



October 27, 2003

RO 508

Mr. Amir Gholami
Alameda Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Alameda County
OCT 31 2003
Environmental Health

Subject: **Quarterly Groundwater Monitoring Report**
807 75th Street
Oakland, CA 94621
AEI Project No. 3190

Dear Mr. Gholami:

Enclosed is the most recent quarterly monitoring report for the above referenced site.

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

Sincerely,

Robert Flory, RG
Project Manager

October 24, 2003

Alameda County
OCT 31 2003
Environmental Health

GROUNDWATER MONITORING REPORT
Fourth Quarter, 2003

807 75th Avenue
Oakland, California

Project No. 3190

Prepared For

Mr. Allan Kanady
Omega Termite
807 75th Avenue
Oakland, CA 95621

Prepared By

AEI Consultants
2500 Camino Diablo Blvd., Suite 200
Walnut Creek, CA 94597
(925) 283-6000

AEI



October 24, 2003

Mr. Allan Kanady
Omega Termite
807 75th Avenue
Oakland, CA 95621

**Subject: Quarterly Groundwater Monitoring Report
Fourth Quarter, 2003**
807 75th Avenue
Oakland, California
Project No. 3190

Dear Mr. Kanady:

AEI Consultants (AEI) has prepared this report to document the results of the Fourth Quarter 2003 groundwater monitoring event at the above referenced site (Figure 1: Site Location Map). This groundwater investigation has been performed in accordance with the requirements of the Alameda County Health Care Services Agency (ACHCSA). The purpose of this activity is to monitor groundwater quality in the vicinity of previous locations of underground storage tanks (USTs) at the site.

Site Description and Background

The site is located in an industrial area of the City of Oakland, on the northern corner of the intersection of 75th Avenue and Snell Street, just east of San Leandro Street. The property is approximately 10,000 square feet in size and currently developed with two buildings, occupied by Omega.

On September 15, 1996, AEI removed three gasoline USTs from the subject property. The tanks consisted of one 8,000-gallon UST, one 1,000-gallon UST, and one 500-gallon UST. The former locations of the tanks are shown in Figure 2. A total of five soil samples and one groundwater sample collected during the tank removal activities revealed that a release had occurred from the tank system. Total petroleum hydrocarbons as gasoline (TPH-g), benzene, and methyl tertiary butyl ether (MTBE) were detected up to 4,300 mg/kg, 13 mg/kg, and 25 mg/kg, respectively in soil samples. The excavation was not backfilled. Soil removed from the excavation was stockpiled on the northern portion of the property. In 1999 soil samples collected from the stockpiled soil contained non-detectable to minor concentrations of TPH-g. Mr. Barney Chan of the ACHCSA approved the stockpiled soil for reuse in the excavation.

In October 1997, soil and groundwater samples were collected from six soil borings (BH-1 through BH-6). In June 1999, four groundwater monitoring wells (MW-1 through MW-4) were

also installed by AEI. The construction details for the groundwater monitoring wells on site are summarized in Table 1. Monitoring well locations are shown on Figure 2. Historical water table elevation and historical groundwater sample analytical data are presented in Table 1 of Appendix A.

Under the direction of ACHCSA, additional soil was removed from the excavation in March 2000. The excavation was extended to 29 by 48 feet in size and 8 feet deep at the east end of the excavation and 11.5 at the west end. During the excavation activities, an additional 500-gallon UST was discovered at the eastern end of the excavation. This tank was removed under the direction of Oakland Fire Services Agency (OFSA). A total of six additional soil samples were collected from the sidewalls and bottom of the excavation.

The resulting excavation was then backfilled with pea gravel to bridge the water table, with the remainder of the excavation being filled with the previously aerated soil and later with imported fill. The newly excavated soil was stockpiled on the northern portion of the property. A total of 7,400 gallons of hydrocarbon impacted groundwater were pumped from the excavation, treated on-site, and discharged under an East Bay Municipal Utility District permit to the sanitary sewer system.

AEI carried out a site characterization on October 9 and 10, 2003, to address ACHCSA's requests for additional delineation of the vertical and lateral extents of impacted soil and groundwater and to work toward development of a remedial action plan for the subject property. Data from this investigation is currently being evaluated and a report for this investigation is being prepared.

Summary of Activities

AEI conducted a quarterly groundwater monitoring investigation on four monitoring wells (MW-1, MW-2, MW-3 and MW-4) and the one temporary backfill extraction well (TW-5) on October 14, 2003. First, the depths to groundwater (from the top of the well casings) for each well were measured with an electric water level indicator. The wells were then purged using a battery powered submersible pump. Approximately three well volumes were removed from each well. Temperature, pH, specific conductivity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were measured and the turbidity was visually noted during the purging of the wells.

Once the groundwater parameters stabilized, and following recovery of water levels, water samples were collected from each well. Sample water was poured from polyethylene bailers into 40-milliliter (ml) Volatile Organic Analysis (VOA) vials and 1-liter amber bottles. The VOAs were capped so neither headspace or air bubbles were visible within the vials. Samples were transported in a cooler on ice under appropriate chain-of-custody protocol to McCampbell Analytical, Inc. of Pacheco, California (Department of Health Services Certification #1644).

Groundwater samples from the five wells were analyzed for TPH-g, benzene, toluene, ethyl benzene, xylenes (BTEX), and MTBE by SW8021B/8015Cm. The groundwater samples were also analyzed for TPH-d (as diesel) and TPH-mo (as motor oil) by SW8015C.

Field Results

Hydrocarbon odor was detected in wells MW-1, MW-2, MW-3 and TW-5. Groundwater levels for this sampling episode ranged from -0.66 to -0.48 feet relative to mean sea level (msl). These elevations are an average of 0.64 feet lower than at the time of the previous quarterly monitoring event. Groundwater flow direction was estimated to be to the southeast with a hydraulic gradient of 0.003 ft/ft. The hydraulic gradient is an increase over the previous episode of 0.0017 ft/ft. The temporary extraction well, TW-5, is not included in calculating the groundwater direction flow or the hydraulic gradient due to variation in well construction and its location on the backfilled tank excavation.

Groundwater elevation data are summarized in Table 2 (Appendix A). The groundwater elevation contours and the groundwater flow direction are shown in Figure 4. Refer to Appendix B for the Groundwater Monitoring Well Field Sampling Forms.

Groundwater Quality

TPH-g decreased in concentration in all wells except temporary backfill extraction well TW-5. TPH-d concentrations increased in wells MW-1 and MW-2, but decreased in wells MW-3, MW-4 and TW-5. As in the past, a light non-aqueous liquid (LNAPL) was noted both in the field and by the laboratory in the samples from TW-5. MTBE has not been detected above laboratory reporting limits in any of the wells sampled since the September 19, 2001 monitoring event. Benzene concentrations decreased in all monitoring wells except TW-5. TPH-mo was detected in water samples from MW-1 and TW-5 at levels of 460 µg/L and 4,600 µg/L, respectively.

A summary of groundwater analytical data is presented in Table 2 of Appendix A. Laboratory results and chain of custody documents are included in Appendix C.

