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**Alameda County**

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October 31, 2005

**QUARTERLY GROUNDWATER MONITORING REPORT  
SEPTEMBER 29, 2005 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  
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## **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 September 29, 2005 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 September 29, 2005, ASE measured the depth to water in monitoring wells MW-1, and MW-3 through MW-9 using an electric water level sounder. A truck was parked above monitoring well MW-2 and prevented access to the well. The surface of the groundwater in the monitoring wells was also checked for the presence of free-phase hydrocarbons or sheen. Monitoring well MW-1 contained approximately 1.0-foot of free-phase hydrocarbons. This product was subsequently bailed from the well until only a sheen was visible. Approximately 2 gallons of product, along with several gallons of water, were removed from the well and stored temporarily on-site in a 55-gallon, labeled drum. Groundwater elevation data is presented as Table One.

A groundwater potentiometric surface map for the September 29, 2005 sampling event is presented as Figure 2. The groundwater flow direction at the site has been inconsistent and highly variable. Groundwater flow this quarter was generally to the west with a gradient of 0.05-feet per foot on the eastern portion of the site and flat to the west.

## **3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS**

Groundwater samples were collected from monitoring wells MW-3 through MW-9. Monitoring well MW-1 contained free-phase hydrocarbons and was not sampled. Monitoring wells MW-2 was blocked by a parked vehicle and could not be accessed for sampling. Prior to sampling, the wells were purged of three well casing volumes of groundwater using disposable polyethylene bailers. The parameters pH, temperature, and conductivity were monitored during the well purging, and samples were not collected until these parameters stabilized. Groundwater samples were then collected from each well using the same polyethylene bailers.

All samples were decanted from the bottom of the bailers using low-flow sampling devices 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 monitoring well purge water was placed in a 55-gallon steel drum, and stored for later removal.

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 including ethanol and methanol 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 1.0-foot of free-phase hydrocarbons this quarter.
- Concentrations of dissolved hydrocarbons in water sampled from monitoring wells MW-7, MW-8, and MW-9 remained similar to previous results.
- There were notable decreases in TPH-D, benzene and MTBE concentrations in groundwater samples collected from monitoring well MW-3.
- Concentrations of TBA in groundwater samples collected from monitoring well MW-4 increased relative to previous results, while MTBE concentrations reached a historic low.
- Concentrations of TPH-D and MTBE in groundwater samples collected from monitoring well MW-5 decreased this quarter. However, concentrations of TBA in the same sample increased more than five-fold.
- There were noteworthy decreases in concentrations of benzene, toluene, ethyl-benzene, total xylenes, MTBE, TAME and TBA in groundwater samples collected from monitoring well MW-6, including historic lows for toluene, total xylenes, MTBE, and TAME.

Groundwater samples collected from the following monitoring wells contained concentrations of the listed compounds that exceeded Environmental Screening Levels (ESLs)<sup>1</sup>:

- MW-3—TPH-G, TPH-D, benzene, and MTBE
- MW-5—TPH-D
- MW-6—TPH-G, TPH-D, benzene, and MTBE

## **5.0 RECOMMENDATIONS**

ASE recommends that this site remain on a quarterly sampling schedule. The next sampling is scheduled for December 2005. In addition, ASE will survey the well casing for monitoring well MW-8.

Oakland Truck Stop staff will continue periodic free-phase hydrocarbon removal from monitoring well MW-1 during the next quarter.

## **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-DHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

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<sup>1</sup> as presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region dated February 2005

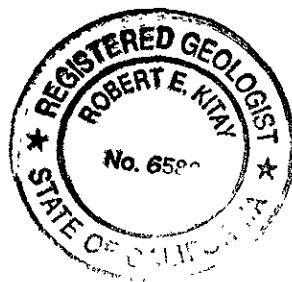
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project, and trust that this report meets your needs. Please feel free to call us at (925) 820-9391 if you have any questions or comments.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



David Rains  
Staff Geologist

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

Attachments: Table One and Two  
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 I.D & Date Sampled	Top of Casing Elevation (msl)	Depth to Water (feet)	Free-Floating Hydrocarbon Thickness (feet)	Groundwater Elevation (msl)
<b>MW-1</b>				
8/16/99	97.12	Unknown	> 1.0	Unknown
8/27/99		6.90	0.36	90.51*
9/10/99		6.85	0.18	90.41*
9/24/99		6.65	0.08	90.53*
10/8/99		6.87	0.28	90.47*
10/22/99		6.81	0.23	90.49*
11/2/99		6.94	0.31	90.43*
11/19/99		6.91	0.12	90.31*
12/6/99		6.93	0.12	90.29*
3/8/00		5.93	0.21	91.36*
6/14/00		6.57	0.72	90.41*
12/11/00		6.70	0.60	90.90*
3/6/01		5.75	0.40	91.69*
6/6/01		7.60	1.48	90.70*
9/4/01		6.80	0.20	90.48*
3/11/02		approx. 7.47	approx. 3	approx. 92.05*
6/6/02		6.49	0.67	91.17*
9/4/02	11.02	6.89	0.54	4.56*
12/17/02		4.65		6.47*
3/7/03		6.55	1.19	3.52*
6/5/03		9.77	4.63	4.95*
9/19/03		6.56	0.32	4.72*
12/12/03		5.63	0.41	5.72*
3/15/04		7.11	0.40	4.23*
6/22/04		NM	NM	NM
9/21/04		NM	NM	NM
12/30/04		Probe Malfunction		
4/6/05		5.70	1.40	6.44*
9/29/05		5.40	1.00	6.42*
<b>MW-2</b>				
8/16/99	96.82	6.30	--	90.52
12/6/99		8.46	--	88.36
3/8/00		9.12	--	87.70
6/14/00		8.34	--	88.48
12/11/00		5.94	--	90.88
3/6/01		4.70	--	92.12
6/6/01		6.03	--	90.79
9/4/01		6.34	--	90.48
3/11/02		4.89	--	91.93
6/6/02		5.69	--	91.13
9/4/02	10.70	6.17	--	4.53
12/17/02		4.39	--	6.31
3/7/03		5.44	--	5.26
6/5/03		5.59	--	5.11
9/19/03		6.09	--	4.61
12/12/03		5.13	--	5.57
3/15/04		5.71	--	4.99
6/22/04		5.80	--	4.90
9/21/04		6.64	--	4.06
12/30/04		6.04	--	4.66
4/6/05		INACCESSIBLE DUE TO TRUCK OVER WELL		
9/29/05		INACCESSIBLE DUE TO TRUCK OVER WELL		

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<b>MW-3</b>				
8/16/99	96.43	5.85	--	90.58
12/6/99		5.70	--	90.73
3/8/00		5.32	--	91.11
6/14/00		6.95	--	89.48
12/11/00		6.22	--	90.21
3/6/01		4.83	--	91.60
6/6/01		5.62	--	90.81
9/4/01		5.91	--	90.52
3/11/02		4.42	--	92.01
6/6/02		5.19	--	91.24
9/4/02	10.32	5.72	--	4.60
12/17/02		3.96	--	6.36
3/7/03		4.88	--	5.44
6/5/03		5.05	--	5.27
9/19/03		5.62	--	4.70
12/12/03		4.68	--	5.64
3/15/04		4.52	--	5.80
6/22/04		6.49	--	3.83
9/21/04		5.72	--	4.60
12/30/04		4.72	--	5.60
4/6/04		3.78	--	6.54
9/29/05		5.85	--	4.47
<b>MW-4</b>				
8/16/99	96.60	6.12	--	90.48
12/6/99		5.98	--	90.62
3/8/00		4.32	--	92.28
6/14/00		5.58	--	91.02
12/11/00		5.70	--	90.90
3/6/01		4.46	--	92.14
6/6/01		5.89	--	90.71
9/4/01		6.16	--	90.44
3/11/02		4.67	--	91.93
6/6/02		5.50	--	91.10
9/4/02	10.50	5.97	--	4.53
12/17/02		4.22	--	6.28
3/7/03		5.23	--	5.27
6/5/03		5.38	--	5.12
9/19/03		5.91	--	4.59
12/12/03		4.91	--	5.59
3/15/04		4.94	--	5.56
6/22/04		5.68	--	4.82
9/21/04		6.01	--	4.49
12/30/04		4.55	--	5.95
4/6/05		4.09	--	6.41
9/29/05		5.56	--	4.94

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Well I.D & Date Sampled	Top of Casing Elevation (msl)	Depth to Water (feet)	Free-Floating Hydrocarbon Thickness (feet)	Groundwater Elevation (msl)
<b>MW-5</b>				
12/6/99	96.30	5.94	--	90.36
3/8/00		4.06	--	92.24
6/14/00		5.25	--	91.05
12/11/00		5.45	--	90.85
3/6/01		4.12	--	92.18
6/6/01		5.56	--	90.74
9/4/01		5.84	--	90.46
3/11/02		4.38	--	91.92
6/6/02		5.16	--	91.14
9/4/02	10.20	5.62	--	4.58
12/17/02		4.12	--	6.08
3/7/03		4.89	--	5.31
6/5/03		5.04	--	5.16
9/19/03		5.56	--	4.64
12/12/03		4.72	--	5.48
3/15/04		4.61	--	5.59
6/22/04		5.26	--	4.94
9/21/04		5.68	--	4.52
9/21/04		4.55	--	5.65
4/6/05		3.98	--	6.22
9/29/05		5.28	--	4.92
<b>MW-6</b>				
12/6/99	96.79	5.80	--	90.99
3/8/00		4.10	--	92.69
6/14/00		5.64	--	91.15
12/11/00		5.72	--	91.07
3/6/01		4.32	--	92.47
6/6/01		5.81	--	90.98
9/4/01		6.12	--	90.67
3/11/02		4.49	--	92.30
6/6/02		5.33	--	91.46
9/4/02	10.71	5.92	--	4.79
12/17/02		3.85	--	6.86
3/7/03		4.96	--	5.75
6/5/03		5.18	--	5.53
9/19/03		5.81	--	4.90
12/12/03		4.73	--	5.98
3/15/04		4.65	--	6.06
6/22/04		5.34	--	5.37
9/21/04		5.89	--	4.82
12/30/04		4.35	--	6.36
4/6/05		3.66	--	7.05
9/29/05		6.00	--	4.71
<b>MW-7</b>				
9/4/02	9.17	4.67	--	4.50
12/17/02		3.11	--	6.06
3/7/03		3.89	--	5.28
6/5/03		3.57	--	5.60
9/19/03		4.57	--	4.60
12/12/03		3.48	--	5.69
3/15/04			Truck Parked Over Well	
6/22/04		4.52	--	4.65
9/21/04		4.56	--	4.61
12/30/04		3.17	--	6.00
4/6/05		2.77	--	6.40
9/29/05		4.27	--	4.90

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

Well I.D & Date Sampled	Top of Casing Elevation (msl)	Depth to Water (feet)	Free-Floating Hydrocarbon Thickness (feet)	Groundwater Elevation (msl)
<b>MW-8</b>				
9/4/02	9.68	4.94	--	4.74
12/17/02		3.26	--	6.42
3/7/03		4.01	--	5.67
6/5/03		4.28	--	5.40
9/19/03		4.87	--	4.81
12/12/03		3.77	--	5.91
3/15/04		3.53	--	NA**
6/22/04		4.52	--	NA**
9/21/04		4.70	--	NA**
12/30/04		4.23	--	NA**
4/6/05		3.50	--	NA**
9/29/05		4.62	--	NA**
<b>MW-9</b>				
9/4/02	11.07	6.26	--	4.81
12/17/02		4.23	--	6.84
3/7/03		5.26	--	5.81
6/5/03		5.56	--	5.51
9/19/03		6.25	--	4.82
12/12/03			Truck Parked Over Well	
3/15/04		5.04	--	6.03
6/22/04		5.91	--	5.16
9/21/04		6.24	--	4.83
12/30/04			Truck Parked Over Well	
4/6/05		4.12	--	6.95
9/29/05		5.55	--	5.52

Notes:

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.

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

\*\* = Top of casing elevation has changed and well has not been resurveyed.

\*\*\* = Product was bailed by OTS staff prior to measurement by ASE.

NM = Not Measured

**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	DPE	ETBE	TAME	TBA
<b>MW-1</b>												
8/16/99												
12/6/99												
3/8/00												
6/14/00												
12/11/00												
3/6/01												
6/6/01												
9/4/01												
3/11/02												
6/6/02												
9/4/02												
12/17/02												
3/7/03												
6/5/03												
9/19/03												
12/12/03												
12/12/03												
3/15/04												
6/22/04												
9/21/04												
12/30/04												
4/6/05												
9/29/05												
Not Sampled Due to Free-Floating Hydrocarbons (1.0-feet)												
<b>MW-2</b>												
8/16/99	2,200	970*	< 500	3.8	< 2.0	3	< 4.0	< 20	NA	NA	NA	NA
12/6/99	1,900	400*	< 500	16	< 0.5	1.5	< 0.5	5.2	NA	NA	NA	NA
3/8/00	1,600*	530*	< 500	9.7	< 0.5	2.7	< 0.5	27	NA	NA	NA	NA
6/14/00	2,000	75	< 100	2.8	< 0.5	3.4	< 0.5	16	3.4	< 0.5	< 0.5	64
12/11/00	1,000	120	< 100	2.6	< 0.5	< 0.5	< 0.5	15	2.9	< 0.5	< 0.5	62
3/6/01	1,500	1,400	NA	2.2	< 0.5	1.7	< 0.5	22	3.4	< 0.5	< 0.5	83
6/6/01	1,700	190	NA	2.6	< 0.5	2.3	< 0.5	26	3.2	< 0.5	< 0.5	83
9/4/01	2,000	450	NA	2.7	< 0.5	2.1	< 0.5	33	3.4	< 0.5	< 0.5	93
3/11/02	1,100	410	NA	1.0	< 0.5	0.5	< 0.5	26	2.5	< 0.5	< 0.5	69
6/6/02	900	430	NA	1.2	< 0.5	< 0.5	< 0.5	23	2.8	< 0.5	< 0.5	73
9/4/02	910	510	NA	1.6	< 0.5	< 0.5	< 0.5	45	2.5	< 0.5	< 0.5	67
12/17/02	190	220	NA	0.65	< 0.5	< 0.5	< 0.5	34	1.5	< 0.5	< 0.5	46
3/7/03	380	300	NA	0.81	< 0.5	< 0.5	< 0.5	50	1.9	< 0.5	< 0.5	73
6/5/03	2,200	2,200	NA	1.7	< 0.5	1.5	< 0.5	180	4.9	< 0.5	1.3	110
9/19/03	2,300	520	NA	2.0	< 0.5	2.1	< 0.5	180	3.7	< 0.5	1.1	120
12/12/03	3,000	2,200	NA	2.1	< 0.5	1.7	< 0.5	250	4.5	< 0.5	1.6	130
3/15/04												
6/22/04	1,600	420	NA	1.3	< 0.5	1.0	< 0.5	580	4.6	< 0.5	3.9	340
9/21/04	2,500	< 400	NA	1.2	< 0.5	1.5	< 0.5	730	5.9	< 0.5	4.9	550
12/30/04	1,800	< 300	NA	1.2	< 1.0	< 1.0	< 1.0	540	5.0	< 1.0	3.6	400
4/6/05												
9/29/05												
Not Sampled - Truck Parked Over Well												
Not Sampled - Truck Parked Over Well												
<b>MW-3</b>												
8/16/99	56,000	10,000**	< 500	17,000	2,600	2,600	1,200	6,100	NA	NA	NA	NA
12/6/99	40,000	9,100*	< 500	16,000	140	1,800	100	2,200/4,000#	NA	NA	NA	NA
3/8/00	22,000	4,500*	< 500	11,000	72	1,100	130	3,400	NA	NA	NA	NA
6/14/00	34,000	16,000	< 100	13,000	94	1,300	160	4,800	31	< 10	21	2,700
12/11/00	24,000	14,000	< 100	13,000	88	780	120	4,300	< 50	< 50	< 50	2,300
3/6/01	34,000	12,000	NA	15,000	100	1,100	130	4,000	< 50	< 50	< 50	2,100
6/6/01	34,000	20,000	NA	14,000	94	550	110	4,400	< 50	< 50	< 50	2,300
9/4/01	29,000	19,000	NA	13,000	83	480	83	4,100	< 50	< 50	< 50	3,400
3/11/02	12,000	14,000	NA	2,900	< 20	110	< 20	530	< 20	< 20	< 20	330
6/6/02	20,000	14,000	NA	10,000	< 50	200	51	2,400	< 50	< 50	< 50	1,200
9/4/02	24,000	17,000	NA	11,000	< 50	140	< 50	3,200	< 50	< 50	< 50	1,400
12/17/02	4,900	17,000	NA	2,000	< 10	52	12	360	< 10	< 10	< 10	220
3/7/03	8,700	16,000	NA	2,300	< 10	43	11	770	< 10	< 10	< 10	360
6/5/03	27,000	14,000	NA	10,000	53	220	53	5,000	< 50	< 50	< 50	1,600
9/19/03	120,000	13,000	NA	20,000	170	710	250	6,100	< 25	< 25	< 25	2,600
12/12/03	29,000	27,000	NA	12,000	74	240	79	5,600	17	< 10	30	2,100
3/15/04	28,000	21,000	NA	11,000	72	220	64	8,200	< 50	< 50	< 50	2,900
6/22/04	29,000	7,600	NA	11,000	71	220	54	8,400	< 50	< 50	< 50	3,000
9/21/04	33,000	< 5,000	NA	12,000	67	190	56	8,200	< 25	< 25	47	3,200
12/30/04	30,000	13,000	NA	11,000	62	170	49	8,900	< 25	< 25	49	3,200
4/6/05	29,000	46,000	NA	10,000	55	170	47	8,800	< 25	< 25	50	4,400
9/29/05	28,000	1,800	NA	8,700	74	190	53	7,300	< 15	< 15	53	4,500

