RECEIVED

By Alameda County Environmental Health at 4:52 pm, Jan 31, 2014

PERJURY STATEMENT

Subject:

RINO PACIFIC/OAKLAND TRUCK STOP

ACEHS Fuel Leak Case No. RO0000234

1107 5th Street, Oakland, California

"I declare under penalty of perjury, that the information and/or recommendations in the attached document or report is true or correct to the best of my knowledge"

Mr. Reed Rinehart

Rino Pacific, LLC 2401 North State Street Ukiah, California 95482 3 23 2011

Date

Monitoring Well Installation Report - Fourth Quarter 2013 RINO PACIFIC/OAKLAND TRUCK STOP 1107 5[™] Street, Oakland, California

30 January 2014 AGE-NC Project No. 03-1101

PREPARED FOR:

Mr. Reed Rinehart RINO PACIFIC, LLC

PREPARED BY:



Advanced GeoEnvironmental, Inc.

Stockton • Santa Rosa • Monterey • Los Angeles • Spokane • Reno • Dallas (800) 511-9300 www.advgeoenv.com

Monitoring Well Installation Report - Fourth Quarter 2013 RINO PACIFIC/OAKLAND TRUCK STOP 1107 5TH Street, Oakland, California

30 January 2014 AGE-NC Project No. 03-1101



Advanced GeoEnvironmental, Inc.

Stockton • Santa Rosa • Monterey • Los Angeles • Spokane • Reno • Dallas (800) 511-9300 www.advgeoenv.com

No. 8574

No. 8574

PREPARED BY:

Brian W. Millman

Senior Project Geologist

California Professional Geologist No. 8574

PROJECT MANAGER:

Brian W. Millman

Senior Project Geologist

California Professional Geologist No. 8574 FOF CALIF

REVIEWED BY:

William R. Little

Senior Project Geologist

California Professional Geologist No. 7473

No. 7473

Monitoring Well Installation Report - Fourth Quarter 2013 RINO PACIFIC/OAKLAND TRUCK STOP 1107 5th Street, Oakland, California

TABLE OF CONTENTS

SEC ⁻	<u> </u>	<u>PAC</u>	<u>}E</u>
1.0.	INTR	ODUCTION	1
2.0.	PROC 2.1. 2.2. 2.3. 2.4. 2.5. 2.6. 2.7.	DRILLING AND SOIL SAMPLING. LOGGING. LABORATORY ANALYSES OF SOIL SAMPLES. WELL COMPLETION. WELL DEVELOPMENT. WELL HEAD ELEVATION SURVEY. NON-HAZARDOUS WASTE DISPOSAL.	1 2 2 3 3 4
3.0.	FIND 3.1. 3.2. 3.3.	INGSSTRATIGRAPHYANALYTICAL RESULTS OF SOIL SAMPLESGROUNDWATER ELEVATION, FLOW DIRECTION AND GRADIENT	5 5
4.0.	CON	CLUSIONS	6
5.0.	REC	DMMENDATIONS	7
6.0	і іміт	TATIONS	8

FIGURES

Figure 1 - Location Map

Figure 2 - Site Plan

Figure 3 - Groundwater Elevation

Monitoring Well Installation Report - Fourth Quarter 2013 RINO PACIFIC/OAKLAND TRUCK STOP 1107 5th Street, Oakland, California

TABLE OF CONTENTS

TABLES

Table 1 - Well Construction Details

Table 2 - Groundwater Elevation Data

Table 3 - Analytical Results of Soil Samples

APPENDICES

Appendix A - Site Background Information

Appendix B - Drilling Permit

Appendix C - Boring Logs

Appendix D - Well Development Field Logs

Appendix E - Survey Report

Appendix F - Non-Hazardous Waste Manifest

Appendix G - Cal Tech Laboratory Report

Monitoring Well Installation Report - Fourth Quarter 2013 RINO PACIFIC/OAKLAND TRUCK STOP 1107 5th Street, Oakland, California

1.0. INTRODUCTION

At the request of Rino Pacific, LLC, *Advanced* GeoEnvironmental, Inc. has prepared the enclosed *Monitoring Well Installation Report - Fourth Quarter 2013* for the Rino/Pacific Oakland Truck Stop site located at 1107 5th Street, Oakland, CA. The enclosed report documents environmental activities performed at the site in November 2013. The scope of work included installation of one shallow-screened groundwater monitoring well (MW-17) and three deep-screened groundwater monitoring wells (MW-18, MW-19, and MW-20), well casing survey of the newly installed wells, well development, waste disposal, and preparation of this report. The site and surrounding area are illustrated in Figure 1. On-site structures, soil borings, well locations and other features are illustrated in Figure 2. Site background information is provided in Appendix A.

This report has been prepared in accordance with the Regional Water Quality Control Board's (RWQCB) *Appendix A - Reports, Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites.*

2.0. PROCEDURES

On 21 and 22 November 2013, groundwater monitoring wells MW-17 through MW-20 were installed at the site to assess the impact to shallow and deep groundwater from petroleum hydrocarbons. Field procedures for the well installations were outlined in the AGE-prepared, *Monitoring Well Installation Work Plan*, dated 17 September 2013 and approved by Alameda County Environmental Health Services letter, dated 30 September 2013. A copy of the drilling permit issued by the Alameda County Public Works Agency is included in Appendix B.

Additionally, on 25 November 2013 monitoring wells MW-17 through MW-20 were developed and the casing elevations were surveyed.

2.1. DRILLING AND SOIL SAMPLING

On 21 and 22 November 2013, pilot soil boring MW-17 was advanced to a total depth of 20 feet below surface grade (bsg) and pilot soil borings MW-18, MW-19, and MW-20 were advanced to total depths of 40 feet bsg. Pilot borings were advanced utilizing a Landra L-10 Limited Access Drill Rig (LAR) equipped with 8.25-inch diameter hollow-stem augers. Drilling services were provided by All Well Abandonment of Sacramento, California. Soil samples were collected from pilot boring MW-17 at 10 and 15 feet bsg; from pilot boring

30 January 2014 AGE Project No. 03-1101 Page 2 of 7

MW-18 at 5, 10, and 15 feet bsg; from pilot boring MW-19 at 5, 10, 15, and 20 feet bsg; and from pilot boring MW-20 at 6 feet bsg.

All soil samples, with the exception of the six-foot soil sample collected from MW-20 (MW20-6), were collected ahead of the drill bit using a California modified split-spoon sampler loaded with three pre-cleaned 2-inch by 6-inch stainless steel sleeves; MW20-6 was collected by hand-packing soil cuttings from MW-20 into a 2-inch by 3-inch stainless steel sample sleeve. A 140-pound hammer was used to advance the split-spoon sampler. The number of blows required to drive each 6-inch length of the sampler (blow counts) were recorded on boring logs by an AGE geologist; boring logs are presented in Appendix C.

Prior to soil boring advancement, each section of hollow stem auger was pressure washed. All sampling tools were thoroughly washed with a solution of Alconox, and were thoroughly rinsed with clean tap water prior to each sampling sequence.

All soil cuttings and rinseate generated during drilling activities were placed in Department of Transportation (DOT)-approved 55-gallon drums, covered, labeled and stored on-site pending proper waste disposal. Well construction details are summarized in Table 1. Monitoring well and boring locations are depicted in Figure 2.

2.2. LOGGING

During drilling activities, soil sample duplicates from pilot borings MW-17 through MW-20 were monitored for the presence of organic vapor using an organic vapor meter equipped with a photo-ionization detector (PID: MiniRAE 2000, 10.0 eV, calibrated to isobutylene) and were visually described on the boring logs in accordance with the Unified Soil Classification System (USCS). Boring logs documenting lithologic observations and well construction details from wells MW-17 through MW-20 are included in Appendix C.

2.3. LABORATORY ANALYSES OF SOIL SAMPLES

After sample recovery, both ends of a selected soil sample sleeve were covered with Teflon sheets and capped. Sample sleeves were labeled, stored on ice, and transported under chain-of-custody to Cal Tech Environmental Laboratories (CTEL), a State of California Department of Public Health (CDPH)-certified analytical laboratory. Soil samples were analyzed for the following constituents:

 Total petroleum hydrocarbons quantified as gasoline (TPH-g) and diesel (TPH-d) in accordance with EPA Method 8015M; 30 January 2014 AGE Project No. 03-1101 Page 3 of 7

- Benzene, toluene, ethylbenzene and xylenes (BTEX) in accordance with EPA Method 8260B;
- Fuel oxygenating compounds: methyl tertiary-butyl ether (MTBE), tertiary-amyl methyl ether (TAME), tertiary butyl alcohol (TBA), ethyl tertiary butyl ether (ETBE), and di-isopropyl ether (DIPE) in accordance with EPA Method 8260B; and
- Lead scavengers 1,2-dichloroethane (1,2-DCA) and ethylene dibromide (EDB) in accordance with EPA Method 8260B.

2.4. WELL COMPLETION

Pilot soil borings for wells MW-17 through MW-20 were completed as groundwater monitoring wells using 2-inch diameter, schedule 40 polyvinylchloride (PVC) blank well casing and 2-inch diameter, 0.020-inch slotted well screen; well screen was installed in MW-17 from 5 feet to 20 feet bsg and in MW-18, MW-19, and MW-20 from 35 feet to 40 feet bsg.

The wells were installed by placing the well casing through the hollow stem of the augers to the total depths of 20 and 40 feet bsg. The augers were incrementally raised as #3 sand (filter pack) was slowly poured down the annulus between the well casing and the inner wall of the hollow stem auger. The filter pack was placed adjacent to the screened casing from the bottom of the boring to approximately one foot above the top of the screened interval in well MW-17 and three feet above the top of the screened interval in wells MW-19, and MW-20.

A two-foot bentonite seal was installed above the filter pack in well MW-17 using bentonite chips and a 2.5-foot bentonite seal was installed above the filter pack in wells MW-18, MW-19, and MW-20 utilizing coated bentonite pellets. Once the bentonite seals were in place, they were allowed to hydrate a minimum of one half hour prior to grouting. Following hydration of the bentonite seal, wells MW-17 through MW-20 were grouted to near surface with portland type II cement (grout seal), and water-tight, traffic-rated well boxes were installed over the wells. Monitoring well construction details are summarized in Table 1. Boring logs summarizing the details of the well completions are presented in Appendix C.

2.5. WELL DEVELOPMENT

On 25 November 2013, well development activities were performed by an AGE representative at newly installed wells MW-17 through MW-20. Well development activities consisted of a combination of purging each well utilizing a steel hand-bailer and pumping

30 January 2014 AGE Project No. 03-1101 Page 4 of 7

utilizing an inertia pump equipped with 5%-inch tubing. Purging methods were used to remove the major portion of fine-grained sediment from inside the wells. Approximately 11 gallons were removed from well MW-17 before the well was purged dry and 55-56 gallons were removed from wells MW-18, MW-19, and MW-20; wells MW-18, MW-19, and MW-20 were not purged dry and recharged adequately following purging.

Field parameters pH, electronic conductivity (EC), and temperature were measured at each well volume using an Oakton multi-meter. Development purging activities were continued until field parameters (pH, electrical conductivity, and temperature) were stabilized and purged water was visually sediment-free. Purged groundwater was containerized in properly labeled DOT-approved 55-gallon drums and were stored on-site pending proper disposal. Groundwater elevation data is summarized in Table 2 and well development field logs are presented in Appendix D.

2.6. WELL HEAD ELEVATION SURVEY

On 25 November 2013, a California state-licensed survey engineer from Morrow Surveying, Inc. (MSI) surveyed the locations of wells MW-17 through MW-20 to the nearest 0.01-foot using coordinate datum NAD 83 (1986) and vertical datum of the North American Vertical Datum (NAVD88) from global positioning satellite (GPS) observations. Results of the monitoring well survey are recorded in Table 1. The MSI surveying report is presented in Appendix E. An updated site plan (Geomap), and survey data (Geo XY and Geo Z) were uploaded to the State Water Board GeoTracker database under confirmation numbers 2456178784, 6965909838, and 6906159877.

2.7. NON-HAZARDOUS WASTE DISPOSAL

On 25 November 2013, Instrat Incorporated of Rio Vista, California transported and disposed of approximately 6,000 pounds (11 drums) of soil cuttings and 150 gallons of non-hazardous water generated during the installation and development of wells MW-17 through MW-20. Soil and water removed from the site was transported, treated, and disposed at Instrat's facilities located in Rio Vista, California.

The non-hazardous waste manifest documenting the disposal of soil and water generated during the installation and development of wells MW-17 through MW-20 is included in Appendix F.

30 January 2014 AGE Project No. 03-1101 Page 5 of 7

3.0. FINDINGS

Soil stratigraphy, groundwater elevation, flow direction and gradient were calculated and determined from field data; and petroleum hydrocarbon impact to soil was quantified by laboratory analysis.

3.1. STRATIGRAPHY

Dark brown to black, very moist to saturated, poorly graded very fine sand with silt was encountered at depths of 5, 10, and 15 feet bsg in the pilot borings, with the exception of clay and bay mud encountered at 15 feet bsg in boring MW-17; tan, poorly graded fine sand was encountered at 20 feet bsg in pilot boring MW-19.

Faint hydrocarbon odors were observed in soil samples collected from pilot boring MW-17 and moderate to strong hydrocarbon odors were observed in the soil samples collected from pilot borings MW-18 and MW-19, with the exception of the 20-foot soil sample collected from pilot boring MW-20; organic vapor concentrations ranging between 1.2 (MW18-15) and 975 (MW18-10) parts per million volume (ppmv) were detected in the samples using a PID.

Boring logs documenting the lithology encountered during the installation of monitoring wells MW-17 through MW-20 are included in Appendix C and were uploaded to the State Geotracker database under confirmation numbers 5286256909, 5178619325, 3668932080, and 1990495800.

3.2. ANALYTICAL RESULTS OF SOIL SAMPLES

A total of eleven soil samples collected from pilot soil borings MW-17 through MW-20 were analyzed for the constituents listed in Section 2.3.

TPH-g were detected in the soil sample collected at 10 feet bsg in pilot boring MW-18 and the soil samples collected between 5 and 20 feet bsg in pilot boring MW-19 at concentrations ranging from 1.1 milligrams per kilogram (mg/kg) in MW19-20 to 100 mg/kg in MW19-5. TPH-d were detected in the same samples, with the exception of MW19-20, at concentrations ranging from 24 mg/kg in MW19-15 to 59 mg/kg in MW19-5.

One or more BTEX compound were detected in the soil samples collected at 5 and 10 feet bsg in MW-18 and at 10 feet bsg in MW-19 at maximum concentrations of 0.060 mg/kg benzene (MW19-10), 0.010 mg/kg toluene, 0.020 mg/kg ethylbenzene, and 0.011 mg/kg total xylenes (MW18-5).

30 January 2014 AGE Project No. 03-1101 Page 6 of 8

MTBE was detected in the soil sample collected at 10 feet bsg in MW-18 at a concentration of 0.14 mg/kg; and TBA was detected in the soil samples collected at 10 feet bsg in MW-18 and at 10 and 15 feet bsg in MW-19 at a maximum concentration of 11 mg/kg (MW19-10).

The laboratory reports (CTEL Laboratory I.D. No. CT214-1311121), quality assurance/quality control (QA/QC) reports, and chain-of-custody forms are presented in Appendix G. Electronically deliverable format files (EDF) were uploaded to the State Geotracker database under confirmation number 1969506442. A summary of soil analytical results is presented in Table 3.

3.3. GROUNDWATER ELEVATION, FLOW DIRECTION AND GRADIENT

Groundwater elevation data was collected from wells MW-17 through MW-20 during well development activities. The groundwater elevation was calculated by subtracting the depth to water from the surveyed casing elevation. Deep groundwater flow direction and gradient were calculated from the data collected from deep-screened wells MW-18, MW-19, and MW-20.

On 25 November 2013, the depth to groundwater ranged between 4.55 feet (MW-17) and 7.35 feet (MW-19) below the top of casing (btoc). Groundwater elevations in wells MW-17 through MW-20 ranged between 4.16 feet (MW-19) and 5.09 feet (MW-17) above NAVD88. On 25 November 2013, the average groundwater elevation in the deep-screened wells was approximately 4.33 feet above NAVD88.

In deep-screened wells MW-18, MW-19, and MW-20, groundwater was calculated to be flowing toward the north-northeast at an average hydraulic gradient of 0.005 foot per foot (Figure 3). Depth to water and groundwater elevations are summarized in Table 2. Well development field logs are included in Appendix D.

4.0. CONCLUSIONS

Based upon the environmental activities completed, AGE concludes:

 Monitoring well MW-17 was installed as a shallow-screened well to a total depth of 20 feet bsg with a screened interval section from 5 feet to 20 feet bsg. Monitoring wells MW-18, MW-19, and MW-20 were installed to total depths of 40 feet bsg with screened interval sections from 35 feet to 40 feet bsg. 30 January 2014 AGE Project No. 03-1101 Page 7 of 8

- Poorly graded very fine sand with silt was encountered at depths of 5, 10, and 15 feet bsg in the pilot borings, with the exception of clay and bay mud encountered at 15 feet bsg in boring MW-17. Poorly graded fine sand was encountered at 20 feet bsg in pilot boring MW-19.
- Soil samples were collected at 5 feet and 10 feet bsg in MW-17; between 5 feet and 15 feet bsg in MW-18; between 5 feet and 20 feet bsg in MW-19; and at 6 feet bsg in MW-20 for analysis. TPH-g were detected in the soil sample collected at 10 feet bsg in pilot boring MW-18 and the soil samples collected between 5 and 20 feet bsg in pilot boring MW-19 at concentrations ranging from 1.1 mg/kg to 100 mg/kg. TPH-d were detected in the same samples, with the exception of MW19-20, at concentrations ranging from 24 mg/kg to 59 mg/kg. One or more BTEX compound were detected in the soil samples collected at 5 and 10 feet bsg in MW-18 and at 10 feet bsg in MW-19 at maximum concentrations of 0.060 mg/kg benzene, 0.010 mg/kg toluene, 0.020 mg/kg ethylbenzene, and 0.011 mg/kg total xylenes. MTBE was detected in the soil sample collected at 10 feet bsg in MW-18 at a concentration of 0.14 mg/kg; and TBA was detected in the soil samples collected at 10 feet bsg in MW-18 and at 10 and 15 feet bsg in MW-19 at a maximum concentration of 11 mg/kg (MW19-10).
- On 25 November 2013, the depth to groundwater ranged between 4.55 feet (MW-17) and 7.35 feet (MW-19) btoc. Groundwater elevations in wells MW-17 through MW-20 ranged between 4.16 feet (MW-19) and 5.09 feet (MW-17) above NAVD88. On 25 November 2013, the average groundwater elevation in the deep-screened wells was approximately 4.33 feet above NAVD88.
- In deep-screened wells MW-18, MW-19, and MW-20, groundwater was calculated to be flowing toward the north-northeast at an average hydraulic gradient of 0.005 foot per foot (Figure 3).

