# GeoEnvironmental, Inc.



05 May 2004 AGE-NC Project No. 03-1101

Mr. Reed Rinehart Rinehart Oil, Inc. 2401 North State Street Ukiah, CA 95482



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Subject:

Quarterly Report - First Quarter 2004

RINEHART OIL, INC. - OAKLAND TRUCK STOP

1107 5th Street, Oakland, California 94607

Dear Mr. Rinehart:

Advanced GeoEnvironmental, Inc. has prepared the enclosed Quarterly Report - First Quarter 2004 for the above-referenced site. Ground water monitoring was conducted as required by the Regional Water Quality Control Board - San Francisco Bay Region (RWQCB-SFBR) to assess the extent of petroleum hydrocarbon impact to ground water resulting from an unauthorized release from underground storage tanks (USTs). The enclosed report presents the results for the January 2004 ground water monitoring and sampling event.

A copy of the report will be submitted to Mr. Barney Chan of the Alameda County Environmental Health Services (ACEHS-DEP).

The opportunity to provide this service is greatly appreciated. If you have any questions or require further information, please contact our office at (209) 467-1006.

Sincerely,

Advanced GeoEnvironmental, Inc.

Eyrene L. Fisher Staff Geologist

Enclosure

cc: Mr. Barney Chan - Alameda County Environmental Health Services - Division of

**Environmental Protection** 

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Quarterly Report - First Quarter 2004 RINEHART OIL, INC. - OAKLAND TRUCK STOP 1107 5<sup>TH</sup> STREET, Oakland, California

> 05 May 2004 AGE-NC Project No. 03-1101

> > PREPARED FOR:

Reed Rinehart RINEHART OIL, INC.

PREPARED BY:



## Advanced GeoEnvironmental, Inc.

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### Quarterly Report - First Quarter 2004 RINEHART OIL, INC. - OAKLAND TRUCK STOP 1107 5th Street, Oakland, California

05 May 2004 AGE-NC Project No. 03-1101



Advanced GeoEnvironmental, Inc. 837 Shaw Road, Stockton, California

PREPARED BY:

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William R. Little

Senior Project Geologist

California Registered Geologist No. 7473

No. 7473

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### Quarterly Report - First Quarter 2004 RINEHART OIL, INC. - OAKLAND TRUCK STOP 1107 5<sup>th</sup> Street, Oakland, California

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### Quarterly Report - First Quarter 2004 RINEHART OIL, INC. - OAKLAND TRUCK STOP 1107 5th Street, Oakland, California

#### 1.0. INTRODUCTION

At the request of Mr. Reed Rinehart of Rinehart Oil Inc., Advanced GeoEnvironmental, Inc (AGE) has prepared this Quarterly Report - First Quarter 2004 for the site located at 1107 5<sup>th</sup> Street (site), Oakland, California. This report presents the results of ground water monitoring activities conducted in January 2004. The site and surrounding area is illustrated in Figure 1. On-site structures and well locations are illustrated in Figure 2. Site background information is provided in Appendix A.

The purposes of the ground water monitoring program are to assess site ground water for seasonal variation of elevation, gradient and flow direction, and to assess the impact of petroleum hydrocarbon compounds and fuel oxygenating compounds in shallow ground water beneath the site. This report has been prepared in accordance with the Regional Water Quality Control Board's Appendix A - Reports, Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites.

#### 2.0. PROCEDURES

On 09 January 2004, the First Quarter 2004 ground water monitoring event was conducted at the site, which included the measurement of ground water levels and collection of ground water samples from on site monitoring wells MW-1, MW-3N and MW-4 through MW-11 (Figure 2).

#### 2.1. WELL MONITORING AND EVACUATION

On 09 January 2004, a Solinst water level meter was used to measure the depth to ground water in the monitoring wells relative to the tops of the well casings (well heads). After water levels were gauged, disposable plastic bailers were used to evacuate (purge) the wells of a minimum of three casing-water volumes (from 3 gallons to 8.25 gallons) of water. Temperature, pH, and conductivity were measured at regular intervals using an Oakton water analyzer. The field data sheets are included in Appendix B. Purged water was stored on-site in 55-gallon drums.

#### 2.2. COLLECTION AND ANALYSIS OF GROUND WATER SAMPLES

Water samples were collected from the monitoring wells using new plastic bailers after allowing the wells to achieve a minimum 80% recovery of the pre-purge water volume. The samples were transferred into laboratory-supplied 40-mL EPA-approved volatile organic analysis (VOA) vials containing 0.5 mL 18% hydrochloric acid as a sample preservative. The sample containers were then labeled with the well designation, date, time and the sampler's initials.

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The samples were transported in a chilled container under chain-of-custody to Cal Tech Environmental Laboratories (CTEL), a California Department of Health Services (DHS)-certified laboratory, for analysis. The samples were analyzed for:

- Total petroleum hydrocarbons quantified as gasoline and diesel (TPH-g and TPH-d) in accordance with EPA Method 8015M; and
- Benzene, toluene, ethylbenzene and total xylenes (BTEX); Fuel additives di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), methyl tertiary butyl ether (MTBE), tertiary amyl methyl ether (TAME), tertiary butanol (TBA), methanol, ethanol, 1,2-dibromoethane (EDB) and 1,2-dichloroethane (1,2-DCA) in accordance with EPA Method 8260B.

#### 3.0. FINDINGS

Ground water elevation, flow direction, and gradient were determined from field data collected on 09 January 2004. Laboratory analysis of ground water samples was used to quantify the impact to ground water.

#### 3.1. GROUND WATER GRADIENT AND FLOW DIRECTION

On 09 January 2004, depth to ground water was measured between 0.90 feet and 4.64 feet below the top of the well casings; ground water elevations at the site ranged from 5.70 feet above mean sea level (MSL) in MW-1 to 10.17 feet above MSL in well MW-10. The resultant ground water elevations for MW-1 and MW-11 were disregarded in the estimation of the ground water flow due to abnormal elevations. Previous ground water flow and gradient calculations also had to be completed while disregarding measurements from MW-1 and MW-11 at times for the same reason. For this monitoring event, the ground water tends to flow away from the high point of MW-10 to the northeast and north-northwest at equivalent gradients of 0.03 feet/feet. Depth to water and ground water elevations are summarized in Table 1. Figure 3 illustrates the contoured ground water elevations.

#### 3.2. ANALYTICAL RESULTS OF GROUND WATER SAMPLES

Ground water samples were collected from site monitoring wells MW-1, MW-3N, and MW-4 through MW-11 for laboratory analysis. Ground water sample analytical results are detailed below.

TPH-g was detected in ground water samples taken from all monitoring wells except MW-10 and MW-11. Concentrations ranged from 200 μg/L in MW-9 to 130,000 μg/L in MW-7.

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TPH-d was detected in samples from MW-7 and MW-8 at concentrations of 18,000  $\mu$ g/L and 12,000  $\mu$ g/L, respectively. Figure 4 shows the contoured impact to ground water of TPH-g and TPH-d. BTEX components were detected in the samples from wells MW-1, MW-4, MW-7, MW-8 and MW-9. MW-7 had the highest concentrations of BTEX components with 9,500  $\mu$ g/L benzene, 340  $\mu$ g/L toluene, 190  $\mu$ g/L ethylbenzene and 3,700  $\mu$ g/L xylenes. Minimum BTEX concentrations detected were 2.4  $\mu$ g/L benzene and 2.1  $\mu$ g/L total xylenes in MW-8. Figure 5 depicts dissolved BTEX compounds in ground water.

MTBE was detected in all samples except those taken from MW-10 and MW-11. Concentrations ranged from 140  $\mu$ g/L in MW-9 to 120,000  $\mu$ g/L in MW-7. Figure 6 shows the impact of MTBE to ground water for this monitoring event. TAME was detected in the samples from MW-3N, MW-4, MW-7 and MW-8 at concentrations of 2.5  $\mu$ g/L, 85  $\mu$ g/L, 900  $\mu$ g/L and 160  $\mu$ g/L, respectively. 1,2-DCA was detected in the sample from MW-7 at a concentration of 420  $\mu$ g/L.

A summary of ground water analytical results are presented in Table 2. The laboratory analytical report (CTEL Project No: CT214-0401041), QA/QC and chain-of-custody are included in Appendix C.

#### 4.0. SUMMARY AND CONCLUSIONS

Based on the findings from this investigation, AGE concludes:

- Ground water at the site for the January 2004 monitoring event flowed away from MW-10 to the northeast and north-northwest. The gradient is the same in both directions, at 0.03 ft/ft. The ground water direction is similar to those reported previously. The average ground water elevation at the site increased approximately 0.22 feet since the last known monitoring event.
- TPH-g and MTBE were detected in all the ground water samples taken except for those collected from MW-10 and MW-11 at maximum concentrations of 130,000  $\mu$ g/L and 120,000  $\mu$ g/L, respectively.
- TPH-d was detected in sampled taken from monitoring wells MW-7 and MW-8 at concentrations of 18,000 μg/L and 12,000 μg/L, respectively. BTEX components were detected in the samples from MW-1, MW-4, MW-7, MW-8 and MW-9.
- TAME was detected in the samples taken from monitoring wells MW-3N, MW-4, MW-7 and MW-8. 1,2-DCA was detected in the sample from MW-7.
- The highest concentrations of contaminants were detected in the ground water sample taken from monitoring well MW-7. This has consistently been the well with the highest amount of contamination.

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#### 5.0. RECOMMENDATIONS

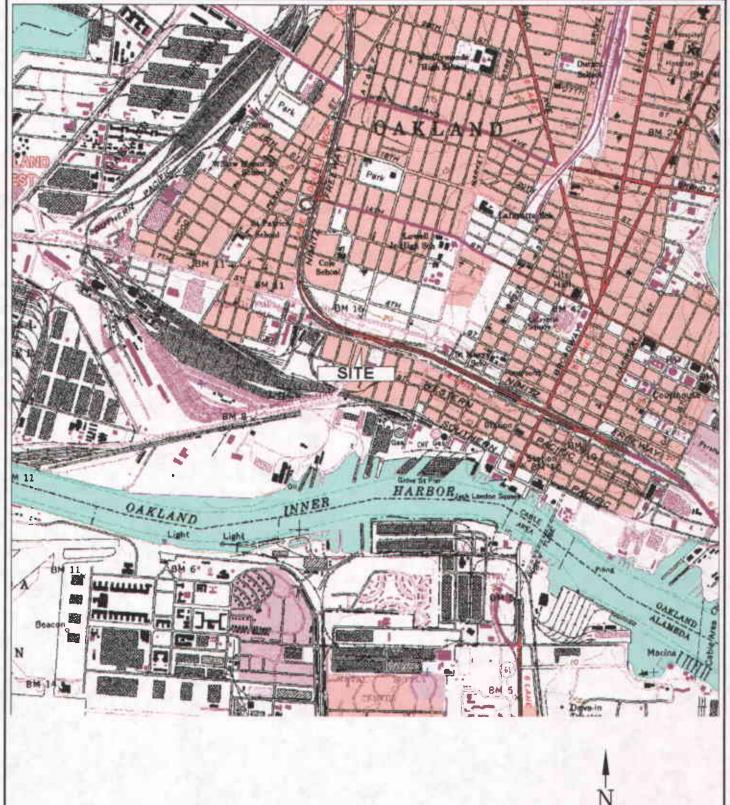
Based upon data reviewed and collected at the site, AGE recommends:

- Continued quarterly ground water monitoring;
- Re-surveying of the well network to be able to use all data points;
- Proceed with work as approved in the Additional Site Assessment work plan for the delineation of the vertical and lateral extent of petroleum hydrocarbon impacts to soil and ground water for the subject property;
- Continue with installation of interim remediation system.