**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	DPE	ETBE	TAME	TBA
<b>MW-4</b>												
8/16/99	61***	1,100*	< 500	< 0.5	< 0.5	< 0.5	< 1.0	86	NA	NA	NA	NA
12/6/99	130**	220*	< 500	< 10	< 1.0	< 1.0	< 1.0	130	NA	NA	NA	NA
3/8/00	< 50	220*	< 500	< 0.5	< 0.5	< 0.5	< 0.5	130	NA	NA	NA	NA
6/14/00	< 50	< 50	< 100	< 0.5	< 0.5	< 0.5	< 0.5	100	< 0.5	< 0.5	< 0.5	20
12/11/00	< 50	< 50	> 100	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	16
3/6/01	< 50	670	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	9.9
6/6/01	< 50	790	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	20
9/4/01	< 50	950	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	26
3/11/02	< 50	250	NA	< 0.5	< 0.5	< 0.5	< 0.5	84	< 0.5	< 0.5	< 0.5	21
6/6/02	< 50	710	NA	< 0.5	< 0.5	< 0.5	< 0.5	92	< 0.5	< 0.5	< 0.5	21
9/4/02	< 50	1,100	NA	< 0.5	< 0.5	< 0.5	< 0.5	150	< 0.5	< 0.5	< 0.5	18
12/17/02	< 50	470	NA	< 0.5	< 0.5	< 0.5	< 0.5	120	< 0.5	< 0.5	< 0.5	< 5.0
3/7/03	< 50	470	NA	< 0.5	< 0.5	< 0.5	< 0.5	120	< 0.5	< 0.5	0.52	18
6/5/03	< 50	2,000	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	0.50	23
9/19/03	< 50	830	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.80	23
12/12/03	< 50	1,700	NA	< 0.5	< 0.5	< 0.5	< 0.5	120	< 0.5	< 0.5	< 0.5	16
3/15/04	< 50	2,200	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	20
9/21/04	< 50	620	NA	< 0.5	< 0.5	< 0.5	< 0.5	93	< 0.5	< 0.5	< 0.5	31
4/6/05	< 50	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	59	< 0.5	< 0.5	< 0.5	50
9/29/05	< 50	< 50	NA	< 0.50	< 0.50	< 0.50	< 0.50	17	< 0.50	< 0.50	< 0.50	120
<b>MW-5</b>												
12/6/99	450***	2,000*	< 500	< 10	< 1.0	< 1.0	< 1.0	21	NA	NA	NA	NA
3/8/00	51***	530*	< 500	< 0.5	< 0.5	< 0.5	< 0.5	84	NA	NA	NA	NA
6/14/00	380	1,400	< 100	< 0.5	< 0.5	< 0.5	< 0.5	160	12	< 0.5	< 0.5	22
12/11/00	540	590	< 100	< 0.5	< 0.5	< 0.5	< 0.5	240	9.5	< 0.5	< 0.5	32
3/6/01	510	2,900	NA	< 0.5	< 0.5	< 0.5	< 0.5	140	13	< 0.5	< 0.5	19
6/6/01	280	2,700	NA	< 0.5	< 0.5	< 0.5	< 0.5	180	13	< 0.5	< 0.5	26
9/4/01	630	2,600	NA	< 0.5	< 0.5	< 0.5	< 0.5	180	9.4	< 0.5	< 0.5	29
3/11/02	97	3,500	NA	< 0.5	< 0.5	< 0.5	< 0.5	29	0.79	< 0.5	< 0.5	7.4
6/6/02	61	3,500	NA	< 0.5	< 0.5	< 0.5	< 0.5	150	2.9	< 0.5	< 0.5	34
9/4/02	92	6,100	NA	< 0.5	< 0.5	< 0.5	< 0.5	370	3.6	< 0.5	< 0.5	72
12/17/02	110	2,100	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	4.2	< 0.5	< 0.5	14
3/7/03	71	1,600	NA	< 0.5	< 0.5	< 0.5	< 0.5	150	2.2	< 0.5	< 0.5	35
6/5/03	95	3,300	NA	< 0.5	< 0.5	< 0.5	< 0.5	170	4.6	< 0.5	< 0.5	43
9/19/03	100	1,400	NA	< 0.5	< 0.5	< 0.5	< 0.5	310	5.2	< 0.5	0.68	86
12/12/03	< 50	7,600	NA	< 0.5	< 0.5	< 0.5	< 0.5	270	5.9	< 0.5	0.70	91
3/15/04	95	1,700	NA	< 0.5	< 0.5	< 0.5	< 0.5	290	6.7	< 0.5	0.92	200
9/21/04	78	990	NA	< 0.5	< 0.5	< 0.5	< 0.5	270	4.7	< 0.5	0.96	880
4/6/05	64	1,200	NA	< 0.5	< 0.5	< 0.5	< 0.5	120	4.8	< 0.5	< 0.5	780
9/29/05	100	640	NA	< 0.50	< 0.50	< 0.50	< 0.50	77	3.7	< 0.50	< 0.50	4,000
<b>MW-6</b>												
12/6/99	13,000	< 50	< 500	180	21	11	24	< 100	NA	NA	NA	NA
3/8/00	< 10,000	4,600*	< 500	230	26	18	39	12,000	NA	NA	NA	NA
6/14/00	8,400	12,000	< 100	190	12	9.5	22	15,000	< 5.0	70	3,300	
12/11/00	< 5,000	10,000	< 100	190	< 50	< 50	< 50	14,000	< 50	74	2,900	
3/6/01	5,300	6,700	NA	220	< 50	< 50	< 50	13,000	< 50	84	2,100	
6/6/01	5,000	23,000	NA	210	< 25	< 25	< 25	12,000	< 25	84	4,200	
9/4/01	5,400	22,000	NA	190	12	< 10	23	15,000	< 10	79	4,000	
3/11/02	4,600	11,000	NA	160	< 25	< 25	< 25	15,000	< 25	39	5,100	
6/6/02	< 5,000	14,000	NA	200	< 50	< 50	< 50	17,000	< 50	77	8,700	
9/4/02	< 5,000	50,000	NA	140	< 50	< 50	< 50	21,000	< 50	52	7,500	
12/17/02	< 5,000	9,100	NA	130	< 50	< 50	< 50	16,000	< 50	64	6,300	
3/7/03	< 5,000	12,000	NA	160	< 50	< 50	< 50	20,000	< 50	53	7,500	
6/5/03	< 5,000	23,000	NA	230	< 50	< 50	< 50	19,000	< 50	86	7,100	
9/19/03	8,900	24,000	NA	220	< 25	< 25	< 25	15,000	< 25	74	8,100	
12/12/03	8,000	24,000	NA	190	< 25	< 25	< 25	14,000	< 25	65	7,400	
3/15/04	4,400	26,000	NA	190	< 25	< 25	< 25	9,900	< 25	61	6,700	
6/22/04	3,500	7,000	NA	150	< 20	< 20	< 20	9,200	< 20	51	6,100	
9/21/04	4,600	12,000	NA	210	< 20	< 20	< 20	8,800	< 20	55	7,000	
12/30/04	5,300	11,000	NA	190	< 20	< 20	< 20	6,300	< 20	53	4,900	
4/6/05	5,100	680	NA	190	13	12	32	3,700	< 5.0	42	4,600	
9/29/05	4,900	2,800	NA	130	8.9	< 5.0	13	2,100	< 5.0	23	3,200	

**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
<b>MW-7</b>												
9/4/02	< 50	130***	NA	< 0.5	< 0.5	< 0.5	< 0.5	3.4	< 0.5	< 0.5	< 0.5	< 5.0
12/17/02	< 50	220	NA	< 0.5	< 0.5	< 0.5	< 0.5	2.8	< 0.5	< 0.5	< 0.5	< 5.0
3/7/03	< 50	140	NA	< 0.5	< 0.5	< 0.5	< 0.5	1.8	< 0.5	< 0.5	< 0.5	< 5.0
6/5/03	< 50	200	NA	< 0.5	< 0.5	< 0.5	< 0.5	2.5	< 0.5	< 0.5	< 0.5	< 5.0
9/19/03	< 50	320	NA	< 0.5	< 0.5	< 0.5	< 0.5	5.0	< 0.5	< 0.5	< 0.5	< 5.0
12/12/03	< 50	380	NA	< 0.5	< 0.5	< 0.5	< 0.5	2.3	< 0.5	< 0.5	< 0.5	< 5.0
3/15/04	Not Sampled - Truck Parked Over Well											
9/21/04	< 50	79	NA	< 0.5	< 0.5	< 0.5	< 0.5	2.6	< 0.5	< 0.5	< 0.5	< 5.0
4/6/05	< 50	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	9.2	< 0.5	< 0.5	< 0.5	< 5.0
9/29/05	< 50	< 50	NA	< 0.50	< 0.50	< 0.50	< 0.50	12	< 0.50	< 0.50	< 0.50	< 5.0
<b>MW-8</b>												
9/4/02	< 50	170	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
12/17/02	< 50	100	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
3/7/03	< 50	62	NA	< 0.5	< 0.5	< 0.5	< 0.5	33	< 0.5	< 0.5	< 0.5	< 5.0
6/5/03	< 50	270	NA	< 0.5	< 0.5	< 0.5	< 0.5	13	< 0.5	< 0.5	< 0.5	< 5.0
9/19/03	< 50	250	NA	< 0.5	< 0.5	< 0.5	< 0.5	11	< 0.5	< 0.5	< 0.5	< 5.0
12/12/03	< 50	420	NA	< 0.5	< 0.5	< 0.5	< 0.5	11	< 0.5	< 0.5	< 0.5	< 5.0
3/15/04	< 50	250	NA	< 0.5	< 0.5	< 0.5	< 0.5	6.4	< 0.5	< 0.5	< 0.5	< 5.0
9/21/04	< 50	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	11	< 0.5	< 0.5	< 0.5	< 5.0
4/6/05	< 50	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	8.0	< 0.5	< 0.5	< 0.5	< 5.0
9/29/05	< 50	< 50	NA	< 0.50	< 0.50	< 0.50	< 0.50	18	< 0.50	< 0.50	< 0.50	< 5.0
<b>MW-9</b>												
9/4/02	< 2,500	1,000	NA	< 25	< 25	< 25	< 25	12,000	< 25	< 25	70	1,700
12/17/02	< 2,000	880	NA	< 20	< 20	< 20	< 20	4,500	< 20	< 20	23	2,300
3/7/03	< 500	450	NA	< 5.0	< 5.0	< 5.0	< 5.0	1,700	< 5.0	< 5.0	8.4	6,600
6/5/03	< 500	4,500	NA	< 5.0	< 5.0	< 5.0	< 5.0	120	< 5.0	< 5.0	< 5.0	17,000
9/19/03	< 1,000	4,500	NA	< 10	< 10	< 10	< 10	38	< 10	< 10	< 10	15,000
12/12/03	Not Sampled - Truck Parked Over Well											
3/15/04	< 1,000	82	NA	< 10	< 10	< 10	< 10	38	< 10	< 10	< 10	18,000
9/21/04	< 1,000	2,600	NA	< 10	< 10	< 10	< 10	17	< 10	< 10	< 10	16,000
12/30/04	Not Sampled - Truck Parked Over Well											
4/6/05	< 700	< 50	NA	< 7.0	< 7.0	< 7.0	< 7.0	55	< 7.0	< 7.0	< 7.0	15,000
9/29/05	< 700	< 50	NA	< 7.0	< 7.0	< 7.0	< 7.0	34	< 7.0	< 7.0	< 7.0	13,000
DHS MCL	NE	NE	NE	1	150	700	1,750	13	NE	NE	NE	NE
ESL	400	500	500	46	130	290	100	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.

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (February 2005)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

NE = MCL/ESL not established

NA = Sample not analyzed for this compound.