5.0. RECOMMENDATIONS

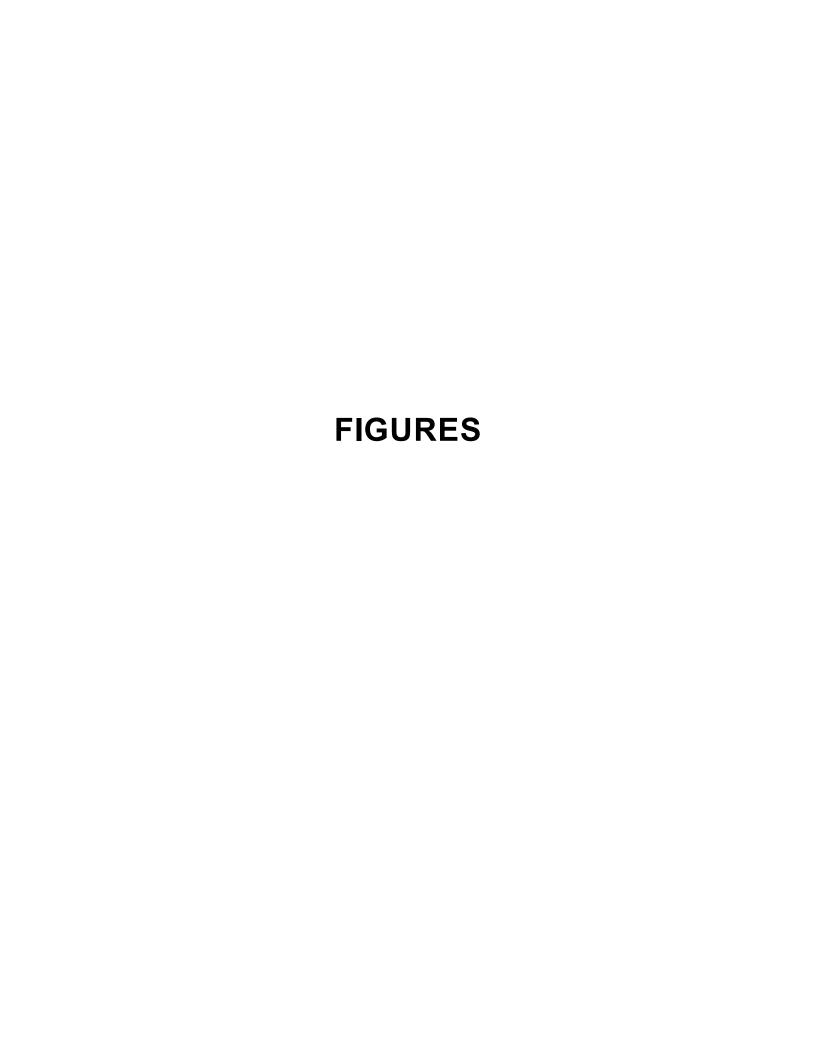
Based upon data reviewed and collected at the site, AGE recommends groundwater samples be collected and analyzed from newly installed wells MW-17 through MW-20.

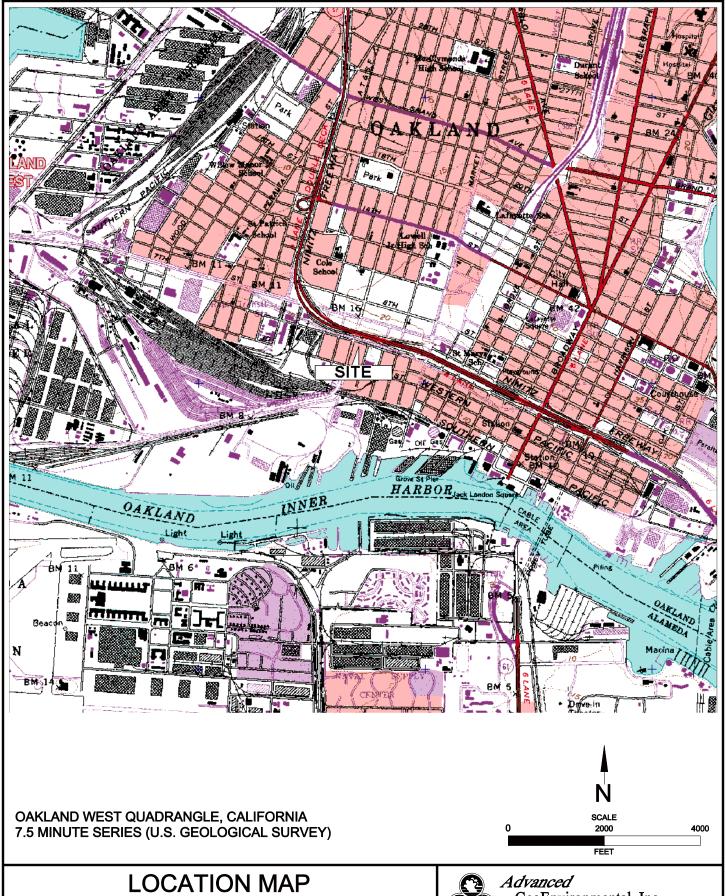
However, based on the *Fourth Review Summary Report - Closure*, prepared by the State Water Resources Control Board Cleanup Fund (Cleanup Fund), dated 24 October 2013, the Cleanup Fund Manager has determined the site is suitable for closure. Alameda County Environmental Health Services concurs with the Cleanup Fund determination of closure but with site management requirements.

30 January 2014 AGE Project No. 03-1101 Page 8 of 8

6.0. LIMITATIONS

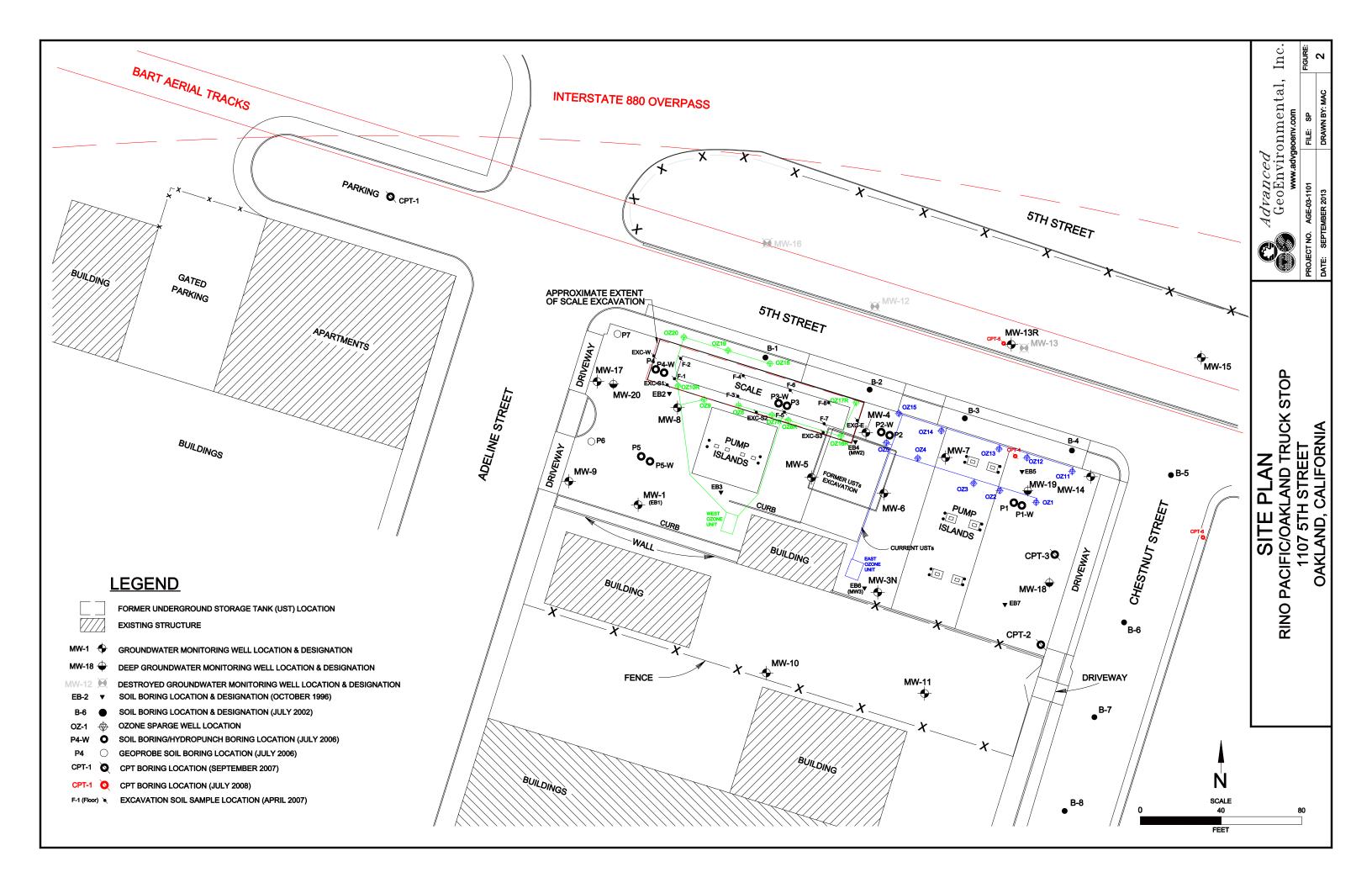
Our professional services were performed using that degree of care and skill ordinarily exercised by environmental consultants practicing in this or similar localities. The findings were based upon field measurements and analytical results provided by an independent laboratory. Evaluations of the hydrogeologic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

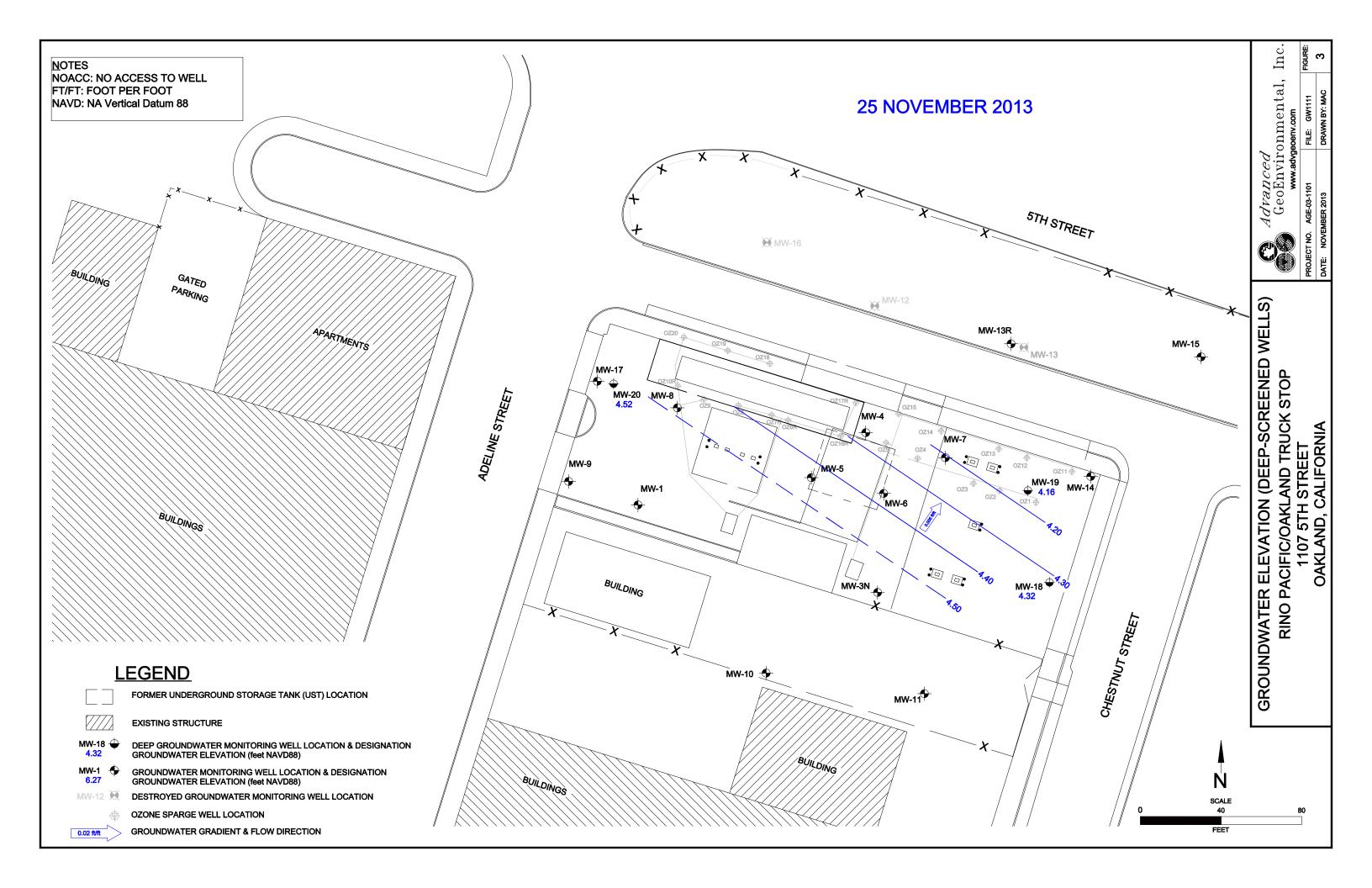




RINI PACIFIC/OAKLAND TRUCK STOP 1107 5TH STREET OAKLAND, CALIFORNIA







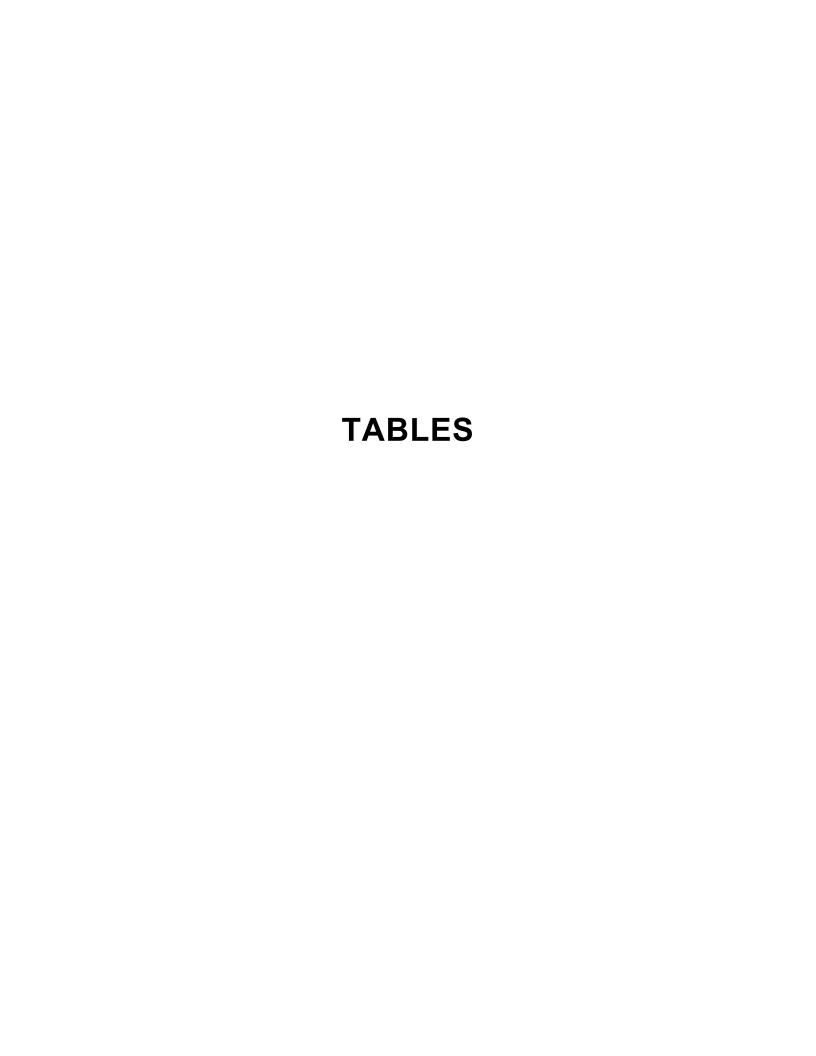


TABLE 1
WELL CONSTRUCTION DETAILS
Rino Pacific/Oakland Truck Stop
1107 5th Street, Oakland, California

Well ID	Installation Date	Borehole Diameter (inch)	Total Depth (feet)	Casing Diameter (inch)	Casing Material	Slot Size (inch)	Filter Pack	Casing Elevation (feet MSL) ¹	Screen Interval (feet bsg)	Filter Pack Interval (feet bsg)	Bentonite Interval (feet bsg)	Grout Interval (feet bsg)
				GROU	ND WATE	R MONITORIN	NG WEL	LS				
MW-1	11-1996	8	21	2	PVC	0.020	#3	10.02	10 to 20	9 to 20	7 to 9	0.5 to 7
MW-2	11-1996	8	14	2	PVC	0.020	#3	-	8 to 13	7 to 14	5 to 7	0.5 to 5
MW-3	11-1996	8	17	2	PVC	0.020	#3	-	12 to 17	11 to 17	9 to 11	0.5 to 9
MW-3N	05-2002	8	14	2	PVC	0.010	#2/12	11.36	5 to 12	3 to 12	2 to 3	0.5 to 2
MW-4	08-2000	8	20.5	2	PVC	0.010	#2/12	10.16	5 to 20.5	4 to 20.5	3 to 4	0.5 to 3
MW-5	08-2000	8	20.5	2	PVC	0.010	#2/12	10.19	5 to 20.5	4 to 20.5	3 to 4	0.5 to 3
MW-6	08-2000	8	20.5	2	PVC	0.010	#2/12	10.33	5 to 20.5	4 to 20.5	3 to 4	0.5 to 3
MW-7	08-2000	8	20.5	2	PVC	0.010	#2/12	11.41	5 to 20.5	4 to 20.5	3 to 4	0.5 to 3
MW-8	08-2000	8	20.5	2	PVC	0.010	#2/12	9.73	5 to 20.5	4 to 20.5	3 to 4	0.5 to 3
MW-9	08-2000	8	20.5	2	PVC	0.010	#2/12	9.73	5 to 20.5	4 to 20.5	3 to 4	0.5 to 3
MW-10	05-2002	8	12	2	PVC	0.010	#2/12	9.42	5 to 12	3 to 12	2 to 3	0.5 to 2
MW-11	05-2002	8	28	2	PVC	0.010	#2/12	10.77	5 to 12	3 to 12	2 to 3	0.5 to 2
MW-12	10-2004	8	20	2	PVC	0.020	#2/12	10.59	5 to 20	4 to 20	1.5 to 4	0.5 to 1.5
MW-13	10-2004	8	20	2	PVC	0.020	#2/12	11.29	5 to 20	4 to 20	1.5 to 4	0.5 to 1.5
MW-14	10-2004	8	20	2	PVC	0.020	#2/12	11.39	5 to 20	4 to 20	1.5 to 4	0.5 to 1.5
MW-15	09-20-2007	8	20.5	2	PVC	0.010	#2/12	11.38	5 to 20	3 to 20.5	2 to 3	0.5 to 2
MW-16	09-20-2007	8	20.5	2	PVC	0.010	#2/12	10.36	5 to 20	3 to 20.5	2 to 3	0.5 to 2
MW-13R	10-04-2011	8	20	2	PVC	0.020	#3	11.56	5 to 20	4 to 20	2 to 4	0.5 to 2
MW-17	11-22-2013	8	20	2	PVC	0.020	#3	9.64	5 to 20	4 to 20	2 to 4	0.5 to 2
MW-18	11-21-2013	8	40	2	PVC	0.020	#3	11.56	35 to 40	32 to 40	29.5 to 32	0.5 to 29.5
MW-19	11-21-2013	8	40	2	PVC	0.020	#3	11.51	35 to 40	32 to 40	29.5 to 32	0.5 to 29.5
MW-20	11-22-2013	8	40	2	PVC	0.020	#3	9.52	35 to 40	32 to 40	29.5 to 32	0.5 to 29.5

WELL CONSTRUCTION DETAILS Rino Pacific/Oakland Truck Stop

1107 5th Street, Oakland, California

	REMEDIATION WELLS										
Well ID	Installation Date	Borehole Diameter (inch)	Total Depth	Blank Casing Diameter (inch)	Casing Material	Micro-sparge diameter (inch)	Filter Pack	Sparge Interval	Filter Pack Interval (feet bsg)	Bentonite Interval (feet bsg)	Grout Interval (feet bsg)
OZ-1 thru OZ10	03-2004	8	12.5	1	PVC	2	#2/12	10 to 12	9 to 12.5	-	-
OZ-11 thru OZ20	10-2004	8	15	1	PVC	2	#2/12	11 to 13	9 to 15	7 to 9	1.5 to 7
OZ6R	7/19/2007	8	14	1	PVC	2	#3	11 to 13	9 to 14	6 to 9	1 to 6
OZ7R	7/19/2007	8	14	1	PVC	2	#3	11 to 13	9 to 14	6 to 9	1 to 6
OZ10R	7/19/2007	8	14	1	PVC	2	#3	11 to 13	9 to 14	6 to 9	1 to 6
OZ16R	7/19/2007	8	14	1	PVC	2	#3	11 to 13	9 to 14	6 to 9	1 to 6
OZ17R	7/19/2007	8	14	1	PVC	2	#3	11 to 13	9 to 14	6 to 9	1 to 6

DESTRO	DYED WELLS
Well ID	Date Destroyed
MW-2	12-30-1998
MW-3	02-15-2002
OZ-6	04-2007
OZ-7	04-2007
OZ-10	04-2007
OZ-16	04-2007
OZ-17	04-2007
MW-12	10-4-2011
MW-13	10-4-2011
MW-16	2011

Notes:

MSL: mean sea level -: Indicates data is not known

bsg: below surface grade MW: monitoring well

OZ: ozone sparge well

Casing elevations re-surveyed 02/02 2007.

