Phone: (925) 283-6000

Fax: (925) 283-6121

March 6, 2003

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

MAR 1 2 2003

Environmental Health

Subject:

**Quarterly Groundwater Monitoring Report** 

1075 40<sup>th</sup> Street Oakland, California AEI Project No. 3119

Brand K. Reese

Dear Mr. Hwang:

Enclosed is a copy of the quarterly groundwater report for the eighteenth episode of sampling.

Please call either Peter McIntyre at (925) 283-6000 if you have any questions.

Sincerely,

Brandi K. Reese

Staff Geologist

Aldriedd County Hedin

March 6, 2003

## QUARTERLY GROUNDWATER MONITORING REPORT

1075 40<sup>TH</sup> Street Oakland, California

Project No. 3119

Prepared For

Fidelity Roof Company 1075 40<sup>th</sup> Street Oakland, CA 94608

Prepared By

All Environmental, Inc. 3210 Old Tunnel Road, Suite B Lafayette, CA 94549 (925) 283-6000



Phone: (925) 283-6000

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March 6, 2003

Mr. Monte Upshaw Fidelity Roof Company 1075 40<sup>th</sup> Street Oakland, CA 94608

RE: Quarterly Groundwater Monitoring and Sampling Report

Eighteenth Episode 1075 40<sup>th</sup> Street Oakland, California Project No. 3119

Dear Mr. Upshaw:

On your behalf, AEI Consultants (AEI) has prepared this report to document the groundwater investigation at the above referenced site (Figure 1: Site Location Map). The purpose of this activity was to monitor groundwater quality in the vicinity of previous underground storage tanks (USTs). The work was performed in compliance with requirements of the Alameda County Health Care Services Agency (ACHCSA). This report presents the findings of the eighteenth episode of groundwater monitoring and sampling.

### Site Description and Background

The site currently supports the operation of Fidelity Roof Company and is located in a mixed residential and commercial area of Oakland at 1075 40th Street.

On December 19, 1995, Tank Protect Engineering, Inc. removed one (1) 1,000 gallon diesel underground storage tank (UST) and one (1) 500 gallon gasoline UST from the southeast corner of the property. The removal of the tanks produced a single excavation. Analysis of the soil samples indicated that soil beneath the 1,000 gallon UST had been impacted by minor concentrations of total petroleum hydrocarbons as gasoline (TPH-g), TPH as diesel (TPH-d), benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl tertiary butyl ether (MTBE).

On September 12, 1996, AEI advanced four soil borings in the vicinity of the former UST excavation. Analytical results from the subsurface investigation revealed significant levels of gasoline and diesel petroleum hydrocarbons present in soil and groundwater to the south and to the west of the open excavation. Due to the high concentrations of petroleum hydrocarbons within the groundwater, the ACHCSA required further investigation of the extent and magnitude of the groundwater contaminant plume.

AEI Consultants Project No. 3119 March 6, 2003 Page 2

Due to low concentration levels from a four-point composite soil sample from the stockpile, approval was granted by Ms. Hugo of the ACHCSA to reuse the stockpiled soil as backfill material.

On October 25, 1996, AEI extended the excavation laterally 7 feet to the south and 12 feet to the west. Soil was removed to a depth of 9 feet below ground surface (bgs). The dispenser island and associated piping were also removed. Analyses of the soil samples collected from the excavation sidewalls indicated that up to 150 mg/kg of TPH-g, 16 mg/kg of benzene, and 300 mg/kg of TPH-d remained within the western sidewall of the excavation.

On March 6, 1997, AEI installed three groundwater monitoring wells. At the request of the ACHCSA, six additional soil borings were drilled south and west of the well locations on November 4, 1998. TPH-d was detected at a concentration of 2,400 µg/L in groundwater to the south of the former excavation. No significant concentrations of petroleum hydrocarbons were detected from the other borings.

Based on the results of these six soil borings, the ACHCSA requested the installation of a fourth groundwater monitoring well at the site, located south of the former tank locations along Yerba Buena Avenue. Monitoring well, MW-4, was installed on July 15, 1999. No detectable concentrations of petroleum hydrocarbons were found in the soil samples taken during installation.

This report describes the results of the eighteenth groundwater monitoring event that took place on February 12, 2003.

### **Summary of Activities**

AEI measured the depth to groundwater in the four wells on February 12, 2003. Prior to sampling, the depth to water from the top of the well casings was measured with an electric water level indicator. The wells were purged and sampled using disposable plastic bailers. Temperature, turbidity, pH, dissolved oxygen (DO), and specific conductivity were measured during the purging of the wells. AEI removed at least 3 well volumes from each well while purging. Once the groundwater parameters stabilized after three consistent readings, and following recovery of water levels to at least 90%, water samples were collected from each well. Well locations are shown in Figure 2.

Water was poured from the bailers into 1-liter amber glass bottles and 40 ml glass VOA vials and capped so neither headspace nor air bubbles were visible within the sample containers. Samples were shipped on ice under proper chain of custody protocol to McCampbell Analytical, Inc. of Pacheco, California (Department of Health Services Certification #1644).

