

September 16, 1999

Barney Chan
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: Groundwater Monitoring Well Installation
807 75th Avenue
Oakland, CA 95621
AEI Project No. 3190

#1650

Dear Mr. Chan:

Enclosed is a copy of the groundwater monitoring well installation report prepared for the Omega Termite property. The next episode of monitoring at the site is scheduled for late October 1999.

Please call me at (925) 283-6000 if you have any questions.

Sincerely,



Peter McIntyre
Project Geologist

September 16, 1999

**SOIL BORING AND GROUNDWATER
MONITORING WELL INSTALLATION
REPORT**

sep 1999

807 75TH Avenue
Oakland, California

Project No. 3190

Prepared For

Omega Termite Control
807 75th Avenue
Oakland, CA 95621

Prepared By

All Environmental, Inc.
901 Moraga Road, Suite C
Lafayette, CA 94549
(800) 801-3224

AEI

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AEI

1.0 INTRODUCTION

All Environmental, Inc. (AEI) has prepared this report on behalf of Mr. Allen Kanady, in response to his request for a soil and groundwater investigation at 807 75th Avenue 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. The investigation was conducted to assess the extent of petroleum hydrocarbon impacted soil and monitor groundwater quality over time.

2.0 SITE DESCRIPTION AND BACKGROUND

The property is located on the northern corner of Snell Street and 75th Avenue in the City of Oakland. The site currently supports the operation of Omega Termite Control (Figure 1: Site Location Map).

On September 15, 1996, three gasoline underground storage tanks (USTs) were removed from the property by AEI. The tanks consisted of one 500 gallon, one 1,000 gallon and one 8,000 gallon tank. The former locations of the USTs are shown in Figure 2.

Soil samples were collected from beneath the 500 gallon and 1,000 gallon gasoline tanks and from the three sidewalls of the 8,000 gallon tank excavation. Concentrations of total petroleum hydrocarbons (TPH) as gasoline were present in the soil beneath the 500 gallon UST at concentrations of 4,300 mg/kg. Minor concentrations (41 mg/kg) of TPH as gasoline were present beneath the 1,000 gallon tank. The three sidewall samples collected from the 8,000 gallon tank excavation indicated concentrations of TPH as gasoline above 100 mg/kg present in the western and northwestern samples.

Groundwater was encountered during the excavation of the 8,000 gallon tank. A grab groundwater sample collected from the excavation indicated significant concentrations of petroleum hydrocarbon contaminants within the groundwater (Ref. # 1).

AEI issued a workplan, dated January 10, 1997, to the Alameda County Health Care Services Agency (ACHCSA). The workplan was designed to define the extent and magnitude of petroleum hydrocarbon contamination in the vicinity of the former tanks. Six soil borings were advanced on January 31, 1997. This investigation indicated groundwater was impacted with up to 27,000 µg/l of TPH as gasoline and 5,000 µg/l of benzene. Significant concentrations of TPH as gasoline were also detected in the soil up to ten feet from the excavation (Ref. # 2).

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The tank excavation has not been backfilled at this time. The soil removed from the tank pit has been moved to the northwest of the excavation for aeration until it is deemed suitable for reuse or is disposed of at an approved facility. Standing water was present in the excavation at 7 feet below ground surface in March 1999.

In response to a request by the ACHCSA for further investigation at the site, AEI submitted a workplan to the ACHCSA on May 21, 1999, for the installation and subsequent sampling of four groundwater monitoring wells at the site (Ref. # 3).

3.0 PERMITS

A work plan describing the proposed investigation was submitted and approved by the ACHCSA. Well construction permits were obtained from Alameda County Public Works Agency. The property owner was notified of the drilling schedule. Prior to drilling, notification of the day of drilling was given to the ACHCSA. A copy of the permits to perform monitoring well installations are included in Appendix A.

4.0 GEOLOGY AND HYDROGEOLOGY

According to logs of the soil borings advanced by AEI, the near surface sediments beneath the site consist generally of stiff silty and sandy clay to a depth of approximately 12 feet below ground surface (bgs). Below 12 feet, the sand content increased to boring termination at 20 feet bgs. The water-bearing stratum generally consisted of clayey sand in the four borings.

Water level measurements were made during the current groundwater monitoring and sampling episode on February 16, 1999. These measurements indicate that static water ranges from between -0.69 and -0.86 feet above Mean Sea Level (MSL). Elevations of the tops of the well casings were surveyed relative to MSL by the Humann Company, Inc. (Licensed Land Sureveyor No. 5452) on August 3, 1999. Refer to Appendix B for the Groundwater Monitoring Well Field Sampling Forms.

The water level measurements were collected in order to calculate the groundwater gradient and flow direction. Based on these measurements, the groundwater flow is to the south/southwest at a gradient of 0.003 feet per foot. The groundwater flow direction is depicted in Figure 3. Water elevations to date are summarized in Table 2.

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5.0 SOIL BORINGS

On June 25, 1999, four soil borings (SB-1 to SB-4) were advanced on the property. SB-1 was placed west of the tank excavation, along Snell Street. SB-2 was placed north of the excavation. SB-3 was placed east of the excavation, along the wall of the building. SB-4 was placed south of the excavation, along 75th Avenue. The locations of these borings were chosen to investigate the extent of impacted soil and groundwater associated with the former USTs on the property and to confirm groundwater flow direction and gradient. The four borings were drilled to 20 feet bgs. Refer to Figures 2 & 3 for the location of the soil borings.

Three soil samples were collected from each boring at approximately 5-feet, 10-feet, and 14 feet bgs. Please refer to Appendix B, Soil Boring Logs, for exact depths of the soil samples collected. The soil samples were collected with a California modified hammer-driven split spoon sampler. The sampler, containing two-inch diameter brass sample tubes, was advanced ahead of the auger tip by successive hammer blows.

The borings were logged by an AEI geologist using the Unified Soil Classification System. The logs are presented in Appendix B. Cuttings generated during drilling were placed in 55-gallon drums and stored on site to await off-site disposal or reuse on-site.

Soil samples were placed in a cooler containing ice and transported under proper chain of custody to McCampbell Analytical of Pacheco, California (DHS certification # 1644).

6.0 WELL CONSTRUCTION

Upon completion, the four soil borings were converted to groundwater monitoring wells (AEI-1 to AEI-4). The wells were constructed of 15 feet of 0.020" factory-slotted well screen and 5 feet of flush threaded blank Schedule 40 PVC casing that was installed through the hollow augers. The well screen in each well was fitted with a flush-threaded bottom cap. No. 2/16 Monterey sand was poured through the auger to form a sand pack from the bottom of the well to 1.5 feet above the slotted well screen. Approximately 1 foot of bentonite pellets was placed above the sand and hydrated with tap water. The remainder of the boring was filled to 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 inner cap was placed on the casing top. Refer to the boring logs (Appendix B) for a visual description of the well construction.

