aqua science engineers inc.

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APR 2 4 2002

April 15, 2002

QUARTERLY GROUNDWATER MONITORING REPORT
MARCH 2002 GROUNDWATER SAMPLING
ASE JOB NO. 3540

at
Oakland Truck Stop
8255 San Leandro Street
Oakland, California

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

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

1.0 INTRODUCTION

Site Location (Site), See Figure 1
Oakland Truck Stop
8255 San Leandro Street
Oakland, California

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

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

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

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

The following is a report detailing the methods and findings of the March 2002 quarterly groundwater sampling at the above-referenced site. This sampling was conducted as required by the ACHCSA and RWQCB. ASE has prepared this report on behalf of Mr. Nissan Saidian, owner of the property.

2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On March 11, 2002, ASE measured the depth to water in each site groundwater monitoring well using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen using an electronic oil/water interface probe. The presence of free-floating hydrocarbons was confirmed with a disposable bailer half-filled for direct observation. Monitoring well MW-1 contained approximately 3-feet of free-floating diesel this quarter. This is because the free-product had not been bailed from the well in approximately four months. ASE will start weekly free-product removal once again this quarter. No free-floating hydrocarbons or sheen was observed in any of the remaining site monitoring wells. Groundwater elevation data is presented as Table One.

A groundwater potentiometric surface map for March 11, 2002 is presented as Figure 2. Groundwater beneath the site flows to the west and northwest with a gradient of approximately 0.007 feet/foot. The groundwater flow direction at the site has been very inconsistent and highly variable.

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

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

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

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

The groundwater samples were analyzed for total petroleum hydrocarbons as diesel (TPH-D) by EPA Method 3550/8015M, and total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethylbenzene, and total xylenes (collectively known as BTEX), and oxygenates by EPA Method 8260. The analytical results are presented in Tables Two. The certified analytical report and chain-of-custody documentation are included as Appendix B.

4.0 CONCLUSIONS

Monitoring well MW-1 contained approximately 3-feet of free-floating diesel hydrocarbons. ASE will once again perform weekly product removal from this well until the free-product is substantially decreased.

The groundwater samples collected from monitoring well MW-2 contained 1,100 parts per billion (ppb) TPH-G, 410 ppb TPH-D, 1.0 ppb benzene, 0.5 ppb ethyl-benzene, 26 ppb methyl-t-butyl ether (MTBE), 2.5 ppb diisopropyl ether (DIPE), and 69 ppb tert-butanol (TBA). The groundwater samples collected from monitoring well MW-3 contained 12,000 ppb TPH-G, 14,000 ppb TPH-D, 2,900 ppb benzene, 110 ppb ethyl-benzene, 530 ppb MTBE, and 330 ppb TBA. The groundwater samples collected from monitoring well MW-4 contained 250 ppb TPH-D, 84 ppb MTBE, and 21 ppb TBA. The groundwater samples collected from monitoring well MW-5 contained 97 ppb TPH-G, 3,500 ppb TPH-D, 29 ppb MTBE, 0.79 ppb DIPE, and 7.4 ppb TBA. The groundwater samples collected from monitoring well MW-6 contained 4,600 TPH-G, 11,000 ppb TPH-D, 160 ppb benzene, 15,000 ppb MTBE, 39 ppb TAME, and 5,100 ppb TBA.

The benzene concentrations detected in groundwater samples collected from monitoring wells MW-3 and MW-6 exceeded the California Department of Health Services (DHS) maximum contaminant level (MCL) for drinking water. The MTBE concentrations detected in groundwater samples collected from all five monitoring wells sampled exceeded the DHS MCL for drinking water. Overall, the analytical results this quarter are lower than the previous quarter, with the exception of the TPH-D concentration in MW-5 and the TBA concentration in MW-6, which were both higher.

5.0 RECOMMENDATIONS

ASE recommends that this site remain on a quarterly sampling schedule. The next sampling is scheduled for June 2002. ASE will continue weekly free-product removal from monitoring well MW-1 until free-product is

significantly reduced in that well. In addition, ASE anticipates completing the work outlined in ASE's workplan dated February 6, 2001 during the next quarter. ASE will begin work once the costs are pre-approved by the Underground Storage Tank Clean-up Fund.

6.0 REPORT LIMITATIONS

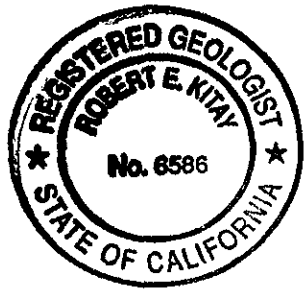
The results presented in this report represent conditions at the time of the groundwater sampling, at the specific locations where the groundwater samples were collected, and for the specific parameters analyzed by the laboratory. It does not fully characterize the site for contamination resulting from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