Groundwater samples were submitted for chemical analysis for TPH-g (EPA Method 8015C), MTBE (EPA Method 8021B), benzene, toluene, ethylbenzene, and xylenes (BTEX) (EPA Method 8021B), and (TPH-d) (EPA Method 8015C).

AEI Consultants Project No. 3119 March 6, 2003 Page 3

### **Field Results**

A strong hydrocarbon odor and heavy sheen were detected during the sampling of monitoring well MW-1. Groundwater levels for the current monitoring episode ranged from 34.20 to 37.11 feet above mean sea level (msl). These groundwater elevations were an average of 1.4 feet higher than the previous monitoring episode. No recognizable trend has been noted. The most recent calculated groundwater gradient was 0.032 foot per foot (ft/ft), and the direction of flow was towards the northwest. The groundwater gradient is slightly lower than the previous episode, but the flow direction was consistent.

Groundwater elevation data are summarized in Table 1. The groundwater elevation contours and the groundwater flow direction are shown on Figure 3. Refer to Appendix B for Groundwater Monitoring Well Field Sampling Forms.

### **Groundwater Quality**

Significant concentrations of petroleum hydrocarbons remain in the groundwater. The highest concentrations of petroleum hydrocarbons were observed in MW-3 with TPH-g at 61,000  $\mu$ g/L and TPH-d at 8,400  $\mu$ g/L. The lowest concentrations were seen in MW-1 with TPH-g at 710  $\mu$ g/L and TPH-d at 120  $\mu$ g/L. These concentrations are consistent with the past monitoring events over the last few years.

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

#### **Conclusions**

Groundwater analytical results from the current sampling episode indicated that elevated levels of petroleum hydrocarbons remained in the groundwater. The analytical results indicate that hydrocarbon concentrations have returned to their consistent levels since the last monitoring episode. Groundwater elevations were 1.4 feet higher than the previous sampling episode and groundwater flow direction was to the northwest.

A corrective action plan (CAP) discussing available remedial technologies available to this site was submitted to the ACHCSA for their review and has been approved. AEI anticipates beginning the approved scope of work once pre-approval for reimbursement has been received from the California State UST Cleanup Fund. Quarterly groundwater monitoring and sampling of the wells will continue at the site and the next monitoring and sampling episode is scheduled for May 2003.

#### References

- 1. Phase II Soil and Groundwater Investigation Report, October 7, 1996, prepared by AEI.
- 2. Excavation and Disposal of Contaminated Soil Report, January 7, 1997, prepared by AEI.

AEI Consultants Project No. 3119 March 6, 2003 Page 4

- 3. Groundwater Monitoring Well Installation Report, dated May 30, 1997, prepared by AEI.
- 4. Phase II Subsurface Investigation Report, December 9, 1998, prepared by AEI.
- 5. Groundwater Monitoring Well and Sampling report, September 3, 1999, prepared by AEI.
- 6. Quarterly Groundwater Monitoring and Sampling Report (QGMSR), March 21, 2000, prepared by AEI.
- 7. QGMSR, July 28, 2000, prepared by AEI.
- 8. QGMSR, November 6, 2000, prepared by AEI.
- 9. QGMSR, January 29, 2001, prepared by AEI.
- 10. QGMSR, May 8, 2001, prepared by AEI.
- 11. QGMSR, August 14, 2001, prepared by AEI.
- 12. QGMSR, December 11, 2001, prepared by AEI.
- 13. Corrective Action Plan, July 31, 2001, prepared by AEI.
- 14. QGMSR, May 31, 2002, prepared by AEI.
- 15. QGMSR, June 4, 2002, prepared by AEI.
- 16. QGWMSR, September 9, 2002, prepared by AEI.
- 17. QGWMSR, January 16, 2003, prepared by AEI.

### Report Limitations and Signatures

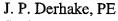
This report presents a summary of work completed by AEI Consultants including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide required information, 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.

Sincerely,

**AEI Consultants** 

Brandi Kiel Reese Staff Geologist



Senior Author, Principal

**Figures** 

Figure 1 Site Location Map

Figure 2 Site Plan with Hydrocarbon Concentrations

Figure 3 Groundwater Gradient Map

Tables

Table 1 Groundwater Elevation Data

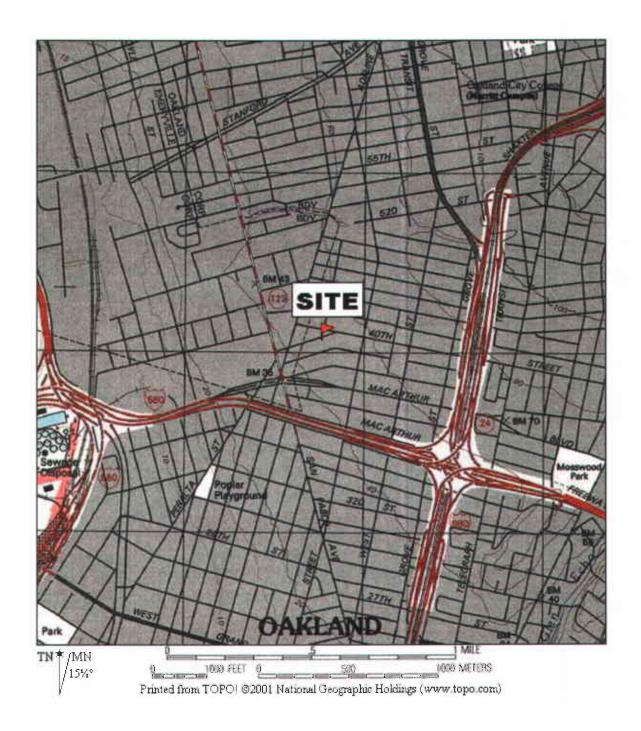
Table 2 Groundwater Sample Analytical Data