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7.0 WELL DEVELOPMENT AND SAMPLING

The four newly installed wells were developed on July 2, 1999 by pumping water into 55 gallon drums until the water appeared to be reasonably clear. A minimum of 10 well volumes was removed. The water was initially turbid, but became clear by the end of the well development. The water level returned to a static level within approximately 1 hour.

Groundwater samples were collected from the newly installed wells on July 30, 1999. A slight to moderate hydrocarbon odor was observed during the sampling on MW-1, MW-2 and MW-3. No sheen was observed in any of the wells. Depth to groundwater was measured and recorded for each well prior to sampling activities. Before the collection of water samples, at least three well volumes of water were bailed from each well. After the groundwater temperature, pH, and conductivity stabilized a groundwater sample was collected from each well. The Groundwater Well Sampling Field Logs are included in Appendix B.

The groundwater samples were collected using clean disposable bailers. Water was poured from the bailers into 500 ml plastic bottles and 40 ml VOA vials and capped so that there was no head space or visible air bubbles within the sample containers. The samples were labeled, placed on ice, and transported under chain of custody protocol for analysis to McCampbell Analytical Inc. (DOHS Certification Number 1644) of Pacheco, California.

8.0 ANALYTICAL RESULTS OF SAMPLES

Two soil samples from each boring were selected for analysis. The remaining soil samples were placed on hold at the laboratory. Each soil sample chosen was analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline by EPA method 5030/8015, and for benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA method 5030/8020. The soil samples were also analyzed for total lead.

TPH as gasoline was detected in the soil in MW-2 at 420 mg/kg at 10 feet bgs. No significant concentrations of TPH as gasoline, BTEX or MTBE were detected in any of the other soil samples. Lead was detected at a maximum of 8.5 mg/kg in the eight soil samples.

On July 30, 1999, one water sample from each well was collected and analyzed for TPH as gasoline, BTEX, MTBE and total lead. TPH as gasoline was detected at 2,700 µg/L in both MW-1 and MW-3. Benzene was detected in MW-1 at 920 µg/L. Lead and MTBE were not detected above laboratory reporting limits in any of the water samples analyzed.

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Please refer to Tables 1 and 3 for detailed results of the soil and groundwater analysis. Laboratory results and chain of custody documentation are included in Appendix C. Please note that when referring to the soil sample analytical documentation (Appendix C) that the labeling of the borings on the day of drilling was shifted clockwise from that of the workplan, well survey, and the water sample collection. This error has been corrected in all tables and descriptions of analytical results.

9.0 SUMMARY AND RECOMMENDATIONS

AEI advanced four soil borings that were converted to groundwater monitoring wells on the property. This project was performed to assess the extent of petroleum hydrocarbon impacted soil and groundwater and to investigate on-site groundwater quality and flow direction over time a set period of time.

Soil sample analysis indicated that the lateral extent of impacted soil is limited to the west, south and east of the tank excavation. However significant concentrations of TPH as gasoline were detected at 10 feet bgs, approximately 6 feet north of the excavation, in MW-2. The levels of lead detected in the soil samples were all below 9 mg/kg and can be considered background levels.

AEI recommends de-watering of the excavation and, if necessary, the removal of any remaining impacted soil. The stockpiled soil on-site should be characterized for remaining hydrocarbon and lead concentrations as requested by the ACHCSA for reuse in the excavation or disposal off-site.

Significant concentrations of TPH as gasoline and benzene were detected in the groundwater samples. AEI recommends a continued quarterly groundwater monitoring program at the site, in accordance with the requirements of the ACHCSA. The next episode of groundwater monitoring is scheduled for late October 1999.

10.0 REFERENCES

1. Underground Storage Tank Removal Final Report, October 10, 1996, prepared by AEI.
2. Phase II Soil and Groundwater Investigation Report, March 17, 1997, prepared by AEI.
3. Workplan, May 21, 1999, prepared by AEI.

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11.0 REPORT LIMITATIONS AND SIGNATURES

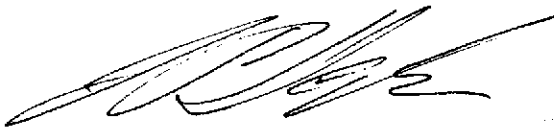
This report presents a summary of work completed by AEI, including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide required information, but it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

