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Alameda County
APR 04 2003
Environmental Health

QUARTERLY GROUNDWATER MONITORING REPORT
MARCH 2003 GROUNDWATER SAMPLING
ASE JOB NO. 3540

at
Oakland Truck Stop
8255 San Leandro Street
Oakland, California

Prepared for:
Mr. Nissan Saidian
5733 Medallion Court
Castro Valley, CA 94522

Prepared by:
AQUA SCIENCE ENGINEERS, INC.
208 W. El Pintado
Danville, CA 94526
(925) 820-9391

1.0 INTRODUCTION

Site Location (Site). See Figure 1

Oakland Truck Stop
8255 San Leandro Street
Oakland, California

Responsible Party

Mr. Nissan Saidian
5733 Medallion Court
Castro Valley, CA 94522

Environmental Consulting Firm

Aqua Science Engineers, Inc. (ASE)
208 West El Pintado
Danville, CA 94526
Contact: Robert Kitay, Senior Geologist
(925) 820-9391

Agency Review

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

Mr. Chuck Headlee
California Regional Water Quality Control Board (RWQCB)
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

The following is a report detailing the methods and findings of the March 2003 quarterly groundwater sampling at the above-referenced site. This sampling was conducted as required by the ACHCSA and RWQCB. ASE has prepared this report on behalf of Mr. Nissan Saidian, owner of the property.

2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On March 7, 2003, ASE measured the depth to water in each site groundwater monitoring well using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen using an electronic oil/water interface probe. The presence of free-floating hydrocarbons was confirmed with a disposable bailer half-filled for direct observation. Monitoring well MW-1 contained approximately 1.19-feet of free-floating diesel this quarter. ASE has been performing periodic free-product removal again this quarter. No free-floating hydrocarbons or sheen was observed in any of the remaining site monitoring wells. Groundwater elevation data is presented as Table One.

A groundwater potentiometric surface map for March 7, 2003 is presented as Figure 2. Groundwater beneath the site flows to the west and northwest with a gradient of approximately 0.0072 feet/foot. The groundwater flow direction at the site has been very inconsistent and highly variable.

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

Prior to sampling, monitoring wells MW-2 through MW-9 were purged of three well casing volumes of groundwater using dedicated polyethylene bailers. Petroleum hydrocarbon odors were present during the purging and sampling of groundwater monitoring wells MW-3, MW-6, and MW-7. The parameters pH, temperature, and conductivity were monitored during the well purging. Samples were not collected until these parameters stabilized. Groundwater samples were collected from each well using dedicated polyethylene bailers. Since free-floating hydrocarbons were present in monitoring well MW-1, this well was not sampled.

All samples were decanted from the bailers into 40-ml volatile organic analysis (VOA) vials, pre-preserved with hydrochloric acid, and sealed without headspace. The samples were then labeled and placed in coolers with wet ice for transport to Kiff Analytical, LLC of Davis, California under appropriate chain-of-custody documentation. Well sampling field logs are presented in Appendix A.

The well purge water was placed in 55-gallon steel drums and labeled for temporary storage.

The groundwater samples were analyzed for total petroleum hydrocarbons as diesel (TPH-D) by EPA Method 3550/8015M, and total petroleum

hydrocarbons as gasoline (TPH-G), benzene, toluene, ethylbenzene, and total xylenes (collectively known as BTEX), and oxygenates by EPA Method 8260B. The analytical results are presented in Table Two. The certified analytical report and chain-of-custody documentation are included as Appendix B.

4.0 CONCLUSIONS

Monitoring well MW-1 contained approximately 1.19-feet of free-floating diesel hydrocarbons. ASE will once again perform product removal from this well as needed.

The benzene concentrations detected in groundwater samples collected from monitoring wells MW-3 and MW-6 exceeded the Risk Based Screening Level (RBSL) for sites where groundwater is not a current or potential source of drinking water as presented in the "Application of Risk-Based Screening Levels and Decision Making to Sites with Impacted Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region, dated December 2001. The MTBE concentration detected in groundwater samples collected from monitoring well MW-6 exceeded the RBSL. Overall, the analytical results this quarter continue to show an overall decreasing trend in hydrocarbon concentrations, with the exception of MW-6, where hydrocarbon concentrations remain elevated.

5.0 RECOMMENDATIONS

ASE recommends that this site remain on a quarterly sampling schedule. The next sampling is scheduled for June 2003. ASE will continue periodic free-product removal from monitoring well MW-1 during the next quarter. In addition, ASE anticipates conducting a pilot study for ozone sparging remediation at the site once the costs are pre-approved by the Underground Storage Tank Clean-up Fund.

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6.0 REPORT LIMITATIONS

The results presented in this report represent conditions at the time of the groundwater sampling, at the specific locations where the groundwater samples were collected, and for the specific parameters analyzed by the laboratory. It does not fully characterize the site for contamination resulting from sources other than the former underground storage tanks and associated plumbing at the site, or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of independent CAL-EPA certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

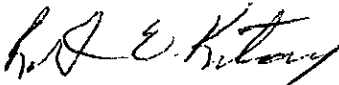
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project, and trust that this report meets your needs. Please feel free to call us at (925) 820-9391 if you have any questions or comments.

Respectfully submitted,

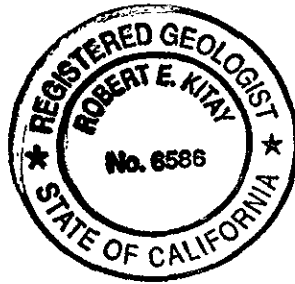
AQUA SCIENCE ENGINEERS, INC.



Erik H. Paddleford
Associate Geologist



Robert E. Kitay, R.G., R.E.A.
Senior Geologist



Attachments: Table One through Three
Figures 1 and 2
Appendices A and B

cc: Mr. Nissan Saidian
Mr. Amir Gholami, ACHCSA
Mr. Chuck Headlee, RWQCB, San Francisco Bay Region

TABLES

TABLE ONE
Groundwater Elevation Data
Oakland Truck Stop
8255 San Leandro Street, Oakland, CA

Well ID & Date Sampled	Top of Casing Elevation (msl)	Depth to Water (feet)	Free-Floating Hydrocarbon Thickness (feet)	Groundwater Elevation (msl)
MW-1				
8/16/1999	97.12	Unknown	> 1.0	Unknown
8/27/1999		6.90	0.36	90.51*
9/10/1999		6.85	0.18	90.41*
9/24/1999		6.65	0.08	90.53*
10/8/1999		6.87	0.28	90.47*
10/22/1999		6.81	0.23	90.49*
11/2/1999		6.94	0.31	90.43*
11/19/1999		6.91	0.12	90.31*
12/6/1999		6.93	0.12	90.29*
3/8/2000		5.93	0.21	91.36*
6/14/2000		6.57	0.72	90.41*
12/11/2000		6.70	0.60	90.90*
3/6/2001		5.75	0.40	91.69*
6/6/2001		7.60	1.48	90.70*
9/4/2001		6.80	0.20	90.48*
3/11/2002		approx. 7.47	approx. 3	approx. 92.05*
6/6/2002		6.49	0.67	91.17*
9/4/2002	11.02	6.89	0.54	4.56*
12/17/2002		4.65		6.47*
3/7/2003		6.55	1.19	3.52*
MW-2				
8/16/1999	96.82	6.30	--	90.52
12/6/1999		8.46	--	88.36
3/8/2000		9.12	--	87.70
6/14/2000		8.34	--	88.48
12/11/2000		5.94	--	90.88
3/6/2001		4.70	--	92.12
6/6/2001		6.03	--	90.79
9/4/2001		6.34	--	90.48
3/11/2002		4.89	--	91.93
6/6/2002		5.69	--	91.13
9/4/2002	10.70	6.17	--	4.53
12/17/2002		4.39	--	6.31
3/7/2003		5.44	--	5.26