Appendices

Appendix A Groundwater Monitoring Well Field Sampling Forms

Appendix B Laboratory Analyses With Chain of Custody Documentation

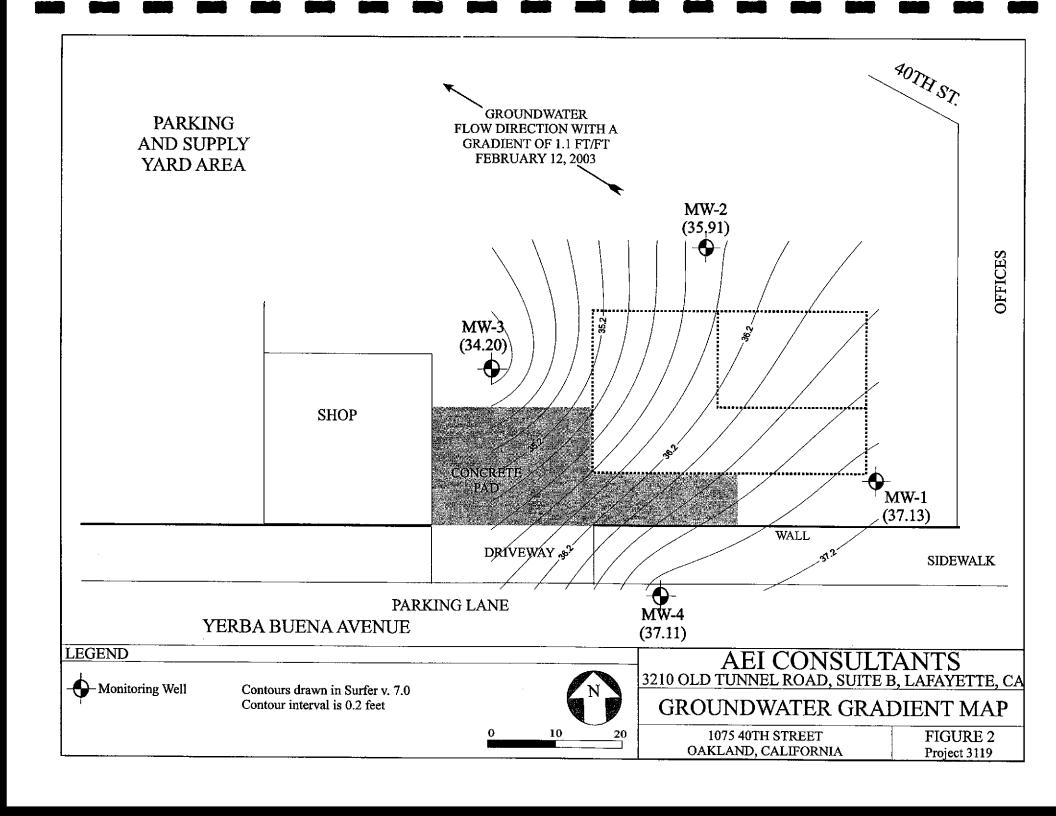
cc: Mr. Don Hwang, Alameda County Health Care Services Agency, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577