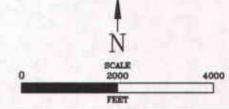
#### 6.0. LIMITATIONS

AGE's professional services were performed using that degree of care and skill ordinarily exercised by environmental consultants practicing in this or similar localities. The findings were based upon analytical results provided by an independent laboratory. Evaluations of the hydrogeologic conditions at the site for the purpose of this investigation were made from a limited number of available data points (i.e., monitoring wells and ground water samples) and subsurface conditions may vary beyond these data points. No other warranty, expressed or implied, is made as to the professional interpretations, opinions and recommendations contained in this report.

**FIGURES** 



OAKLAND WEST QUADRANGLE, CALIFORNIA 7.5 MINUTE SERIES (U.S. GEOLOGICAL SURVEY)



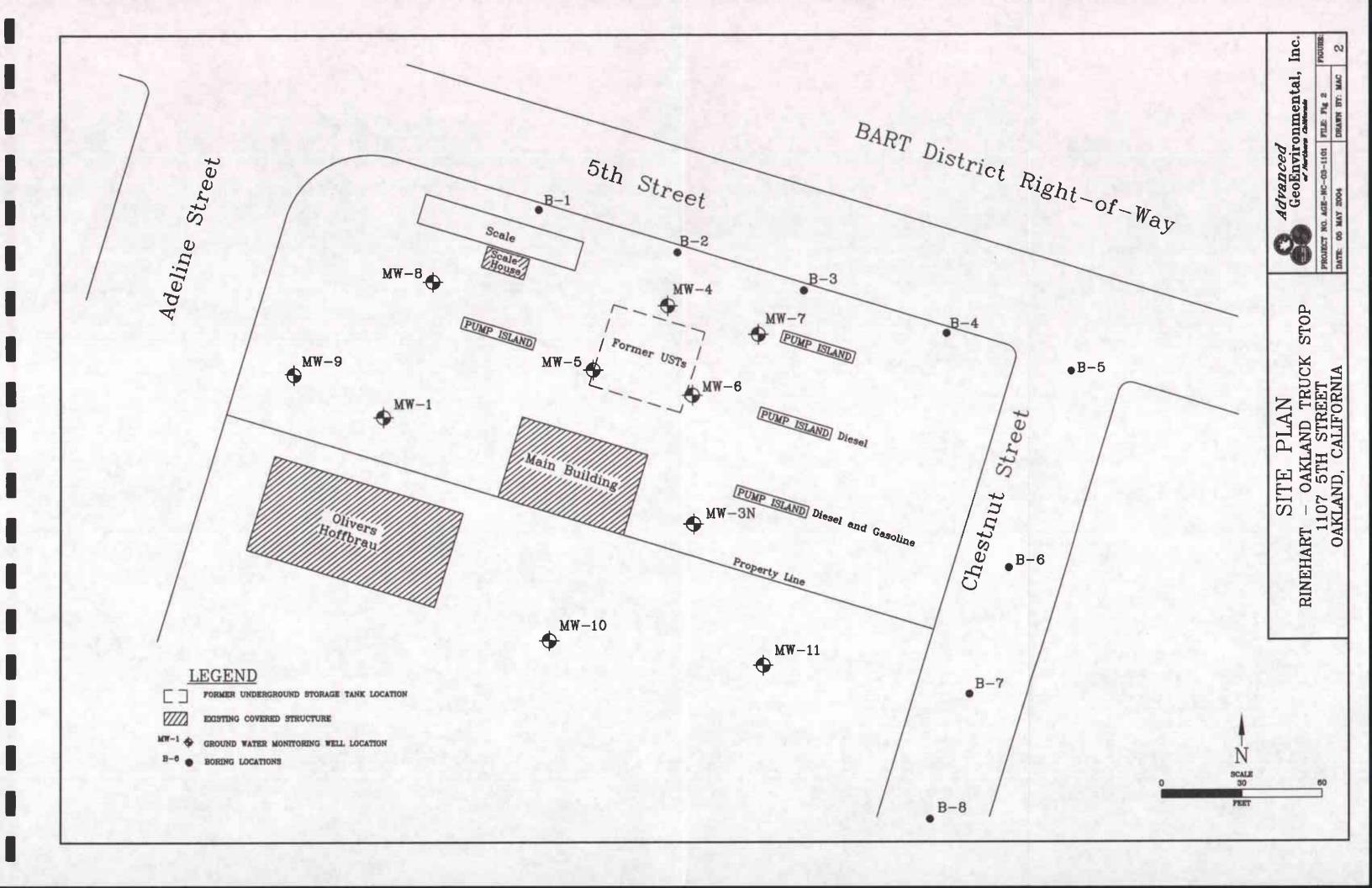
## LOCATION MAP

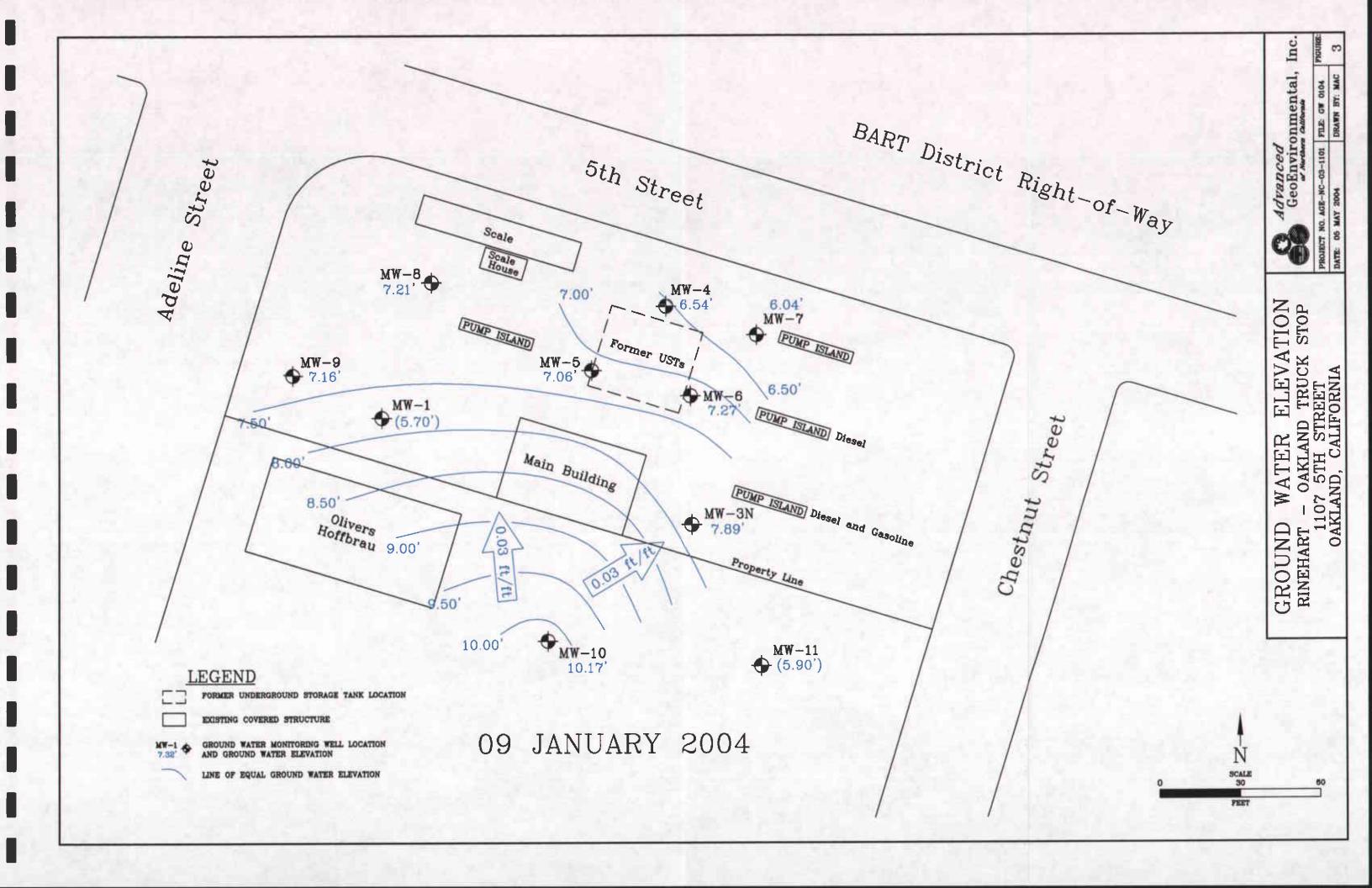
RINEHART — OAKLAND TRUCK STOP 1107 5TH STREET OAKLAND, CALIFORNIA

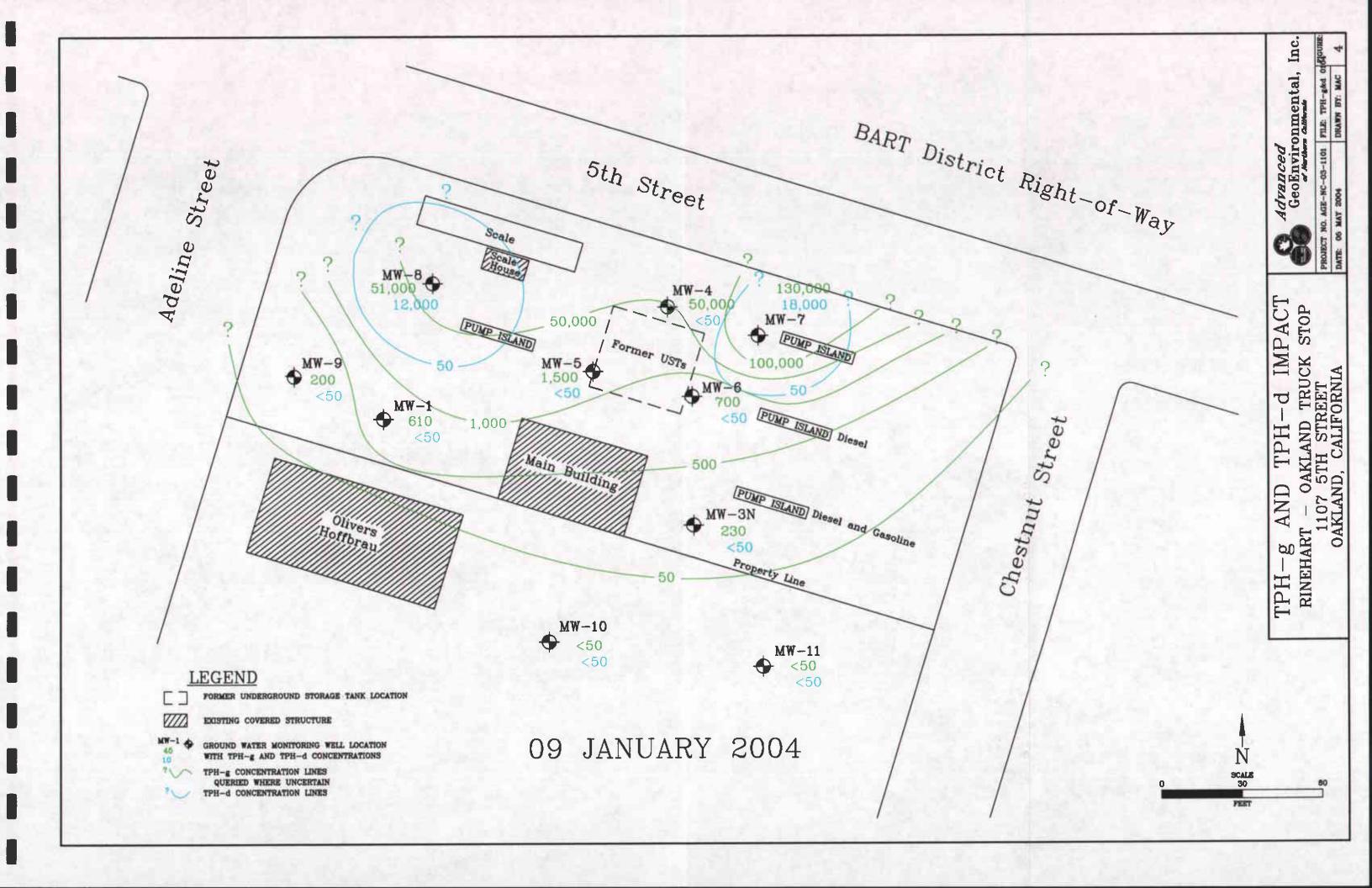


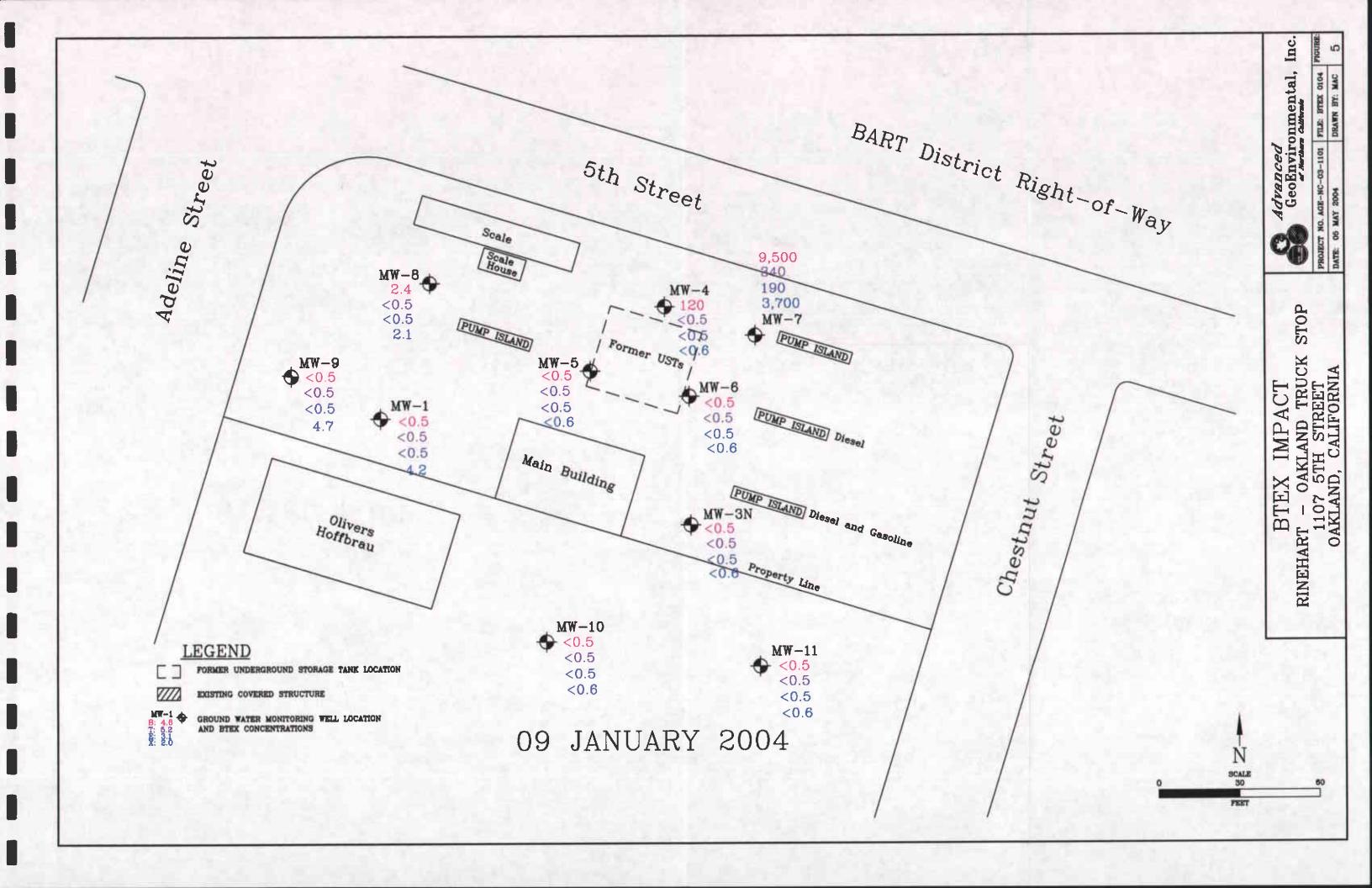
### Advanced GeoEnvironmental, Inc.

PROJECT NO. AGE-NC-03-1101	FILE: LOCATION	FIGURE
DATE: 27 SEPTEMBER 2004	DRAWN BY: MAC	1









**TABLES** 

TABLE 1

## Ground Water Elevation Data RINEHART OIL, INC. - OAKLAND TRUCK STOP 1107 5<sup>th</sup> Street, Oakland, California

Well ID  Casing Elevation (Screen Interval)	Date	Depth to Ground Water	Ground Water Elevation
MW-1	10/21/96	5.08	5.26
10.34'	11/04/96	3.02	7.32
(10'-20' bsg)	03/04/97	2.28	8.06
,	06/12/97	4.80	5.54
	07/14/97	2.66	7.68
	09/09/97	2.45	7.89
	09/19/97	2.60	7.74
	02/13/98	2.76	7.58
	07/07/98	2.15	8.19
	10/01/98	3.63	6.71
	12/30/98	4.40	5.94
	03/21/00	2.62	7.72
	08/30/00	3.21	7.13
	11/06/00	3.10	7.24
	02/22/01	3.50	6.84
	05/07/01	2.94	7.40
	08/22/01	3.70	6.64
	11/04/01	3.89	6.45
	02/15/02	2.95	7.39
	05/20/02	3.29	7.05
	08/01/02	3.51	6.83
	11/11/02	4.00	6.34
	02/12/03	3.40	6.94
	05/12/03	3.65	6.69
	08/12/03	3.04	7.30
	01/09/04	4.64	5.70
MW-3N	05/20/02	3.91	7.76
11.67′	08/01/02	4.22	7.45
(5'-12' bsg)	11/11/02	4.42	7.25
, J,	02/12/03	3.71	7.96
	05/12/03	3.49	8.18
	08/12/03	4.18	7.49
	01/09/04	3.78	7.89

## TABLE 1

## Ground Water Elevation Data RINEHART OIL, INC. - OAKLAND TRUCK STOP 1107 5<sup>th</sup> Street, Oakland, California

Well-ID Casing Elevation (Screen Interval)	Date	Depth to Ground Water	Ground Water Elevation
MW-4	08/30/00	3.74	6.72
10.46'	11/06/00	3.85	6.61
(5'-20' bsg)	02/22/01	4.66	5.80
	05/07/01	2.66	7.80
	08/22/01	4.13	6.33
	11/04/01	4.53	5.93
	02/15/02	3.62	6.84
	05/20/02	3.65	6.81
	08/01/02	4.25	6.21
	11/11/02	4.85	5.61
	02/12/03	4.24	6.22
	05/12/03	4.20	6.26
