

Phone: (925) 283-6000

Fax: [925] 944-2895

June 22, 2005

Mr. Barney Chan Alameda Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502 **Ala**meda County

JUN 2 7 2005

Environmental Health

Subject:

2nd quarter 2005 Groundwater Monitoring Report

807 75th Street Oakland, CA 94621 AEI Project No. 3190

Dear Barney:

Enclosed is the most recent quarterly monitoring report for the above referenced site. I have been unable to find out who currently is responsible for this site. Could you see that this report gets to the proper person?

Thanks, you help is appreciated. Please call me or Robert Flory at (925) 944-2899 ext. 122 if you have any questions.

Sincerely.

Adrian Angel Staff Geologist June 22, 2005

GROUNDWATER MONITORING REPORT Second Quarter, 2005

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

Alameda County

JUN 2 7 2005

Environmental Health

AEI



Phone: [925] 944-2899

Fax: {925} 944-2895

June 22, 2005

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

Subject:

Quarterly Groundwater Monitoring Report

Second Quarter 2005 807 75th Avenue

Oakland, California Project No. 3190

Dear Mr. Kanady:

AEI Consultants (AEI) has prepared this report to document the results of the second quarter 2005 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 near the location of previously removed 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. 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 groundwater elevation and historical groundwater sample analytical data are presented in Tables 2 and 3.

Under the direction of the 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). 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. Seven temporary Geoprobe® boreholes (SB-7 through SB-13) were advanced to depths ranging from 15 to 20 feet bgs. One borehole, SB-14 was advanced to a depth of 30 feet bgs to determine if the second aquifer at the site had been impacted. Soil samples were collected in the vadose zone above the first aquifer and from the aquitard between the first and second aquifers. The results of chemical analyses of soil samples collected and analyzed during this investigation and earlier investigations appear to have effectively defined the limits of impacted soil in the vadose zone. Highly impacted soil appears to have been removed from the site except in the immediate vicinity of boring SB-14. The limits of soil contamination in the soil below the upper aquifer have not been defined.

The analysis of the water sample from the second aquifer (Boring SB-14, 28 feet bgs) reported TPH-g, TPH-d, MTBE and benzene at concentrations of 2,300 μ g/L, 72,000 μ g/L, 45 μ g/L and 120 μ g/L, respectively. The limits of impact in this aquifer have not been identified.

Summary of Activities

AEI conducted quarterly groundwater monitoring of four monitoring wells (MW-1 through MW-4) and the one temporary backfill extraction well (TW-5) on April 19, 2005. Prior to measuring depth to water measurements, the caps were removed from the top of all wells and the water level allowed to equilibrate with atmospheric pressure for at least 15 minutes. The depth to groundwater (from the top of the well casings) for each well was measured with an electric water level indicator. The wells were then purged using a 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 to 90% of the original level, water samples were collected from each well. Sample waters were collected using new disposable bailers and placed into 40-milliliter (ml) Volatile Organic Analysis (VOA) vials and 1-liter amber bottles. The VOAs were capped so that no 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

A hydrocarbon odor was detected in wells MW-1, MW-2 and TW-5. Groundwater levels for this sampling episode ranged from 0.34 to 0.43 feet above mean sea level (amsl). These elevations are an average of 0.01 feet higher than at the time of the previous quarterly monitoring event. Groundwater flow direction based on monitoring wells MW-1 through MW-4 was to the northwest with a hydraulic gradient of 0.001 ft/ft. The hydraulic gradient is a decrease from the previous quarter's gradient of 0.002 ft/ft. The temporary extraction well, TW-5, is not included in calculating the groundwater flow direction or the hydraulic gradient due to variation in well construction and its location in the backfilled tank excavation.

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

Groundwater Quality

TPH-g concentrations increased in all wells; except MW-2 and TW-5, which remained comparable to the previous episode. The highest TPH-g concentration detected was in monitoring well MW-1, at 5,100 μg/L. TPH-d concentrations increased in all wells; the highest detection being in well MW-2 at a concentration of 1,700 μg/L. TPH-mo was detected at a concentration of 660 μg/L in well TW-5, however was not detected at or above a reporting limit of 250 μg/L in all other wells.

BTEX slightly increased in wells MW-1, MW-3, and MW-4. BTEX decreased slightly in well MW-2, and remained below laboratory reporting limits in TW-5. The highest BTEX concentration detected was benzene at 2,100 µg/L in MW-1. MTBE has not been detected above laboratory reporting limits in any of the wells sampled since the September 19, 2001 monitoring event.

A summary of groundwater analytical data is presented in Table 3. Laboratory results and chain of custody documents are included in Appendix B.

Conclusions and Recommendations

AEI believes that additional investigation is warranted to further delineate the hydrocarbons in the second aquifer previously identified in boring SB-14. However, at this time no guidance or feedback from the Alameda County Health Care Services Agency (ACHCSA) has been received. In light of the discontinuance of pre-approval for projects by the State UST Fund and the UST Fund's history of refusing reimbursement for activities not approved by an oversight agency, the expenditure of additional funds except for continuing the current groundwater monitoring program cannot be recommended at this time.

Groundwater monitoring and sampling of the five existing wells will continue, with the next episode scheduled for late July, 2005.

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 Robert F. Flory at (925) 944-2899 extension 122, if you have any questions regarding the findings and recommendations included in this report.

Sincerely,

AEI Consultants

Adrian Angel Staff Geologist

Robert F. Flory, P.G. Senior Geologist

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. Groundwater Monitoring Report, 13th Episode 2003, prepared by AEI-March 19, 2003.
- 14. Groundwater Monitoring Report, 14th Episode 2003, prepared by AEI-September 8, 2003.
- 15. Groundwater Monitoring Report, Fourth Quarter 2003, prepared by AEI-October 24, 2003.
- 16. Groundwater Monitoring Report, First Quarter 2004, prepared by AEI-January 29, 2004.
- 17. Groundwater Monitoring Report, Second Quarter 2004, prepared by AEI-May 24, 2004.
- 18. Groundwater Monitoring Report, Third Quarter 2004, prepared by AEI-August 23, 2004.
- 19. Groundwater Monitoring Report, Fourth Quarter 2004, prepared by AEI-December 6, 2004.
- 20. Groundwater Monitoring Report, First Quarter 2005, prepared by AEI-March 9, 2005.