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

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

Erik H. Paddleford
Associate Geologist



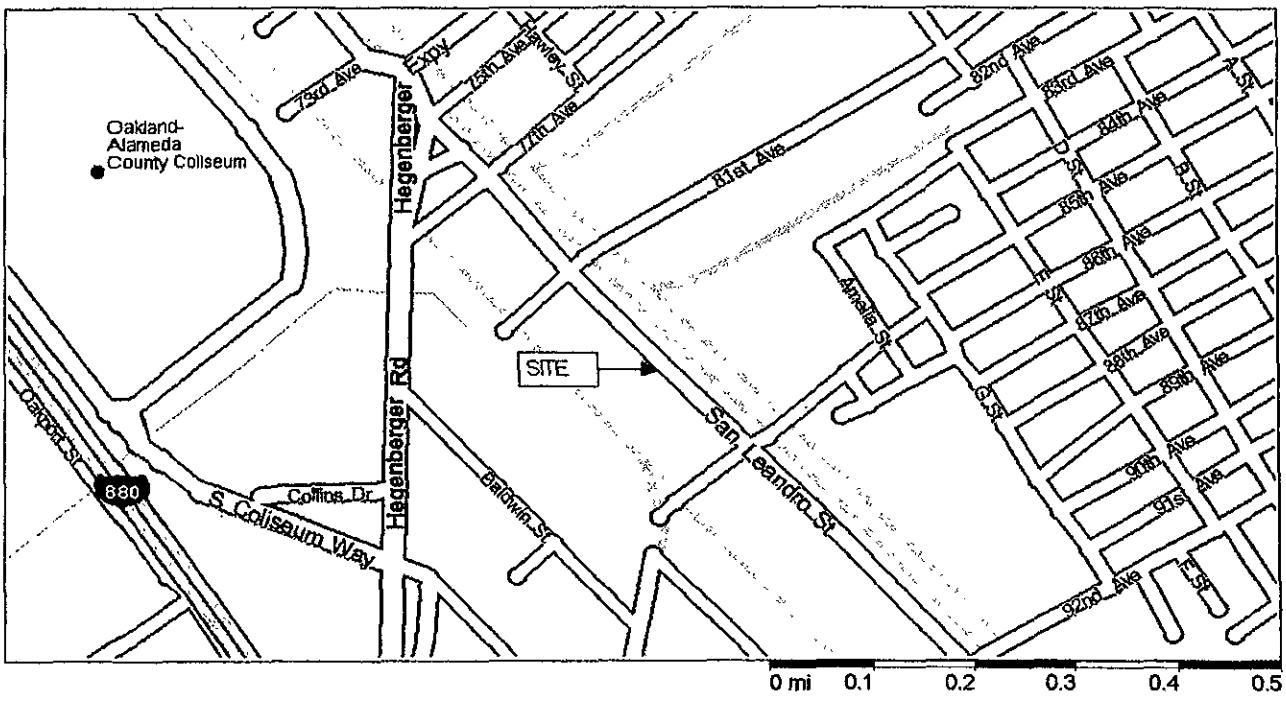
Robert E. Kitay, R.G., R.E.A.
Senior Geologist

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

cc: Mr. Nissan Saidian
Mr. Barney Chan, ACHCSA
Mr. Chuck Headlee, RWQCB, San Francisco Bay Region