	08/12/03	4.47	5.99
	01/09/04	3.92	6.54
MW-5	08/30/00	3.01	7.23
10.24'	11/06/00	3.35	6.89
(5'-20' bsg)	02/22/01	3.00	7.24
	05/07/01	2.73	7.51
	08/22/01	3.88	6.36
	11/04/01	3.95	6.29
	02/15/02	2.84	7.40
	05/20/02	2.86	7.38
	08/01/02	3.21	7.03
	11/11/02	4.04	6.20
,	02/12/03	3.12	7.12
	05/12/03	3.18	7.06
	08/12/03	3.75	6.49
	01/09/04	3.18	7.06
MW-6	08/30/00	3.40	7.22
10.62'	11/06/00	3.72	6.90
(5'-20' bsg)	02/22/01	3.34	7.28
	05/07/01	3.08	7.54
	08/22/01	3.77	6.85
]	11/04/01	4.33	6.29
	02/15/02	3.22	7.40
	05/20/02	3.24	7.38
	08/01/02	3.60	7.02
	11/11/02	4.41	6.21
	02/12/03	3.52	7.10
	05/12/03	3.34	7.28
	08/12/03	3.91	6.71
	01/09/04	3.35	7.27

## TABLE 1

# Ground Water Elevation Data RINEHART OIL, INC. - OAKLAND TRUCK STOP 1107 5<sup>th</sup> Street, Oakland, California

Well ID Casing Elevation (Screen Interval)	Date	Depth to Ground Water	Ground Water Elevation
MW-7	08/30/00	6.72	4.97
11.69'	11/06/00	6.85	4.84
(5'-20' bsg)	02/22/01	6.00	5.69
1	05/07/01	6.35	5.34
	08/22/01	6.86	4.83
	11/04/01	6.66	5.03
	02/15/02	6.45	5.24
	05/20/02	6.59	5.10
	08/01/02	6.72	4.97
	11/11/02	6.61	5.08
	02/12/03	5.64	6.05
	05/12/03	5.68	6.01
*	08/12/03	6.24	5.45
	01/09/04	5.65	6.04
MW-8	08/30/00	3.06	7.00
10.06'	11/06/00	2.98	7.08
(5'-20' bsg)	02/22/01	2.46	7.60
( 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	05/07/01	2.76	7.30
	08/22/01	3.56	6.50
	11/04/01	3.76	6.30
	02/15/02	2.72	7.34
	05/20/02	2.82	7.24
	08/01/02	3.06	7.00
·	11/11/02	3.54	6.52
	02/12/03	3.07	6.99
	05/12/03	2.69	7.37
·	08/12/03	3.10	6.96
	01/09/04	2.85	7.21
MW-9	08/30/00	2.81	7.22
10.03'	11/06/00	2.68	7.35
(5'-20' bsg)	02/22/01	2,20	7.83
]	05/07/01	2.75	7.28
	08/22/01	3.80	6.23
	11/04/01	3.61	6.42
	02/15/02	2.92	7.11
	05/20/02	2.38	7.65
	08/01/02	2.72	7.31
	11/11/02	2.87	7.16
	02/12/03	2.43	7.60
[·	05/12/03	2.41	7.62
	08/12/03	2.61	7.42
	01/09/04	2.87	7.16

TABLE 1

## Ground Water Elevation Data RINEHART OIL, INC. - OAKLAND TRUCK STOP 1107 5<sup>th</sup> Street, Oakland, California

Well ID  Casing Elevation (Screen Interval)	Date	Depth to Ground Water	Ground Water Elevation
MW-10	05/20/02	4.54	6.53
11.07'	06/18/02	4.25	6.82
(5'-12' bsg)	08/01/02	1.80	9.27
,,	11/11/02	1.50	9.57
	02/12/03	1.07	10.00
	05/12/03	1.01	10.06
	08/12/03	1.44	9.63
	01/09/04	0.90	10.17
MW-11	05/20/02	0.84	8.80
9.64'	06/18/02	1.71	7.93
(5'-12' bsg)	08/01/02	4.88	4.76
	11/11/02	5.18	4.46
	02/12/03	3.85	5.79
	05/12/03	4.00	5.64
	08/12/03	4.31	5.33
	01/09/04	3.74	5.90

Notes:

bsg: below surface grade

All measurements reported in feet

TABLE 2
Analytical Results for Ground Water Samples
RINEHART OIL, INC. - OAKLAND TRUCK STOP
1107 5th Street, Oakland, California