Figures

Figure 1 Site Location Map

Figure 2 Site Map

Figure 3 Groundwater Analytical Data

Figure 4 Groundwater Gradient Figure 5 Graph TPH-g - MW-2

Figure 6 Graph TPH-g and TPH-d with trend lines, MW-2

Tables

Table 1 Well Construction Details

Table 2 Historical Groundwater Elevations

Table 3 Historical Groundwater Analytical Results

Appendix A Groundwater Monitoring Well Field Sampling Forms

Appendix B Laboratory Reports With Chain of Custody Documentation

Distribution:

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

2 copies

Mr. Amir Gholami

ACHCSA

1131 Harbor Bay Parkway, Suite 250

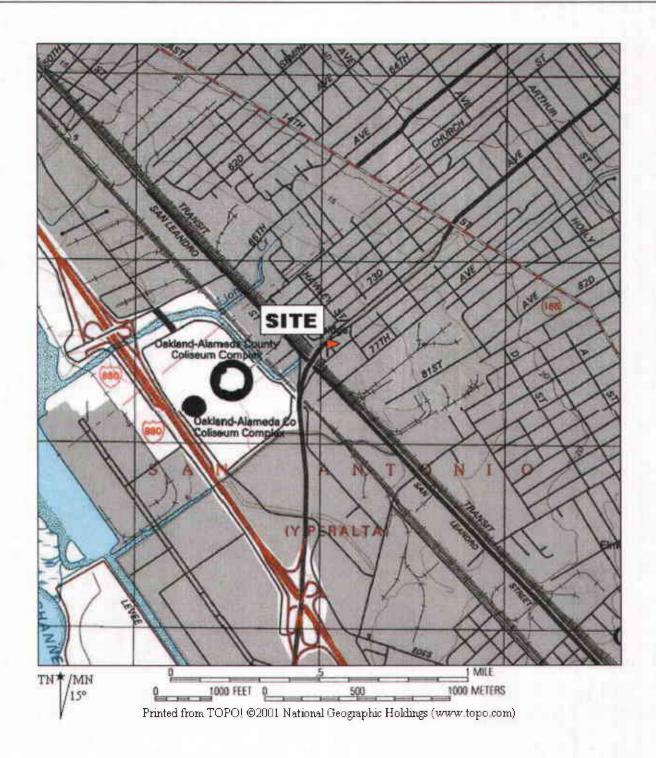
Alameda, CA 94502

Betty Graham

San Francisco Bay Regional Water Quality Control Board

1515 Clay Street, Suite 1400

Oakland CA 94612

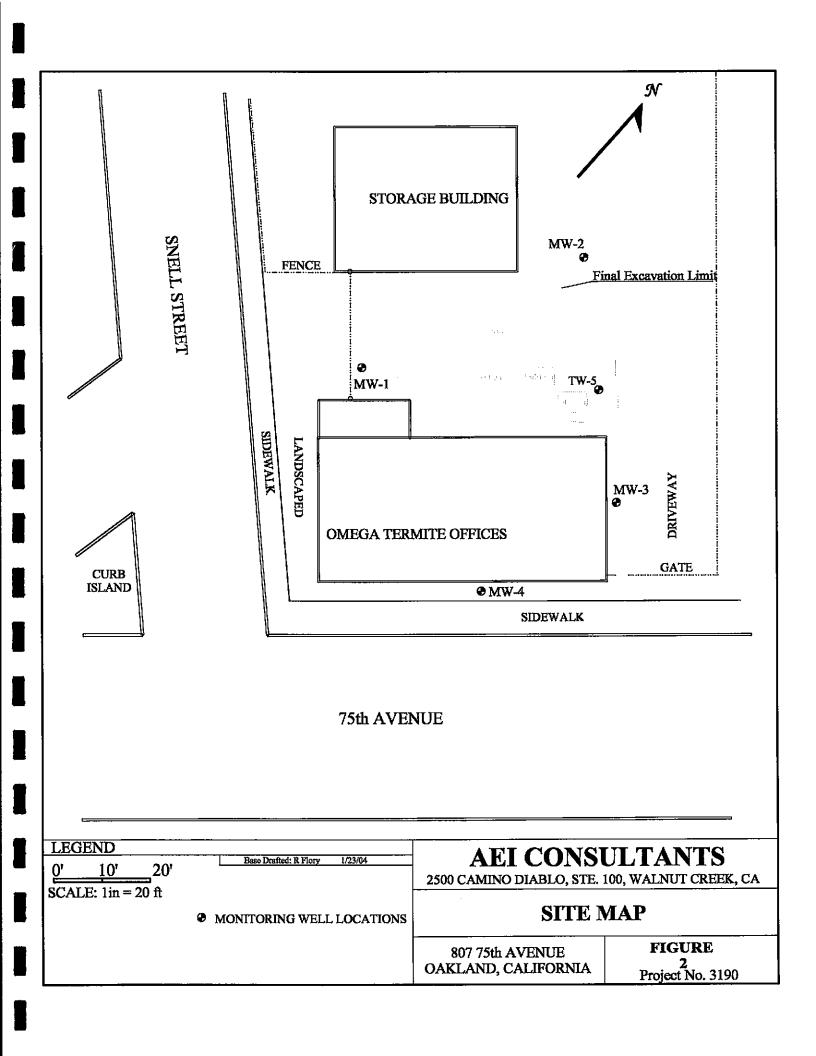


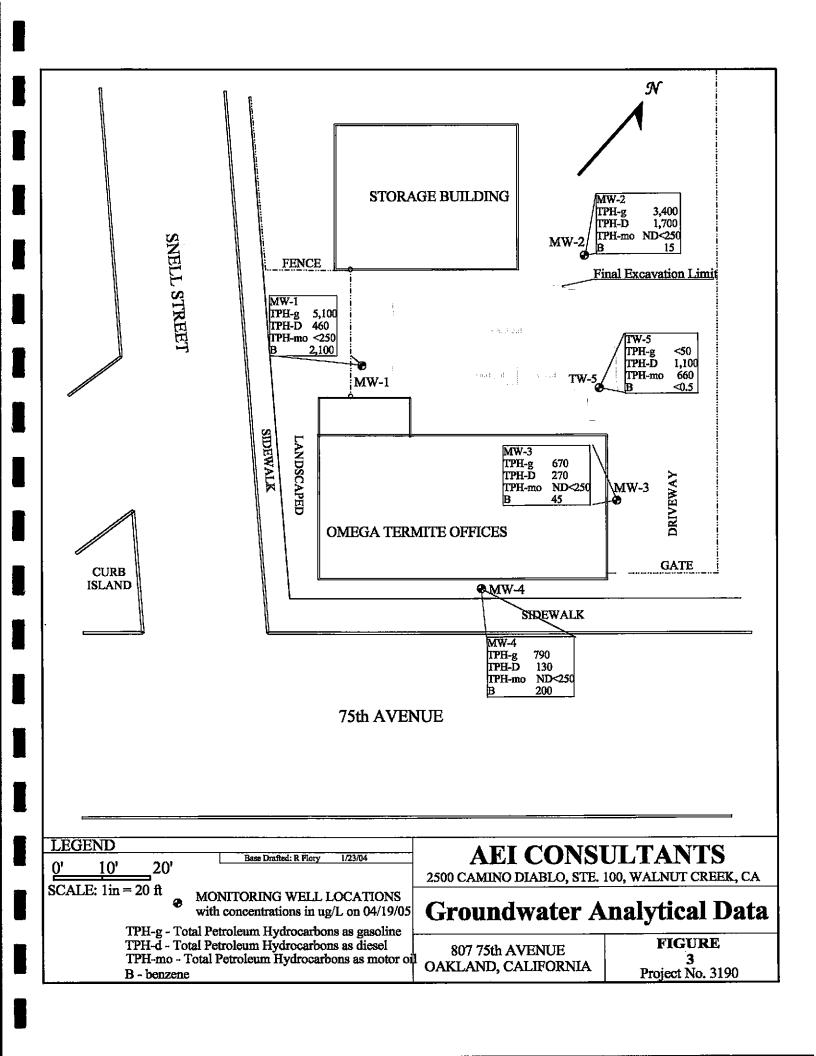
AEI CONSULTANTS 2500 CAMINO DIABLO, STE 200, WALNUT CREEK, CA

SITE LOCATION MAP

807 75th AVENUE OAKLAND, CALIFORNIA

FIGURE 1 PROJECT No. 3190





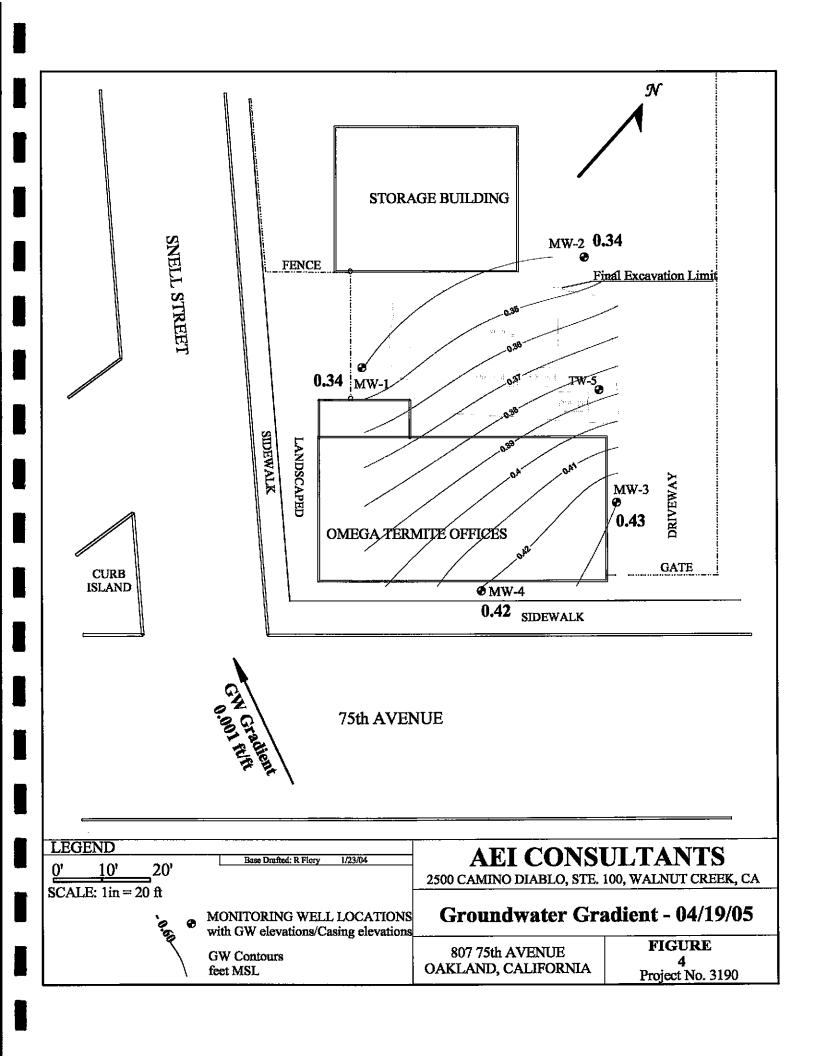


Table 1 Well Construction Details, Omega Termite, 807 75th Ave., Oakland, CA

Well ID	Date Installed	Top of Casing (feet)		Casing Materia		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	4.47	PVC	20	20	8 1/4	. 2	20.0-5.0	0.02	0.5-4.5	#3 sand	4.5-3.5	3.5-0.5
MW-2	06/25/99	5.95	5.41	PVC	20	20	8 1/4	2	20.0-5.0	0.02	0.5-4.5	#3 sand	4.5-3.5	3.5-0.5