Conclusions

Concentrations of TPH-g and Benzene have shown seasonal fluctuations in all wells as groundwater levels rise and fall. These fluctuations are shown on charts included in Appendix A. During this monitoring period, concentrations of TPH-d in wells MW-1, MW-2, MW-3 and MW-4 were significantly lower than the concentrations of TPH-d in TW-5. This has been the case over the last two years of monitoring.

Groundwater monitoring and sampling of the five wells will continue, with the next episode scheduled for January 2004.

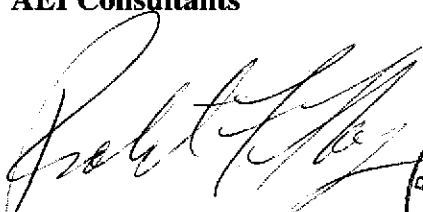
Report Limitations and Signatures

This report presents a summary of work completed by AEI Consultants, 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.

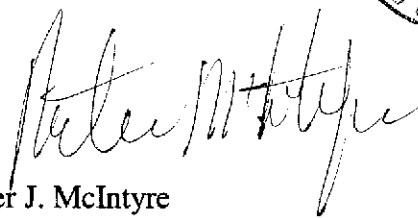
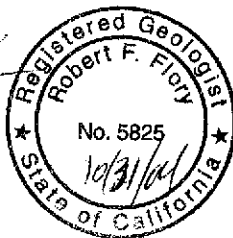
These services were performed in accordance with generally accepted practices in the environmental engineering and construction field that existed at the time and location of the work.

Please contact me if you have any questions regarding the findings outlined in this report.

Sincerely,
AEI Consultants



Robert F. Flory, RG
Project Manager



Peter J. McIntyre
Program Manager

cc: MR. Amir Gholani
ACHCSA
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

References

1. Underground Storage Tank Removal Final Report, prepared by AEI – October 10, 1996
2. Phase II Soil and Groundwater Investigation Report, prepared by AEI – March 17, 1997
3. Workplan, prepared by AEI – May 21, 1999
4. Soil Boring and Groundwater Monitoring Well Installation Report, prepared by AEI-September 16, 1999
5. Quarterly Groundwater Monitoring and Sampling Report, prepared by AEI-July 28, 2000.
6. Quarterly Groundwater Monitoring and Sampling Report, prepared by AEI-November 3, 2000.
7. Quarterly Groundwater Monitoring and Sampling Report, prepared by AEI-February 7, 2001.
8. Quarterly Groundwater Monitoring and Sampling Report, prepared by AEI-July 2, 2001.
9. Quarterly Groundwater Monitoring and Sampling Report, prepared by AEI-February 20, 2002.
10. Quarterly Groundwater Monitoring and Sampling Report, prepared by AEI-June 21, 2002.
11. Quarterly Groundwater Monitoring and Sampling Report, prepared by AEI-October 14, 2002.
12. Quarterly Groundwater Monitoring and Sampling Report, prepared by AEI-January 31, 2003.
13. Quarterly Groundwater Monitoring and Sampling Report, prepared by AEI-March 19, 2003.
14. Quarterly Groundwater Monitoring and Sampling Report, prepared by AEI-September 8, 2003.

Figures

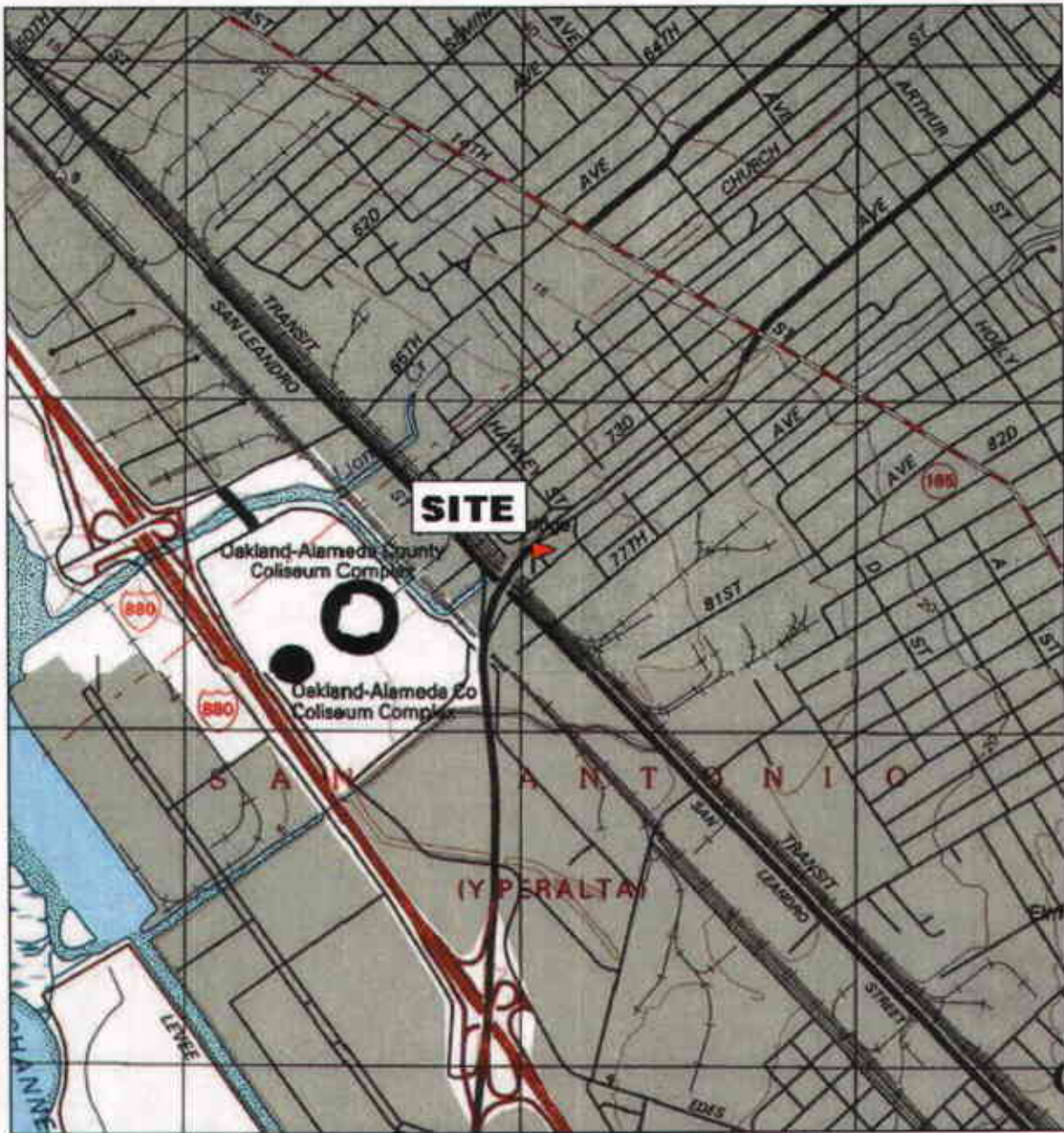
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| Figure 1 | Site Location Map |
| Figure 2 | Site Map |
| Figure 3 | Groundwater Analytical Data |
| Figure 4 | Groundwater Gradient |