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Oakland Truck Stop
8255 San Leandro Street, Oakland, CA

Well ID & Date Sampled	Top of Casing Elevation (msl)	Depth to Water (feet)	Free-Floating Hydrocarbon Thickness (feet)	Groundwater Elevation (msl)
MW-3				
8/16/1999	96.43	5.85	--	90.58
12/6/1999		5.70	--	90.73
3/8/2000		5.32	--	91.11
6/14/2000		6.95	--	89.48
12/11/2000		6.22	--	90.21
3/6/2001		4.83	--	91.60
6/6/2001		5.62	--	90.81
9/4/2001		5.91	--	90.52
3/11/2002		4.42	--	92.01
6/6/2002		5.19	--	91.24
9/4/2002	10.32	5.72	--	4.60
12/17/2002		3.96	--	6.36
3/7/2003		4.88	--	5.44
MW-4				
8/16/1999	96.60	6.12	--	90.48
12/6/1999		5.98	--	90.62
3/8/2000		4.32	--	92.28
6/14/2000		5.58	--	91.02
12/11/2000		5.70	--	90.90
3/6/2001		4.46	--	92.14
6/6/2001		5.89	--	90.71
9/4/2001		6.16	--	90.44
3/11/2002		4.67	--	91.93
6/6/2002		5.50	--	91.10
9/4/2002	10.50	5.97	--	4.53
12/17/2002		4.22	--	6.28
3/7/2003		5.23	--	5.27
MW-5				
12/6/1999	96.30	5.94	--	90.36
3/8/2000		4.06	--	92.24
6/14/2000		5.25	--	91.05
12/11/2000		5.45	--	90.85
3/6/2001		4.12	--	92.18
6/6/2001		5.56	--	90.74
9/4/2001		5.84	--	90.46
3/11/2002		4.38	--	91.92
6/6/2002		5.16	--	91.14
9/4/2002	10.20	5.62	--	4.58
12/17/2002		4.12	--	6.08
3/7/2003		4.89	--	5.31

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Well ID & Date Sampled	Top of Casing Elevation (msl)	Depth to Water (feet)	Free-Floating Hydrocarbon Thickness (feet)	Groundwater Elevation (msl)
MW-6				
12/6/1999	96.79	5.80	--	90.99
3/8/2000		4.10	--	92.69
6/14/2000		5.64	--	91.15
12/11/2000		5.72	--	91.07
3/6/2001		4.32	--	92.47
6/6/2001		5.81	--	90.98
9/4/2001		6.12	--	90.67
3/11/2002		4.49	--	92.30
6/6/2002		5.33	--	91.46
9/4/2002	10.71	5.92	--	4.79
12/17/2002		3.85	--	6.86
3/7/2003		4.96	--	5.75
MW-7				
9/4/2002	9.17	4.67	--	4.50
12/17/2002		3.11	--	6.06
3/7/2003		3.89	--	5.28
MW-8				
9/4/2002	9.68	4.94	--	4.74
12/17/2002		3.26	--	6.42
3/7/2003		4.01	--	5.67
MW-9				
9/4/2002	11.07	6.26	--	4.81
12/17/2002		4.23	--	6.84
3/7/2003		5.26	--	5.81

Notes:

* = Groundwater elevation adjusted for the presence of free-floating hydrocarbons by the equation: Adjusted groundwater elevation = Top of casing elevation - depth to groundwater + (0.8 x free-floating hydrocarbon thickness)

Mid Coast Engineers (MCE) surveyed all site monitoring wells on July 11, 2002 to mean sea level (MSL). The updated elevation data is reflected in the table above.

TABLE TWO
Summary of Chemical Analysis of GROUNDWATER Samples
Petroleum Hydrocarbons
All results are in parts per billion

Well ID DATE	TPH Gasoline	TPH Diesel	TPH Motor Oil	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	DIPE	ETBE	TAME	TBA
<u>MW-1</u>												
8/16/1999												
12/6/1999												
3/8/2000												
6/14/2000												
12/11/2000												
3/6/2001												
6/6/2001												
9/4/2001												
3/11/2002												
6/6/2002												
9/4/2002												
12/17/2002												
3/7/2003												
<u>MW-2</u>												
8/16/1999	2,200	970*	< 500	3.8	< 2.0	3	< 4.0	< 20	NA	NA	NA	NA
12/6/1999	1,900	400*	< 500	16	< 0.5	1.5	< 0.5	5.2	NA	NA	NA	NA
3/8/2000	1,600*	530*	< 500	9.7	< 0.5	2.7	< 0.5	27	NA	NA	NA	NA
6/14/2000	2,000	75	< 100	2.8	< 0.5	3.4	< 0.5	16	3.4	< 0.5	< 0.5	64
12/11/2000	1,000	120	< 100	2.6	< 0.5	< 0.5	< 0.5	15	2.9	< 0.5	< 0.5	62
3/6/2001	1,500	1,400	NA	2.2	< 0.5	1.7	< 0.5	22	3.4	< 0.5	< 0.5	83
6/6/2001	1,700	190	NA	2.6	< 0.5	2.3	< 0.5	26	3.2	< 0.5	< 0.5	83
9/4/2001	2,000	450	NA	2.7	< 0.5	2.1	< 0.5	33	3.4	< 0.5	< 0.5	93
3/11/2002	1,100	410	NA	1.0	< 0.5	0.5	< 0.5	26	2.5	< 0.5	< 0.5	69
6/6/2002	900	430	NA	1.2	< 0.5	< 0.5	< 0.5	23	2.8	< 0.5	< 0.5	73
9/4/2002	910	510	NA	1.6	< 0.5	< 0.5	< 0.5	45	2.5	< 0.5	< 0.5	67
12/17/2002	190	220	NA	0.65	< 0.5	< 0.5	< 0.5	34	1.5	< 0.5	< 0.5	46
3/7/2003	380	300	NA	0.81	< 0.5	< 0.5	< 0.5	50	1.9	< 0.5	< 0.5	73
<u>MW-3</u>												
8/16/1999	56,000	10,000**	< 500	17,000	2,600	2,600	1,200	6,100	NA	NA	NA	NA
12/6/1999	40,000	9,100*	< 500	16,000	140	1,800	100	2,200/4,000#	NA	NA	NA	NA
3/8/2000	22,000	4,500*	< 500	11,000	72	1,100	130	3,400	NA	NA	NA	NA
6/14/2000	34,000	16,000	< 100	13,000	94	1,300	160	4,800	31	< 10	21	2,700
12/11/2000	24,000	14,000	< 100	13,000	88	780	120	4,300	< 50	< 50	< 50	2,300
3/6/2001	34,000	12,000	NA	15,000	100	1,100	130	4,000	< 50	< 50	< 50	2,100
6/6/2001	34,000	20,000	NA	14,000	94	550	110	4,400	< 50	< 50	< 50	2,300
9/4/2001	29,000	19,000	NA	13,000	83	480	83	4,100	< 50	< 50	< 50	3,400
3/11/2002	12,000	14,000	NA	2,900	< 20	110	< 20	530	< 20	< 20	< 20	330
6/6/2002	20,000	14,000	NA	10,000	< 50	200	51	2,400	< 50	< 50	< 50	1,200
9/4/2002	24,000	17,000	NA	11,000	< 50	140	< 50	3,200	< 50	< 50	< 50	1,400
12/17/2002	4,900	17,000	NA	2,000	< 10	52	12	360	< 10	< 10	< 10	220
3/7/2003	8,700	16,000	NA	2,300	< 10	43	11	770	< 10	< 10	< 10	360