FIGURES

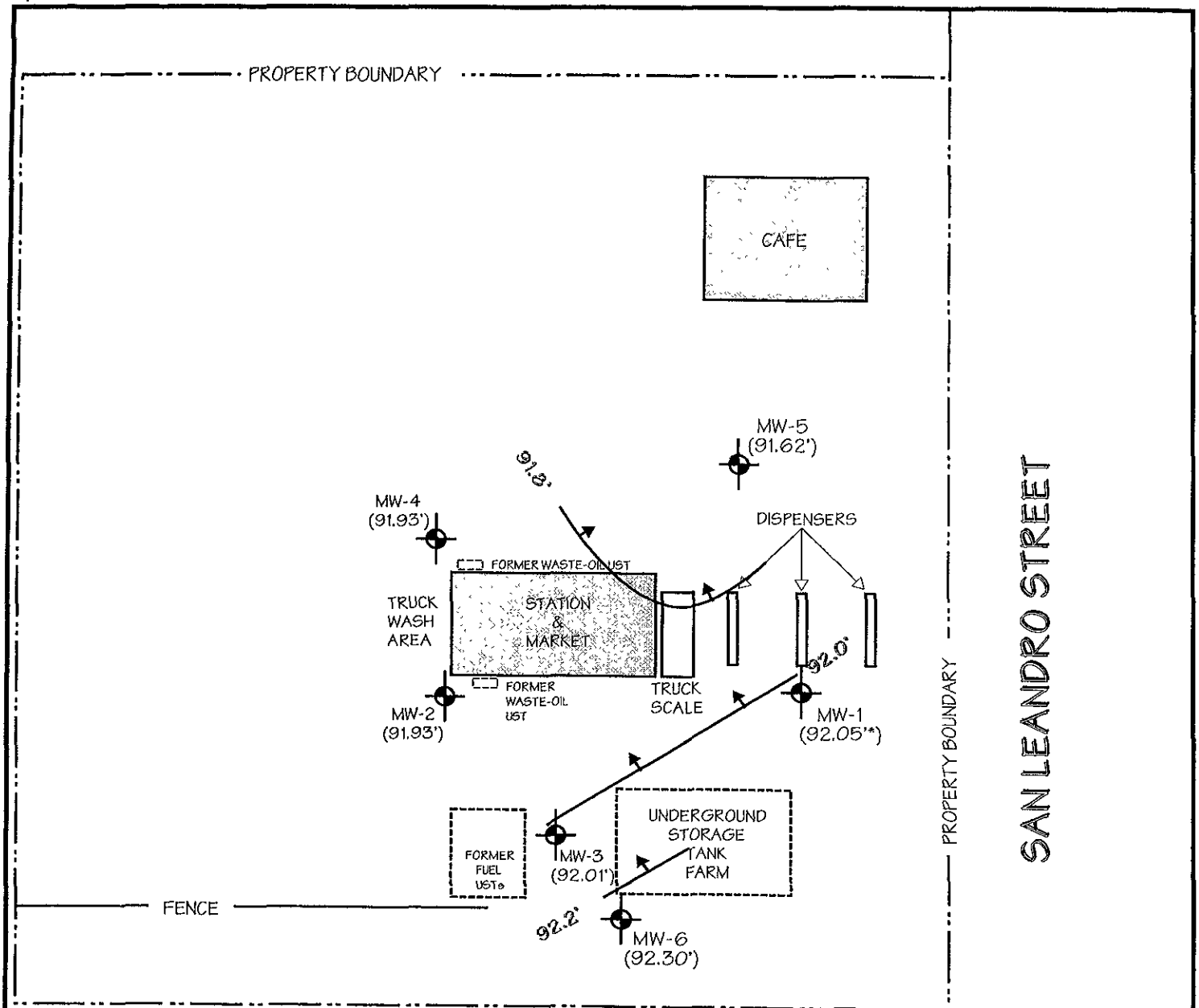
NORTH



LOCATION MAP

OAKLAND TRUCK STOP
8255 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC. | Figure 1



LEGEND

- MONITORING WELL WITH GROUNDWATER ELEVATION IN FEET, ABOVE MEAN SEA LEVEL
- (92.05'*) GROUNDWATER ELEVATION ADJUSTED FOR FREE-FLOATING HYDROCARBON THICKNESS
- 92.2' POTENTIOMETRIC SURFACE CONTOUR

NORTH

SCALE
1" = 50'

POTENTIOMETRIC SURFACE CONTOUR MAP
MARCH 11, 2002

OAKLAND TRUCK STOP
8255 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC. | Figure 2

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)
MW-1				
08/16/1999	97.12	Unknown	> 1.0	Unknown
08/27/1999		6.90	0.36	90.51*
09/10/1999		6.85	0.18	90.41*
09/24/1999		6.65	0.08	90.53*
10/08/1999		6.87	0.28	90.47*
10/22/1999		6.81	0.23	90.49*
11/02/1999		6.94	0.31	90.43*
11/19/1999		6.91	0.12	90.31*
12/06/1999		6.93	0.12	90.29*
03/08/2000		5.93	0.21	91.36*
06/14/2000		6.57	0.72	90.41*
12/11/2000		6.70	0.60	90.90*
03/06/2001		5.75	0.40	91.69*
06/06/2001		7.60	1.48	90.70*
09/04/2001		6.80	0.20	90.48*
03/11/2002		**approx. 7.47**	**approx. 3**	**approx. 92.05***
MW-2				
08/16/1999	96.82	6.30	--	90.52
12/06/1999		8.46	--	88.36
03/08/2000		9.12	--	87.70
06/14/2000		8.34	--	88.48
12/11/2000		5.94	--	90.88
03/06/2001		4.70	--	92.12
06/06/2001		6.03	--	90.79
09/04/2001		6.34	--	90.48
03/11/2002		**4.89**	--	**91.93**
MW-3				
08/16/1999	96.43	5.85	--	90.58
12/06/1999		5.70	--	90.73
03/08/2000		5.32	--	91.11
06/14/2000		6.95	--	89.48
12/11/2000		6.22	--	90.21
03/06/2001		4.83	--	91.60
06/06/2001		5.62	--	90.81
09/04/2001		5.91	--	90.52
03/11/2002		**4.42**	--	**92.01**

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)
MW-4				
08/16/1999	96.60	6.12	--	90.48
12/06/1999		5.98	--	90.62
03/08/2000		4.32	--	92.28
06/14/2000		5.58	--	91.02
12/11/2000		5.70	--	90.90
03/06/2001		4.46	--	92.14
06/06/2001		5.89	--	90.71
09/04/2001		6.16	--	90.44
03/11/2002		**4.67**	**--**	**91.93**
MW-5				
12/06/1999	96.30	5.94	--	90.36
03/08/2000		4.06	--	92.24
06/14/2000		5.25	--	91.05
12/11/2000		5.45	--	90.85
03/06/2001		4.12	--	92.18
06/06/2001		5.56	--	90.74
09/04/2001		5.84	--	90.46
03/11/2002		**4.38**	**--**	**91.92**
MW-6				
12/06/1999	96.79	5.80	--	90.99
03/08/2000		4.10	--	92.69
06/14/2000		5.64	--	91.15
12/11/2000		5.72	--	91.07
03/06/2001		4.32	--	92.47
06/06/2001		5.81	--	90.98
09/04/2001		6.12	--	90.67
03/11/2002		**4.49**	**--**	**92.30**