\* = Non-typical diesel pattern, hydrocarbons in early diesel range

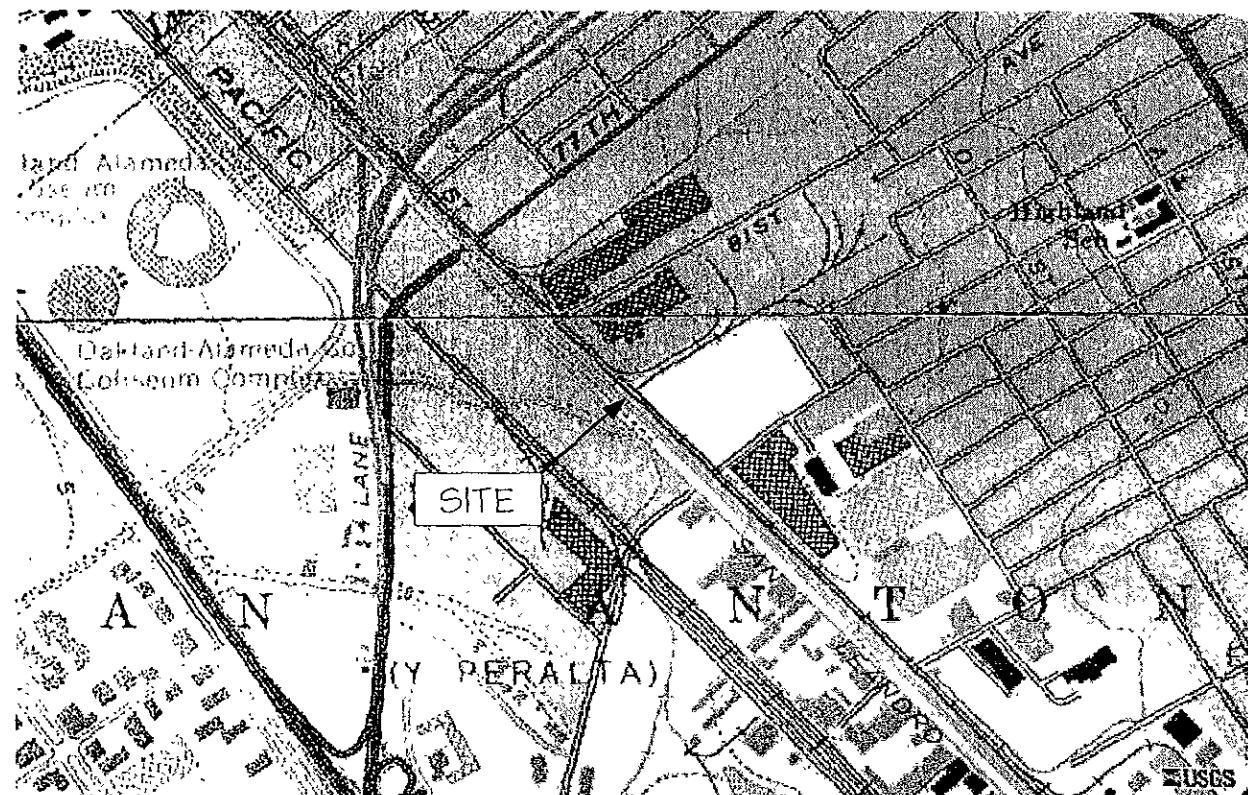
\*\* = Estimated concentration due to overlapping fuel patterns in the sample

\*\*\* = Non-typical gasoline pattern

\*\*\*\* = Non-typical diesel pattern

# = MTBE concentration by EPA Method 8260

## **FIGURES**



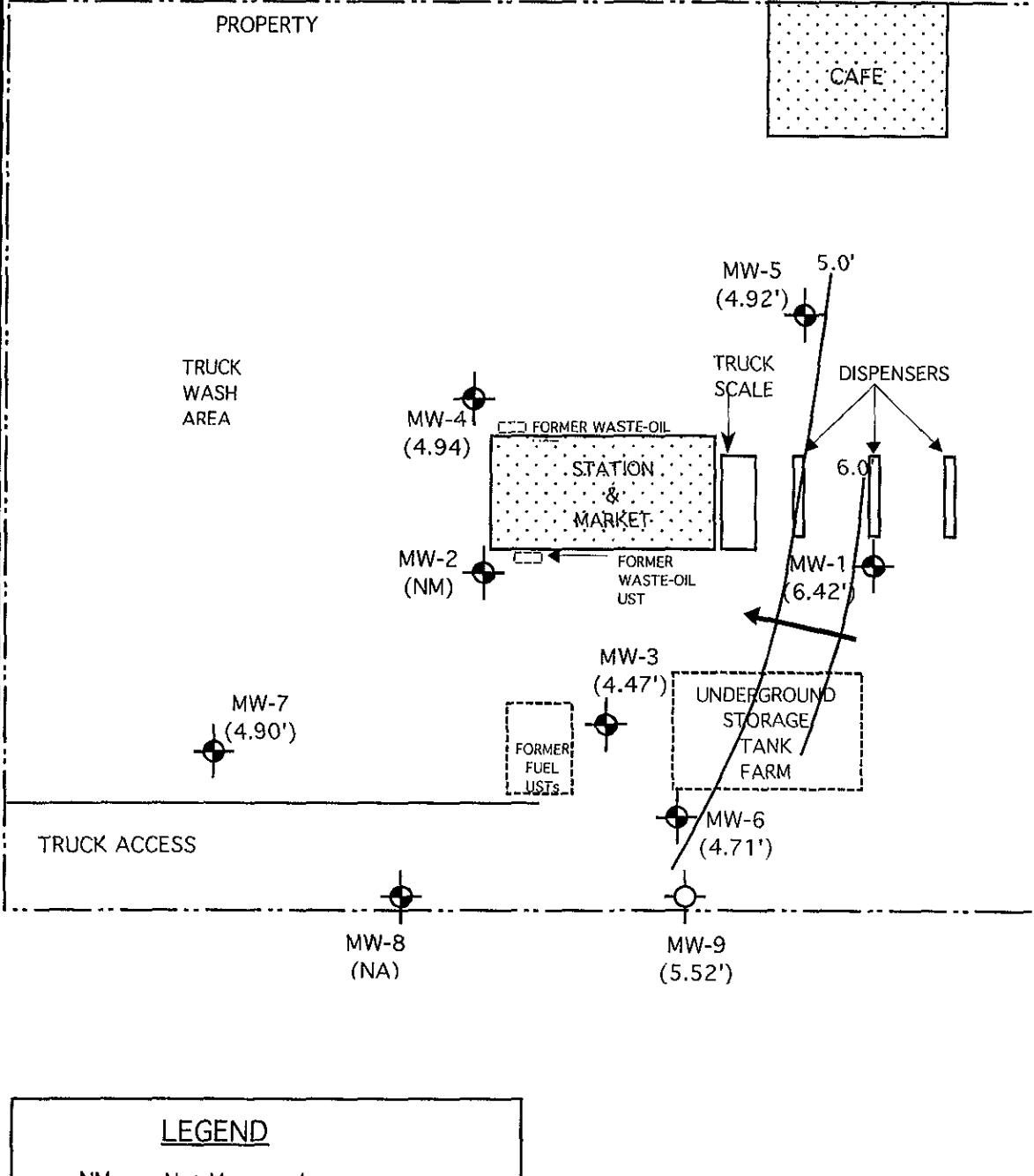
### LOCATION MAP

OAKLAND TRUCK STOP  
8255 SAN LEANDRO STREET  
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

Figure 1

SAN LEANDRO STREET



LEGEND

NM Not Measured

Potentiometric surface contour with arrow indicating groundwater flow direction

4-inch diameter monitoring

MW-4 (4.94') Monitoring well (with groundwater elevation in feet)



NORTH

SCALE  
1" = 50'

POTENTIOMETRIC  
SURFACE CONTOUR MAP  
09/29/05

OAKLAND TRUCK STOP  
8255 SAN LEANDRO STREET  
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS

Figure 2

## **APPENDIX A**

### Well Sampling Field Logs

## AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME OTSJOB NUMBER 5340DATE OF SAMPLING 9/29WELL ID. MN-1SAMPLER drill

TOTAL DEPTH OF WELL

WELL DIAMETER 3

DEPTH TO WATER PRIOR TO PURGING

5.40PRODUCT THICKNESS 1.0

DEPTH OF WELL CASING IN WATER

NUMBER OF GALLONS PER WELL CASING VOLUME

NUMBER OF WELL CASING VOLUMES TO BE REMOVED

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING

EQUIPMENT USED TO PURGE WELL

TIME EVACUATION STARTED

TIME EVACUATION COMPLETED

TIME SAMPLES WERE COLLECTED

DID WELL GO DRY

AFTER HOW MANY GALLONS

VOLUME OF GROUNDWATER PURGED

SAMPLING DEVICE

SAMPLE COLOR

ODOR/SEDIMENT

CHEMICAL DATA

\* bailed in well  
 \* left 2 full ~~gallon~~ barrels

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY

SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED

## AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	OTS		
JOB NUMBER	5340		
WELL ID.	HW-3	DATE OF SAMPLING	9/29
TOTAL DEPTH OF WELL	15	SAMPLER	DTR
DEPTH TO WATER PRIOR TO PURGING	5.85		
PRODUCT THICKNESS	—		
DEPTH OF WELL CASING IN WATER	9.15		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.6		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	4.8		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING			
EQUIPMENT USED TO PURGE WELL	drip bailed		
TIME EVACUATION STARTED	1415	TIME EVACUATION COMPLETED	1430
TIME SAMPLES WERE COLLECTED	1520		
DID WELL GO DRY	b0	AFTER HOW MANY GALLONS	—
VOLUME OF GROUNDWATER PURGED	4.8		
SAMPLING DEVICE	drip bailed		
SAMPLE COLOR	clear	ODOR/SEDIMENT	petrol/gn.brown silt

CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1.6	78.9	6.75	1324
3.2	74.8	6.8	1054
4.8	73.6	6.8	1015

SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
	5	40ml VOA		—

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME

JOB NUMBER	<del>51162</del> 5340	DATE OF SAMPLING	9/29
WELL ID.	M.W.-4	SAMPLER	dwz
TOTAL DEPTH OF WELL	14	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	5.65		
PRODUCT THICKNESS	—		
DEPTH OF WELL CASING IN WATER	8.35		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.4		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	4.2		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING			
EQUIPMENT USED TO PURGE WELL	drip bailed		
TIME EVACUATION STARTED	1725	TIME EVACUATION COMPLETED	17 40
TIME SAMPLES WERE COLLECTED	1750		
DID WELL GO DRY	no	AFTER HOW MANY GALLONS	—
VOLUME OF GROUNDWATER PURGED	4.2		
SAMPLING DEVICE	drip bailed		
SAMPLE COLOR	clear	ODOR/SEDIMENT	petrol / gray/brown silt

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1.4	71.1	7.05	11.1
2.8	73.8	6.96	14417
4.2	73.5	7.00	16166

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
	5	40mL vial		/

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	OTC		
JOB NUMBER	5340	DATE OF SAMPLING	9/29
WELL ID.	MW-5	SAMPLER	dwr
TOTAL DEPTH OF WELL	14	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	5.28		
PRODUCT THICKNESS	—		
DEPTH OF WELL CASING IN WATER	8.72		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.5		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	4.5		
EQUIPMENT USED TO PURGE WELL	drip bailed		
TIME EVACUATION STARTED	1630	TIME EVACUATION COMPLETED	1650
TIME SAMPLES WERE COLLECTED	1655	AFTER HOW MANY GALLONS	—
DID WELL GO DRY	no	VOLUME OF GROUNDWATER PURGED	4.5
SAMPLING DEVICE	drip bailed	SAMPLE COLOR	clear
		ODOR/SEDIMENT	pétrol / gr. br. s. tt

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1.5	75.8	6.8	1520
3.0	74.0	6.81	1503
4.5	73.5	6.70	1495

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
	5	40ml vials		NO

## AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME

OTC

JOB NUMBER

5340

DATE OF SAMPLING

9/09

WELL ID.

MLN-6

SAMPLER

DWR

TOTAL DEPTH OF WELL

14.3

WELL DIAMETER

2

DEPTH TO WATER PRIOR TO PURGING

6.0

PRODUCT THICKNESS

—

DEPTH OF WELL CASING IN WATER

8.3

NUMBER OF GALLONS PER WELL CASING VOLUME

1.4

NUMBER OF WELL CASING VOLUMES TO BE REMOVED

3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING

4.2

EQUIPMENT USED TO PURGE WELL

drill bailer

TIME EVACUATION STARTED

1535

TIME EVACUATION COMPLETED

1550

TIME SAMPLES WERE COLLECTED

1600

DID WELL GO DRY

no

AFTER HOW MANY GALLONS

VOLUME OF GROUNDWATER PURGED

4.2

SAMPLING DEVICE

drill bailer

SAMPLE COLOR

clear

ODOR/SEDIMENT strong petrol / br-gray silt

CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1.4	76.5	6.86	741
2.8	73.0	6.88	622
4.2	73.1	6.90	684

SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
	34.5	40mL vial		No

## AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME

OTC

JOB NUMBER

DATE OF SAMPLING

9/29

WELL ID.

MW-7

SAMPLER

dvr

TOTAL DEPTH OF WELL

16.2

WELL DIAMETER

2

DEPTH TO WATER PRIOR TO PURGING

4.27

PRODUCT THICKNESS

—

DEPTH OF WELL CASING IN WATER

11.93

NUMBER OF GALLONS PER WELL CASING VOLUME

2.30

NUMBER OF WELL CASING VOLUMES TO BE REMOVED

3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING

6

EQUIPMENT USED TO PURGE WELL

dip bailer

TIME EVACUATION STARTED

17:10

TIME EVACUATION COMPLETED

17:20

TIME SAMPLES WERE COLLECTED

17:30

DID WELL GO DRY

no

AFTER HOW MANY GALLONS

VOLUME OF GROUNDWATER PURGED

60g

SAMPLING DEVICE

dip bale

SAMPLE COLOR

clear

ODOR/SEDIMENT no / some brgr silt

CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
2	71.4	7.99	1255
4	69.0	6.97	1278
6	67.9	7.07	1278

SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
	5	40 ml vials		No

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME OTC

JOB NUMBER

DATE OF SAMPLING

WELL ID.

MW-B

SAMPLER

DTSR

TOTAL DEPTH OF WELL

15.0

WELL DIAMETER

2

DEPTH TO WATER PRIOR TO PURGING

4.62

PRODUCT THICKNESS

—

DEPTH OF WELL CASING IN WATER

10.38

NUMBER OF GALLONS PER WELL CASING VOLUME

1.8

NUMBER OF WELL CASING VOLUMES TO BE REMOVED

3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING

5.3

EQUIPMENT USED TO PURGE WELL

dry bailer

TIME EVACUATION STARTED

16 05

TIME EVACUATION COMPLETED

16 20

TIME SAMPLES WERE COLLECTED

16 30

DID WELL GO DRY

no

AFTER HOW MANY GALLONS

—

VOLUME OF GROUNDWATER PURGED

5.3

SAMPLING DEVICE

dry bailer

SAMPLE COLOR

clear

ODOR/SEDIMENT

no/ some silt

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
73.1	7.05	7.05	1060
10.3	7.07	7.07	1070
69.9	7.00	7.00	1058

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
	5	40ml vial		NO

## AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME OTC

JOB NUMBER S340

DATE OF SAMPLING 9/30/05

WELL ID. MLW-9

SAMPLER dvr

TOTAL DEPTH OF WELL 19.55

WELL DIAMETER 4

DEPTH TO WATER PRIOR TO PURGING 5.55

PRODUCT THICKNESS ~

DEPTH OF WELL CASING IN WATER 14

NUMBER OF GALLONS PER WELL CASING VOLUME 9.3

NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 27.9

EQUIPMENT USED TO PURGE WELL electric pump

TIME EVACUATION STARTED 10:20

TIME EVACUATION COMPLETED 10:45

TIME SAMPLES WERE COLLECTED 10:50

DID WELL GO DRY no

AFTER HOW MANY GALLONS ~

VOLUME OF GROUNDWATER PURGED 27.9

SAMPLING DEVICE disp bottle

SAMPLE COLOR clear

ODOR/SEDIMENT no

CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	pH	CONDUCTIVITY
1	71.1	6.90	1153
2	68.1	7.01	1006
3	68.2	6.95	971

SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
	5	240ml lot 4		

Aqua Science Engineers, Inc.  
208 W. El Pintado Road  
Danville, CA 94526  
(925) 820-9391  
FAX (925) 837-4853

# Chain of Custody

SAMPLER(SIGNATURE)

PAGE 1 OF 1

PROJECT NAME  
ADDRESS

OTS

5255 San Leandro St. Oakland, CA

JOB NO. 5340 3540

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

NOT PRESERVED

SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TYPH-GAS / MIBK & BTEX (EPA 5030/B015-B020)	TYPH-DIESEL w/ Silica Gel (EPA 3510/B015)	TYPH-DIESEL & MOTOR OIL (EPA 3510/B015)	VOLATILE ORGANICS (EPA 624/B240/B260)	SEMI-VOLATILE ORGANICS (EPA 625/B270)	OIL & GREASE (EPA 5520)	LEAD METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/B080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140 EPA 608/B080)	FUEL OXYGENATES (EPA 8260)	Pb (TOTAL or DISSOLVED) (EPA 6010)	PURGEABLE HALOCARBONS (EPA 601/B010)	MULTI-RANGE HYDROCARBONS	SILICA GEL CLEANUP	HOLD	EDF
MW - 3	9/09	1530	Hg 5	X																	
MW - 4		1730																			
MW - 5		1655																			
MW - 6		1600																			
MW - 7		1730																			
MW - 8	↓	1630																			
MW - 9	9/10	1050	V	↓														↓			

RELINQUISHED BY:  (signature)	RECEIVED BY:  (signature)	RELINQUISHED BY:  (signature)	RECEIVED BY LABORATORY:  (signature)	COMMENTS:
D. Rains D. ALLEN (printed name)	(date)	(printed name)	(date)	(printed name) (date)
Company-ASE, INC.	Company-	Company-	Company-	TURN AROUND TIME STANDARD 24Hr 48Hr 72Hr OTHER:

## **APPENDIX B**

Certified Analytical Report  
and  
Chain of Custody Documentation



Report Number : 46279

Date : 10/7/2005

David Allen  
Aqua Science Engineers, Inc.  
208 West El Pintado Rd.  
Danville, CA 94526

Subject : 7 Water Samples  
Project Name : OTS  
Project Number : 3540

Dear Mr. Allen,

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,

A handwritten signature in black ink that reads "Joel Kiff". The signature is fluid and cursive, with "Joel" on top and "Kiff" below it, separated by a small vertical line.



