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**INTERIM UNDERGROUND STORAGE TANK INVESTIGATION REPORT**

385-387 Orange Street  
Oakland, California

**Prepared by:**

**CLEARWATER GROUP**

**Prepared for:**

Ms. Mary Krantz, Executor  
of the Estate of David Ulibarri

**March 28, 2006**



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Contamination Site Report

**Mary M. Kranz, Executor  
ULIBARRI ESTATE  
10106 CORONADO AVE. NE  
ALBUQUERQUE, NM 87122**

January 11, 2007

Mr. Steven Plunkett  
Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
Environmental Health Care Services  
Environmental Protection  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

RE: Interim Underground Storage Tank Investigation Report  
385-387 Orange Street  
Oakland, California

Dear Mr. Plunkett:

As the legally authorized representative and executor of the Estate of David Ulibarri for the 387 Orange Street project location, I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Sincerely,



Mary M. Kranz  
Executor of the Estate of David Ulibarri



## **INTRODUCTION**

Clearwater Group, Inc. (Clearwater) has been requested by Ms. Mary Krantz, executor of the estate of David Ulibarri to investigate an underground storage tank (UST) site, located at 385-387 Orange Street, in Oakland, California. This report summarizes the results of site investigations in February and March 2006. This work is being done to comply with City of Oakland Fire Department, Alameda County Department of Environmental Health and State of California Regional Water Quality Control Board regulations.

## **BACKGROUND INFORMATION**

### **Site Description**

The *subject property* is located at 385-387 Orange Street in Oakland, California, in a residential area (Figure 1). Local topography slopes toward the northwest.

The UST is located under the sidewalk in front of and between the residences at 385 and 387 Orange Street (Figure 2). The UST's location was discovered by a fill pipe in the sidewalk. The UST was used to supply fuel to a boiler located in the basement of the residence at 387 Orange Street.

### **Permits**

Due to site safety constraints (the site is adjacent to the street and under electric lines), Tank Permit Number T06-0008 to "Abandon/Close in Place" a heating oil tank was granted by the City of Oakland, Fire Prevention Bureau on February 28, 2006. A copy of the permit is attached as Appendix A.



## **FIELD INVESTIGATION**

### **UST Emptying Activities**

The UST was evacuated of residual liquids on January 30, 2006. A vacuum truck provide by Clearwater Environmental Management (CEM) of Union City suctioned 340 gallons of an oil and water mixture through the fill pipe. CEM (not affiliated with Clearwater Group) transported the oil and water mixture as a non-RCRA Hazardous waste, under a Uniform Hazardous Waste Manifest, to Alviso Independent Oil, in Alviso, California for disposal. A copy of the manifest is provided as Appendix B.

### **Soil Borings Under UST**

Before any soil boring activities commenced, Underground Alert Services (USA) was notified and all utility services were marked on the ground of the perimeter of the *subject property* search area. Soil borings were conducted by FAST-TEK Engineering Support Services (FAST-TEK) of Point Richmond (C-57 license #624461). FAST-TEK used a direct push, Geoprobe<sup>®</sup> Macro-Core Soil Sampling System to obtain continuous soil cores and to minimize soil cuttings from the borings. The borings and soil sampling was performed according to Clearwater's Field Procedure, attached in Appendix C.

On February 28, 2006 three soil borings were driven in close proximity to the UST. Boring T1 was located near the northeast end of the UST, boring T2 was located at the southwest end of the UST and boring T3 was a boring angled at 60° (measured from horizontal) in order to reach under the UST (Figure 2). The soil boring logs are presented in Appendix D. Three other vertical borings were attempted, which struck (but did not puncture the UST) at a depth of 8 feet bgs. The locations of these attempts and the borings which reached below

the bottom of the UST helped define the size, depth and orientation of the UST (Figure 3). It appears that the fill pipe is located at the northeast end of the UST.

A photo-ionization detector (PID) was used to screen the soil samples for petroleum hydrocarbons. The soil samples were collected and preserved within acetate sleeves using Clearwater's standard procedures for direct-push soil sampling (Appendix C). Five soil samples were sent under a Chain of Custody to Kiff Analytical, LLC, a California Department of Health certified laboratory, for analyses of TPH-d (total petroleum hydrocarbons as diesel) and BTEX (benzene, toluene, ethylbenzene and total xylenes). All of the soil borings were grouted with Portland cement from the base to the surface using a tremmie pipe.

#### **Soil Samples Collected Along the Fuel Line**

The fuel line was located by Drain Patrol (Concord, California) on March 2, 2006 using a MetroTech 810 utility locating instrument. The instrument was clipped to the fill pipe of the UST to send an electronic signal along the line, which the instrument detector could pick up. The instrument also provided depths from the fuel line to the ground surface. The location of the line was temporarily marked with flags. The instrument indicated a fuel line depth of approximately 8 feet bgs, which was in general agreement with the estimated depth. A cross sectional view of the fuel line prepared by measuring the elevation and horizontal differences between the top of the UST through the fill pipe and the floor level of the boiler room is shown in Figure 3.

Three soil samples were collected along the fuel line on March 6, 2006. Sample P1 was collected 10 feet from the northwest edge of the sidewalk; sample P2 was collected 26 feet from the sidewalk; and sample P3 was collected 42 feet from the sidewalk, adjacent to the boiler room (Figure 2). The boreholes for samples P2 and P3 were driven using a 4" hand

auger, due to access limitations (the truck mounted drill could not pass the fence). All of the samples were collected at a depth of 7.5-8.0 feet bgs. The samples were collected and screened by the same methods as the samples collected from under the UST. The soil boring logs are presented in Appendix D.

### **SOIL SAMPLE ANALYTICAL RESULTS**

The table below summarizes the analytical results from the soil samples. The results indicate that a high concentration of TPH-d (15,000 mg/kg) was detected in sample T2 13.5-14.0' at a depth of 13.5 to 14.0 feet bgs. Lesser concentrations of TPH-d were detected in five of the other soil samples. Two samples were virtually non-detect. BTEX compounds were detected in samples T2 13.5-14.0' and T3 17-17.7'. All other samples were non-detect for BTEX compounds.

Soil samples P-1 and P-3, from under the fuel line were non-detect for TPH-d, while sample P-2 contained 96 mg/kg of TPH-d. All of the samples under the fuel line were non-detect for BTEX. The soil sample analytical results are presented in Appendix E.

**Table 1. Summary of Analytical Results**

Soil Samples Under UST			Analytical Results				
Date	Sample Name	Vertical Depth of Sample (ft)*	TPH-d mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Total Xylenes mg/kg
2/28/06	T1 13.5-14.0'	13.5-14.0	4.4	<0.0050	<0.0050	<0.0050	<0.0050
2/28/06	T2 13.5-14.0'	13.5-14.0	15,000	<0.0050	<0.0050	0.034	0.12
2/28/06	T3 15-15.5'	13.0-13.5*	2.7	<0.0050	<0.0050	<0.0050	<0.0050
2/28/06	T3 17-17.5'	14.7-15.2*	70	<0.0050	<0.0050	<0.0050	0.013
2/28/06	T3 23.5-24.0'	20.4-20.9*	99	<0.0050	<0.0050	<0.0050	<0.0050
Soil Samples Along Fuel Line							
3/6/06	P-1	7.5-8.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
3/6/06	P-2	7.5-8.0	96	<0.0050	<0.0050	<0.0050	<0.0050
3/6/06	P-3	7.5-8.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050

\* Boring T3 was drilled at a 60° angle (measured from horizontal) in order to reach under the UST (Figure 3). The depth shown as part of the Sample Name was measured along the 60° angle boring. The laboratory provided these comments in their report narrative (for samples along the UST only). "Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for samples T1 13.5-14.0' and T3 15-15.5'. These hydrocarbons are higher boiling point than typical diesel fuels. Samples T2 13.5-14.0', T3 17-17.5' and T3 23.5-24.0' were analyzed past hold times for 8260 analytes".