Appendix A

- | | |
|---------|---|
| Table 1 | Well Construction Details |
| Table 2 | Historical Groundwater Analytical Results |

Appendix B Groundwater Monitoring Well Field Sampling Forms

Appendix C Laboratory Reports With Chain of Custody Documentation

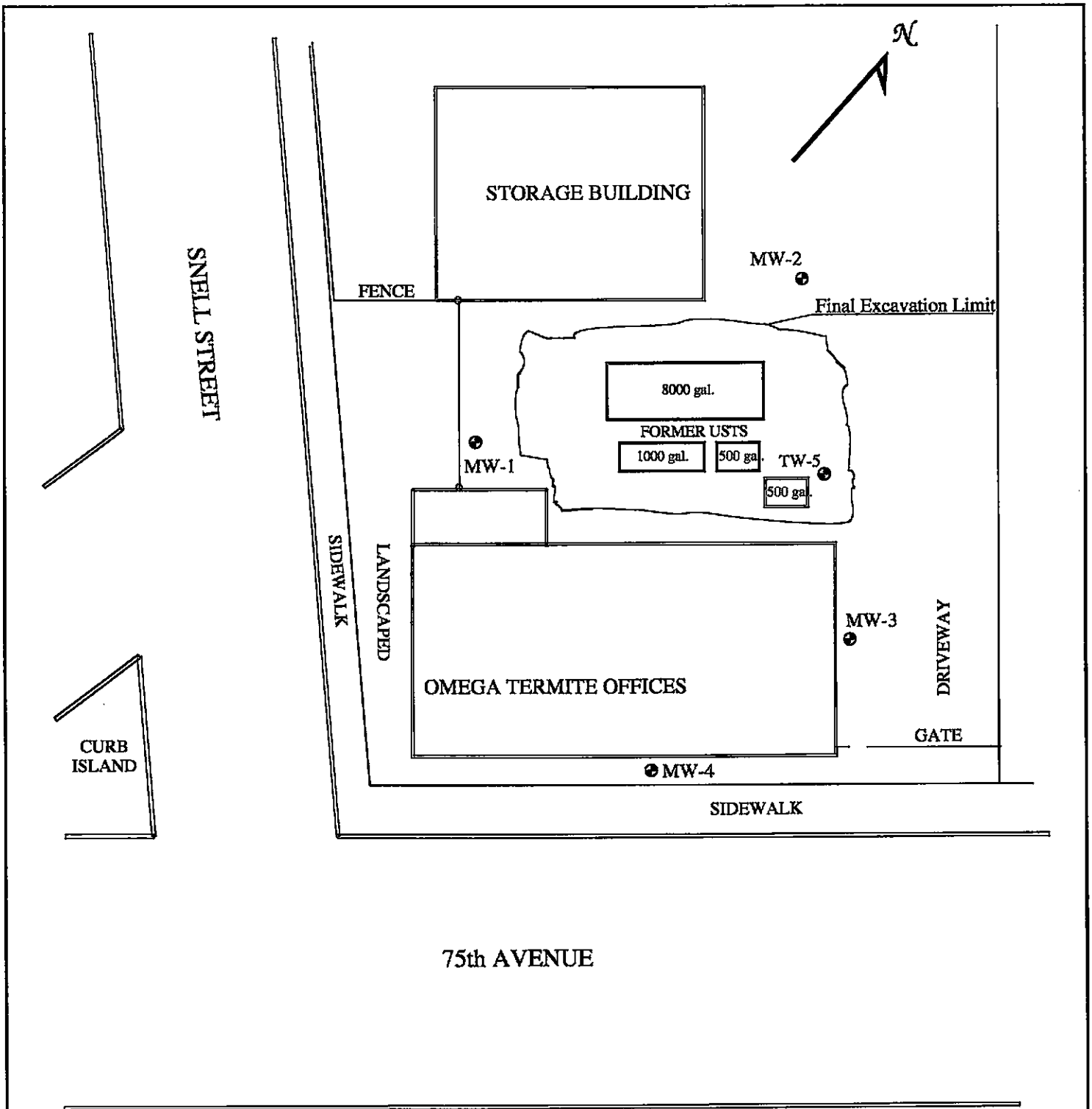


TN \nearrow MN
15°

0 5 1 MILE
0 1000 FEET 0 500 1000 METERS

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<p>AEI CONSULTANTS 2500 CAMINO DIABLO, STE 200, WALNUT CREEK, CA</p>	
<p>SITE LOCATION MAP</p>	
<p>807 75th AVENUE OAKLAND, CALIFORNIA</p>	<p>FIGURE 1 PROJECT NO. 3190</p>