Report Number : 46279

Date : 10/7/2005

Project Name : OTS

Project Number : 3540

Sample : MW-3

Matrix : Water

Lab Number : 46279-01

Sample Date : 9/29/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	8700	15	ug/L	EPA 8260B	10/6/2005
Toluene	74	15	ug/L	EPA 8260B	10/6/2005
Ethylbenzene	190	15	ug/L	EPA 8260B	10/6/2005
Total Xylenes	53	15	ug/L	EPA 8260B	10/6/2005
Methyl-t-butyl ether (MTBE)	7300	15	ug/L	EPA 8260B	10/6/2005
Diisopropyl ether (DIPE)	< 15	15	ug/L	EPA 8260B	10/6/2005
Ethyl-t-butyl ether (ETBE)	< 15	15	ug/L	EPA 8260B	10/6/2005
Tert-amyl methyl ether (TAME)	53	15	ug/L	EPA 8260B	10/6/2005
Tert-Butanol	4500	70	ug/L	EPA 8260B	10/6/2005
Methanol	< 1500	1500	ug/L	EPA 8260B	10/6/2005
Ethanol	< 150	150	ug/L	EPA 8260B	10/6/2005
TPH as Gasoline	28000	1500	ug/L	EPA 8260B	10/6/2005
Toluene - d8 (Surr)	107		% Recovery	EPA 8260B	10/6/2005
4-Bromofluorobenzene (Surr)	96.8		% Recovery	EPA 8260B	10/6/2005
TPH as Diesel (Silica Gel)	1800	50	ug/L	M EPA 8015	10/4/2005
Octacosane (Diesel Surrogate)	87.6		% Recovery	M EPA 8015	10/4/2005

Approved By:  Joel Kiff



Report Number : 46279

Date : 10/7/2005

Project Name : OTS

Project Number : 3540

Sample : MW-4

Matrix : Water

Lab Number : 46279-02

Sample Date : 9/29/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Methyl-t-butyl ether (MTBE)	17	0.50	ug/L	EPA 8260B	10/5/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Tert-Butanol	120	5.0	ug/L	EPA 8260B	10/5/2005
Methanol	< 50	50	ug/L	EPA 8260B	10/5/2005
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	10/5/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/5/2005
Toluene - d8 (Surr)	95.1		% Recovery	EPA 8260B	10/5/2005
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	10/5/2005
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	10/4/2005
Octacosane (Diesel Surrogate)	82.4		% Recovery	M EPA 8015	10/4/2005

Approved By:  Joel Kiff



Report Number : 46279

Date : 10/7/2005

Project Name : OTS

Project Number : 3540

Sample : MW-5

Matrix : Water

Lab Number : 46279-03

Sample Date : 9/29/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Methyl-t-butyl ether (MTBE)	77	0.50	ug/L	EPA 8260B	10/5/2005
Diisopropyl ether (DIPE)	3.7	0.50	ug/L	EPA 8260B	10/5/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Tert-Butanol	4000	25	ug/L	EPA 8260B	10/6/2005
Methanol	< 50	50	ug/L	EPA 8260B	10/5/2005
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	10/5/2005
TPH as Gasoline	100	50	ug/L	EPA 8260B	10/5/2005
Toluene - d8 (Surr)	96.0		% Recovery	EPA 8260B	10/5/2005
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	10/5/2005
TPH as Diesel (Silica Gel)	640	50	ug/L	M EPA 8015	10/4/2005
Octacosane (Diesel Surrogate)	89.4		% Recovery	M EPA 8015	10/4/2005

Approved By:   
Joel Kiff



Report Number : 46279

Date : 10/7/2005

Project Name : OTS

Project Number : 3540

Sample : MW-6

Matrix : Water

Lab Number : 46279-04

Sample Date : 9/29/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	130	5.0	ug/L	EPA 8260B	10/5/2005
Toluene	8.9	5.0	ug/L	EPA 8260B	10/5/2005
Ethylbenzene	< 5.0	5.0	ug/L	EPA 8260B	10/5/2005
Total Xylenes	13	5.0	ug/L	EPA 8260B	10/5/2005
Methyl-t-butyl ether (MTBE)	2100	5.0	ug/L	EPA 8260B	10/5/2005
Diisopropyl ether (DIPE)	< 5.0	5.0	ug/L	EPA 8260B	10/5/2005
Ethyl-t-butyl ether (ETBE)	< 5.0	5.0	ug/L	EPA 8260B	10/5/2005
Tert-amyl methyl ether (TAME)	23	5.0	ug/L	EPA 8260B	10/5/2005
Tert-Butanol	3200	25	ug/L	EPA 8260B	10/5/2005
Methanol	< 500	500	ug/L	EPA 8260B	10/5/2005
Ethanol	< 50	50	ug/L	EPA 8260B	10/5/2005
TPH as Gasoline	4900	500	ug/L	EPA 8260B	10/5/2005
Toluene - d8 (Surr)	93.6		% Recovery	EPA 8260B	10/5/2005
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	10/5/2005
TPH as Diesel (Silica Gel)	2800	50	ug/L	M EPA 8015	10/4/2005
Octacosane (Diesel Surrogate)	98.6		% Recovery	M EPA 8015	10/4/2005

Approved By: Joel Kiff



Report Number : 46279

Date : 10/7/2005

Project Name : OTS

Project Number : 3540

Sample : MW-7

Matrix : Water

Lab Number : 46279-05

Sample Date : 9/29/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Methyl-t-butyl ether (MTBE)	12	0.50	ug/L	EPA 8260B	10/5/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/6/2005
Methanol	< 50	50	ug/L	EPA 8260B	10/5/2005
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	10/5/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/5/2005
Toluene - d8 (Surr)	95.4		% Recovery	EPA 8260B	10/5/2005
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	10/5/2005
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	10/4/2005
Octacosane (Diesel Surrogate)	82.6		% Recovery	M EPA 8015	10/4/2005

Approved By:  Joel Kiff



Report Number : 46279

Date : 10/7/2005

Project Name : OTS

Project Number : 3540

Sample : MW-8

Sample Date : 9/29/2005

Matrix : Water

Lab Number : 46279-06

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Methyl-t-butyl ether (MTBE)	18	0.50	ug/L	EPA 8260B	10/5/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/5/2005
Methanol	< 50	50	ug/L	EPA 8260B	10/5/2005
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	10/5/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/5/2005
Toluene - d8 (Surr)	96.1		% Recovery	EPA 8260B	10/5/2005
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	10/5/2005
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	10/4/2005
Octacosane (Diesel Surrogate)	100		% Recovery	M EPA 8015	10/4/2005

Approved By: Joel Kiff



Report Number : 46279

Date : 10/7/2005

Project Name : OTS

Project Number : 3540

Sample : MW-9

Matrix : Water

Lab Number : 46279-07

Sample Date : 9/30/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	23	7.0	ug/L	EPA 8260B	10/5/2005
Toluene	< 7.0	7.0	ug/L	EPA 8260B	10/5/2005
Ethylbenzene	< 7.0	7.0	ug/L	EPA 8260B	10/5/2005
Total Xylenes	< 7.0	7.0	ug/L	EPA 8260B	10/5/2005
Methyl-t-butyl ether (MTBE)	34	7.0	ug/L	EPA 8260B	10/5/2005
Diisopropyl ether (DIPE)	< 7.0	7.0	ug/L	EPA 8260B	10/5/2005
Ethyl-t-butyl ether (ETBE)	< 7.0	7.0	ug/L	EPA 8260B	10/5/2005
Tert-amyl methyl ether (TAME)	< 7.0	7.0	ug/L	EPA 8260B	10/5/2005
Tert-Butanol	13000	40	ug/L	EPA 8260B	10/5/2005
Methanol	< 700	700	ug/L	EPA 8260B	10/5/2005
Ethanol	< 70	70	ug/L	EPA 8260B	10/5/2005
TPH as Gasoline	< 700	700	ug/L	EPA 8260B	10/5/2005
Toluene - d8 (Surr)	94.5		% Recovery	EPA 8260B	10/5/2005
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	10/5/2005
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	10/4/2005
Octacosane (Diesel Surrogate)	113		% Recovery	M EPA 8015	10/4/2005

Approved By:

Joel Kiff

## QC Report : Method Blank Data

Project Name : OTS

Project Number: 3540

Report Number: 46279

Date : 10/7/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	10/4/2005
Octacosane (Diesel Surrogate)	88.8		%	M EPA 8015	10/4/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/5/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/5/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/5/2005
Methanol	< 50	50	ug/L	EPA 8260B	10/5/2005
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	10/5/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/5/2005
Toluene - d8 (Surr)	95.4		%	EPA 8260B	10/5/2005
4-Bromofluorobenzene (Surr)	95.5		%	EPA 8260B	10/5/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/4/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/4/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/4/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/4/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/4/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	10/4/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/4/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/4/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/4/2005
Methanol	< 50	50	ug/L	EPA 8260B	10/4/2005
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	10/4/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/4/2005
Toluene - d8 (Surr)	97.6		%	EPA 8260B	10/4/2005
4-Bromofluorobenzene (Surr)	101		%	EPA 8260B	10/4/2005

KIFF ANALYTICAL, LLC

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

Approved By: Joel Kif

Project Name : OTS

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	938	960	ug/L	M EPA 8015	10/4/05	93.8	96.0	2.29	70-130	25
Benzene	46287-06	<0.50	40.0	40.0	39.7	37.7	ug/L	EPA 8260B	10/5/05	99.3	94.2	5.30	70-130	25
Toluene	46287-06	<0.50	40.0	40.0	39.5	34.7	ug/L	EPA 8260B	10/5/05	98.8	86.7	13.0	70-130	25
Tert-Butanol	46287-06	<5.0	200	200	227	212	ug/L	EPA 8260B	10/5/05	113	106	6.67	70-130	25
Methyl-t-Butyl Ether	46287-06	<0.50	40.0	40.0	38.1	35.9	ug/L	EPA 8260B	10/5/05	95.2	89.7	5.94	70-130	25
Benzene	46284-04	<0.50	40.0	40.0	41.1	40.3	ug/L	EPA 8260B	10/5/05	103	101	1.92	70-130	25
Toluene	46284-04	<0.50	40.0	40.0	41.7	41.0	ug/L	EPA 8260B	10/5/05	104	102	1.75	70-130	25
Tert-Butanol	46284-04	<5.0	200	200	208	208	ug/L	EPA 8260B	10/5/05	104	104	0.206	70-130	25
Methyl-t-Butyl Ether	46284-04	<0.50	40.0	40.0	39.5	39.1	ug/L	EPA 8260B	10/5/05	98.8	97.7	1.12	70-130	25
Benzene	46289-01	<0.50	40.0	40.0	39.6	39.2	ug/L	EPA 8260B	10/4/05	99.0	97.9	1.06	70-130	25
Toluene	46289-01	<0.50	40.0	40.0	38.7	37.9	ug/L	EPA 8260B	10/4/05	96.9	94.8	2.19	70-130	25
Tert-Butanol	46289-01	<5.0	200	200	203	203	ug/L	EPA 8260B	10/4/05	102	102	0.0421	70-130	25
Methyl-t-Butyl Ether	46289-01	2.0	40.0	40.0	46.3	44.7	ug/L	EPA 8260B	10/4/05	111	106	3.70	70-130	25

KIFF ANALYTICAL, LLC

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

Approved By: Joel Kiff



Report Number : 46279

## QC Report : Laboratory Control Sample (LCS)

Date : 10/7/2005

Project Name : OTS

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	10/5/05	96.2	70-130
Toluene	40.0	ug/L	EPA 8260B	10/5/05	99.2	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/5/05	109	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/5/05	91.7	70-130
Benzene	40.0	ug/L	EPA 8260B	10/5/05	99.8	70-130
Toluene	40.0	ug/L	EPA 8260B	10/5/05	102	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/5/05	102	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/5/05	96.0	70-130
Benzene	40.0	ug/L	EPA 8260B	10/4/05	94.6	70-130
Toluene	40.0	ug/L	EPA 8260B	10/4/05	95.5	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/4/05	97.7	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/4/05	102	70-130

KIFF ANALYTICAL, LLC

Approved By:

Joe Kiff

Aqua Science Engineers, Inc.  
208 W. El Pintado Road  
Danville, CA 94526  
(925) 820-9391  
FAX (925) 837-4853

46279

# Chain of Custody

PAGE 1 OF 1

SAMPLER(SIGNATURE) D. Rains PROJECT NAME OTS  
ADDRESS 8255 San Leandro St. Oakland, CA JOB NO. 5340 35

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

NOT PRESERVED

SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TPH-GAS / MTBE & BTEX (EPA 5030/B015-B020)	TPH-DIESEL w/Silica Gel (EPA 3510/B015)	TPH-DIESEL & MOTOR OIL (EPA 3510/B015)	VOLATILE ORGANICS (EPA 624/B240/B260)	SEMI-VOLATILE ORGANICS (EPA 625/B270)	OIL & GREASE (EPA 5520)	LIQUID METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/B080)	ORGANOPHOSPHORUS PESTICIDES (EPA 6140 EPA 608/B080)	FUEL OXYGENATES (EPA 8260)	Pb (TOTAL or DISSOLVED) (EPA 6010)	PURGEABLE HALOCARBONS (EPA 601/B010)	MULTI-RANGE HYDROCARBONS	SILICA-GEL CLEANUP	HOLD	EDF
MW-3	9/29	1520	AS	5	X													OF			
MW-4		1730																62			
MW-5		1655																63			
MW-6		1600																04			
MW-7		1730																05			
MW-8	↓	1630																06			
MW-9	9/30	1050	↓	↓														07			

### Sample Received

Temp °C 21.8 Therm. ID# JL-1  
Initial SW4 Date 10/23/05  
Time 1344 Coolant present: N

RELINQUISHED BY:  <u>D. Rains</u> (signature) (time)	RECEIVED BY:  <u>D. ALLEN</u> (printed name) (date)	RELINQUISHED BY:  <u>Company-ASE, INC.</u> (printed name) (date)	RECEIVED BY LABORATORY:  <u>Jason N Hernandez</u> 100305 (printed name) (date)	COMMENTS:
				TURN AROUND TIME STANDARD 24hr 48hr 72hr OTHER:



J.W.