Well ID	Date	TPH-g	TPS-d	Benzene	Toluene	Ethyl- benzene	Xylenes	MTBE (8021)	MTBE (8260)	DIPE	544512	ТАМЕ	ТВА	Methanol	Ethanol	EDB	1-2-DEA
MW-1	11/04/96	ND	220	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	03/05/97	ND	230	ND	ND	ND	ND	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA
	06/12/97	ND	290	ND	ND	ND	ND	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA
	09/09/97	ND	180	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	02/13/98	ND	590	ND	ND	ND	ND	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA
	07/07/98	ND	1,400	ND	ND	ND	ND	NA	2.7	NA	NA	NA	NA	NA	NA	NA	NA
	10/01/98	ND	1,100	ND	ND	ND	ND	NA	1.8	NA	NA	NA	NA	NA	NA	NA	NA
	12/30/98	ND	1,700	ND	ND	ND	ND	NA	2.3	NA.	NA	NA	NA	NA	NA	NA	NA
	03/21/00	220	3,100	11	ND	ND	ND	NA	4,800	NA	NA	NA	NA	NA	NA	NA	NA.
	08/30/00	140	1,600	5.3	<0.5	<0.5	<0.5	2,900	NA.	NA	NA	NA	NA	NA	NA	NA	NA
	11/06/00	51	1,500	1,0	<0.5	<0.5	<0.5	1,700	2,100	<50	<50	<50	<250	NA	NA	<50	<50
	02/22/01	140	3,000	<0,5	<0.5	<0.5	<0,5	1,00	1,100	<20	<20	<20	<100	<4,000	<1,000	<20	<20
	05/07/01	<50	3,800	<0.5	<0.5	<0.5	<0.5	780	1,100	<20	<20	<20	<100	<10,000	<1,000	<20	<20
	08/22/01	<110	1,800	<0.5	<0.5	<0.5	<0.5	1,900	1,600	<25	<25	<25	<130	NA	NA	<25	<25
	11/04/01	<50	1,300	<0.5	< 0.5	<0.5	<0.5	1,600	1,500	<50	< 50	<50	<250	NA	NA	<50	<50
	02/15/02	<50	2,000	< 0.5	< 0.5	<0.5	< 0.5	610	770	<20	<20	<20	<100	<10,000	<1,000	<20	<20
	05/20/02	<50	160	< 0.5	< 0.5	<0.5	<0.5	570	730	<10	<10	<10	<100	<10,000	<1,000	<10	<10
	08/01/02	<50	600	<0.5	<0.5	<0.5	<0.5	480	610	<10	<10	<10	<100	<10,000	<1,000	<10	<10
	11/11/02	<50	2,200	< 0.5	< 0.5	<0.5	<0.5	510	600	<10	<10	<10	<100	<10,000	<1,000	<10	<10
	02/12/03	<50	1,200	<0.5	<0.5	<0.5	< 0.5	540	640	<10	<10	<10	<100	<10,000	<1,000	<10	<10
	05/12/03	<50	520	< 0.5	< 0.5	<0.5	<0.5	610	580	<10	<10	<10	<100	<10,000	<1,000	<10	<10
	08/11/03	<50	180	<0.5	< 0.5	<0.5	<0.5	740	660	<12	<12	<12	<120	<12,000	<1,200	<12	<12
	01/09/04	610	<50	<0.5	< 0.5	<0.5	4.2	NA	590	<1.0	<1.0	<1.0	<10	<1,000	<50	<0.5	<0.5
MW-3N	05/20/02	<50	1,800	<0.5	<0.5	<0.5	<0.5	1,100	1,500	<25	<25	<25	<250	<25,000	<2,500	<25	<25
	08/01/02	<50	2,900	< 0.5	< 0.5	<0.5	<0.5	350	540	<10	<10	14	<100	<10,000	<1,00	<10	<10
	11/11/02	<50	1,100	<0.5	<0.5	<0.5	<0.5	280	270	<5.0	<5.0	7.1	<50	<5,000	<500	<5.0	<5.0
	02/12/03	<50	1,300	< 0.5	<0.5	<0.5	< 0.5	380	410	<5.0	<5.0	<5.0	<50	<5,000	<500	<5.0	<5.0
ŀ	05/12/03	<50	1,500	<0.5	< 0.5	<0.5	< 0.5	330	360	<6.2	<6.2	<6.2	<62	<6,200	<620	<6.2	<6.2
	08/11/03	<50	720	<0.5	<0.5	<0.5	< 0.5	250	280	<5.0	<5.0	<5.0	<50	<5,000	<500	< 5.0	<5.0
	01/09/04	230	<50	<0.5	<0.5	<0.5	<0.6	NA	230	<1.0	<1.0	2,5	<10	<1,000	<50	<0.5	<0.5

TABLE 2
Analytical Results for Ground Water Samples
RINEHART OIL, INC. - OAKLAND TRUCK STOP
1107 5th Street, Oakland, California

Well ID	Date	TPH-g	7 <b>PH-</b> 4	Benzene	Toluene	Ethyl. benzene	Xylenes	MTBE (8021)	MITBE (8260)	DIPE	ETIBE	TAME	ТВА	Methanol	Ethanol	EDB	1,2-DCA
MW-4	08/30/00	1,300	390	64	63	9.7	110	210,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/06/00	<3,300	170	80	<4.0	<5.0	<3.0	130,000	120,000	<2,500	<2,500	<2,500	<13,000	NA	NA	<2,500	<2,500
	11/06/00†	<3,300	NA	86	<4.0	<7.0	<6.0	130,000	120,000	<2,500	<2,500	<2,500	<13,000	NA	NA	<2,500	<2,500
	02/22/01	<3,300	120	30	<3.0	<3.0	<3.0	120,000	150,000	<2,500	<2,500	<2,500	<13,000	<500,000	<130,000	<2,500	<2,500
	05/07/01	<4,200	240	<20	<10.0	<5.0	<5.0	150,000	200,000	<5,000	<5,000	<5,000	<25,000	<2,500,000	<250,000	<5,000	<5,000
	08/22/01	<5,400	300	<5.0	<5.0	<5.0	<5.0	160,000	190,000	<5,000	<5,000	<5,000	<25,000	NA	NA	<5,000	<5,000
	11/04/01	<5,000	210	<5.0	<5.0	<5.0	<5.0	130,000	170,000	<2,500	<2,500	<2,500	<13,000	NA	NA	<2,500	<2,500
	02/15/02	<5,000	340	<5.0	<5.0	<5.0	<10	160,000	160,000	<2,500	<2,500	<2,500	<12,500	<1,250,000	<125,000	<2,500	<2,500
	05/20/02	<2,500	200	<25	<25	<25	<25	98,000	130,000	<1,700	<1,700	<1,700	<17,000	<2,500,000	<170,000	<1,700	<1,700
	08/01/02	<2,500	200	<25	<25	<25	<25	89,000	100,000	<1,700	<1,700	<1,700	<17,000	<1,700,000	<170,000	<1,700	<1,700
	11/11/02	<3,000	200	<25	<25	<25	<25	99,000	84,000	<1,700	<1,700	<1,700	<17,000	<1,700,000	<170,000	<1,700	<1,700
	02/12/03	<2,500	88	<25	<25	<25	<25	78,000	70,000	<1,700	<1,700	<1,700	<17,000	<1,700,000	<170,000	<1,700	<1,700
	05/12/03	<2,500	88	<25	<25	<25	<25	88,000	86,000	<1,700	<1,700	<1,700	<17,000	<1,700,000	<170,000	<1,700	<1,700
	08/11/03	<2,500	66	<25	<25	<25	<25	77,000	74,000	<1,700	<1,700	<1,700	<17,000	<1,700,000	<170,000	<1,700	<1,700
	01/09/04	50,000	<50	120	<0.5	< 0.5	<0.6	NA	50,000	<1.0	<1.0	85	<10	<1,000	<50	<0.5	<0.5
MW-5	08/30/00	1,000	450	<5.0	<5.0	<5.0	<5.0	52,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/06/00	<1,000	520	<1.0	<1.0	<1.0	<1.0	44,000	42,000	<1,000	<1,000	<1,000	<5,000	NA	NA	<1,000	<1,000
·	02/22/01	<1,000	270	<1.0	<1.0	<1.0	<1.0	30,000	39,000	<500	<500	<500	<2,500	<100,000	<25,000	<500	<500
	05/07/01	<1,800	470	<5.0	<2.0	<2.0	<2.0	48,000	59,000	<1,000	<1,000	<1,000	<5,000	<500,000	<50,000	<1,000	<1,000
	08/22/01	<2,200	780	<3.0	<3.0	<3.0	<3.0	63,000	70,000	<1,000	<1,000	<1,000	<5,000	NA	NA	<1,000	<1,000
	11/04/01	<1,700	670	<2.0	<2.0	<2.0	<2.0	44,000	37,000	<1,000	<1,000	<1,000	<5,000	NA	NA	<1,000	<1,000
	02/15/02	<1,100	480	<1.0	<1.0	<1.0	<1,0	33,000	33,000	<1,250	<1,250	<1,250	<6,250	<625,000	<62,500	<1,250	<1,250
	05/20/02	<500	1,600	<5.0	<5.0	<5.0	<5.0	21,000	28,000	<500	<500	<500	<5,000	<500,000	<50,000	<500	<500
[	08/01/02	<500	810	<5.0	<5.0	< 5.0	<5.0	21,000	24,000	<500	<500	<500	<5,000	<500,000	<50,000	<500	<500
	11/11/02	<500	2,100	<5:0	<5.0	<5.0	<5.0	10,000	8,800	<200	<200	<200	10,000	<200,000	<20,000	<200	<200
	02/12/03	<170	2,900	30	<1.7	<1.7	<1.7	3,700	3,200	<100	<100	<100	4,100	<100,000	<10,000	<100	<100
	05/12/03	<500	1,500	13	<5.0	<5.0	<5.0	19,000	21,000	<500	<500	<500	5,200	<500,000	<50,000	<500	<500
	08/11/03	71	2,200	9,5	<0.5	<0.5	<0.5	1,500	1,700	<50	<50	<50	14,000	<50,000	<5,000	<50	<50
	01/09/04	1,500	<50	<0,5	<0.5	< 0.5	<0.6	NA	1,500	<1.0	<1.0	<1.0	<10	<1,000	<50	<0.5	<0.5

TABLE 2

Analytical Results for Ground Water Samples
RINEHART OIL, INC. - OAKLAND TRUCK STOP