MW-4, MW-15 and MW-16 surveyed on 30 November 2007. Performed by Morrow Surveying, Inc. relative to vertical datum NAVD 88 from GPS observations.

Casing elevations re-surveyed 12/01 2011 by Morrow Surveying Inc.

GROUNDWATER ELEVATION DATA

Well I.D. (Screen Interval) Casing Elevation	Date	Depth to Ground Water (ft btoc)	Ground Water Elevation (ft MSL)
10.34'	10/21/96	5.08	5.26
	11/04/96	3.02	7.32
	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
MM 4 (40 00 ft ham)	02/15/02	2.95	7.39
MW-1 (10 - 20 ft bsg)	05/20/02	3.39	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
	04/14/04	6.45	3.89
	07/21/04	3.55	6.79
	10/20/04	4.00	6.34
	03/19/05	2.54	7.80
	06/25/05	2.76	7.58
	09/17/05	3.88	6.46
	12/26/05	3.83	6.51
	03/26/06	4.09	6.25
	06/03/06	2.91	7.43
	08/30/06	3.62	6.72
	12/04/06	3.98	6.04

GROUNDWATER ELEVATION DATA

Well I.D. (Screen Interval) Casing Elevation	Date	Depth to Ground Water (ft btoc)	Ground Water Elevation (ft MSL)
10.02'*	02/28/07	2.90	7.12
	05/29/07	3.84	6.18
	08/20/07	4.21	5.81
	10/25/07	3.75	6.27
	01/25/08	3.60	6.42
	04/30/08	3.93	6.09
	07/30/08	4.19	5.83
	10/23/08	4.57	5.45
	03/26/09	3.64	6.38
	06/05/09	3.80	6.22
MW-1 (10 - 20 ft bsg)	09/09/09	noacc	-
·	11/12/09	3.63	6.39
	02/18/10	3.20	6.82
	05/17/10	3.28	6.74
	11/23/10	3.11	6.91
	05/20/11	3.47	6.55
	12/01/11	4.18	5.84
	05/23/12	3.70	6.32
	11/29/12	3.32	6.70
	05/22/13	4.31	5.71

GROUNDWATER ELEVATION DATA

Well I.D. (Screen Interval) Casing Elevation	Date	Depth to Ground Water (ft btoc)	Ground Water Elevation (ft MSL)
11.67'	05/20/02	3.91	7.76
	08/01/02	4.22	7.45
	11/11/02	4.42	7.25
	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
	04/14/04	4.01	7.66
	07/21/04	4.90	6.77
	10/20/04	5.28	6.39
	03/19/05	3.10	8.57
MW-3N (5 - 12 ft bsg)	06/25/05	3.10	8.57
	06/25/05	3.83	7.84
	09/17/05	4.94	6.73
	12/26/05	3.64	8.03
	03/23/06	2.86	8.81
	06/03/06	3.45	8.22
	08/30/06	4.78	6.89
	12/04/06	4.90	6.46
	02/28/07	3.36	8.00
	05/29/07	4.55	6.81
	08/20/07	5.40	5.96
11.36*	10/25/07	4.97	6.39
	01/25/08	3.69	7.67
	04/30/08	4.69	6.67
	07/30/08	4.44	6.92
	10/23/08	5.98	5.38
	03/26/09	3.70	7.66
	06/05/09	4.68	6.68
	09/09/09	5.43	5.93
	11/12/09	4.66	6.70
	02/18/10	3.58	7.78
	05/17/10	4.01	7.35
	11/23/10	4.49	6.87
	05/20/11	4.30	7.06
	12/01/11	5.00	6.36
	05/23/12	4.22	7.14
	11/29/12	4.27	7.09
	05/22/13	4.92	6.44

GROUNDWATER ELEVATION DATA

Well I.D. (Screen Interval) Casing Elevation	Date	Depth to Ground Water (ft btoc)	Ground Water Elevation (ft MSL)
10.46′	08/30/00	3.74	6.72
	11/06/00	3.85	6.61
	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
MM 4 (5 00 ft h =)	04/14/04	4.04	6.42
MW-4 (5 - 20 ft bsg)	07/21/04	4.55	5.91
	10/20/04	4.89	5.57
	03/19/05	3.51	6.95
	06/25/05	4.58	5.88
	09/17/05	4.54	5.92
	12/26/05	4.66	5.80
	03/23/06	3.80	6.66
	06/03/06	3.84	6.62
	08/30/06	4.75	5.71
	12/04/06	4.91	5.25
	02/28/07	4.18	5.98
	05/29/07	4.28	5.88
	08/20/07	4.82	5.34
	10/25/07	4.36	5.80
10.16*	01/25/08	3.75	6.41
	04/30/08	4.52	5.64
	07/30/08	4.76	5.40
	10/23/08	4.96	5.20
	03/26/09	4.39	5.77
	06/05/09	4.60	5.56
	09/09/09	4.74	5.42
	11/12/09	4.46	5.70
	02/18/10	4.15	6.01
	05/17/10	4.26	5.90
	11/23/10	5.56	4.60
	05/20/11	4.29	5.87
9.93**	12/01/11	4.50	5.43
	05/23/12	4.34	5.59
	11/29/12	4.15	5.78
	05/22/13	4.52	5.41

GROUNDWATER ELEVATION DATA

Well I.D. (Screen Interval) Casing Elevation	Date	Depth to Ground Water (ft btoc)	Ground Water Elevation (ft MSL)
10.24'	08/30/00	3.01	7.23
	11/06/00	3.35	6.89
	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
MW-5 (5 - 20 ft bsg)	11/11/02	4.04	6.20
10100-5 (5 - 20 It bsg)	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
	04/14/04	3.15	7.09
	07/21/04	4.00	6.24
	10/20/04	4.49	5.75
	03/19/05	2.39	7.85
	06/25/05	2.77	7.47
10.19*	09/17/05	3.91	6.33
	12/26/05	3.46	6.78
	03/23/06	2.44	7.80
	06/03/06	2.55	7.69
	08/30/06	3.85	6.39
	12/04/06	4.37	5.82
	02/28/07	3.31	6.88
	05/29/07	4.45	5.74
	08/20/07	4.75	5.44
	10/25/07	4.21	5.98
	01/25/08	3.75	6.44
	04/30/08	4.33	5.86
	07/30/08	4.75	5.44
	10/23/08	5.01	5.18
	03/26/09	3.96	6.23
	06/05/09	4.34	5.85
	09/09/09	4.71	5.48
	11/12/09	4.35	5.84
	02/18/10	4.06	6.13
	05/17/10	4.08	6.11
	11/23/10	3.91	6.28
	05/20/11	4.13	6.06
	12/01/11	4.55	5.64
	05/23/12	4.24	5.95
	11/29/12	4.02	6.17
	05/22/13	4.49	5.70

GROUNDWATER ELEVATION DATA

Well I.D. (Screen Interval) Casing Elevation	Date	Depth to Ground Water (ft btoc)	Ground Water Elevation (ft MSL)
10.62'	08/30/00	3.40	7.22
	11/06/00	3.72	6.90
	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
MW-6 (5 - 20 ft bsg)	04/14/04	3.40	7.22
	07/21/04	4.21	6.41
	10/20/04	4.63	5.99
	03/19/05	2.54	8.08
	06/25/05	2.92	7.70
	09/17/05	4.06	6.56
	12/26/05	3.63	6.99
	03/23/06 06/03/06	2.60 2.71	8.02 7.91
	08/30/06	4.02	6.60
	12/04/06	4.54	5.79
	02/28/07	3.49	6.84
	05/29/07	4.60	5.73
	08/20/07	4.90	5.58
10.33'*	10/25/07	4.36	5.97
70.00	01/25/08	3.92	6.41
	04/30/08	4.49	5.84
	07/30/08	4.87	5.46
	10/23/08	5.18	5.15
	03/26/09	4.08	6.25
	06/05/09	4.50	5.83
	09/09/09	4.87	5.46
	11/12/09	4.50	5.83
	02/18/10	3.95	6.38
	05/17/10	4.23	6.10
	05/20/11	4.30	6.03
	12/01/11	4.60	5.73
	05/23/12	4.41	5.92
	11/29/12	4.18	6.15
	05/22/13	4.66	5.67

GROUNDWATER ELEVATION DATA

Well I.D. (Screen Interval) Casing Elevation	Date	Depth to Ground Water (ft btoc)	Ground Water Elevation (ft MSL)
11.69'	08/30/00	6.72	4.97
	11/06/00	6.85	4.84
	02/22/01	6.00	5.69
	05/07/01	6.35	5.34
	08/22/01	6.86	4.84
	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
MM 7 (5 20 ft hog)	01/09/04	5.65	6.04
MW-7 (5 - 20 ft bsg)	04/14/04	6.40	5.29
	07/21/04	6.31	5.38
	10/20/04	6.42	5.27
	03/19/05	5.48	6.21
	06/25/05	6.00	5.69
	09/17/05	6.55	5.14
	12/26/05	5.57	6.12
	03/23/06	5.47	6.22
	06/03/06	5.62	6.07
	08/30/06	6.17	5.52
	12/04/06	6.38	5.03
	02/28/07	6.11	5.30
	05/29/07	6.25	5.16
	08/20/07	6.65	4.76
11.41'*	10/25/07	6.55	4.86
	01/25/08	6.30	5.11
	04/30/08	6.54	4.87
	07/30/08	6.50	4.91
	10/23/08	6.67	4.74
	03/26/09	5.91	5.50
	06/05/09	6.35	5.06
	09/09/09	6.73	4.68
	11/12/09	6.47	4.94
	02/18/10	5.97	5.44
	05/17/10	5.74	5.67
	11/23/10	6.05	5.36
	05/20/11	5.65	5.76
	12/01/11	6.54	4.87
	05/23/12	5.74	5.67
	11/29/12	5.96	5.45
	05/22/13	6.20	5.21

GROUNDWATER ELEVATION DATA

Well I.D. (Screen Interval) Casing Elevation	Date	Depth to Ground Water (ft btoc)	Ground Water Elevation (ft MSL)
10.06'	08/30/00	3.06	7.00
	11/06/00	2.98	7.08
	02/22/01	2.46	7.60
	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
9.73'*	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
	04/14/04	3.45	6.61
	07/21/04	4.56	5.50
	10/20/04	4.72	5.34
	03/19/05	3.31	6.75
	06/25/05	3.05	7.01
	09/17/05	4.22	5.84
	12/26/05	3.24	6.82
	03/23/06	2.67	7.39
	06/03/06	2.63	7.43
	08/30/06	3.56	6.50
	12/04/06*	3.81	5.92
	02/28/07	3.06	6.67
MW-8 (5 - 20 ft bsg)	05/29/07	3.77	5.96
5 (5 =5 5 5)	08/20/07	4.21	5.52
	10/25/07	3.96	5.77
	01/25/08	2.97	6.76
	04/30/08	3.85	5.88
	07/30/08	4.16	5.57
	10/23/08	4.48	5.25
	03/26/09	3.25	6.48
	06/05/09	3.70	6.03
	09/09/09	4.10	5.63
	11/12/09	3.79	5.94
	02/18/10	3.19	6.54
	05/17/10	3.30	6.43
	11/23/10	3.21	6.52
	05/20/11	3.45	6.28
	12/01/11	3.76	5.97
	05/23/12	3.40	6.33
	11/29/12	3.33	6.40
	05/22/13	4.03	5.70

GROUNDWATER ELEVATION DATA

Well I.D. (Screen Interval) Casing Elevation	Date	Depth to Ground Water (ft btoc)	Ground Water Elevation (ft MSL)
10.03'	08/30/00	2.81	7.22
	11/06/00	2.68	7.35
	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
MW-9 (5 - 20 ft bsg)	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
	04/14/04	3.65	6.38
	07/21/04	3.70	6.33
9.73'*	10/20/04	4.20	5.83
	03/19/05	3.75	6.28
	06/25/05	3.85	6.18
	09/17/05	3.38	6.65
	12/26/05	2.01	8.02
	03/23/06	2.50	7.53
	06/03/06	2.63	7.40
	08/30/06	3.35	6.68
	12/04/06	3.63	6.10
	02/28/07	2.61	7.12
	05/29/07	3.34	6.39
	08/20/07	3.82	5.91
	10/25/07	3.21	6.52
	01/25/08	2.62	7.11
	04/30/08	3.55	6.18
	07/30/08	4.05	5.68
	10/23/08	3.96	5.77
	03/26/09	3.21	6.52
	06/05/09	3.25	6.48
	09/09/09	noacc	<u>-</u>
	11/12/09	3.19	6.54
	02/18/10	2.82	6.91
	05/17/10	2.79	6.94
	11/23/10	2.81	6.92
	05/20/11	9.24	0.49
	12/01/11	3.20	6.53
	05/23/12	2.95	6.78
	11/29/12	2.59	7.14
	05/22/13	4.05	5.68

GROUNDWATER ELEVATION DATA

Well I.D. (Screen Interval) Casing Elevation	Date	Depth to Ground Water (ft btoc)	Ground Water Elevation (ft MSL)
11.07'	05/20/02	4.54	6.53
	06/18/02	4.25	6.82
	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
	04/14/04	2.05	9.02
	07/21/04	2.78	8.29
	10/20/04	1.05	10.02
MW-10 (5 - 12 ft bsg)	03/19/05	0.75	10.32
	06/25/05	1.91	9.16
	09/17/05	2.90	8.17
	12/26/05	0.32	10.75
	03/23/06	0.76	10.31
	06/03/06	1.65	9.42
	08/30/06	2.70	8.37
	12/04/06	2.41	7.01
	02/28/07	0.30	9.12
	05/29/07	2.17	7.25
	08/20/07	3.04	6.38
9. <i>4</i> 2'*	10/25/07	2.23	7.19
	01/25/08	0.58	8.84
	04/30/08	2.28	7.14
	07/30/08	3.07	6.35
	10/23/08	3.62	5.80
	03/26/09	1.30	8.12
	06/05/09	2.13	7.29
	09/09/09	2.87	6.55
	11/12/09	1.88	7.54
	02/18/10	1.25	8.17
	05/17/10	1.53	7.89
	11/23/10	noacc	-
	05/20/11	noacc	-
	12/01/11	noacc	-
	05/23/12	1.62	7.80
	11/29/12	1.10	8.32
	05/22/13	2.36	7.06

GROUNDWATER ELEVATION DATA

Well I.D. (Screen Interval) Casing Elevation	Date	Depth to Ground Water (ft btoc)	Ground Water Elevation (ft MSL)
9.64'	05/20/02	0.84	8.80
	06/18/02	1.71	7.93
	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
	04/14/04	5.73	3.91
	07/21/04	5.80	3.84
	10/20/04		
MW-11 (5 - 20 ft bsg)	03/19/05	4.81	4.83
	06/25/05	4.56	5.08
	09/17/05	5.30	4.34
	12/26/05	5.11	4.53
	03/23/06	3.35	6.29
	06/03/06	3.65	5.99
	08/30/06	4.94	4.70
	12/04/06	5.43	5.34
	02/28/07	4.20	6.57
	05/29/07	4.75	6.02
	08/20/07	5.53	5.24
10.77'*	10/25/07	5.64	5.06
	01/25/08	4.46	6.31
	04/30/08	4.82	5.95
	07/30/08	5.48	5.29
	10/23/08	6.02	4.75
	03/26/09	3.98	6.79
	06/05/09	4.19	6.58
	09/09/09	5.59	5.18
	11/12/09	5.05	5.72
	02/18/10	4.08	6.69
	05/17/10	3.61	7.16
	11/23/10	noacc	-
	05/20/11	3.89	6.88
	12/01/11	4.93	5.84
	05/23/12	3.96	6.81
	11/29/12	4.76	6.01
	05/22/13	4.68	6.09

GROUNDWATER ELEVATION DATA

Well I.D. (Screen Interval) Casing Elevation	Date	Depth to Ground Water (ft btoc)	Ground Water Elevation (ft MSL)
10.59'*	10/20/04	5.41	
	03/19/05	5.74	
	06/25/05	5.23	
	09/17/05	5.74	
	12/26/05	4.37	
	03/23/06	4.36	
	06/03/06	5.12	
	08/30/06	5.67	
	12/04/06	5.83	4.76
	02/28/07	4,80	5.79
	05/29/07	5.62	4.97
	08/20/07	5.88	4.71
MW-12 (5 - 20 ft bsg)	10/25/07	5,50	5.09
10100-12 (5 - 20 1t bsg)	01/25/08	4.74	5.85
	04/30/08	5.56	5.03
	07/30/08	5.73	4.86
	10/23/08	6.00	4.59
	03/26/09	4.71	5.88
	06/05/09	5.37	5.22
	09/09/09	5.81	4.78
	11/12/09	5.37	5.22
	02/18/10	4.57	6.02
	05/17/10	4.88	5.71
	11/23/10	noacc	-
	05/20/11	noacc	-
11.29'*	MW-12 destroyed of 10/20/04	on 04 October 2011 5.67	
11.29	03/19/05	4.82	
	06/25/05	5.78	
	09/17/05	6.21	
	12/26/05	4.25	
	03/23/06	4.57	
	06/03/06	5.60	
	08/30/06	6.20	
	12/04/06	6.33	4.96
	02/28/07	4.95	6.34
	05/29/07	6.02	5.27
	08/20/07	6.42	4.87
	10/25/07	6.21	5.08
MW-13 (5 - 20 ft bsg)	01/25/08	5.23	6.06
	04/30/08	6.17	5.12
	07/30/08	6.32	4.97
	10/23/08	6.51	4.78
	03/26/09	5.42	5.87
	06/05/09	5.98	5.31
	09/09/09	6.45	4.84
	11/12/09	6.02	5.27
	02/18/10	5.07	6.22
	05/17/10	5.48	5.81
	11/23/10	noacc	
	05/20/11	noacc	=
<u> </u>	MW-13 destroyed of		