MW-3	06/25/99	4.66	4.13	PVC	20	20	8 1/4	2	20.0-5.0	0.02	0.5-4.5	#3 sand	4.5-3.5	3.5-0.5
MW-4	06/25/99	4.59	4.02	PVC	20	20	8 1/4	2	20.0-5.0	0.02	0.5-4.5	#3 sand	4.5-3.5	3.5-0.5
TW-5	Mar. 2000	NS	5.13	PVC	10	10	NA	4	10.0-5.0	1/4" drilled	NA	NA	NA	2.0

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

Well ID	Date	Well Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-1	07/30/99	5.00	5.82	-0.82
141 AA - 1	11/09/99	5.00	5.70	-0.70
	02/23/00	5.00	2.84	2.16
•	05/26/00	5.00	5.50	-0.50
	10/10/00	5.00	5.70	-0.70
	02/07/01	5.00	5.25	-0.25
	05/25/01	5.00	5,25	-0.25
	09/19/01	5.00	5.51	-0.51
	02/06/02	NS	NS	NS
	05/17/02	5.00	5.30	-0.30
	08/20/02	5.00	5.39	-0.39
	01/10/03	5.00	4.11	0.89
	04/14/03	5.00	4.85	0.15
	07/14/03	5.00	5.08	-0.08
	10/14/03	5.00	5.63	-0.63
	01/13/04	5.00	4.53	0.47
	04/15/04	5.00	5.14	-0.14
	07/15/04	5.00	5.42	-0.42
	10/18/04	5.00	5.24	-0.24
	01/25/05	5.00	4.47	0.53
	04/19/05	5.00	4.66	0.34
MW-2	07/30/99	5.95	6.64	-0.69
141 44 -7	11/09/99	5.95	6.42	-0.47
	02/23/00	5.95	3.31	2.64
	05/26/00	5.95	6.34	-0.39
	10/10/00	5.95	6.52	-0.57
	02/07/01	5.95	5.90	0.05
	05/25/01	5.95	6.08	-0.13
	09/19/01	5.95	6.53	-0.58
	02/06/02	5.95	5.72	0.23
	05/17/02	5.95	6.17	-0.22
	08/20/02	5.95	NS	NS
	01/10/03	5.95	5.12	0.83
	04/14/03	5.95	4,98	0.97
	07/14/03	5.95	5,99	-0.04
	10/14/03	5.95	6.43	-0.48
	01/13/04	5.95	5.42	0.53
	04/15/04	5.95	6.02	-0.07
	07/15/04	5.95	5.27	0.68
	10/18/04	5.95	6.12	-0.17
	04/19/05	5.95 5.95	5.61	0.34

