Diesel (EPA 3510/3550,8015)	PURCEABLE AROMATICS BTEX (EPA 602,8020)	TOTAL OIL & GREASE (EPA 5520 E&F)	TOTAL LEAD (AA) (EPA 7420)	VOLATILE ORGANIC COMPOUNDS (EPA 8240)	LUFT Metals (EPA 7130,7190, 7430, 7530, 7950)	STLC CAM 17 (EPA 1310/6010)	RCI REACTIVITY CORROSIIVITY, IGNITABILITY (Title 22, CFR, 60301, 21-9)	NUMBER OF CONTAINERS	
BH-1 (S-1)	7/14/95		SOIL		X			X	X					HOLD	1
BH-1 (S-2)	7/14/95				X			X	X						1
BH-1 (S-3)	7/14/95				X			X	X						1
BH-1 (S-4)	7/14/95				X			X	X					HOLD	1
BH-2 (S-1)	7/14/95				X				X					HOLD	1
BH-2 (S-2)	7/14/95				X				X						1
BH-2 (S-3)	7/14/95				X				X						1
BH-2 (S-4)	7/14/95				X				X					HOLD	1

ANALYTICAL LAB: Priority Labs
 ADDRESS: _____
 PHONE: 908 946 9036 FAX: () _____
 INSTRUCTIONS/COMMENTS: _____

RELINQUISHED BY: 1
 Signature: J. Anderson
 Printed Name: Jennifer Anderson
 Company: AEI
 Time: 2:30 Date: 7/14/95

RECEIVED BY: 1
 Signature: THANH LAN
 Printed Name: THANH LAN
 Company: AEI
 Time: 2:30 Date: 7/14/95

RELINQUISHED BY: 2
 Signature: _____
 Printed Name: _____
 Company: _____
 Time: _____ Date: _____

RECEIVED BY: 2
 Signature: _____
 Printed Name: _____
 Company: _____
 Time: _____ Date: _____



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

July 25, 1995

PEL # 9507052

ALL ENVIRONMENTAL, INC.

Attn: Jennifer Anderson

Re: One water sample for Gasoline/BTEX and Oil & Grease analyses:

Project name: LUM

Project number: 1255

Date sampled: Jul 21, 1995

Date submitted: Jul 24, 1995

Date extracted: Jul 24-25, 1995

Date analyzed: Jul 24-25, 1995

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)	Oil & Grease (mg/L)
MW-2	68000 ✓	480 ✓	240	110	350	0.6 ✓
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	89.4%	84.3%	80.9%	105.2%	103.8%	---
Detection limit	50	0.5	0.5	0.5	0.5	10
Method of Analysis	5030 / 8015	602	602	602	602	5520 C & F

David Duong
Laboratory Director



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

July 25, 1995

PEL # 9507052

ALL ENVIRONMENTAL, INC.

Attn: Jennifer Anderson

Re: One water sample for total Lead analysis.

Project name: LUM

Project number: 1255

Date sampled: Jul 21, 1995

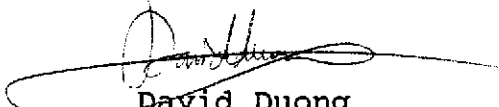
Date extracted: Jul 24-25, 1995

Date submitted: Jul 24, 1995

Date analyzed: Jul 24-25, 1995

RESULTS:

SAMPLE I.D.	Lead (mg/L)
MW-2	N.D.
Blank	N.D.
Detection limit	0.10
Method of Analysis	7420


David Duong
Laboratory Director

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 2641 Crow Canyon Road, Ste. 5
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 (510) 820-3224 FAX: (510) 838-2687

PEL # 9507052

Chain of Custody

INV # 26170

DATE: 7/21/95 PAGE: 1 OF: 1

AEI PROJECT MANAGER: Jennifer Anderson
 PROJECT NAME: Lum
 PROJECT NUMBER: 1255
 SIGNATURE: Jif Anderson
 TOTAL # OF CONTAINERS: 4
 RECD. GOOD COND./COLD: YES

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	MATRIX	TPH-Gasoline (EPA 5030,8015)	TPH-Gasoline (EPA 5030,8015) w/ BTEX (EPA 602,8020)	TPH-Diesel (EPA 3510/3550,8015)	PURGEABLE AROMATICS BTEX (EPA 602,8020)	TOTAL OIL & GREASE (EPA 3520 E&F)	TOTAL LEAD (AA) (EPA 7430)	VOLATILE ORGANIC COMPOUNDS (EPA 8240)	LUFT Metals (EPA 7130,7150,7160,7190,7230,7250,7290)	STLC CAM 17 (EPA 1310,6010)	RCI REACTIVITY, CORROSIIVITY, INSTABILITY (Title 22, CCR 89361.21-3)	NUMBER OF CONTAINERS
				MW-2	7/21/95	11:20	water	X			X	X		

ANALYTICAL LAB: Priority Environmental Lab
 ADDRESS: _____
 PHONE: 908 946-9636 FAX: () _____
 INSTRUCTIONS/COMMENTS:

RELINQUISHED BY: 1
Jif Anderson
 Signature
Jennifer Anderson
 Printed Name
AEI
 Company
 Time _____ Date 7/24/95

RECEIVED BY: 1
David Duont
 Signature
DAVID DUONT
 Printed Name
PEL
 Company
 Time 11:00 AM Date 7/24/95

RELINQUISHED BY: 2

 Signature

 Printed Name

 Company
 Time _____ Date _____

RECEIVED BY: 2

 Signature

 Printed Name

 Company
 Time _____ Date _____