# AEI CONSULTANTS 3210 OLD TUNNEL RD, STE B, LAFAYETTE, CA

## SITE LOCATION MAP

1075 44 TH STREET OAKLAND, CALIFORNIA FIGURE 1 PROJECT No. 3119



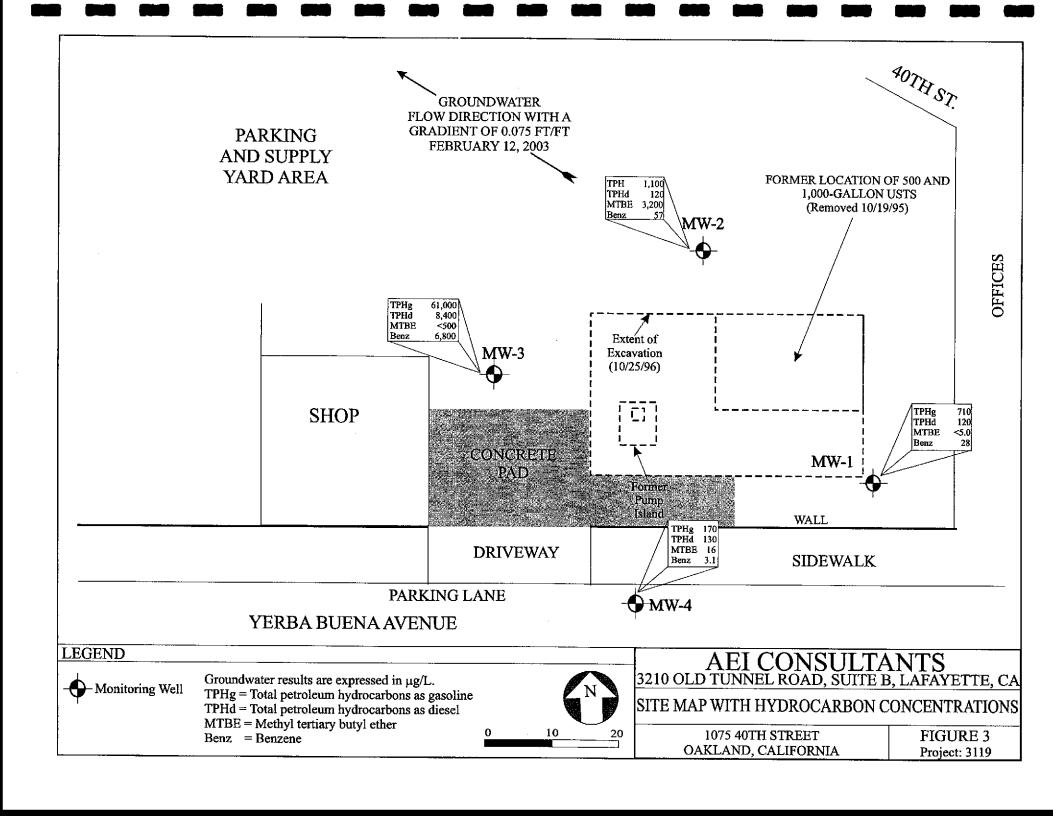


Table 1 Groundwater Elevation Data

Well ID	Date	Elevation	Depth to Water	Groundwate Elevation
		(ft msl)	(ft)	(ft msl)
MW-1	03/19/97	45,41	8,25	37.16
	06/20/97	45.41	9.1	36.31
	10/08/97	45.41	9.95	35.46
	01/16/98	45.41	7.57	37.84
	08/05/99	45.49	10.16	35.33
	11/18/99	45.49	8.52	36.97
	02/24/00	45.49	7.65	37.84
	05/24/00	45.49	8.47	37.02
	08/29/00	45.49	10.28	35.21
	01/12/01	45.49	8.5	36,99
	04/18/01	45.49	8.77	36.72
	07/27/01	45.49	10.5	34.99
	11/06/01	45.49	10.28	35.21
	02/13/02	45.49	8.47	37.02
	05/14/02	45.49	9.50	35.99
	08/15/02	45,49	10.39	35.10
	11/14/02	45.49	9.08	36.41
	02/12/03	45.49	8.36	37.13
MW-2	03/19/97	44.94	8.4	36.54
	06/20/97	44.94	8.85	36.09
	10/08/97	44.94	9.8	35.14
	01/16/98	44.94	5.28	39.66
	08/05/99	44.98	9.32	35.66
	11/18/99	44.98	10.2	34.78
	02/24/00	44.98	7.03	37.95
	05/24/00	44.98	B.01	36.97
	08/29/00	44.98	11.07	33.91
	01/12/01	44.98	8.6	36.38
	04/18/01	44.98	8.8	36.18
	07/27/01	44.98	11.1	33.88
	11/06/01	44.98	12.21	32.77
	02/13/02	44.98	7.98	37.00
	05/14/02	44.98	10.48	34.50
	08/15/02	44.98	10.64	34.34
	11/14/02 <b>02/12/03</b>	44.98 44 <b>.98</b>	11.69 <b>9.07</b>	33.29 35,91
	021203	44.30	7.07	33,71
MW-3	03/19/97	44.32	7.59	36.73
	10/08/97	44.32	9.98	34.34
	06/20/97	44.32	8.36	35.96
	01/16/98	44.32	9.18	35.14
	08/05/99	44.37	10.56	33.81
	11/18/99	44.37	10.92	33.45
	02/24/00	44.37	8.49	35.88
	05/24/00	44.37	8.42	35.95
	08/29/00	44.37	12	32.37
	01/12/01	44.37	10.5	33.87
	04/18/01	44.37	9.5	35.22
	07/27/01	44.37	11.61	32.76
	11/06/01	44.37	11.73	32.64
	02/13/02	44.37	9.36	35.01
	05/14/02	44.37	9.00	35.37
	08/15/02	44.37	11.72	32.65
	11/14/02 <b>02/12/03</b>	44.37 <b>44.37</b>	11.28 10.17	33.09 <b>34.2</b>
MW-4	08/05/99	42.49	9.70	24.60
745 AA	11/18/99	43.48 43.48	8.79	34.69 35.37
	02/24/00	43.48 43.48	8.11	35.37
	05/24/00	43,48 43,48	5.19 7.23	38.29
	08/29/00	43.48 43.48	7.23 9.04	36.25
	08/29/00		9.0 <del>4</del> 6.4	34,44
	04/18/01	43.48 43.48	•	37.08
	07/27/01	43.48 43.48	7.3 9.16	36.18
	11/06/01	43.48 43.48		34.32
	02/13/02		9.03 6.60	34.45
	02/13/02 05/14/02	43.48 43.48	6.60 7.19	36.88
	05/14/02	43.48 43.48		36.29
	11/14/02	43.48 43.48	8.97 7.53	34.51 25.06
	L1/14/UZ	43.48	7.52	35.96
	02/12/03	43.48	6.37	37.11