## CONCLUSIONS

The soil samples indicate that a high concentration of petroleum hydrocarbons occurred around the northeast end of the tank (15,000 mg/kg of TPH-d). However, soil under the southwest end of the UST had a very low concentration of petroleum hydrocarbons (4.4 mg/kg of TPH-d). The TPH-d concentrations diminish rapidly under and to the southwest end of the UST (Figure 3). The petroleum hydrocarbons could either be from a leak in the UST, a leak at the fill pipe/UST juncture, or from spillage at the fill pipe seeping downward along the pipe. The fill pipe appears to be located at the northwest end of the UST, as





indicated by the boring attempts, which encountered the UST at 8 feet bgs. The results indicate that leakage or spillage exists around the northeast end of the UST.

Soil sample P-2 from under the fuel line indicates that an isolated leak occurred along the fuel line (Figure 2). P-2 was located between P-1 and P-3, each of which was non-detect for all analytes.

The boring logs indicated that the soil underlying the site is predominantly silty clay. In addition, in none of the soil borings was groundwater encountered. The site is located near the summit of a ridge line trending toward the northwest (Figure 1), therefore it is not anticipated that shallow groundwater occurs beneath the site. The ridgeline plunges toward the northwest. Typically groundwater levels under a ridgeline should be deeper than under flat lying areas.

## **RECOMMENDATIONS**

Due to the isolated and restricted area under the UST with a high concentration of TPH-d and a minor occurrence of TPH-d along the fuel line, Clearwater Group recommends that soil or groundwater remediation is not indicated and that the closure in place of the UST should proceed as planned. The groundwater is not being used locally. The existing soil contamination should diminish with time to non-detectable concentrations through natural attenuation.

## **UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE REPORTING**

An Underground Storage Tank Unauthorized Release (Leak)/ Contamination Site Report form was filed with the City of Oakland, Fire Prevention Bureau, which is the local oversight agency. A copy of the form is presented in Appendix F.

**CERTIFICATION**

This report was prepared under the supervision of a State of California Professional Geologist at Clearwater Group. All statements, conclusions and recommendations are based solely upon field observations by Clearwater Group staff and laboratory analysis performed by a California DHS-certified laboratory related to the work performed by Clearwater Group.

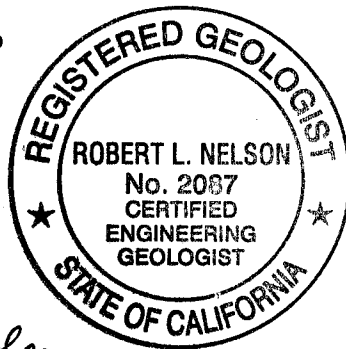
Information and interpretation presented herein are for the sole use of the client and regulatory agency. A third party should not rely upon the information and interpretation contained in this document.

The service performed by Clearwater Group has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

Sincerely,

Clearwater Group

Prepared by:



Reviewed by:

Robert L. Nelson

Robert L. Nelson, PG #6270, CEG #2071  
Senior Geologist

James A. Jacobs

James A. Jacobs, PG# 4815, CHG #88  
Chief Hydrogeologist

Cc: City of Oakland, Fire Prevention Bureau

## FIGURES

37.83333° N

37.83333° N

37.81667° N

37.81667° N

37.80000° N

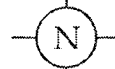
37.80000° N



TN  
MN  
15°



Map created with TOPOI © 2002 National Geographic (www.nationalgeographic.com/topo)



**SITE LOCATION MAP**

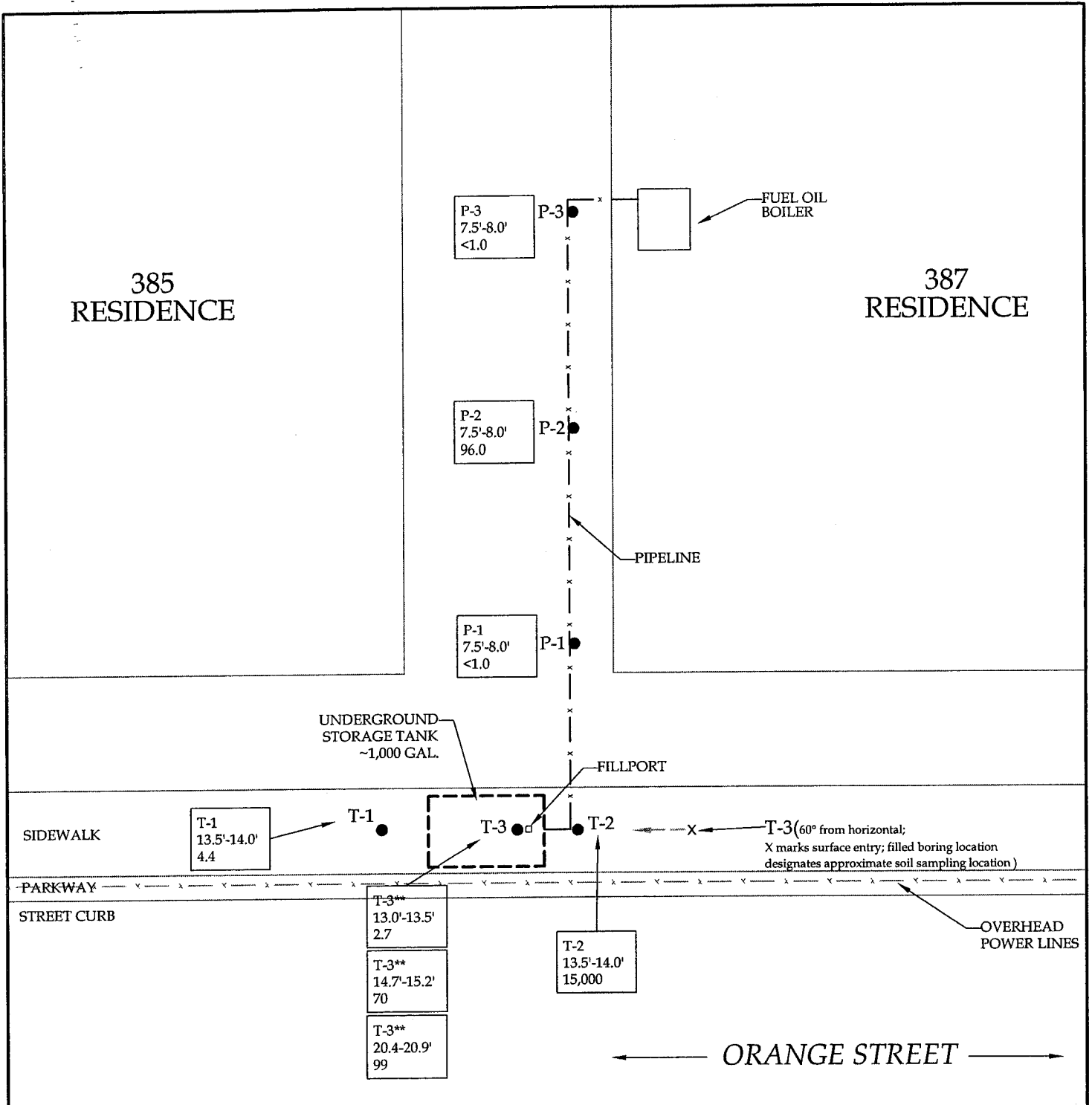
Estate of D. Ulibarri  
385-387 Orange Street  
Oakland, California

**CLEARWATER GROUP**

Project No.  
GB002B

Figure Date  
3/06

Figure  
1

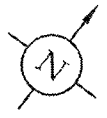
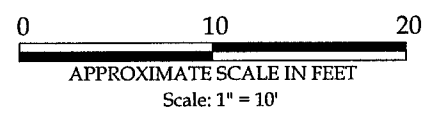