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

Well ID	Date	Well Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-3	07/30/99	4.66	5.35	-0.69
	11/09/99	4.66	5.11	-0.45
	02/23/00	4.66	2.37	2.29
	05/26/00	4.66	4.98	-0.32
	10/10/00	4.66	5.24	-0.58
	02/07/01	4.66	4.73	-0.07
	05/25/01	4.66	4.73	-0.07
	09/19/01	4.66	5.07	-0.41
	02/06/02	4.66	4.69	-0.03
	05/17/02	4.66	4.80	-0.14
	08/20/02	4.66	4.97	-0.31
	01/10/03	4.66	3.59	1.07
	04/14/03	4.66	5.40	-0.74
	07/14/03	4.66	4.69	-0.03
	10/14/03	4.66	5.16	-0.50
	01/13/04	4.66	4.15	0.51
	04/15/04	4.66	4.73	-0.07
	07/15/04	4.66	5.03	-0.37
	10/18/04	4.66	4.85	-0.19
	01/25/05	4.66	4.13	0.53
	04/19/05	4.66	4.23	0.43
MW-4	07/30/99	4.59	5.45	-0.86
	11/09/99	4.59	5.31	-0.72
	02/23/00	4.59	2.72	1.87
	05/26/00	4.59	5.07	-0.48
.,	10/10/00	4.59	5.32	-0.73
	02/07/01	4.59	4.73	-0.14
	05/25/01	4.59	4.90	-0.31
	09/19/01	4.59	5.16	-0.57
	02/06/02	4.59	4.65	-0.06
	05/17/02	4.59	4.90	-0.31
	08/20/02	4.59	5.02	-0.43
	01/10/03	4.59	3.78	0.81
	04/14/03	4.59	4.11	0.48
	07/14/03	4.59	4.75	-0.16
	10/14/03	4.59	5.28	-0.69
	01/13/04	4.59	4.07	0.52
	04/15/04	4.59	4.70	-0.11
·	07/15/04	4.59	5.09	-0.50
	10/18/04	4.59	4.86	-0.27
	01/25/05	4.59	4.02	0.57
	04/19/05	4.59	4.17	0.42

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

Well ID	Date	Well Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
TW-5	09/19/01	ns	6.59	na
	05/17/02	ns	6.56	0.03
	08/20/02	ns	6.62	-0.06
	01/10/03	ns	4.66	1.96
	04/14/03	ns	5.30	-0.64
•	07/14/03	ns	5.84	-0.54
	07/14/03	ns	5.84	0.00
	10/14/03	ns	6.08	-0.24
	01/13/04	ns	4.83	1.25
	04/15/04	ns	5.64	-0.81
	07/15/04	ns	5.89	-0.25
	10/18/04	ns	5.95	-0.06
	01/25/05	ns	5.13	0.82
	04/19/05	ns	5.27	-0.14

Depth to water measured from the top of well casing ft amsi = feet above mean sea level

ns - TW-5 Not surveyed

na - not available

Table 1 - Groundwater Elevations, 807 75th Ave., Oakland, CA

Episode	Date	Average Water Table Elevation	Water Table Elevation Change	
		(ft a <u>msl)</u>	(ft)	(ft/ft)
1	07/30/99	-0.77	-	
2	11/09/99	-0.59	0.18	0.0056 / SW
3	02/23/00	2.24	2.83	0.008 / S
4	05/26/00	-0.42	-2.66	0.003 / SW
5	10/10/00	-0.65	-0.22	0.0036 / S
6	02/07/01	-0.10	0.54	0.008/S
7	05/25/01	-0.19	-0.09	0.006 / S
8	09/19/01	-0.52	-0.33	0.004 / S
9	02/06/02	0.05	0.56	0.005 / SE
10	05/17/02	-0.24	-0.29	0.003 / SW
11	08/20/02	-0.38	-0.13	0.002 / S
12	01/10/03	0.90	1.28	0.006 / E-NE
13	04/14/03	0.22	- 0.69	0.016 / E-NE
14	07/14/03	-0.08	-0.29	.0017 / S-SE
15	10/14/03	-0.58	-0.50	0.003 / SE
16	01/13/04	0.51	1.08	0.001 / W
17	04/15/04	-0.08	-0.59	0.001 / W
18	07/15/04	-0.15	-0.08	$0.001 / \mathbf{W}^{+}$
1 9	10/18/04	-0.22	-0.07	0.002 / N
20	01/25/05	0.37	0.58	0.002 / N
21	04/19/05	0.38	0.01	0.001 / N

Table 3 Historical Groundwater Analyses, Omega Termite, 807 75th Ave., Oakland, CA Omega Termite, 807 75th Ave., Oakland, CA