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

Sincerely,



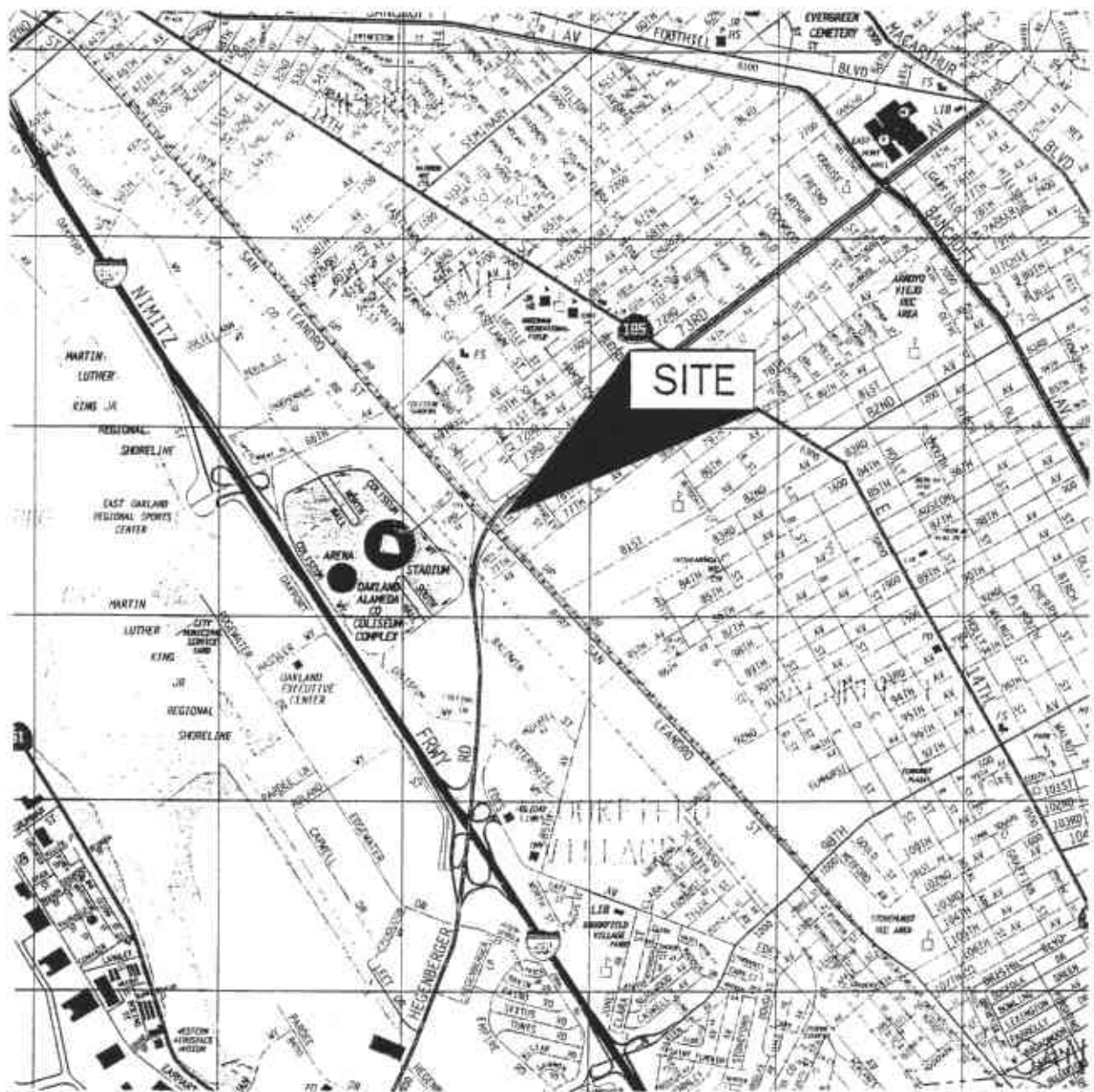
Peter McIntyre
Project Geologist



Joseph P. Derhake, PE
Principal



AEI



SOURCE:
 THOMAS GUIDE
 1997
 1 in = 2,400 feet

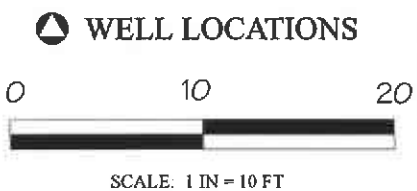
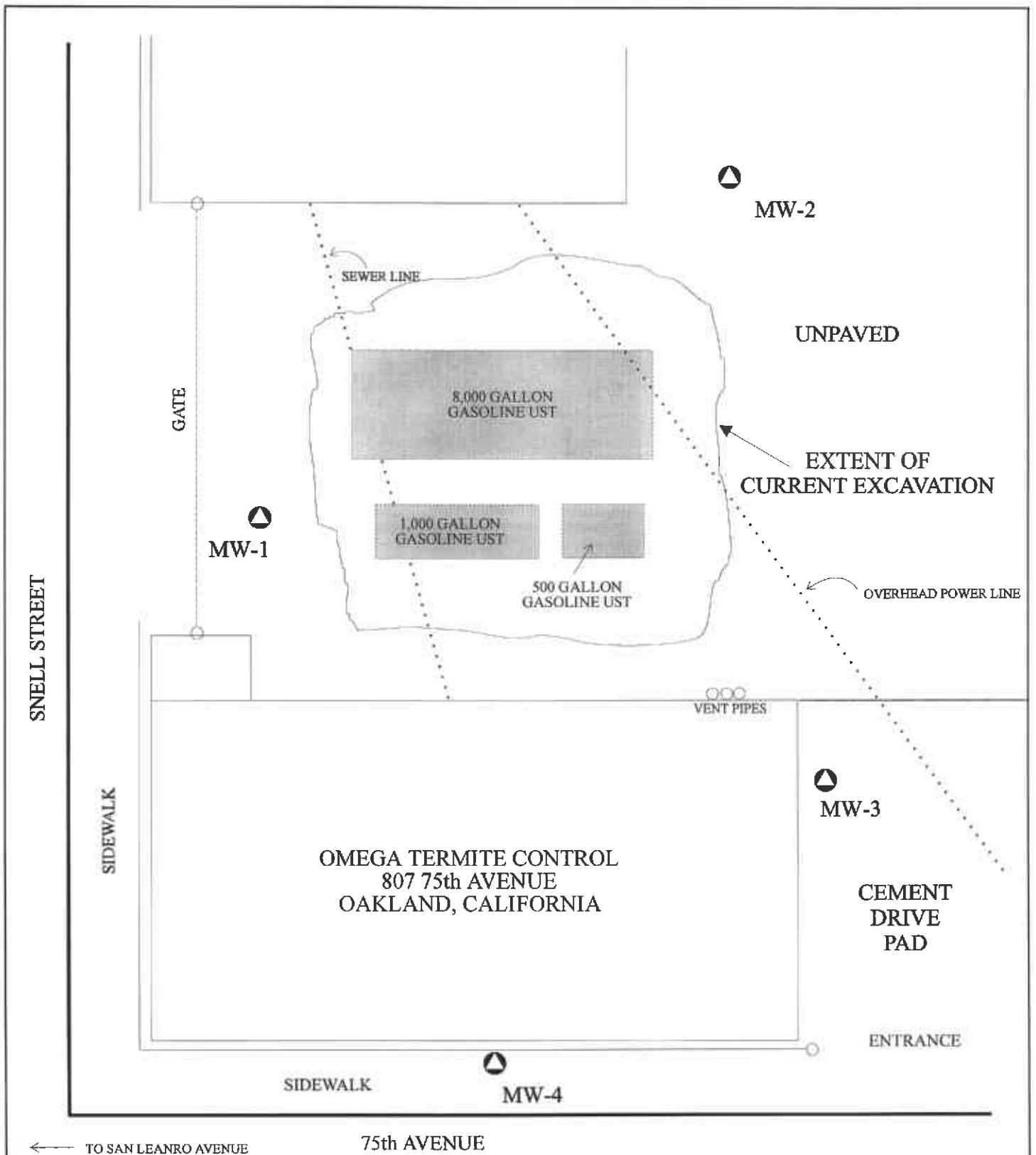
ALL ENVIRONMENTAL, INC.