**LEGEND**

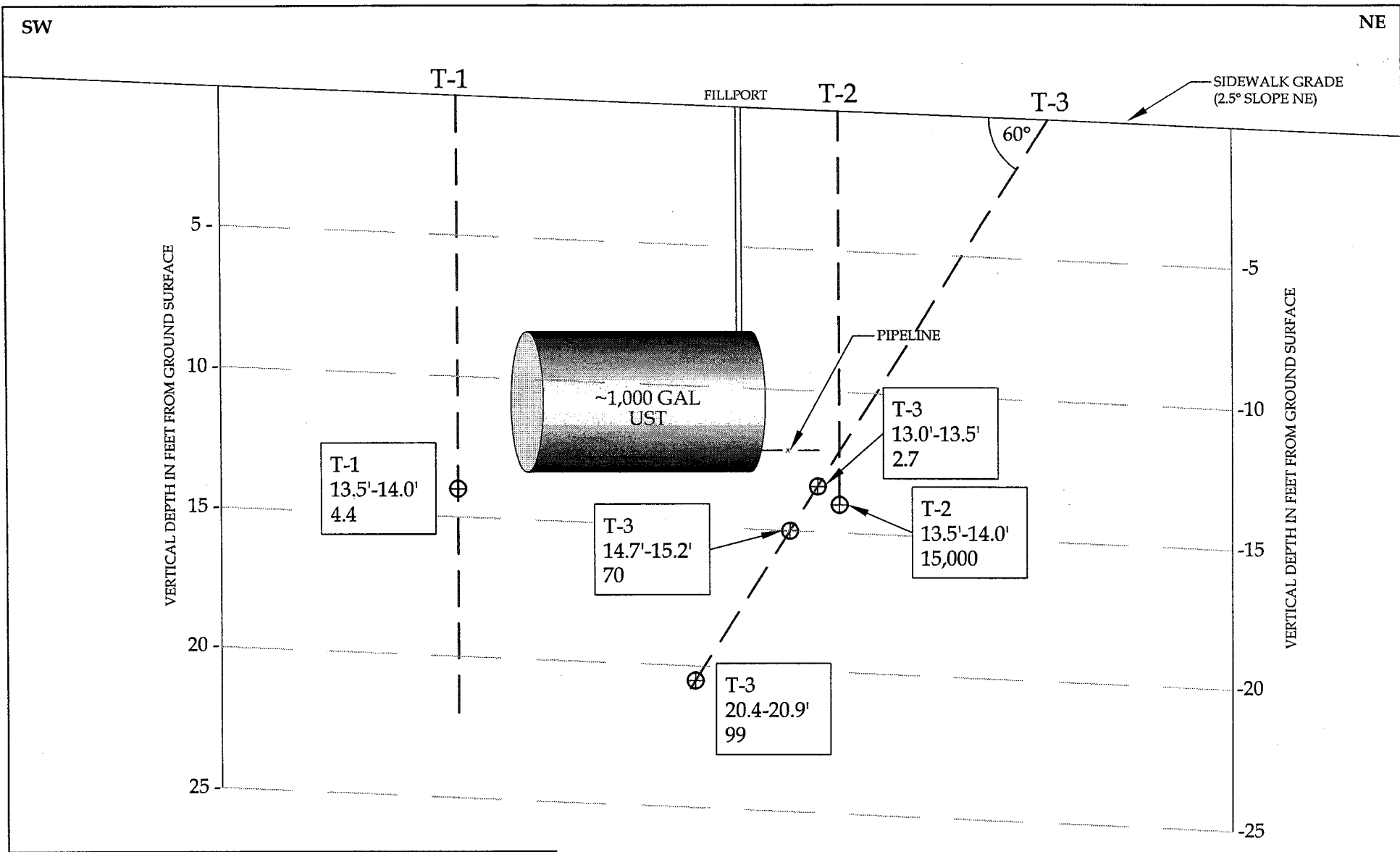
- T-1 to T-3 (3) TANK SAMPLES
- P-1 to P-3 (3) PIPELINE SAMPLES

T-3 20.4-20.9' 99	=	SOIL SAMPLE # DEPTH BGS ANALYTICAL RESULTS IN MG/KG
-------------------------	---	---

ANALYTICAL RESULTS= TPHd(TOTAL PARTS HYDROCARBONS AS DIESEL)  
CONCENTRATIONS IN MG/KG  
T-3\*\* SEE FIGURE 3 (CROSS SECTION) FOR SAMPLE LOCATIONS



<b>SITE MAP SHOWING UST, BORING LOCATIONS AND ANALYTICAL RESULTS FOR DIESEL</b> Estate of D. Ulibarri 385-387 Orange Street Oakland, California	<b>CLEARWATER GROUP</b>		
	Project No. <b>GB002B</b>	Figure Date <b>3/06</b>	Figure <b>2</b>

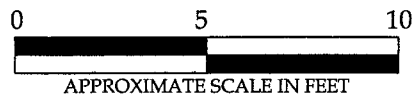


**LEGEND**

⊕ SAMPLE LOCATION

T-3 20.4-20.9' 99	=	SOIL SAMPLE # DEPTH BGS ANALYTICAL RESULTS IN MG/KG
-------------------------	---	---

ANALYTICAL RESULTS= TPHd(TOTAL PARTS HYDROCARBONS AS DIESEL); CONCENTRATIONS IN MG/KG



**CROSS SECTION VIEW SHOWING BORINGS UNDER UST**

Estate of D. Ulibarri  
385-387 Orange Street  
Oakland, California

**CLEARWATER GROUP**

Project No.  
**GB002B**

Figure Date  
**3/06**

Figure  
**3**

**APPENDIX A**

**City Of Oakland**  
**FIRE PREVENTION BUREAU**  
250 Frank Ogawa Plaza, Ste. 3341  
Oakland California 94612-2032  
510-238-3851



*Permit To Excavate And Install, Repair,  
Or Remove Inflammable Liquid Tanks*

Oakland, California February 28, 2006

**Tank Permit Number:** T06-0008

**Permission Is Hereby Granted To:**

UST Abandon/Close in Place      Heating Oil      **Tank And Excavate Commencing:**      **Feet Inside:**      **Line.**

**On The:**

**Site Address:** 385-387 Orange St., Oakland, CA 94610

**Present Storage:**

**Owner:** Mary Kranz, Executor of Estate

**Address:** 10106 Coronado Ave. NE, Albuquerque, NM      **Phone:** 505-856-2648

**Applicant:** Clearwater Group

**Address:** 229 Tewksbury Ave., Point Richmond, CA      **Phone:** 510-307-9943

**Dimensions Of Street (sidewalk) Surface To Be Disturbed :**      X      **No. Of Tanks** 1      **Capacity** 880      **Gallons, Each**

**Remarks**

This Permit Is Granted In Accordance With Existing City Ordinances. Owner Hereby Agrees To Remove Tanks On Discontinuance Of Use Or When Notified By The City Authorities When Installing, Removing Or Repairing Tanks, No Open Flame To Be On Or Near Premises.

**CERTIFICATE OF TANK AND EQUIPMENT INSPECTION**

**Type Of Inspection:**

**Inspected And Passed On:** \_\_\_\_\_

**Approved:**  \_\_\_\_\_

**Fire Marshal**

**UST/AST Installations/modifications:** \_\_\_\_\_ **By:** \_\_\_\_\_

**Pressure Test: Inspected By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Primary Piping Test: Inspected By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Inspection Fee Paid:** \$ 567.22

**Received By:** L Griffin, Check # 11619

**Secondary Containment & Sump Testing:** \_\_\_\_\_

**Inspected By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Final: Inspected By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

*Before Covering Tanks, Above Certification Must Be Signed When Ready For Inspection Notify Fire Prevention Bureau 238-3851*