1107 5th Street, Oakland, California

WelLID	Dale	1171-5	112124	Benzene	Toluene	Ethyl- benzene	Xylenes	MTBE (8021)	MTBE (8260)	DIPE	Elips)e	TAME	1137	Methanol	Ethanol	EDB	1,2-DCA
MW-6	08/30/00	1,300	1,300	55	<0.5	16	27	23,000	NA	NA.	NA	NA	NA	NA	NA	NA	NA
141 44 -0	11/06/00	<630	1,100	7	8.1	<3.0	5.2	26,000	27,000	<630	<630	<630	<3,200	NA	NA	<630	<630
	02/22/01	<200	420	<5.0	<5.0	<5.0	< 5.0	6,500	8,000	<100	<100	<100	<500	<20,000	<5,000	<100	<100
	05/07/01	<1,000	900	<2.0	<2.0	<1.0	<1.0	37,000	40,000	<500	<500	<500	<2,500	<250,000	<25,000	<500	<500
	08/22/01	<350	520	<2.0	<1.0	< 0.5	<0.5	8,600	8,800	<200	<200	<200	<1,000	NA	NA	<200	<200
	11/04/01	<500	420	<2.0	<2.0	<0.5	<0.5	12,000	17,000	<250	<250	<250	<1,300	NA	NA	<250	<250
	02/15/02	<960	910	2.6	4.5	<1.0	4.2	23,000	26,000	<1,000	<1,000	<1,000	<5,000	<500,000	<50,000	<1,000	<1,000
	05/20/02	<620	690	<6.2	<6.2	<6.2	<6.2	25,000	<b>37,</b> 000	<500	<500	<500	<5,000	<500,000	<50,000	<500	<500
	08/01/02	<250	1,100	8.0	<2.5	<2.5	<2.5	8,100	9,100	<170	<170	<170	3,800	<170,000	<17,000	<170	<170
	11/11/02	<500	1,000	<5.0	<5.0	<5.0	<5.0	11,000	11,000	<250	<250	<250	<b>8,</b> 600	<250,000	<25,000	<250	<250
	02/12/03	<250	970	<2.5	<2.5	<2.5	<2.5	7,400	8,300	<120	<120	<120	4,600	<120,000	<12,000	<120	<120
	05/12/03	<1,000	2,100	<10	<10	<10	<10	32,000	29,000	<500	<500	<500	8,700	<500,000	<50,000	<500	<500
	08/11/03	110	630	6.8	<1	<1.0	<1.0	2,800	2,300	<100	<100	<100	27,000	<100,000	<10,000	<100	<100
	01/09/04	700	<50	<0.5	<0.5	<0.5	<0.6	NA	690	<1.0	<1.0	<1.0	<10	<1,000	<50	<0.5	<0.5
MW-7	08/30/00	160,000	2,600	28,000	15,000	1,200	5,900	800,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/06/00	80,000	1,700	23,000	12,000	1,200	5,000	540,000	920,000	<13,000	<13,000	<13,000	<63,000	NA	NA	<13,000	<13,000
	02/22/01	80,000	2,000	19,000	12,000	1,100	3,200	440,000	460,000	<5,000	<5,000	<5,000	<2,500	<1,000,000	<250,000	<5,000	<5,000
1	02/22/01†	84,000	2,400	20,000	13,000	1,200	3,400	400,000	500,000	<5,000	<5,000	<5,000	<25,000	<1,000,000	<250,000	<5,000	<5,000
	05/07/01	100,000	7,600	25,000	16,000	1,700	6,600	460,000	520,000	<5,000	<5,000	<5,000	<2,500	<2,500,000	<250,000	<5,000	<5,000
	05/07/01†	100,000	8,200	25,000	17,000	1,700	6,700	530,000	500,000	<5,000	<5,000	<5,000	<25,000	<2,500,000	<5,000	<5,000	<5,000
ļ	08/22/01	110,000	22,000	18,000	12,000	2,000	9,400	240,000	250,000	<5,000	<5,000	<5,000	<25,000	NA	NA	<5,000	<5,000
	11/04/01	85,000	6,500	17,000	2,700	2,100	9,700	150,000	180,000	<2,500	<2,500	<2,500	<13,000	NA	NA	<2,500	<2,500
	02/15/02	96,000	21,000	21,000	7,300	2,600	13,000	180,000	200,000	<5,000	<5,000	<5,000	<25,000	<2,500,000	<250,000	<5,000	<5,000
	02/15/02†	160,000	29,000	30,000	27,000	3,700	19,000	170,000	200,000	<5,000	<5,000	<5,000	<25,000	<2,500,000	<250,000	<5,000	<5,000
1	05/20/02	140,000	310,000	24,000	21,000	3,800	20,000	180,000	220,000	<5,000	<5,000	<5,000	<50,000	<5,000,000	<500,000	<5,000	<5,000
1	08/01/02	110,000	160,000	15,000	16,000	4,000	21,000	120,000	150,000	<2,500	<2,500	<2,500	<25,000	<2,500,000	<250,000	<2,500	<2,500
	11/11/02	110,000	240,000	14,000	11,000	4,100	19,000	74,000	77,000	<1,200	<1,200	<1,200	<12,000	<1,200,000	<120,000	<1,200	<1,200
	02/12/03	130,000	75,000	25,000	8,900	3,400	17,000	87,000	110,000	<1,700	<1,700	<1,700	<17,000	<1,700,000	<170,000	<1,700	<1,700
	05/12/03	98,000	7,100	25,000	520	2,600	12,000	140,000	220,000	<5,000	<5,000	<5,000	<5,000	<5,000,000	<500,000	<5,000	<5,000
	08/11/03	90,000	12,000	15,000	1,100	2,600	12,000	140,000	140,000	<5,000	<5,000	<5,000	<5,000	<5,000,000	<500,00	<5,000	<5,000
	01/09/04	130,000	18,000	9,500	340	190	3,700	NA	120,000	<1.0	<1.0	900	<10	<1,000	<50	<0.5	420

TABLE 2

Analytical Results for Ground Water Samples
RINEHART OIL, INC. - OAKLAND TRUCK STOP

1107 5th Street, Oakland, California

Well ID	Date	TPH-g	TPH-d	Веплене	Teluene	Ethyl- benzene	Xylenes	MTBE (8021)	MTBE (8260)	DIPE	1511810	TAME	TIBA	Methanol	Ethanol	EDR	I,2=DCA
MW-8	08/30/00	<1,000	690	18	<1.0	<1.0	<1.0	28,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/06/00	<3,300	810	<8.0	<5.0	<3.0	<7.0	120,000	76,000	<2,500	<2,500	<2,500	<13,000	NA	NA	<2,500	<2,500
	02/22/01	<2,500	1,100	53	<3.0	<3.0	<3.0	99,000	130,000	<2,000	<2,000	<2,000	<10,000	<400,000	<100,000	<2,000	<2,000
	05/07/01	<5,00	1,300	32	<10	<5.0	<5.0	110,000	120,000	<2,500	<2,500	<2,500	<13,000	<1,300,000	<13,000	<2,500	<2,500
	08/22/01	<4,000	1,200	<5.0	<5.0	<5.0	16	76,000	86,000	<1,700	<1,700	<1,700	<8,500	NA	NA	<1,700	<1,700
	11/04/01	590	1,100	6,9	< 0.5	<0.5	<0.5	60,000	49,000	<2,500	<2,500	<2,500	<13,000	NA	NA	<2,500	<2,500
	02/15/02	<3,400	1,500	<5.0	<5.0	<5.0	<5.0	110,000	91,000	<2,500	<2,500	<2,500	<12,500	<1,250,000	<125,000	<2,500	<2,500
	05/20/02	<1,700	2,200	<17	<17	<17	<17	66,000	86,000	<1,000	<1,000	<1,000	<10,000	<1,000,000	<100,000	<1,000	<1,000
	08/01/02	<1,200	2,800	<12	<12	<12	<12	53,000	67,000	<1,000	<1,000	<1,000	<10,000	<1,000,000	<100,000	<1,000	<1,000
	11/11/02	<2,000	11,000	<10	18	<10	<10	48,000	51,000	<1,000	<1,000	<1,000	<10,000	<1,000,000	<100,000	<1,000	<1,000
	02/12/03	<1,700	5,800	<17	<17	<17	<17	49,000	51,000	<1,000	<1,000	<1,000	<10,000	<1,000,000	<100,000	<1,000	<1,000
	05/12/03	<2,500	4,500	94	<25	<25	<25	52,000	60,000	<1,000	<1,000	<1,000	<10,000	<1,000,000	<100,000	<1,000	<1,000
	08/11/03	<2,500	23,000	92	<25	<25	<25	42,000	42,000	<1,000	<1,000	<1,000	<10,000	<1,000,000	<100,000	<1,000	<1,000
	01/09/04	51,000	12,000	2,4	<0.5	<0.5	2.1	NA	50,000	<1.0	<1.0	160	<10	<1,000	<50	<0.5	<0.5
MW-9	08/30/00	<50	770	<0.5	<0.5	<0.5	<0.5	97	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/06/00	<50	390	<0.5	< 0.5	<0.5	<0.5	190	220	<25	<25	<25	<125	NA	NA	<5.0	<5.0
	02/22/01	<50	240	< 0.5	<0.5	<0.5	<0.5	120	160	<2.0	<2.0	<2.0	<1.0	<400	<100	<2.0	<2.0
	05/07/01	<50	190	<0.5	<0.5	<0.5	<0.5	120	150	<2.5	<2.5	<2.5	<13	<1,300	<130	<2.5	<2.5
	08/22/01	<50	120	<0.5	<0.5	<0.5	<0.5	120	120	<5.0	<5.0	<5.0	<25	NA	NA	<5.0	<5.0
	11/04/01	<50	160	<0.5	<0.5	<0.5	<0.5	130	120	<5.0	<5.0	<5.0	<25	NA	NA	<5.0	<5.0
	02/15/02	<50	150	<0.5	< 0.5	<0.5	<0.5	92	98	<2.5	<2.5	<2.5	<12.5	<1,250	<125	<2.5	<2.5
	05/20/02	<50	380	<0.5	<0.5	<0.5	<0.5	79	85	<2.5	<2.5	<2.5	<25	<2,500	<250	<2.5	<2.5
	08/01/02	<50	320	<0.5	<0.5	<0.5	<0.5	74	84	<1.0	<1.0	<1.0	<10	<1,000	<100	<1.0	<1.0
	11/11/02	<50	150	< 0.5	<0.5	<0.5	<0.5	76	61	<2.5	<2.5	<2.5	<25	<2,500	<250	<2.5	<2.5
	02/12/03	<50	350	< 0.5	<0.5	<0.5	<0.5	55	50	<1.0	<1.0	<1.0	<10	<1,000	<100	<1.0	<1.0
	05/12/03	<50	380	< 0.5	<0.5	<0.5	<0.5	45	45	<1.0	<1.0	<1.0	<10	<1,000	<100	<1.0	<1.0
	08/11/03	<50	88	<0.5	<0.5	<0.5	<0.5	36	42	<1.0	<1.0	<1.0	<10	<1,000	<100	<1.0	<1.0
	01/09/04	200	<50	<0.5	<0.5	<0.5	4.7	NA	140	<1.0	<1.0	<1.0	<10	<1,000	<50	<0.5	<0.5
MW-10	08/01/02	<50	720	1.0	<0.5	<0.5	<.05	<5.0	1,1	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
·- ·- ·- ·- ·- ·-	11/11/02	<50	100	0.72	< 0.5	<0,5	<0.5	<5.0	0.7	<0.5	< 0.5	<0.5	<5.0	< 500	<50	<0.5	<0.5
	02/12/03	<50	71	0,63	< 0.5	<0.5	<0.5	<5.0	<0.5	<0.5	< 0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	05/12/03	<50	96	0.56	< 0.5	<0.5	<5.0	<5.0	0.59	<0.5	< 0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	08/11/03	<50	110	0.93	< 0.5	<0.5	<0.5	<5.0	0.73	<0.5	< 0.5	<0.5	<5.0	< 500	<50	< 0.5	<0.5
	01/09/04	<50	<50	< 0.05	< 0.5	<0.5	<0.6	NA	<1.0	<1.0	<1.0	<1.0	<10	<1,000	<50	<0.5	<0.5