Notes:
All well elevations are measured from the top of the casing and not from the ground ft msl = feet above mean sea level

Table 2 Groundwater Sample Analytical Data

Well ID	Date	Consultant /Lab	TPHg	MTBE	Benzene	Toluene	Ethyl- benzene	Xylenes	TPH
			(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/I
MW - 1	03/19/97	AEI/MAI	<50	23	<0.5	<0.5	<0.5	<0.5	<50
	06/23/97	AEI/MAI	1,300	14	150	2.1	12	19	420
	10/08/97	AEI/MAI	56	5.8	2.8	< 0.5	<0.5	<0.5	66
	01/16/98	AEI/MAI	1,500	<33	95	0.72	69	8.4	910
	08/05/99	AEI/MAI	160	<15	1.6	<0.5	0.56	1.1	63
	11/18/99	AEI/MAI	79	<5.0	<0.5	<0.5	<0.5	<0.5	<50
	02/24/00	AEI/MAI	300	<5.0	14	0.82	3.5	1.6	160
	05/24/00	AEI/MAI	1,300	<10	93	<0.5	17	1.6	480
	08/29/00	AEI/MAI	120	<5.0	0.93	<0.5	<0.5	<0.5	<0.5
	01/12/01	AEI/MAI	360	<5.0	16	<0.5	9.3	0.69	170
	04/18/01	AEI/MAI	1,100	2,800	63	<0.5	34	0.73	410
	07/27/01	AEI/MAI	130	<5.0	1.6	<0.5	<0.5	<0.5	66
	11/06/01	AEI/MAJ	<50	<5.0	<0.5	<0.5	<0.5	<0.5	<50
	02/13/02	AEI/MAI	430	<5.0	17	0.51	11	0.64	270
	05/14/02	AEI/MAI	340	<5.0	21	< 0.5	5.3	0.67	170
	08/15/02	AEI/MAI	96	<5.0	0.66	<0.5	<0.5	<0.5	53
	11/14/02	AEI/MAI	66,000	<1,200	8,300	860	3,000	11,000	23,00
	02/12/03	AEI/MAI	710	<5.0	28	4.3	32	130	120
MW - 2	03/19/97	AEI/MAI	<50	65	<0.5	<0.5	<0.5	<0.5	<50
	06/23/97	AEI/MAI	<50	70	3.4	<0.5	<0.5	<0.5	<50
	10/08/97	AEI/MAI	<50	90	<0.5	<0.5	<0.5	<0.5	<50
	01/16/98	AEI/MAI	<50	65	<0.5	<0.5	<0.5	<0.5	<50
	08/05/99	AEI/MAI	<50	600	<0.5	<0.5	<0.5	<0.5	<50
	11/18/99	AEI/MAI	<50	370	<0.5	<0.5	<0.5	<0.5	<50
	02/24/00	AEI/MAI	<50	880	<0.5	<0.5	< 0.5	<0.5	<50
	05/24/00	AEI/MAI	<250	2,200	< 0.5	< 0.5	< 0.5	<0.5	62
	08/29/00	AEI/MAI	<200	1,900	<0.5	<0.5	<0.5	<0.5	<50
	01/12/01	AEI/MAI	470	2,000	8.7	3.1	16	73	70
	04/18/01	AEI/MAI	<50	2,800	<0.5	<0.5	<0.5	<0.5	<50
	07/27/01	AEI/MAI	<100	3,300	<0.5	<0.5	<0.5	<0.5	<50
	11/06/01	AEI/MAI	<100	3,000	<0.5	< 0.5	<0.5	< 0.5	<50
	02/13/02	AEI/MAI	54	3,200	<0.5	< 0.5	<0.5	<0.5	<50
	05/14/02	AEI/MAI	<150	3,800	4.8	<1.0	<1.0	<1.0	<50
	08/15/02	AEI/MAI	<b>&lt;</b> 50	2,900	<0.5	<0.5	<0.5	<0.5	<50
	11/14/02	<b>AEI/MAI</b>	<120	3,800	<1.0	<1.0	<1.0	<1.0	<50
	02/12/03	AEI/MAI	1,100	3,200	57	7	55	210	120
MW -3	03/19/97	<b>AEI/MAI</b>	26,000	230	3,000	530	340	2,300	5,000
	06/23/97	AEI/MAI	25,000	270	4,400	120	540	1,500	7,000
	10/08/97	AEI/MAI	17,000	<280	4,400	47	280	410	5,100
	01/16/98	AEI/MAI	29,000	<360	5,600	740	950	3,500	7,300
	08/05/99	AEI/MAI	31,000	<200	5,400	150	1100	2,300	5,100
	11/18/99	AEI/MAI	74,000	<1,000	8,100	5,000	2,100	8,100	490,00
	02/24/00	AEI/MAI	110,000	<200	12,000	1,400	2,900	14,000	6,300
	05/24/00	AEI/MAI	87,000	<200	13,000	1,900	2,900	14,000	26,00
	08/29/00	AEI/MAI	49,000	<200	7,400	800	1,800	7,400	9,400
	01/12/01	AEI/MAI	69,000	<300	8,600	980	2,600	11,000	21,00
	04/18/01	AEI/MAI	75,000	<500	9,200	1,200	2,500	12,000	13,000
	07/27/01	AEI/MAI	75,000	<650	8,700	1,100	2,600	12,000	85,00
	11/06/01	AEI/MAI	89,000	<200	7,900	910	2,800	12,000	86,000
	02/13/02	AEI/MAI	85,000	<2000	8,500	830	2,600	11,000	13,000
	05/14/02	AEI/MAI	94,000	<1000	9,700	1,100	3,400	15,000	35,000
	08/15/02	AEI/MAI	37,000	<1200	5,200	430	1,800	5,900	9,700
	11/14/02	AEI/MAI	<50	<5.0	<0.5	<0.5	<0.5	<0.5	<50
	02/12/03	AEI/MAI	61,000	<500	6,800	500	2,400	9,800	8,400
MW-4	08/05/99	AEI/MAI	<50	37	<0.5	<0.5	<0.5	<0.5	<b>&lt;</b> 50
• • •	11/18/99	AEI/MAI	<50	20	<0.5	<0.5	<0.5	<0.5	<50
	02/24/00	AEI/MAI	<50	20	<0.5	<0.5	<0.5	<0.5	<50
	05/24/00	AEI/MAI	120	31	1.3	<0.5 <0.5	<0.5	<0.5	140
	08/29/00	AEI/MAI	<50	22	<0.5	<0.5	<0.5	<0.5	<0.5
	01/12/01	AEI/MAI	<50	25	<0.5	<0.5	<0.5	<0.5	18
	04/18/01	AEI/MAI	30	35	2.4	1.1			170
							0.66	4.2	
	07/27/01	AEI/MAI	87	26	1.8	<0.5	2	10	110
	11/06/01	AEI/MAI	200	21	4.5	l o c	5.2	24	59
	02/13/02	AEI/MAI	<b>&lt;</b> 50	15	<0.5	<0.5	<0.5	<0.5	91
	05/14/02	AEI/MAI	260	26	12	2.7	11	49	140
	08/15/02	AEI/MAI	⊴0	12	<0.5	<0.5	<0.5	<0.5	<50
	11/14/02	AEI/MAI	<50	11	<0.5	<0.5	<0.5	<0.5	<50
	02/12/03	AEI/MAI	170	16	3.1	0.66	6.4	27	130