75th AVENUE

LEGEND

0' 10' 20'
 SCALE: 1in = 20 ft

Draft: R Flory 10/25/03

● MONITORING WELL LOCATIONS

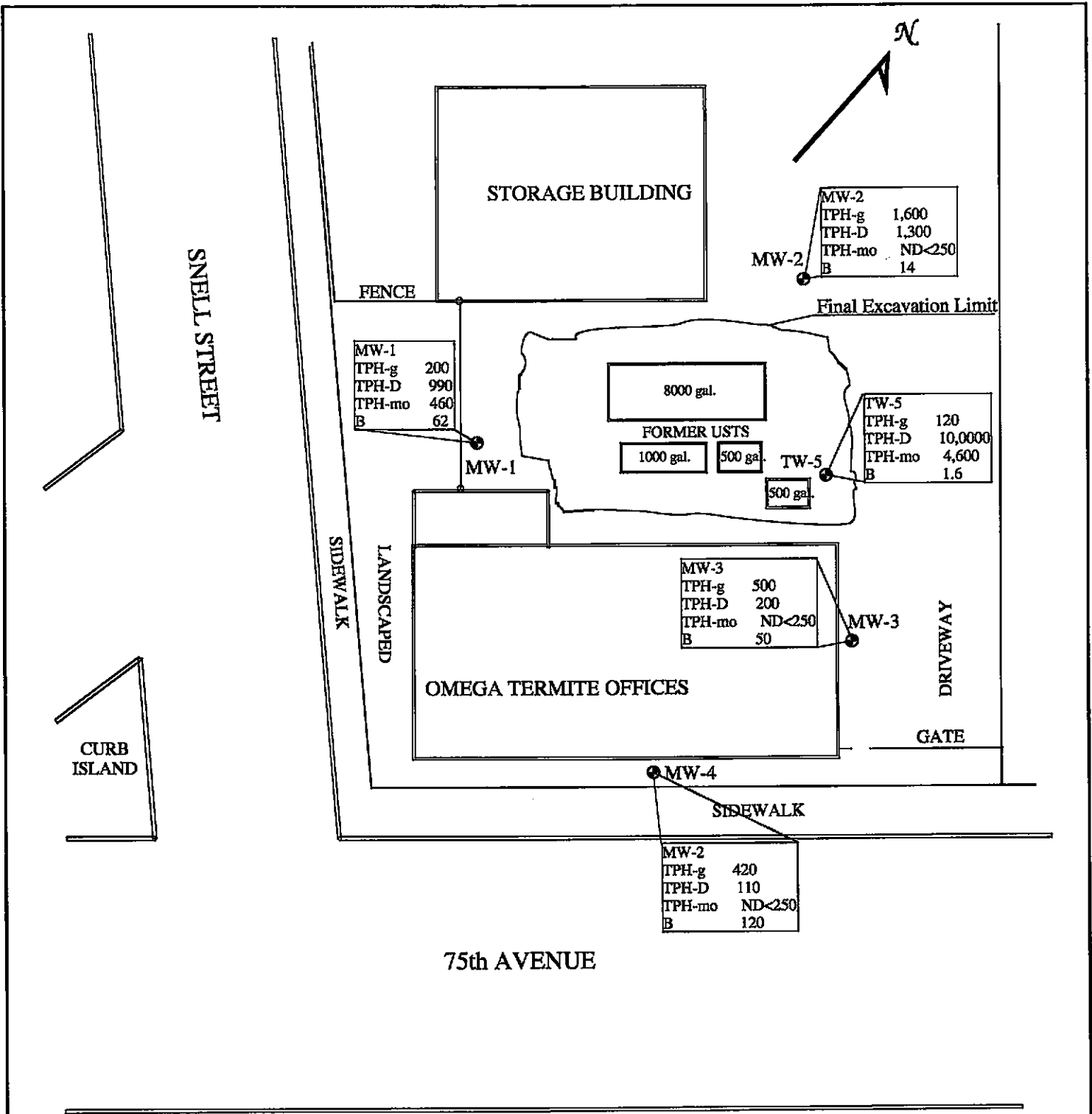
AEI CONSULTANTS

2500 CAMINO DIABLO, STE. 200, WALNUT CREEK, CA

SITE MAP

807 75th AVENUE
 OAKLAND, CALIFORNIA

FIGURE
 2
 Project No. 3190



LEGEND

0' 10' 20'
 SCALE: 1in = 20 ft

● MONITORING WELL LOCATIONS with concentrations in ug/L on 10/14/03

TPH-g - Total Petroleum Hydrocarbons as gasoline
 TPH-d - Total Petroleum Hydrocarbons as diesel
 TPH-mo - Total Petroleum Hydrocarbons as motor oil
 B - benzene

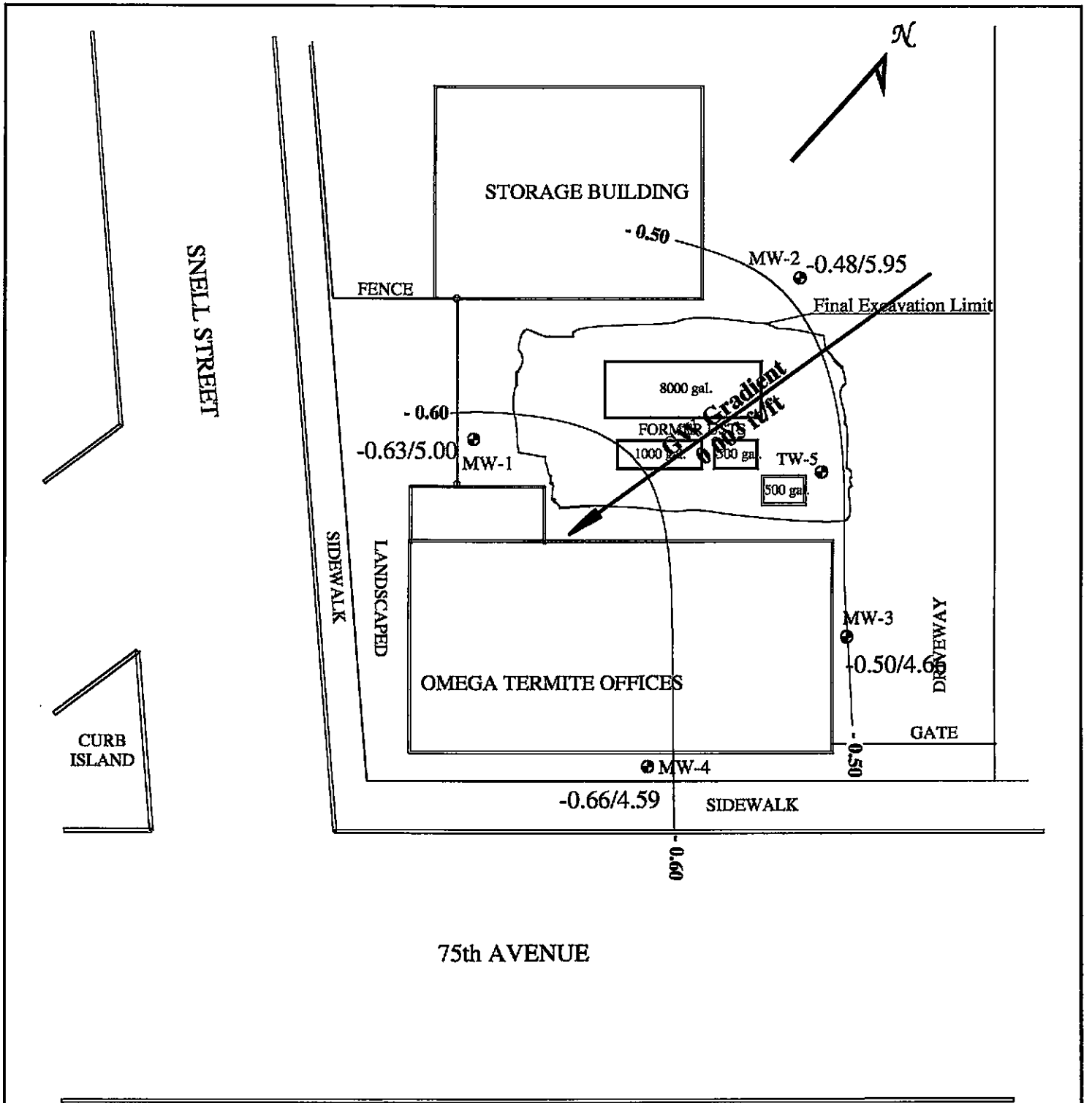
Draft: R Flory 10/23/03

AEI CONSULTANTS
 2500 CAMINO DIABLO, STE. 200, WALNUT CREEK, CA

Groundwater Analytical Data

807 75th AVENUE
 OAKLAND, CALIFORNIA



FIGURE 3
 Project No. 3190



LEGEND

0' 10' 20'
 SCALE: 1 in = 20 ft

Draft: R Flory 10/25/03

-  MONITORING WELL LOCATIONS with GW elevations/Casing elevations
-  GW Contours feet MSL