**THIS PERMIT MUST BE LEFT ON THE WORK SITE AS AUTHORITY THEREFORE**



**APPENDIX B**

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <b>CA0100259956173752</b>		Manifest Document No. <b>24773752</b>		2. Page 1 of 3		Information in the shaded areas is not required by Federal law.									
3. Generator's Name and Mailing Address <b>MARY KRANZ EXECUTOR OF THE ESTATE OF DANOUILLI BARRI 10106 OCEANADO AVE. NORTH EAST. ALBUQUERQUE, N.M. 87122</b>						A. State Manifest Document Number <b>24773752</b>											
4. Generator's Phone <b>(505) 343-7617</b>						B. State Generator's ID											
5. Transporter 1 Company Name <b>CLEARWATER ENVIRONMENTAL</b>				6. US EPA ID Number <b>CA R 0 0 0 0 0 7 0 1 3</b>		C. State Transporter's ID (Reserved)											
7. Transporter 2 Company Name						8. US EPA ID Number											
9. Designated Facility Name and Site Address <b>ALVISO INDEPENDENT OIL 5002 ARCHER STREET ALVISO CA 95002</b>						10. US EPA ID Number <b>CA L 0 0 0 1 6 1 7 4 3</b>											
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity		14. Unit Wt/Vol		15. Waste Number					
a. <b>OIL &amp; WATER WASTE, LIQUID</b> (NON RCRA HAZARDOUS)  b.  c. <b>CLEARWATER ENVIRONMENTAL dba ALVISO OIL HAS ALL THE NECESSARY PERMIT AND LICENSES TO STORE AND TRANSFER THE WASTE CHARACTERIZED ON THIS MANIFEST</b>  d.						No.		Type		Quantity		Wt/Vol		State			
						001		TT		216340		G		923		EPA/Other	
														NONE		State	
														State		EPA/Other	
														State		EPA/Other	
Additional Descriptions for Materials Listed Above <b>11A MAKRO1</b>						K. Handling Codes for Wastes Listed Above a. <b>01/14</b> b. c. d.											
15. Special Handling Instructions and Additional Information <b>WEAR PPE 24 HOUR EMERGENCY KIRK HAYWARD 510-476-1740 ERG#171 INV.# 139074 AUGER GROUP</b>						<b>SITE: 385/387 ORANGE ST. OAKLAND, CA.</b>											
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.  If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.																	
Printed/Typed Name <b>JEANETTE POPP</b>				Signature <i>Jeanette Popp</i>				Month Day Year <b>01 30 06</b>									
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <b>MIKE STONE</b>				Signature <i>Mike Stone</i>				Month Day Year <b>01 30 06</b>									
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature				Month Day Year									
19. Discrepancy Indication Space																	
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19 Printed/Typed Name <b>JIMMIE GEMER</b>				Signature <i>Jimmie Gemer</i>				Month Day Year <b>01 15 06</b>									

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDf SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.  
 (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

## **APPENDIX C**

## CLEARWATER GROUP

### Direct-Push Drilling Investigation Procedures

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The direct push method of soil boring has several advantages over hollow-stem auger drill rigs. The direct push method produces no drill cuttings and is capable of 150 to 200 feet of boring or well installation per work day. Direct push can be used for soil gas surveys, soil sampling, groundwater sampling, installation of small-diameter monitoring wells, and components of remediation systems such as air sparge points. The equipment required to perform direct push work is varied ranging from a roto-hammer and operator to a pickup truck-mounted rig capable of substantial static downward force combined with percussive force. This method allows subsurface investigation work to be performed in areas inaccessible to conventional drill rigs such as in basements, beneath canopies, or below power lines. Direct push equipment is ideal at sites with unconsolidated soil or overburden, and for sampling depths of less than 30 feet. This method is not appropriate for boring through bedrock or gravelly soils.

#### **Permitting and Site Preparation**

Prior to direct push boring work, Clearwater Group will obtain all necessary permits and locate all underground and above ground utilities through Underground Service Alert (USA) and a thorough site inspection. All drilling equipment will be inspected daily and will be maintained in safe operating condition. All down-hole drilling equipment will be cleaned prior to arriving on-site. Working components of the rig near the borehole, as well as driven casing and sampling equipment will be thoroughly decontaminated between each boring location by either steam cleaning or washing with an Alconox® solution. All drilling and sampling methods will be consistent with ASTM Method D-1452-80 and county, state and federal regulations.

#### **Boring Installation and Soil Sampling**

Direct push uses a 1.5-inch outer barrel with an inner rod held in place during pushing. Soil samples are collected by penetrating to the desired depth, retracting the inner rod and attaching a spoon sampler. The sampler is then thrust beyond the outer barrel into native soil. Soil samples are recovered in brass or stainless containers lining the spoon.

Soil removed from the upper tube section is used for lithologic descriptions (according to the unified soil classification system) and for organic vapor field analysis. If organic vapors will be analyzed in the field, a portion of each soil sample will be placed in a plastic zip-lock bag. The bag will be sealed and warmed for approximately 10 minutes to allow vapors to be released from the soil sample and diffuse into the head space of the bag. The bag is then pierced with the probe of a calibrated organic vapor detector. The results of the field testing will be noted with the lithologic descriptions on the field exploratory soil boring log. Soil samples selected for laboratory analysis will be covered on both ends with Teflon™ tape and plastic end caps. The samples will then be labeled, documented on a chain-of-custody form and placed in a cooler for transport to a state certified analytical laboratory.

## Temporary Well Installation and Groundwater Sampling

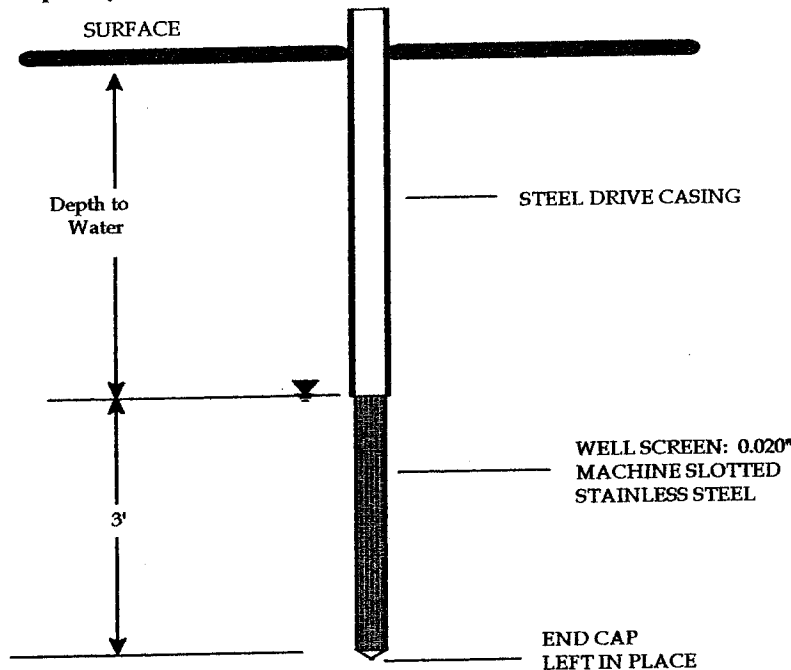


Figure 1

Groundwater samples are collected by removing the inner rod and attaching a 4-foot stainless steel screen with a drive point at the end (Figure 1). The screen and rod are then inserted in the outer barrel and driven to the desired depth where the outer rod is retracted to expose the screen. If enough water for sampling is not produced through the stainless well screen, a 1-inch PVC screen can be installed in the boring and the outer rod retracted to leave a temporary well point for collecting groundwater samples or water levels.

### Monitoring Well Installation and Development

Permanent small-diameter monitoring wells are installed by driving the outer barrel and inner rod as described above. Upon reaching the desired depth the system is removed and 2-inch OD (1/2-inch ID) pre-packed PVC piping is installed. The well plug is created using granular bentonite. The well seal is constructed of cement and sealed at the surface with a conventional "Christy® Box" or similar vault. Monitoring wells are developed by surging the well with a small diameter bailer and removing 3 to 5 casing volumes of water until the produced water is clear.

### Groundwater Sample Collection and Water Level Measurement

Prior to collecting groundwater from the wells the water levels are measured in all wells using an electronic water level gauge. Monitoring wells are prepared for sampling by purging three well bore volumes of water. Water is removed using small diameter bailers, a peristaltic pump, or manually using tubing with a check valve at the bottom. During removal of each volume, the temperature, pH and conductivity are measured and recorded on the field sampling form. Successive well volumes are removed until the parameters have stabilized or the well has gone dry. Prior to sampling, the well is allowed to recover to within 90% of the stabilized water levels.

Groundwater samples<sup>1</sup> are collected using small diameter bailers. The samples are decanted into laboratory supplied containers, labeled, recorded on a chain-of-custody form and placed on ice for transport to a certified laboratory.