Notes:

* = 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)

TABLE TWO

Summary of Chemical Analysis of GROUNDWATER Samples

Petroleum Hydrocarbons

All results are in parts per billion

Well ID / DATE	TPH Gasoline	TPH Diesel	TPH Motor Oil	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	DIPE	ETBE	TAME	TBA
MW-1												
8/16/1999					Not Sampled Due to Free-Floating Hydrocarbons							
12/6/1999					Not Sampled Due to Free-Floating Hydrocarbons							
3/8/2000					Not Sampled Due to Free-Floating Hydrocarbons							
6/14/2000					Not Sampled Due to Free-Floating Hydrocarbons							
12/11/2000					Not Sampled Due to Free-Floating Hydrocarbons							
3/6/2001					Not Sampled Due to Free-Floating Hydrocarbons							
6/6/2001					Not Sampled Due to Free-Floating Hydrocarbons							
9/4/2001					Not Sampled Due to Free-Floating Hydrocarbons							
3/11/2002					**Not Sampled Due to Free-Floating Hydrocarbons**							
MW-2												
8/16/1999	2,200	970*	< 500	3.8	< 2.0	3	< 4.0	< 20	NA	NA	NA	NA
12/6/1999	1,900	400*	< 500	16	< 0.5	1.5	< 0.5	5.2	NA	NA	NA	NA
3/8/2000	1,600*	530*	< 500	9.7	< 0.5	2.7	< 0.5	27	NA	NA	NA	NA
6/14/2000	2,000	75	< 100	2.8	< 0.5	3.4	< 0.5	16	3.4	< 0.5	< 0.5	64
12/11/2000	1,000	120	< 100	2.6	< 0.5	< 0.5	< 0.5	15	2.9	< 0.5	< 0.5	62
3/6/2001	1,500	1,400	NA	2.2	< 0.5	1.7	< 0.5	22	3.4	<0.5	<0.5	83
6/6/2001	1,700	190	NA	2.6	< 0.5	2.3	< 0.5	26	3.2	<0.5	<0.5	83
9/4/2001	2,000	450	NA	2.7	< 0.5	2.1	< 0.5	33	3.4	< 0.5	< 0.5	93
3/11/2002	**1,100**	**410**	**NA**	**1.0**	**< 0.5**	**0.5**	**< 0.5**	**26**	**2.5**	**< 0.5**	**< 0.5**	**69**
MW-3												
8/16/1999	56,000	10,000**	< 500	17,000	2,600	2,600	1,200	6,100	NA	NA	NA	NA
12/6/1999	40,000	9,100*	< 500	16,000	140	1,800	100	2,200/4,000#	NA	NA	NA	NA
3/8/2000	22,000	4,500*	< 500	11,000	72	1,100	130	3,400	NA	NA	NA	NA
6/14/2000	34,000	16,000	< 100	13,000	94	1,300	160	4,800	31	< 10	21	2,700
12/11/2000	24,000	14,000	< 100	13,000	88	780	120	4,300	< 50	< 50	< 50	2,300
3/6/2001	34,000	12,000	NA	15,000	100	1,100	130	4,000	< 50	< 50	< 50	2,100
6/6/2001	34,000	20,000	NA	14,000	94	550	110	4,400	< 50	< 50	< 50	2,300
9/4/2001	29,000	19,000	NA	13,000	83	480	83	4,100	< 50	< 50	< 50	3,400
3/11/2002	**12,000**	**14,000**	**NA**	**2,900**	**< 20**	**110**	**< 20**	**530**	**< 20**	**< 20**	**< 20**	**330**