AEI CONSULTANTS

2500 CAMINO DIABLO, STE. 200, WALNUT CREEK, CA

Groundwater Gradient - 10/14/03

807 75th AVENUE
 OAKLAND, CALIFORNIA

FIGURE
 4
 Project No. 3190

Table 1 Well Construction Details, Omega Termite, 807 75th Ave., Oakland, CA

Well ID	Date Installed	Top of Casing (feet)	Water Depth 10/14/03	Casing Material	Total Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material (feet)	Bentonite Seal (feet)	Grout Seal (feet)
MW-1	06/25/99	5.00	5.03	PVC	20	20	8 1/4	2	20.0-5.0	0.02	5.0-4.5	#3 sand	4.5-3.5	3.5-0.5
MW-2	06/25/99	5.95	6.43	PVC	20	20	8 1/4	2	20.0-5.0	0.02	5.0-4.5	#3 sand	4.5-3.5	3.5-0.5
MW-3	06/25/99	4.66	5.16	PVC	20	20	8 1/4	2	20.0-5.0	0.02	5.0-4.5	#3 sand	4.5-3.5	3.5-0.5
MW-4	06/25/99	4.59	5.25	PVC	20	20	8 1/4	2	20.0-5.0	0.02	5.0-4.5	#3 sand	4.5-3.5	3.5-0.5
TW-5	Mar. 2000	NS	6.08	PVC	10	10	NA	4	10.0-5.0	drilled	NA	NA	NA	2.0

Table 2 Historical Groundwater Analyses, Omega Termite, 807 75th Ave., Oakland, CA

Sample ID	Sample Collection Date	Top of casing	Water depth	GW elevation	TPH-g µg/L	TPH-d µg/L	TPHmo µg/L	MTBE µg/L	Benzene µg/L	Toluene µg/L	Ethyl benzene µg/L	Xylenes µg/L
MW-1	07/30/99	5.00	5.82	-0.82	2,700	---	---	ND<10	920	5.5	18	130
	11/09/99	5.00	5.70	-0.70	1,800	---	---	ND<20	430	1.5	26	60
	02/23/00	5.00	2.84	2.16	3,800	---	---	ND<10	1,500	56	78	35
	05/26/00	5.00	5.50	-0.50	7,100	---	---	ND<10	2,800	70	220	81
	10/10/00	5.00	5.70	-0.70	980	---	---	ND<5.0	260	2.9	10	11
	02/07/01	5.00	5.25	-0.25	570	---	---	ND<5.0	150	1.8	4.9	9.3
	05/25/01	5.00	5.25	-0.25	18,000	---	---	ND<100	3,800	350	550	620
	09/19/01	5.00	5.51	-0.51	840	---	---	ND<5.0	190	4.0	4.6	5.3
	02/06/02	NS	NS	NS	---	---	---	---	---	---	---	---
	05/17/02	5.00	5.30	-0.30	13,000	920	---	ND<50/<5.0 ¹	4,500	29	50	58
	08/20/02	5.00	5.39	-0.39	2,100	740	ND<5000 ²	ND<15	820	4.5	6.4	9.6
	01/10/03	5.00	4.11	0.89	95	260	ND<5000 ²	ND<5.0	23	0.66	3.9	6.5
	04/14/03	5.00	4.85	0.15	340	310	---	ND<5.0	87	1.3	4.3	5.6
	07/14/03	5.00	5.08	-0.08	750	700	---	ND<10	420	0.84	3.7	6.0
	10/14/03	5.00	5.63	-0.63	200	990 ³	460.0	ND<5.0	62	0.83	2.2	2.7
MW-2	07/30/99	5.95	6.64	-0.69	1,200	---	---	ND<10	29	2.5	51	100
	11/09/99	5.95	6.42	-0.47	1,300	---	---	ND<30	26	1.1	55	32
	02/23/00	5.95	3.31	2.64	5,000	---	---	ND<10	200	18	390	440
	05/26/00	5.95	6.34	-0.39	2,700	---	---	ND<10	69	13	83	68
	10/10/00	5.95	6.52	-0.57	810	---	---	ND<10	17	4.7	42	46
	02/07/01	5.95	5.90	0.05	2,600	---	---	ND<10	70	15	80	100
	05/25/01	5.95	6.08	-0.13	2,400	---	---	ND<5.0	75	16	85	100
	09/19/01	5.95	6.53	-0.58	1,200	---	---	ND<5.0	10	8.5	46	55
	02/06/02	5.95	5.72	0.23	1,800	---	---	ND<50	14	11	58	59
	05/17/02	5.95	6.17	-0.22	2,000	860	---	ND<20/8.1 ¹	19	1.1	0.75	88
	08/20/02	5.95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	01/10/03	5.95	5.12	0.83	2,000	910	ND<5000 ²	ND<50	11	11	96	100
	04/14/03	5.95	4.98	0.97	2,400	800	-	ND<10	16	10	100	73
	07/14/03	5.95	5.99	-0.04	1,900	970	-	ND<15	18	4.8	79	78
	10/14/03	5.95	6.43	-0.48	1600 ^{4,5}	1,300	ND<250	ND<10	14	5.9	87	78

Table 2 Historical Groundwater Analyses, Omega Termite, 807 75th Ave., Oakland, CA

Sample ID	Sample Collection Date	Top of casing	Water depth	GW elevation	TPH-g µg/L	TPH-d µg/L	TPHmo µg/L	MTBE µg/L	Benzene µg/L	Toluene µg/L	Ethyl benzene µg/L	Xylenes µg/L
MW-3	07/30/99	4.66	5.35	-0.69	2,700	---	---	ND<10	220	15	130	230
	11/09/99	4.66	5.11	-0.45	3,100	---	---	15	440	8.8	150	96
	02/23/00	4.66	2.37	2.29	1,800	---	---	ND<15	180	11	82	79
	05/26/00	4.66	4.98	-0.32	1,600	---	---	6.4	140	10	69	63
	10/10/00	4.66	5.24	-0.58	1,100	---	---	ND<10	110	4.4	63	51
	02/07/01	4.66	4.73	-0.07	1,100	---	---	ND<10	130	5.1	68	65
	05/25/01	4.66	4.73	-0.07	1,200	---	---	ND<6.0	120	5.4	69	64
	09/19/01	4.66	5.07	-0.41	800	---	---	<5.0	78	3.5	52	37
	02/06/02	4.66	4.69	-0.03	1,100	---	---	ND<10	130	4.7	77	71
	05/17/02	4.66	4.80	-0.14	2,800	810	---	ND<50/2.0 ¹	410	23	160	210
	08/20/02	4.66	4.97	-0.31	780	270	ND<5000 ²	ND<10	110	2.8	63	41
	01/10/03	4.66	3.59	1.07	1,100	510	ND<5000 ²	ND<20	160	3.4	98	84
	04/14/03	4.66	5.40	-0.74	690	230	-	ND<5.0	60	2.3	44	34
	07/14/03	4.66	4.69	-0.03	900	380	-	ND<5.0	130	2.0	70	43
10/14/03	4.66	5.16	-0.50	500	200 ^{4,5}	ND<250	ND<10	50	2.3	37	18	
MW-4	07/30/99	4.59	5.45	-0.86	340	---	---	ND<10	57	2.2	8.5	6.8
	11/09/99	4.59	5.31	-0.72	1,000	---	---	ND<10	220	<0.5	17	7.1
	02/23/00	4.59	2.72	1.87	980	---	---	ND<5.0	260	7	33	27
	05/26/00	4.59	5.07	-0.48	760	---	---	5.7	170	4.8	22	13
	10/10/00	4.59	5.32	-0.73	520	---	---	ND<10	130	2.3	22	10
	02/07/01	4.59	4.73	-0.14	680	---	---	ND<8.0	180	3.7	29	21
	05/25/01	4.59	4.90	-0.31	1,700	---	---	ND<10	510	9.6	44	46
	09/19/01	4.59	5.16	-0.57	680	---	---	ND<10	200	2.6	33	12
	02/06/02	4.59	4.65	-0.06	710	---	---	ND<15	220	2.8	40	21
	05/17/02	4.59	4.90	-0.31	1,300	190	---	ND<5.0/3.3 ¹	330	5.6	61	51
	08/20/02	4.59	5.02	-0.43	580	120	ND<5000 ²	ND<5.0	160	1.7	34	13
	01/10/03	4.59	3.78	0.81	800	85	ND<5000 ²	ND<20	240	2.5	46	28
	04/14/03	4.59	4.11	0.48	850	120	---	ND<10	220	2.7	47	26
	07/14/03	4.59	4.75	-0.16	780	170	---	ND<20	220	1.4	44	23
10/14/03	4.59	5.25	-0.66	420	110 ^{4,5}	ND<250	ND<5.0	120	0.95	31	8.2	