901 MORAGA ROAD, SUITE C, LAFAYETTE, CA

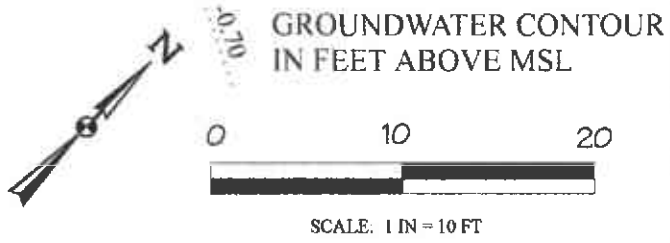
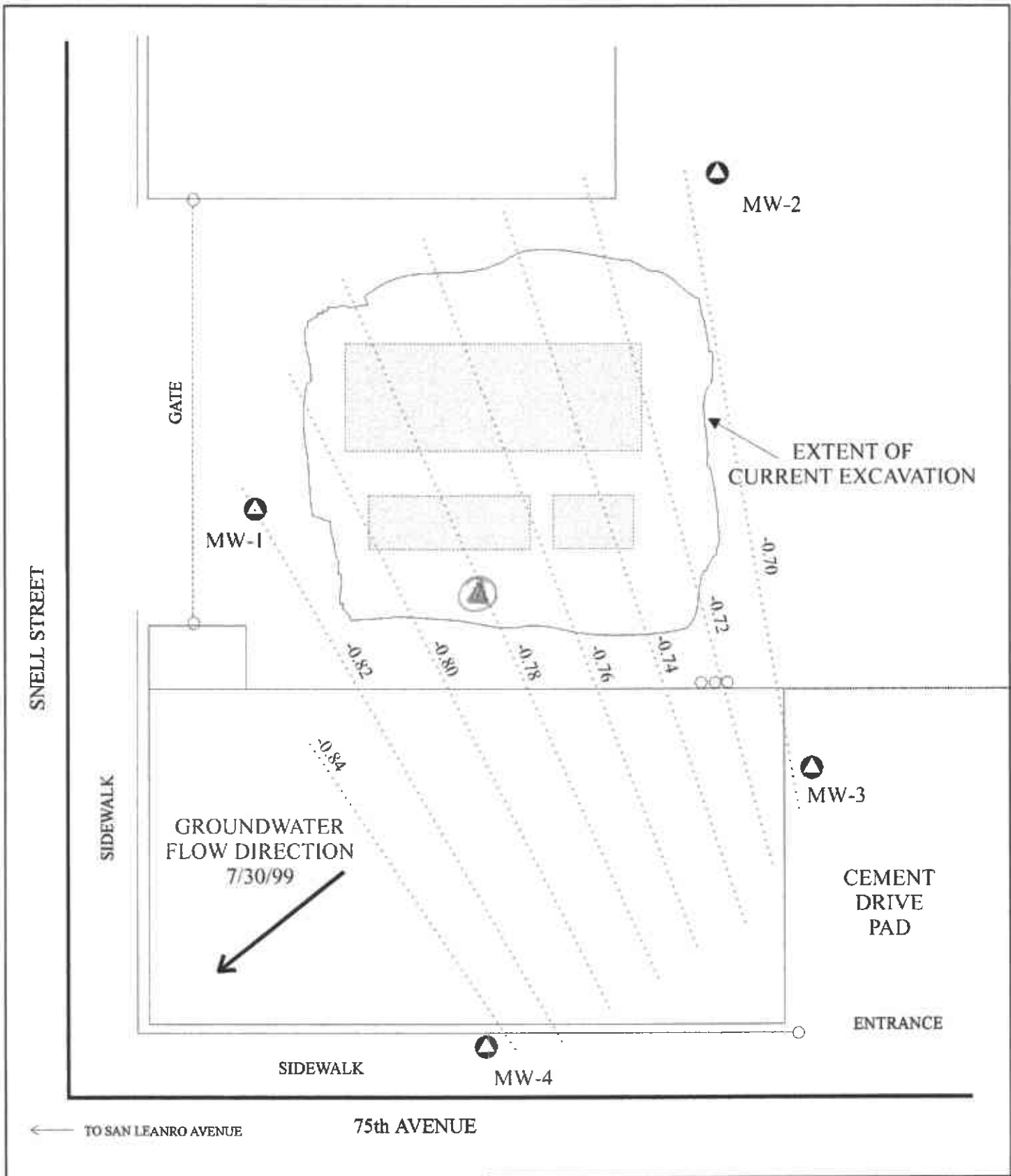
SITE LOCATION MAP

708 75th STREET
 OAKLAND, CALIFORNIA

FIGURE 1



ALL ENVIRONMENTAL, INC. 901 MORAGA ROAD, SUITE C, LAFAYETTE, CA	
SITE PLAN	
807 75th AVENUE OAKLAND, CALIFORNIA	FIGURE 2



ALL ENVIRONMENTAL, INC.	
901 MORAGA ROAD, SUITE C, LAFAYETTE, CA	
GROUNDWATER CONTOUR MAP	
807 75th AVENUE OAKLAND, CALIFORNIA	FIGURE 3

Table 1:
Soil Sample Analytical Results
June 25, 1999

Sample ID	TPH as gasoline mg/kg	MTBE mg/kg	Benzene mg/kg	Toluene mg/kg	thylbenzen mg/kg	Xylenes mg/kg	Total Lead mg/kg
MW-1 10'	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	6.4
MW-1 15'	3.4	<0.05	0.092	0.022	0.054	0.14	4.8
MW-2 10'	420	<2	<0.1	2.7	4.8	8.2	6.6
MW-2 15'	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	6.9
MW-3 10'	14	<0.05	0.3	0.091	0.29	0.28	6.6
MW-3 15'	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	8.5
MW-4 10'	3.6	<0.05	0.71	<0.005	0.19	<0.005	6.6
MW-4 15'	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	8.5
MDL	1.0	0.05	0.005	0.005	0.005	0.005	0.005

MDL = Method Detection Limit

ND = Not detected above the Method Detection Limit (unless otherwise noted)

ug/kg = micrograms per kilogram (ppb)

mg/kg = milligrams per kilogram (ppm)

**Table 2:
Groundwater Elevations**

Well ID	Date	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
MW-1	7/30/99	5.00	5.82	-0.82
MW-2	7/30/99	5.95	6.64	-0.69
MW-3	7/30/99	4.66	5.35	-0.69
MW-4	7/30/99	4.59	5.45	-0.86

Notes:

All well elevations are measured from the top of casing not from the ground surface.

ft msl = feet above mean sea level

**Table 3:
Groundwater Sample Analytical Results**

Sample ID	Sample Collection Date	TPH as gasoline $\mu\text{g/L}$	MTBE $\mu\text{g/L}$	Benzene $\mu\text{g/L}$	Toluene $\mu\text{g/L}$	Ethylbenzen $\mu\text{g/L}$	Xylenes $\mu\text{g/L}$	Dissolved Lead mg/L
MW-1	7/30/99	2,700	<10	920	5.5	18	130	<0.005
MW-2	7/30/99	1,200	<10	29	2.5	51	100	<0.005
MW-3	7/30/99	2,700	<10	220	15	130	230	<0.005
MW-4	7/30/99	340	<10	57	2.2	8.5	6.8	<0.005
MDL		50	5.0	0.5	0.5	0.5	0.5	0.005