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Summary of Chemical Analysis of GROUNDWATER Samples
Petroleum Hydrocarbons
All results are in parts per billion

Well ID DATE	TPH Gasoline	TPH Diesel	TPH Motor Oil	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	DIPE	ETBE	TAME	TBA
<u>MW-4</u>												
2/16/1999	61***	1,100*	< 500	< 0.5	< 0.5	< 0.5	< 1.0	86	NA	NA	NA	NA
12/6/1999	130***	220*	< 500	< 1.0	< 1.0	< 1.0	< 1.0	130	NA	NA	NA	NA
3/8/2000	< 50	220*	< 500	< 0.5	< 0.5	< 0.5	< 0.5	130	NA	NA	NA	NA
6/14/2000	< 50	< 50	< 100	< 0.5	< 0.5	< 0.5	< 0.5	100	< 0.5	< 0.5	< 0.5	20
12/11/2000	< 50	< 50	< 100	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	16
3/6/2001	< 50	670	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	9.9
6/6/2001	< 50	790	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	20
9/4/2001	< 50	950	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	26
3/11/2002	< 50	250	NA	< 0.5	< 0.5	< 0.5	< 0.5	84	< 0.5	< 0.5	< 0.5	21
6/6/2002	< 50	710	NA	< 0.5	< 0.5	< 0.5	< 0.5	92	< 0.5	< 0.5	< 0.5	21
9/4/2002	< 50	1,100	NA	< 0.5	< 0.5	< 0.5	< 0.5	150	< 0.5	< 0.5	< 0.5	18
12/17/2002	< 50	470	NA	< 0.5	< 0.5	< 0.5	< 0.5	120	< 0.5	< 0.5	< 0.5	< 5.0
3/7/2003	< 50	470	NA	< 0.5	< 0.5	< 0.5	< 0.5	120	< 0.5	< 0.5	0.52	18
<u>MW-5</u>												
12/6/1999	450***	2,000*	< 500	< 1.0	< 1.0	< 1.0	< 1.0	21	NA	NA	NA	NA
3/8/2000	51***	530*	< 500	< 0.5	< 0.5	< 0.5	< 0.5	84	NA	NA	NA	NA
6/14/2000	380	1,400	< 100	< 0.5	< 0.5	< 0.5	< 0.5	160	12	< 0.5	< 0.5	22
12/11/2000	540	590	< 100	< 0.5	< 0.5	< 0.5	< 0.5	240	9.5	< 0.5	< 0.5	32
3/6/2001	510	2,900	NA	< 0.5	< 0.5	< 0.5	< 0.5	140	13	< 0.5	< 0.5	19
6/6/2001	280	2,700	NA	< 0.5	< 0.5	< 0.5	< 0.5	180	13	< 0.5	< 0.5	26
9/4/2001	630	2,600	NA	< 0.5	< 0.5	< 0.5	< 0.5	180	9.4	< 0.5	< 0.5	29
3/11/2002	97	3,500	NA	< 0.5	< 0.5	< 0.5	< 0.5	29	0.79	< 0.5	< 0.5	7.4
6/6/2002	61	3,500	NA	< 0.5	< 0.5	< 0.5	< 0.5	150	2.9	< 0.5	< 0.5	34
9/4/2002	92	6,100	NA	< 0.5	< 0.5	< 0.5	< 0.5	370	3.6	< 0.5	< 0.5	72
12/17/2002	110	2,100	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	4.2	< 0.5	< 0.5	14
3/7/2003	71	1,600	NA	< 0.5	< 0.5	< 0.5	< 0.5	150	2.2	< 0.5	< 0.5	35
<u>MW-6</u>												
12/6/1999	13,000	< 50	< 500	180	21	11	24	< 100	NA	NA	NA	NA
3/8/2000	< 10,000	4,600*	< 500	230	26	18	39	12,000	NA	NA	NA	NA
6/14/2000	8,400	12,000	< 100	190	12	9.5	22	15,000	< 5.0	< 5.0	70	3,300
12/11/2000	< 5,000	10,000	< 100	190	< 50	< 50	< 50	14,000	< 50	< 50	74	2,900
3/6/2001	5,300	6,700	NA	220	< 50	< 50	< 50	13,000	< 50	< 50	84	2,100
6/6/2001	5,000	23,000	NA	210	< 25	< 25	< 25	12,000	< 25	< 25	84	4,200
9/4/2001	5,400	22,000	NA	190	12	< 10	23	15,000	< 10	< 10	79	4,000
3/11/2002	4,600	11,000	NA	160	< 25	< 25	< 25	15,000	< 25	< 25	39	5,100
6/6/2002	< 5,000	14,000	NA	200	< 50	< 50	< 50	17,000	< 50	< 50	77	8,700
9/4/2002	< 5,000	50,000	NA	140	< 50	< 50	< 50	21,000	< 50	< 50	52	7,500
12/17/2002	< 5,000	9,100	NA	130	< 50	< 50	< 50	16,000	< 50	< 50	64	6,300
3/7/2003	< 5,000	12,000	NA	160	< 50	< 50	< 50	20,000	< 50	< 50	53	7,500

TABLE TWO
Summary of Chemical Analysis of GROUNDWATER Samples
Petroleum Hydrocarbons
All results are in parts per billion