Table 2 Historical Groundwater Analyses, Omega Termite, 807 75th Ave., Oakland, CA

Sample ID	Sample Collection Date	Top of casing	Water depth	GW elevation	TPH-g µg/L	TPH-d µg/L	TPHmo µg/L	MTBE µg/L	Benzene µg/L	Toluene µg/L	Ethyl benzene µg/L	Xylenes µg/L
TW-5	10/10/00	---	---	---	5,800	2,900	ND<250	ND<50	650	60	190	230
	02/07/01	---	---	---	720	650	450	ND<5.0	6.0	4.5	3.2	4.5
	05/25/01	---	---	---	370	420	ND<250	ND<5.0	13.0	4.1	1.6	1.3
	09/19/01	ns	6.59	na	15,000	2,700,000	1,100,000	530	29	2.7	14	240
	02/06/02	---	---	---	280	55,000	18,000	ND<5.0	2.3	0.74	ND<0.5	0.70
	05/17/02	ns	6.56	na	480	41,000	---	ND<5.0/<5.0 ¹	1.6	1.1	0.8	ND<0.5
	08/20/02	ns	6.62	na	240	21,000	ND<5000 ²	ND<5.0	8.0	1.2	1.1	0.54
	01/10/03	ns	4.66	na	ND<50	1,300	ND<5000 ²	ND<5.0	5.4	0.58	ND<0.5	1.10
	4/14/2003	ns	5.30	na	160	2,300	---	ND<5.0	18	5.7	5.9	16
	7/14/2003	ns	5.84	na	100	16,000	---	ND<5.0	1.2	0.77	0.63	1.2
	10/14/03	ns	6.08	na	120 ⁶	10,000 ⁶	4600	ND<5.0	1.6	1.6	ND<0.5	1.2

Notes

µg/L micrograms per liter (parts per billion)

--- not sampled

ND not detected

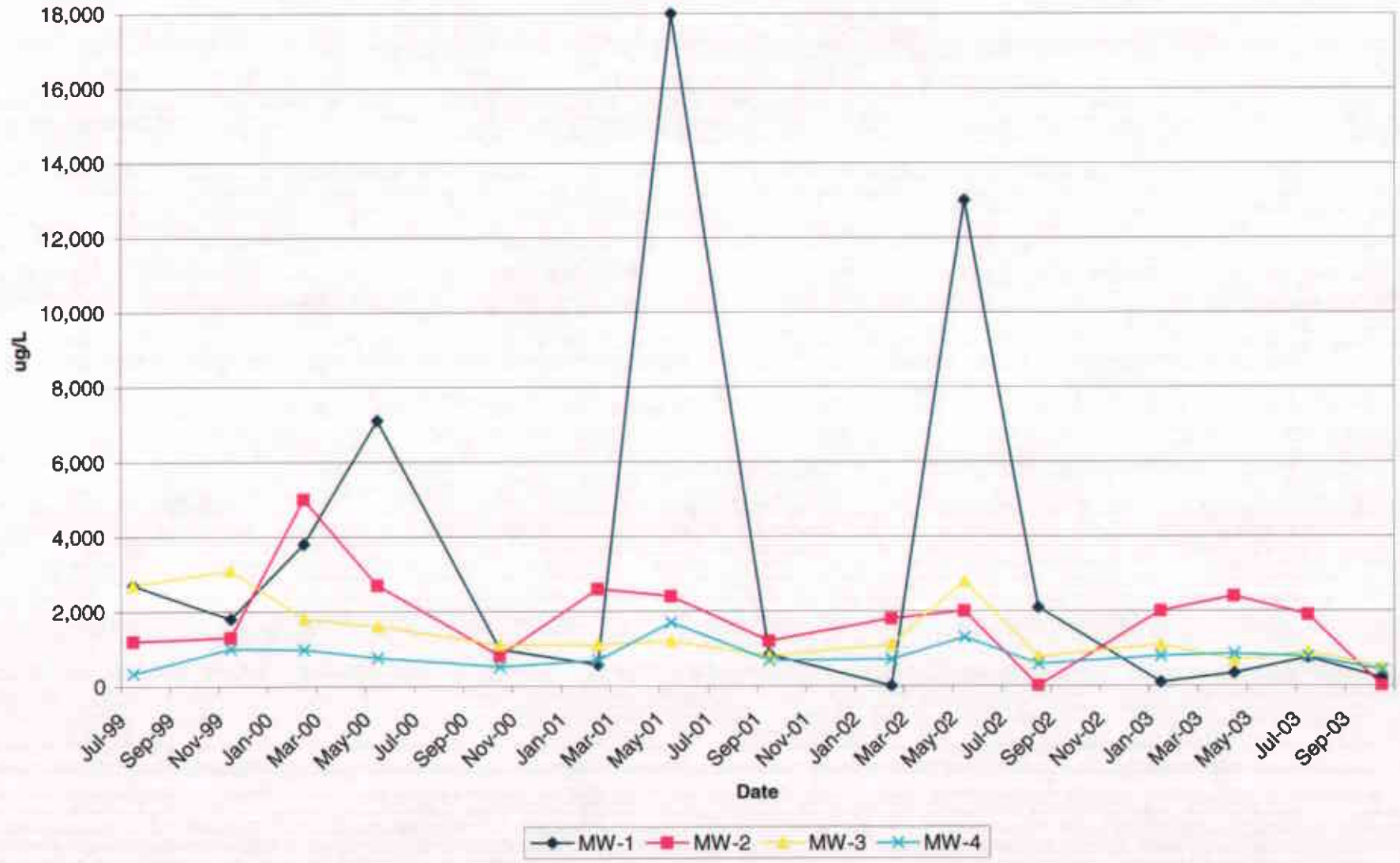
TPH-g total petroleum hydrocarbons as gasoline