GROUNDWATER ELEVATION DATA

Well I.D. (Screen Interval)	Date	Depth to Ground Water (ft	Ground Water Elevation			
Casing Elevation		btoc)	(ft MSL)			
MW-13R (5 - 20 ft bsg)	12/01/11	6.31	5.25			
, , ,	05/23/12	5.82	5.74			
	11/29/12	5.53	6.03			
11.56**	05/22/13	6.20	5.36			
11.39'*	10/20/04	6.36				
	03/19/05	5.20				
	06/25/05	5.56				
	09/17/05	6.09				
	12/26/05	5.50				
	03/23/06	5.06				
	06/03/06	5.39				
	08/30/06	5.92				
	12/04/06	6.15	5.24			
	02/28/07	5.84	5.55			
	05/29/07	5.97	5.42			
	08/20/07	6.43	4.96			
	10/25/07	6.37	5.02			
	01/25/08	6.13	5.26			
MW-14 (5 - 20 ft bsg)	04/30/08	6.42	4.97			
(* * * * * * * * * * * * * * * * * * *	07/30/08	6.35	5.04			
	10/23/08	6.56	4.83			
	03/26/09	5.80	5.59			
	06/05/09	6.25	5.14			
	09/09/09	6.63	4.76			
	11/12/09	6.31	5.08			
	02/18/10	5.75	5.64			
	05/17/10	5.65	5.74			
	11/23/10	6.00	5.39			
	05/20/11	5.60	5.79			
	12/01/11	6.30	5.09			
	05/23/12	5.60	5.79			
	11/29/12	5.90	5.49			
44.00*	05/22/13	5.99	5.40			
11.38*	10/05/07	6.14	5.24 5.29			
	10/25/07	6.00 5.76	5.38			
	01/25/08	5.76 6.01	5.62			
	04/30/08	6.01 5.09	5.37 5.40			
	07/30/08 10/23/08	5.98 6.20	5.40 5.18			
	03/26/09	6.20 5.45	5.16 5.93			
MW-15 (5 - 20 ft bsg)	03/26/09	5.45 5.90	5.93 5.48			
1V1VV-13 (3 - 20 It bsg)	09/09/09	5.90 6.28	5.46 5.10			
	11/12/09	6.26 5.97	5.10 5.41			
	02/18/10	5.45	5.41			
	02/18/10	5.45 noacc	ე.ფე			
	11/23/10	noacc	<u>-</u>			
	05/20/11	noacc	<u>-</u>			
11.36**	12/01/11	5.95	- 5.41			
11.30	05/23//12	5.30	6.06			
	11/29/12	5.54	5.82			
	05/22/13	5.5 4 5.82	5.62 5.54			
I	03/22/13	ე.02	5.5 4			

GROUNDWATER ELEVATION DATA

Rino Pacific/Oakland Truck Stop 1107 5th Street, Oakland, California (feet)

Well I.D. (Screen Interval) Casing Elevation	Date	Depth to Ground Water (ft btoc)	Ground Water Elevation (ft MSL)			
10.36*	10/05/07	5.85	4.51			
	10/25/07	5.51	4.85			
	01/25/08	4.71	5.65			
	04/30/08	5.70	4.66			
	07/30/08	5.64	4.72			
	10/23/08	5.90	4.46			
	03/26/09	4.80	5.56			
MW-16 (5 - 20 ft bsg)	06/05/09	5.42	4.94			
	09/09/09	5.70	4.66			
	11/12/09	5.34	5.02			
	02/18/10	4.72	5.64			
	05/17/10	4.97	5.39			
	11/23/10	noacc	-			
	05/20/11	noacc	-			
	MW-16 destr	oyed in 2011				
MW-17 (5 - 20 ft bsg) 9.64***	11/25/13	4.55	5.09			
MW-18 (35 - 40 ft bsg) 11.56***	11/25/13	7.24	4.32			
MW-19 (35 - 40 ft bsg) 11.51***	11/25/13	7.35	4.16			
MW-20 (35 - 40 ft bsg) 9.52***	11/25/13	5.00	4.52			

Notes:

bsg: below surface grade
-: information not available
*: Casing elevations re-surv

*: Casing elevations re-surveyed 02/02 2007.

MW-4 MW-15 and MW-16 surveyed on

MW-4, MW-15 and MW-16 surveyed on 30 November 2007. Performed by Morrow Surveying, Inc. relative to vertical datum

NAVD 88 from GPS observations.

**: Casing elevations re-surveyed 12/01 2011.

Performed by Morrow

Surveying, Inc. relative to vertical datum NAVD 88 from GPS observations.

ANALYTICAL RESULTS OF SOIL SAMPLES Rino Pacific/Oakland Truck Stop 1107 5th Street, Oakland, California (mg/Kg)

Sample I.D.	Sample Date	TPH-g	TPH-d	Benzene	Toluene	Ethyl- benzene	Total Xylenes	DIPE	ETBE	MTBE (8020)	MTBE (8260)	TAME	1,2-DCA	EDB	ТВА
EB1-9 (MW1)	10/10/96	<1	<1	<0.005	<0.005	<0.005	<0.005	-	-	<0.05	-	-	-	-	-
EB1-13 (MW1)	10/10/96	<1	<1	<0.005	<0.005	<0.005	<0.005	-	-	<0.05	-	-	-	-	-
EB1-19.5 (MW1)	10/10/96	<1	3.4	<0.005	<0.005	<0.005	<0.005	-	-	<0.05	-	-	-	-	-
EB2-5	10/10/96	200	1,600	<0.005	<0.005	<0.005	0.20	-	-	<0.05	-	-	-	-	-
EB2-9	10/10/96	<1	<1	<0.005	<0.005	<0.005	<0.005	-	-	<0.05	-	-	-	-	-
EB2-13	10/10/96	1.5	14	<0.005	0.009	<0.005	0.007	-	-	<0.05	-	-	-	-	-
EB3-9.5	10/10/96	<1	1.8	0.018	0.038	0.007	0.027	-	-	<0.05	-	-	-	-	-
EB3-13	10/10/96	<1	<1	0.017	0.052	0.009	0.038	-	-	<0.05	-	-	-	-	-
EB3-16	10/10/96	<1	1.9	0.012	0.042	0.009	0.041	-	-	<0.05	-	-	-	-	-
EB4-5 (MW2)	10/10/96	6.1	2.1	0.97	0.94	0.10	0.44	-	-	83	-	-	-	-	-
EB4-9 (MW2)	10/10/96	470	1,100	12	47	12	63	-	-	100	-	-	-	-	-
EB4-12.5 (MW2)	10/10/96	1.7	5.9	0.035	0.14	0.030	0.15	-	-	0.34	-	-	-	-	-
EB5-4.5	10/10/96	1,400	28,000	3.5	12	9.4	25	-	-	<4	-	-	-	-	
EB5-8.5	10/10/96	610	5,000	1.2	1.4	5.0	2.2	-	-	<0.85	-	-	-	-	
EB5-12.5	10/10/96	<1	15	0.03	0.007	0.011	0.008	-	-	0.2	-	-	-	-	
EB6-4.5 (MW3)	10/10/96	7.8	390	0.13	<0.01	<0.01	0.027	-	-	1.9	-	-	-	-	-
EB6-9 (MW3)	10/10/96	<1	2.0	<0.005	<0.005	<0.005	<0.005	-	-	<0.05	-	-	-	-	-
EB6-12.5 (MW3)	10/10/96	<1	<1	<0.005	<0.005	<0.005	<0.005	-	-	<0.05	-	-	-	-	-
EB7-4.5 (MW3)	10/10/96	1.6	3.7	0.18	0.018	0.030	0.063	-	-	0.13	-	-	-	-	-
EB7-8.5 (MW3)	10/10/96	18	3.9	1.5	1.7	0.27	1.3	-	-	2.3	-	-	-	-	-
EB7-12.5 (MW3)	10/10/96	1.0	<1	0.12	0.075	0.027	0.11	-	-	0.15	-	-	-	-	-
MW-4-6.0	08/16/00	1,600	13,000	4.5	13	5.1	14	<0.1	<0.1	190	20	<0.1	<1	<0.1	<0.5
MW-5-13.0	08/16/00	<1	13	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	9.9	0.54	<0.01	<0.01	<0.01	<0.05
MW-6-8.5	08/16/00	1.8	31	<0.005	0.018	<0.005	<0.005	<0.0035	<0.0035	1.6	0.12	<0.0035	<0.035	<0.0035	<0.018
MW-7-5.5	08/17/00	7,500	3,400	200	700	160	870	<0.63	<0.63	230	32	<0.63	<0.63	<0.63	<3.2
MW-8-5.0	08/17/00	<1	<1.0	<0.005	<0.005	<0.005	<0.005	<0.0170	<0.0170	5.9	0.54	<0.0170	<0.170	<0.017	<0.085
MW-9-6.5	08/23/00	37	440	<0.005	<0.005	<0.005	<0.005	<0.0025	<0.0025	<0.05	<0.0025	<0.0025	<0.0025	<0.0025	<0.013
MW-3N-7.5	05/08/02	2.3	30	<0.005	<0.005	<0.005	0.0072	<0.0005	<0.0005	0.097	0.011	<0.0005	<0.0005	<0.0005	<0.005
MW-10-6.5	05/08/02	<1	20	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.0005	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
MW-11-7.0	05/08/02	<1	29	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.0005	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.005

ANALYTICAL RESULTS OF SOIL SAMPLES Rino Pacific/Oakland Truck Stop 1107 5th Street, Oakland, California (mg/Kg)

Sample I.D.	Sample Date	TPH-g	TPH-d	Benzene	Toluene	Ethyl- benzene	Total Xylenes	DIPE	ETBE	MTBE (8020)	MTBE (8260)	TAME	1,2-DCA	EDB	ТВА
B-1S-8	07/18/02	6.0	-	0.071	0.016	0.13	0.44	<0.068	<0.068	14	1.5	<0.068	<0.068	<0.068	<0.68
B-2S-8	07/18/02	1.7	-	0.027	0.012	0.028	0.085	<0.19	<0.19	58	7.2	<0.19	<0.19	<0.19	<1.9
B-3S-8	07/18/02	13		0.024	0.022	0.12	0.48	<0.16	<0.16	51	5.0	<0.16	<0.16	<0.16	<1.6
B-4S-8	07/18/02	48	1	<0.04	<0.04	<0.04	0.082	<0.17	<0.17	53	5.1	<0.17	<0.17	<0.17	<1.7
B-5S-8	07/18/02	<1	-	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.0005	80.0	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
B-6S-8	07/18/02	<1	-	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.0005	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
B-7S-5	07/18/02	<1	1	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.0005	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
B-8S-6	07/18/02	<1	1	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.0005	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
MW12-15	10/20/04	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.025
MW13-20	10/20/04	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.025
MW14-10	10/20/04	<1	1.8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	2.0	<0.005	<0.005	<0.005	<0.025
P1-6	07/05/06	210	7,600	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	-	<0.05	<0.1	<0.05	<0.05	<1
P1-14	07/05/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P1-21	07/05/06		<5	0.014	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P1-30	07/05/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P1-40	07/05/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P2-8	07/05/06	110	680	<0.05	0.22	0.62	4.2	<0.1	<0.1	-	<0.05	<0.1	<0.05	<0.05	<1
P2-15	07/05/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P2-20	07/05/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P2-24	07/05/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P2-34	07/05/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P2-40	07/05/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P3-8	07/06/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P3-17	07/06/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P3-25	07/06/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P3-35	07/06/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P3-40	07/06/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P4-7	07/06/06	10	13,000	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	-	<0.05	<0.1	<0.05	<0.05	<1

TABLE 3

ANALYTICAL RESULTS OF SOIL SAMPLES Rino Pacific/Oakland Truck Stop 1107 5th Street, Oakland, California (mg/Kg)

Sample I.D.	Sample Date	TPH-g	TPH-d	Benzene	Toluene	Ethyl- benzene	Total Xylenes	DIPE	ETBE	MTBE (8020)	MTBE (8260)	TAME	1,2-DCA	EDB	ТВА
P4-18	07/06/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	1	<0.005	<0.01	<0.005	<0.005	<0.1
P4-28	07/06/06	<1	< 5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	1	<0.005	<0.01	<0.005	<0.005	<0.1
P4-34	07/06/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P4-40	07/06/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	1	<0.005	<0.01	<0.005	<0.005	<0.1
P5-10	07/06/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P5-20	07/06/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	1	<0.005	<0.01	<0.005	<0.005	<0.1
P5-30	07/06/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P5-40	07/06/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P6-8	07/18/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P6-12	07/18/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P6-20	07/18/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	1	<0.005	<0.01	<0.005	<0.005	<0.1
P7-8	07/18/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P7-12	07/18/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
P7-20	07/18/06	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.1
MW-15-6.5'	09/20/07	1.4	1.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.1
MW-15-11.5'	09/20/07	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	<0.005	<0.1
MW-15-20'	09/20/07	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.1
MW-16-6.5'	09/20/07	<1	3.3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.1
MW-16-11.5'	09/20/07	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	<0.005	<0.1
MW-16-20'	09/20/07	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	ı	<0.005	<0.005	<0.005	<0.005	<0.1
MW17-10	11/22/13	<1	< 5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	<0.005	<0.01
MW17-15	11/22/13	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	<0.005	<0.01
MW18-5	11/21/13	<1	<5	<0.005	0.010	0.020	0.011	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.01
MW18-10	11/21/13	84	39	0.020	<0.005	0.011	<0.005	<0.005	<0.005	1	0.14	<0.005	<0.005	<0.005	1.8
MW18-15	11/21/13	<1	< 5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	ı	<0.005	<0.005	<0.005	<0.005	<0.01
MW19-5	11/21/13	100	59	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.01
MW19-10	11/21/13	86	33	0.060	<0.005	<0.005	0.010	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	11
MW19-15	11/21/13	70	24	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	9.0
MW19-20	11/21/13	1.1	<5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.01
MW20-6	11/22/13	<1	<5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.01

Advanced GeoEnvironmental, Inc.

TABLE 3

ANALYTICAL RESULTS OF SOIL SAMPLES Rino Pacific/Oakland Truck Stop 1107 5th Street, Oakland, California (mg/Kg)

Sample I.D.	Sample Date	TPH-g	TPH-d	Benzene	Toluene	Ethyl- benzene	Total Xylenes	DIPE	ETBE	MTBE (8020)	MTBE (8260)	TAME	1,2-DCA	EDB	ТВА
	Excavation Sampling Results														
SP-1															
SP-2	02/04/99	410	1,300	4.0	12	5.7	47	-	-	6.8	-	-	-	-	-
SP-3	02/04/99	950	6,000	13	20	20	87	-	-	34	-	-	-	-	-
B-1-14	03/03/99	<1	<1	<0.005	<0.005	<0.005	<0.005	-	-	1.3	-	-	-	-	-
SW-1-8	03/03/99	<1	<1	<0.005	<0.005	<0.005	<0.005	-	-	26	-	-	-	-	-
B-2-14	03/03/99	<1	4.3	<0.005	<0.005	<0.005	<0.005	-	-	<0.05	-	-	-	-	-
SW-2-6	03/03/99	<1	4.2	<0.005	0.028	<0.005	0.047	-	-	30	-	-	-	-	-
B-3-14	03/03/99	<1	2.2	<0.005	0.017	<0.005	0.014	-	-	<0.05	-	-	-	-	-
SW-3-8	03/03/99	14	<1	4.8	2.1	0.19	0.80	-	-	39	-	-	-	-	-
B-4-14	03/03/99	<1	2.8	0.037	0.077	0.018	0.082	-	-	0.86	-	-	-	-	-
SW-4-8	03/03/99	7.0	1.1	<0.005	<0.005	<0.005	<0.005	-	1	39	ı	-	-	1	-
Floor-1	04/04/07	1.1	370	0.2	<0.005	<0.005	<0.005	<0.01	<0.01	-	0.6	0.036	<0.005	<0.005	<0.10
Floor-2	04/04/07	7	270	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	0.072	<0.01	<0.005	<0.005	<0.10
Floor-3	04/04/07	1	220	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	0.03	<0.01	<0.005	<0.005	<0.10
Floor-4	04/04/07	<1.0	95	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	0.036	<0.01	<0.005	<0.005	<0.10
Floor-5	04/04/07	2.0	930	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	0.034	<0.01	<0.005	<0.005	<0.10
Floor-6	04/04/07	<1.0	<5.0	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.005	<0.01	<0.005	<0.005	<0.10
Floor-7	04/04/07	1.4	<5.0	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	1.2	0.042	<0.005	<0.005	<0.10
Floor-8	04/04/07	13	9,800	<0.005	0.018	0.016	0.024	<0.01	<0.01	-	2.6	0.046	<0.005	<0.005	<0.10

TABLE 3

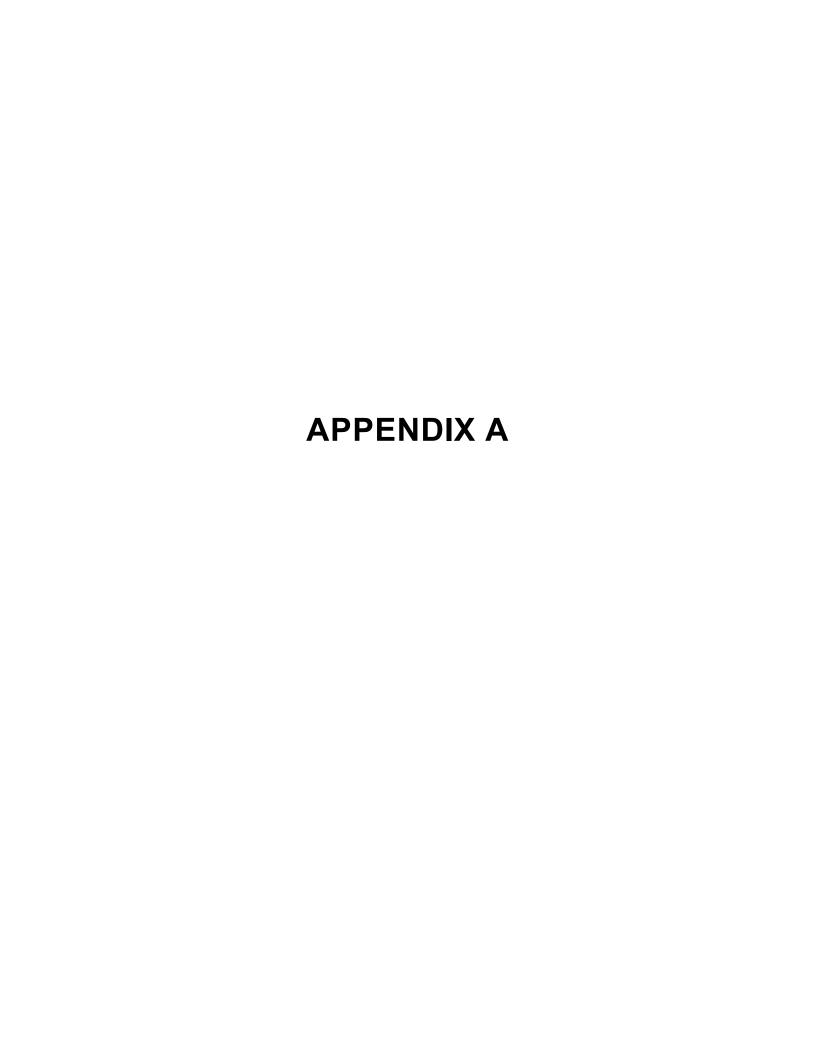
ANALYTICAL RESULTS OF SOIL SAMPLES Rino Pacific/Oakland Truck Stop 1107 5th Street, Oakland, California (mg/Kg)

Sample I.D.	Sample Date	TPH-g	TPH-d	Benzene	Toluene	Ethyl- benzene	Total Xylenes	DIPE	ETBE	MTBE (8020)	MTBE (8260)	TAME	1,2-DCA	EDB	TBA
Exc-S1	04/04/07	24	1,100	<0.005	0.018	0.014	0.020	<0.01	<0.01	-	0.04	<0.01	<0.005	<0.005	<0.10
Exc-S2	04/04/07	30	4,400	0.024	0.020	0.018	0.020	<0.01	<0.01	-	0.23	0.048	<0.005	<0.005	<0.10
Exc-S3	04/04/07	50	8,600	0.046	0.018	0.028	0.044	<0.01	<0.01	-	2.4	0.90	<0.005	<0.005	<0.10
Exc-W	04/04/07	36	2,300	0.020	0.020	0.014	0.020	<0.01	<0.01	-	0.13	0.036	<0.005	<0.005	<0.10
Exc-E	04/04/07	5.0	<5.0	0.02	0.019	0.014	0.022	<0.01	<0.01	-	2.0	0.011	<0.005	<0.005	<0.10

All units reported in milligrams per kilograms (mg/Kg)

TPH-g: Total petroleum hydrocarbons quantified as gasoline
TPH-d: Total petroleum hydrocarbons quantified as diesel

MTBE: Methyl-tert-butyl-ether
DIPE: Diisopropyl ether
ETBE: Ethyl-t-butyl ether
TAME: t-amyl methyl ether
1,2-DCA: 1,2-dichloroethane
EDB: 1,2-dibromoethane
TBA: t-butyl alcohol



APPENDIX A

HISTORICAL BACKGROUND Rino Pacific - Oakland Truck Stop 1107 5th Street, Oakland, California

A.1. BACKGROUND

The site is located at 1107 5th Street in a commercial and industrial area of west Oakland, California (Figure 1). The property contains a service station building, four fuel dispenser islands, a truck scale, scale house, and two underground storage tanks (USTs). The site has been operating as a truck stop for the past 40 years.