Well ID DATE	TPH Gasoline	TPH Diesel	TPH Motor Oil	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	DIPE	ETBE	TAME	TBA
MW-7												
9/4/2002	< 50	130****	NA	< 0.5	< 0.5	< 0.5	< 0.5	3.4	< 0.5	< 0.5	< 0.5	< 5.0
12/17/2002	< 50	220	NA	< 0.5	< 0.5	< 0.5	< 0.5	2.8	< 0.5	< 0.5	< 0.5	< 5.0
3/17/2003	< 50	140	NA	< 0.5	< 0.5	< 0.5	< 0.5	1.8	< 0.5	< 0.5	< 0.5	< 5.0
MW-8												
9/4/2002	< 50	170	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
12/17/2002	< 50	100	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
3/17/2003	< 50	62	NA	< 0.5	< 0.5	< 0.5	< 0.5	33	< 0.5	< 0.5	< 0.5	< 5.0
MW-9												
9/4/2002	< 2,500	1,000	NA	< 25	< 25	< 25	< 25	12,000	< 25	< 25	70	1,700
12/17/2002	< 2,000	880	NA	< 20	< 20	< 20	< 20	4,500	< 20	< 20	23	2,300
3/17/2003	< 500	450	NA	< 5.0	< 5.0	< 5.0	< 5.0	1,700	< 5.0	< 5.0	8.4	6,600

DHS MCL	NE	NE	NE	1	150	700	1,750	13	NE	NE	NE	NE
RBSL	400	500	500	46	130	290	1	1,800	NE	NE	NE	NE

Notes:

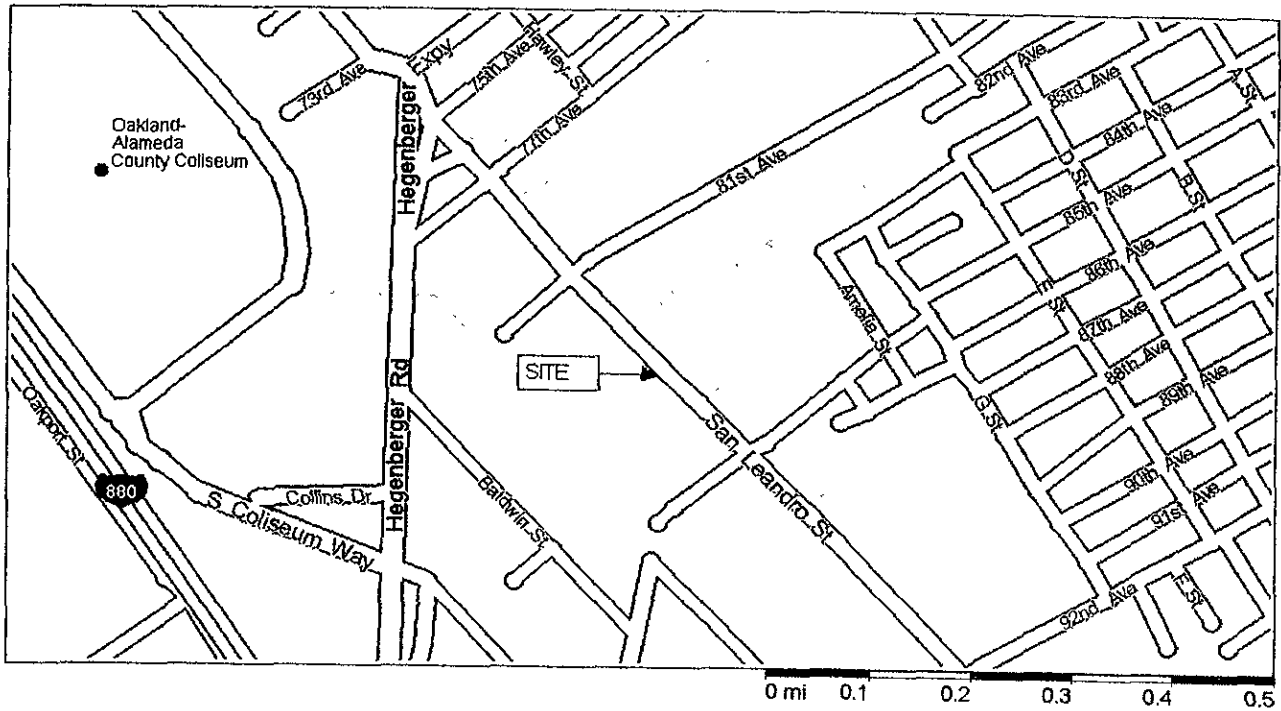
Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.
 Most recent concentrations are in bold.
 DHS MCL is the California Department of Health Services maximum contaminant level for drinking water.
 RBSL is the RWQCB Risk-Based Screening Level where groundwater is not a potential source of drinking water.
 NE = MCL/RBSL not established.
 NA = Sample not analyzed for this compound.

* = Non-typical diesel pattern, hydrocarbons in early diesel range.
 ** = Estimated concentration due to overlapping fuel patterns in the sample.
 *** = Non-typical gasoline pattern.
 **** = Non-typical diesel pattern.
 # = MTBE concentration by EPA Method 8260

FIGURES



NORTH



LOCATION MAP

OAKLAND TRUCK STOP
8255 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

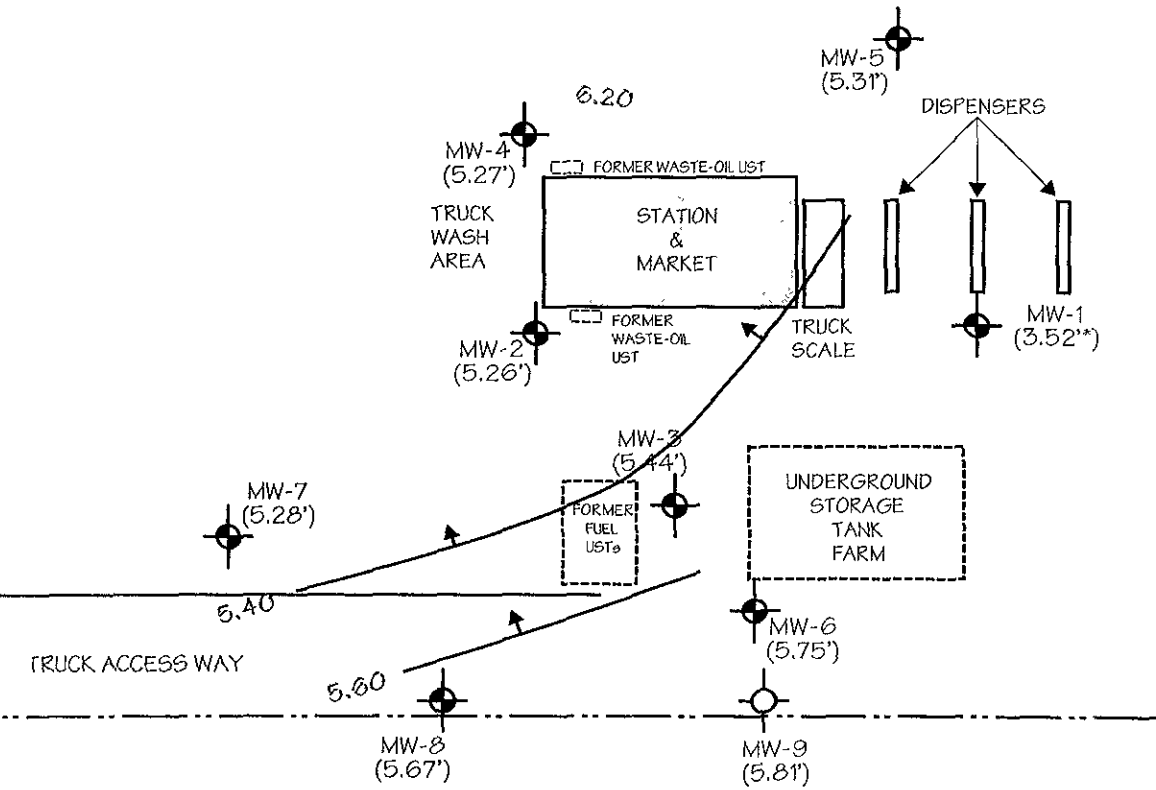
AQUA SCIENCE ENGINEERS, INC.