Sample	Sample	Water	TPH-g	TPH-d	TPHmo	MTBE	Benzene	Toluene	Ethyl benzene	Xylenes
ID	Collection Date	depth	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	<u>μg</u> /L
M357 1	07/30/99	5.82	2,700			ND<10	920	5.5	18	130
MW-1	11/09/99	5.70	1,800			ND<20	430	1.5	26	60
	02/23/00	2.84	3,800			ND<10	1,500	56	78	35
		5.50	7,100			ND<10	2,800	70	. 220	81
	05/26/00 10/10/00	5.70	980			ND<5.0	260	2.9	10	11
		5.70 5.25	570			ND<5.0	150	1.8	4.9	9.3
	02/07/01		18,000			ND<100	3,800	350	550	620
	05/25/01	5.25	840			ND<5.0	190	4.0	4.6	5.3
	09/19/01	5.51	04U 							
	02/06/02 05/17/02	NS 5.30	13,000	920		ND<5.0	4,500	29	50	58
	08/20/02	5.39	2,100	740	ND<5000 ²	ND<15	820	4.5	6.4	9.6
			2,100 95	260	ND<5000 ²	ND<5.0	23	0.66	3.9	6.5
	01/10/03	4.11		310		ND<5.0	87	1.3	4.3	5.6
	04/14/03	4.85	340	700		ND<10	420	0.84	3.7	6.0
	07/14/03	5.08	750		460.0	ND<5.0	62	0.83	2.2	2.7
	10/14/03	5.63	200	930	460.0 ND<250	ND<5.0 ND<5.0	190	1.7	11	18.0
•	01/13/04	4.53	510	440		ND<3.0 ND<10	240	ND<0.5	5.0	9.6
	04/15/04	5.14	740	490	ND<250	ND<10 ND<5.0	78	ND<0.5	5.0	4.4
	07/15/04	5.42	250	420	260	ND<5.0 ND<5.0	33	0.75	1.7	3.5
	10/18/04	5.42	170	510	290		86	0.73	1.3	3.0
	01/25/05	4.47	240	390	ND<250	ND<5.0	2,100	5.2	13	84
. •	04/19/05	4.66	5,100	460	ND<250	ND<50	2,100			
MW-2	07/30/99	6.64	1,200			ND<10	29	2.5	51	100
	11/09/99	6.42	1,300			ND<30	26	1.1	55	32
	02/23/00	3.31	5,000			ND<10	200	18	390	440
	05/26/00	6.34	2,700			ND<10	69	13	83	68
	10/10/00	6.52	810			ND<10	17	4.7	42	46
-	02/07/01	5.90	2,600			ND<10	70	15	80	100
	05/25/01	6.08	2,400			ND<5.0	75	16	85	100
	09/19/01	6.53	1,200			ND<5.0	10	8.5	46	55
	02/06/02	5.72	1,800			ND<50	14	11	58	59
	05/17/02	6.17	2,000	860		8. 1 ¹	19	1.1	0.75	88
	08/20/02	NS	NS	NS	NS	NS	NS	NS	NS	NS
	01/10/03	5.12	2,000	910	$ND < 5000^{2}$	ND<50	11	11	96	100
	04/14/03	4.98	2,400	800	-	ND<10	16	10	100	73
	07/14/03	5.99	1,900	970	-	ND<15	18	4.8	79	78
	10/14/03	6.43	1,600	1,300	ND<250	ND<10	14	5.9	87	78 150
	01/13/04	5.72	2,900	960	ND<250	ND<50	26	13	190	150
	04/15/04	6.02	2,700	1,100	ND<250	ND<15	. 28	11	120	100
	07/15/04	5.27	2,300	1,000	ND<250	ND<10	8.8	3.8	96	84
	10/18/04	5.27	2,400	910	ND<250	ND<10	8.6	8.9	68	72 124
	01/25/05	5.41	3,500	1,200	ND<250	ND<50	21	11	170	120
	04/19/04	5.61	3,400	1,700	ND<250	ND<15	15	7.4	150	94

Table 3 Historical Groundwater Analyses, Omega Termite, 807 75th Ave., Oakland, CA Omega Termite, 807 75th Ave., Oakland, CA

Sample ID	Sample Collection	Water depth	TPH-g	TPH-d	TPHmo	MTBE	Benzene	Toluene	Ethyl benzene	Xylenes
110	Date	чериі	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
MW-3	07/30/99	5.35	2,700			ND<10	220	15	130	230
	11/09/99	5.11	3,100			15	440	8.8	150	96
	02/23/00	2.37	1,800			ND<15	180	11	82	79
	05/26/00	4.98	1,600			6.4	140	10	69	63
	10/10/00	5.24	1,100			ND<10	110	4.4	63	51
	02/07/01	4.73	1,100			ND<10	130	5.1	68	65
	05/25/01	4.73	1,200			ND<6.0	120	5.4	69	64
	09/19/01	5.07	800			<5.0	78	3.5	52	37
•	02/06/02	4.69	1,100			ND<10	130	4.7	77	71
	05/17/02	4.80	2,800	810		$ND < 50/2.0^{1}$	410	23	160	210
	08/20/02	4.97	780	270	ND<5000 ²	ND<10	110	2.8	63	41
	01/10/03	3.59	1,100	510	$ND < 5000^2$	ND<20	160	3.4	98	84
	04/14/03	5.40	690	230	- .	ND<5.0	60	2.3	44	34
	07/14/03	4.69	900	380	-	ND<5.0	130	2.0	70	43
	10/14/03	5.16	500	200	ND<250	ND<10	50	2.3	37	18
	01/13/04	4.15	1,500	400	ND<250	ND<30	200	6.2	120	88
	04/15/04	4.73	1,100	280	ND<250	ND<15	130	3.7	75	53
	07/15/04	5.03	610	240	ND<250	ND<5.0	73	2.1	51	29
	10/18/04	5.03	370	270	ND<250	ND<5.0	45	1.2	47	28
	01/25/05	4.13	840	300	ND<250	ND<5.0	85	2.4	68	45
	04/19/04	4.23	1,100	380	ND<250	ND<5.0	140	4.0	95	59
MW-4	07/30/99	5.45	340			ND<10	57	2.2	8.5	6.8
	11/09/99	5.31	1,000			ND<10	220	< 0.5	17	7.1
• •	02/23/00	2.72	980			ND<5.0	260	7	33	27
	05/26/00	5.07	760			5.7	170	4.8	22	13
	10/10/00	5.32	520			ND<10	130	2.3	22	10
	02/07/01	4.73	680			ND<8.0	180	3.7	29	21
•	05/25/01	4.90	1,700			ND<10	510	9.6	44	46
	09/19/01	5.16	680			ND<10	200	2.6	33	. 12
	02/06/02	4.65	710	, 		ND<15	220	2.8	40	21
	05/17/02	4.90	1,300	190		3.31	330	5.6	61	51
	08/20/02	5.02	580	120	ND<5000 ²	ND<5.0	160	1.7	34	13
	01/10/03	3.78	800	85	ND<5000 ²	ND<20	240	2.5	46	28
	04/14/03	4.11	850	120		ND<10	220	2.7	47	26
	07/14/03	4.75	780	170		ND<20	220	1.4	44	23
	10/14/03	5.25	420	110	ND<250	ND<5.0	120	0.95	31	8.2
	01/13/04	4.07	120	69	ND<250	ND<10	30	0.52	8.1	4.7
	04/15/04	4.70	660	120	ND<250	ND<25	200	2.2	39	24
	07/15/04	5.09	500	92	ND<250	ND<5.0	130	1.3	35	15
	10/18/04	5.09	350	18	ND<250	ND<5.0	76	0.68	22	4.9
	01/25/05	4.02	580	110	ND<250	ND<5.0	1 40	1.2	37	20
	04/19/04	4.17	790	130	ND<250	ND<5.0	200	1.7	51	28

Table 3 Historical Groundwater Analyses, Omega Termite, 807 75th Ave., Oakland, CA
Omega Termite, 807 75th Ave., Oakland, CA