A.2. REGIONAL GEOLOGIC/HYDROGEOLOGIC SETTING

The site is situated within the Coast Range Geomorphic Province of California. This geopmorphic province contains coastal foothills and mountains and extends from the Tehachapi Mountains in the south to the Klamath Mountains in the north. The western and eastern boundaries of this province are comprised of the Pacific Ocean and the Great Valley Geomorphic Province, respectively.

The site is located in the Franciscan Complex, which is subdivided into four major divisions identified as the Northern Coast Range, the Franciscan Block, the Diablo Range, and the Nacimiento Block. The site is situated within 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 located on low terraces and alluvial fans at an elevation of about 20 feet to 300 feet above mean sea level (MSL), and consists of approximately 60% Urban Land, 30% Danville soil, and 10% other soils. Danville soil is a silty clay loam that formed in alluvium originating primarily 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 property.

Beginning in October 1996, ground water monitoring has been conducted at the site to assess the seasonal variation of elevation, gradient, and flow direction, and to define the impact of petroleum hydrocarbon compounds and fuel oxygenating compounds in shallow ground water beneath the site. Based on data 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.

Site Background Information: Rino Pacific - Oakland Truck Stop Page 2 of 7

A.2. 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 is shown on Figure 2.

Interim remedial action was performed during the UST removal to address contaminated soil and ground water. Approximately 2,100 tons of contaminated soil were 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; approximately 33,000 gallons of water were pumped into temporary storage tanks, which were then transported and disposed off-site. Approximately 1,700 tons of backfill was placed in the excavation. Results of the soil samples taken during the excavation are not available.

A.3. SITE ASSESSMENT ACTIVITIES

In November 1996, ground water monitoring wells MW-1 through MW-3 were installed to a depth of 20 feet bsg to assess contamination from an unauthorized release of fuel, which was repaired as soon as it was discovered. Product recovery sumps equipped with skimmers were installed in the wells and approximately 6 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 bsg in August 2000. Contamination was detected in each of the wells, and free product was occasionally evident in well MW-7.

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

In July 2002, eight soil borings were advanced on 5^{th} Street and Chestnut Street to total depths between 5 feet and 8 feet bsg to determine if contamination was migrating off-site along preferential pathways (i.e. utility trenches). Sample results indicated high methyl tertiary-butyl ether (MTBE) concentrations that ranged from 170,000 micrograms per liter (μ g/l) to 460,000 μ g/l in grab ground water samples from borings drilled directly north of the site, along the 5^{th} Street sewer line. Borings east of the site had little to no contamination.

In January 2003, a passive skimmer was placed inside monitoring well MW-7 to remove free product. During monitoring activities in April 2004, free-product was noted in MW-8. The passive skimmer in MW-7 was moved to MW-8 to remove the free product.

In October 2004, three pilot borings were advanced at the site to install three ground water monitoring wells MW-12 through MW-14. Wells MW-12 and MW-13 were installed in the 5th Street right of way to the north of the property to a vertical depth of 20 feet bsg and completed as ground water monitoring wells using 2-inch diameter polyvinylchloride (PVC) casing with a 0.020-inch slotted screen installed from 5 feet to 20 feet bsg. Well MW-14 was installed in the northeast corner of the site with the same construction as wells MW-12 and MW-13. A total of three soil samples, taken from the monitoring well pilot borings, were analyzed for petroleum hydrocarbon constituents. In sample MW14-10, 1.8 milligrams per kilogram (mg/kg) TPH-d and 2.0 mg/kg MTBE were detected.

On 05 through 07 and 18 July 2006, seven soil borings (P1 through P7) were advanced on-site to depths of 20 feet bsg with direct-push technology (P6 and P7) and 40 feet bsg (P1 through P5) with a hollow-stem auger drill rig. All borings were continuously cored from surface grade to total depth. Soil and grab ground water samples were collected at selected intervals based on lithology encountered during drilling; grab ground water samples were collected from borings advanced immediately adjacent to P1 through P5, and at total depth in borings P6 and P7. Soil samples were collected between depths of 6 feet and 40 feet bsg from borings P1 through P7 and analyzed for petroleum hydrocarbon constituents. TPH-g was detected in soil samples P1-6, P1-21, P2-8, and P4-7 at concentrations of 210 mg/kg, 2.6 mg/kg, 110 mg/kg, and 10 mg/kg, respectively. TPH-d was detected in samples P1-6, P2-8, and P4-7 at concentrations of 7,600 mg/kg, 680 mg/kg, and 13,000 mg/kg, respectively.

Grab ground water samples were collected from soil borings advanced immediately adjacent to P1 through P5 at selected sandy zones between 10 feet and 35 feet bsg, and from borings P6 and P7 at a depth of 20 feet bsg. TPH-g was detected in boring P1 at 20 feet and 35 feet bsg, in boring P4 at 10 feet bsg, in boring P5 at 10 feet and 35 feet bsg, and in borings P6 and P7 at 20 feet bsg at concentrations ranging from 130 µg/l (P6-20-W) to 38,000 µg/l (P4-W-10). TPH-d was detected in boring P1 at 20 feet and 35 feet bsg, in boring P4 at 10 feet bsg, and in boring P7 at 20 feet bsg at concentrations ranging from 4,500 µg/l (P1-W-35) to 350,000 µg/l (P4-W-10). BTEX constituents were detected in boring P1 at 20 feet and 35 feet bsg, P5 at 10 feet and 35 feet bsg, and P6 at 20 feet bsg at maximum concentrations of 110 µg/l benzene (P1-W-20), 36 µg/l toluene (P5-W-10), 13 µg/l ethylbenzene (P1-W-35), and 17.3 µg/l total xylenes (P1-W-20). MTBE was detected in samples collected from boring P1 at 20 feet and 35 feet bsg, in boring P4 at 10 feet bsg, in boring P5 at 10 feet and 35 feet bsg, and in borings P6 and P7 at 20 feet bsg at concentrations ranging from 4.1 µg/l (P6-20-W) to 11,000 µg/l (P1-W-20). TAME was detected in boring P1 at 20 feet and 35 feet bsg, in boring P4 at 10 feet bsg, and in boring P5 at 10 feet bsg at concentrations ranging from 3.4 µg/l (P5-W-10) to 17 µg/l (P1-W-20). The lead scavenger 1,2-DCA was detected in boring P1 at 20 feet and 35 feet bsg at concentrations of 4.7 µg/l and 3.4 µg/l, respectively. Benzene was detected in sample P1-21 at a concentration of 0.014 mg/kg. Toluene, ethylbenzene, and xylenes were detected in sample P2-8 at concentrations of 0.22 mg/kg, 0.62 mg/kg, and 4.2 mg/kg,

Site Background Information: Rino Pacific - Oakland Truck Stop Page 4 of 7

respectively.

In September 2007, AGE installed ground water monitoring wells MW-15 and MW-16 and conducted ground water assessment at the site utilizing CPT. The wells were installed off-site in the City of Oakland right-of-way approximately 160 feet northeast and 100 feet northwest (down-gradient) of the former UST area, respectively, to total depths of approximately 20.5 feet bsg and completed with 15 feet of well screen section extending from approximately 5 to 20 feet bsg.

A total of three borings (CPT-1 through CPT-3) were advanced to collect subsurface lithologic data and to collect discrete ground water samples. Two CPT borings were advanced on the eastern portion of the site to assess the vertical extent of petroleum hydrocarbon-impacts to ground water. One CPT boring was advanced off-site, in the northwest parking area of 5th Street, to assess the lateral and vertical extent of petroleum hydrocarbon impacts to ground water. Soil boring CPT-1 was advanced approximately 110 feet northwest of the northwest corner of the site. Soil borings CPT-2 and CPT-3 were advanced approximately 100 feet southeast and east of the former USTs located on the central portion of the site, respectively. Due to refusal the total depths of the lithologic soundings in borings CPT-1, CPT-2, and CPT-3 were 52 feet bsg, 52 feet bsg, and 54 feet bsg, respectively.

There were no reported detections of BTEX compounds in any if the soil samples collected for laboratory analysis. TPH-d was detected in two of the six soil samples collected at a reported concentration of 1.4 milligrams per kilograms (mg/kg; MW-15-6.5 feet) and 3.3 mg/kg (MW-16-6.5 feet). However, the laboratory report indicates that the results in sample MW-15-6.5 feet do not resemble a fuel pattern, and that the TPH-d results in sample MW-16-6.5 feet are primarily due to overlap from a heavy oil range product. TPH-g was detected in soil sample MW-15-6.5 feet at a reported concentration of 1.4 mg/kg.

Benzene was detected at concentrations of 2.0 micrograms per liter (µg/l), 8.0 µg/l, 10 µg/l, and 13 µg/l for samples CPT-2C, CPT-2B, CPT-3C, and CPT-3B, respectively. Toluene was detected at concentrations of 0.67 µg/l, 1.1 µg/l, 3.4 µg/l, and 13 µg/l for samples CPT-3C, CPT-3B, CPT-2C, and CPT-2B, respectively. Ethylbenzene was detected at a concentration of 0.57 µg/l, 1.3 µg/l,1.9 µg/l, and 10 µg/l for samples CPT-2C, CPT-2B, CPT-3C, and CPT-3B, respectively. Total xylenes were detected at concentrations of 2.1 µg/l, 2.7 µg/l, 5.5 µg/l, and 1.3 µg/l for samples CPT-3C, CPT-2B, and CPT-3B, respectively. There were no reported detections of BTEX compounds in ground water samples collected from boring CPT-1.

TPH-d was detected in three of the seven ground water samples collected; at concentrations of 54 μ g/l, 190 μ g/l, and 240 μ g/l in samples CPT-2C, CPT-3B, and CPT-3C, respectively. There were no reported detections of TPH-d in A-zone ground water samples CPT-2B, CPT-1A, CPT-1B or CPT-1C. TPH-g was detected in three of the seven

Site Background Information: Rino Pacific - Oakland Truck Stop Page 5 of 7

ground water samples collected; at concentrations of 69 μ g/l, 270 μ g/l, and 410 μ g/l in samples CPT-2B, CPT-3C, and CPT-3B, respectively. There were no reported detections of TPH-g in ground water samples CPT-2C, CPT-1A, CPT-1B or CPT-1C. MTBE was detected in three the seven ground water samples collected for analysis. MTBE was detected at concentration of 0.61 μ g/l, 0.93 μ g/l, and 16 μ g/l in ground water samples CPT-2C, CPT-3B, and CPT-3C. There were no reported detections of MTBE in ground water samples CPT-2B, CPT-1A, CPT-1B or CPT-1C.

In July 2008, AGE conducted the additional subsurface investigation at the site utilizing 25-ton truck mounted CPT drill rig. A total of three borings (CPT-4 through CPT-6) were advanced to collect subsurface lithologic data and to collect discrete ground water samples. CPT boring (CPT-4) was advanced on-site, approximately 40 feet northeast of the former UST area. CPT boring CPT-5 was advanced off-site, in the dirt area on the north side of 5th Street. CPT boring CPT-6 was advanced east of the site, on the eastern edge of Chestnut Street. Due to refusal, the total depths of the lithologic soundings in borings CPT-4, CPT-5, and CPT-6 were 49 feet bsg, 47 feet bsg and 45 feet bsg respectively. A total of seven ground water samples were collected from borings CPT-4 through CPT-5 and submitted for laboratory analysis. No contaminants of concern were detected in any of the samples analyzed.

A.4. SITE REMEDIATION ACTIVITIES

In March 2004, a total of ten pilot borings were advanced to 12.5 feet bsg at the site to install ten ozone sparge wells (OZ-1 through OZ-10). The microporous sparge interval was set at 10 to 12 feet bsg.

In October 2004, ten pilot borings were advanced to install ten ozone sparge wells OZ-11 through OZ-20. The sparge wellw were completed with a manufacturer-assembled, 2-inch by 24-inch microporous sparge interval from 11 to 13 feet bsg and blank 1-inch casing extended to the surface. The filter pack was installed from 9 feet to 15 feet bsg.

During the first quarter 2005, AGE completed the installation of the interim remediation system subsurface piping network. All tubing was encased in Schedule 80 polyvinylchloride (PVC) piping.

On 24 September 2005, two ozone sparge systems were installed on-site and started; initiation of the ozone sparge system was delayed upon the client's request, as demolition activities were being conducted on-site.

On 13 March 2007, AGE personnel directed the destruction of five ozone injection wells (OZ6, OZ7, OZ10, OZ16 and OZ17) in preparation for truck scale upgrade activities to be performed by the property's lessee and CAT Scale. In preparation for destruction of ozone

Site Background Information: Rino Pacific - Oakland Truck Stop Page 6 of 7

injection wells OZ6, OZ7, OZ10, OZ16 and OZ17 all material within the original boreholes, including the well casings, filter pack, annular seal, and well cover boxes were over-drilled utilizing a CME-HT drill rig equipt with 10-inch, hollow stem augers. Following over-drilling activities, each borehole was backfilled with a cement grout mixture to surface grade.

Hydrocarbon-impacted soil surrounding the existing truck scale was excavated as part of truck scale removal and upgrade activities. Soil was removed to a depth of approximately six feet bsg using an excavator. Soil surrounding the existing truck scale was excavated by representatives of CAT Scale. The excavation provided the removal of a significant amount of petroleum hydrocarbon-impacted soil within the present vadose and smear zones. The soil was removed using an excavator to a total depth of approximately 6 feet bsg. While soil was excavated, trucks were immediately loaded for transportation Keller Canyon Landfill in Pittsburg, California. The impacted soil was transported by Intrinsic Transportation, Inc, of Santa Rosa, California and JT & T Enterprises of Cotati, California under non-hazardous waste manifest. According to total sum of truck weight tickets 543.76 tons or approximately 367 cubic yards of soil were disposed. The excavation was backfilled with clean fill sand and pea gravel mixtures. The fill material placed in the excavation and was compacted by representatives of CAT Scale. In addition, the installation of the scale was conducted by representatives of CAT Scale.

TPH-d-range petroleum hydrocarbons were detected at concentrations ranging from 95 mg/kg to 9,800 mg/kg (Table 1). TPH-g-range petroleum hydrocarbons were detected at concentrations ranging from 1.0 mg/kg to 50 mg/kg (Table 1). Benzene concentrations ranged from 0.020 mg/kg to 0.20 mg/kg. Toluene concentrations ranged from 0.018 mg/kg to 0.020 mg/kg. Ethylbenzene concentrations ranged from 0.014 mg/kg to 0.028 mg/kg. Total xylene concentrations ranged from 0.020 mg/kg to 0.044 mg/kg. MTBE was detected in 12 of the 13 soil samples at concentrations ranging from 0.030 mg/kg to 2.6 mg/kg. The reported concentrations of TAME ranged from 0.011 mg/kg to 0.90 mg/kg.

Based on the analytical results gathered from the floor and the sidewalls of the excavation, it appears that moderate to elevated levels of petroleum hydrocarbon-impacts to soil remain at depths of approximately six feet bsg on the northwest portion of the site.

After completion of the truck scale upgrade by CAT Scale, AGE personnel directed the advancement of five pilot soil borings at the site for the re-installation of ozone injection wells OZ6R, OZ7R, OZ10R, OZ16R and OZ17R.

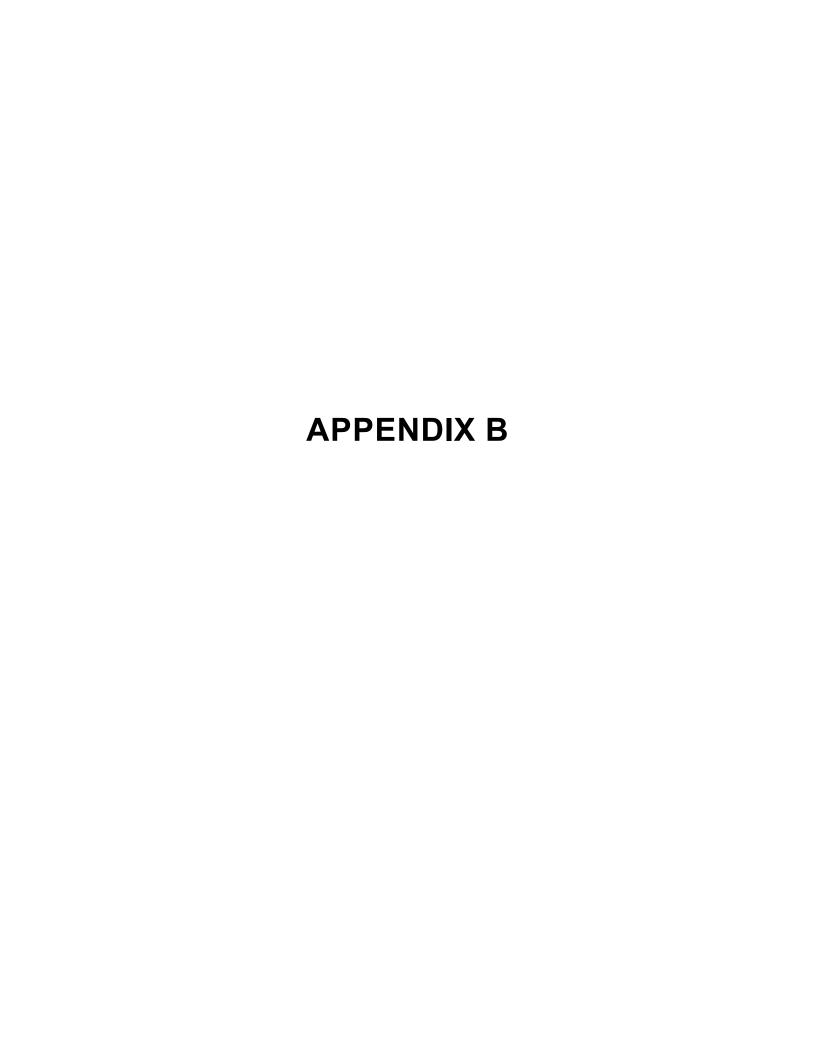
The ozone well pilot soil borings were completed as single-level ozone injection wells with manufacturer-assembled, 2-inch by 24-inch microporous sparge points set from approximately 11 feet to 13 feet bsg.