TPH-d total petroleum hydrocarbons as diesel

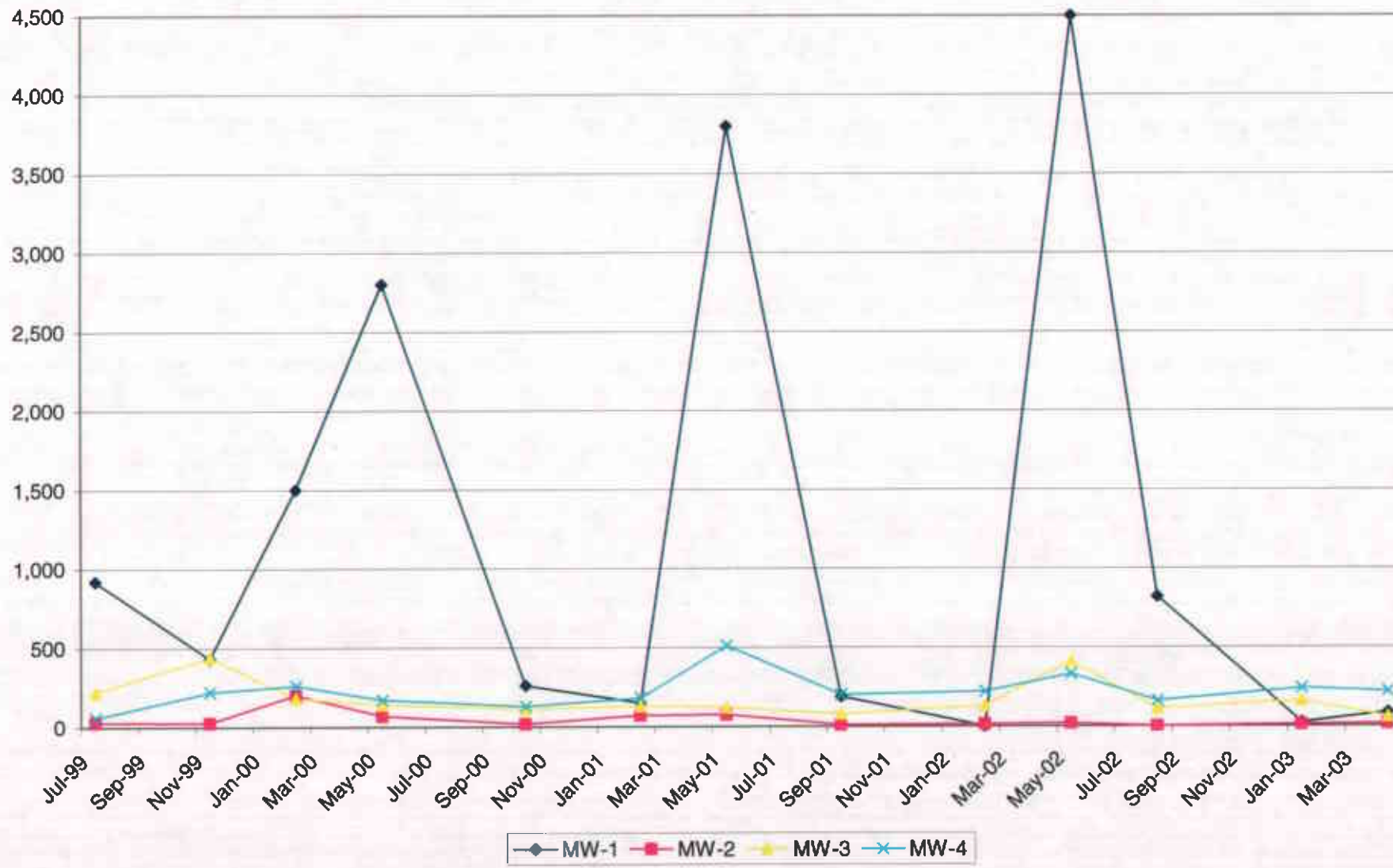
TPH-mo total petroleum hydrocarbons as motor oil

- 1 MTBE concentrations by methods 8021B/8260B
- 2 analysis for total oil and grease by method 5520
- 3 fuel oil
- 4 diesel range compounds are significant; no recognizable pattern
- 5 gasoline range compounds are significant
- 6 lighter than water immiscible sheen/product is present

TPH-g Concentrations



Benzene Concentrations



AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	Omega Termite	Date of Sampling:	10/14/2003
Job Number:	3190	Name of Sampler:	AN
Project Address:	807 75th Avenue Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	5.00		
Depth of Well	20.00		
Depth to Water (from top of casing)	5.63		
Water Elevation (feet above msl)	-0.63		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	6.9		
Actual Volume Purged (gallons)	8.0		
Appearance of Purge Water	Dark, clear at 2 gallons.		
Free Product Present?	trace ?	Thickness (ft):	NA

GROUNDWATER SAMPLES

Number of Samples/Container Size				2 - 40ml VOAs, 1 L Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	2	19.59	6.60	914	0.93	-143.6	
	4	19.46	6.70	899	0.50	-155.9	
	6	19.81	6.88	933	1.24	-135.1	
	8	19.61	6.79	984	0.34	-145.9	

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

Gray with strong odor, clear at 2 gallons, dry at 4.5 gallons, allow recharge, slight sheen?

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Project Name:	Omega Termite	Date of Sampling:	10/14/2003
Job Number:	3190	Name of Sampler:	AN
Project Address:	807 75th Avenue Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	5.95		
Depth of Well	20.00		
Depth to Water (from top of casing)	6.43		
Water Elevation (feet above msl)	-0.48		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	6.5		
Actual Volume Purged (gallons)	7.0		
Appearance of Purge Water	light gray, clear at 2 gallon.		
Free Product Present?	No	Thickness (ft):	NA

GROUNDWATER SAMPLES

Number of Samples/Container Size				2 - 40ml VOAs, 1 L Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	1	21.72	7.01	1154	0.49	-160.0	
	3	21.39	6.96	1136	0.32	163.2	
	5	21.01	6.93	1125	0.25	163.7	
	7	20.79	6.91	1123	0.23	164.4	

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

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

Project Name:	Omega Termite	Date of Sampling:	10/14/2003
Job Number:	3190	Name of Sampler:	AN
Project Address:	807 75th Avenue Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	4.66		
Depth of Well	20.00		
Depth to Water (from top of casing)	5.16		
Water Elevation (feet above msl)	-0.50		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	7.1		
Actual Volume Purged (gallons)	8.0		
Appearance of Purge Water	Slightly milky		
Free Product Present?	No	Thickness (ft):	NA

GROUNDWATER SAMPLES

Number of Samples/Container Size				2 - 40ml VOAs, 1 L Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	2	20.25	6.98	1465	0.83	-112.5	
	4	20.29	6.91	1479	0.55	-117.7	
	6	19.91	6.84	1459	0.26	-117.7	
	8	19.80	6.82	1453	0.22	-120.3	