<sup>1</sup> Small diameter wells often produce small sample quantities and are appropriate for analysis of volatile and aromatic compounds and dissolved metals analysis using VOA vials. Obtaining liter-size samples can be difficult and time consuming. Monitoring wells installed by the direct push method are most effective at sites where the subsurface soils are more coarse than silt, gasoline components are the key contaminants of concern, and water levels are not more than 25 feet below ground surface.

## **APPENDIX D**



229 Tewksbury Ave, Point Richmond, California 94801

CLIENT/ 385-387 Orange Street  
LOCATION Oakland, California

DRILLING CONTRACTOR **Fast- Tek**  
 DRILL RIG OPERATOR **Eric Austin**  
 DRILL RIG TYPE **Geo Probe 5400**  
 LOGGED BY **J. Gekov**  
 REVIEWED BY **R. Nelson, P.G.**  
 PLANNED USE **soil investigation**  
 DATES DRILLED: **2/28/06**  
 DRILLING START **1530**  
 DRILLING FINISH **1700**

BORING/  
WELL NUMBER **T-1**  
 PROJECT NUMBER **GB002B**  
 BORING DEPTH **22'**  
 WELL DEPTH **--**  
 SCREEN SLOT SIZE **--**  
 BORE/CASE DIAMETER **2"**  
 FILTER PACK **--**  
 WELL MATERIAL **--**  
 DEPTH TO FIRST WATER **--**

⚡ Approximate First Encountered Water Depth  
 ⚡ Approximate Stabilized Water Depth

DEPTH (feet)	SAMPLING				WATER LEVEL	OVM READING (ppm)	ESTIMATED PERCENT			LITHOLOGY	USCS SYMBOL	LITHOLOGIC DESCRIPTION/ NOTES	WELL CONSTRUCTION DETAILS
	BLOWS/ 6" INTERVAL	INTERVAL	RECOVERY	ANALYTICAL TPHd (mg/kg)			GRAVEL	SAND	FINES				
0											(0.0- 0.3) Concrete Sidewalk	0	
1						0				CL	(0.3- 2.0) Sandy lean clay with gravel, dark brown, soft, moist, low plasticity	1	
2											(2.0- 22.0) Clayey sand, light brown, dense, moist, orange/black mottling, minor gravel	2	
3						0						3	
4						0						4	
5						0	10	65	25			5	
6												6	
7						0						7	
8						0						8	
9						0						9	
10						0						10	
11						0						11	
12						0				SC		12	
13						0						13	
14		GOOD		4.4		0						14	
15						0						15	
16						0						16	
17						0						17	
18						0						18	
19						0						19	
20						0						20	
21						0						21	
22						0				EOH		22	
23												23	
24												24	

Analytical concentration of TPHd in mg/kg

# CLEARWATER GROUP, INC.

Environmental Services

229 Tewksbury Ave, Point Richmond, California 94801

CLIENT/ 385-387 Orange Street  
 LOCATION Oakland, California

DRILLING CONTRACTOR **Fast- Tek**  
 DRILL RIG OPERATOR **Eric Austin**  
 DRILL RIG TYPE **Geo Probe 5400**  
 LOGGED BY **J. Gekov**  
 REVIEWED BY **R. Nelson, P.G.**  
 PLANNED USE **soil investigation**  
 DATES DRILLED: **2/28/06**  
 DRILLING START **1400**  
 DRILLING FINISH **1500**

BORING/  
 WELL NUMBER **T-2**  
 PROJECT NUMBER **GB002B**  
 BORING DEPTH **14'**  
 WELL DEPTH **--**  
 SCREEN SLOT SIZE **--**  
 BORE/CASE DIAMETER **2"**  
 FILTER PACK **--**  
 WELL MATERIAL **--**  
 DEPTH TO FIRST WATER **--**

☒ Approximate First Encountered Water Depth  
 ☒ Approximate Stabilized Water Depth

DEPTH (feet)	SAMPLING				WATER LEVEL	OVM READING (ppm)	ESTIMATED PERCENT			LITHOLOGY	USCS SYMBOL	LITHOLOGIC DESCRIPTION/ NOTES	WELL CONSTRUCTION DETAILS
	BLOWS/6" INTERVAL	INTERVAL	RECOVERY	ANALYTICAL TPHd (mg/kg)			GRAVEL	SAND	FINES				
0										CL	(0.0- 0.3) Concrete Sidewalk	0	
1						0	10	30	60		(0.3- 1.0) Sandy lean clay with gravel, dark brown, soft, moist, low plasticity	1	
2												2	
3											(1.0- 12.0) Clayey sand with gravel, light brown, medium dense, moist, orange/black mottling, gravel rounded to angular	3	
4						0	20	60	20			4	
5						0						5	
6										SC		6	
7												7	
8						0						8	
9												9	
10						0						10	
11												11	
12						13						12	
13							80	20		SC	(12.0- 14.0) Clayey sand, green, dense, moist, *hydrocarbon odor @ 12-14'	13	
14		GOOD		15,000		78				EOH		14	
15												15	
16												16	
17												17	
18												18	
19												19	
20												20	
21												21	
22												22	
23												23	
24												24	

Analytical concentration of TPHd in mg/kg





229 Tewksbury Ave, Point Richmond, California 94801

CLIENT/ 385-387 Orange Street  
LOCATION Oakland, California

DRILLING CONTRACTOR **Fast- Tek**  
 DRILL RIG OPERATOR **Eric Austin**  
 DRILL RIG TYPE **Geo Probe 5400**  
 LOGGED BY **J. Gekov**  
 REVIEWED BY **R. Nelson, P.G.**  
 PLANNED USE **soil investigation**  
 DATES DRILLED: **2/28/06**  
 DRILLING START **1215**  
 DRILLING FINISH **1330**

BORING/  
WELL NUMBER **T-3**  
 PROJECT NUMBER **GB002B**  
 BORING DEPTH **24'**  
 WELL DEPTH **--**  
 SCREEN SLOT SIZE **--**  
 BORE/CASE DIAMETER **2"**  
 FILTER PACK **--**  
 WELL MATERIAL **--**  
 DEPTH TO FIRST WATER **--**

☒ Approximate First Encountered Water Depth  
 ☒ Approximate Stabilized Water Depth

DEPTH (feet)	SAMPLING				WATER LEVEL	OVM READING (ppm)	ESTIMATED PERCENT			LITHOLOGY	USCS SYMBOL	LITHOLOGIC DESCRIPTION/ NOTES	WELL CONSTRUCTION DETAILS
	BLOWS/ 6" INTERVAL	INTERVAL	RECOVERY	ANALYTICAL TPHd (mg/kg)			GRAVEL	SAND	FINES				
0											(0.0- 0.3) Concrete Sidewalk	0	
1										CL	(0.3- 2.0) Sandy lean clay with gravel, dark brown, soft, moist, low plasticity	1	
2						0	5	20	75			2	
3											(2.0- 16.0) Silty sand with gravel, light brown, moist, dense, orange/black mottling, gravel is well rounded to angular	3	
4						0	15	55	30			4	
5												5	
6						0						6	
7												7	
8						0						8	
9										SM		9	
10						0						10	
11												11	
12						0						12	
13												13	
14						0						14	
15		GOOD		2.7								15	
16						0						16	
17		GOOD		70		38	5	60	35	SC	(16.0- 18.0) Silty sand with clay, green, dense, moist, *hydrocarbon odor, slight oily sheen @16-18'	17	
18										SC	(18.0- 20.0) color change to light brown, *hydrocarbon odor @ 18-24'	18	
19						10						19	
20						16						20	
21						3					(20.0- 23.5) color change to green	21	
22						41				SC		22	
23						5						23	
24		GOOD		99		0				SC	(23.5- 24.0) color change to light brown	24	
25										EOH		25	

Analytical concentration of TPHd in mg/kg

Boring is angled 60 degrees from ground surface-Boring and sample interval depth is apparent