From September 2005 to July 2007 the systems injected ozone for a ½-hour duration into two ozone injection points at a time. A total of ten ozone injection wells, in conjunction with

Site Background Information: Rino Pacific - Oakland Truck Stop Page 7 of 7

the south unit, have been on-line throughout the majority of the Second Quarter 2007. The north unit has been shut down since 13 Mach 2007 due to the destruction of ozone wells OZ6, OZ7, OZ10, OZ16, and OZ17; however, the north unit was brought back on-line 27 July 2007 subsequent to re-plumbing the recently installed ozone injection points. Both the north and south unit systems currently inject ozone for a 1-hour duration into one ozone injection points at a time.

The monitoring of geochemical parameters had been discontinued as of the second quarter 2009, but was resumed on 05 October 2010 until the ozone systems became non-operational in January 2011. A summary of geochemical parameters and the ozone systems operation and maintenance activities thus far were presented in Table 4 and Table 5 of the AGE-prepared, *First Semi-Annual Report - 2011 (January to June)*.



Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 11/19/2013 By jamesy Permit Numbers: W2013-0937 to W2013-0940 Permits Valid from 11/21/2013 to 11/22/2013

Application Id: 1384365021397 City of Project Site:Oakland

Site Location: 1107 5th St, Oakland, CA

Project Start Date: 11/21/2013 Completion Date:11/22/2013
Assigned Inspector: Contact Balance Hydrologics, Inc at (510) 473-5663 or acwells@balancehydro.com

Applicant: Advanced GeoEnvironmental Inc - Brain Millman Phone: 800-511-9300

837 Shaw Rd, Stockton, CA 95215

Property Owner: Tony Muir Lillie Earls Phone: 510-472-7906

1374 34th St, Oakland, CA 94608

Client: Rinehart Oil Inc Phone: 707-462-8811

2401 N State St, Ukiah, CA 95480

Total Due: \$1588.00

Receipt Number: WR2013-0435 Total Amount Paid: \$1588.00
Payer Name: Advanced Geoenvr Paid By: CHECK PAID IN FULL

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 4 Wells

Driller: All Well - Lic #: 848359 - Method: hstem Work Total: \$1588.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2013- 0937	11/19/2013	02/19/2014	MW17	8.00 in.	2.00 in.	4.00 ft	20.00 ft
W2013- 0938	11/19/2013	02/19/2014	MW18	8.00 in.	2.00 in.	30.00 ft	40.00 ft
W2013- 0939	11/19/2013	02/19/2014	MW19	8.00 in.	2.00 in.	30.00 ft	40.00 ft
W2013- 0940	11/19/2013	02/19/2014	MW20	8.00 in.	2.00 in.	30.00 ft	40.00 ft

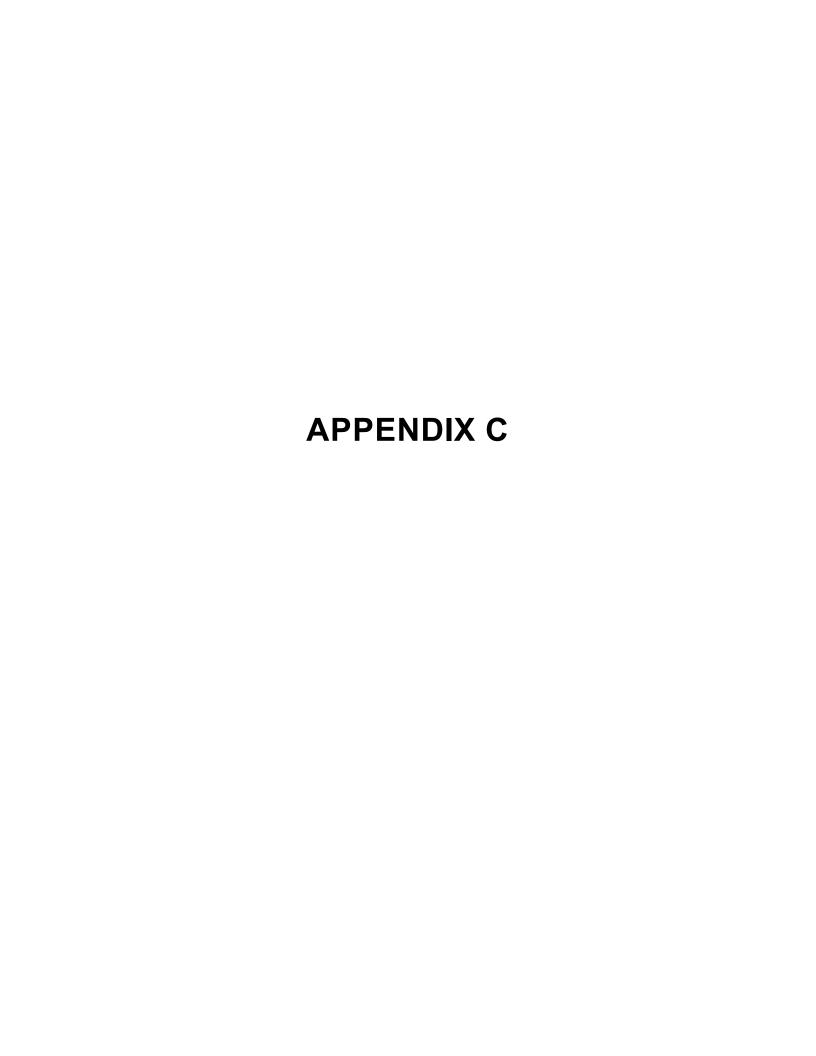
Specific Work Permit Conditions

- 1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
- 2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
- 3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the

Alameda County Public Works Agency - Water Resources Well Permit

permits and requirements have been approved or obtained.

- 4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.
- 5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.
- 6. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
- 7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
- 8. Minimum surface seal thickness is two inches of cement grout placed by tremie.
- 9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.
- 10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.





Site Location:

Project No.:

Advanced GeoEnvironmental, Inc.

837 Shaw Road, Stockton, CA 95215 (209) 467-1006 FAX: (209) 467-1118

BORING LOG

BOREHOLE NO.: MW-17

TOTAL DEPTH: 20 Feet

Project: Rinehart - Oakland Truck Stop

1107 5th Street

AGE- 03-1101

Oakland, California

Drilling Co.: All-Well Abandonment

Rig/Auger Type: LAR/ 8" HSA

Logged By: Brian W. Millman

Reviewed By: Bill Little

Date(s) Drilled: 22 November 2013

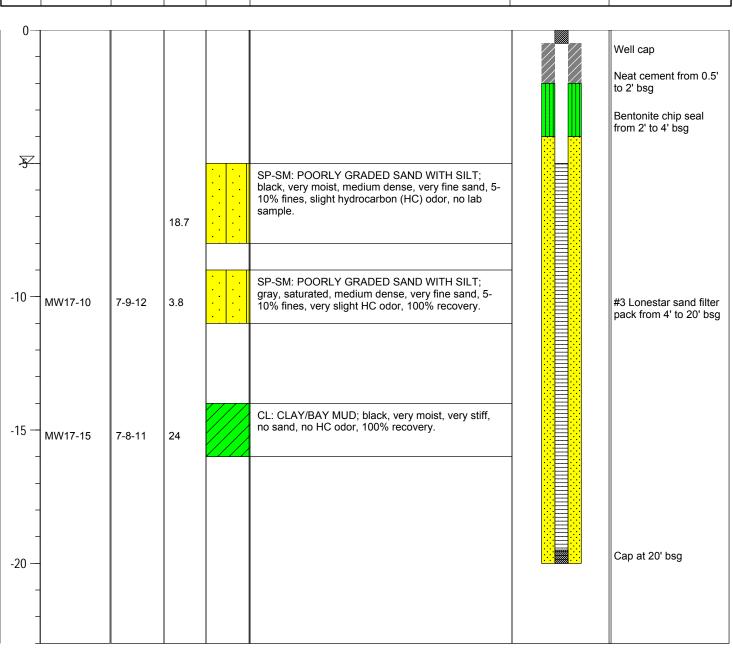
Notes: hand cleared to 8 feet bsg

water Level Before Drilling

Water Level After Drilling

Page 1 of 1

1					·		
Dan4	Sample	Blows	PID	Soil	USCS Class and	Well	Well
Depti	¹ ID	(per 6")	(ppm)	Symbol	Soil Description	Completion	Description





Site Location:

Project No.:

Advanced GeoEnvironmental, Inc.

837 Shaw Road, Stockton, CA 95215 (209) 467-1006 FAX: (209) 467-1118

BORING LOG

BOREHOLE NO.: MW-18

TOTAL DEPTH: 40 Feet

Project: Rinehart - Oakland Truck Stop

1107 5th Street

AGE- 03-1101

Oakland, California

Drilling Co.: All-Well Abandonment

Rig/Auger Type: LAR/ 8" HSA

Logged By: Brian W. Millman

Reviewed By: Bill Little

Date(s) Drilled: 21 November 2013

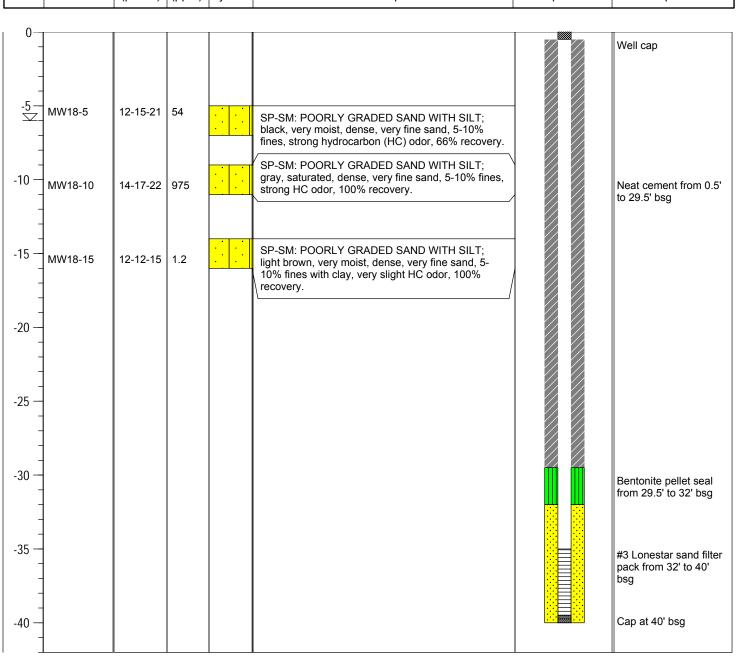
Notes:

water Level Before Drilling

Water Level After Drilling

Page 1 of 1

1			1		'		
Danth	Sample	Blows	PID	Soil	USCS Class and	Well	Well
Depth	ID	(per 6")	(ppm)	Symbol	Soil Description	Completion	Description





Project No.:

Notes:

Advanced GeoEnvironmental, Inc.

837 Shaw Road, Stockton, CA 95215 (209) 467-1006 FAX: (209) 467-1118

BORING LOG

BOREHOLE NO.: MW-19

TOTAL DEPTH: 40 Feet

Project: Rinehart - Oakland Truck Stop

AGE- 03-1101

Site Location: 1107 5th Street

Oakland, California

Drilling Co.: All-Well Abandonment

Rig/Auger Type: LAR/ 8" HSA

Logged By: Brian W. Millman

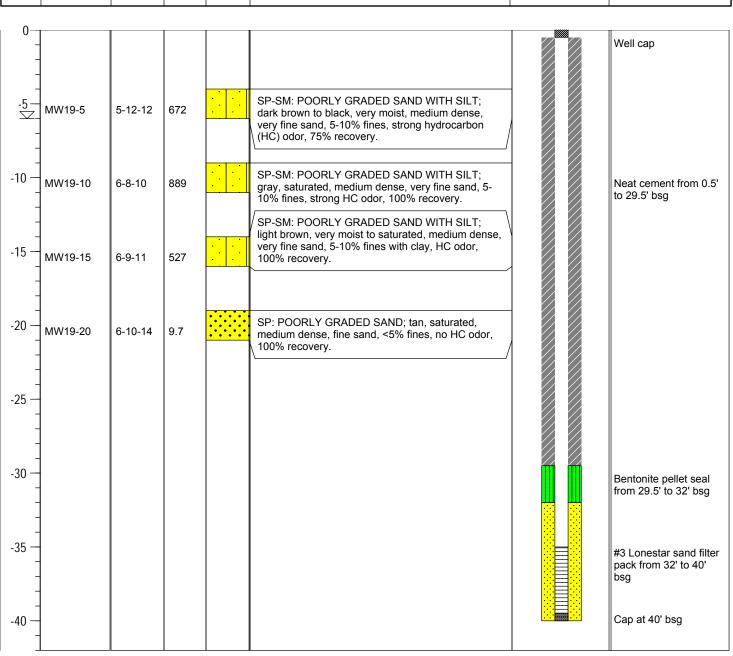
Reviewed By: Bill Little

Date(s) Drilled: 21 November 2013

Water Level After Drilling

Page 1 of 1

Depth	Sample	Blows (per 6")	PID (ppm)	Soil Symbol	USCS Class and Soil Description	Well Completion	Well Description
	.5	(60.0)	(PP)	0,111001	Con Boodinphori	Completion	Bootinplion





Site Location:

Project No.:

Advanced GeoEnvironmental, Inc.

837 Shaw Road, Stockton, CA 95215 (209) 467-1006 FAX: (209) 467-1118

BORING LOG

BOREHOLE NO.: MW-20

TOTAL DEPTH: 40 Feet

Project: Rinehart - Oakland Truck Stop

1107 5th Street

AGE- 03-1101

Oakland, California

Drilling Co.: All-Well Abandonment

Rig/Auger Type: LAR/ 8" HSA

Logged By: Brian W. Millman

Reviewed By: Bill Little

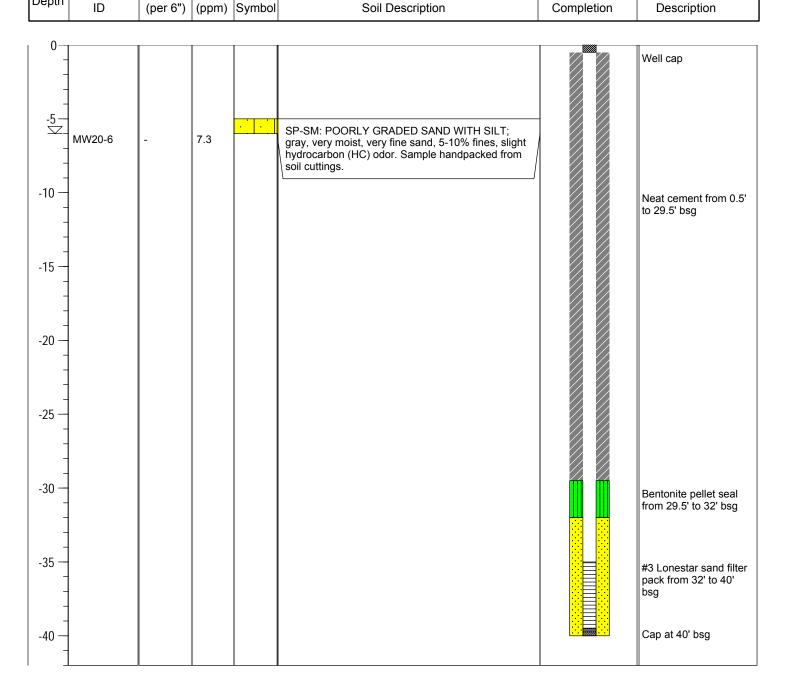
Date(s) Drilled: 22 November 2013

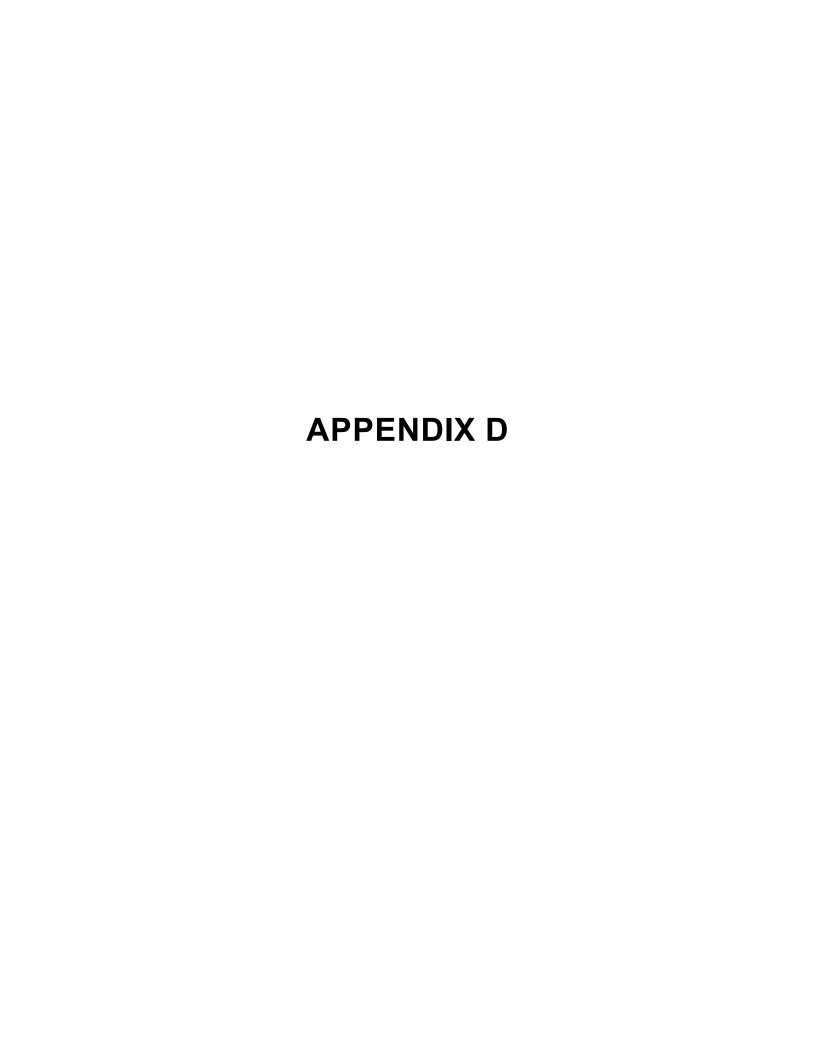
Notes: No soil sampling.

Soil sample collected at 6 feet by handpacking from cuttings

Page 1 of 1

Depth Sample Blows PID Soil USCS Class and Well Well Soil Depth So





GeoEnvironmental, Inc. 4005 North Wilson Way, Stockton, CA 95205 • (209) 467-1006 • Fax (209) 467-1118



Ground Water Depth & Dissolved Oxygen Field Log

Project: Dalland truck Stop	Date: 11-25-13
Field Personnel: WB	Page: of

Well	т:	Casing	Depth To	Ground	Total	Disso	lved Oxy	gen
I.D.	Time	Elevation	Water	Water Elevation	Depth Pre	MG/I Post.	%	°C
17	1045		4.55	5,09	19.86	19.86		_
18	1235		7.24	4,32	36.66	39.60		
19	1350		7.35	4,16	38.82			_
20	1130		5.00	4.52	37.79	39.70		
		£						
					9. 11			
				0				
							5. :	
				*				
						5		
		*1						

GeoEnvironmental, Inc.





Monitoring Well Field Log

Well Data

	Project Name: RINEHART - OAKLAND	TRUCK STOP	Project No.: AGE-NC-03-1101	Date:11/25/13
	Pre-Purge DTW: 4,55	Time: የ <mark>ታ</mark> ሂ5	Well I.D.:MW-	
	Post-Purge DTW: 19.50	Time:		
pre:	Total Depth of Well: 20:00	Well Volume:	Casing Diameter: 0.5" Gal./Ft.: 0.01074	2 ¹ ' 4" 6" 0.16 0.65 1.47
	Sampler(s):MB		Sample Containers:	
	Sample I.D.:MW-	/112513	Analysis:	

Well development. Stabilization Data

wen a	COOPIN	CVVI .	Otabii	Ization De	ata		•
Time	Volume (gallons)	рН	Temp.	Cond µS/cm	Color/ Turbidity	Notes	
1105	0	1.03	21.4	573	cloudy		
1107	2.5	7.17	22.5	577	n		
1109	5	7.12	27.8	407	n		1
1112	1.5	6.97	27.6	1060	N		
1115	10	6.92	8.15	704	n		
	12.5						
	15						
	17.5	- DV	ew d	NWO	to 19.50) at about	MGal.
	20						20
	22.5				_		
	25					_	

Purge Method: STEAL BAILER AND INERTIA PUMP WITH 5/8 TUBING

Sample Method: DISPOSABLE BAILER Well Integrity:

Sample Time: NO Sample Dissolved O2: C

WATER ANALYZER: Oakton % mg/L

Version 3.0/0898/REM

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



Monitoring Well Field Log

Well Data

Project Name: RINEHART - OAKLAND	TRUCK STOP	Project No.: AGE-NC-03-1101	Date:11	/25/13	
Pre-Purge DTW: 7,24	Time: 1235	Well I.D.:MW- 18			
Post-Purge DTW:8,35	Time 1329				
Total Depth of Well: 40.00 Pye: 30.60	Well Volume:	Casing Diameter: 0.5" Gal./Ft.: 0.01074	0.16	4" 0.65	6" 1.47
Sampler(s):MB		Sample Containers:			
Sample I.D.:MW-18	/112513	Analysis:			

Stabilization Data

	Stabilization Data							
Time	Volume (gallons)	pH	Temp.	Cond µS/cm	Color/ Turbidity	Notes		
1250	0	7.22	20,7	428	cloud	1		
1254	5	7.24	20.7	404	N			
1257	10	7.28	20.6	376	n			
1301	15	7.30	20.6	356	N			
1304	20	7.31	20.4	351	N			
1308	25	7.31	20.5	341	h			
1311	30	7.31	20,4	337	N			
1315	35	7.30	20.4	333	h			
1318	40	7.29	20.4	333	u			
1321	45	7.28	20.4	331	clear/doud			
1325	50	7.28	70.4	331	h			
1328	55	7.26	20.4	330	N			
Purge Meth	nod:	STEAL BAIL	ER AND INE	RTIA PUN	IP WITH 5/8 TU	BING		
Sample Me	Sample Method: DISPOSABLE BAILER				Integrity:			
Sample Tin	Sample Time: NO Sample			Disso	olved O ₂ :	С		
	WATER A	NALYZER: O			%	mg/L		
					Ti-			

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



Monitoring Well Field Log

Well Data

Project Name: RINEHART - OAKLAND	TRUCK STOP	Project No.: Date:11/25/13 AGE-NC-03-1101				
Pre-Purge DTW: 7.35	Time:1350	21.0				
Post-Purge DTW:	Time:1438					
Total Depth of Well:40 .00 Re:38.821 Post: 40.90	Well Volume: 5,22	Casing Diameter: 0.5" Gal./Ft.: 0.01074	(2") 4" 6" (0.16) 0.65 1.47			
Sampler(s):MB		Sample Containers:				
Sample I.D.:MW-	/112513	Analysis:				

Stabilization Data

Time	Volume (gallons		Temp.	Cond µS/cn		Color/ Turbidity		Notes
1400	0	7.18	20.7	39	5	cloud	4	
1404	5	7,23	20.6	37	1	u	,	
1408	10	7.28	20.3	343	3	h		
1411	15	7.33	20,4	319		~		
1415.	20	7.36	20.0	470)	n		
1418	25	7.36	20.2	45		h	ı	
1421	30	7.37	20.2	48	i	~		
1425	35	7.36	20.2	44	2	h	1	
1428	40	7.35	20,2	453	3	h	1	
1431	45	7.35	20,1	455	5	h	1	_
1434	50	1.35	20.1	449		V		
1437	55	7.35	70.1	45	01	N		
Purge Meth	nod:	STEAL BAIL	ER AND INE	RTIA PL	JMP	WITH 5/8 T	JBING	1
Sample Me	Sample Method: DISPOSABLE BAILER					egrity:		B 8
Sample Tir	Sample Time: NO Sample					ed O ₂ :		С
	WATER ANALYZER: Oakton					%		mg/L

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



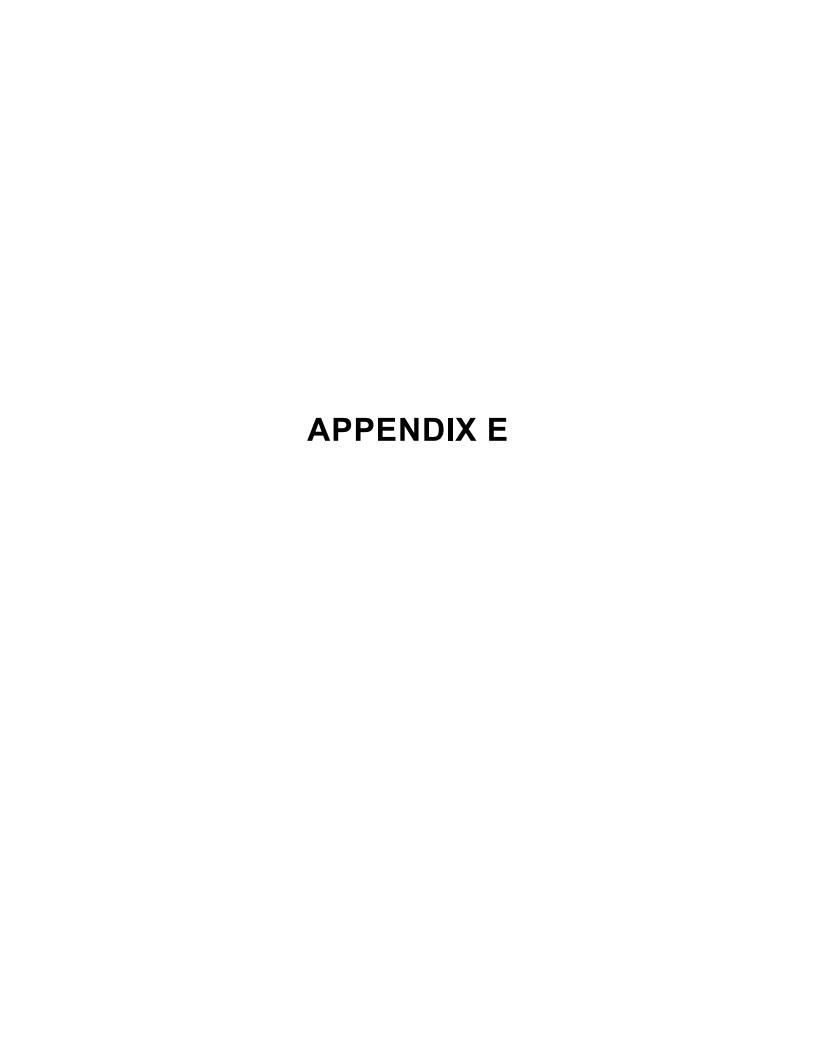
Monitoring Well Field Log

Well Data

Project Name: RINEHART - OAKLAND TRUCK STOP	Project No.: Date:11/25/13 AGE-NC-03-1101
Pre-Purge DTW:5.00 Time:1130	Well I.D.:MW- 20
Post-Purge DTW: 7.00 Time: 1219	
Total Depth of Well: 40.00 Well Volume: 97:37.19 (Post: 39.70)	Casing Diameter: 0.5" (2" 4" 6" Gal./Ft.: 0.01074 (0.16) 0.65 1.47
Sampler(s):MB	Sample Containers:
Sample I.D.:MW- 20 /112513	Analysis:

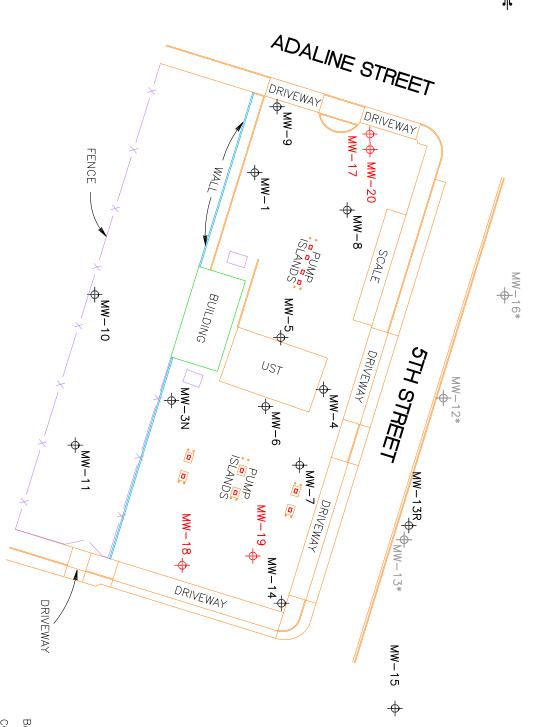
Stabilization Data

Time	Volume (gallons		рН	Temp.		Cond S/cm	Color/ Turbidity	,	Notes
1137	0		7.74	20,4	4	182	cloud	V	
1140	5		7.69	20.2	L	544	n	1	
1144	10		7.60	20.0	5	122	n		
1148	15		7.53	19.9	5	511	5		
1151	20		7.49	19.9	0	104	N		
1155	25		7.43	19.8		100	~		
1159	30	1	7.39	19.8	L	198	N		
1203	35		7.35	19.7	V	198	h		
1707	40		7.33	19.7	U	90	N		
1210	45		7.30	19.7	U	189	h		
1214	50	,	7.27.	19.7	L	190	~		
12/8	56		7.25	19,7	U	89	h		N .
Purge Meth	nod:	XS	TEAL BAILE	ER AND INE	RTI	A PUMP	WITH 5/8	TUB	ING
Sample Me	Method: DISPOSABLE BAILER				Well In	tegrity:			
Sample Tin	ne:	M	o Sa	mple		Dissolv	red O ₂ :		С
	WATER	WATER ANALYZER: Oakton					Q	6	mg/L



Prepared For: Advanced GeoEnvironmental Monitoring Well Exhibit





MW-17 MW-18 MW-19 MW-20	WELLS SURVEYEI	** RESURVEYED	*DESTROYED AS	WELL SURVEYED MW-13R	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	DESCRIPTION
2119556, 2 2119458, 3 2119495, 3 2119556, 3	SURVEYED 11-25-13	ON DEC. 1 20	OF DEC. 1 20	□N 12-1-11: 2119576.5	2119496 2119509 2119509 2119509 2119509 2119509 2119509 2119507 2119507 2119507 2119507 2119507 2119507 2119507 2119507 2119507 2119509 211950	NORTHING
6044948, 2 6045172, 8 6045168, 0 6044956, 3		2011 AFTER REC	2011 PER BRIAN	6045152. 1	6044968. 3 6045087. 0 6045081. 2 6045081. 2 6045090. 1 6045120. 7 6044934. 0 6045110. 3 6045110. 3 6045110. 3 604514934. 0 6045139. 5 60451493. 3	EASTING
37. 8023572 37. 8021003 37. 8022014 37. 8023579		RECOVERY.	BRIAN MILLMAN WITH	37. 8024236	37. 8021937 37. 80229979 37. 8022354 37. 8022354 37. 8022255 37. 80222659 37. 80222659 37. 8019682 37. 8019682 37. 8019682 37. 8024696 37. 8022436 37. 8022436	LATITUDE
-122, 2885881 -122, 2878045 -122, 2878235 -122, 2885600			H ADV. GEOMAM	-122, 2878838	-122. 2885147 -122. 2881263 -122. 2881263 -122. 2880936 -122. 2880936 -122. 288939 -122. 2884503 -122. 28886342 -122. 28886342 -122. 28886342 -122. 28881148 -122. 28881172 -122. 28877395 -122. 2877395 -122. 2877395	LONG I TUDE
9, 64 11, 56 11, 51 9, 52				11. 56	10.02 11.36 11.36 11.41 11.41 11.41 11.29 11.41 11.39 11.39	ELEV (PVC)
10, 07 11, 84 11, 92 9, 93				11. 78	10. 18 11. 74 10. 42 10. 43 10. 79 11. 67 11. 03 9. 89 9. 77 11. 15 11. 15 11. 15 11. 17 11. 17 11. 17	ELEV (BOX)

BASIS OF COORDINATES AND ELEVATIONS:

COORDINATES ARE CALIFORNIA STATE PLANE ZONE 3 COORDINATES FROM GPS OBSERVATIONS USING UNIVERSITY CALIFORNIA BAY AREA DEFORMATION CORS STATION OBSERVATION FILES AND BASED ON THE CALIFORNIA SPATIAL REFERENCE CENTER DATUM, REFERENCE EPOCH 2000.35.

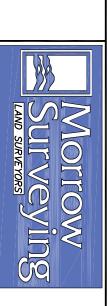
COORDINATE DATUM IS NAD 83(1986)
DATUM ELLIPSOID IS GRS80
REFERENCE GEOID IS NGS99
VERTICAL DATUM IS NAVD 88 FROM GPS OBSERVATIONS

우

CORS STATIONS USED WERE LEIC AND HSIB.

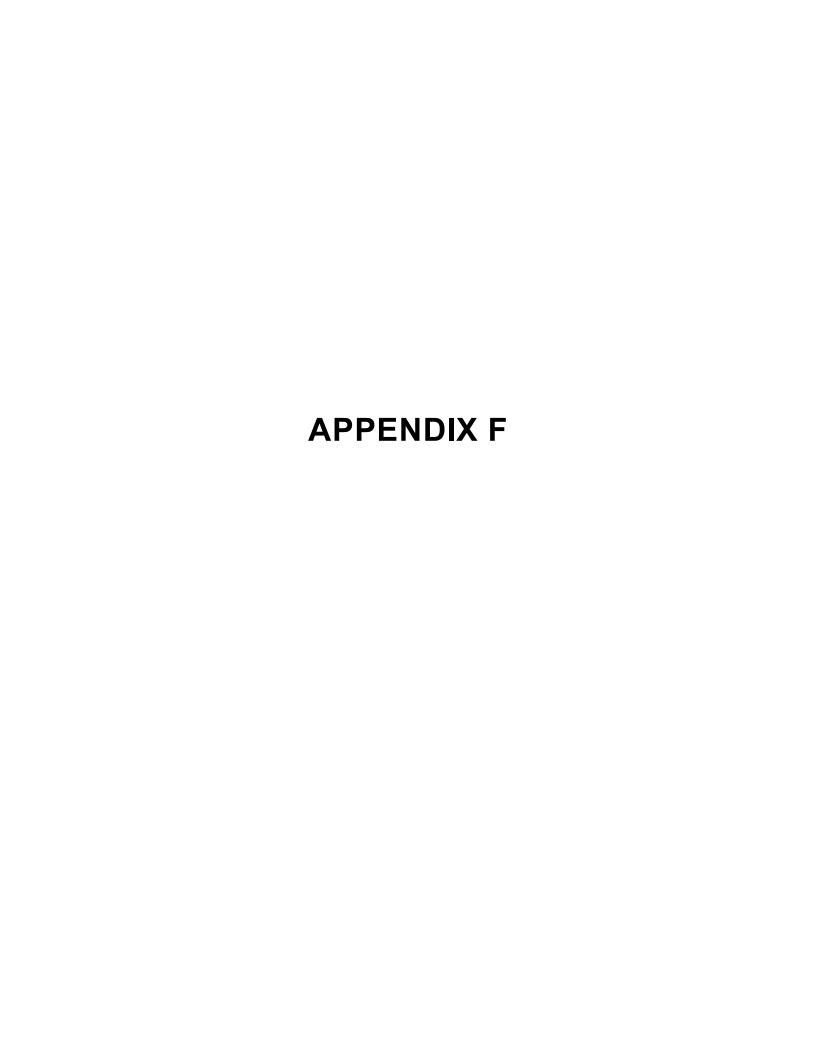
Oakland Truck Stop 1107 5th Street Oakland Alameda County California

SCALE IN FEET



1255 Starboard Dr. West Sacramento California 95691 (916) 372—8124 adam@morrowsurveying.com Field Book: MW-30,37 Dwg. No. 0114-055 AZ

Date: 2-5-07 Scale: 1" = 50' Sheet 1 of 1 Revised: 11-30-07, 12-2-11 11-26-13

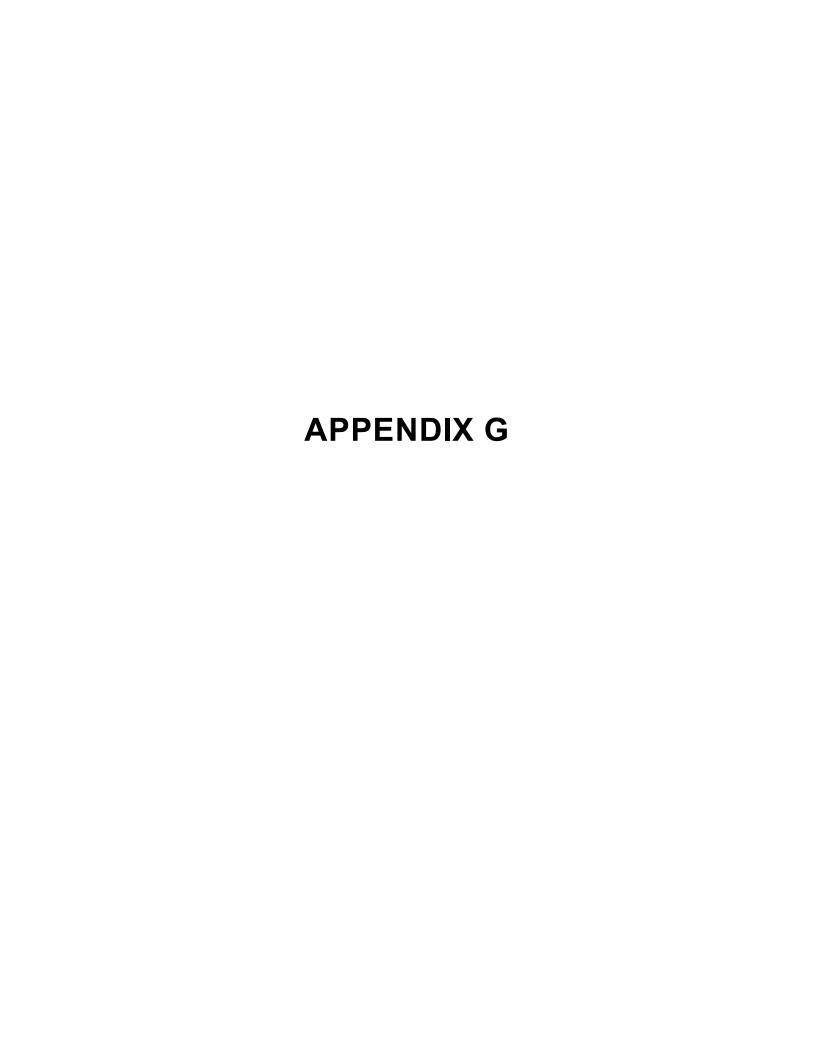


NON-HAZARDOUS WASTE

NON-HAZARDOUS WASTE MANIFEST

Plea	ase print or type (Form designed for use on elite (12 pitch) typewriter)							
	NON-HAZARDOUS 1. Generator's US EPA ID No. WASTE MANIFEST			Manifest Document No.		2. Page 1 of		
	3. Generator's Name and Mailing Address RING PACIFIC - RINEH	IART OIL		Adv	ADVANCED GEO ENU			
	4. Generator's Phone () OAKLAND, CR							
	Transporter 1 Company Name 6.		A, State Transporter's ID					
	INSTRAT INC			B. Transporter	I Phone			
	7. Transporter 2 Company Name 8.	US EPA ID Number		C. State Transp	orter's ID			
				D. Transporter 2	2 Phone			
	Designated Facility Name and Site Address 10.	US EPA ID Number		E. State Facility	's ID			
	MSTRAT, INC. 1106 CAMPORT RD. PRO VISTA, CA 94571			F. Facility's Pho	ne (767) 574	I-S834		
	11. WASTE DESCRIPTION		12. Co	ontainers	13.	14.		
			No.	Туре	Total Quantity	Unit Wt./Vol.		
	Non-HAZ LIGUD HZO WAS	ΤE	3	DRM	150	GAL		
GENERAL	NON-HAZ SUIL + DEBRIS		11	DRM	6000	LBS		
0	C.							
R	d.							
	BROWN, SOIL & DEBRIS, No GDOR		H. Handling Codes for Wastes Listed Above					
	15. Special Handling Instructions and Additional Information			, , , , , , , , , , , , , , , , , , ,				
	16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipmer in proper condition for transport. The materials described on this manifest are not st	nt are fully and accurately described ubject to federal hazardous waste re	and are in a gulations.	ail respects	_	Date		
	Printed/Typed Name	Signature			Mont			
Ţ	17. Transporter 1 Acknowledgement of Receipt of Materials					Date		
A	Printed/Typed Name	Signature /	111	/	Mont	Day Year		
Sp	Tasall 100014	de 201/10	11	ar ^{an, a}	/;	125117		
O R	18. Transporter 2 Acknowledgement of Receipt of Materials					Date		
TRANSPORTER	Printed/Typed Name	Signature			Mont	n Day Year		
FAC	19, Discrepancy Indication Space							
L	20. Facility Owner or Operator: Certification of receipt of the waste materials covered by	this manifest, except as noted in ite	m 19.					
T	Printed/Typed Name	Signature			yana	Date		
Ý	MICHAEL WHITEIEAD	Signature	L.	J. J.	Monti	Day Year 25 3		





CAL TECH Environmental Laboratories



6814 Rosecrans Avenue, Paramount, CA 90723-3146 Telephone: (562) 272-2700

Fax: (562) 272-2789

ANALYTICAL RESULTS*

CTEL Project No: CT214-1311121

Client Name:

Advanced Geo Environmental, Inc.

837 Shaw Road

Stockton, CA 95215

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

Attention:

Mr. Brian Millman

Project ID:

Global ID: T0600102136

Project Name:

Rinehart Oakland Truck Stop

Date Sampled:

11/21/13 – 11/22/13 @ 13:17 p.m.

Matrix: Soil

Date Received:

11/26/13 @ 10:00 am

Date Analyzed:

11/26/13 - 11/27/13

Laboratory ID: Client Sample ID: Dilution	1311-121-1 MW18-5 1	1311-121-2 MW18-10 1-100	1311-121-3 MW18-15 1	Method	Units:	Detection Limit
TPH - Gasoline	ND<1	84	ND	EPA 8015M	mg/Kg	1
TPH – Diesel	ND	39	ND	EPA 8015M	mg/Kg	5
VOC, 8260B		٠.				
Dilution	1	1-100	1			
Methyl-tert-butyl-ether(MtBE)	ND	0.14	ND	SW846 8260B	mg/Kg	0.005
t-Butyl Alcohol (TBA)	ND	1.8	ND	SW846 8260B	mg/Kg	0.01
Diisopropyl Ether (DIPE)	ND	ND<0.005	ND	SW846 8260B	mg/Kg	0.005
Ethyl-t-butyl ether (ETBE)	ND	ND<0.005	ND	SW846 8260B	mg/Kg	0.005
t-Amyl Methyl Ether (TAME)	ND	ND<0.005	ND	SW846 8260B	mg/Kg	0.005
1,2-Dichloroethane	ND	ND<0.005	ND	SW846 8260B	mg/Kg	0.005
1,2-Dibromoethane(EDB)	ND	ND<0.005	ND	SW846 8260B	mg/Kg	0.005
Benzene	ND	0.020	ND	SW846 8260B	mg/Kg	0.005
Toluene	0.010	ND<0.005	ND	SW846 8260B	mg/Kg	0.005
Ethylbenzene	0.020	0.011	ND	SW846 8260B	mg/Kg	0.005
m,p-Xylene	0.011	ND<0.005	ND	SW846 8260B	mg/Kg	0.005
o-Xylene	ND	ND<0.005	ND	SW846 8260B	mg/Kg	0.005

ND = Not Detected at the indicated Detection Limit

SURROGATE SPIKE		% SUR	ROGATE RECOVERY	Control Limit	
Dibromofluoromethane	100	98	102	70-130	
1,2 Dichloroethaned4	99	94	100	70-130	
Toluene-d8	96	100	100	70-130	
Bromofluorobenzene	95	102	102	70-130	

CTEL Project No: CT214-1311121

Client Name:

Advanced Geo Environmental, Inc.

837 Shaw Road

Stockton, CA 95215

Attention:

Mr. Brian Millman

Project ID: Project Name: Global ID: T0600102136 Rinehart Oakland Truck Stop

Date Sampled:

11/21/13 - 11/22/13 @ 13:17 p.m.

Date Received:

11/26/13 @ 10:00 am

Date Analyzed:

11/26/13 - 11/27/13

Laboratory ID: Client Sample ID: Dilution	1311-121-4 MW19-5 100	1311-121-5 MW19-10 100	1311-121-6 MW19-15 100	Method	Units:	Detection Limit
TPH - Gasoline	100	86	70	EPA 8015M	mg/Kg	1
TPH – Diesel	59	33	24	EPA 8015M	mg/Kg	5
VOC, 8260B						
Dilution	1-100	1-100	1-100			
Methyl-tert-butyl-ether(MtBE)	ND<0.005	ND-0.005	ND -0.005	SW846 8260B		0.005
t-Butyl Alcohol (TBA)		ND<0.005	ND<0.005		mg/Kg	0.005
	ND<0.01	11	9.0	SW846 8260B	mg/Kg	0.01
Diisopropyl Ether (DIPE)	ND<0.005	ND<0.005	ND<0.005	SW846 8260B	mg/Kg	0.005
Ethyl-t-butyl ether (ETBE)	ND<0.005	ND<0.005	ND<0.005	SW846 8260B	mg/Kg	0.005
t-Amyl Methyl Ether (TAME)	ND<0.005	ND<0.005	ND<0.005	SW846 8260B	mg/Kg	0.005
1,2-Dichloroethane	ND<0.005	ND<0.005	ND<0.005	SW846 8260B	mg/Kg	0.005
1,2-Dibromoethane(EDB)	ND<0.005	ND<0.005	ND<0.005	SW846 8260B	mg/Kg	0.005
Benzene	ND<0.005	0.060	ND<0.005	SW846 8260B	mg/Kg	0.005
Toluene	ND<0.005	ND<0.005	ND<0.005	SW846 8260B	mg/Kg	0.005
Ethylbenzene	ND<0.005	ND<0.005	ND<0.005	SW846 8260B	mg/Kg	0.005
m,p-Xylene	ND<0.005	0.010	ND<0.005	SW846 8260B	mg/Kg	0.005
o-Xylene	ND<0.005	ND<0.005	ND<0.005	SW846 8260B	mg/Kg	0.005

Phone: (209) 467-1006

Fax: (209) 467-1118

Matrix: Soil

ND = Not Detected at the indicated Detection Limit

SURROGATE SPIKE		% SUF	Control Limit	
Dibromofluoromethane	95	101	102	70-130
1,2 Dichloroethaned4	99	102	96	70-130
Toluene-d8	94	99	95	70-130
Bromofluorobenzene	99	100	101	70-130

CTEL Project No: CT214-1311121

Client Name: Advanced Geo Environmental, Inc.

837 Shaw Road Phone: (209) 467-1006 Stockton, CA 95215 Fax: (209) 467-1118

Matrix: Soil

Attention: Mr. Brian Millman

Global ID: T0600102136 Project ID: Project Name: Rinehart Oakland Truck Stop

Date Sampled: 11/21/13 - 11/22/13 @ 13:17 p.m.

Date Received: 11/26/13 @ 10:00 am

11/26/13 - 11/27/13 Date Analyzed:

Laboratory ID: Client Sample ID: Dilution	1311-121-7 MW19-20 1	1311-121-8 MW17-10 1	1311-121-9 MW17-15 1	Method	Units:	Detection Limit
TPH - Gasoline	1.1	ND	ND	EPA 8015M	mg/Kg	1
TPH – Diesel	ND	ND	ND	EPA 8015M	mg/Kg	5
VOC 9260D						
VOC, 8260B Dilution	11.	1	· 1			
Methyl-tert-butyl-ether(MtBE)	ND	ND	ND	SW846 8260B	mg/Kg	0.005
t-Butyl Alcohol (TBA)	ND	ND	ND	SW846 8260B	mg/Kg	0.01
Diisopropyl Ether (DIPE)	ND	ND	ND	SW846 8260B	mg/Kg	0.005
Ethyl-t-butyl ether (ETBE)	ND	ND	ND	SW846 8260B	mg/Kg	0.005
t-Amyl Methyl Ether (TAME)	ND	ND	ND	SW846 8260B	mg/Kg	0.005
1,2-Dichloroethane	ND	ND	ND	SW846 8260B	mg/Kg	0.005
1,2-Dibromoethane(EDB)	ND	ND	ND	SW846 8260B	mg/Kg	0.005
Benzene	ND	ND	ND	SW846 8260B	mg/Kg	0.005
Toluene	ND	ND	ND	SW846 8260B	mg/Kg	0.005
Ethylbenzene	ND	ND	ND	SW846 8260B	mg/Kg	0.005
m,p-Xylene	ND	ND	ND	SW846 8260B	mg/Kg	0.005
o-Xylene	ND	ND	ND	SW846 8260B	mg/Kg	0.005

ND = Not Detected at the indicated Detection Limit

SURROGATE SPIKE		Control Limit		
Dibromofluoromethane	104	99	99	70-130
1,2 Dichloroethaned4	101	102	98	70-130
Toluene-d8	96	96	96	70-130
Bromofluorobenzene	99	103	97	70-130

CTEL Project No: CT214-1311121

Client Name: Advanced Geo Environmental, Inc.

837 Shaw Road Phone: (209) 467-1006 Stockton, CA 95215 Fax: (209) 467-1118

Matrix: Soil

Attention:

Mr. Brian Millman

Project ID: Project Name: Global ID: T0600102136 Rinehart Oakland Truck Stop

Date Sampled:

11/21/13 - 11/22/13 @ 13:17 p.m.

11/26/13 @ 10:00 am

Date Received: 11/26/13 - 11/27/13 Date Analyzed:

Laboratory ID: Client Sample ID: Dilution	1311-121-10 MW20-6 1				Method	Units:	Detection Limit
TPH - Gasoline	ND				EPA 8015M	mg/Kg	1
TPH – Diesel	ND		÷		EPA 8015M	mg/Kg	5
VOC, 8260B		•					
Dilution	1						
Methyl-tert-butyl-ether(MtBE)	ND				SW846 8260B	mg/Kg	0.005
t-Butyl Alcohol (TBA)	ND				SW846 8260B	mg/Kg	0.003
Diisopropyl Ether (DIPE)	ND				SW846 8260B	mg/Kg	0.005
Ethyl-t-butyl ether (ETBE)	ND				SW846 8260B	mg/Kg	0.005
t-Amyl Methyl Ether (TAME)	ND				SW846 8260B	mg/Kg	0.005
1,2-Dichloroethane	ND				SW846 8260B	mg/Kg	0.005
1,2-Dibromoethane(EDB)	ND		•	* * *	SW846 8260B	mg/Kg	0.005
Benzene	ND				SW846 8260B	mg/Kg	0.005
Toluene	ND				SW846 8260B	mg/Kg	0.005
Ethylbenzene	ND				SW846 8260B	mg/Kg	0.005
m,p-Xylene	ND				SW846 8260B	mg/Kg	0.005
o-Xylene	ND				SW846 8260B	mg/Kg	0.005

ND = Not Detected at the indicated Detection Limit

	% SURROGATE RECOVERY	Control Limit
94		70-130
95		70-130
93		70-130
94		70-130
	95 93	94 95 93

Greg Tejirian

Laboratory Director

^{*}The results are base upon the sample received.

CAL TECH Environmental Laboratories



6814 Rosecrans Avenue, Paramount, CA 90723-3146 Telephone: (562) 272-2700

Fax: (562) 272-2789

QA/QC Report

Method:

8015M

Matrix:

Soil

Date Analyzed:

11/26/2013

Date Extracted:

11/26/2013

Perimeters	Conc.	Conc. ug/Kg Spike Recovery %		Spike Recovery		Control	Limits	RPD
	MS	MSD	Added	MS	MSD	Rec.	RPD	
TPH - Gasoline	970	990	1000	97	99	70-130	20	2
TPH - Diesel	1033	1052	1000	103	105	70-130	20	2

Perimeters	Method Blank	Units	Det. Limit			
TPH - Gasoline	ND	ug/Kg	100			
TPH - Diesel	ND	ug/Kg	1000			

MS: Matrix Spike

MSD: Matrix Spike Duplicate

RPD: Relative Percent Difference of MS and MSD

CAL TECH Environmental Laboratories

6814 Rosecrans Avenue, Paramount, CA 90723-3146 Telephone: (562) 272-2700

Fax: (562) 272-2789

QA/QC Report

Method:

8260B

Matrix:

Soil

Date Analyzed:

11/26/2013

Date Extracted:

11/26/2013

Perimeters	Conc.	ug/Kg	Spike	Recovery	%	Control	Limits	RPD
	MS	MSD	Added	MS	MSD	Rec.	RPD	
1,1-Dichloroethene	42	44	50	84	88	70-130	20	4
Benzene	47	48	50	94	96	70-130	20	2
Trichloroethene	49	47	50	98	94	70-130	20	4
Toluene	46	45	50	92	90	70-130	20	2
Chlorobenzene	46	46	50	92	92	70-130	20	0
m,p-Xylenes	96	93	100	96	93	70-130	20	3

MS: Matrix Spike

MSD: Matrix Spike Duplicate

RPD: Relative Percent Difference of MS and MSD

Perimeters	Method	Units	Det.
	Blank		Limit
1,1-Dichloroethene	ND	ug/Kg	5
Benzene	ND	ug/Kg	5
Trichloroethene	ND	ug/Kg	5
Toluene	ND	ug/Kg	5
Chlorobenzene	ND	ug/Kg	5
m,p-Xylenes	ND	ug/Kg	5
MTBE	ND	ug/Kg	5
TBA	ND	ug/Kg	100
DIPE	ND	ug/Kg	10
ETBE	ND	ug/Kg	10
TAME	ND	ug/Kg	10
1,2-Dichloroethane	ND	ug/Kg	5
EDB	ND	ug/Kg	5
Ethylbenzene	ND	ug/Kg	5
o-Xylene	ND	ug/Kg	5

Advanced GeoEnvironmental, Inc. www.advgeoenv.com							CHAIN OF CUSTODY RECORD						D	
837 Shaw Ro	oad, Stockton, C	alifornia 9521:	5 • Phon	e (209) 46°	7-1006 • Fax (209) 467-1118							age o		
JE 71					00 • Fax (714) 529-0203		Jan.		L ·		1 1 0	.gc	л	
					7) 570-1418 • Fax (707) 570-1461			6	Ana	lysis	Requ	ired		
395 Del Monte Center, #111, Monterey, California 93940 • Phone (800) 511-9300 • Fax (831) 394-5979									T					
			T			14-0		V	0					
Project Name Pinehart Oak	dand to	ucle Stop	Project M	Manager	Etian Millman	9	1	, 3 X	te					
Client			N (2) (2)	(initials & s	ignature)	7	立	9)	1				
	Inc.		Lab Proje	BLUM ject No.:	- FAC	PH-6	BTI	Fred	4	1				
Invoice to: AGE Client						去	0	12	1 2	\$				
Sample ID/Location/Description	Date	Time	Matrix	Number	Notes	IT		V)					
MW18-5	11-21-13	1017	S	1		X	X	×	17					
MW18-10		1023	Ş	1		1	1	1	1					
MW18-15	/	1031	5					III.	1					
MW19-5		1435	5	1	5				11				\Box	
MW19-10		1445	9	1		H			$\dagger \dagger$	\Box				-
MW19-15		1455	5	T'T					+	+				-
MW19-20	V	1503	5					T	1					
MW17-10	11-22-13	1013	5	1		1			11					
MW17-15	(1020	5	i					11					
MW20-6	V	1121)	5	ì		4	V	V	1					-
Relinquished by:		Date:			Laboratory:				-	لسل	9			
Courier:		11-25	-17	1700	Received by:				Date:				Time:	_
	Or	1 trac			,				770000000	ē				
Relinquished by:		Date:		Time:	Received by:				Date				Time:	\neg
Relinquished by:		Date		Time:	Received by:				Date				m'	
Relinquished by: Date:				Time:	GREG T				Date:	1/20	13		Time:	5
Requested Turn Around Time (circle): 124 rouns	8 hours 72 hours	5 days (standa	rd) Other:		-	Mai	trix C	odes:	A = }			S = Solid		
Special Instructions to lab:		C	Fanda	such-	I here							e indicated	/	
			our loca.	,00(,	1/		,	1					
Geotracker EDF to: ☐ geotracker@advgeoenv.com	ı 🗓			Global ID:		4	_	/			_			