### TABLE 2

### Analytical Results for Ground Water Samples RINEHART OIL, INC. - OAKLAND TRUCK STOP

1107 5th Street, Oakland, California

Well ID	Date	TIPHI-g	TPH-d	Benzene	Toluene	Ethyl- benzene	Xylenes	MTBE (8021)	MTBE (8260)	DIPE	ЕТВЕ	TAME	ТБА	Methanol	Ethanol	EDB	1,2-DCA
MW-11	05/20/02	<50	95	1.5	3.0	<0.5	1.4	260	310	<5.0	<5.0	<5.0	<50	<5,000	<500	<5.0	<5.0
	08/01/02	<50	190	< 0.5	1.9	0.6	< 0.5	52	65	<1.0	<1.0	<1.0	<10	<1,000	<100	<1.0	<1.0
	11/11/02	<50	140	< 0.5	2.1	1.1	<0.5	23	15	<0.5	<0.5	< 0.5	<5.0	<500	<50	<0.5	<0.5
	02/12/03	<50	86	< 0.5	1.7	< 0.5	< 0.5	<5.0	2.6	<0.5	< 0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	05/12/03	<50	62	<0.5	1. <b>1</b>	< 0.5	< 0.5	<5.0	2.3	< 0.5	< 0.5	< 0.5	<5.0	<500	<50	<0.5	< 0.5
	08/11/03	<50	72	< 0.5	0.66	<0.5	< 0.5	<5.0	2.3	<0.5	<0.5	< 0.5	<5.0	<500	<50	<0.5	<0.5
	01/09/04	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	<1.0	<1.0	<1.0	<1.0	<10	<1,000	<50	<0.5	<0.5
M	CL	NE	NE	1	150	700	1,750	13	13	NE	NE	NE	12**	NE	NE	0.05	0.5

Notes:
†: Duplicate sample
Results are in units of micrograms per liter (μg/L)

ND: Not detected

NA: Not analyzed
NA: Not analyzed
TPH-g/-d: Total petroleum hydrocarbons as gasoline and diesel
MTBE: Methyl tertiary butyl ether
8021/8260: EPA Method of analysis

DIPE: Di-isopropyl ether

ETBE: Ethyl tertiary butyl ether
TAME: Tertiary amyl methyl ether
TBA: Tertiary butyl alcohol
EDB: Ethylene dibromide (1,2-Dibromoethane)
1,2-DCA: 1,2-Dichloroethane

MCL: Primary Maximum Contaminant Level for Drinking Water in California NE: No MCL has been established

\*\*: Action Level, not MCL

# **APPENDIX A**

### **Site Background Information**

RINEHART OIL, INC - OAKLAND TRUCK STOP 1107 5th Street, Oakland, California

The site is located at 1107 5<sup>th</sup> Street in Oakland, California (Figure 1), in a commercial and industrial part of west Oakland. The property contains a service station building, four fuel dispenser islands, a truck scale, scale house and two underground storage tanks. The site has been a truck stop for the past forty years

#### REGIONAL GEOLOGIC/HYDROGEOLOGIC SETTING

The site is situated within the Coast Range Geomorphic province of California. This geopmorphic province contains coastal foothills and mountains, which extends from the Tehachapi Mountains in the south to the Klammath Mountains in the north. The western and eastern boundaries of this province are composed of the Pacific Ocean and the Great Valley Province, respectively. The Franciscan complex is split into four major divisions which are identified as the Northern Coast Range, the Franciscan Block, the Diablo Range and the Nacimiento Block.

The site is located in the Franciscan Block, an assemblage of variably deformed and metamorphosed rock units. The surface is composed of Quaternary alluvium, at depth the site is underlain by rocks of the Franciscan Complex, which are composed predominately of detrital sedimentary rocks with volcanic tuffs and deep ocean marine sediments. The Franciscan lithologies typically have low porosity and permeability.

Based upon the General Soil Map from the Soil Survey of Alameda County, Western Part, issued by the United States Department of Agriculture Soil Conservation Service in 1981, the site area is situated within the Urban land-Danville complex. This complex is on low terraces and alluvial fans at an elevation of about 20 to 300 feet and consists of about 60 percent Urban land, 30 percent Danville soil and 10 percent other soils. Danville soil is a silty clay loam that formed in alluvium that derived mainly from sedimentary rock. Urban land consists of areas covered by roads, parking lots and buildings. The nearest surface water feature in the vicinity of the property is the Oakland Estuary, approximately 2,400 feet to the south of the subject property.

Based on datum from previous monitoring events, ground water at the property varies seasonally between approximately 10 inches to 6 feet below surface grade (bsg). The ground water flow has varied from southwest to north. This may be affected by changing recharge and discharge patterns as well as leaking pipes.

#### UNDERGROUND STORAGE TANK REMOVAL

In March 1999, two 10,000-gallon diesel USTs, one 10,000-gallon gasoline UST and one 8,000-gallon gasoline UST were removed from the site. The approximate location of the former USTs are shown on Figure 2.

Interim remedial action was performed during the UST removal addressing contaminated soil and ground water. Approximately 2,100 tons of contaminated soil was removed from the excavation. Soil samples were collected from the excavation and stockpiles as directed by the Fire Inspector. Contaminated ground water was removed from the excavation pit, pumping approximately 33,000 gallons into temporary storage tanks which were transported and disposed of. Approximately 1,700 tons of backfill was placed in the excavation.

Results of the soil samples taken during the excavation are not available.

#### SITE ASSESSMENT ACTIVITIES

In November 1996, ground water monitoring wells MW-1 through MW-3 were installed to a depth of 20 feet to assess contamination from an unauthorized release of fuel, which was fixed as soon as it was discovered. Product recovery sumps equipped with skimmers were installed in the wells and approximately six gallons of gasoline were recovered.

Monitoring well MW-2 was destroyed in January 1999. Additional monitoring wells MW-4 through MW-9 were installed to a total depth of 20 feet in August 2000. Contamination was detected in each of the wells and free product was sometimes evident in well MW-7.

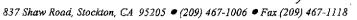
Monitoring wells MW-10 and MW-11 were installed in May 2002, with total depths of 12 feet. At this time, MW-3 was abandoned and MW-3N was installed to a depth of 12 feet.

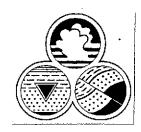
In July 2002, several soil borings were advanced to a total depth between five and eight feet, to determine if contamination was migrating offsite along preferential pathways such as utility trenches. Sample results indicated high MTBE concentrations ranging from 170,000  $\mu$ g/L to 460,000  $\mu$ g/L in grab ground water samples from borings drilled directly north of the site, along the 5<sup>th</sup> Street sewer line. Borings east of the site had little to no contamination.

A passive skimmer was placed inside monitoring well MW-7 in January 2003 to remove free product.

# **APPENDIX B**

# GeoEnvironmental, Inc.





## Ground Water Depth & Dissolved Oxygen Field Log

Project	: OAK	AUD TRI	<u>uck</u> 576	٥	Date:	1/9/0	#	
Field P	ersonnel	PH KL			Page:	of <u> </u>		
IT	T T		I	Actual TC				
Well	Time	Casing Elevation	Depth To Water	1 Ground	Total Depth	Disso	lved Oxy	/gen
I.D.			:	E <del>levation</del>	1	MG/L	%	°C
mw i			4.64	17.75	20			
3N			3,78	11.7	12			
4			3,92	20,	26		: 	
5			3.18	14,65	20			
6			3,35	14.6	20			
7			5.85	19.2	20			
8			2.85	18.65	20			
9		<u>.</u>	2.87	20,	20			
10		,	.90	11,3	12		,	
tl			3.74	11.85	12			
		-						
	Notes:							
•			•			· · · · · · · · · · · · · · · · · · ·		
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~								

# GeoEnvironmental, Inc. 837 Shaw Road, Stockton, CA 95205 • (209) 467-1006 • Fax (209) 467-1118



## Monitoring Well Field Log

Well Data

Project Name: OAKLAND TRUCK STOP	Project No.: Date: 1/9/04
Pre-Purge DTW: 4,64 Time: Post-Purge DTW: 15,50 Time: 133(	Well I.D.:
Total Depth of Well: Well Volume: 2.45	Casing Diameter: 0.5" 2" 4" 6" Gal./Ft.: 0.01074 0.16 0.65 1.47
Sampler(s): RM,KL	Sample Containers: 3 VOAS 1 AMBER LITER
Sample I.D.:  MW \ /01-09-04	Analysis: TPH-G,D/BTEX/ 5 FUEL OXYS/METHANOL,ETHANOL/1,2 DCA+EDB

			Stab	mzanon Dau	a	
Time	Volume (gallons)	рН	Temp.	Cond µS/cm X <u>100</u>	Color/ Turbidity	Notes
132/	0	7.09	19.4	1274	Sani cloudy	No odor
1323	3	6.98	20,5	1471	cloudy	u
1326	S	7.00	20,9	1540	k	I (
1330	7.50	7.0i	20.P	1557	u	slight odor
		Drew	down	to (	(S,SO) w	ill return
		to	sample	`		
			<			
		DTW	at/7	so) at	- time	of sample
Noxe *	fishing li	in + 90	wd in	well das	sing	
	,	J			<i>y</i>	

Purge Method:	Disp. Bailer	-	
Sample Method:	DISPOSABLE BAILER	Well Integrity:	·
Sample Time:	1410	Dissolved O <sub>2</sub> :	С
<u>O</u> al	cton	%	mg/L

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## Monitoring Well Field Log

Well Data

Project Name: OAKLAND TRUCK STOP	Project No.: Date: 1/9/04
Pre-Purge DTW: 3.78 Time:  Post-Purge DTW: 11.00 Time: 1035	Well I.D.: MW-3N
Total Depth of Well: Well Volume:	Casing Diameter: 0.5" 2" 4" 6" Gal./Ft.: 0.01074 0.16 0.65 1.47
Sampler(s): RM,KL	Sample Containers: 3 VOAS 1 AMBER LITER
Sample I.D.: MW 3 N /01-09-04	Analysis: TPH-G,D/BTEX/ 5 FUEL OXYS/METHANOL,ETHANOL/1,2 DCA+EDB

				mzanon Dat		
Time	Volume (gallons)	pН	Тетр.	Cond µS/cm X 100	Color/ Turbidity	Notes
1028	0	6.80	18.0	879	clear	Fuel odor
1031	2	6.79	178	886	Gray/cloudy	И
1033	Ž	6.79	17.2	836	1	spotty sheen
1034	4	6.78	18.7	930	u	, "2
		Drew	down	do (11	00) will	return
		to	get	Sample		
			J			
		Dth	lat (	5,15	at time	of sample
						·

Purge Method:	Disp. Bailer			
Sample Method:	DISPOSABLE BAILER	Well Integrity:		
Sample Time:	1153	Dissolved O <sub>2</sub> :		С
<u>Oak</u>	<u>ton</u>	9/	ó	mg/L
·		·		

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## Monitoring Well Field Log

Well Data

Project Name: OAKLAND TRUCK STOP	Project No.: Date: 1/9/04
Pre-Purge DTW: 3.92 Time:  Post-Purge DTW: 17.10 Time: 1130	Well I.D.:
Total Depth of Well: Well Volume: 2,57	Casing Diameter: 0.5" 2" 4" 6" Gal./Ft.: 0.01074 0.16 0.65 1.47
Sampler(s): RM,KL	Sample Containers: 3 VOAS 1 AMBER LITER
Sample I.D.:  MW - /01-09-04	Analysis: TPH-G,D/BTEX/ 5 FUEL OXYS/METHANOL,ETHANOL/1,2 DCA+EDB

			Stab	ilization Dat	<u>a                                      </u>	
Time	Volume (gallons)	pH	Тетр.	Cond µS/cm X_100	Color/ Turbidity	Notes
1116	D	6.77	17.3	ilzi	clear	tuel odor
1119	3	6.74	1P.Z	1189	i(	fi.
1122	6	6,75	19.2	1307	U	ч
1129	\$	6.71	19.3	1398	H	G
		Drew	down	to (	(7.10)	will return
		to	sample	1		
			U			
		DTW	at (7,	05) a	t time	of sample
			(	-	_	

Purge Method:	Disp Bay	er	
Sample Method:	DISPOSABLE BAILER	Well Integrity:	•
Sample Time:	1249	Dissolved O <sub>2</sub> :	С
<u>Oak</u>	ton	%	mg/L

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## Monitoring Well Field Log