229 Tewksbury Ave, Point Richmond, California 94801

CLIENT/ 385-387 Orange Street  
 LOCATION Oakland, California

DRILLING CONTRACTOR **Fast- Tek**  
 DRILL RIG OPERATOR **Eric Austin**  
 DRILL RIG TYPE **Hand Auger**  
 LOGGED BY **J. Gekov**  
 REVIEWED BY **R. Nelson, P.G.**  
 PLANNED USE **soil investigation**  
 DATES DRILLED: **3/6/06**  
 DRILLING START **1230**  
 DRILLING FINISH **1300**  
 ☒ Approximate First Encountered Water Depth  
 ☒ Approximate Stabilized Water Depth

BORING/  
 WELL NUMBER **P-1**  
 PROJECT NUMBER **GB002B**  
 BORING DEPTH **8'**  
 WELL DEPTH **--**  
 SCREEN SLOT SIZE **--**  
 BORE/CASE DIAMETER **1"**  
 FILTER PACK **--**  
 WELL MATERIAL **--**  
 DEPTH TO FIRST WATER **--**

DEPTH (feet)	SAMPLING				WATER LEVEL	OVM READING (ppm)	ESTIMATED PERCENT			LITHOLOGY	USCS SYMBOL	LITHOLOGIC DESCRIPTION/ NOTES	WELL CONSTRUCTION DETAILS
	BLOWS/6" INTERVAL	INTERVAL	RECOVERY	ANALYTICAL TPHd (mg/kg)			GRAVEL	SAND	FINES				
0											(0.0- 3.0) Silty clay, dark brown, moist, organic debris, low plasticity, some gravel and sand, soft to stiff	0	
1						0	10	10	80	CL		1	
2												2	
3						0	15	10	75	CL	(3.0- 4.0) Silty clay with sand and gravel, dark brown, moist, stiff	3	
4												4	
5						0				GP	(4.0- 8.0) Poorly graded gravel with sand and clay, light brown/orange, loose to medium dense, moist, poor recovery	5	
6												6	
7												7	
8			POOR	<1.0		0	60	30	10		EOH	8	
9												9	
10												10	
11												11	
12												12	
13												13	
14												14	
15												15	
16												16	
17												17	
18												18	
19												19	
20												20	
21												21	
22												22	
23												23	
24												24	

Analytical concentration of TPHd in mg/kg



229 Tewksbury Ave, Point Richmond, California 94801

CLIENT/ 385-387 Orange Street  
LOCATION Oakland, California

DRILLING CONTRACTOR **Fast- Tek**  
 DRILL RIG OPERATOR **Eric Austin**  
 DRILL RIG TYPE **Hand Auger**  
 LOGGED BY **J. Gekov**  
 REVIEWED BY **R. Nelson, P.G.**  
 PLANNED USE **soil investigation**  
 DATES DRILLED: **3/6/06**  
 DRILLING START **1315**  
 DRILLING FINISH **1345**

BORING/  
WELL NUMBER **P-2**  
 PROJECT NUMBER **GB002B**  
 BORING DEPTH **8'**  
 WELL DEPTH **--**  
 SCREEN SLOT SIZE **--**  
 BORE/CASE DIAMETER **1"**  
 FILTER PACK **--**  
 WELL MATERIAL **--**  
 DEPTH TO FIRST WATER **--**

☒ Approximate First Encountered Water Depth  
 ☒ Approximate Stabilized Water Depth

DEPTH (feet)	SAMPLING				WATER LEVEL	OVM READING (ppm)	ESTIMATED PERCENT			LITHOLOGY	USCS SYMBOL	LITHOLOGIC DESCRIPTION/ NOTES	WELL CONSTRUCTION DETAILS	
	BLOWS/6" INTERVAL	INTERVAL	RECOVERY	ANALYTICAL TPHd (mg/kg)			GRAVEL	SAND	FINES					
0										CL	(0.0- 1.0) Silty clay with sand, dark brown, moist, low plasticity, trace gravel, soft	0		
1						0	5	15	80	GP	(1.0- 8.0) Poorly graded gravel with sand and clay, medium brown/orange, medium dense, moist, poor recovery	1		
2													2	
3														3
4						0								4
5														5
6						0	60	20	20					6
7												7		
8			POOR	96		0					EOH	8		
9												9		
10												10		
11												11		
12												12		
13												13		
14												14		
15												15		
16												16		
17												17		
18												18		
19												19		
20												20		
21												21		
22												22		
23												23		
24												24		

Analytical concentration of TPHd in mg/kg



229 Tewksbury Ave, Point Richmond, California 94801

CLIENT/ 385-387 Orange Street  
LOCATION Oakland, California

DRILLING CONTRACTOR **Fast- Tek**  
 DRILL RIG OPERATOR **Eric Austin**  
 DRILL RIG TYPE **Hand Auger**  
 LOGGED BY **J. Gekov**  
 REVIEWED BY **R. Nelson, P.G.**  
 PLANNED USE **soil investigation**  
 DATES DRILLED: **3/6/06**  
 DRILLING START **1350**  
 DRILLING FINISH **1420**

BORING/  
WELL NUMBER **P-3**  
 PROJECT NUMBER **GB002B**  
 BORING DEPTH **8'**  
 WELL DEPTH **--**  
 SCREEN SLOT SIZE **--**  
 BORE/CASE DIAMETER **1"**  
 FILTER PACK **--**  
 WELL MATERIAL **--**  
 DEPTH TO FIRST WATER **--**

⊠ Approximate First Encountered Water Depth  
 ▼ Approximate Stabilized Water Depth

DEPTH (feet)	SAMPLING				WATER LEVEL	OVM READING (ppm)	ESTIMATED PERCENT			LITHOLOGY	USCS SYMBOL	LITHOLOGIC DESCRIPTION/ NOTES	WELL CONSTRUCTION DETAILS
	BLOWS/6" INTERVAL	INTERVAL	RECOVERY	ANALYTICAL TPHd (mg/kg)			GRAVEL	SAND	FINES				
0											(0.0- 2.0) Silty clay with sand, dark brown, moist, low plasticity, trace gravel, soft	0	
1						0	5	15	80	CL		1	
2											(2.0- 8.0) Poorly graded gravel with sand and clay, dark brown, loose to medium dense, moist, poor recovery	2	
3												3	
4						0						4	
5												5	
6						0						6	
7												7	
8			POOR	<1.0		0	65	25	10	GP		8	
9												9	
10												10	
11												11	
12												12	
13												13	
14												14	
15												15	
16												16	
17												17	
18												18	
19												19	
20												20	
21												21	
22												22	
23												23	
24												24	

Analytical concentration of TPHd in mg/kg

## **APPENDIX E**



Report Number : 48738

Date : 3/10/2006

Robert Nelson  
The Auger Group  
229 Tewksbury Avenue  
Point Richmond, CA 94801

Subject : 3 Soil Samples  
Project Name : Orange Street  
Project Number : GB002B

Dear Mr. Nelson,

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 48738

Date : 3/10/2006

Project Name : **Orange Street**

Project Number : **GB002B**

Sample : **P-1**

Matrix : Soil

Lab Number : 48738-01

Sample Date :3/6/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/7/2006
<b>Toluene</b>	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/7/2006
<b>Ethylbenzene</b>	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/7/2006
<b>Total Xylenes</b>	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/7/2006
Toluene - d8 (Surr)	98.5		% Recovery	EPA 8260B	3/7/2006
4-Bromofluorobenzene (Surr)	111		% Recovery	EPA 8260B	3/7/2006
<b>TPH as Diesel</b>	< 1.0	1.0	mg/Kg	M EPA 8015	3/7/2006
1-Chlorooctadecane (Diesel Surrogate)	93.4		% Recovery	M EPA 8015	3/7/2006

Sample : **P-2**

Matrix : Soil

Lab Number : 48738-02

Sample Date :3/6/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/7/2006
<b>Toluene</b>	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/7/2006
<b>Ethylbenzene</b>	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/7/2006
<b>Total Xylenes</b>	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/7/2006
Toluene - d8 (Surr)	97.9		% Recovery	EPA 8260B	3/7/2006
4-Bromofluorobenzene (Surr)	111		% Recovery	EPA 8260B	3/7/2006
<b>TPH as Diesel</b>	96	5.0	mg/Kg	M EPA 8015	3/7/2006
1-Chlorooctadecane (Diesel Surrogate)	79.8		% Recovery	M EPA 8015	3/7/2006