Sample	Sample	Water	TPH-g	TPH-d	TPHmo	MTBE	Benzene	Toluene	Ethyl	Xylenes
ID	Collection Date	depth	μg/L_	μg/L	μg/L_	μg/L	μg/L	μg/L	benzene μg/L	μg/L
TW-5	10/10/00	.=-	5,800	2,900	ND<250	ND<50	650	60	190	230
1,,,	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	6.59	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	6.56	480	41,000		ND<5.0/<5.0 ¹	1.6	1.1	0.8	ND<0.5
	08/20/02	6.62	240	21,000	ND<5000 ²	ND<5.0	8.0	1.2	1.1	0.54
	01/10/03	4.66	ND<50	1,300	ND<5000 ²	ND<5.0	5.4	0.58	ND<0.5	1.10
	4/14/2003	5.30	160	2,300		ND<5.0	18	5.7	5.9	16
	7/14/2003	5.84	100	16,000		ND<5.0	1.2	0.77	0.63	1.2
	10/14/03	6.08	120	10,000	4,600	ND<5.0	1. 6	1.6	ND<0.5	1.2
	01/13/04	4.83	110	2,100	1,400	ND<5.0	8.4	1.2	ND<0.5	3.9
	04/15/04	5.64	170	2,200	1,100	ND<5.0	2.5	1.2	ND<0.5	5.1
	07/15/04	5.89	81	3,000	1,600	ND<5.0	5	1.3	0.85	4.1
	10/18/04	5.89	230	3,700	1,600	ND<5.0	0.54	3.4	ND<0.5	0.93
	01/25/05	5.13	63	750	640	ND<5.0	ND<0.5	0.78	ND<0.5	1.3
	04/19/04	5.27	ND<50	1100	660	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5

Notes

mg/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
- analysis for total oil and grease by method 5520

APPENDIX A

Groundwater Monitoring Well Field Sampling Forms

Monitoring Well Number: MW-1

		D. t 4 Complined 4/40/2005
Project Name:	Omega Termite	Date of Sampling: 4/19/2005
Job Number:	3190	Name of Sampler: AN
Project Address:	807 75th Avenue Oakland	

MONITORIN	WELL DATA	No paged a Section
Well Casing Diameter (2"/4"/6")	2	
	К	▼
Elevation of Top of Casing (feet above msl)	5.00	
Depth of Well	20.00	
Depth to Water (from top of casing)	4.66	
Water Elevation (feet above msl)	0.34	·
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)	7.4	
Actual Volume Purged (gallons)	8.0	
Appearance of Purge Water	Initially brown, clears aft	ter 2 gallons
Free Product Present?	No Thickness	

er of San	nples/Container S	ize		2 - 40ml VOAs	, 1 L Amber		
Time	Vol Removed (gal)		рН	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	2	16.51	7.30	670	0.09	264.3	
	_ ··· 4	16.55	7.53	725	0.08	252.9	
	6	16.86	7.93	816	0.03	234.0	
	8	16.93	7.28	907	0.02	193.3	·
							

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

Strong hydrocarbon odors.	

Monitoring Well Number: M

MW-2

Project Name:	Omega Termite	Date of Sampling: 4/19/2005
Job Number:	3190	Name of Sampler: AN
Project Address:	807 75th Avenue Oakland	

MONITORIA	G WELL DA	IA:		
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)		5.61		
Water Elevation (feet above msl)	0.34			
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)	ļ. 	7.2		
Actual Volume Purged (gallons)		8.0		
Appearance of Purge Water		Clears quickly		
Free Product Present	No No	Thickness (ft):	NA	

per or San	ples/Container S		<u></u>	2 - 40ml VOAs	DO	ORP	
Time	Vol Removed (gal)	Temperature (deg C)	рН	Conductivity (µS/cm)	(mg/L)	(meV)	Comment
	2	17.61	8.23	1298	0.17	239.9	
	4	17.31	7.99	1313	0.06	231.3	
	6	17.46	8.06	1292	0.05	216.9	
	8	17.67	8.11	1274	0.04	211.4	<u> </u>
	i						

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

Strong hydrocarbon odors.	

Monitoring Well Number: MW-3

Project Name:	Omega Termite	Date of Sampling: 4/19/2005
Job Number:	3190	Name of Sampler: AN
Project Address:	807 75th Avenue Oakland	

MONITORIN	G WELL DA	ra and the same of
Well Casing Diameter (2"/4"/6")		2
Wellhead Condition	ок	▼
Elevation of Top of Casing (feet above msl)		4.66
Depth of Well		20.00
Depth to Water (from top of casing)		4.23
Water Elevation (feet above msl)	i	0.43
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)	3	7.6
Actual Volume Purged (gallons)	i -	8.0
Appearance of Purge Water		Clear
Free Product Present	? No	Thickness (ft): NA

per of San	nples/Container S	Size		2 - 40ml VOAs	, 1 L Amber		
Time	Vol Removed (gal)		pН	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
	2	17.51	7.58	1667	0.15	300.8	
	4	16.88	7.51	1670	0.15	311.9	
	6	17.05	7.06	1688	80.0	296.3	
	8	17.27	7.16	1674	0.07	286.5	
				!			

No hydrocarbon odors.

Monitoring Well Number: MW-4

Project Name:	Omega Termite	Date of Sampling: 4/19/2005
Job Number:	3190	Name of Sampler: AN
Project Address:	807 75th Avenue Oakland	

MONITORIA	G WELL DATA	and the state of t		
Well Casing Diameter (2"/4"/6")	<u> </u>	2		
Wellhead Condition	ОК		▼	
Elevation of Top of Casing (feet above msl)		4.59	_ —	
Depth of Well		20.00		
Depth to Water (from top of casing)		4.17		
Water Elevation (feet above msl)		0.42		
Well Volumes Purged		3		
Calculated Gallons Purged: formula valid only for casing size of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	S	7.6		
Actual Volume Purged (gallons)		8.0		
Appearance of Purge Water		Clears quickly		
Free Product Present	? No	Thickness (ft): NA		

er of Sam	nples/Container S	Size		2 - 40ml VOAs	, 1 L Amber		
Time	Vol Removed (gal)		pН	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
	2	17.75	7.88	1326	0.31	-151.4	
	4	17.59	7.56	1156	0.26	-126.4	
	6	17.64	7.49	1280	0.29	-127.7	
	8	17.82	7.73	1434	0.19	-152.9	

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

No hydrocarbon odors.	
l '	

Monitoring Well Number:

TW-5

Project Name:	Omega Termite	Date of Sampling: 4/19/2005
Job Number:	3190	Name of Sampler: AN
Project Address:	807 75th Avenue Oakland	

MONTORIA	CWELL DAT	🔥 and the manufactural Laboratory			
Well Casing Diameter (2"/4"/6")		4	· · · · · · · · · · · · · · · · · · ·		
Wellhead Condition	ОК		▼		
Elevation of Top of Casing (feet above msl)					
Depth of Well		10.00	<u> </u>		
Depth to Water (from top of casing)		5.27			
Water Elevation (feet above msl)	i				
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)	5	9.2			
Actual Volume Purged (gallons)		10.0			
Appearance of Purge Water	Clears quickly				
Free Product Present	? _i No	Thickness (ft):	NA		

per of Sam	nples/Container S	lize		2 - 40ml VOAs	, 1 L Amber		
Time	Vol Removed (gal)	Temperature (deg C)	pН	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	2	16.69	7.25	804	0.29	196.3	
	4	16.69	7.66	799	0.08	193.6	
	6	16.70	7.63	799	0.05	191.4	
	8	16.70	7.81	798	0.03	-191.1	
	10	16.72	7.59	798	0.03	186.9	···
					-		•

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

APPENDIX B

Laboratory Reports with Chain of Custody Documentation



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

AEI Consultants	Client Project ID: #3190; Omega	Date Sampled: 04/19/05
2500 Camino Diablo, Ste. #200		Date Received: 04/19/05
	Client Contact: Robert Flory	Date Reported: 04/25/05
Walnut Creek, CA 94597	Client P.O.:	Date Completed: 04/25/05

WorkOrder: 0504288

April 25, 2005

Dear Robert:

Enclosed are:

- 1), the results of 5 analyzed 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.