MDL = Method Detection Limit

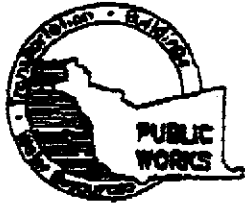
ND = Not detected above the Method Detection Limit (unless otherwise noted)

$\mu\text{g/L}$ = micrograms per liter (ppb)

mg/L = milligrams per liter (ppm)

APPENDIX A

PERMIT DOCUMENTATION



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION

751 TURNER COURT, SUITE 300, RAYWARD, CA 94545-1651
PHONE (510) 678-5575 ANDREAS GODFREY FAX (510) 678-5262
(510) 678-5248 ALVIN KAN

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 807 75th Ave
Oakland 95621

PERMIT NUMBER 99WR245
WELL NUMBER _____
APN _____

California Coordinates Source _____ N. Accuracy 2 ft.
CCN _____ N. CCE _____ ft.
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT
Name Allen Kanady
Address 807 75th Ave Phone 510 362 1333
City Oakland, CA Zip 95621

A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA 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.

APPLICANT
Name All Environmental Inc Fax 925-612-1025
Address 201 Morgan St Phone 925-600-0000
City Lafayette, CA Zip 94549

B. WATER SUPPLY WELLS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 30 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input checked="" type="checkbox"/>	Well Destruction	<input type="checkbox"/>

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other <u>Monitoring</u>	<input checked="" type="checkbox"/>

D. GEOTECHNICAL

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

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input checked="" type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

E. CATHODIC

Fill hole above anode zone with concrete placed by tremie.

DRILLER'S LICENSE NO. CS7 489165

F. WELL DESTRUCTION

See attached.

WELL PROJECTS

Drill Hole Diameter	<u>6 1/2</u> in.	Maximum Depth	<u>20</u> ft.
Casing Diameter	<u>5</u> in.	Number	<u>4</u>
Surface Seal Depth	<u>5</u> ft.		

G. SPECIAL CONDITIONS

GEOTECHNICAL PROJECTS

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

ESTIMATED STARTING DATE 6/9/99
ESTIMATED COMPLETION DATE 6/10/99

APPROVED [Signature] DATE 6-2-99

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 7378.

APPLICANT'S SIGNATURE [Signature] DATE 6/2/99

APPENDIX B
SOIL BORING LOGS

Project No: 3190

Sheet: 1 of 1

Project Name: OMEGA

Log of Borehole: MW-1

Client: A. KANADY

Location: WEST OF EXCAVATION

Depth ft m	Soil Symbol	Subsurface Description	Sample Data				Well Data	Remarks
			Sample Label	Type	Blow Counts/	Recovery		
0		Ground Surface						
0.5		FILL						
1		Sand and gravel						
1.5		CLAY						
2		Stiff clay and silty clay						
3								
4			MW-1 5'	SS	3 3 3	100	No hydrocarbon odor PID = 0.0 ppm	
5								
6								
7								
8		Increased silt and minor sand						
9								
10			MW-1 10'	SS	6 7 8	100	No Hydrocarbon odor PID = 0.0 ppm	
11								
12								
13								
14								
15			MW-1 15'	SS	3 4 3	100	PID = 364 ppm Strong hydrocarbon odor (from water)	
16								
17		CLAY						
18		Silty clay with sand and gravel up to 0.5 cm						
19								
20							Water initially encountered at 15 ft.	
21		End of Borehole						
22								
23								

Drill Date 6/25/99
 Drill Method: HOLLOW AUGER
 Total Depth: 20
 Depth to Water: 15

Reviewed by: JPD
 Logged by: PJM

All Environmental, Inc.
 901 Moraga Road, Suite C
 Lafayette, CA 94549
 (800) 801-3224

Project No: 3190

Sheet: 1 of 1

Project Name: OMEGA

Log of Borehole: MW-2

Client: A. KANADY

Location: NORTH OF EXCAVATION

Depth ft m	Soil Symbol	Subsurface Description	Sample Data				Well Data	Remarks
			Sample Label	Type	Blow Counts/	Recovery		
0		Ground Surface						
0.5		FILL Sand and gravel						
1		CLAY Stiff clay with silt and minor sand						
1.5			MW-2 5'	SS	3 5 6	75	No hydrocarbon odor PID = 3.5 ppm	
2								
2.5								
3								
3.5								
4								
4.5								
5								
5.5								
6								
6.5								
7								
7.5								
8								
8.5								
9		CLAY Silty clay with sand and gravel up to 2 cm	MW-2 10'	SS	5 7 12	90	Strong hydrocarbon odor PID = 2300 ppm	
9.5								
10								
10.5								
11								
11.5								
12								
12.5								
13								
13.5								
14			MW-2 15'	SS	7 9 13	100	Strong hydrocarbon odor PID = 8900 ppm	
14.5								
15								
15.5								
16		Silty clay						
16.5								
17								
17.5							Water initially encountered at 17.5 ft.	
18								
18.5								
19			MW-2 20'	SS		100	No odor - PID = 2 ppm	
19.5								
20		End of Borehole						
20.5								
21								
21.5								
22								
22.5								
23								

Drill Date 6/25/99

Reviewed by: JPD

All Environmental, Inc.
901 Moraga Road, Suite C
Lafayette, CA 94549
(800) 801-3224

Drill Method: HOLLOW AUGER

Logged by: PJM

Total Depth: 20

Depth to Water: 17.5

Project No: 3190

Sheet: 1 of 1

Project Name: OMEGA

Log of Borehole: MW-3

Client: A. KANADY

Location: EAST OF BUILDING

Depth ft. m	Soil Symbol	Subsurface Description	Sample Data				Well Data	Remarks
			Sample Label	Type	Blow Counts/	Recovery		
0		Ground Surface						
0		CONCRETE						
1		CLAY Sandy clay, moderately plastic						
2								
3								
4			MW-3 5'	SS	2 3 5	100	No hydrocarbon odor PID = 4 ppm	
5								
6								
7								
8								
9		CLAY Stiff clay with minor silt and sand						
10			MW-3 10'	SS	4 6 4	100	Strong hydrocarbon odor PID = 2165 ppm	
11								
12								
13								
14			MW-3 15'	SS	3 5 5	100	No hydrocarbon odor PID = 235 ppm	
15								
16								
17								
18								
19								
20		End of Borehole						
21								
22								
23								

Drill Date 6/25/99

Reviewed by: JPD

All Environmental, Inc.
901 Moraga Road, Suite C
Lafayette, CA 94549
(800) 801-3224