TABLE TWO

Summary of Chemical Analysis of GROUNDWATER Samples

Petroleum Hydrocarbons

All results are in parts per billion

Well ID DATE	TPH Gasoline	TPH Diesel	TPH Motor Oil	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	DIPE	ETBE	TAME	TBA
MW-4												
8/16/1999	61***	1,100*	< 500	< 0.5	< 0.5	< 0.5	< 1.0	86	NA	NA	NA	NA
12/6/1999	130***	220*	< 500	< 1.0	< 1.0	< 1.0	< 1.0	130	NA	NA	NA	NA
3/8/2000	< 50	220*	< 500	< 0.5	< 0.5	< 0.5	< 0.5	130	NA	NA	NA	NA
6/14/2000	< 50	< 50	< 100	< 0.5	< 0.5	< 0.5	< 0.5	100	< 0.5	< 0.5	< 0.5	20
12/11/2000	< 50	< 50	< 100	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	16
3/6/2001	< 50	670	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	9.9
6/6/2001	< 50	790	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	20
9/4/2001	< 50	950	NA	< 0.5	< 0.5	< 0.5	< 0.5	110	< 0.5	< 0.5	< 0.5	26
3/11/2002	**< 50**	**250**	**NA**	**< 0.5**	**< 0.5**	**< 0.5**	**< 0.5**	**84**	**< 0.5**	**< 0.5**	**< 0.5**	**21**
MW-5												
12/6/1999	450***	2,000*	< 500	< 1.0	< 1.0	< 1.0	< 1.0	21	NA	NA	NA	NA
3/8/2000	51***	530*	< 500	< 0.5	< 0.5	< 0.5	<0.5	84	NA	NA	NA	NA
6/14/2000	380	1,400	< 100	< 0.5	< 0.5	< 0.5	< 0.5	160	12	< 0.5	< 0.5	22
12/11/2000	540	590	< 100	< 0.5	< 0.5	< 0.5	< 0.5	240	9.5	< 0.5	< 0.5	32
3/6/2001	510	2,900	NA	< 0.5	< 0.5	< 0.5	< 0.5	140	13	< 0.5	< 0.5	19
6/6/2001	280	2,700	NA	< 0.5	< 0.5	< 0.5	< 0.5	180	13	< 0.5	< 0.5	26
9/4/2001	630	2,600	NA	< 0.5	< 0.5	< 0.5	< 0.5	180	9.4	< 0.5	< 0.5	29
3/11/2002	**97**	**3,500**	**NA**	**< 0.5**	**< 0.5**	**< 0.5**	**< 0.5**	**29**	**0.79**	**< 0.5**	**< 0.5**	**7.4**
MW-6												
12/6/1999	13,000	< 50	< 500	180	21	11	24	< 100	NA	NA	NA	NA
3/8/2000	< 10,000	4,600*	< 500	230	26	18	39	12,000	NA	NA	NA	NA
6/14/2000	8,400	12,000	< 100	190	12	9.5	22	15,000	< 5.0	< 5.0	70	3,300
12/11/2000	< 5,000	10,000	< 100	190	< 50	< 50	< 50	14,000	< 50	< 50	74	2,900
3/6/2001	5,300	6,700	NA	220	< 50	< 50	< 50	13,000	< 50	< 50	84	2,100
6/6/2001	5,000	23,000	NA	210	< 25	< 25	< 25	12,000	< 25	< 25	84	4,200
9/4/2001	5,400	22,000	NA	190	12	< 10	23	15,000	< 10	< 10	79	4,000
3/11/2002	**4,600**	**11,000**	**NA**	**160**	**< 25**	**< 25**	**< 25**	**15,000**	**< 25**	**< 25**	**39**	**5,100**
DHS MCL	NE	NE	NE	1	150	700	1,750	13	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.

NE = DHS MCLs are 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.

= MTBE concentration by EPA Method 8260

TABLE THREE

Summary of Chemical Analysis of **GROUNDWATER** Samples
HVOCs, SVOCs, PCBs and LUFT 5 Metals
All results are in **parts per billion**

Boring	Isopropyl-benzene	Other VOCs	SVOCs	PCBs	Cd	Cr	Pb	Ni	Zn
MW-2									
8-16-99	**11**	ND	ND	ND	< 2.0	**9.0**	< 5.0	**19**	< 10
MW-4									
8-16-99	< 0.5	ND	ND	ND	**2.7**	**45**	**260**	**55**	**320**
12-06-99	---	---	---	---	---	---	< 5	---	---
MCL	NE	Various	Various	0.5	5	50	15	100	5,000

Notes:
Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit or are indicated by ND if various detection limits are used for multiple compounds. Please see the original reports for detection limits for these compounds.

Detectable concentrations are in **bold**.

MCL is the California Department of Health Services maximum contaminant level for drinking water.

NE = Not established

APPENDIX A

Well Sampling Field Logs

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WELL SAMPLING FIELD LOG

Project Name and Address: OTS
Job #: 3540 Date of sampling: _____
Well Name: MW-1 Sampled by: _____
Total depth of well (feet): _____ Well diameter (inches): _____
Depth to water before sampling (feet): 4.47 to product
Thickness of floating product if any: 30 + feet
Depth of well casing in water (feet): _____
Number of gallons per well casing volume (gallons): _____
Number of well casing volumes to be removed: _____
Req'd volume of groundwater to be purged before sampling (gallons): _____
Equipment used to purge the well: _____
Time Evacuation Began: _____ Time Evacuation Finished: _____
Approximate volume of groundwater purged: _____
Did the well go dry?: _____ After how many gallons: _____
Time samples were collected: _____
Depth to water at time of sampling: _____
Percent recovery at time of sampling: _____
Samples collected with: _____
Sample color: _____ Odor: _____
Description of sediment in sample: _____

OT

CHEMICAL DATA

bailer #

product thickness

~~Volume Purged~~	~~Temp~~	~~pH~~	~~Conductivity~~
1	3		
2	3	bailed about	
3	3	3 gallons out	
4	3		
5	2.8		
6	2.8		