Angela Rydelius, Lab Manager



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

AEI Consultants	Client Project ID: #3190; Omega	Date Sampled: 04/19/05
2500 Camino Diablo, Ste. #200		Date Received: 04/19/05
Walnut Creek, CA 94597	Client Contact: Robert Flory	Date Extracted: 04/20/05-04/23/05
	Client P.O.:	Date Analyzed: 04/20/05-04/23/05

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

Extraction methods: SW5030B Analytical methods: SW8021B/8015Cm								Work Order: 050428		
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	w	5100,a	ND<50	2100	5.2	13	84	10	107
002A	MW-2	w	3400,a	ND<15	15	7.4	150	94	2	110
003A	MW-3	w	1100,a	ND	140	4.0	95	59	1	114
004A	MW-4	w	790,a	ND	200	1.7	51	28	1	115
005A	TW-5	w	ND	ND	ND	ND	ND	ND	1	116
			-							
Reportin	g Limit for DF =1;	w	50	5.0	0.5	0.5	0.5	0.5	1	μg/L
ND mean	ns not detected at or the reporting limit	S	NA	NA	NA	NA	NA	NA	1	mg/K

ND means not detected at or	W	30	3.0	0.5	0.5	0.5	0.5	1	μ8/1
above the reporting limit	S	NA	NA	NA	NA	NA	NA	1	mg/Kg
	1 UTOI	D. A. CRUD		G 11/1 1	la lid complet in		molec in us/svine		<u></u>

^{*} 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.

⁺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 (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 ~1 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; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.



[#] cluttered chromatogram; sample peak coelutes with surrogate peak.



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

AEI Consultants	Client Project ID: #3190; Omega	Date Sampled: 04/19/05
2500 Camino Diablo, Ste. #200		Date Received: 04/19/05
W 1 C 1 . C . 04507	Client Contact: Robert Flory	Date Extracted: 04/19/05
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed: 04/21/05-04/22/05

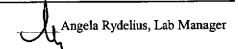
Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons as Diesel and Motor Oil*

Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons as Diesel and Motor Oil* Extraction method: SW3510C Analytical methods: SW8015C																	
Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS											
0504288-001B	MW-I	MW-2 W 1700,d,b ND	W 460,a,d ND		460,a,d ND	460,a,d ND		460,a,d ND	ND 1	103							
0504288-002B	MW-2						W 1700,d,b	W 1700,d,b ND	1700,050	1700, d ,b	1700,d,b ND	W 1700,d,b ND	1700,d,b ND	1700,d,b	1700,d,b ND I	1	95
0504288-003B	MW-3 W 380,d,b ND						- W 380,d,b ND 1	380,d,b ND		380,d,b ND 1	1	108					
0504288-004B	MW-4	w	130,d,b	ND	1	95											
0504288-005B	TW-5	w	1100,a	660	1	94											
		-															
			1. · · · · · · · · · · · · · · · · · · ·														
Reporting L	imit for DF =1; ot detected at or	w	50	250		ıg/L											
	reporting limit	S	NA	NA	m	g/Kg											

١	* 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 ug/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 McCampbell 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 ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.



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

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0504288

EPA Method: SW8021B/8015Cm Extraction: SW5030B						BatchID: 15918			Spiked Sample ID: 0504279-014A			
B .1.6-	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
Analyte	µg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS/MSD LCS/LCS			
TPH(btex) [£]	ND	60	91	91.9	0.992	95.4	92	3.61	70 - 130	70 - 130		
MTBE	ND	10	83	82.1	1.10	90	87.9	2.44	70 - 130	70 - 130		
Benzene	ND	10	88.4	90.9	2.81	94	92.7	1.39	70 - 130	70 - 130		
Toluene	ND	10	92.6	94.1	1.63	98.4	97.2	1.27	70 - 130	70 - 130		
Ethylbenzene	ND	10	99.3	101	1.34	103	102	0.791	70 - 130	70 - 130		
Xylenes	ND	30	86.7	90.3	4.14	91.3	90.7	0.733	70 - 130	70 - 130		
%\$S:	108	10	109	112	- 2.07	110	108	1.36	70 - 130	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

BATCH 15918 SUMMARY

Sample 1D	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
)504288-001A	4/19/05	4/20/05	4/20/05 2:19 PM	0504288-001A	4/19/05	4/21/05	4/21/05 9:16 PM
0504288-002A	4/19/05	4/21/05	4/21/05 8:10 PM	0504288-003A	4/19/05	4/20/05	4/20/05 3:26 PM
0504288-004A	4/19/05	4/20/05	4/20/05 3:59 PM	0504288-005A	4/19/05	4/23/05	4/23/05 7:03 AM

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

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

/A = not applicable or 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.

___QA/QC Officer

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

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

QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0504288

EPA Method: SW8015C		xtraction:	SW35100	;	Batc	hID; 1592	2	Spiked Sam	ple ID: N/A					
A It do	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance	Acceptance Criteria (%)				
Analyte	µg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD				
TPH(d)	N/A	1000	N/A	N/A	N/A	107	106	0.854	N/A	70 - 130				
%SS:	N/A	2500	N/A	N/A	N/A	101	100	1.00	N/A	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

BATCH 15922 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0504288-001ь	4/19/05	4/19/05	4/21/05 9:29 PM	0504288-002B	4/19/05	4/19/05	4/21/05 2:18 AM
0504288-003B	4/19/05	4/19/05	4/22/05 2:31 AM	0504288-004b	4/19/05	4/19/05	4/21/05 5:14 PM
0504288-005b	4/19/05	4/19/05	4/21/05 4:03 PM				i

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

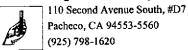
% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the 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.