Drill Method: HOLLOW AUGER

Logged by: PJM

Total Depth: 20

Depth to Water: 15

Project No: 3190

Sheet: 1 of 1

Project Name: OMEGA

Log of Borehole: MW-4

Client: A. KANADY

Location: ALONG 75th AVE

Depth ft m	Soil Symbol	Subsurface Description	Sample Data				Well Data	Remarks
			Sample Label	Type	Blow Counts/	Recovery		
0		Ground Surface						
0		CONCRETE						
1		CLAY Sandy clay, moderately plastic						
2								
3								
4			MW-4 5'	SS	3 4 5	100	No hydrocarbon odor PID = 0.0 ppm	
5								
6		Stiff sandy clay						
7								
8								
9			MW-4 10'	SS	5 8 11	100	Slight hydrocarbon odor PID = 84 ppm	
10								
11								
12								
13		CLAY Sandy clay with gravel up to 0.5 cm						
14			MW-4 15'	SS	5 8 9	95	No hydrocarbon odor PID = 0.0 ppm	
15								
16								
17								
18								
19								
20								
21		End of Borehole						
22								
23								

Drill Date 6/25/99

Drill Method: HOLLOW AUGER

Total Depth: 20

Depth to Water: 14.5

Reviewed by: JPD

Logged by: PJM

All Environmental, Inc.
901 Moraga Road, Suite C
Lafayette, CA 94549
(800) 801-3224

ATTACHMENT C

WELL FIELD SAMPLING FORMS

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

Monitoring Well Number: MW-1

Project Name: Omega	Date of Sampling: 7/30/99
---------------------	---------------------------

Job Number: 3190	Name of Sampler: Peter J. McIntyre
------------------	------------------------------------

Project Address: 807 75th Ave, Oakland

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"
---------------------------------	----

Seal at Grade -- Type and Condition	Cement / Good
-------------------------------------	---------------

Well Cap & Lock -- OK/Replace	OK
-------------------------------	----

Elevation of Top of Casing	
----------------------------	--

Depth of Well	20
---------------	----

Depth to Water	5.82
----------------	------

Water Elevation	0
-----------------	---

Three Well Volumes (gallons)*	
-------------------------------	--

2" casing: (TD - DTW)(0.16)(3)	6.81
--------------------------------	------

4" casing: (TD - DTW)(0.65)(3)	
--------------------------------	--

6" casing: (TD - DTW)(1.44)(3)	
--------------------------------	--

Actual Volume Purged (gallons)	8
--------------------------------	---

Appearance of Purge Water	Slightly turbid
---------------------------	-----------------

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 VOAs, 1-liter amber bottle
----------------------------------	------------------------------

Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (mS)	Comments
	3	67.6		1072	
	6	64.9		938	
	8	69.8		953	

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

Mild hydrocarbon odor, no sheen observed

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: Omega			Date of Sampling: 7/30/99		
Job Number: 3190			Name of Sampler: Peter J. McIntyre		
Project Address: 807 75 th Ave, Oakland					
MONITORING WELL DATA					
Well Casing Diameter (2"/4"/6")			2"		
Seal at Grade -- Type and Condition			Cement / Good		
Well Cap & Lock - OK/Replace			OK		
Elevation of Top of Casing					
Depth of Well			20		
Depth to Water			6.64		
Water Elevation			0		
Three Well Volumes (gallons)*					
2" casing: (TD - DTW)(0.16)(3)			6.41		
4" casing: (TD - DTW)(0.65)(3)					
6" casing: (TD - DTW)(1.44)(3)					
Actual Volume Purged (gallons)			7.5		
Appearance of Purge Water			Clear		
GROUNDWATER SAMPLES					
Number of Samples/Container Size			2 VOAS, 1-liter amber		
Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (mS)	Comments
	3	75.0		1612	
	5	70.1		1621	
	8	72.0		1623	
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)					
Moderate hydrocarbon odor, no sheen observed					

TD - Total Depth of Well
DTW - Depth To Water

ALL ENVIRONMENTAL INC. - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM					
Monitoring Well Number: MW-3					
Project Name: Omega			Date of Sampling: 7/30/99		
Job Number: 3190			Name of Sampler: Peter J. McIntyre		
Project Address: 807 75 th Ave., Oakland					
MONITORING WELL DATA					
Well Casing Diameter (2"/4"/6")			2"		
Seal at Grade -- Type and Condition			Cement / Good		
Well Cap & Lock -- OK/Replace			OK		
Elevation of Top of Casing					
Depth of Well			20		
Depth to Water			5.35		
Water Elevation			0		
Three Well Volumes (gallons)*					
2" casing: (TD - DTW)(0.16)(3)			7.03		
4" casing: (TD - DTW)(0.65)(3)					
6" casing: (TD - DTW)(1.44)(3)					
Actual Volume Purged (gallons)			8		
Appearance of Purge Water			Clear		
GROUNDWATER SAMPLES					
Number of Samples/Container Size			2 VOAs, 1-liter amber bottle		
Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (mS)	Comments
	2	74.5		1292	
	5	68.7		1229	
	8	65.7		1261	
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)					
Moderate hydrocarbon odor, no sheen observed					

TD - Total Depth of Well
DTW - Depth To Water

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

Monitoring Well Number: MW-4

Project Name: Omega	Date of Sampling: 7/30/99
Job Number: 3190	Name of Sampler: Peter J. McIntyre
Project Address: 807 75 th Ave., Oakland	

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	Cement / Good
Well Cap & Lock -- OK/Replace	OK
Elevation of Top of Casing	
Depth of Well	20
Depth to Water	5.45
Water Elevation	0
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	6.98
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	7.5
Appearance of Purge Water	Slightly turbid

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 VOAs, 1-liter amber bottle
----------------------------------	------------------------------

Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (mS)	Comments
	3	72.7		1155	
	5	69.0		1171	
	7	66.6		1116	

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

No hydrocarbon odor or sheen observed

TD - Total Depth of Well
DTW - Depth To Water

APPENDIX D

**LABORATORY ANALYSES WITH
CHAIN OF CUSTODY DOCUMENTATION**



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549	Client Project ID: #3190; Omega	Date Sampled: 06/25/99
		Date Received: 06/25/99
	Client Contact: Peter McIntyre	Date Extracted: 06/25/99
	Client P.O:	Date Analyzed: 06/25/99

07/02/99


Dear Peter:

Enclosed are:

- 1). the results of 9 samples from your #3190; Omega project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,


Edward Hamilton, Lab Director



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All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549	Client Project ID: #3190; Omega	Date Sampled: 06/25/99
	Client Contact: Peter McIntyre	Date Received: 06/25/99
	Client P.O.:	Date Analyzed: 06/26-07/02/99
		Date Extracted: 06/25/99