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

Slightly milky, slight odor, clear at 1 1/2 gallon

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-4

Project Name:	Omega Termite	Date of Sampling:	10/14/2003
Job Number:	3190	Name of Sampler:	AN
Project Address:	807 75th Avenue Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	4.59		
Depth of Well	20.00		
Depth to Water (from top of casing)	5.25		
Water Elevation (feet above msl)	-0.66		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	7.1		
Actual Volume Purged (gallons)	8.0		
Appearance of Purge Water	clear		
Free Product Present?	No	Thickness (ft):	NA

GROUNDWATER SAMPLES

Number of Samples/Container Size				2 - 40ml VOAs, 1 L Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	2	20.56	6.98	1475	1.54	-61.1	
	4	20.29	6.87	1440	0.73	-64.6	
	6	19.96	6.82	1530	0.43	-74.8	
	8	19.77	6.82	1563	0.29	-83.8	

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

clear slight odor

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: TW-5

Project Name:	Omega Termite	Date of Sampling:	10/14/2003
Job Number:	3190	Name of Sampler:	AN
Project Address:	807 75th Avenue Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	not surveyed		
Depth of Well	10.00		
Depth to Water (from top of casing)	6.08		
Water Elevation (feet above msl)	na		
Well Volumes Purged	3		
Caculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)			
Actual Volume Purged (gallons)			
Appearance of Purge Water			
Free Product Present?	Yes	Thickness (ft):	thin sheen

GROUNDWATER SAMPLES

Number of Samples/Container Size				2 - 40ml VOAs, 1 L Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ sec/cm)	DO (mg/L)	ORP (meV)	Comments

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

not enough water to purge
thin sheen on samples

 McC Campbell Analytical Inc.	110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone : 925-798-1620 Fax : 925-798-1622 http://www.mcccampbell.com E-mail: main@mcccampbell.com
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All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #6861 Qt 15; Omega	Date Sampled: 10/14/03
		Date Received: 10/14/03
	Client Contact: Peter McIntyre	Date Reported: 10/21/03
	Client P.O.:	Date Completed: 10/21/03

WorkOrder: 0310222

October 21, 2003

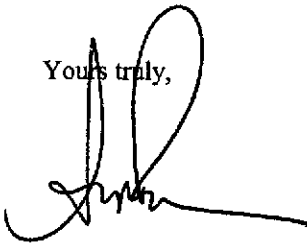
Dear Peter:

Enclosed are:

- 1). the results of 5 analyzed samples from your #6861 Qt 15; 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. McC Campbell 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,



Angela Rydelius, Lab Manager



McC Campbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
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http://www.mcccampbell.com E-mail: main@mcccampbell.com

All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #6861 Qt 15; Omega	Date Sampled: 10/14/03
		Date Received: 10/14/03
	Client Contact: Peter McIntyre	Date Extracted: 10/16/03-10/20/03
	Client P.O.:	Date Analyzed: 10/16/03-10/20/03

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0310222

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	200,a	ND	62	0.83	2.2	2.7	1	114
002A	MW-2	W	1600,a	ND<10	14	5.9	87	78	2	--#
003A	MW-3	W	500,a	ND<10	50	2.3	37	18	1	114
004A	MW-4	W	420,a	ND	120	0.95	31	8.2	1	108
005A	TW-5	W	120,a,h	ND	1.6	1.6	ND	1.2	1	116


Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell 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 (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

 Angela Rydelius, Lab Manager

All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #6861 Qt 15; Omega	Date Sampled: 10/14/03
		Date Received: 10/14/03
	Client Contact: Peter McIntyre	Date Extracted: 10/14/03
	Client P.O.:	Date Analyzed: 10/17/03-10/18/03

Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons as Diesel and Motor Oil*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0310222

Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0310222-001B	MW-1	W	990,a,m	460	1	103
0310222-002B	MW-2	W	1300,d,b	ND	1	112
0310222-003B	MW-3	W	200,d,b	ND	1	111
0310222-004B	MW-4	W	110,d,b	ND	1	111
0310222-005B	TW-5	W	10,000,a,h	4600	10	118

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.



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QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W

WorkOrder: 0310222

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 8932		Spiked Sample ID: 0310226-023A				
	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex) [£]	ND	60	99.2	102	2.61	108	111	2.79	70	130
MTBE	ND	10	106	103	2.94	109	110	0.362	70	130
Benzene	ND	10	94.2	101	6.72	106	107	1.38	70	130
Toluene	ND	10	96	102	6.52	97.4	102	4.51	70	130
Ethylbenzene	ND	10	99.1	105	5.92	108	109	0.533	70	130
Xylenes	ND	30	100	110	9.52	100	99.7	0.334	70	130
%SS:	104	100	96.3	97.7	1.40	102	103	0.934	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / (MS + MSD) * 2$.

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



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QC SUMMARY REPORT FOR SW8015C

Matrix: W

WorkOrder: 0310222

EPA Method: SW8015C		Extraction: SW3510C			BatchID: 8918		Spiked Sample ID: N/A			
	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(d)	N/A	7500	N/A	N/A	N/A	86.9	84.8	2.47	70	130
%SS:	N/A	100	N/A	N/A	N/A	102	100	2.42	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

$\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) * 2.$

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

McC Campbell Analytical Inc.



110 Second Avenue South, #D7
 Pacheco, CA 94553-5560
 (925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0310222

Client:

All Environmental, Inc.
 2500 Camino Diablo, Ste. #200
 Walnut Creek, CA 94597

TEL: (925) 283-6000
 FAX: (925) 283-6121
 ProjectNo: #6861 Qt 15; Omega
 PO:

Date Received: 10/14/03
Date Printed: 10/14/03

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests		
					SW8015C	SW8021B/8015Cm	
0310222-001	MW-1	Water	10/14/03	<input type="checkbox"/>	B	A	
0310222-002	MW-2	Water	10/14/03	<input type="checkbox"/>	B	A	
0310222-003	MW-3	Water	10/14/03	<input type="checkbox"/>	B	A	
0310222-004	MW-4	Water	10/14/03	<input type="checkbox"/>	B	A	
0310222-005	TW-5	Water	10/14/03	<input type="checkbox"/>	B	A	

Prepared by: Melissa Valles

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

031022

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACIFIC CO, CA 94553-5560

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

EDF Required? Yes No

Report To: Peter McIntyre
Company: AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597
Tele: (925) 283-6000
Project #: 6861 Q115
Project Location: 73rd Ave, Oakland
Sampler Signature: Adrian Nieto

Bill To:

Analysis Request

Other Comments

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				BIEX & TPH as Gas (602/8020 + 8015)M/TFE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/R&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BIEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB'S ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239 2/6010)	RCI	Other	Comments				
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other																					
MW-1		10/14	Am	3	Vials	X							X	X																					
MW-2			Am	1									X	X																					
MW-3			Am	1									X	X																					
MW-4			Pm	1									X	X																					
TW-5			Pm	1									X	X																					

Relinquished By: Adrian Nieto
Date: 10/14 Time: 3:25
Received By: [Signature]
Relinquished By: [Signature]
Date: Time: Received By:
Relinquished By: [Signature]
Date: Time: Received By:

ICE/✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ✓
PRESERVATION APPROPRIATE ✓
CONTAINERS PRESERVED IN LAB ✓
VOAS ✓
O&G METALS OTHER

Jo. Mel