SAMPLED

SAMPLES COLLECTED

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

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aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: OTS
Job #: 3540 Date of sampling: 3/11/02
Well Name: MW-2 Sampled by: EP
Total depth of well (feet): 15.5 Well diameter (inches): 2
Depth to water before sampling (feet): 4.89
Thickness of floating product if any: -
Depth of well casing in water (feet): 10.61
Number of gallons per well casing volume (gallons): 1.7
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 6.8
Equipment used to purge the well: bailer
Time Evacuation Began: 1130 Time Evacuation Finished: 1150
Approximate volume of groundwater purged: 6.5
Did the well go dry?: NO After how many gallons: -
Time samples were collected: 1155
Depth to water at time of sampling: -
Percent recovery at time of sampling: -
Samples collected with: bailer
Sample color: clear/gray Odor: none
Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	69.4	7.72	2097
2	68.2	7.81	2071
3	67.4	7.98	2063
4	67.0	8.05	2052

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-2	5	40 ml VOA	x	x	

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: OTS
Job #: 3548 Date of sampling: 3/11/02
Well Name: MW-3 Sampled by: EP
Total depth of well (feet): 15.06 Well diameter (inches): 2
Depth to water before sampling (feet): 4.42
Thickness of floating product if any: —
Depth of well casing in water (feet): 10.64
Number of gallons per well casing volume (gallons): 1.7
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 6.8
Equipment used to purge the well: bailer
Time Evacuation Began: 1100 Time Evacuation Finished: 1115
Approximate volume of groundwater purged: 6.5
Did the well go dry?: no After how many gallons: —
Time samples were collected: 1125
Depth to water at time of sampling: —
Percent recovery at time of sampling: —
Samples collected with: bailer
Sample color: clear/gray Odor: moderate
Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	67.3	7.95	831
2	67.1	7.97	892
3	67.0	8.05	923
4	67.0	8.07	931

SAMPLES COLLECTED

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

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: OTS
Job #: 3540 Date of sampling: _____
Well Name: MW-4 Sampled by: _____
Total depth of well (feet): 14.75 Well diameter (inches): _____
Depth to water before sampling (feet): 4.67
Thickness of floating product if any: —
Depth of well casing in water (feet): 10.08
Number of gallons per well casing volume (gallons): 1.7
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 6.8
Equipment used to purge the well: bailer
Time Evacuation Began: 1206 Time Evacuation Finished: 1215
Approximate volume of groundwater purged: 6.5
Did the well go dry?: no After how many gallons: —
Time samples were collected: 1220
Depth to water at time of sampling: —
Percent recovery at time of sampling: —
Samples collected with: bailer
Sample color: gray/brown Odor: none
Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	63.8	7.85	1651
2	63.2	7.92	1668
3	63.0	7.93	1672
4	62.9	7.94	1675

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-4	5	40 ml VOA	X	X	

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: OTS
Job #: 3540 Date of sampling: 3/11/02
Well Name: MW-5 Sampled by: EP
Total depth of well (feet): 13.7 Well diameter (inches): 2
Depth to water before sampling (feet): 4.38
Thickness of floating product if any: —
Depth of well casing in water (feet): 9.32
Number of gallons per well casing volume (gallons): 1.5
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 6
Equipment used to purge the well: bailer
Time Evacuation Began: 1230 Time Evacuation Finished: 1245
Approximate volume of groundwater purged: 6
Did the well go dry?: no After how many gallons: —
Time samples were collected: 1255
Depth to water at time of sampling: —
Percent recovery at time of sampling: —
Samples collected with: bailer
Sample color: clear Odor: none
Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	66.8	7.78	573
2	66.9	7.88	579
3	67.1	7.90	581
4	67.2	7.91	583

SAMPLES COLLECTED

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

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: Oakland Truck stop
Job #: 3540 Date of sampling: 3/11/02
Well Name: MW-6 Sampled by: EP
Total depth of well (feet): 14.36 Well diameter (inches): 2
Depth to water before sampling (feet): 4.49
Thickness of floating product if any: -
Depth of well casing in water (feet): 9.87
Number of gallons per well casing volume (gallons): 1.58
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 6.3
Equipment used to purge the well: bailer
Time Evacuation Began: 1030 Time Evacuation Finished: 1045
Approximate volume of groundwater purged: 6
Did the well go dry?: No After how many gallons: -
Time samples were collected: 1050
Depth to water at time of sampling: -
Percent recovery at time of sampling: -
Samples collected with: bailer
Sample color: clear/gray Odor: slight
Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	65.8	7.66	1070
2	65.7	7.54	1035
3	65.7	7.41	1012
4	65.7	7.37	1005

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-6	5	40 ml VOA	x	x	

APPENDIX B

Certified Analytical Report
and
Chain of Custody Documentation

KIFF ANALYTICAL LLC

Report Number : 25280
Date : 04/05/2002

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

Subject : 5 Water Samples
Project Name : Oakland Truck Stop (OTS)
Project Number : 3540

Dear Mr. Paddleford,

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

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

Sincerely,

Joel Kiff

Joel Kiff

KIFF ANALYTICAL LLC

Report Number : 25280
Date : 04/05/2002

Subject : 5 Water Samples
Project Name : Oakland Truck Stop (OTS)
Project Number : 3540

Case Narrative

Matrix Spike/Matrix Spike Duplicate Results associated with samples MW-3, MW-6 for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.