QA/QC Officer



CHAIN-OF-CUSTODY RECORD

1 of 1

WorkOrder: 0504288

ClientID: AEL

Report to:

Robert Flory

AEI Consultants 2500 Camino Diablo, Ste. #200

Walnut Creek, CA 94597

TEL: FAX: (925) 283-6000 (925) 283-6121

ProjectNo: #3190; Omega

PO:

Bill to:

Diane

All Environmental, Inc. 2500 Camino Diablo, Ste. #200

Walnut Creek, CA 94597

Requested TAT:

5 days

Date Received:

04/19/2005

Date Printed: 04/19/2005

				ſ						Requ	este	d Test	s (See l	egend b	elow)					,
Sample ID	ClientSampID	Matrix	Collection Date	Hold	1	2	3	4	5	E	3	7	8	9	10	11	12	13	14	15
0504288-001	MW-1	Water	4/19/05		Α	Α	В			T]									
0504288-002	MW-2	Water	4/19/05		Α		В							<u> </u>						
0504288-003	MW-3	Water	4/19/05		Α		В													\perp
0504288-004	MW-4	Water	4/19/05		Α		В						<u> </u>	ļ <u>.</u>	<u> </u>				 	+
0504288-005	TW-5	Water	4/19/05		Α		В				ŀ						<u> </u>	<u> </u>		

Test Legend:

1	G-MBTEX_W
6	
11	

2	PREDF REPORT
7	
12	

3	TPH(DMO)_W
8	
13	

4	
9	
14	

5	
10	
15	

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.



AEI Consultants									CHAIN OF CUSTODY RECORD																									
	2	500 Camin)								Ţ	U	EN	AR	O	UN	D]	ΓIN	Œ					<u></u>					-		DAY
Telepho	ne: (9 25) 9		Creek, C	.A. 9		x: (925)	944	1-28	95				FI	DÉ Î	Ren	nire),	Cor	alt ((No:	าทร	D	- Ru - No	USH)		24 F rite		(DV	18 H XV)	No.		2 HR ∖	3 DAY
Report To: Robert Flory Bill To:											وقا	C				An											Otl			Comm	ents			
Company: AEI Consultants AEI Consultants												Œ.																						
A										BE	E	Total Petroleum Oil & Grease (5520 E&F/B&F)											75											
Waln	ut Creek, (CA 94597			: rflo				ulta	nts	.coi	n		8015)/MTBE	301	E&F								831(<u>1</u>					1		
Tele: (925) 944-2	899 ext. 13	22			925)									3015)	ij	250	418.		20)					/ 0/;			oata							
Project #: 3190					t Nar	ne: (Ume	ega						+	TPH Multi-range diesel/motor oil (8015)	Se (5	Total Petroleum Hydrocarbons (418.1)		BTEX ONLY (By EPA 602 / 8020)	EPA 8010 - basic list (by 8260)	>,			PAH's / PNA's by EPA 625 / 8270 / 8310			Lead (7240/7421/239.2/6010) Toatal lead							
Project Location:				11)										Gas (602/8020	el/m	18	arb	EPA 601 / 8010 (basic list)	602	(by 8	EPA 608 / 8010 PCB's ONLY			1 625			7601		TPH multi-range EPA 8015					
Sampler Signatur	e: // <i>//</i>	165	D 45 D	16)	Γ.	Τ.			7.5	1	ME"	гно	D	(60%	dies	ૐ	oup/	asic	EPA	list (Bs	560		EPA			39.2		PA					
	1 -	SAMPI	ING	30	Type Containers		MA	IKI	X			ERV		as Ca	nge	Ö	n Hy	9	(B)	asic	0 PC	EPA 624 / 8240 / 8260	0	s by	st	sa.	21/2		ge E					
SAMPLE ID				# Containers	ıtaiı										1.5) Je	Jeur	200	֡֡֞֜֞֞֜֞֞֜֞֞֜֞֞֜֞֞֜֞֜֞֞֞֞֜֜֞֜֞֞֜֞֜֡	Р	801	824	EPA 625 / 8270	Ä	CAM-17 Metals	LUFT 5 Metals	0/74							
(Field Point Name)	LOCATION	Date	Time	ı Çan	Ð				56 }	,		3	Ţ,	BTEX & TPH	M	Petru	Petru	3	Ó	8010	809	624 /	, 529	s/P	-17	r s N	72		lini.					
, i		Date	Time	Ç	y.	Water	Soil	Air	Other	<u>و</u> [HCH	HINO,	Other	TEX	Hd	otal	otal	PA	Œ	ΡĄ	PΑ	PA	PΑ	AH,	Y-AM	UF	Fad	RCI	핊					
		······································					<u> </u>	₹ ; 0	1	1		144				-	<u> </u>	-	"	<u> </u>		_	1	_	_				Ì					
MW-1		4/19/08	"/ma	ay	$\forall L$	X				X	K			X	1			ļ							<u> </u>	_								
MW-2				\perp	l i .	χ̈̀				X	X	1_		X	1	L		<u> </u>	_					<u></u>										
MW-3			\exists		$\prod_{i=1}^{n}$	X				×	<u>-</u> X			X	1												<u>_</u> .							
MW-4						X				k	ľ	,		X	X																			
TW-5			<u> </u>	1		V				1	10	′		X	X																			
	<u> </u>					ĥ			1	ightharpoonup	+		T																					
					-	1		- -	\top	t	+-	1	†	1					1															•
						1		•	_	-	+-	1		t	ļ		1			1				-										
						 				╁	+	+	-	┢╌		-			†··	<u> </u>	1	-			<u> </u>									
<u> </u>					<u> </u>	╁	-	_	+	╁	+		╁	\vdash	\vdash	-	 	 	-						T			_	<u> </u>					
						+	\vdash		+	+-	+	+	+	1-	-		 	-		-	-				\vdash			-	1					
	<u> </u>	ļ ,			-	- -	\vdash	-	-	╁	+-	+-	\vdash	╀			-	-	-	+	 	-		1-		-	1		\vdash					
		<u> </u>			 	╁				╁	+	+		╂—	-	+-			-		_		-	-		-	+		╟	 				
			754		<u>ا</u>						1			┼-			1	L_	Щ.			<u> </u>	1	Ц	<u> </u>	<u> </u>		1	т	<u> </u>	1 1		L	
Relinquished By: Date: Time: Received By:						\downarrow	ىر		- /			•								,	vQA	$C _{\mathbf{c}}$)&G	F	NETALS	OTHER								
Relinquished By: Date: Time: Received By:					∤ ≥	ACI		<u>\</u>		entre d			•	7				ATI	ON,	<u> </u>														
Reunquished By:	Relinquished By: Date: Time: Received By:											ITIC LAB		TT T		/ ,	Al'	rku NT.	JYK AIN	IAT ERS	, .	✓												
Polingulched By		Date:	Time:	Re	ceived	Bv:				<u> </u>				4					ATI			AB_							N LA	AB_				
Relinquished By: Date: Time: Received By:																																		