R° 85

208 West El Pintado, Suite C  
Danville, CA 94526  
(925) 820-9391  
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[www.aquascienceengineers.com](http://www.aquascienceengineers.com)

January 13, 2006

Alameda County  
Environmental Health  
JAN 25 2006

QUARTERLY GROUNDWATER MONITORING REPORT  
DECEMBER 9, 2005 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 94552

Prepared by:  
AQUA SCIENCE ENGINEERS, INC.  
208 W. El Pintado, Suite C  
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 94552

### 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 December 9, 2005 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 December 9, 2005, ASE measured the depth to water in monitoring wells MW-1 through MW-9 using an electric water level sounder. The surface of the groundwater in the monitoring wells was also checked for the presence of free-phase hydrocarbons or sheen. Monitoring well MW-1 contained approximately 6.13-foot of free-phase hydrocarbons, a significant increase from last quarter's measurement. This product was subsequently bailed from the well until only a sheen was visible. Approximately 2 gallons of product, along with several gallons of water, were removed from the well and stored temporarily on-site in a 55-gallon, labeled drum. Groundwater elevation data is presented as Table One.

A groundwater potentiometric surface map for the December 9, 2005 sampling event is presented as Figure 2. The groundwater flow direction at the site has been inconsistent and highly variable. Groundwater flow this quarter was generally to the west with a gradient between 0.01 and 0.005 feet per foot on the eastern and southern portion of the site.

## **3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS**

Groundwater samples were collected from monitoring wells MW-2 through MW-9. Monitoring well MW-1 contained free-phase hydrocarbons and was not sampled. Prior to sampling, the wells were purged of three well casing volumes of groundwater using disposable polyethylene bailers. The parameters pH, temperature, and conductivity were monitored during the well purging, and samples were not collected until these parameters stabilized. Groundwater samples were then collected from each well using the same polyethylene bailers.

All samples were decanted from the bottom of the bailers using low-flow sampling devices 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 monitoring well purge water was placed in a 55-gallon steel drum, and stored for later removal.

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 including ethanol and methanol 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 6.12-feet of free-phase hydrocarbons this quarter, a large increase from previous measurements
- Concentrations of TPH-G and MTBE decreased in groundwater samples collected from monitoring well MW-2; TPH-D and TBA increased in the same sample.
- Concentrations of TPH-G, benzene, toluene, ethyl benzene, total xylenes, MTBE, TAME and TBA decreased in groundwater samples collected from monitoring well MW-3; however, TPH-D concentrations increased dramatically in the same sample.
- Concentrations of MTBE in water sampled from monitoring well MW-4 decreased to a historic low.
- Concentrations of MTBE and TAME decreased in groundwater samples collected from monitoring well MW-5; TPH-D increased in the same sample.
- Concentrations of TPH-G and benzene decreased in groundwater samples collected from monitoring well MW-6; TPH-D, MTBE, and TBA increased in the same sample.
- Concentrations of TPH-D in water sampled from monitoring well MW-8 increased relative to previous results.
- Concentrations of MTBE and TBA decreased in groundwater samples collected from monitoring well MW-9; TPH-D and benzene increased in the same sample.

Groundwater samples collected from the following monitoring wells contained concentrations of the listed compounds equal to or greater than Environmental Screening Levels (ESLs)<sup>1</sup>:

- MW-2—TPH-G, TPH-D, and MTBE
- MW-3—TPH-G, TPH-D, benzene, and MTBE
- MW-5—TPH-D
- MW-6—TPH-G, TPH-D, benzene, and MTBE
- MW-9—TPH-D and benzene

## **5.0 RECOMMENDATIONS**

ASE recommends that this site remain on a quarterly sampling schedule. The next sampling is scheduled for March 2006. In addition, ASE will survey the well casing for monitoring well MW-8.

Oakland Truck Stop staff will continue periodic free-phase hydrocarbon removal from monitoring well MW-1 during the next quarter.

---

<sup>1</sup> as presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region dated February 2005

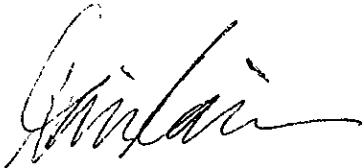
## 6.0 REPORT LIMITATIONS

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-DHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

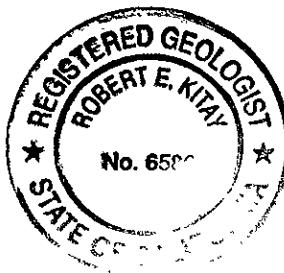
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project, and trust that this report meets your needs. Please feel free to call us at (925) 820-9391 if you have any questions or comments.

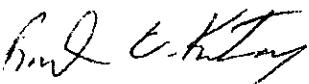
Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



David Rains  
Project Geologist



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

Attachments: Table One and Two  
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 I.D & Date Sampled	Top of Casing Elevation (msl)	Depth to Water (feet)	Free-Floating Hydrocarbon Thickness (feet)	Groundwater Elevation (msl)
<b>MW-1</b>				
8/16/99	97.12	Unknown	> 1.0	Unknown
8/27/99		6.90	0.36	90.51*
9/10/99		6.85	0.18	90.41*
9/24/99		6.65	0.08	90.53*
10/8/99		6.87	0.28	90.47*
10/22/99		6.81	0.23	90.49*
11/2/99		6.94	0.31	90.43*
11/19/99		6.91	0.12	90.31*
12/6/99		6.93	0.12	90.29*
3/8/00		5.93	0.21	91.36*
6/14/00		6.57	0.72	90.41*
12/11/00		6.70	0.60	90.90*
3/6/01		5.75	0.40	91.69*
6/6/01		7.60	1.48	90.70*
9/4/01		6.80	0.20	90.48*
3/11/02		approx. 7.47	approx. 3	approx. 92.05*
6/6/02		6.49	0.67	91.17*
9/4/02	11.02	6.89	0.54	4.56*
12/17/02		4.65		6.47*
3/7/03		6.55	1.19	3.52*
6/5/03		9.77	4.63	4.95*
9/19/03		6.56	0.32	4.72*
12/12/03		5.63	0.41	5.72*
3/15/04		7.11	0.40	4.23*
6/22/04		NM	NM	NM
9/21/04		NM	NM	NM
12/30/04			Probe Malfunction	
4/6/05		5.70	1.40	6.44*
9/29/05		5.40	1.00	6.42*
12/9/05		10.70	6.13	5.22*
<b>MW-2</b>				
8/16/99	96.82	6.30	--	90.52
12/6/99		8.46	--	88.36
3/8/00		9.12	--	87.70
6/14/00		8.34	--	88.48
12/11/00		5.94	--	90.88
3/6/01		4.70	--	92.12
6/6/01		6.03	--	90.79
9/4/01		6.34	--	90.48
3/11/02		4.89	--	91.93
6/6/02		5.69	--	91.13
9/4/02	10.70	6.17	--	4.53
12/17/02		4.39	--	6.31
3/7/03		5.44	--	5.26
6/5/03		5.59	--	5.11
9/19/03		6.09	--	4.61
12/12/03		5.13	--	5.57
3/15/04		5.71	--	4.99
6/22/04		5.80	--	4.90
9/21/04		6.64	--	4.06
12/30/04		6.04	--	4.66
4/6/05		INACCESSIBLE DUE TO TRUCK OVER WELL		
9/29/05		INACCESSIBLE DUE TO TRUCK OVER WELL		
12/9/05		5.60		5.10

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

Well I.D & Date Sampled	Top of Casing Elevation (msl)	Depth to Water (feet)	Free-Floating Hydrocarbon Thickness (feet)	Groundwater Elevation (msl)
<b>MW-3</b>				
8/16/99	96.43	5.85	--	90.58
12/6/99		5.70	--	90.73
3/8/00		5.32	--	91.11
6/14/00		6.95	--	89.48
12/11/00		6.22	--	90.21
3/6/01		4.83	--	91.60
6/6/01		5.62	--	90.81
9/4/01		5.91	--	90.52
3/11/02		4.42	--	92.01
6/6/02		5.19	--	91.24
9/4/02	10.32	5.72	--	4.60
12/17/02		3.96	--	6.36
3/7/03		4.88	--	5.44
6/5/03		5.05	--	5.27
9/19/03		5.62	--	4.70
12/12/03		4.68	--	5.64
3/15/04		4.52	--	5.80
6/22/04		6.49	--	3.83
9/21/04		5.72	--	4.60
12/30/04		4.72	--	5.60
4/6/04		3.78	--	6.54
9/29/05		5.85	--	4.47
12/9/05		5.01	--	5.31
<b>MW-4</b>				
8/16/99	96.60	6.12	--	90.48
12/6/99		5.98	--	90.62
3/8/00		4.32	--	92.28
6/14/00		5.58	--	91.02
12/11/00		5.70	--	90.90
3/6/01		4.46	--	92.14
6/6/01		5.89	--	90.71
9/4/01		6.16	--	90.44
3/11/02		4.67	--	91.93
6/6/02		5.50	--	91.10
9/4/02	10.50	5.97	--	4.53
12/17/02		4.22	--	6.28
3/7/03		5.23	--	5.27
6/5/03		5.38	--	5.12
9/19/03		5.91	--	4.59
12/12/03		4.91	--	5.59
3/15/04		4.94	--	5.56
6/22/04		5.68	--	4.82
9/21/04		6.01	--	4.49
12/30/04		4.55	--	5.95
4/6/05		4.09	--	6.41
9/29/05		5.56	--	4.94
12/9/05		5.28	--	5.22

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

Well I.D. & Date Sampled	Top of Casing Elevation (msl)	Depth to Water (feet)	Free-Floating Hydrocarbon Thickness (feet)	Groundwater Elevation (msl)
<b>MW-5</b>				
12/6/99	96.30	5.94	--	90.36
3/8/00		4.06	--	92.24
6/14/00		5.25	--	91.05
12/11/00		5.45	--	90.85
3/6/01		4.12	--	92.18
6/6/01		5.56	--	90.74
9/4/01		5.84	--	90.46
3/11/02		4.38	--	91.92
6/6/02		5.16	--	91.14
9/4/02	10.20	5.62	--	4.58
12/17/02		4.12	--	6.08
3/7/03		4.89	--	5.31
6/5/03		5.04	--	5.16
9/19/03		5.56	--	4.64
12/12/03		4.72	--	5.48
3/15/04		4.61	--	5.59
6/22/04		5.26	--	4.94
9/21/04		5.68	--	4.52
9/21/04		4.55	--	5.65
4/6/05		3.98	--	6.22
9/29/05		5.28	--	4.92
12/9/05		5.05	--	5.15
<b>MW-6</b>				
12/6/99	96.79	5.80	--	90.99
3/8/00		4.10	--	92.69
6/14/00		5.64	--	91.15
12/11/00		5.72	--	91.07
3/6/01		4.32	--	92.47
6/6/01		5.81	--	90.98
9/4/01		6.12	--	90.67
3/11/02		4.49	--	92.30
6/6/02		5.33	--	91.46
9/4/02	10.71	5.92	--	4.79
12/17/02		3.85	--	6.86
3/7/03		4.96	--	5.75
6/5/03		5.18	--	5.53
9/19/03		5.81	--	4.90
12/12/03		4.73	--	5.98
3/15/04		4.65	--	6.06
6/22/04		5.34	--	5.37
9/21/04		5.89	--	4.82
12/30/04		4.35	--	6.36
4/6/05		3.66	--	7.05
9/29/05		6.00	--	4.71
12/9/05		5.17	--	5.54
<b>MW-7</b>				
9/4/02	9.17	4.67	--	4.50
12/17/02		3.11	--	6.06
3/7/03		3.89	--	5.28
6/5/03		3.57	--	5.60
9/19/03		4.57	--	4.60
12/12/03		3.48	--	5.69
3/15/04			Truck Parked Over Well	
6/22/04		4.52	--	4.65
9/21/04		4.56	--	4.61
12/30/04		3.17	--	6.00
4/6/05		2.77	--	6.40
9/29/05		4.27	--	4.90
12/9/05		4.86	--	4.31

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

Well I.D & Date Sampled	Top of Casing Elevation (msl)	Depth to Water (feet)	Free-Floating Hydrocarbon Thickness (feet)	Groundwater Elevation (msl)
<b>MW-8</b>				
9/4/02	9.68	4.94	--	4.74
12/17/02		3.26	--	6.42
3/7/03		4.01	--	5.67
6/5/03		4.28	--	5.40
9/19/03		4.87	--	4.81
12/12/03		3.77	--	5.91
3/15/04		3.53	--	NA**
6/22/04		4.52	--	NA**
9/21/04		4.70	--	NA**
12/30/04		4.23	--	NA**
4/6/05		3.50	--	NA**
9/29/05		4.62	--	NA**
12/9/05		3.92	--	NA**
<b>MW-9</b>				
9/4/02	11.07	6.26	--	4.81
12/17/02		4.23	--	6.84
3/7/03		5.26	--	5.81
6/5/03		5.56	--	5.51
9/19/03		6.25	--	4.82
12/12/03			Truck Parked Over Well	
3/15/04		5.04	--	6.03
6/22/04		5.91	--	5.16
9/21/04		6.24	--	4.83
12/30/04			Truck Parked Over Well	
4/6/05		4.12	--	6.95
9/29/05		5.55	--	5.52
12/9/05		5.51	--	5.56

Notes:

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.

\* = 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)

\*\* = Top of casing elevation has changed and well has not been resurveyed.

\*\*\* = Product was bailed by OTS staff prior to measurement by ASE.