Notes:
ug/L= micrograms per liter
ug/R= Methyl Tertiary Butyl Ether
PTHg= Total Petroleum Hydrocarbons as gasoline
TPHid= Total Petroleum Hydrocarbons as diesel
AEI = AEI Consultants

MAI = MCCampbell Analytical Inc., Pacheco, California
Please refer to Appendix B: Leboratory Analysis for more detailed information including method detection limits and dilution factors

Monit	arina V	Vell Numbe	្ត r: MW_1
MONIT	orina v	ven Mumne	r: n/10/1-7

Project Name:	Fidelity Roof Company	Date of Sampling: 2/12/2003
Job Number:	3119	Name of Sampler: S Moore
Project Address:	1075 40th Street, Oakland	

<b>は、自己の主義とは、「本語」、「本語」 MONITORING</b>		ATA - in some endergrade of the color	a na na a a a
Well Casing Diameter (2"/4"/6")		2	
Wellhead Condition 0	K		▼
Elevation of Top of Casing (feet above msl)		45.49	
Depth of Well		21.00	
Depth to Water (from top of casing)	8.36		
Water Elevation (feet above msl)		37.13 .	
Well Volumes Purged		3	
Gallons Purged: formula valid only for casing sizes of 2* (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)		6.1	
Actual Volume Purged (gallons)	6.5		
Appearance of Purge Water	,	clear	
Free Product Present?	Yes	Thickness (ft):	<0.1

14:00 1 18.83 6.62 1075 0.49 141.4 3 19.11 6.67 1090 0.3 90.8 5 19.5 6.68 1044 0.26 92.2	Imper of Samp	ples/Container S	Control of the Contro	经电话 特殊的	2 40mL VOA,	1 1L		
3     19.11     6.67     1090     0.3     90.8       5     19.5     6.68     1044     0.26     92.2	Time			pH 🥫	化生物医抗性的现在分词 医抗性抗病 化苯基苯磺酸		em PC object (See Proposition Continue	Comments
5 19.5 6.68 1044 0.26 92.2	14:00	1	18.83	6.62	1075	0.49	141.4	
		3	19.11	6.67	1090	0.3	90.8	
- 40.00		5	19.5	6.68	1044	0.26	92.2	
7   19.58   6.69   1049   0.24   86.9		7	19.58	6.69	1049	0.24	86.9	

Free product present as sheen		
strong hydrocarbon odor		

Monitoring Well Number: MW-2

Project Name:	Fidelity Roof Company	Date of Sampling: 2/12/2003
Job Number:	3119	Name of Sampler: S Moore
Project Address:	1075 40th Street, Oakland	