Approved By: Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 916-297-4800

KIFF ANALYTICAL LLC

Report Number : 25280
Date : 04/05/2002

Project Name : **Oakland Truck Stop (OTS)**
Project Number : **3540**

Sample : **MW-2** Matrix : Water Lab Number : 25280-01
Sample Date :03/11/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**1.0**	0.50	ug/L	EPA 8260B	03/17/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Ethylbenzene	**0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Methyl-t-butyl ether (MTBE)	**26**	0.50	ug/L	EPA 8260B	03/17/2002
Diisopropyl ether (DIPE)	**2.5**	0.50	ug/L	EPA 8260B	03/17/2002
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Tert-Butanol	**69**	5.0	ug/L	EPA 8260B	03/17/2002
TPH as Gasoline	**1100**	50	ug/L	EPA 8260B	03/17/2002
Toluene - d8 (Surr)	99.2		% Recovery	EPA 8260B	03/17/2002
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	03/17/2002
TPH as Diesel	**410**	50	ug/L	M EPA 8015	04/03/2002

Approved By: Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 25280
Date : 04/05/2002

Project Name : **Oakland Truck Stop (OTS)**
Project Number : **3540**

Sample : **MW-3** Matrix : Water Lab Number : 25280-02
Sample Date :03/11/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**2900**	20	ug/L	EPA 8260B	03/21/2002
Toluene	**< 20**	20	ug/L	EPA 8260B	03/21/2002
Ethylbenzene	**110**	20	ug/L	EPA 8260B	03/21/2002
Total Xylenes	**< 20**	20	ug/L	EPA 8260B	03/21/2002
Methyl-t-butyl ether (MTBE)	**530**	20	ug/L	EPA 8260B	03/21/2002
Diisopropyl ether (DIPE)	**< 20**	20	ug/L	EPA 8260B	03/21/2002
Ethyl-t-butyl ether (ETBE)	**< 20**	20	ug/L	EPA 8260B	03/21/2002
Tert-amyl methyl ether (TAME)	**< 20**	20	ug/L	EPA 8260B	03/21/2002
Tert-Butanol	**330**	200	ug/L	EPA 8260B	03/21/2002
TPH as Gasoline	**12000**	2000	ug/L	EPA 8260B	03/21/2002
Toluene - d8 (Surr)	90.7		% Recovery	EPA 8260B	03/21/2002
4-Bromofluorobenzene (Surr)	97.5		% Recovery	EPA 8260B	03/21/2002
TPH as Diesel	**14000**	50	ug/L	M EPA 8015	04/03/2002

Approved By: Joel Kiff

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KIFF ANALYTICAL LLC

Report Number : 25280
Date : 04/05/2002

Project Name : **Oakland Truck Stop (OTS)**
Project Number : **3540**

Sample : **MW-4** Matrix : Water Lab Number : 25280-03
Sample Date :03/11/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Methyl-t-butyl ether (MTBE)	**84**	0.50	ug/L	EPA 8260B	03/17/2002
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Tert-Butanol	**21**	5.0	ug/L	EPA 8260B	03/17/2002
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	03/17/2002
Toluene - d8 (Surr)	97.3		% Recovery	EPA 8260B	03/17/2002
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	03/17/2002
TPH as Diesel	**250**	50	ug/L	M EPA 8015	03/28/2002

Approved By: Joel Kiff

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KIFF ANALYTICAL LLC

Report Number : 25280
Date : 04/05/2002

Project Name : **Oakland Truck Stop (OTS)**
Project Number : **3540**

Sample : **MW-5** Matrix : Water Lab Number : 25280-04
Sample Date :03/11/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Methyl-t-butyl ether (MTBE)	**29**	0.50	ug/L	EPA 8260B	03/17/2002
Diisopropyl ether (DIPE)	**0.79**	0.50	ug/L	EPA 8260B	03/17/2002
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	03/17/2002
Tert-Butanol	**7.4**	5.0	ug/L	EPA 8260B	03/17/2002
TPH as Gasoline	***97***	*50*	*ug/L*	EPA 8260B	03/17/2002
Toluene - d8 (Surr)	97.7		% Recovery	EPA 8260B	03/17/2002
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	03/17/2002
TPH as Diesel	**3500**	50	ug/L	M EPA 8015	03/25/2002

Approved By: Joel Kiff

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KIFF ANALYTICAL LLC

Report Number : 25280
Date : 04/05/2002

Project Name : **Oakland Truck Stop (OTS)**
Project Number : **3540**

Sample : **MW-6** Matrix : Water Lab Number : 25280-05
Sample Date :03/11/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**160**	25	ug/L	EPA 8260B	03/22/2002
Toluene	**< 25**	25	ug/L	EPA 8260B	03/22/2002
Ethylbenzene	**< 25**	25	ug/L	EPA 8260B	03/22/2002
Total Xylenes	**< 25**	25	ug/L	EPA 8260B	03/22/2002
Methyl-t-butyl ether (MTBE)	**15000**	25	ug/L	EPA 8260B	03/22/2002
Diisopropyl ether (DIPE)	**< 25**	25	ug/L	EPA 8260B	03/22/2002
Ethyl-t-butyl ether (ETBE)	**< 25**	25	ug/L	EPA 8260B	03/22/2002
Tert-amyl methyl ether (TAME)	**39**	25	ug/L	EPA 8260B	03/22/2002
Tert-Butanol	**5100**	250	ug/L	EPA 8260B	03/22/2002
TPH as Gasoline	**4600**	2500	ug/L	EPA 8260B	03/22/2002
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	03/22/2002
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	03/22/2002
TPH as Diesel	**11000**	50	ug/L	M EPA 8015	03/28/2002