NM = Not Measured

**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
<b>MW-1</b>												
8/16/99												
12/6/99												
3/8/00												
6/14/00												
12/11/00												
3/6/01												
6/6/01												
9/4/01												
3/11/02												
6/6/02												
9/4/02												
12/17/02												
3/7/03												
6/5/03												
9/19/03												
12/12/03												
12/12/03												
3/15/04												
6/22/04												
9/21/04												
12/30/04												
4/6/05												
9/29/05												
12/9/05												
Not Sampled Due to Free-Floating Hydrocarbons												
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Not Sampled Due to Free-Floating Hydrocarbons												
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**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
<b>MW-4</b>												
8/16/99	61***	1,100*	< 500	< 0.5	< 0.5	< 0.5	< 1.0	86	NA	NA	NA	NA
12/6/99	130***	220*	< 500	< 1.0	< 1.0	< 1.0	< 1.0	130	NA	NA	NA	NA
3/8/00	< 50	220*	< 500	< 0.5	< 0.5	< 0.5	< 0.5	130	NA	NA	NA	NA
6/14/00	< 50	< 50	< 100	< 0.5	< 0.5	< 0.5	< 0.5	100	< 0.5	< 0.5	< 0.5	20
12/11/00	< 50	< 50	< 100	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	16
3/6/01	< 50	670	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	9.9
6/6/01	< 50	790	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	20
9/4/01	< 50	950	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	26
3/11/02	< 50	250	NA	< 0.5	< 0.5	< 0.5	< 0.5	84	< 0.5	< 0.5	< 0.5	21
6/6/02	< 50	710	NA	< 0.5	< 0.5	< 0.5	< 0.5	92	< 0.5	< 0.5	< 0.5	21
9/4/02	< 50	1,100	NA	< 0.5	< 0.5	< 0.5	< 0.5	150	< 0.5	< 0.5	< 0.5	18
12/17/02	< 50	470	NA	< 0.5	< 0.5	< 0.5	< 0.5	120	< 0.5	< 0.5	< 0.5	< 5.0
3/7/03	< 50	470	NA	< 0.5	< 0.5	< 0.5	< 0.5	120	< 0.5	< 0.5	< 0.5	18
6/5/03	< 50	2,000	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	23
9/19/03	< 50	830	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	23
12/12/03	< 50	1,700	NA	< 0.5	< 0.5	< 0.5	< 0.5	120	< 0.5	< 0.5	< 0.5	16
3/15/04	< 50	2,200	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	20
9/21/04	< 50	620	NA	< 0.5	< 0.5	< 0.5	< 0.5	93	< 0.5	< 0.5	< 0.5	31
4/6/05	< 50	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	59	< 0.5	< 0.5	< 0.5	50
9/29/05	< 50	< 50	NA	< 0.50	< 0.50	< 0.50	< 0.50	17	< 0.50	< 0.50	< 0.50	120
12/9/05	< 50	760	NA	< 0.50	< 0.50	< 0.50	< 0.50	9.5	< 0.50	< 0.50	< 0.50	94
<b>MW-5</b>												
12/6/99	450***	2,000*	< 500	< 1.0	< 1.0	< 1.0	< 1.0	21	NA	NA	NA	NA
3/8/00	51***	530*	< 500	< 0.5	< 0.5	< 0.5	< 0.5	84	NA	NA	NA	NA
6/14/00	380	1,400	< 100	< 0.5	< 0.5	< 0.5	< 0.5	160	12	< 0.5	< 0.5	22
12/11/00	540	590	< 100	< 0.5	< 0.5	< 0.5	< 0.5	240	9.5	< 0.5	< 0.5	32
3/6/01	510	2,900	NA	< 0.5	< 0.5	< 0.5	< 0.5	140	13	< 0.5	< 0.5	19
6/6/01	280	2,700	NA	< 0.5	< 0.5	< 0.5	< 0.5	180	13	< 0.5	< 0.5	26
9/4/01	630	2,600	NA	< 0.5	< 0.5	< 0.5	< 0.5	180	9.4	< 0.5	< 0.5	29
3/11/02	97	3,500	NA	< 0.5	< 0.5	< 0.5	< 0.5	29	0.79	< 0.5	< 0.5	7.4
6/6/02	61	3,500	NA	< 0.5	< 0.5	< 0.5	< 0.5	150	2.9	< 0.5	< 0.5	34
9/4/02	92	6,100	NA	< 0.5	< 0.5	< 0.5	< 0.5	370	3.6	< 0.5	< 0.5	72
12/17/02	110	2,100	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	4.2	< 0.5	< 0.5	14
3/7/03	71	1,600	NA	< 0.5	< 0.5	< 0.5	< 0.5	150	2.2	< 0.5	< 0.5	35
6/5/03	95	3,300	NA	< 0.5	< 0.5	< 0.5	< 0.5	170	4.6	< 0.5	< 0.5	43
9/19/03	100	1,400	NA	< 0.5	< 0.5	< 0.5	< 0.5	310	5.2	< 0.5	0.68	86
12/12/03	< 50	7,600	NA	< 0.5	< 0.5	< 0.5	< 0.5	270	5.9	< 0.5	0.70	91
3/15/04	95	1,700	NA	< 0.5	< 0.5	< 0.5	< 0.5	290	6.7	< 0.5	0.92	200
9/21/04	78	990	NA	< 0.5	< 0.5	< 0.5	< 0.5	270	4.7	< 0.5	0.96	880
4/6/05	64	1,200	NA	< 0.5	< 0.5	< 0.5	< 0.5	120	4.8	< 0.5	< 0.5	780
9/29/05	100	640	NA	< 0.50	< 0.50	< 0.50	< 0.50	77	3.7	< 0.50	< 0.50	4,000
12/9/05	99	3,700	NA	< 0.50	< 0.50	< 0.50	< 0.50	66	3.8	< 0.50	< 0.50	3,000
<b>MW-6</b>												
12/6/99	13,000	< 50	< 500	180	21	11	24	< 100	NA	NA	NA	NA
3/8/00	< 10,000	4,600*	< 500	230	26	18	39	12,000	NA	NA	NA	NA
6/14/00	8,400	12,000	< 100	190	12	9.5	22	15,000	< 5.0	70	3,300	
12/11/00	< 5,000	10,000	< 100	190	< 50	< 50	< 50	14,000	< 50	74	2,900	
3/6/01	5,300	6,700	NA	220	< 50	< 50	< 50	13,000	< 50	84	2,100	
6/6/01	5,000	23,000	NA	210	< 25	< 25	< 25	12,000	< 25	84	4,200	
9/4/01	5,400	22,000	NA	190	12	< 10	23	15,000	< 10	79	4,000	
3/11/02	4,600	11,000	NA	160	< 25	< 25	< 25	15,000	< 25	39	5,100	
6/6/02	< 5,000	14,000	NA	200	< 50	< 50	< 50	17,000	< 50	77	8,700	
9/4/02	< 5,000	50,000	NA	140	< 50	< 50	< 50	21,000	< 50	52	7,500	
12/17/02	< 5,000	9,100	NA	130	< 50	< 50	< 50	16,000	< 50	64	6,300	
3/7/03	< 5,000	12,000	NA	160	< 50	< 50	< 50	20,000	< 50	53	7,500	
6/5/03	< 5,000	23,000	NA	230	< 50	< 50	< 50	19,000	< 50	86	7,100	
9/19/03	8,900	24,000	NA	220	< 25	< 25	< 25	15,000	< 25	74	8,100	
12/12/03	8,000	24,000	NA	190	< 25	< 25	< 25	14,000	< 25	65	7,400	
3/15/04	4,400	26,000	NA	190	< 25	< 25	< 25	9,900	< 25	61	6,700	
6/22/04	3,500	7,000	NA	150	< 20	< 20	< 20	9,200	< 20	51	6,100	
9/21/04	4,600	12,000	NA	210	< 20	< 20	< 20	8,800	< 20	55	7,000	
12/30/04	5,300	11,000	NA	190	< 20	< 20	< 20	6,300	< 20	53	4,900	
4/6/05	5,100	680	NA	190	13	12	32	3,700	< 5.0	42	4,600	
9/29/05	4,800	2,800	NA	130	8.9	< 5.0	13	2,100	< 5.0	23	3,200	
12/9/05	3,600	10,000	NA	110	7.1	< 5.0	7.9	2,700	< 5.0	22	4,200	

**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	Ethy lbenzene	Total Xylenes	MTBE	DiPE	ETBE	TAME	TBA
<b>MW-7</b>												
9/4/02	< 50	130****	NA	< 0.5	< 0.5	< 0.5	< 0.5	3.4	< 0.5	< 0.5	< 0.5	< 5.0
12/17/02	< 50	220	NA	< 0.5	< 0.5	< 0.5	< 0.5	2.8	< 0.5	< 0.5	< 0.5	< 5.0
3/7/03	< 50	140	NA	< 0.5	< 0.5	< 0.5	< 0.5	1.8	< 0.5	< 0.5	< 0.5	< 5.0
6/5/03	< 50	200	NA	< 0.5	< 0.5	< 0.5	< 0.5	2.5	< 0.5	< 0.5	< 0.5	< 5.0
9/19/03	< 50	320	NA	< 0.5	< 0.5	< 0.5	< 0.5	5.0	< 0.5	< 0.5	< 0.5	< 5.0
12/12/03	< 50	380	NA	< 0.5	< 0.5	< 0.5	< 0.5	2.3	< 0.5	< 0.5	< 0.5	< 5.0
3/15/04	Not Sampled - Truck Parked Over Well											
9/21/04	< 50	79	NA	< 0.5	< 0.5	< 0.5	< 0.5	2.6	< 0.5	< 0.5	< 0.5	< 5.0
4/6/05	< 50	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	9.2	< 0.5	< 0.5	< 0.5	< 5.0
9/29/05	< 50	< 50	NA	< 0.50	< 0.50	< 0.50	< 0.50	12	< 0.50	< 0.50	< 0.50	< 5.0
12/9/05	< 50	120	NA	< 0.50	< 0.50	< 0.50	< 0.50	10	< 0.50	< 0.50	< 0.50	< 5.0
<b>MW-8</b>												
9/4/02	< 50	170	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
12/17/02	< 50	100	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
3/7/03	< 50	62	NA	< 0.5	< 0.5	< 0.5	< 0.5	33	< 0.5	< 0.5	< 0.5	< 5.0
6/5/03	< 50	270	NA	< 0.5	< 0.5	< 0.5	< 0.5	13	< 0.5	< 0.5	< 0.5	< 5.0
9/19/03	< 50	250	NA	< 0.5	< 0.5	< 0.5	< 0.5	11	< 0.5	< 0.5	< 0.5	< 5.0
12/12/03	< 50	420	NA	< 0.5	< 0.5	< 0.5	< 0.5	11	< 0.5	< 0.5	< 0.5	< 5.0
3/15/04	< 50	250	NA	< 0.5	< 0.5	< 0.5	< 0.5	6.4	< 0.5	< 0.5	< 0.5	< 5.0
9/21/04	< 50	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	11	< 0.5	< 0.5	< 0.5	< 5.0
4/6/05	< 50	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	8.0	< 0.5	< 0.5	< 0.5	< 5.0
9/29/05	< 50	< 50	NA	< 0.50	< 0.50	< 0.50	< 0.50	18	< 0.50	< 0.50	< 0.50	< 5.0
12/9/05	< 50	86	NA	< 0.50	< 0.50	< 0.50	< 0.50	9.7	< 0.50	< 0.50	< 0.50	< 5.0
<b>MW-9</b>												
9/4/02	< 2,500	1,000	NA	< 25	< 25	< 25	< 25	12,000	< 25	< 25	70	1,700
12/17/02	< 2,000	880	NA	< 20	< 20	< 20	< 20	4,500	< 20	< 20	23	2,300
3/7/03	< 500	450	NA	< 5.0	< 5.0	< 5.0	< 5.0	1,700	< 5.0	< 5.0	8.4	6,600
6/5/03	< 500	4,500	NA	< 5.0	< 5.0	< 5.0	< 5.0	120	< 5.0	< 5.0	< 5.0	17,000
9/19/03	< 1,000	4,500	NA	< 10	< 10	< 10	< 10	38	< 10	< 10	< 10	15,000
12/12/03	Not Sampled - Truck Parked Over Well											
3/15/04	< 1,000	82	NA	< 10	< 10	< 10	< 10	38	< 10	< 10	< 10	18,000
9/21/04	< 1,000	2,600	NA	< 10	< 10	< 10	< 10	17	< 10	< 10	< 10	16,000
12/30/04	Not Sampled - Truck Parked Over Well											
4/6/05	< 700	< 50	NA	< 7.0	< 7.0	< 7.0	< 7.0	55	< 7.0	< 7.0	< 7.0	15,000
9/29/05	< 700	< 50	NA	< 7.0	< 7.0	< 7.0	< 7.0	34	< 7.0	< 7.0	< 7.0	13,000
12/9/05	< 400	3,200	NA	46	< 4.0	< 4.0	< 4.0	12	< 4.0	< 4.0	< 4.0	8,200
DHS MCL	NE	NE	NE	1	150	700	1,750	13	NE	NE	NE	NE
ESL	400	500	500	46	130	290	100	1,800	NE	NE	NE	NE

**Notes:**

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit. \* = Non-typical diesel pattern, hydrocarbons in early diesel range.

Most recent concentrations are in bold

\*\* = Estimated concentration due to overlapping fuel patterns in the sample.

DHS MCL is the California Department of Health Services maximum contaminant level for drinking water \*\*\* = Non-typical gasoline pattern.

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (February 2005)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region

NE = MCL/ESL not established

\*\*\*\* = Non-typical diesel pattern.

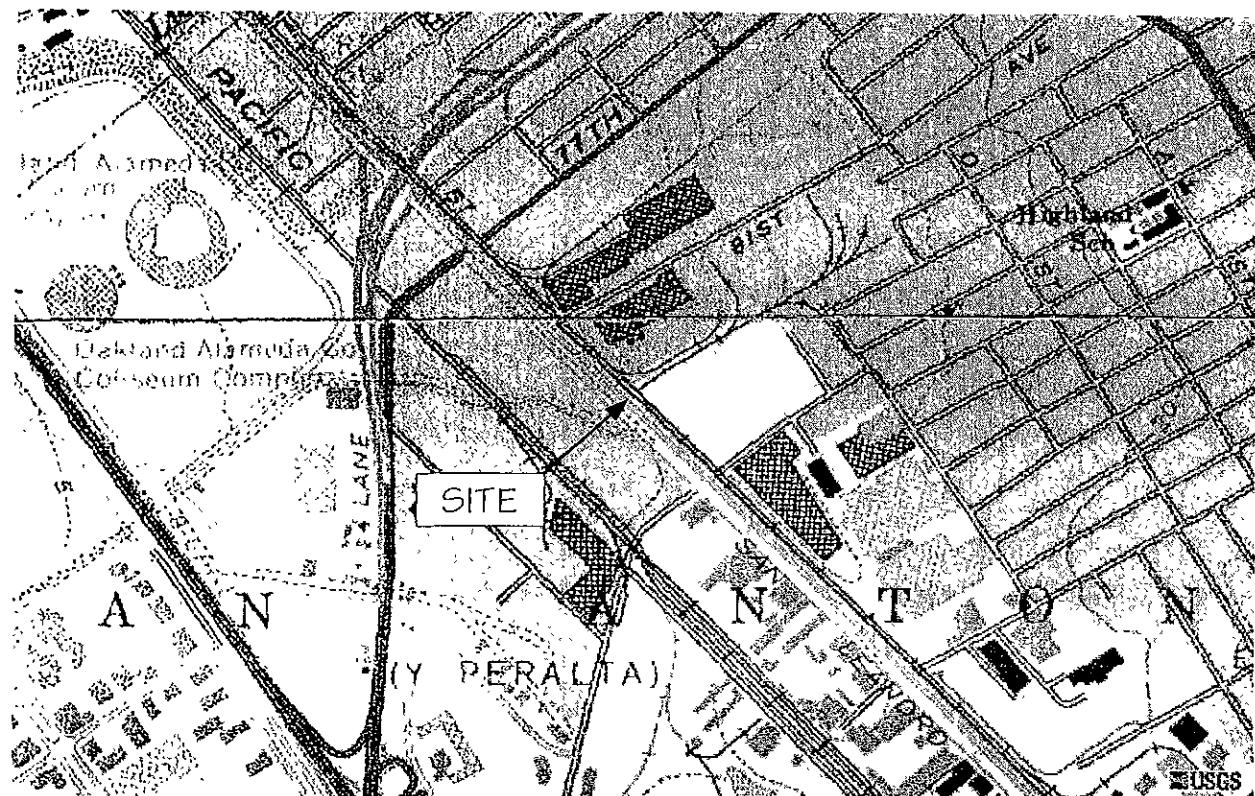
NA = Sample not analyzed for this compound