「「「「「」」」「「」」「「」」「「」」「「」」「「」」「「」」「「」」「「	iWELLIDATA:《音音》與影響。如此語言的語言。
Well Casing Diameter (2"/4"/6")	2
Wellhead Condition	OK ▼
Elevation of Top of Casing (feet above msl)	44.98
Depth of Well	21.00
Depth to Water (from top of casing)	9.07
Water Elevation (feet above msl)	35.91
Well Volumes Purged	3
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	5.7
Actual Volume Purged (gallons)	6.0
Appearance of Purge Water	clear
Free Product Present?	No Thickness (ft):

		pH		DO (mg/L)	ORP (meV)	Comments
2	20.12	6.64	1520	11.36	36	clear, slight smel
4	20.66	6.67	1573	4.77	164.5	
6	20.77	6.68	1556	3.71	205.7	
				***		
	(gal) 2 4	2 20.12 4 20.66	(gal) (deg C) PH 2 20.12 6.64 4 20.66 6.67	(gal)     (deg C)     ph     (μ sec/cm)       2     20.12     6.64     1520       4     20.66     6.67     1573	(gal)         (deg C)         pH         (μ sec/cm)         (mg/L)           2         20.12         6.64         1520         11.36           4         20.66         6.67         1573         4.77	(gal)     (deg C)     PH     (μ sec/cm)     (mg/L)     (meV)       2     20.12     6.64     1520     11.36     36       4     20.66     6.67     1573     4.77     164.5

no odor		
		_

Monitoring Well Number	Ally Daver A
- "我多名的,我就是我们的基本是一个特别的一个人的的是是特殊的。""我们的是我们,这么的是我们会 <b>对Onitoring Well Numbe</b>	r: MW-3

Project Name:	Fidelity Roof Company	Date of Sampling: 2/12/2003
Job Number:	3119	Name of Sampler: S Moore
Project Address:	1075 40th Street, Oakland	

MONITORIN	NG WELL DATA A SEE STANDARD CONTRACTOR OF THE SECOND SECON
Well Casing Diameter (2"/4"/6")	2
Wellhead Condition	ок ▼
Elevation of Top of Casing (feet above msl)	44.37
Depth of Well	21.00
Depth to Water (from top of casing)	10.17
Water Elevation (feet above msl)	34.20
Well Volumes Purged	3
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	5.2
Actual Volume Purged (gallons)	5.5
Appearance of Purge Water	clear
Free Product Present?	? No Thickness (ft):

6.50 6.51	(μ sec/cm) 1687 1784	2.91	-41.8	Sheen/strong sme
6.51	1784	0.40		
	1,04	2.49	-54.1	
6.6	1789	7.87	-62.1	

dry @ 3 gallons waited 7 minutes		

## Monitoring Well Number: MW-4

Project Name:	Fidelity Roof Company	Date of Sampling: 2/12/2003
Job Number:	3119	Name of Sampler: S Moore
Project Address:	1075 40th Street, Oakland	

MONITORING THE RESERVE OF MONITORING	WELLSDATA: Angelia Server in the School of the Control of the Cont
Well Casing Diameter (2"/4"/6")	2
Wellhead Condition or	K
Elevation of Top of Casing (feet above msl)	43.48
Depth of Well	20.00
Depth to Water (from top of casing)	6.37
Water Elevation (feet above msl)	33.31
Well Volumes Purged	3
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	clear
Free Product Present?	No Thickness (ft):

Number of Sam	oles/Container S	Size 💮 💮		2 40mL VOA,	, 1 1L		
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
15:00	1	20.26	6.67	1112	9.79	377.7	
	3	19.69	6.61	1100	7.3	401	
	5	20.4	6.64	1164	5.88	462.5	
•	7	20.68	6.64	1203	3.61	481.3	

slight hydrocarbon odor				

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

	Date: <u>010103</u>
ATTN. Brandi Kiel Reese	
Message Results for # 3119.	
FROM: Michelle	

CAUTION: CONFIDENTIAL!

Number of pages faxed including this one:

THE DOCUMENT BEING TELECOPIED TO YOU MAY CONTAIN INFORMATION PROTECTED BY THE SENDER AND/OR CLIENT. It is intended only for the use of the person to whom it is addressed. If you are not the intended recipient or an authorized representative, then this is notice to you that dissemination, distribution or copying of this document is prohibited. If this was received in error, please call us at once and destroy the document.