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*
 EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) ⁺	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	% Recovery Surrogate
14416	MW-1 10'	S	420,b,j	ND<2	ND<0.1	2.7	4.8	8.2	98
14417	MW-1 15'	S	ND	ND	ND	ND	ND	ND	94
14420	MW-2 10'	S	14,a	ND	0.30	0.091	0.29	0.28	108
14421	MW-2 15'	S	ND	ND	ND	ND	ND	ND	104
14423	MW-3 10'	S	3.6,a	ND	0.71	ND	0.19	ND	101
14424	MW-3 15'	S	ND	ND	ND	ND	ND	ND	93
14426	MW-4 10'	S	ND	ND	ND	ND	ND	ND	104
14427	MW-4 15'	S	3.4,b,j	ND	0.092	0.022	0.054	0.14	100
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton Edward Hamilton, Lab Director



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All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549	Client Project ID: #3190; Omega	Date Sampled: 06/25/99
	Client Contact: Peter McIntyre	Date Received: 06/25/99
	Client P.O.:	Date Extracted: 06/25/99
		Date Analyzed: 06/29-06/30/99

Lead*

EPA analytical methods 6010/200.7, 239.2*

Lab ID	Client ID	Matrix	Extraction °	Lead*	% Recovery Surrogate
14416	MW-1 10'	S	TTLIC	6.6	98
14417	MW-1 15'	S	TTLIC	6.9	96
14420	MW-2 10'	S	TTLIC	6.6	94
14421	MW-2 15'	S	TTLIC	8.5	100
14423	MW-3 10'	S	TTLIC	6.6	100
14424	MW-3 15'	S	TTLIC	8.5	94
14426	MW-4 10'	S	TTLIC	6.4	97
14427	MW-4 15'	S	TTLIC	4.8	95
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	S	TTLIC		3.0 mg/kg	
	W	TTLIC		0.005 mg/L	
	—	STLC,TCLP		0.2 mg/L	

* soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L
 *Lead is analysed using EPA method 6010 (ICP)for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples
 ° EPA extraction methods 1311(TCLP), 3010/3020(water, TTLIC), 3040(organic matrices, TTLIC), 3050(solids, TTLIC); STLC - CA Title 22
 * surrogate diluted out of range; N/A means surrogate not applicable to this analysis
 & reporting limit raised due matrix interference
 i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

QC REPORT FOR HYDROCARBON ANALYSES

Date: 06/25/99-06/26/99

Matrix: SOIL

Analyte	Concentration (mg/kg)			Amount Spiked	% Recovery		RPD
	Sample (#09036)	MS	MSD		MS	MSD	
TPH (gas)	0.000	2.117	2.049	2.03	104	101	3.3
Benzene	0.000	0.198	0.194	0.2	99	97	2.0
Toluene	0.000	0.200	0.196	0.2	100	98	2.0
Ethylbenzene	0.000	0.204	0.198	0.2	102	99	3.0
Xylenes	0.000	0.614	0.596	0.6	102	99	3.0
TPH(diesel)	0	281	282	300	94	94	0.4
TRPH (oil and grease)	0.0	25.7	25.4	20.8	124	122	1.2

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

QC REPORT FOR ICP and/or AA METALS

Date: 05/28/99-05/29/99

Matrix: SOIL

Extraction: TTLC

Analyte	Concentration (mg/kg, mg/L)			Amount Spiked	% Recovery		
	Sample	MS	MSD		MS	MSD	RPD
Total Lead	0.0	4.37	4.50	5.0	87	90	3.0
Total Cadmium	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Chromium	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Nickel	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Zinc	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Copper	N/A	N/A	N/A	N/A	N/A	N/A	N/A
STLC Lead	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100



ALL ENVIRONMENTAL, INC.

Environmental Engineering & Construction

901 Moraga Road, Suite C
Lafayette, CA 94549

(925) 283-6000 Fax: (925) 283-6121

15747
24644 loc

GOOD CONDITION

SPACE ABSENT

PRESERVATION

APPROPRIATE

CONTAINERS

VOAS ORG METALS OTHER

CHAIN OF CUSTODY

PAGE 1 OF 1

TAT: RUSH / 24 hr / 48 hr / 5 day / other

AEI PROJECT MANAGER Peter McIntyre
 PROJECT NAME Omega
 PROJECT NUMBER 3190
 TOTAL # OF CONTAINERS 13
 RCVD. GOOD CONDITION/COLD Y N

TPH (G), BTEX, MTBE
SOIL: EPA 8030/8015M, 8020
 WATER: EPA 8030/8015M, 8020

TPH (G)
SOIL: EPA 8030/8015M
 WATER: EPA 8030/8015M

BTEX, MTBE
SOIL: EPA 8030
 WATER: EPA 8030

TOTAL OIL & GREASE
SOIL: EPA 415.1 (M, STD), 6530 D/EGF
 WATER: STD, 6520 I/AF

VOLATILE HALOCARBONS
SOIL: EPA 8010
 WATER: EPA 8010

VOC's
SOIL: EPA 8270
 WATER: EPA 8270

SEMI-VOLATILE ORGANICS
SOIL: EPA 8270/8530
 WATER: EPA 8270/8530

TOTAL LEAD (Pb)
SOIL: 9010 (ICP)
 WATER: 2922 (AA)

LUFT 5 METALS
SOIL: EPA 7150, 7160, 7170, 7250, 7350
 WATER:

SAMPLE ID	DATE	TIME	MATRIX	TPH (G), BTEX, MTBE	TPH (G)	BTEX, MTBE	TOTAL OIL & GREASE	VOLATILE HALOCARBONS	VOC's	SEMI-VOLATILE ORGANICS	TOTAL LEAD (Pb)	LUFT 5 METALS	14415 H	14416	14417	14418 H	14419 H	14420	14421	14422 H	14423	14424	14425 H	14426	14427	# OF CONTAINERS
MW-1 MW-1	5'	6/25/99	815	Soil																						1
MW-1 MW-1	10'		830		X					X																1
MW-1 MW-1	15'		840		X					X																1
MW-1	20'		850																							1
MW-2	5'		1015																							1
MW-2	10'		1020		X					X																1
MW-2	15'		1030		X					X																1
MW-3	5'		1240																							1
MW-3	10'		1250		X					X																1
MW-3	15'		100		X					X																1
MW-4	5'		230																							1
MW-4	10'		235		X					X																1
MW-4	15'		245		X					X																1

COMMENTS / INSTRUCTIONS

ANALYTICAL LABORATORY Accomp

ADDRESS

PHONE (925) 793-1620 FAX ()

RELINQUISHED BY [Signature]

SIGNATURE

PRINTED NAME Peter McIntyre

COMPANY AEI

DATE 6/25/99 TIME 2:50

RECEIVED BY [Signature]