Figure 1

PROPERTY BOUNDARIES

CAFE

SAN LEANDRO STREET



LEGEND

.

Water elevation does not appear to be correct and was not used in contouring



Potentiometric surface contour with arrow indicating groundwater flow direction



4-inch diameter Monitoring well



MW-4
(5.27')

Monitoring Well with groundwater elevation in feet



NORTH

SCALE
1" = 50'

POTENTIOMETRIC
SURFACE CONTOUR MAP
317103

OAKLAND TRUCK STOP
8255 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

Figure 2

APPENDIX A

Well Sampling Field Logs



WELL SAMPLING FIELD LOG

Project Name and Address: OTS
 Job #: 3540 Date of sampling: 3/7/03
 Well Name: MW-1 Sampled by: ep
 Total depth of well (feet): _____ Well diameter (inches): _____
 Depth to water before sampling (feet): 6.55
 Thickness of floating product if any: 1.19
 Depth of well casing in water (feet): _____
 Number of gallons per well casing volume (gallons): _____
 Number of well casing volumes to be removed: _____
 Required volume of groundwater to be purged before sampling (gallons): _____
 Equipment used to purge the well: _____
 Time Evacuation Began: _____ Time Evacuation Finished: _____
 Approximate volume of groundwater purged: _____
 Did the well go dry: _____ After how many gallons: _____
 Time samples were collected: _____
 Depth to water at time of sampling: _____
 Percent recovery at time of sampling: _____
 Samples collected with: _____
 Sample color: _____
 Description of sediment in sample: _____

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

NOT SAMPLED THIS QUARTER



WELL SAMPLING FIELD LOG

Project Name and Address: OTS
 Job #: 3540 Date of sampling: 3/7/03
 Well Name: MW-2 Sampled by: ep
 Total depth of well (feet): 14.90 Well diameter (inches): 2
 Depth to water before sampling (feet): 5.44
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 9.46
 Number of gallons per well casing volume (gallons): 1.5
 Number of well casing volumes to be removed: 3
 Req'd volume of groundwater to be purged before sampling (gallons): 4.5
 Equipment used to purge the well: bailer
 Time Evacuation Began: 1245 Time Evacuation Finished: 1300
 Approximate volume of groundwater purged: 4.5
 Did the well go dry?: No After how many gallons: -
 Time samples were collected: 1305
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with: bailer
 Sample color: clear/grey Odor: none
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>66.4</u>	<u>7.09</u>	<u>1846</u>
<u>2</u>	<u>66.1</u>	<u>7.10</u>	<u>1834</u>
<u>3</u>	<u>66.0</u>	<u>7.13</u>	<u>1823</u>

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-2</u>	<u>5</u>	<u>40 ml V04</u>	<u>x</u>	<u>x</u>	



WELL SAMPLING FIELD LOG

Project Name and Address: OTS
 Job #: 3540 Date of sampling: 3/7/03
 Well Name: MW-3 Sampled by: EP
 Total depth of well (feet): 15.02 Well diameter (inches): _____
 Depth to water before sampling (feet): 4.88
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 10.14
 Number of gallons per well casing volume (gallons): 1.62
 Number of well casing volumes to be removed: 3
 Req'd volume of groundwater to be purged before sampling (gallons): 5
 Equipment used to purge the well: bailer
 Time Evacuation Began: 1215 Time Evacuation Finished: 1230
 Approximate volume of groundwater purged: 5
 Did the well go dry?: no After how many gallons: -
 Time samples were collected: # 1235
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with: bailer
 Sample color: dark gray Odor: strong
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>66.3</u>	<u>7.41</u>	<u>943</u>
<u>2</u>	<u>66.0</u>	<u>7.51</u>	<u>947</u>
<u>3</u>	<u>65.7</u>	<u>7.52</u>	<u>951</u>
_____	_____	_____	_____
_____	_____	_____	_____

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-3</u>	<u>5</u>	<u>40 ml VOA</u>	<u>x</u>	<u>x</u>	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



WELL SAMPLING FIELD LOG

Project Name and Address: OTS
 Job #: 3540 Date of sampling: 3/7/03
 Well Name: MW-4 Sampled by: CP
 Total depth of well (feet): 13.97 Well diameter (inches): 2
 Depth to water before sampling (feet): 5.23
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 8.74
 Number of gallons per well casing volume (gallons): 1.4
 Number of well casing volumes to be removed: ~~2~~ 3
 Req'd volume of groundwater to be purged before sampling (gallons): 4.2
 Equipment used to purge the well: bailer
 Time Evacuation Began: 1310 Time Evacuation Finished: 1325
 Approximate volume of groundwater purged: 4
 Did the well go dry?: no After how many gallons: -
 Time samples were collected: 1330
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with: bailer
 Sample color: clear/brown Odor: none
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>66.7</u>	<u>7.25</u>	<u>1540</u>
<u>2</u>	<u>66.3</u>	<u>7.32</u>	<u>1563</u>
<u>3</u>	<u>66.0</u>	<u>7.37</u>	<u>1565</u>
_____	_____	_____	_____
_____	_____	_____	_____

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iccd?	Analysis
<u>MW-4</u>	<u>5</u>	<u>40 ml VOA</u>	<u>X</u>	<u>X</u>	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



WELL SAMPLING FIELD LOG

Project Name and Address: OTS
 Job #: 3540 Date of sampling: 3/7/03
 Well Name: MW-5 Sampled by: ep
 Total depth of well (feet): 14.04 Well diameter (inches): 2
 Depth to water before sampling (feet): 4.89
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 9.15
 Number of gallons per well casing volume (gallons): 1.46
 Number of well casing volumes to be removed: 3
 Req'd volume of groundwater to be purged before sampling (gallons): 4.4
 Equipment used to purge the well: bailer
 Time Evacuation Began: 1340 Time Evacuation Finished: 1355
 Approximate volume of groundwater purged: 4.5
 Did the well go dry?: no After how many gallons: -
 Time samples were collected: 1400
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with: bailer
 Sample color: clear Odor: none
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>65.3</u>	<u>7.42</u>	<u>549</u>
<u>2</u>	<u>65.9</u>	<u>7.48</u>	<u>550</u>
<u>3</u>	<u>66.3</u>	<u>7.50</u>	<u>552</u>

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-5</u>	<u>5</u>	<u>40 ml VOA</u>	<u>x</u>	<u>x</u>	



WELL SAMPLING FIELD LOG

Project Name and Address: OTS
 Job #: 3540 Date of sampling: 3/7/03
 Well Name: MW-6 Sampled by: ep
 Total depth of well (feet): 14.32 Well diameter (inches): 2
 Depth to water before sampling (feet): 4.96
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 9.36
 Number of gallons per well casing volume (gallons): 1.49
 Number of well casing volumes to be removed: ~~4.5~~ 3
 Req'd volume of groundwater to be purged before sampling (gallons): 4.5
 Equipment used to purge the well: bailer
 Time Evacuation Began: ~~1055~~ 1055 Time Evacuation Finished: 1110
 Approximate volume of groundwater purged: 4.5
 Did the well go dry?: no After how many gallons: -
 Time samples were collected: 1115
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with: bailer
 Sample color: clear / gray Odor: slight
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>64.2</u>	<u>7.14</u>	<u>1001</u>
<u>2</u>	<u>64.6</u>	<u>7.10</u>	<u>1007</u>
<u>3</u>	<u>65.0</u>	<u>7.08</u>	<u>1009</u>

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-6</u>	<u>5</u>	<u>40 ml VOA</u>	<u>X</u>	<u>X</u>	



WELL SAMPLING FIELD LOG

Project Name and Address: OTS
 Job #: 3540 Date of sampling: 3/7/03
 Well Name: MW-7 Sampled by: CP
 Total depth of well (feet): 15.41 Well diameter (inches): 2
 Depth to water before sampling (feet): 3.89
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 11.52
 Number of gallons per well casing volume (gallons): 1.84
 Number of well casing volumes to be removed: 3
 Req'd volume of groundwater to be purged before sampling (gallons): 5.5
 Equipment used to purge the well: bailey
 Time Evacuation Began: 1130 Time Evacuation Finished: 1145
 Approximate volume of groundwater purged: 5.5
 Did the well go dry?: no After how many gallons: -
 Time samples were collected: 1155
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with:
 Sample color: clear/brown Odor: none
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>64.3</u>	<u>7.23</u>	<u>1024</u>
<u>2</u>	<u>63.9</u>	<u>7.38</u>	<u>1021</u>
<u>3</u>	<u>63.6</u>	<u>7.41</u>	<u>1019</u>

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-7</u>	<u>5</u>	<u>40 ml VOA</u>	<u>x</u>	<u>x</u>	



WELL SAMPLING FIELD LOG

Project Name and Address: OTS
 Job #: 3540 Date of sampling: 3/7/03
 Well Name: MW-8 Sampled by: ep
 Total depth of well (feet): 15.04 Well diameter (inches): 2
 Depth to water before sampling (feet): 4.01
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 11.03
 Number of gallons per well casing volume (gallons): 1.76
 Number of well casing volumes to be removed: 3
 Req'd volume of groundwater to be purged before sampling (gallons): 5.3
 Equipment used to purge the well: bailer
 Time Evacuation Began: 940 Time Evacuation Finished: 955
 Approximate volume of groundwater purged: 5
 Did the well go dry?: no After how many gallons: -
 Time samples were collected: 1000
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with: bailer
 Sample color: clear / brown Odor: none
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>63.4</u>	<u>7.13</u>	<u>1121</u>
<u>2</u>	<u>64.0</u>	<u>7.13</u>	<u>1132</u>
<u>3</u>	<u>64.1</u>	<u>7.06</u>	<u>1143</u>
_____	_____	_____	_____
_____	_____	_____	_____

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iccd?	Analysis
<u>MW-8</u>	<u>5</u>	<u>40 ml VOA</u>	<u>X</u>	<u>X</u>	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



WELL SAMPLING FIELD LOG

Project Name and Address: OTS
 Job #: 3540 Date of sampling: 3/7/03
 Well Name: MW-9 Sampled by: ep
 Total depth of well (feet): 19.91 Well diameter (inches): 4
 Depth to water before sampling (feet): 5.26
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 14.65
 Number of gallons per well casing volume (gallons): ~~28~~ 9.52
 Number of well casing volumes to be removed: 3
 Req'd volume of groundwater to be purged before sampling (gallons): 28
 Equipment used to purge the well: sub pump
 Time Evacuation Began: 1020 Time Evacuation Finished: 1046
 Approximate volume of groundwater purged: 28
 Did the well go dry?: no After how many gallons: -
 Time samples were collected: 1045
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with: bailer
 Sample color: clear / brown Odor: none
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>65.4</u>	<u>7.24</u>	<u>948</u>
<u>2</u>	<u>64.9</u>	<u>7.28</u>	<u>952</u>
<u>3</u>	<u>64.5</u>	<u>7.31</u>	<u>954</u>

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-9</u>	<u>5</u>	<u>40 ml VOA</u>	<u>X</u>	<u>X</u>	

APPENDIX B

Certified Analytical Report
and
Chain of Custody Documentation



Report Number : 32075

Date : 3/20/03

Eric Paddleford
Aqua Science Engineers, Inc.
208 West El Pintado Rd.
Danville, CA 94526

Subject : 8 Water Samples
Project Name : Oakland Truck Stop
Project Number : 3540

Dear Mr. Paddleford,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,


Joel Kiff



Report Number : 32075

Date : 3/20/03

Project Name : **Oakland Truck Stop**

Project Number : **3540**

Sample : **MW-2**

Matrix : Water

Lab Number : 32075-01

Sample Date :3/7/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.81	0.50	ug/L	EPA 8260B	3/13/03
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Methyl-t-butyl ether (MTBE)	50	0.50	ug/L	EPA 8260B	3/13/03
Diisopropyl ether (DIPE)	1.9	0.50	ug/L	EPA 8260B	3/13/03
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Tert-Butanol	73	5.0	ug/L	EPA 8260B	3/13/03
TPH as Gasoline	380	50	ug/L	EPA 8260B	3/13/03
Toluene - d8 (Surr)	95.1		% Recovery	EPA 8260B	3/13/03
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	3/13/03
TPH as Diesel	300	50	ug/L	M EPA 8015	3/14/03

Approved By:  Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 32075

Date : 3/20/03

Project Name : **Oakland Truck Stop**

Project Number : **3540**


Sample : **MW-3**

Matrix : Water

Lab Number : 32075-02

Sample Date :3/7/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	2300	10	ug/L	EPA 8260B	3/20/03
Toluene	< 10	10	ug/L	EPA 8260B	3/20/03
Ethylbenzene	43	10	ug/L	EPA 8260B	3/20/03
Total Xylenes	11	10	ug/L	EPA 8260B	3/20/03
Methyl-t-butyl ether (MTBE)	770	10	ug/L	EPA 8260B	3/20/03
Diisopropyl ether (DIPE)	< 10	10	ug/L	EPA 8260B	3/20/03
Ethyl-t-butyl ether (ETBE)	< 10	10	ug/L	EPA 8260B	3/20/03
Tert-amyl methyl ether (TAME)	< 10	10	ug/L	EPA 8260B	3/20/03
Tert-Butanol	360	100	ug/L	EPA 8260B	3/20/03
TPH as Gasoline	8700	1000	ug/L	EPA 8260B	3/20/03
Toluene - d8 (Surr)	95.5		% Recovery	EPA 8260B	3/20/03
4-Bromofluorobenzene (Surr)	95.5		% Recovery	EPA 8260B	3/20/03
TPH as Diesel	16000	50	ug/L	M EPA 8015	3/14/03