Well Data

Project Name: OAKLAND TRUCK STOP	Project No.: Date: AGE-NC-95-0173 1/9/04
Pre-Purge DTW: 3.12 Time:  Post-Purge DTW: Time: 214	Well I.D.:
Total Depth of Well: Well Volume: 26	Casing Diameter: 0.5" 2" 4" 6" Gal./Ft.: 0.01074 0.16 0.65 1.47
Sampler(s): RM,KL	Sample Containers: 3 VOAS 1 AMBER LITER
Sample I.D.:  MW	Analysis: TPH-G,D/BTEX/ 5 FUEL OXYS/METHANOL,ETHANOL/1,2 DCA+EDB

	Stabilization Data					
Time	Volume (gallons)	pН	Temp.	Cond µS/cm X 100	Color/ Turbidity	Notes
1202	0	6.86	15.4	830	seni cloudy	Fuel odor
1206	3	6.91	16.2	948	Stay	Fuel oder spotty sheen
1210	6	6.91	16.2	909	l P	4
1 Z13	P. 25	692	16.4	925	či.	Ú
_						
*	Tagget	botton	n at	14.65	needs re	development
	42					

Purge Method:	Disp. Bailer		
Sample Method:	DISPOSABLE BAILER	Well Integrity:	
Sample Time:	1216	Dissolved O <sub>2</sub> :	С
<u>Oa</u>	kton	%	mg/L

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## Monitoring Well Field Log

Well Data

Project Name: OAKLAND TRUCK STOP	Project No.: Date: 1/9/04
Pre-Purge DTW: 3,35 Time: Post-Purge DTW: 3,35 Time: (106	Well I.D.:
Total Depth of Well: Well Volume:	Casing Diameter: 0.5" 2" 4" 6" Gal/Ft.: 0.01074 0.16 0.65 1.47
Sampler(s): RM,KL	Sample Containers: 3 VOAS 1 AMBER LITER
Sample I.D.; MWG /01-09-04	Analysis: TPH-G,D/BTEX/ 5 FUEL OXYS/METHANOL,ETHANOL/1,2 DCA+EDB

Stabilization Data						
Time	Volume (gallons)	pН	Тетр,	Cond µS/cm X 100	Color/ Turbidity	Notes
1057	0	7.00	16.5	959	cloudy	Fud odor
1100	3	7.04	15.4	629	£(	ίς
1103	6	7.01	15.1	595	٤(	Ц
1105	8	6.9P	13.0	523	ч	٤(
*	Tagged	botton	r at	14.6	needs vi	edevelopment
	. 10					

Purge Method:	Disp. Bailer		
Sample Method:	DISPOSABLE BAILER	Well Integrity:	
Sample Time:	1107	Dissolved O <sub>2</sub> :	C
<u>Oal</u>	cton	%	mg/L

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## Monitoring Well Field Log

Well Data

Project Name: OAKLAND TRUCK STOP	Project No.: Date: 1/9/04
Pre-Purge DTW: 5, 85 Time:  Post-Purge DTW: 7,75 Time: \(\tau237\)	Well I.D.: MW- 7
Total Depth of Well: Well Volume: 2.29	Casing Diameter: 0.5" 2" 4" 6" . Gal./Ft.: 0.01074 0.16 0.65 1.47
Sampler(s): RM,KL	Sample Containers: 3 VOAS 1 AMBER LITER
Sample I.D.: MW 7 /01-09-04	Analysis: TPH-G,D/BTEX/ 5 FUEL OXYS/METHANOL,ETHANOL/1,2 DCA+EDB

			5140	mzacion Dat	а	
Time	Volume (gallons)	pН	Temp.	Cond µS/cm X_100	Color/ Turbidity	Notes
1228	D	6.91	184	762	semi clear	spottu sheen
123(	3	6.90	19.9	768	Gray	, ,,,
1234	5	6.89	20,5	757	M	ц
1236	7	6.89	19.9	758	li	Ù
Note Y:	KIMPLET	repair	e in a	ell att	er Durce.	plus new weeken

Purge Method:	Disp. Bailer			
Sample Method:	DISPOSABLE BAILER	Well Integrity:	Bult holes	lears broken
Sample Time:	1240	Dissolved O <sub>2</sub> :	/	C
<u>Oa</u>	kton		% n	ng/L
-				

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## Monitoring Well Field Log

Well Data

	, Ditti
Project Name: OAKLAND TRUCK STOP	Project No.: Date: 1/9/04
Pre-Purge DTW: 2.25 Time: Post-Purge DTW: 5.95 Time: 1352	Well I.D.: MW- &
Total Depth of Well: Well Volume: 2.74	Casing Diameter: 0.5" 2" 4" 6" Gal./Ft.: 0.01074 0.16 0.65 1.47
Sampler(s): RM,KL	Sample Containers: 3 VOAS 1 AMBER LITER
Sample I.D.: MW	Analysis: TPH-G,D/BTEX/ 5 FUEL OXYS/METHANOL,ETHANOL/1,2 DCA+EDB

Time	Volume (gallons)	pН	Тетр.	Cond µS/cm X_100	Color/ Turbidity	Notes	,
1340	O	7.02	17.9	970	Sem/clear	strong odor/thick	sheen
1344	3	7.11	19.4	923	cloudy	Strong odor thick thick oily sheen	
1347	6	7.02	20.3	924	n	thin sheen	
1350	P.25	7.07	20.4	922	li	И	
	,						
				! 			

Purge Method:	Disp. Bailer		
Sample Method:	DISPOSABLE BAILER	Well Integrity:	,
Sample Time:	1354	Dissolved O <sub>2</sub> :	С
<u>Oak</u>	ton	%	mg/L

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## Monitoring Well Field Log

Well Data

Project Name: OAKLAND TRUCK STOP	Project No.: Date: 1/9/04
Pre-Purge DTW: 7,87 Time:  Post-Purge DTW: 15,90 Time: 1314	Well I.D.: MW- <b>q</b>
Total Depth of Well: Well Volume: 2.74	Casing Diameter: 0.5" 2" 4" 6" Gal./Ft.: 0.01074 0.16 0.65 1.47
Sampler(s): RM,KL	Sample Containers: 3 VOAS 1 AMBER LITER
Sample I.D.: MW <b>q</b> /01-09-04	Analysis: TPH-G,D/BTEX/ 5 FUEL OXYS/METHANOL,ETHANOL/1,2 DCA+EDB

Stabilization Data

Time	Volume (gallons)	pН	Тетр.	Cond µS/cm X_100	Color/ Turbidity	Notes
1305	0	6.73	17.1	1203	seri clear	slight odor
1307	3	6.72	19.2	1232	и	il
1310	6	6.68	201	1366	Ci	4
1313	8,25	6.71	20.3	1470	Geracy	u
		Drew	down	to	(15,90)	will return
		to	Sample	i		
		Dtw	at 6	,85) at	time	of sample

Purge Method:	Disp. Bailer		
Sample Method:	DISPOSABLE BAILER	Well Integrity:	•
Sample Time:	1403	Dissolved O <sub>2</sub> :	С
<u>O</u> a	<u>kton</u>	%	mg/L

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### Monitoring Well Field Log

Well Data

Project Name: OAKLAND TRUCK STOP	Project No.: Date: 1/9/04
Pre-Purge DTW: . 90 Time:  Post-Purge DTW: 1, 27 Time: 0947	Well I.D.: MW- 10
Total Depth of Well: 12 Well Volume: 1.7-7	Casing Diameter: 0.5" (2") 4" 6" Gal./Ft.: 0.01074 0.16 0.65 1.47
Sampler(s): RM,KL	Sample Containers: 3 VOAS 1 AMBER LITER
Sample I.D.: MW / 0 /01-09-04	Analysis: TPH-G,D/BTEX/ 5 FUEL OXYS/METHANOL,ETHANOL/1,2 DCA+EDB

Stabilization Data

Statistical Data						
Time	Volume (gallons)	pН	Temp.	Cond µS/cm X <u>100</u>	Color/ Turbidity	Notes
0933 0936 0939	0	6.77	13.3	413	clear	No oder
0936	2	7.02	14.2	394	clear brown/bray	11
t939	L	7.14	14.2	381	cloudy/Gra	i.l
0941	5,50	7.17	14.2	385	7	tı

Purge Method:	Disp. Bader			1
Sample Method:	DISPOSABLE BAILER	Well Integrity:	Good	<i></i>
Sample Time:	0944	Dissolved O <sub>2</sub> :		С
<u>O</u> ak	<u>ton</u>		%	mg/L

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## Monitoring Well Field Log

Well Data

Project Name: OAKLAND TRUCK STOP	Project No.: Date: 1/9/04				
Pre-Purge DTW: 3.74 Time:  Post-Purge DTW: 10.80 Time: 0958	Well I.D.: MW-1				
Total Depth of Well: Well Volume:	Casing Diameter: 0.5" 2" 4" 6" Gal./Ft.: 0.01074 0.16 0.65 1.47				
Sampler(s): RM,KL	Sample Containers: 3 VOAS 1 AMBER LITER				
Sample I.D.; MW [ /01-09-04	Analysis: TPH-G,D/BTEX/ 5 FUEL OXYS/METHANOL,ETHANOL/1,2 DCA+EDB				

Stabilization Data

Time	Volume (gallons)	pН	Temp.	Cond µS/cm X_100	Color/ Turbidity	Notes
O952	0	7.03	16.8	961	semi clear	Fuel color
6954	2	7.04	16.1	963	cloudy/6100	/1
<i>0957</i>	3	7.07	18.4	1012	u	Ø.
	AX.					Bailed nearly day
		Die	s dow	n to	(i0,80)	will return
		to	get	sample		
				•		
		DIL	U at	3.95	at time	of sample
					,	

Purge Method:	Dispi Bailer		
Sample Method:	DISPOSABLE BAILER	Well Integrity:	
Sample Time:	[137	Dissolved O2:	С
<u>Oak</u>	ton	%	mg/L
·			

# **APPENDIX C**

# CAL TECH Environmental Laboratories



6814 Rosecrans Avenue,

Paramount, CÁ 90723-3146 Telephone: (562) 272-2700 Fax: (562) 272-2789

#### ANALYTICAL RESULTS\*

CTEL Project Not

CT214-0401041

Advanced Geo Environmental, Inc.

837 Shaw Road Stockton, CA 95215

Mr. Bob Marty

Phone:(209) 467-1006 Fax: (209) 467-1118

Oakland Truck Stop

01/09/04 @ 14:10 p.m.

Matrix: Water

Date Receiveds	01/10/04 @ 10:30 am
Date/tralyzed %	01/13/04 - 01/14/04
Laffordiore ID:	0401-041-1

Latiocator #12: 10 11 11 12 12 12 12 12 12 12 12 12 12 12	0401-041-1 MW1 1	0401-041-2 MW3N 1	0401-041-3 MW4 10	Method	Units:	Detection Limit
TPH - Gasoline TPH - Diesel	610 ND	230 ND	50000 ND<0.05	EPA 8015M EPA 8015M	ug/L mg/L	50 0.05
VOC, 8260B Dilutiez	1-5		1-100			
Methyl tert-butyl-ether(MtBE) t-Butyl Alcohol (TBA)	590 ND<10	230 ND	50000 ND<10	SW846 8260B SW846 8260B	ug/L	1 10
Disopropyl Ether (DIPE) Ethyl-t-butyl ether (ETBE) t-Amyl Methyl Ether (TAME)	ND<1 ND<1 - ND<1	ND ND	ND<1 ND<1 85	SW846 8260B SW846 8260B SW846 8260B	ug/L ug/L ug/L	1 2004 2004 3004 4004
1,2-Dichloroethane 1,2-Dibromoethane(EDB)	ND<0.5 ND<0.5	2.5 ND ND	ND<0.5 ND<0.5	SW846 8260B SW846 8260B	ug/L ug/L	0.5 0.5
Benzene Toluene	ND<0.5 ND<0.5	ND ND	120 ND<0.5	SW846 8260B SW846 8260B	ug/L ug/L	0.5 0.5
Ethyltenzene m,p-Xylene	ND<0.5	ND ND	ND<0.5 ND<0.6	SW846 8260B SW846 8260B	ng/L	0.5 
o-Xylene Ethanei Methanol	ND<0.6 ND<50 ND<1000	ND ND ND	ND<0.6 ND<50 ND<1000	SW846 8260B SW846 8260B SW846 8260B	ug/L ug/L ug/L	0,6 50 1000

ND = Not Detected at the indicated Detection Limit

为是1960年1月1日 1960年1月1日 1960年1月1日 1960年1日 1960年1月 1960年1日 1960年1月 1960年1月 1960年1月 1960年1月 1960年

CTEL Project No: Client Name:

CT214-0401041

Advanced Geo Environmental, Inc.