Approved By:

Joel Kiff



Report Number : 48738

Date : 3/10/2006

Project Name : Orange Street

Project Number : GB002B

Sample : P-3

Matrix : Soil

Lab Number : 48738-03

Sample Date :3/6/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/7/2006
<b>Toluene</b>	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/7/2006
<b>Ethylbenzene</b>	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/7/2006
<b>Total Xylenes</b>	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/7/2006
Toluene - d8 (Surr)	97.2		% Recovery	EPA 8260B	3/7/2006
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	3/7/2006
<b>TPH as Diesel</b>	< 1.0	1.0	mg/Kg	M EPA 8015	3/7/2006
1-Chlorooctadecane (Diesel Surrogate)	88.8		% Recovery	M EPA 8015	3/7/2006

Approved By:

Joel Kiff



Report Number : 48738

Date : 3/10/2006

**QC Report : Method Blank Data**

Project Name : **Orange Street**

Project Number : **GB002B**

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	3/7/2006
1-Chlorooctadecane (Diesel Surrogate)	86.1		%	M EPA 8015	3/7/2006
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	3/8/2006
1-Chlorooctadecane (Diesel Surrogate)	88.3		%	M EPA 8015	3/8/2006
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2006
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2006
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/6/2006
Toluene - d8 (Surr)	99.9		%	EPA 8260B	3/6/2006
4-Bromofluorobenzene (Surr)	96.8		%	EPA 8260B	3/6/2006

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
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KIFF ANALYTICAL, LLC

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

Approved By:  Joel Kiff

Report Number : 48738

Date : 3/10/2006

**QC Report : Laboratory Control Sample (LCS)**

Project Name : **Orange Street**

Project Number : **GB002B**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
TPH as Diesel	20.0	mg/Kg	M EPA 8015	3/7/06	96.6	70-130
Benzene	0.0400	mg/Kg	EPA 8260B	3/6/06	98.5	70-130
Toluene	0.0400	mg/Kg	EPA 8260B	3/6/06	93.6	70-130
Methyl-t-Butyl Ether	0.0400	mg/Kg	EPA 8260B	3/6/06	96.3	70-130
TPH as Diesel	20.0	mg/Kg	M EPA 8015	3/8/06	114	70-130

KIFF ANALYTICAL, LLC

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

Approved By:

Joe Kiff



Report Number : 48738

Date : 3/10/2006

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : Orange Street


Project Number : GB002B

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	48691-03	1.5	20.0	20.0	23.2	23.3	mg/Kg	M EPA 8015	3/7/06	107	108	0.736	60-140	25
Benzene	48247-36	<0.0050	0.0399	0.0396	0.0382	0.0387	mg/Kg	EPA 8260B	3/6/06	95.7	97.8	2.15	70-130	25
Toluene	48247-36	<0.0050	0.0399	0.0396	0.0385	0.0388	mg/Kg	EPA 8260B	3/6/06	96.5	98.0	1.62	70-130	25
Methyl-t-Butyl Ether	48247-36	<0.0050	0.0399	0.0396	0.0357	0.0358	mg/Kg	EPA 8260B	3/6/06	89.4	90.3	1.09	70-130	25
TPH as Diesel	48738-01	<1.0	20.0	20.0	19.6	20.0	mg/Kg	M EPA 8015	3/8/06	98.2	99.8	1.56	60-140	25

KIFF ANALYTICAL, LLC

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

Approved By: Joe Kiff



Report Number : 48738

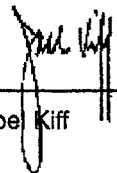
Date : 3/10/2006

**QC Report : Matrix Spike/ Matrix Spike Duplicate**

Project Name : **Orange Street**

Project Number : **GB002B**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	48691-03	1.5	20.0	20.0	23.2	23.3	mg/Kg	M EPA 8015	3/7/06	107	108	0.736	60-140	25
Benzene	48247-36	<0.0050	0.0399	0.0396	0.0382	0.0387	mg/Kg	EPA 8260B	3/6/06	95.7	97.8	2.15	70-130	25
Toluene	48247-36	<0.0050	0.0399	0.0396	0.0385	0.0388	mg/Kg	EPA 8260B	3/6/06	96.5	98.0	1.62	70-130	25
Methyl-t-Butyl Ether	48247-36	<0.0050	0.0399	0.0396	0.0357	0.0358	mg/Kg	EPA 8260B	3/6/06	89.4	90.3	1.09	70-130	25
TPH as Diesel	48738-01	<1.0	20.0	20.0	19.6	20.0	mg/Kg	M EPA 8015	3/8/06	98.2	99.8	1.56	60-140	25

Approved By:  Joe Kiff





Report Number : 48662

Date : 3/8/2006

Robert Nelson  
The Auger Group  
229 Tewksbury Avenue  
Point Richmond, CA 94801

Subject : 5 Soil Samples  
Project Name : Orange St.  
Project Number : GB002B

Dear Mr. Nelson,

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 48662

Date : 3/8/2006

Subject : 5 Soil Samples  
Project Name : Orange St.  
Project Number : GB002B

## Case Narrative

Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for samples T1 13.5-14.0' and T3 15-15.5'. These hydrocarbons are higher boiling than typical diesel fuel.

Samples T2 13.5-14.0', T3 17-17.5' and T3 23.5-24.0' were analyzed past hold time for 8260 analytes.

Approved By: \_\_\_\_\_

Joe Kiff

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



Report Number : 48662

Date : 3/8/2006

Project Name : Orange St.

Project Number : GB002B

Sample : T1 13.5-14.0'

Matrix : Soil

Lab Number : 48662-01

Sample Date :2/28/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2006
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2006
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2006
Toluene - d8 (Surr)	98.9		% Recovery	EPA 8260B	3/2/2006
4-Bromofluorobenzene (Surr)	94.3		% Recovery	EPA 8260B	3/2/2006
TPH as Diesel	4.4	1.0	mg/Kg	M EPA 8015	3/2/2006
1-Chlorooctadecane (Diesel Surrogate)	94.8		% Recovery	M EPA 8015	3/2/2006

Sample : T2 13.5-14.0'

Matrix : Soil

Lab Number : 48662-02

Sample Date :2/28/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/8/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/8/2006
Ethylbenzene	0.034	0.0050	mg/Kg	EPA 8260B	3/8/2006
Total Xylenes	0.12	0.0050	mg/Kg	EPA 8260B	3/8/2006
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	3/8/2006
4-Bromofluorobenzene (Surr)	80.4		% Recovery	EPA 8260B	3/8/2006
TPH as Diesel	15000	20	mg/Kg	M EPA 8015	3/3/2006
1-Chlorooctadecane (Diesel Surrogate)	Diluted Out		% Recovery	M EPA 8015	3/3/2006

Approved By:

Joel Kiff



Project Name : Orange St.

Project Number : GB002B

Sample : T3 15-15.5'

60° slope

Matrix : Soil

Lab Number : 48662-03

Sample Date : 2/28/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2006
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2006
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2006
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	3/2/2006
4-Bromofluorobenzene (Surr)	94.3		% Recovery	EPA 8260B	3/2/2006
TPH as Diesel	2.7	1.0	mg/Kg	M EPA 8015	3/2/2006
1-Chlorooctadecane (Diesel Surrogate)	94.9		% Recovery	M EPA 8015	3/2/2006

Sample : T3 17-17.5'

Matrix : Soil

Lab Number : 48662-04

Sample Date : 2/28/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/8/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/8/2006
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/8/2006
Total Xylenes	0.013	0.0050	mg/Kg	EPA 8260B	3/8/2006
Toluene - d8 (Surr)	97.9		% Recovery	EPA 8260B	3/8/2006
4-Bromofluorobenzene (Surr)	94.3		% Recovery	EPA 8260B	3/8/2006
TPH as Diesel	70	1.0	mg/Kg	M EPA 8015	3/3/2006
1-Chlorooctadecane (Diesel Surrogate)	105		% Recovery	M EPA 8015	3/3/2006

Approved By:

Joel Kiff



Report Number : 48662

Date : 3/8/2006

Project Name : Orange St.