# = MTBE concentration by EPA Method 8260

## **FIGURES**



NORTH



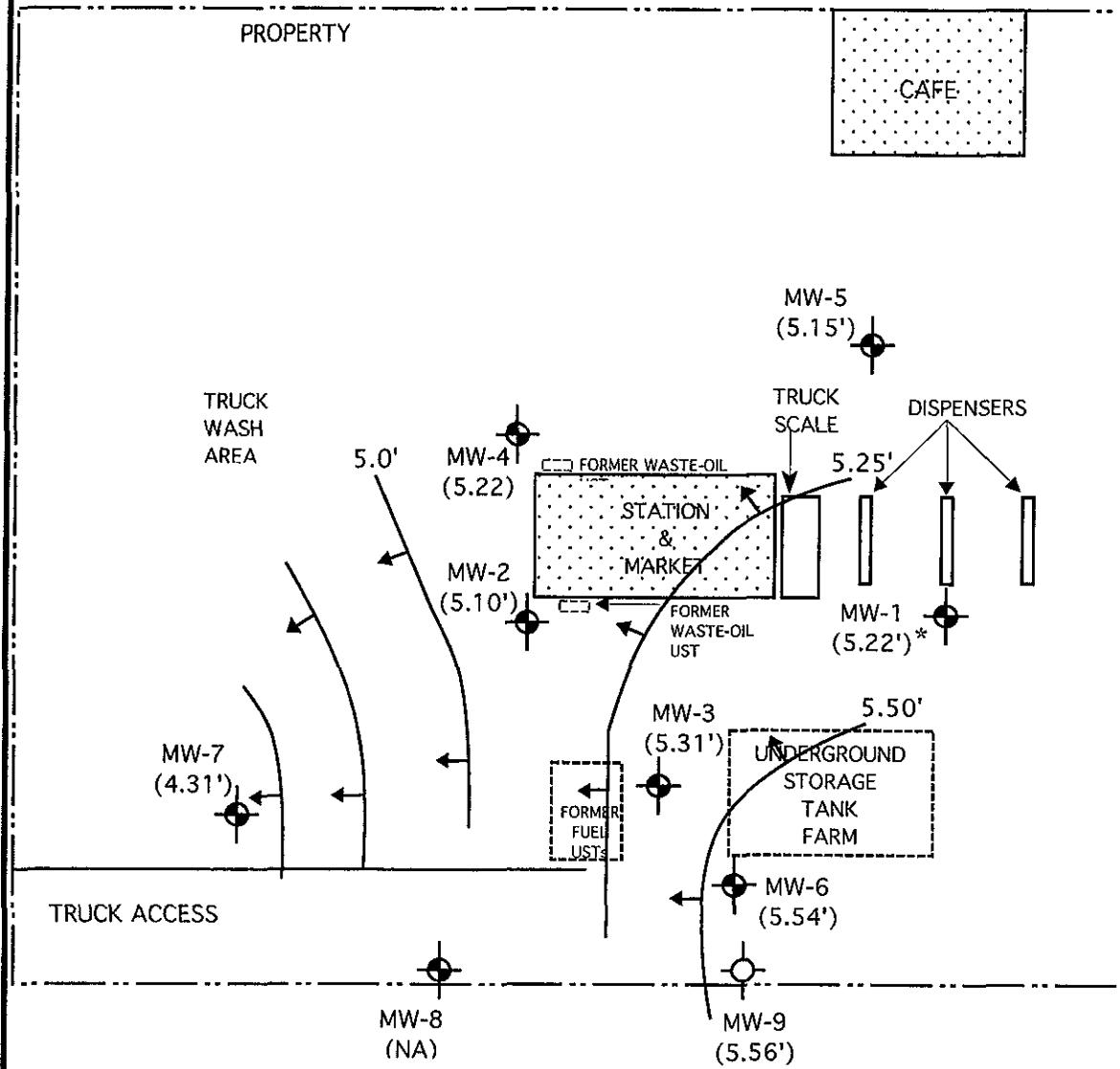
## LOCATION MAP

OAKLAND TRUCK STOP  
8255 SAN LEANDRO STREET  
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

Figure 1

# SAN LEANDRO STREET



## LEGEND

NM Not Measured

Potentiometric surface contour with arrow indicating groundwater flow direction

4-inch diameter monitoring

Monitoring well (with groundwater elevation in feet)

\* Elevation adjuster for thickness of free-floating hydrocarbons



NORTH

SCALE  
1" = 50'

## POTENTIOMETRIC SURFACE CONTOUR MAP

12/9/05

OAKLAND TRUCK STOP  
8255 SAN LEANDRO STREET  
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS

Figure 2

## **APPENDIX A**

### Well Sampling Field Logs

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Oakland Truck Stop		
JOB NUMBER	3540	DATE OF SAMPLING	12/9/05
WELL ID.	MW-1	SAMPLER	dr/da
TOTAL DEPTH OF WELL		WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	4.57' / 10.70 water		
PRODUCT THICKNESS			
DEPTH OF WELL CASING IN WATER			
NUMBER OF GALLONS PER WELL CASING VOLUME			
NUMBER OF WELL CASING VOLUMES TO BE REMOVE	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING			
EQUIPMENT USED TO PURGE WELL	disposable bailer		
TIME EVACUATION STARTED	TIME EVACUATION COMPLETED		
TIME SAMPLES WERE COLLECTED	NOT SAMPLED - FREE PRODUCT		
DID WELL GO DRY	AFTER HOW MANY GALLONS		
VOLUME OF GROUNDWATER PURGED			
SAMPLING DEVICE	disposable bailer		
SAMPLE COLOR	ODOR/SEDIMENT		

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1			
2			
3			

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
	5	40ml VOA		Y

3 Gallons  
3 Gallons

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Oakland Truck Stop		
JOB NUMBER	3540	DATE OF SAMPLING	12/9/05
WELL ID.	MW-2	SAMPLER	dr/da
TOTAL DEPTH OF WELL	14.64	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	5.60		
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	9.09		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.54		
NUMBER OF WELL CASING VOLUMES TO BE REMOVE	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	4.61		
EQUIPMENT USED TO PURGE WELL	disposable bailer		
TIME EVACUATION STARTED	11:13	TIME EVACUATION COMPLETED	1122
TIME SAMPLES WERE COLLECTED	1125		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	—
VOLUME OF GROUNDWATER PURGED	.5		
SAMPLING DEVICE	disposable bailer		
SAMPLE COLOR	clear	ODOR/SEDIMENT	mod. hc / non

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	68.8	6.52	1590
2	70.2	6.50	1591
3	70.1	6.51	1592

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-2	5	40ml VOA		Y

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Oakland Truck Stop		
JOB NUMBER	3540	DATE OF SAMPLING	12/9/05
WELL ID.	MW-3	SAMPLER	dr/da
TOTAL DEPTH OF WELL	15.0	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	7.01		
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	9.99		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.7		
NUMBER OF WELL CASING VOLUMES TO BE REMOVE	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	5.1		
EQUIPMENT USED TO PURGE WELL	disposable bailer		
TIME EVACUATION STARTED	1109	TIME EVACUATION COMPLETED	1123
TIME SAMPLES WERE COLLECTED	1125		
DID WELL GO DRY	AFTER HOW MANY GALLONS		
VOLUME OF GROUNDWATER PURGED	5		
SAMPLING DEVICE	disposable bailer		
SAMPLE COLOR	brown /slight orange	ODOR/SEDIMENT	slight / little silt

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	44.5	6.81	1300
2	44.0	6.77	1152
3	43.7	6.69	1148

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-3	5	40ml VOA		Y

11-28 8 18.2 ✓ 5

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Oakland Truck Stop		
JOB NUMBER	3540	DATE OF SAMPLING	12/9/05
WELL ID.	MW - 4	SAMPLER	dr/da
TOTAL DEPTH OF WELL	46.0	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	5.0		
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	8.72		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.48		
NUMBER OF WELL CASING VOLUMES TO BE REMOVE	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	4.45		
EQUIPMENT USED TO PURGE WELL	disposable bailer		
TIME EVACUATION STARTED	11:40	TIME EVACUATION COMPLETED	11:55
TIME SAMPLES WERE COLLECTED	11:56		
DID WELL GO DRY	n/a	AFTER HOW MANY GALLONS	n/a
VOLUME OF GROUNDWATER PURGED	5		
SAMPLING DEVICE	disposable bailer		
SAMPLE COLOR	clear	ODOR/SEDIMENT	no / no

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	45.1	7.04	1401
2	44.9	6.99	1444
3	44.6	7.01	1447

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW - 4	5	40ml VOA		Y

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Oakland Truck Stop		
JOB NUMBER	3540	DATE OF SAMPLING	12/9/05
WELL ID.	MW-5	SAMPLER	dr/da
TOTAL DEPTH OF WELL	14.0	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	5.05		
PRODUCT THICKNESS	6		
DEPTH OF WELL CASING IN WATER	8.95		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.52		
NUMBER OF WELL CASING VOLUMES TO BE REMOVE	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	4.56		
EQUIPMENT USED TO PURGE WELL	disposable bailer		
TIME EVACUATION STARTED	1040	TIME EVACUATION COMPLETED	1053
TIME SAMPLES WERE COLLECTED	1055		
DID WELL GO DRY	no	AFTER HOW MANY GALLONS	n/a
VOLUME OF GROUNDWATER PURGED	5		
SAMPLING DEVICE	disposable bailer		
SAMPLE COLOR	clear	ODOR/SEDIMENT	no/no

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	64.5	6.80	1500
2	64.0	6.70	1494
3	63.9	6.69	1493

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-5	5	40ml VOA		Y

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Oakland Truck Stop		
JOB NUMBER	3540	DATE OF SAMPLING	12/9/05
WELL ID.	<i>W-6</i>	SAMPLER	dr/da
TOTAL DEPTH OF WELL	<i>14.3</i>	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	<i>5.17</i>		
PRODUCT THICKNESS	<i>0</i>		
DEPTH OF WELL CASING IN WATER	<i>9.13</i>		
NUMBER OF GALLONS PER WELL CASING VOLUME	<i>1.55</i>		
NUMBER OF WELL CASING VOLUMES TO BE REMOVE	<i>3</i>		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	<i>4.66</i>		
EQUIPMENT USED TO PURGE WELL	disposable bailer		
TIME EVACUATION STARTED	<i>1205</i>	TIME EVACUATION COMPLETED	<i>1215</i>
TIME SAMPLES WERE COLLECTED	<i>1218</i>		
DID WELL GO DRY	<i>No</i>	AFTER HOW MANY GALLONS	
VOLUME OF GROUNDWATER PURGED	<i>5</i>		
SAMPLING DEVICE	disposable bailer		
SAMPLE COLOR	<i>clear</i>	ODOR/SEDIMENT	<i>no p. H2 / N-Na</i>

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	<i>70.2</i>	<i>7.05</i>	<i>718</i>
2	<i>70.6</i>	<i>6.95</i>	<i>744</i>
3	<i>70.6</i>	<i>6.98</i>	<i>750</i>

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
<i>W-6</i>	5	40ml VOA		Y

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Oakland Truck Stop		
JOB NUMBER	3540	DATE OF SAMPLING	12/9/05
WELL ID.	MW-7	SAMPLER	dr/da
TOTAL DEPTH OF WELL	16.2	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	4.86		
PRODUCT THICKNESS	P		
DEPTH OF WELL CASING IN WATER	11.34		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.73		
NUMBER OF WELL CASING VOLUMES TO BE REMOVE	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	5.78		
EQUIPMENT USED TO PURGE WELL	disposable bailer		
TIME EVACUATION STARTED	10:50	TIME EVACUATION COMPLETED	11:00
TIME SAMPLES WERE COLLECTED	11:02		
DID WELL GO DRY	NO	AFTER HOW MANY GALLONS	—
VOLUME OF GROUNDWATER PURGED	6		
SAMPLING DEVICE	disposable bailer		
SAMPLE COLOR	Tan	ODOR/SEDIMENT	None / trace silt

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	63 °C	7.09	1179
2	64 °C	6.93	1118
3	64.2	6.96	1204

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-7	5	40ml VOA		Y

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Oakland Truck Stop		
JOB NUMBER	3540	DATE OF SAMPLING	12/9/05
WELL ID.	MW-8	SAMPLER	dr/da
TOTAL DEPTH OF WELL	15.0	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	3.92		
PRODUCT THICKNESS	~		
DEPTH OF WELL CASING IN WATER	11.08		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.77		
NUMBER OF WELL CASING VOLUMES TO BE REMOVE	3	3	
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	5.5		
EQUIPMENT USED TO PURGE WELL	disposable bailer		
TIME EVACUATION STARTED	10:20	TIME EVACUATION COMPLETED	10:38
TIME SAMPLES WERE COLLECTED	10:40		
DID WELL GO DRY	NO	AFTER HOW MANY GALLONS	—
VOLUME OF GROUNDWATER PURGED	5.5		
SAMPLING DEVICE	disposable bailer		
SAMPLE COLOR	CLEAR	ODOR/SEDIMENT	none / none

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	62.2	7.16	884
2	63.8	7.11	939
3	64.4	7.06	949

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-8	5	40ml VOA		Y

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Oakland Truck Stop		
JOB NUMBER	3540	DATE OF SAMPLING	12/9/05
WELL ID.	MW-9	SAMPLER	dr/da
TOTAL DEPTH OF WELL	19.55	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	5.51		
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	14.04		
NUMBER OF GALLONS PER WELL CASING VOLUME	2.39		
NUMBER OF WELL CASING VOLUMES TO BE REMOVE	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	7.16		
EQUIPMENT USED TO PURGE WELL	disposable bailer		
TIME EVACUATION STARTED	1230	TIME EVACUATION COMPLETED	1250
TIME SAMPLES WERE COLLECTED	1255		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	—
VOLUME OF GROUNDWATER PURGED	30		
SAMPLING DEVICE	disposable bailer		
SAMPLE COLOR	Clear	ODOR/SEDIMENT	MILD MOD. HC / NO NC

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	66.0	7.03	986
2	66.5	7.03	965
3	66.4	7.03	960

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-9	5	40ml VOA		Y

## **APPENDIX B**

Certified Analytical Report  
and  
Chain of Custody Documentation



Report Number : 47399

Date : 12/22/2005

David Allen  
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. Allen,

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,

A handwritten signature in black ink that reads "Joel Kiff".

Joel Kiff



Report Number : 47399

Date : 12/22/2005

Project Name : Oakland Truck Stop

Project Number : 3540

Sample : MW-2

Matrix : Water

Lab Number : 47399-01

Sample Date : 12/09/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1.0	0.70	ug/L	EPA 8260B	12/19/2005
Toluene	< 0.70	0.70	ug/L	EPA 8260B	12/19/2005
Ethylbenzene	< 0.70	0.70	ug/L	EPA 8260B	12/19/2005
Total Xylenes	< 0.70	0.70	ug/L	EPA 8260B	12/19/2005
Methyl-t-butyl ether (MTBE)	330	0.70	ug/L	EPA 8260B	12/19/2005
Diisopropyl ether (DIPE)	6.5	0.70	ug/L	EPA 8260B	12/19/2005
Ethyl-t-butyl ether (ETBE)	< 0.70	0.70	ug/L	EPA 8260B	12/19/2005
Tert-amyl methyl ether (TAME)	2.3	0.70	ug/L	EPA 8260B	12/19/2005
Tert-Butanol	1800	5.0	ug/L	EPA 8260B	12/19/2005
Methanol	< 70	70	ug/L	EPA 8260B	12/19/2005
Ethanol	< 7.0	7.0	ug/L	EPA 8260B	12/19/2005
TPH as Gasoline	1000	70	ug/L	EPA 8260B	12/19/2005
Toluene - d8 (Surr)	98.2		% Recovery	EPA 8260B	12/19/2005
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	12/19/2005
TPH as Diesel	720	50	ug/L	M EPA 8015	12/17/2005
Octacosane (Diesel Surrogate)	93.4		% Recovery	M EPA 8015	12/17/2005

Approved By: Joel Kiff



Report Number : 47399

Date : 12/22/2005

Project Name : Oakland Truck Stop

Project Number : 3540

Sample : MW-3

Matrix : Water

Lab Number : 47399-02

Sample Date : 12/09/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	5600	15	ug/L	EPA 8260B	12/20/2005
Toluene	40	15	ug/L	EPA 8260B	12/20/2005
Ethylbenzene	110	15	ug/L	EPA 8260B	12/20/2005
Total Xylenes	30	15	ug/L	EPA 8260B	12/20/2005
Methyl-t-butyl ether (MTBE)	4400	15	ug/L	EPA 8260B	12/20/2005
Diisopropyl ether (DIPE)	< 15	15	ug/L	EPA 8260B	12/20/2005
Ethyl-t-butyl ether (ETBE)	< 15	15	ug/L	EPA 8260B	12/20/2005
Tert-amyl methyl ether (TAME)	30	15	ug/L	EPA 8260B	12/20/2005
Tert-Butanol	2800	70	ug/L	EPA 8260B	12/20/2005
Methanol	< 1500	1500	ug/L	EPA 8260B	12/20/2005
Ethanol	< 150	150	ug/L	EPA 8260B	12/20/2005
TPH as Gasoline	17000	1500	ug/L	EPA 8260B	12/20/2005
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/20/2005
4-Bromofluorobenzene (Surr)	97.6		% Recovery	EPA 8260B	12/20/2005
TPH as Diesel	19000	50	ug/L	M EPA 8015	12/17/2005
Octacosane (Diesel Surrogate)	98.2		% Recovery	M EPA 8015	12/17/2005