003A MW-3 W 61,000,a,h ND<500 6800 500 2400		- 1 1	. Amalarti	cal Inc				iue South, #D7, Pacheco, : : 925-798-1620 Fax :						
Date Received: 02/14/03	A N	AcCampbel	Anaiyu											
Client Contact: Brandi Kiel Reese   Date Extracted: 02/18/03-02/19/03	All Envir	onmental, Inc	•	Client Pro	oject ID: #31	119; Fidenty	1							
Client Contact: Bland Refer too         Client Contact: Bland Refer too         Client Contact: Bland Refer too         Client P.O.:       Date Analyzed: 02/18/03-02/19/03         Client P.O.:       Date Analyzed: 02/18/03-02/19/03         Extraction method: SW5030B       Analytical methods: SW8021B/8015Cm       Work Order: 0302213         Lab ID       Client ID       Matrix       TPH(g)       MTBE       Benzene       Toluene       Ethylbenzene       Xylenes       DF       % SS         Lab ID       Client ID       Matrix       TPH(g)       MTBE       Benzene       Toluene       Ethylbenzene       Xylenes       DF       % SS         001A       MW-1       W       710,a       ND       28       4.3       32       130       1       103         002A       MW-2       W       1100,a       3200       57       7.0       55       210       1       102         003A       MW-3       W       61,000,a,h       ND<500	3210 Old	l Tunnel Rd.,	Ste. B				/19/03							
Chent P.O.:    Chent P.O.:	1 a fariatti	- CA 94549-4	1157	Client Co	intact: Brand									
Extraction method: SW5030B   Analytical methods: SW5030B   Analytical methods: SW5030B   TPH(g)   MTBE   Benzene   Toluene   Ethylbenzene   Xylenes   DF   % SS	Latayett										====			
Extraction method: SW30305   SW303				(C6-C12) V	olatile Hydi	rocarbons as perbods: SW80211	Gasoline i B/8015Cm	WITH BIES and	Work (	والمستوي				
001A         MW-1         W         710,a         ND         28         4.3         32         130         1         103           002A         MW-2         W         1100,π         3200         57         7.0         55         210         1         102           003A         MW-3         W         61,000,a,h         ND<500				TPH(g)				Ethylbenzene	Xylenes	DF	% SS			
001A MW-2 W 1100,a 3200 57 7.0 55 210 1 102 002A MW-2 W 1100,a 3200 57 7.0 55 210 1 102 003A MW-3 W 61,000,a,h ND<500 6800 500 2400 9800 100 107	} <del>-</del>		w	710,a	ND	28	4.3	32	130	1 1	: 103 			
003A MW-3 W 61,000,a,h ND<500 6800 500 2400 9800 100 107			-+ +		3200	57	7.0	55	210	1. 1	102			
16 3.1 0.66 6.4 27 1 93.0	i-		<del>-</del> !	61,000,a,h	ND<500	6800	500	2400	9800	100	107			
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\*water and vapor samples are reported in µg/L, soil and sludge samples in mg/kg, wipe samples in µg/wipe, and TCLP extracts in µg/L.

5.0

NA

# cluttered chromatogram; sample peak coclutes with surrogate peak.

S

50

NA

+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; hiologically altered gasoline?; c) 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). in) no recognizable pattern.

0.5

NA

DHS Certification No. 1644

Reporting Limit for DF -1;

ND means not detected at or

above the reporting limit

0.5

NΑ

0.5

ΝA

Angela Rydelius, Lab Manager

0.5

NA

 $\mu g/L$ 

mg/Kg

1

1

McCampl	bell Analyt	ical Inc.		Avenue South, #D7, Pacheco, CA 94553- phone: 925-798-1620 Fax: 925-798-162/ niceamphell.com E-mail: main@mecamph		
			ct ID: #3119; Fidelity	Date Sampled: 02/14/03		
Il Environmental,		O.G. Taray		Date Received: 02/14/03		
210 Old Tunnel R	d., Ste. B		act: Brandi Kiel Reese	Date Extracted: 02/14/03		Ì
afayette, CA 9454	19-4157	<u> </u>	02/16/0	13		
anayotto, Orton		Client P.O.:			E	
		esel Range (C1	0-C23) Extractable Hydrocar  Analytical methods: SW8015C	Dons as Diesei	ork Order	
traction method: SW351	oC Client ID	Matrix	TPH	(d)	DF	% SS
Lab ID	CHERCID		120	d)	1	101
302213-001B	MW-1	-	المستعدد الم	<u>.</u> La	1 1	98.3
0302213-002B	MW-2	w	120	The second of th	네 보 1	104
0302213-003B	MW-3	w	\$400 	<b>,d,l</b> t 		102
0302213-004B	MW-4	W	130	),d 	!	
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					 	<u> </u>
				50	<u> </u>	μg/L
Reporting L	imit for DF =1; not detected at or	W i		NA	. i	NA

• water and vapor samples are reported in μg/1, wipe samples in ug/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all TCLP / STLC / SPLP extracts 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 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; I) one to a few [gasonite range compounds are significant, of unknown incoroni coning point pattern share does not appear to be derived from these, if the to a text 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) kerosenc/kerosene range; i) bunker oil; m) fuel oil; n) stoddard solvent / mineral spirit.

Angela Rydelius, Lab Manager

0302213

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## McCampbell Analytical Inc.

**CHAIN-OF-CUSTODY RECORD** 

Page 1 of I

j

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

WorkOrder: 0302213

Client:

All Environmental, Inc. 3210 Old Tunnel Rd., Ste. B Lafayette, CA 94549-4157 TEL:

(925) 283-6000 (925) 283-6121

FAX: (925) ProjectNo: #3119

#3119; Fidelity

PO:

Date Received:

2/14/03

Date Printed: 2/14/03

					Requested Tests		
Sample ID	ClientSampID	Matrix	Collection Date	Hold	SW8015C	8021B/8015	
0302213-001 0302213-002 0302213-003 0302213-004	MW-1 MW-2 MW-3 MW-4	Water Water Water Water	2/14/03 2/14/03 2/14/03 2/14/03		<u>В</u> В В	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.