Project Number : GB002B

Sample : T3 23.5-24.0'

Matrix : Soil

Lab Number : 48662-05

Sample Date : 2/28/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/8/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/8/2006
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/8/2006
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/8/2006
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	3/8/2006
4-Bromofluorobenzene (Surr)	95.0		% Recovery	EPA 8260B	3/8/2006
TPH as Diesel	99	1.0	mg/Kg	M EPA 8015	3/3/2006
1-Chlorooctadecane (Diesel Surrogate)	106		% Recovery	M EPA 8015	3/3/2006

Approved By:

Joel Kiff

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

Report Number : 48662

Date : 3/8/2006

**QC Report : Method Blank Data**

Project Name : **Orange St.**

Project Number : **GB002B**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	3/2/2006
1-Chlorooctadecane (Diesel Surrogate)	93.1		%	M EPA 8015	3/2/2006
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/1/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/1/2006
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/1/2006
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/1/2006
Toluene - d8 (Surr)	97.5		%	EPA 8260B	3/1/2006
4-Bromofluorobenzene (Surr)	112		%	EPA 8260B	3/1/2006
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/2/2006
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/8/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/8/2006
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/8/2006
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	3/8/2006
Toluene - d8 (Surr)	100		%	EPA 8260B	3/8/2006
4-Bromofluorobenzene (Surr)	94.6		%	EPA 8260B	3/8/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 48662

Date : 3/8/2006

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : Orange St.

Project Number : GB002B

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	48677-01	<1.0	20.0	20.0	22.1	21.0	mg/Kg	M EPA 8015	3/2/06	111	105	5.35	60-140	25
Benzene	48662-03	<0.0050	0.0389	0.0392	0.0365	0.0377	mg/Kg	EPA 8260B	3/1/06	93.8	96.1	2.45	70-130	25
Toluene	48662-03	<0.0050	0.0389	0.0392	0.0356	0.0364	mg/Kg	EPA 8260B	3/1/06	91.5	92.8	1.33	70-130	25
Methyl-t-Butyl Ether	48662-03	<0.0050	0.0389	0.0392	0.0335	0.0350	mg/Kg	EPA 8260B	3/1/06	86.0	89.3	3.79	70-130	25
Benzene	48662-05	<0.0050	0.0390	0.0391	0.0379	0.0376	mg/Kg	EPA 8260B	3/2/06	97.1	96.1	1.11	70-130	25
Toluene	48662-05	<0.0050	0.0390	0.0391	0.0379	0.0377	mg/Kg	EPA 8260B	3/2/06	97.2	96.4	0.843	70-130	25
Methyl-t-Butyl Ether	48662-05	<0.0050	0.0390	0.0391	0.0359	0.0357	mg/Kg	EPA 8260B	3/2/06	92.1	91.1	1.10	70-130	25
Benzene	48577-02	<0.0050	0.0398	0.0396	0.0383	0.0365	mg/Kg	EPA 8260B	3/8/06	96.1	92.2	4.11	70-130	25
Toluene	48577-02	<0.0050	0.0398	0.0396	0.0372	0.0355	mg/Kg	EPA 8260B	3/8/06	93.4	89.6	4.24	70-130	25
Methyl-t-Butyl Ether	48577-02	<0.0050	0.0398	0.0396	0.0393	0.0368	mg/Kg	EPA 8260B	3/8/06	98.6	93.0	5.90	70-130	25

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 48662

Date : 3/8/2006

**QC Report : Laboratory Control Sample (LCS)**

Project Name : **Orange St.**

Project Number : **GB002B**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
TPH as Diesel	20.0	mg/Kg	M EPA 8015	3/2/06	97.8	70-130
Benzene	0.0398	mg/Kg	EPA 8260B	3/1/06	96.9	70-130
Toluene	0.0398	mg/Kg	EPA 8260B	3/1/06	94.6	70-130
Methyl-t-Butyl Ether	0.0398	mg/Kg	EPA 8260B	3/1/06	87.2	70-130
Benzene	0.0385	mg/Kg	EPA 8260B	3/2/06	98.7	70-130
Toluene	0.0385	mg/Kg	EPA 8260B	3/2/06	98.8	70-130
Methyl-t-Butyl Ether	0.0385	mg/Kg	EPA 8260B	3/2/06	92.8	70-130
Benzene	0.0398	mg/Kg	EPA 8260B	3/8/06	98.7	70-130
Toluene	0.0398	mg/Kg	EPA 8260B	3/8/06	96.2	70-130
Methyl-t-Butyl Ether	0.0398	mg/Kg	EPA 8260B	3/8/06	102	70-130

KIFF ANALYTICAL, LLC

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

Approved By:

Joe Kiff





## **APPENDIX F**

# UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		<b>FOR LOCAL AGENCY USE ONLY</b> I HEREBY CERTIFY THAT I HAVE DISTRIBUTED THIS INFORMATION ACCORDING TO THE DISTRIBUTION SHOWN ON THE INSTRUCTION SHEET ON THE BACK PAGE OF THIS FORM.		
REPORT DATE 03/23/06		CASE #		SIGNED _____ DATE _____		
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT Mary Kranz		PHONE (505) 342-7617		SIGNATURE 	
	REPRESENTING <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER		COMPANY OR AGENCY NAME			
	ADDRESS 10106 Coronado Ave, NE, Albuquerque NM 87122					
RESPONSIBLE PARTY	NAME Estate of David Ulibarri <input type="checkbox"/> UNKNOWN		CONTACT PERSON Mary Kranz - Executor		PHONE (505) 342-7617	
	ADDRESS 10106 Coronado Ave, NE, Albuquerque NM 87122					
SITE LOCATION	FACILITY NAME (IF APPLICABLE)		OPERATOR		PHONE ( )	
	ADDRESS 385-387 Orange Street, Oakland Alameda 94610					
	CROSS STREET Perkins Street					
IMPLEMENTING AGENCIES	LOCAL AGENCY City of Oakland, Fire Prevention Bureau		CONTACT PERSON Leroy Griffin		PHONE (510) 238-3851	
	REGIONAL BOARD ( )					
SUBSTANCES INVOLVED	(1) NAME Heating Oil				QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN	
	(2) _____ <input type="checkbox"/> UNKNOWN					
DISCOVERY/ABATEMENT	DATE DISCOVERED 03/28/06		HOW DISCOVERED <input type="checkbox"/> TANK TEST <input type="checkbox"/> TANK REMOVAL <input checked="" type="checkbox"/> INVENTORY CONTROL <input checked="" type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS		<input type="checkbox"/> OTHER	
	DATE DISCHARGE BEGAN <input checked="" type="checkbox"/> UNKNOWN		METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input checked="" type="checkbox"/> REMOVE CONTENTS <input type="checkbox"/> CLOSE TANK & REMOVE <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> CLOSE TANK & FILL IN PLACE <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> REPLACE TANK <input type="checkbox"/> OTHER			
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE _____					
SOURCE/ CAUSE	SOURCE OF DISCHARGE <input type="checkbox"/> TANK LEAK <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER		CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> SPILL <input type="checkbox"/> CORROSION <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> OTHER			
	CHECK ONE ONLY <input type="checkbox"/> UNDETERMINED <input checked="" type="checkbox"/> SOIL ONLY <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)					
CURRENT STATUS	CHECK ONE ONLY <input type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED <input checked="" type="checkbox"/> POLLUTION CHARACTERIZATION <input type="checkbox"/> LEAK BEING CONFIRMED <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT UNDERWAY <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> REMEDIATION PLAN <input type="checkbox"/> CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> CLEANUP UNDERWAY					
	CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS) <input type="checkbox"/> EXCAVATE & DISPOSE (ED) <input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> ENHANCED BIO DEGRADATION (IT) <input type="checkbox"/> CAP SITE (CD) <input type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> VENT SOIL (VS) <input type="checkbox"/> VACUUM EXTRACT (VE) <input checked="" type="checkbox"/> OTHER (OT) <u>Site is under investigation by Owner</u>					
COMMENTS	_____					