Approved By: Joe Kiff



Report Number : 47399

Date : 12/22/2005

Project Name : Oakland Truck Stop

Project Number : 3540

Sample : MW-4

Matrix : Water

Lab Number : 47399-03

Sample Date : 12/09/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Methyl-t-butyl ether (MTBE)	9.5	0.50	ug/L	EPA 8260B	12/17/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Tert-Butanol	94	5.0	ug/L	EPA 8260B	12/17/2005
Methanol	< 50	50	ug/L	EPA 8260B	12/17/2005
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/17/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/17/2005
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	12/17/2005
4-Bromofluorobenzene (Surr)	96.4		% Recovery	EPA 8260B	12/17/2005
TPH as Diesel	760	50	ug/L	M EPA 8015	12/17/2005
Octacosane (Diesel Surrogate)	92.0		% Recovery	M EPA 8015	12/17/2005

Approved By: Joe Kiff



Report Number : 47399

Date : 12/22/2005

Project Name : Oakland Truck Stop

Project Number : 3540

Sample : MW-5

Matrix : Water

Lab Number : 47399-04

Sample Date : 12/09/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Methyl-t-butyl ether (MTBE)	66	0.50	ug/L	EPA 8260B	12/17/2005
Diisopropyl ether (DIPE)	3.8	0.50	ug/L	EPA 8260B	12/17/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Tert-Butanol	3000	7.0	ug/L	EPA 8260B	12/19/2005
Methanol	< 50	50	ug/L	EPA 8260B	12/17/2005
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/17/2005
TPH as Gasoline	99	50	ug/L	EPA 8260B	12/17/2005
Toluene - d8 (Surr)	98.1		% Recovery	EPA 8260B	12/17/2005
4-Bromofluorobenzene (Surr)	95.2		% Recovery	EPA 8260B	12/17/2005
TPH as Diesel	3700	50	ug/L	M EPA 8015	12/17/2005
Octacosane (Diesel Surrogate)	95.6		% Recovery	M EPA 8015	12/17/2005

Approved By: Joe Kiff



Report Number : 47399

Date : 12/22/2005

Project Name : Oakland Truck Stop

Project Number : 3540

Sample : MW-6

Matrix : Water

Lab Number : 47399-05

Sample Date : 12/09/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	110	5.0	ug/L	EPA 8260B	12/17/2005
Toluene	7.1	5.0	ug/L	EPA 8260B	12/17/2005
Ethylbenzene	< 5.0	5.0	ug/L	EPA 8260B	12/17/2005
Total Xylenes	7.9	5.0	ug/L	EPA 8260B	12/17/2005
Methyl-t-butyl ether (MTBE)	2700	5.0	ug/L	EPA 8260B	12/17/2005
Diisopropyl ether (DIPE)	< 5.0	5.0	ug/L	EPA 8260B	12/17/2005
Ethyl-t-butyl ether (ETBE)	< 5.0	5.0	ug/L	EPA 8260B	12/17/2005
Tert-amyl methyl ether (TAME)	22	5.0	ug/L	EPA 8260B	12/17/2005
Tert-Butanol	4200	25	ug/L	EPA 8260B	12/17/2005
Methanol	< 500	500	ug/L	EPA 8260B	12/17/2005
Ethanol	< 50	50	ug/L	EPA 8260B	12/17/2005
TPH as Gasoline	3600	500	ug/L	EPA 8260B	12/17/2005
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	12/17/2005
4-Bromofluorobenzene (Surr)	97.1		% Recovery	EPA 8260B	12/17/2005
TPH as Diesel	10000	50	ug/L	M EPA 8015	12/17/2005
Octacosane (Diesel Surrogate)	91.0		% Recovery	M EPA 8015	12/17/2005

Approved By:

Joel Kiff



Report Number : 47399

Date : 12/22/2005

Project Name : Oakland Truck Stop

Project Number : 3540

Sample : MW-7

Sample Date : 12/09/2005

Matrix : Water

Lab Number : 47399-06

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Methyl-t-butyl ether (MTBE)	10	0.50	ug/L	EPA 8260B	12/17/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/19/2005
Methanol	< 50	50	ug/L	EPA 8260B	12/17/2005
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/17/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/17/2005
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	12/17/2005
4-Bromofluorobenzene (Surr)	97.4		% Recovery	EPA 8260B	12/17/2005
TPH as Diesel	120	50	ug/L	M EPA 8015	12/20/2005
Octacosane (Diesel Surrogate)	88.4		% Recovery	M EPA 8015	12/20/2005

Approved By: Joel Kiff



Report Number : 47399

Date : 12/22/2005

Project Name : Oakland Truck Stop

Project Number : 3540

Sample : MW-8

Matrix : Water

Lab Number : 47399-07

Sample Date : 12/09/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Methyl-t-butyl ether (MTBE)	9.7	0.50	ug/L	EPA 8260B	12/17/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/17/2005
Methanol	< 50	50	ug/L	EPA 8260B	12/17/2005
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/17/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/17/2005
Toluene - d8 (Surr)	98.2		% Recovery	EPA 8260B	12/17/2005
4-Bromofluorobenzene (Surr)	98.6		% Recovery	EPA 8260B	12/17/2005
TPH as Diesel	86	50	ug/L	M EPA 8015	12/20/2005
Octacosane (Diesel Surrogate)	90.0		% Recovery	M EPA 8015	12/20/2005

Approved By: Joe Kiff



Report Number : 47399

Date : 12/22/2005

Project Name : Oakland Truck Stop

Project Number : 3540

Sample : MW-9

Matrix : Water

Lab Number : 47399-08

Sample Date : 12/09/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	46	4.0	ug/L	EPA 8260B	12/20/2005
Toluene	< 4.0	4.0	ug/L	EPA 8260B	12/20/2005
Ethylbenzene	< 4.0	4.0	ug/L	EPA 8260B	12/20/2005
Total Xylenes	< 4.0	4.0	ug/L	EPA 8260B	12/20/2005
Methyl-t-butyl ether (MTBE)	12	4.0	ug/L	EPA 8260B	12/20/2005
Diisopropyl ether (DIPE)	< 4.0	4.0	ug/L	EPA 8260B	12/20/2005
Ethyl-t-butyl ether (ETBE)	< 4.0	4.0	ug/L	EPA 8260B	12/20/2005
Tert-amyl methyl ether (TAME)	< 4.0	4.0	ug/L	EPA 8260B	12/20/2005
Tert-Butanol	8200	20	ug/L	EPA 8260B	12/20/2005
Methanol	< 400	400	ug/L	EPA 8260B	12/20/2005
Ethanol	< 40	40	ug/L	EPA 8260B	12/20/2005
TPH as Gasoline	< 400	400	ug/L	EPA 8260B	12/20/2005
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/20/2005
4-Bromofluorobenzene (Surr)	96.7		% Recovery	EPA 8260B	12/20/2005
TPH as Diesel	3200	50	ug/L	M EPA 8015	12/16/2005
Octacosane (Diesel Surrogate)	90.8		% Recovery	M EPA 8015	12/16/2005

Approved By: Joel Kiff

Report Number : 47399

## QC Report : Laboratory Control Sample (LCS)

Date : 12/22/2005

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	12/19/05	91.0	70-130
Toluene	40.0	ug/L	EPA 8260B	12/19/05	89.5	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/19/05	87.3	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/19/05	88.0	70-130
Benzene	40.0	ug/L	EPA 8260B	12/19/05	94.4	70-130
Toluene	40.0	ug/L	EPA 8260B	12/19/05	96.7	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/19/05	93.5	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/19/05	86.4	70-130
Benzene	40.0	ug/L	EPA 8260B	12/19/05	108	70-130
Toluene	40.0	ug/L	EPA 8260B	12/19/05	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/19/05	102	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/19/05	101	70-130
Benzene	40.0	ug/L	EPA 8260B	12/17/05	100	70-130
Toluene	40.0	ug/L	EPA 8260B	12/17/05	98.1	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/17/05	97.1	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/17/05	101	70-130
Benzene	40.0	ug/L	EPA 8260B	12/19/05	99.6	70-130

KIFF ANALYTICAL, LLC

Approved By:

Joel Kiff

Report Number : 47399

Date : 12/22/2005

**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	12/16/2005
Octacosane (Diesel Surrogate)	88.0		%	M EPA 8015	12/16/2005
TPH as Diesel	< 50	50	ug/L	M EPA 8015	12/20/2005
Octacosane (Diesel Surrogate)	78.0		%	M EPA 8015	12/20/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/19/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/19/2005
Methanol	< 50	50	ug/L	EPA 8260B	12/19/2005
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/19/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/19/2005
Toluene - d8 (Surr)	101		%	EPA 8260B	12/19/2005
4-Bromofluorobenzene (Surr)	104		%	EPA 8260B	12/19/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/19/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/19/2005
Methanol	< 50	50	ug/L	EPA 8260B	12/19/2005
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/19/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/19/2005
Toluene - d8 (Surr)	101		%	EPA 8260B	12/19/2005
4-Bromofluorobenzene (Surr)	96.7		%	EPA 8260B	12/19/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/17/2005
Methanol	< 50	50	ug/L	EPA 8260B	12/17/2005
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/17/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/17/2005
Toluene - d8 (Surr)	97.6		%	EPA 8260B	12/17/2005
4-Bromofluorobenzene (Surr)	94.9		%	EPA 8260B	12/17/2005

Approved By:

Joel Kiff

Report Number : 47399

Date : 12/22/2005

**QC Report : Method Blank Data**

Project Name : **Oakland Truck Stop**

Project Number : **3540**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/19/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

## 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	792	827	ug/L	M EPA 8015	12/16/05	79.2	82.7	4.34	70-130	25
TPH as Diesel	Blank	<50	1000	1000	820	842	ug/L	M EPA 8015	12/20/05	82.0	84.2	2.67	70-130	25
Benzene	47453-04	380	40.0	40.0	396	391	ug/L	EPA 8260B	12/19/05	29.5	15.1	64.6	70-130	25
Toluene	47453-04	90	40.0	40.0	118	116	ug/L	EPA 8260B	12/19/05	68.7	64.1	6.87	70-130	25
Tert-Butanol	47453-04	10	200	200	179	180	ug/L	EPA 8260B	12/19/05	84.6	84.8	0.223	70-130	25
Methyl-t-Butyl Ether	47453-04	<0.50	40.0	40.0	34.4	35.0	ug/L	EPA 8260B	12/19/05	86.1	87.5	1.66	70-130	25
Benzene	47498-17	<0.50	40.0	40.0	40.1	37.6	ug/L	EPA 8260B	12/19/05	100	93.9	6.41	70-130	25
Toluene	47498-17	<0.50	40.0	40.0	39.8	37.0	ug/L	EPA 8260B	12/19/05	99.4	92.6	7.10	70-130	25
Tert-Butanol	47498-17	<5.0	200	200	194	182	ug/L	EPA 8260B	12/19/05	96.9	91.0	6.30	70-130	25
Methyl-t-Butyl Ether	47498-17	6.2	40.0	40.0	42.3	39.7	ug/L	EPA 8260B	12/19/05	90.4	83.9	7.48	70-130	25
Benzene	47525-01	27	40.0	40.0	68.9	66.3	ug/L	EPA 8260B	12/19/05	105	98.6	6.41	70-130	25
Toluene	47525-01	5.8	40.0	40.0	47.3	45.9	ug/L	EPA 8260B	12/19/05	104	100	3.49	70-130	25
Tert-Butanol	47525-01	<5.0	200	200	217	217	ug/L	EPA 8260B	12/19/05	108	108	0.0741	70-130	25
Methyl-t-Butyl Ether	47525-01	<0.50	40.0	40.0	41.4	41.1	ug/L	EPA 8260B	12/19/05	104	103	0.787	70-130	25
Benzene	47482-03	<0.50	40.0	40.0	42.3	41.8	ug/L	EPA 8260B	12/17/05	106	104	1.30	70-130	25
Toluene	47482-03	<0.50	40.0	40.0	42.1	41.8	ug/L	EPA 8260B	12/17/05	105	104	0.634	70-130	25
Tert-Butanol	47482-03	<5.0	200	200	205	207	ug/L	EPA 8260B	12/17/05	102	103	0.965	70-130	25

KIFF ANALYTICAL, LLC

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

Approved By:  Joel Kiff

Report Number : 47399

Date : 12/22/2005

## 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
Methyl-t-Butyl Ether	47482-03	<0.50	40.0	40.0	42.6	42.7	ug/L	EPA 8260B	12/17/05	106	107	0.126	70-130	25
Benzene	47461-02	<0.50	40.0	40.0	42.3	41.9	ug/L	EPA 8260B	12/19/05	106	105	0.979	70-130	25
Toluene	47461-02	<0.50	40.0	40.0	41.6	41.3	ug/L	EPA 8260B	12/19/05	104	103	0.571	70-130	25
Tert-Butanol	47461-02	<5.0	200	200	204	208	ug/L	EPA 8260B	12/19/05	102	104	1.72	70-130	25
Methyl-t-Butyl Ether	47461-02	<0.50	40.0	40.0	42.2	43.2	ug/L	EPA 8260B	12/19/05	105	108	2.47	70-130	25

KIFF ANALYTICAL, LLC

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

Approved By: Joel Kiff



Report Number : 47399

Date : 12/22/2005

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
Toluene	40.0	ug/L	EPA 8260B	12/19/05	96.1	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/19/05	95.9	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/19/05	98.5	70-130

KIFF ANALYTICAL, LLC

Approved By:   
Joel Kiff

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

I KIFFI

Aqua Science Engineers, Inc.  
 208 W. El Pintado Road  
 Danville, CA 94526  
 (925) 820-9391  
 FAX (925) 837-4853

# Chain of Custody 47399

PAGE 1 OF 1

SAMPLER (SIGNATURE)

PROJECT NAME

Oakland Truckstop

ADDRESS

8255 San Leandro St, OAKLAND

JOB NO. 3546

## ANALYSIS REQUEST

## SPECIAL INSTRUCTIONS:

EDF to david rains @aquascience  
engineering.co

SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TPH-GAS / MIBER & BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015)	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	VOLATILE ORGANICS (EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LIQUID METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140 EPA 608/8080)	FUEL OXYGENATES (EPA 8260)	Pb (TOTAL or DISSOLVED) (EPA 601/801)	PURGEABLE HALOCARBONS (EPA 601/801)	MULTI-RANGE HYDROCARBONS	SILICA-GEL CLEANUP	TPH-G/BENZ /7.0xx (EPA 8240)	EDF	HOLD
MW-2	12/9	1125			X														01			
MW-3		1125				X													02			
MW-4		1156					X												03			
MW-5		1055						X											04			
MW-6		1218							X										05			
MW-7		1102								X									06			
MW-8		1040								X									07			
MW-9		1250									X								08			

## Sample Receipt

Temp °C 2.6° Therm. ID# I-1-1Initial Sam Date 12/10/05 Time 1915Solvent present: Yes / No

RELINQUISHED BY:  (signature) D. ALLEN (printed name)	RECEIVED BY:  (signature) Company-ASE, INC.	RELINQUISHED BY:  (signature) (printed name)	RECEIVED BY LABORATORY:  Jason N Hemmings 12/10/05 (signature) (time) 1400	COMMENTS:
				TURN AROUND TIME STANDARD 24hr 48hr 72hr OTHER: <u>K-T-ff Analytical</u>