SIGNATURE

PRINTED NAME Guia A. Butler

COMPANY MTE

DATE 6/25/99 TIME 5:50

RELINQUISHED BY

SIGNATURE

PRINTED NAME

COMPANY

DATE

TIME

RECEIVED BY

SIGNATURE

PRINTED NAME

COMPANY

DATE

TIME



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549	Client Project ID: #3190; Omega	Date Sampled: 07/30/99
		Date Received: 07/30/99
	Client Contact: Peter McIntyre	Date Extracted: 07/30/99
	Client P.O:	Date Analyzed: 07/30/99

08/07/99

Dear Peter:

Enclosed are:

- 1). the results of 4 samples from your #3190; Omega project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director



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All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549	Client Project ID: #3190; Omega	Date Sampled: 07/30/99
		Date Received: 07/30/99
	Client Contact: Peter McIntyre	Date Extracted: 08/02-08/03/99
	Client P.O:	Date Analyzed: 08/02-08/03/99

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*
 EPA methods 5030, modified 8015, and 8020 or 602; California RWOCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) ⁺	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	% Recovery Surrogate
16485	MW-1	W	2700,a	ND<10	920	5.5	18	130	101
16486	MW-2	W	1200,a	ND<10	29	2.5	51	100	104
16487	MW-3	W	2700,a	ND<10	220	15	130	230	101
16488	MW-4	W	340,a	ND<10	57	2.2	8.5	6.8	119
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W		50 ug/L	5.0	0.5	0.5	0.5	0.5	
	S		1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

* cluttered chromatogram; sample peak coelutes with surrogate peak

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.



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<http://www.mccampbell.com> E-mail: main@mccampbell.com

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549	Client Project ID: #3190; Omega	Date Sampled: 07/30/99
	Client Contact: Peter McIntyre	Date Received: 07/30/99
	Client P.O:	Date Analyzed: 08/02/99
		Date Extracted: 07/30/99

Lead*

EPA analytical methods 6010/200.7, 239.2*

Lab ID	Client ID	Matrix	Extraction °	Lead*	% Recovery Surrogate
16485	MW-1	W	Dissolved	ND	NA
16486	MW-2	W	Dissolved	ND	NA
16487	MW-3	W	Dissolved	ND	NA
16488	MW-4	W	Dissolved	ND	NA
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	S	TTLIC		3.0 mg/kg	
	W	Dissolved		0.005 mg/L	
	---	STLC,TCLP		0.2 mg/L	

* soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L
 *Lead is analysed using EPA method 6010 (ICP)for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples
 ° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLIC), 3040(organic matrices,TTLIC), 3050(solids,TTLIC); STLC - CA Title 22
 * surrogate diluted out of range; N/A means surrogate not applicable to this analysis
 * reporting limit raised due matrix interference
 i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

QC REPORT FOR HYDROCARBON ANALYSES

Date: 08/01/99-08/02/99

Matrix: WATER

Analyte	Concentration (ug/L)			Amount Spiked	% Recovery		RPD
	Sample (#16118)	MS	MSD		MS	MSD	
TPH (gas)	0.0	100.0	104.1	100.0	100.0	104.1	4.1
Benzene	0.0	9.2	9.4	10.0	92.0	94.0	2.2
Toluene	0.0	9.4	9.6	10.0	94.0	96.0	2.1
Ethyl Benzene	0.0	9.6	9.8	10.0	96.0	98.0	2.1
Xylenes	0.0	28.9	29.3	30.0	96.3	97.7	1.4
TPH(diesel)	0.0	7895	7562	7500	105	101	4.3
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

QC REPORT FOR ICP and/or AA METALS

Date: 08/02/99-08/03/99

Matrix: WATER

Extraction:

DISSOLVED

Analyte	Concentration (mg/L)			Amount	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
Total Lead	0.00	4.97	4.97	5.00	99	99	0.0
Total Cadmium	0.00	5.43	5.44	5.00	109	109	0.1
Total Chromium	0.00	4.89	4.88	5.00	98	98	0.1
Total Nickel	0.00	4.95	5.01	5.00	99	100	1.1
Total Zinc	0.00	5.23	5.25	5.00	105	105	0.2
Total Copper	0.00	4.81	4.90	5.00	96	98	1.8
Total Organic Le	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$



ALL ENVIRONMENTAL, INC.

Environmental Engineering & Construction

901 Moraga Road, Suite C

Lafayette, CA 94549

(925) 283-6000 Fax: (925) 283-6121

16151 Zg6 58.doc

CHAIN OF CUSTODY

PAGE 1 OF 1

TAT: RUSH / 24 hr / 48 hr / 5 day / other

AEI PROJECT MANAGER Omega Peter
 PROJECT NAME Omega
 PROJECT NUMBER 3190
 TOTAL # OF CONTAINERS 12
 RCVD. GOOD CONDITION/COLD Y N

SAMPLE ID	DATE	TIME	MATRIX	TPH (a) <small>SOIL: EPA 8080/8150M, 8020 WATER: EPA 8150/8150M, 8152</small>	TPH (d) <small>SOIL: EPA 5030/8150M WATER: EPA 8150/8150M</small>	BTX <small>SOIL: EPA 8150 WATER: EPA 8150</small>	TOTAL OIL & GREASE <small>SOIL: EPA 1631 w/ STD 550 U/CAF WATER: STD 550 U/CAF</small>	VOLATILE HALOCARBONS <small>SOIL: EPA 8150 WATER: EPA 8150</small>	POC's <small>SOIL: EPA 8150 WATER: EPA 8150</small>	SEMI-VOLATILE ORGANICS <small>SOIL: EPA 8150/2550 WATER: EPA 8150/2550</small>	TOTAL LEAD (Pb) <small>SOIL: 230 (a) 230 WATER: 230 (a) 230</small>	LEAD 5 METALS <small>SOIL: EPA 7150, 7150, 7150, 7150, 7150, 7150 WATER:</small>	HOLD	# OF CONTAINERS
MW-1	7/30		water	X							X			3
MW-2				X							X			3
MW-3				X							X			3
MW-4				X							X			3
												16485		
												16486		
												16487		
												16488		

COMMENTS / INSTRUCTIONS McCampbell

ANALYTICAL LABORATORY ADDRESS

PHONE () FAX ()

RELINQUISHED BY Peter McIntyre
 SIGNATURE
 PRINTED NAME
 COMPANY
 DATE 7/30 TIME 4:05

RECEIVED BY Elsa Veneas
 SIGNATURE
 PRINTED NAME
 COMPANY
 DATE 7/30 TIME 4:05

RELINQUISHED BY

RECEIVED BY

SIGNATURE

PRINTED NAME

COMPANY

DATE

TIME

DATE

TIME

VOAS O&G METALS OTHER

Filled & approved from approval