Approved By:  Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 32075

Date : 3/20/03

Project Name : **Oakland Truck Stop**

Project Number : **3540**


Sample : **MW-4**

Matrix : Water

Lab Number : 32075-03

Sample Date :3/7/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Methyl-t-butyl ether (MTBE)	120	0.50	ug/L	EPA 8260B	3/13/03
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Tert-amyl methyl ether (TAME)	0.52	0.50	ug/L	EPA 8260B	3/13/03
Tert-Butanol	18	5.0	ug/L	EPA 8260B	3/13/03
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/13/03
Toluene - d8 (Surr)	97.7		% Recovery	EPA 8260B	3/13/03
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	3/13/03
TPH as Diesel	470	50	ug/L	M EPA 8015	3/14/03

Approved By:  Joel Kiff



Report Number : 32075

Date : 3/20/03

Project Name : **Oakland Truck Stop**

Project Number : **3540**

Sample : **MW-5**

Matrix : Water

Lab Number : 32075-04

Sample Date :3/7/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/15/03
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/15/03
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/15/03
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/15/03
Methyl-t-butyl ether (MTBE)	150	0.50	ug/L	EPA 8260B	3/15/03
Diisopropyl ether (DIPE)	2.2	0.50	ug/L	EPA 8260B	3/15/03
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/15/03
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/15/03
Tert-Butanol	35	5.0	ug/L	EPA 8260B	3/15/03
TPH as Gasoline	71	50	ug/L	EPA 8260B	3/15/03
Toluene - d8 (Surr)	96.1		% Recovery	EPA 8260B	3/15/03
4-Bromofluorobenzene (Surr)	95.2		% Recovery	EPA 8260B	3/15/03
TPH as Diesel	1600	50	ug/L	M EPA 8015	3/14/03

Approved By:  Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 32075

Date : 3/20/03

Project Name : **Oakland Truck Stop**

Project Number : **3540**

Sample : **MW-6**

Matrix : Water

Lab Number : 32075-05

Sample Date :3/7/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	160	50	ug/L	EPA 8260B	3/15/03
Toluene	< 50	50	ug/L	EPA 8260B	3/15/03
Ethylbenzene	< 50	50	ug/L	EPA 8260B	3/15/03
Total Xylenes	< 50	50	ug/L	EPA 8260B	3/15/03
Methyl-t-butyl ether (MTBE)	20000	50	ug/L	EPA 8260B	3/15/03
Dilsopropyl ether (DIPE)	< 50	50	ug/L	EPA 8260B	3/15/03
Ethyl-t-butyl ether (ETBE)	< 50	50	ug/L	EPA 8260B	3/15/03
Tert-amyl methyl ether (TAME)	53	50	ug/L	EPA 8260B	3/15/03
Tert-Butanol	7500	500	ug/L	EPA 8260B	3/15/03
TPH as Gasoline	< 5000	5000	ug/L	EPA 8260B	3/15/03
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	3/15/03
4-Bromofluorobenzene (Surr)	95.9		% Recovery	EPA 8260B	3/15/03
TPH as Diesel	12000	50	ug/L	M EPA 8015	3/14/03

Approved By:  Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 32075

Date : 3/20/03

Project Name : **Oakland Truck Stop**

Project Number : **3540**

Sample : **MW-7**

Matrix : Water

Lab Number : 32075-06

Sample Date :3/7/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Methyl-t-butyl ether (MTBE)	1.8	0.50	ug/L	EPA 8260B	3/13/03
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/13/03
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/13/03
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	3/13/03
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	3/13/03
TPH as Diesel	140	50	ug/L	M EPA 8015	3/15/03

Approved By:  Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 32075

Date : 3/20/03

Project Name : **Oakland Truck Stop**

Project Number : **3540**

Sample : **MW-8**

Matrix : Water

Lab Number : 32075-07

Sample Date : 3/7/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Methyl-t-butyl ether (MTBE)	33	0.50	ug/L	EPA 8260B	3/13/03
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/13/03
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/13/03
Toluene - d8 (Surr)	93.7		% Recovery	EPA 8260B	3/13/03
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	3/13/03
TPH as Diesel	62	50	ug/L	M EPA 8015	3/15/03

Approved By:  Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 32075

Date : 3/20/03

Project Name : **Oakland Truck Stop**

Project Number : **3540**


Sample : **MW-9**

Matrix : Water

Lab Number : 32075-08

Sample Date :3/7/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 5.0	5.0	ug/L	EPA 8260B	3/14/03
Toluene	< 5.0	5.0	ug/L	EPA 8260B	3/14/03
Ethylbenzene	< 5.0	5.0	ug/L	EPA 8260B	3/14/03
Total Xylenes	< 5.0	5.0	ug/L	EPA 8260B	3/14/03
Methyl-t-butyl ether (MTBE)	1700	5.0	ug/L	EPA 8260B	3/14/03
Diisopropyl ether (DIPE)	< 5.0	5.0	ug/L	EPA 8260B	3/14/03
Ethyl-t-butyl ether (ETBE)	< 5.0	5.0	ug/L	EPA 8260B	3/14/03
Tert-amyl methyl ether (TAME)	8.4	5.0	ug/L	EPA 8260B	3/14/03
Tert-Butanol	6600	50	ug/L	EPA 8260B	3/14/03
TPH as Gasoline	< 500	500	ug/L	EPA 8260B	3/14/03
Toluene - d8 (Surr)	96.9		% Recovery	EPA 8260B	3/14/03
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	3/14/03
TPH as Diesel	450	50	ug/L	M EPA 8015	3/15/03

Approved By:  Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 32075

Date : 3/20/03

QC Report : Method Blank Data

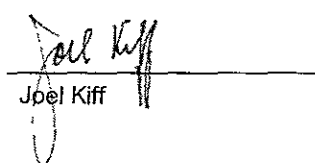
Project Name : Oakland Truck Stop

Project Number : 3540

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	3/14/03
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/14/03
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/14/03
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/14/03
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/14/03
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/14/03
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/14/03
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/14/03
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/14/03
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/14/03
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/14/03
Toluene - d8 (Surr)	97.7		%	EPA 8260B	3/14/03
4-Bromofluorobenzene (Surr)	94.5		%	EPA 8260B	3/14/03
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/20/03
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/20/03
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/20/03
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/20/03
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/20/03
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/20/03
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/20/03
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/20/03
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/20/03
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/20/03
Toluene - d8 (Surr)	95.3		%	EPA 8260B	3/20/03
4-Bromofluorobenzene (Surr)	95.3		%	EPA 8260B	3/20/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/13/03
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/13/03
Toluene - d8 (Surr)	100		%	EPA 8260B	3/13/03
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	3/13/03
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/13/03
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/13/03
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/13/03
Toluene - d8 (Surr)	94.4		%	EPA 8260B	3/13/03
4-Bromofluorobenzene (Surr)	104		%	EPA 8260B	3/13/03

Approved By: Joel Kiff



KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 32075

Date : 3/20/03

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Oakland Truck Stop**

Project Number : **3540**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	Blank	<50	1000	1000	851	887	ug/L	M EPA 8015	3/14/03	85.1	88.7	4.12	70-130	25
Benzene	32155-09	<0.50	40.0	40.0	41.2	40.1	ug/L	EPA 8260B	3/14/03	103	100	2.88	70-130	25
Toluene	32155-09	<0.50	40.0	40.0	38.6	36.8	ug/L	EPA 8260B	3/14/03	96.6	91.9	4.91	70-130	25
Tert-Butanol	32155-09	<5.0	200	200	207	203	ug/L	EPA 8260B	3/14/03	104	102	1.94	70-130	25
Methyl-t-Butyl Ether	32155-09	<0.50	40.0	40.0	36.9	36.2	ug/L	EPA 8260B	3/14/03	92.3	90.4	2.11	70-130	25
Benzene	32075-01	0.81	40.0	40.0	44.3	43.9	ug/L	EPA 8260B	3/13/03	109	108	1.02	70-130	25
Toluene	32075-01	<0.50	40.0	40.0	39.3	39.0	ug/L	EPA 8260B	3/13/03	98.3	97.5	0.817	70-130	25
Tert-Butanol	32075-01	73	200	200	285	304	ug/L	EPA 8260B	3/13/03	106	115	8.29	70-130	25
Methyl-t-Butyl Ether	32075-01	50	40.0	40.0	91.3	91.5	ug/L	EPA 8260B	3/13/03	104	104	0.431	70-130	25
Benzene	32078-01	<0.50	40.0	40.0	43.8	41.7	ug/L	EPA 8260B	3/13/03	109	104	4.77	70-130	25
Toluene	32078-01	<0.50	40.0	40.0	40.1	38.1	ug/L	EPA 8260B	3/13/03	100	95.3	5.01	70-130	25
Tert-Butanol	32078-01	<5.0	200	200	225	220	ug/L	EPA 8260B	3/13/03	112	110	2.37	70-130	25
Methyl-t-Butyl Ether	32078-01	<0.50	40.0	40.0	42.2	40.9	ug/L	EPA 8260B	3/13/03	106	102	3.30	70-130	25
Benzene	32178-08	0.88	40.0	40.0	42.2	42.0	ug/L	EPA 8260B	3/20/03	103	103	0.291	70-130	25
Toluene	32178-08	<0.50	40.0	40.0	38.6	38.1	ug/L	EPA 8260B	3/20/03	96.6	95.3	1.30	70-130	25
Tert-Butanol	32178-08	61	200	200	277	279	ug/L	EPA 8260B	3/20/03	108	109	0.876	70-130	25
Methyl-t-Butyl Ether	32178-08	250	40.0	40.0	288	284	ug/L	EPA 8260B	3/20/03	95.9	85.6	11.4	70-130	25

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 32075

Date : 3/20/03

QC Report : Laboratory Control Sample (LCS)

Project Name : **Oakland Truck Stop**

Project Number : **3540**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	3/14/03	100	70-130
Toluene	40.0	ug/L	EPA 8260B	3/14/03	96.7	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/14/03	107	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/14/03	98.0	70-130
Benzene	40.0	ug/L	EPA 8260B	3/13/03	105	70-130
Toluene	40.0	ug/L	EPA 8260B	3/13/03	106	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/13/03	105	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/13/03	101	70-130
Benzene	40.0	ug/L	EPA 8260B	3/13/03	106	70-130
Toluene	40.0	ug/L	EPA 8260B	3/13/03	98.3	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/13/03	105	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/13/03	100	70-130
Benzene	40.0	ug/L	EPA 8260B	3/20/03	101	70-130
Toluene	40.0	ug/L	EPA 8260B	3/20/03	96.2	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/20/03	111	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/20/03	105	70-130

KIFF ANALYTICAL, LLC

Approved By:  Joel Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800



2795 2nd Street, Suite 300
 Davis, CA 95616
 Lab: 530.297.4800
 Fax: 530.297.4808

Lab No. 32075 Page 1 of 1

Project Contact (Hardcopy or PDF To):

Erik Paddeloff

California EDF Report? Yes No

Chain-of-Custody Record and Analysis Request

Company/Address:

ASE, Danville CA

Recommended but not mandatory to complete this section:

Sampling Company Log Code:

Analysis Request

Phone No.:

925-820-9391

FAX No.:

Global ID:

Project Number:

3540

P.O. No.:

EDF Deliverable To (Email Address):

Project Name:

Oakland Truckstop

Sampler Signature:

E Paddeloff

Project Address:

8255 San Leandro Street, Oakland, CA

Sampling

Container

Preservative

Matrix

Sample Designation

Date Time

40 ml VOA

SLEEVE

HCl

HNO₃

ICE

NONE

WATER

SOIL

BTEX (8021B)

BTEX/TPH Gas/MTBE (8021B/M8015)

TPH as Diesel (M8015)

TPH as Motor Oil (M8015)

TPH Gas/BTEX/MTBE (8260B)

5 Oxygenates/TPH Gas/BTEX (8260B)

7 Oxygenates/TPH Gas/BTEX (8260B)

5 Oxygenates (8260B)

7 Oxygenates (8260B)

Lead Scav. (1,2 DCA & 1,2 EDB - 8280B)

EPA 8260B (Full List)

Volatile Halocarbons (EPA 8260B)

Lead (7421/239.2) TOTAL (X) W.E.T. (X)

12 hr/24 hr/48 hr/72 hr/TW

TAT

For Lab Use Only

Sample Designation	Date	Time	40 ml VOA	SLEEVE	HCl	HNO ₃	ICE	NONE	WATER	SOIL	BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8280B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/239.2) TOTAL (X) W.E.T. (X)	12 hr/24 hr/48 hr/72 hr/TW	For Lab Use Only	
✓ MW-2	3/7/03	1305	S		X		X		X				X		X									X	-01	
✓ MW-3		1235																								-02
✓ MW-4		1330																								-03
✓ MW-5		1400																								-04
✓ MW-6		1115																								-05
✓ MW-7		1155																								-06
✓ MW-8		1000																								-07
✓ MW-9		1045																								-08

Relinquished by:

E Paddeloff

Date

Time

Received by:

Remarks:

Relinquished by:

Date

Time

Received by:

Relinquished by:

Date

Time

Received by Laboratory:

Kiff Analytical

Bill to:

03/10/03

1330

B. A. Benson