Approved By: Joel Kiff

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Report Number : 25280

Date : 04/05/2002

QC Report : Method Blank Data

Project Name : **Oakland Truck Stop (OTS)**

Project Number : **3540**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	03/24/2002
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/19/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/19/2002
Ethylbenzene	< 0 50	0.50	ug/L	EPA 8260B	03/19/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/19/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/19/2002
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	03/19/2002
Ethyl-t-butyl ether (ETBE)	< 0 50	0.50	ug/L	EPA 8260B	03/19/2002
Tert-amyl methyl ether (TAME)	< 0.50	0 50	ug/L	EPA 8260B	03/19/2002
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	03/19/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/19/2002
Toluene - d8 (Surr)	96.3		%	EPA 8260B	03/19/2002
4-Bromofluorobenzene (Surr)	104		%	EPA 8260B	03/19/2002
Benzene	< 0 50	0.50	ug/L	EPA 8260B	03/17/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/17/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/17/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/17/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/17/2002
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	03/17/2002
Ethyl-t-butyl ether (ETBE)	< 0 50	0.50	ug/L	EPA 8260B	03/17/2002
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	03/17/2002
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	03/17/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/17/2002
Toluene - d8 (Surr)	99.6		%	EPA 8260B	03/17/2002
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	03/17/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 25280

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 04/05/2002

Project Name : **Oakland Truck Stop (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	856	890	ug/L	M EPA 8015	3/24/02	85.6	89.0	3.92	70-130	25
Benzene	25172-09	<0.50	133	132	105	105	ug/L	EPA 8260B	3/19/02	78.6	79.2	0.760	70-130	25
Toluene	25172-09	<0.50	133	132	107	108	ug/L	EPA 8260B	3/19/02	80.3	81.7	1.73	70-130	25
Tert-Butanol	25172-09	19	667	662	606	590	ug/L	EPA 8260B	3/19/02	88.1	86.3	2.08	70-130	25
Methyl-t-Butyl Ether	25172-09	1000	133	132	884	869	ug/L	EPA 8260B	3/19/02	0.00	0.00	0.00	70-130	25
Benzene	25280-01	1.0	40.0	40.0	36.4	37.0	ug/L	EPA 8260B	3/17/02	88.6	90.1	1.73	70-130	25
Toluene	25280-01	<0.50	40.0	40.0	36.6	37.1	ug/L	EPA 8260B	3/17/02	91.4	92.8	1.46	70-130	25
Tert-Butanol	25280-01	68	200	200	257	255	ug/L	EPA 8260B	3/17/02	94.1	93.4	0.789	70-130	25
Methyl-t-Butyl Ether	25280-01	26	40.0	40.0	58.4	59.1	ug/L	EPA 8260B	3/17/02	81.4	83.2	2.12	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 25280

QC Report : Laboratory Control Sample (LCS)

Date : 04/05/2002

Project Name : **Oakland Truck Stop (OTS)**

Project Number : **3540**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	20.0	ug/L	EPA 8260B	3/19/02	74.9	70-130
Toluene	20.0	ug/L	EPA 8260B	3/19/02	76.8	70-130
Tert-Butanol	100	ug/L	EPA 8260B	3/19/02	86.7	70-130
Methyl-t-Butyl Ether	20.0	ug/L	EPA 8260B	3/19/02	74.1	70-130
Benzene	40.0	ug/L	EPA 8260B	3/17/02	97.6	70-130
Toluene	40.0	ug/L	EPA 8260B	3/17/02	97.9	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/17/02	95.2	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/17/02	101	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

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

Chain of Custody

25280

PAGE 1 OF 1

SAMPLER (SIGNATURE) E. Paddleford (PHONE NO.)

PROJECT NAME Oakland Truck Stop (OTS) JOB NO. 3540

ADDRESS 8255 San Leandro St. Oakland, CA

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015)	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	PURGEABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LUFT 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 6010)	TPH-G/BTEX/5 OXY'S (EPA 8260)	TPH-G/BTEX/7 OXY'S / HVOCS (EPA 8260)			COMPOSITE
MW-2	3/11	1155	H_2O	5		X												X				01
MW-3		1125				X												X				02
MW-4		1220				X												X				03
MW-5		1255				X												X				04
MW-6		1050				X												X				05

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
(signature) E. Paddleford (time) 9:45	(signature) (time)	(signature) (time)	(signature) Harold Brauer 9:45 (time)	
(printed name) E. Paddleford (date) 031202	(printed name) (date)	(printed name) (date)	(printed name) Harold Brauer (date) 031202	TURN AROUND TIME
Company- ASE	Company-	Company-	Company- KFF	STANDARD 24Hr 48Hr 72Hr
				OTHER: