

RWL Investments., Inc

4919 Tidewater Ave. Unit B
Oakland, CA 94601

April 19, 2012

Mark Detterman, Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Second Floor
Alameda, CA 94502

Subject: Letter of Transmittal for
Investigative Workplan
4919 Tidewater Ave., Oakland, CA

RECEIVED

5:34 pm, Apr 24, 2012

Alameda County
Environmental Health

Case No. RO0000107

Dear Mr. Detterman,

On behalf of RWL Investments Inc., Environmental Restoration Services has prepared the attached *Investigative Workplan* dated April 19, 2012, for the above referenced site.

I declare, under penalty of perjury, that the information and/or recommendations contained in the report are true and correct to the best of my knowledge.

Sincerely,
RWL Investments Inc.



Bob Lawler
President

Environmental Restoration Services

Site Investigations * Fuel Tank Closures and Installations * Site Remediation * Regulatory Reporting

Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Second Floor
Alameda, CA 94502

April 19, 2012

Attn: Mr. Mark Detterman ; Haz Mat. Specialist for : DiSalvo Trucking
4919 Tidewater Ave., Oakland

Re: **Investigative Workplan**

Dear Mr. Detterman,

1.0 INTRODUCTION

This Workplan has been prepared by Environmental Restoration Services (ERS) to address an Alameda County Health Care Services Agency (ACHCSA) directive to further investigate the extent of hydrocarbons in the soil and groundwater at off-site locations between the subject property and San Leandro Bay. This plan first reviews the known site history and describes the site vicinity. The investigative scope of the plan shows proposed soil boring locations and describes boring procedures with soil and groundwater sampling protocols and analytical analysis.

1.2 Site Location

The site is located in a light industrial district of Oakland, California on property at 4919 Tidewater Ave.(Figure 1).

1.3 Previous Subsurface Work at Site

Previous subsurface work at the site includes soil excavation and bio remediation, groundwater disposal, soil borings and sampling, monitor well construction and sampling. Description and chemical results from all work conducted to date are given in reports by Geo Environmental Technology (GET) dated April, 1989, June 1989 and February 1991, in a report by Gen-Tech Environmental, Inc., (GTE) dated May 1994 and November 1994, in a Report by ERS dated September of 1995, a report by PIERS Environmental Service Inc. (PIERS) dated December 2000, a report by Eras Environmental Inc. (Eras) dated May 2006 and a report by ETIC Engineering Inc. (ETIC) dated January 2009. Other subsurface investigation includes a geotechnical investigation prepared by Murray Engineers Inc. (Murray) dated April 2006 and an aquifer dewatering analysis prepared by Applied Remedial Technologies (ART) dated May 2006.

PO Box 2006 * Menlo Park California 94026 * Phone 408/655-9434 * Fax 650/325-3238

2.0 SITE DESCRIPTION

2.1 Site Description and Hydrogeologic Setting

The essentially flat, approximately 3.61-acre site is located on the southwest side of Tidewater Avenue near the eastern edge of the San Leandro Bay in Oakland, California. It appears that the site was raised above the surrounding marshland by the placement of between approximately 1 and 9 feet of various fill materials. The majority of the subject site is surfaced with asphaltic concrete (AC) pavement. There is an approximately 11,800 square foot, single-story trucking terminal building along the north side of the property, an approximately 2,770 square-foot, single-story truck repair shop at the southern property boundary, and an above-ground fuel storage tank located on the north side of the repair shop. The site is currently in use as a trucking facility and large trucks are continuously parked throughout the site. The AC paving throughout the site exhibits some cracking, which is typical for sites placed on old fills over the soft soils in the area.

2.2 Vicinity Map

A vicinity map is given in Figure 1 which includes the location of any known hydraulic influences. The San Leandro Bay lies approximately 100 feet southeast of the site. A site map is given in Figure 2 which includes information on adjacent streets, site building locations and locations of existing wells.

2.3 Existing Analytical Results

The most recent soil and groundwater analytical data can be found in a Subsurface Investigative report by Eras Environmental Inc. of Hayward, CA, dated May 2006 and a Subsurface Investigative report by ETIC Engineering Inc. of Pleasant Hill, CA, dated January 2009. These reports are contained in the State of California's Geotracker database which is available on-line for public view. Analytical data of concern is groundwater sample data collected during the ETIC September 2008 investigation. The sample points, C-15 and C-16, indicated elevated concentrations of TPH/ as diesel (9.3 mg/l and 3.8 mg/l respectively) and were located along the southern boundary of the subject site. The ETIC site map (Figure 4) and ETIC boring logs for borings C-15 and C-16, are contained in the appendix of this Workplan.

2.3.2 Depth to Groundwater

Depth to groundwater based on the monitor well sampling is approximately 1 to 3.5 feet below ground surface.

2.3.3 Soil Profile

The most recent boring logs show predominantly imported silty/clayey sands and gravels underlain with young bay mud.

3.0 RECOMMENDATIONS FOR INVESTIGATIVE SCOPE OF WORK

Analytical groundwater sample data collected during the ETIC September 2008 investigation indicated elevated concentrations of TPH as diesel at sample points C-15 (9.3 mg/l) and C-16 (3.8 mg/l) located along the southern property line (Figure 4) of the subject site. ERS concurs with the ACHCSA belief that elevated levels of diesel in the groundwater may be migrating to the south, through possible preferential pathway(s), and are likely fugitive and therefore a threat to the surface waters of San Leandro Bay. As such, ERS proposes to advance five soil borings at the off-site locations shown in Figure 2 of this Workplan.

3.1 Reconnaissance Boring Installation, Soil and Groundwater Sampling

Prior to initiating drilling, a subsurface drilling permit will be obtained from the Alameda County Public Works Agency (ACPWA). ACPWA will be notified a minimum of 72 hours prior to drilling. Prior to mobilization of the drilling equipment on-site, all associated equipment will be thoroughly cleaned. The cleaning process will consist of non-TSP cleaning of the drilling equipment and a clean water final rinse. Before drilling each boring, all down-hole equipment will be cleaned.

3.1.1 Soil Boring Procedure

Each boring will be advanced using a small diameter vibra-push Geo-Probe to a depth of 16 feet. All of the soil recovered from the each boring will be logged under the supervision of a registered civil engineer or geologist.

3.1.2 Soil Sampling Procedures

Soil samples will be recovered from each boring at the soil/groundwater interface (1-3 feet bgs.), at 8 feet bgs., 12 feet bgs. and 16 feet bgs.. Each sample will cut from the continuous core container, at the desired sample location. The container end will then be sealed with Teflon sheet and plastic caps. The soil samples will immediately be stored on dry ice. The samples will be transported to Accutest Analytical Labs (Accutest) of San Jose, CA, under proper chain-of-custody procedures.

3.1.3 Groundwater Grab Sampling Procedures

After completion of drilling a new, PVC screened casing will be inserted into each boring. Each boring will then be allowed to recharge with groundwater. Then, a new, disposable bailer will be inserted into the well casing for recovery of a groundwater grab sample. The groundwater will be emptied into sample containers obtained directly from the analytical laboratory. An effort will be made to minimize exposure of the sample to air. The groundwater samples will immediately be stored on crushed ice and maintained at a constant 4 degrees Celsius. The samples will then be transported to Accutest under proper chain-of-custody procedures.

All water resulting from the sampling and cleaning procedures will be contained in a pre-labeled 55-gallon drum on-site pending receipt of laboratory analyses. The borings will be backfilled immediately after completion of sampling and removal of the PVC casings, according to guidelines and under ACPWA inspection.

3.1.4 Laboratory Analyses

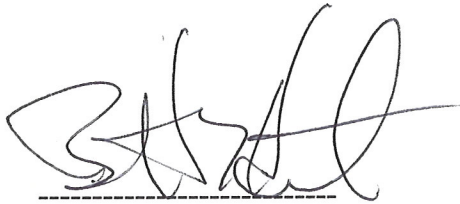
The following analyses will be performed by Accutest on the soil and groundwater samples obtained from the borings.

TPH-gasoline, BTEX and Fuel oxygenates (EPA Method 8260B)
TPH-diesel (EPA Method 8015M) with silica gel cleanup

4.0 REPORTING

A report will be prepared which documents the investigation including boring logs, well development and sampling field notes, chains of custody, and laboratory reports. The report will include recommendations on additional investigation or interim remedial actions, if applicable. The report will be submitted to the client and ACHCSA.

Respectfully submitted this 19th day of April, 2012.



Bennett T. Halsted
Project Manager

Samuel H. Halsted PE
C.E. 14095

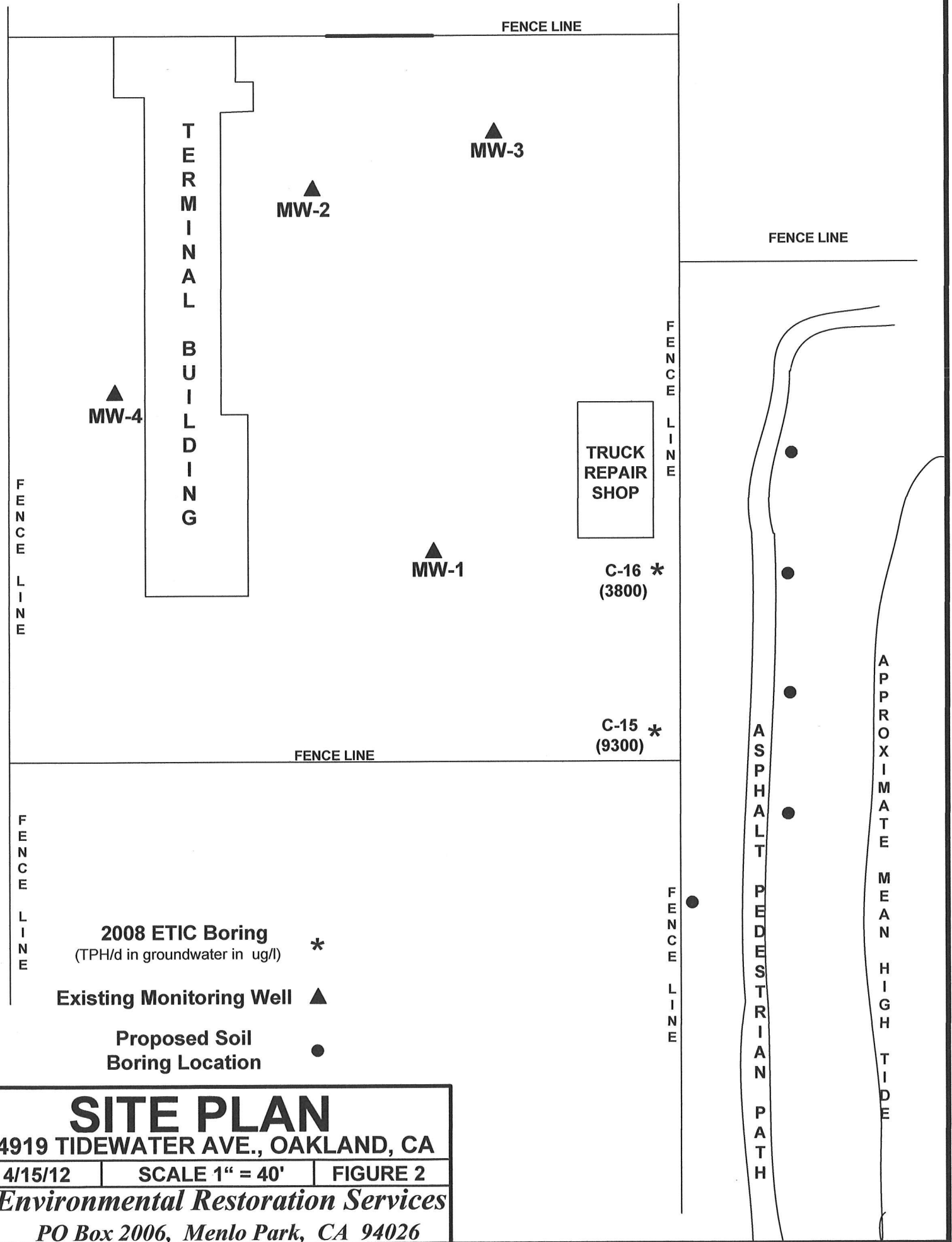


FIGURES



VICINITY MAP
 4919 Tidewater Ave., Oakland, CA
 DATE 3/19/12 | SCALE 1"=0.6 Miles | **FIGURE 1**
Environmental Restoration Services
 PO Box 2006, Menlo Park, CA 94026





SITE PLAN

4919 TIDEWATER AVE., OAKLAND, CA

4/15/12

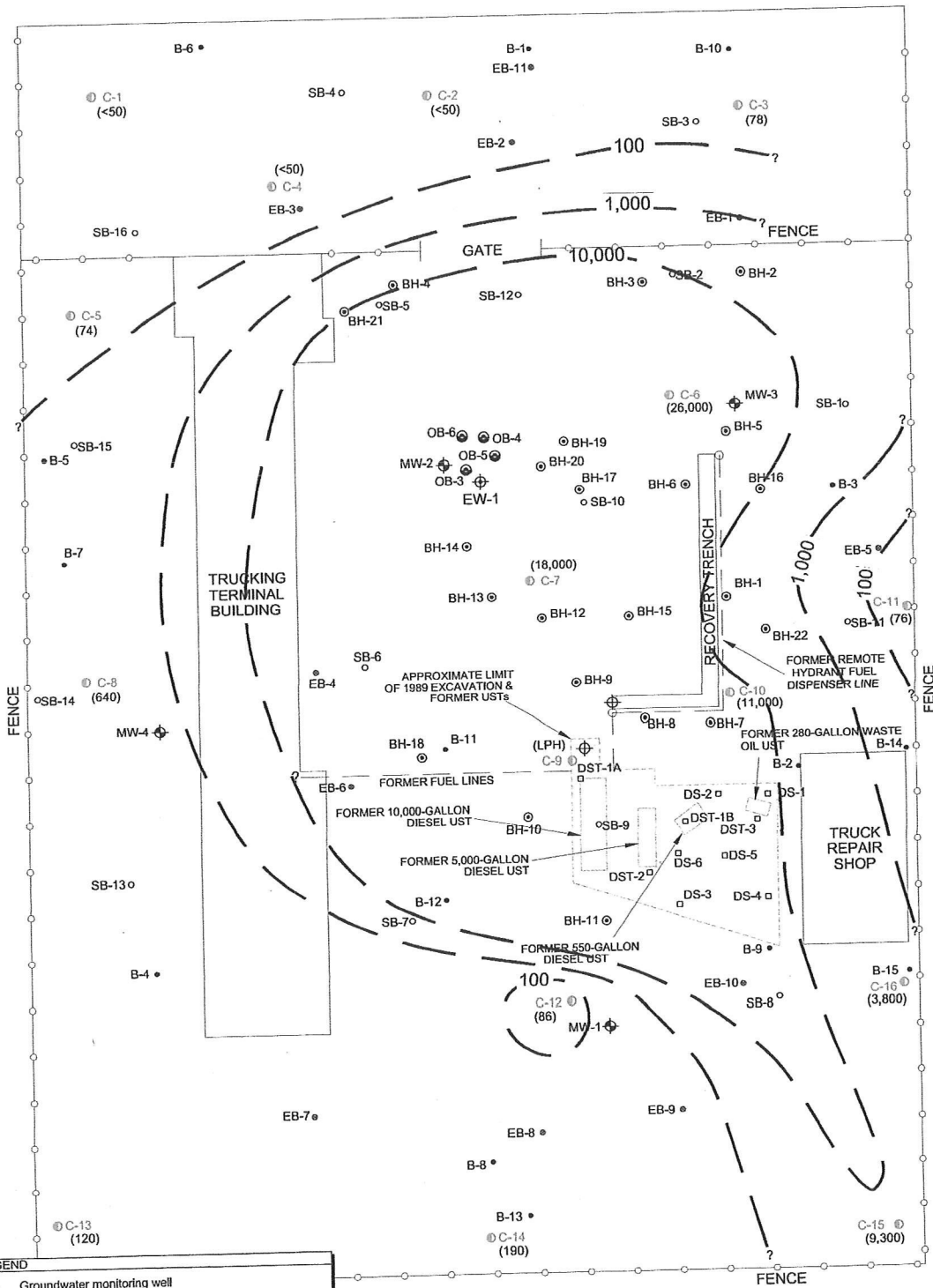
SCALE 1" = 40'

FIGURE 2

Environmental Restoration Services

PO Box 2006, Menlo Park, CA 94026

TIDEWATER AVENUE



LEGEND

- ⊕ Groundwater monitoring well
- ⊕ Recovery well
- ⊕ Extraction well
- ⊕ Observation well
- Excavation sampling location (GET, 1989)
- Soil sampling location (GET, 1989)
- Soil and groundwater sampling location (Gentech, 1994)
- Soil and groundwater sampling location (PIERS, 2000)
- Soil and groundwater sampling location (ERAS, 2006)
- Soil and groundwater sampling location (ETIC, 2008)
- TPH-d Total Petroleum Hydrocarbons as diesel
- (<50) TPH-d concentrations in micrograms per liter
- - - TPH-d isoconcentration contour
- LPH Liquid-phase hydrocarbons

Source: Basemap from Applied Remedial Technologies, February 2007

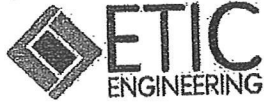
TPH-d ISOCONCENTRATION CONTOURS FOR SHALLOW GROUNDWATER
 FORMER DISALVO TRUCKING
 4919 TIDEWATER AVENUE
 OAKLAND, CALIFORNIA

FIGURE: **4**

FILENAME: SAMPLEL25.DWG 12/09/03



**ETIC 2008
BORING LOGS
C-15 and C16**



CLIENT: R.W.L. Investments, Inc. SITE NUMBER: TIDEWATER LOCATION: 4919 Tidewater Avenue Oakland, California

DRILLING AND SAMPLING METHODS: Hand cleared to 2 feet bgs with hand auger. Drilled and sampled with Geoprobe 5410 utilizing direct-push technology and driving 1.25-inch diameter dual-tube and 2-inch micro-core soil sampling system

LOG OF SOIL BORING: **C-15**

COORDINATES:
ELEVATION TOP OF CASING:
CASING BELOW SURFACE:

WATER LEVEL	▽ 3.8	▽ 20.0		
TIME	1639	1740	START TIME	FINISH TIME
DATE	9/25/08	9/25/08	1635	1750
REFERENCE	GS	GS	DATE	DATE
			9/25/08	9/25/08

DRILLING COMPANY: ECA
LICENSE NUMBER: 695970

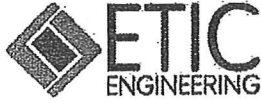
INCHES DRIVEN	INCHES RECOVER	BLOWS / 6" SAMPLER	O.V.A. READING	DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE	RECOVERED	GRAPHIC LOG		
										SURFACE CONDITIONS	
				0						AC/AB	
48				1							
	36			2							
			0.0	3							
				4						ML	
48	48		0.0	5							
				6							
				7							
				8							
48	48			9							
				10						CL	
			0.0	11							
				12							
48	48			13							
				14							
				15							
			0.0	16							
48	48			17							
				18							
				19							
				20						SM	
			0.0	21						SW	
48	48			22							

SURFACE CONDITIONS: Soil

DESCRIPTION BY: M. Garcia

Asphalt to 3 inches bgs.
Hand cleared to 2 feet bgs with hand auger.
SANDY SILT - dark yellowish brown (10YR 4/6), stiff, very fine grained sand, with angular to subangular gravels from 0.25 to 0.5 inches in diameter, dry.
- firm, moist, strong petroleum hydrocarbon odor.
- organic material.
Groundwater sample collected at 1645 by peristaltic pump and temporary PVC casing screened between 4 and 8 feet bgs.
CLAY - very dark greenish gray (GLE Y1 10Y), soft to very soft, low plasticity, moist.
CL
SANDY CLAY - very dark greenish gray (GLE Y1 10Y), very soft, low plasticity, moist to wet.
CL
CLAYEY SAND - very dark greenish gray (GLE Y1 10Y), very fine grained sand, dense, moist.
SC
CLAYEY SILTY SAND - dark greenish gray (GLE Y1 10Y), very fine grained sand, dense.
SM
SAND - very dark greenish gray (GLE Y1 10Y), well-graded, fine to medium grained sand, with small shell fragments, medium dense, moist.
SW

LOG OF SOIL BORING TIDEWATER.GPJ ETIC.GDT 1/19/09



C-16

LOG OF SOIL BORING:

COORDINATES:
 ELEVATION TOP OF CASING:
 CASING BELOW SURFACE:

DRILLING COMPANY: ECA
 LICENSE NUMBER: 695970

CLIENT R.W.L. Investments, Inc.	SITE NUMBER TIDEWATER	LOCATION 4919 Tidewater Avenue Oakland, California
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DRILLING AND SAMPLING METHODS: Hand cleared to 2 feet bgs with hand auger. Drilled and sampled with Geoprobe 6600 utilizing direct-push technology and driving 1.25-inch diameter dual-tube soil sampling system.

WATER LEVEL	▽ 6.5			START TIME	0855	FINISH TIME	1020
TIME	0910			DATE	9/25/08	DATE	9/25/08
DATE	9/25/08			REFERENCE	GS		

INCHES		BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE WATER SAMPLE SOIL SAMPLE RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER						Asphalt	
DESCRIPTION BY:							N. Diem	
				0		AC/AB	Asphalt to 3 inches bgs.	
				1			Hand cleared to 2 feet bgs with hand auger; sampled with slidehammer, no recovery.	
				2				
18	18		0.0	3		CL	SILTY CLAY - very dark greenish brown (2.5Y 3/2), stiff, with little angular gravels 0.25 inches in diameter, moist, slight petroleum hydrocarbon odor.	
				4			4' to 6' - no recovery; soil fell out in water.	
48				5			Groundwater sample collected at 0910 by peristaltic pump and temporary PVC casing screened between 4 and 8 feet bgs.	
				6			Wood chips, very little to no soil, wet.	
	24		0.0	7				
				8			8' to 10' - no recovery.	
48				9				
				10			Wood chips, wet.	
	24			11			SANDY SILTY CLAY - dark greenish gray (GLE Y1 4/1), stiff, low plasticity, wet.	
				12				
48	48		0.0	13		CL	- slightly more sand, soft, wet.	
				14				
				15				
				16			SANDY SILT - very dark greenish gray (GLE Y1 3/1), stiff, moist.	
48	48		0.0	17		ML	CLAY - very dark greenish gray (GLE Y1 3/1), stiff, low plasticity, moist.	
				18		CL		
				19			SANDY SILT - very dark greenish gray (GLE Y1 3/1), stiff, moist.	
				20		ML		
				21			Boring terminated at 20 feet bgs.	

LOG OF SOIL BORING, TIDEWATER.GPJ, ETIC.GDT, 1/19/09