837 Shaw Road

Stockton, CA 95215

Mr. Bob Marty

Phone: (209) 467-1006 Fax: (209) 467-1118

Project ID:

Oakland Truck Stop

 01/09/04 @ 12:16 p.m. 01/10/04 @ 10:30 am 01/13/04 - 01/14/04

Matrix: Water

Eaboratory 11):  Client Samole 10:  Dilution	0401-041-4 MW5 1	0401-041-5 MW6 1	0401-041-6 MW7 10-100	Method	Units:	Detection Limit
TPH   Gasoline TPH - Diesel	<b>1500</b> ND	700 ND	130000 18	EPA 8015M EPA 8015M	ug/L mg/L	0.05
VOC, 8260B Dilution	i-t0	J-10	1-500			
Methyl-tert-butyl-ether(MtBE) t-Butyl Alcohol (TBA)	1500 ND<10	690 ND<10	120000 ND<10	SW846 8260B SW846 8260B	ug/L ug/L	10
Diisopropyl Ether (DIPE) Ethyl-t-butyl ether (ETBE) t-Amyl Methyl Ether (TAME)	ND<1 ND<1 ND<1	ND<1 ND<1 ND<1	ND<1 ND<1 900	SW846 8260B SW846 8260B SW846 8260B	ug/L ug/L ug/L	1
1,2-Dichloroethane 1,2-Dibromoethane(EDB) Benzene Tolucne	ND<0.5 ND<0.5 ND<0.5 ND<0.5	ND<0.5 ND<0.5 ND<0.5	420 ND<0.5 9500	SW846 8260B SW846 8260B SW846 8260B SW846 8260B	ug/L ug/L ug/L ug/L	0.5 0.5
Ethylbenzene m;p-Xylene o-Xylene	ND<0.5 ND<0.5 ND<0.6 ND<0.6	ND<0.5 ND<0.5 ND<0.6 ND<0.6	340 190 3100 600	SW846 8260B SW846 8260B SW846 8260B	ug/L ug/L ug/L	0.5 0.5 0.6
Ethanol Methanol	ND<50 ND<1000	ND<50 ND<1000	ND<50 ND<1000	SW846 8260B SW846 8260B	ug/L ug/L	50 1000

CTEL Project No:

CT214-0401041

Advanced Geo Environmental, Inc.

837 Shaw Road

Stockton, CA 95215

Attention: Mr. Bob Marty

Phone: (209) 467-1006 Fax: (209) 467-1118

Project ID Project Name

Oakland Truck Stop

Paus Sampied: # Dans decepted: Page Smal 22 d

01/09/04 @ 13:54 p.m. 01/10/04 @ 10:30 am 01/13/04 - 01/14/04 Matrix: Water

Eaboratory ID: Chert Sample ID: Dilution	0401-041-7 MW8 10	0401-041-8 MW9 1	0401-041-9 MW10 1	Method	Units:	Detection Limit
TPH - Gasoline	51000	200	ND	EPA 8015M	ug/L	50
TPH - Diesel	12	ND	ND	EPA 8015M	mg/L	0.05
VOC, 8260B Dilution	1-100					
Methyl-terr-butyl-ether(MtBE) t-Butyl Alcohol (TBA) Disopropyl Ether (DIPE)	50000 ND<10 ND<1	140 ND ND	ND ND ND	SW846-8260B SW846-8260B SW846-8260B	ug/L ug/L ug/L	1 10
Ethyl-t-butyl ether (ETBE) t-Amyl Methyl Ether (TAME) 1,2-Dichloroethane	ND<1 160 ND<0.5	ND ND ND	ND ND ND	SW846 8260B SW846 8260B SW846 8260B	ug/L ug/L ug/L	1
1;2-Dibromoethane(EDB)  Benzene Toluene	ND<0.5	ND	ND	SW846 8260B	ug/L	0.5
	2.4	ND	ND	SW846 8260B	ug/L	0.5
	ND<0.5	ND	ND	SW846 8260B	ug/L	0.5
Ethylbenzene	ND<0.5	ND	ND	SW846 8260B	ug/L	0.5
m.p. Xylene	2.1	4.7	ND	SW846 8260B	ug/L	0.6
o-Xylene	ND<0.6	ND	ND	SW846 8260B	ug/L	0.6
Ethanol	ND<50	ND	ND	SW846 8260B	ug/L	50
Methanol	ND<1000	ND	ND	SW846 8260B	ug/L	1000

CTBE Project No.

CT214-0401041

Advanced Geo Environmental, Inc.

837 Shaw Road

Stockton, CA 95215

Attention: Mr. Bob Marty

Phone: (209) 467-1006 Fax: (209) 467-1118

Propositi's

Oakland Truck Stop

Date Sampled: Date Recoveding

01/09/04 @ 11:37 am 01/10/04 @ 10:30 am 01/13/04 - 01/14/04 Matrix: Water

Langatory (Le 15	0401-041-10		Me	thod	Units:	Detection
*Client Sample ED: 42 Feb.	<b>MW</b> 11					Limit
Dilution	1					
en en elektrica eta erren erre	erektőket a 1924 – Assessán a er promotokasásásásás a telepes	en e	complete the compl	acida destreta in inco		
TPH Gasoline	ND:		EPA	8015M	ug/L	50
TPH – Diesel	ND		EPA :	8015M	mg/L	0.05
		A Granda Grade S				Albandaria Ngaranta

	"这个美国在产生的数据,这是一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个		
VOC, 8260B	e de la companya del companya de la companya de la companya del companya de la co	Total call will be a	
Dilution			
Barter Barter (Decks and Color of Color (Barter) (Barter) for a graduation of the color of the c	na, mo onolina siyao na ola ola s <b>ignati nishina siyao kana s</b> o alabo	o di sanga <u>wasa</u> a in n	er flygt og til at særer for
Methyl-tert-butyl-ether(MtBE)	SW846 8260B	ug/L	
t-Butyl Alcohol (TBA)	SW846 8260B	ug/L	10
Diisopropyl Ether (DIPE)	SW846 8260B	≡ng/L	1
Ethyl-t-butyl ether (ETBE)	SW846 8260B	ug/L	1
t-Amyl Methyl Ether (TAME)	SW846 8260B	ug/L	E Thomas
1,2-Dichloroethane ND	SW846 8260B	ug/L	0.5
1,2-Dibromoethane(EDB)	SW846 8260B	ug/L	0.5
Benzene ND	SW846 8260B	ug/L	0.5
Toluene ND	SW846 8260B	ug/L	2 0.5
Ethylbenzene ND	SW846 8260B	ug/L	0.5
m.p-Xylene ND	SW846 8260B	ug/L	0.6
o-Xylene ND	SW846 8260B	ug/L	0.6
Ethanol ND	SW846 8260B	ug/Ľ	50
Methanol	SW846 8260B	ug/L	1000
Additional wife, from the control of			and the second second

ND = Not Detected at the indicated Detection Limit

Greg Tejirian

Laboratory Director

\*The results are base upon the sample received.

Cal Tech Environmental Laboratories, Inc. ELAP ID #: 2424

# CAL TECH Environmental Laboratories

681 Tele

6814 Rosecrans Avenue. Telephone: (562) 272-2700

Paramount, CA 90723-3146 Fax: (562) 272-2789

#### QA/QC Report

Method:

8015M

Matrix:

Water

Date Analyzed:

1/13/04

Units:

ug/L

Perimeters	LSC	LCSD	Spike Added	LCS % Rec.	LCSD % Rec.	Limits	RPD
TPH - Gasoline	887	901	1000	89	90	60-140	. 1
TPH - Diesel	910	933	1000	91	93	60-140	2

Perimeters	Blank	Limits	RPD
TPH - Gasoline	0	60-140	
TPH - Diesel	0	60-140	

LCS: Laboratory Control Standard

LCSD: Laboratory Control Standard Duplicate

RPD: Relative Percent Difference of LCS and LCSD

# CAL TECH Environmental Laboratories

6814 Rosecrans Avenue, Telephone: (562) 272-2700

Paramount, CA 90723-3146 Fax: (562) 272-2789

#### QA/QC Report

Method:

8260B

Matrix:

Water

Date Analyzed:

1/13/04

Units:

ug/L

Perimeters	LSC	LCSD	Spike Added	LCS % Rec.	LCSD % Rec.	Limits	RPD
1,1-Dichloroethene	42	44	50	84	88	60-140	5
Benzene	46	48	50	92	96	60-140	4
Trichioroethene	57	58	50	114	116	60-140	2
Toluene	43	47	50	86	94	60-140	9
Chiorobenzene	48	51	50	96	102	60-140	6
m,p-Xylenes	93	99	100	93	99	60-140	6

LCS: Laboratory Control Standard

LCSD: Laboratory Control Standard Duplicate

RPD: Relative Percent Difference of LCS and LCSD

Perimeters	Blank	Limits	RPD
1,1-Dichloroethene	0	70-130	•
Benzene	0	70-130	
Trichloroethene	0	70-130	
Toluene	0	70-130	
Chlorobenzene	0	70-130	
m,p-Xylenes	0	70-130	

### GeoEnvironmental, Inc.

01 0/1	CHAIN OF CUSTODY RECORD
0  -04-	CHAIN OF CUSTODY RECORD  Date 1904 Page 1 of 2

	837 Shaw Road - Stockton, Ca	lifornia - 95215 ·	(209) 467-1	006 - Fax	(209) 46	7-1118												
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Pour	want Oil"					Numbe	er								828	00/	7	7
KINGO	ia or	<u></u>			(200	1)46	7 101	96					/5				//	
					Samp		gnature)					$\overline{}$	47	1	Sall C	<b>3</b> //	/ Inv	oice:
Project Name DAKLAND TRUCKSTOP				Vil Wart								AGE Clien						
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Number	Description	Date	Time	Wa Comp.	ter Grab.	Air	Solid	Conts.		<u> </u>		7 7				N	lotes	
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MW5/	01-09-04		1210		K			4	$\parallel$				$\parallel$			· 		
MW6/	01-09-04		1107		+			4			Ш							
Mw7/	11-09-04		1240		X			4	<u>                                     </u>		Ц	$\prod$	$\perp$					
mw8/	01-04-04 (Signature)	<u> </u>	1354		X			14	V	7	V	W	1				<b>*</b>	
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Relinquished by:		Received by	: (Signature)													7-7-	Date/Tim	16
Relinquished by:	(Signature)	Received by	Mobile Labor	atory for f	ield analy	sis: (Signa	ture)			5	<u>.</u>	A.	<del></del>				Date/Tin	18 '
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### GeoEnvironmental, Inc.

01	CHAIN OF CUSTODY RECC
to-04/	Date 1/9/04 Page 2 of

	837 Shaw Road - Stockton, Ca	ilifornia - 95215	- (209) 467-1	006 - Fax	(209) 46	7-1118				,								
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