### KLEINFELDER EXPECT MORE®

April 28, 2008 File No. 84855/FH#1 UST

Mr. James W. Gotcher City of Pleasanton Public Works / Development Services 200 Old Bernal Avenue P.O. Box 520 Pleasanton, California 94566

### **RECEIVED**

2:33 pm, Jun 19, 2008

Alameda County Environmental Health

SUBJECT: Environmental Site Investigation of Fire Station No. 1, 4444 Railroad Avenue, Pleasanton, California

Dear Mr. Gotcher:

This letter report presents the results of an environmental site investigation performed at the Fire Station No. 1 property located at 4444 Railroad Avenue in Pleasanton (the Site, shown on Plate 1) for the City of Pleasanton. This work was performed in general accordance with the Site Investigation Workplan prepared by Kleinfelder and dated August 10, 2007, and technical comments included in a letter to the City of Pleasanton from Alameda County Environmental Health dated September 20, 2007. Kleinfelder completed field work related to this investigation on April 3, 2008. Field activities included advancement of one soil boring to collect two soil samples and one The samples were analyzed by a California state-certified groundwater sample. analytical laboratory to assess potential presence of impacted soil or groundwater related to the former underground storage tanks (USTs) on the site. Total petroleum hydrocarbons in the gasoline and diesel ranges, and related volatile organic compounds were not detected at or above laboratory reporting limits in the soil and groundwater Kleinfelder recommends no further action related to potential samples analyzed. releases from the former UST on the Site.

# Purpose and Scope of Work

The work described in this report was performed pursuant to a request to the City of Pleasanton from Alameda County Environmental Health (ACEH). The scope of work included advancement of one soil boring on the site, collection of two discrete soil

samples and one groundwater grab sample, analysis of samples by a state-certified analytical laboratory, disposal of investigation-derived wastes, and preparation of this report.

# Site Description and Background

The Site is located at 4444 Railroad Avenue in Pleasanton, California, near the intersection with West Neal Street, and is adjacent to a former railroad right of way. The site is situated in the Amador Valley, and the site geology represents typical Coast Range alluvial fill – interbedded and discontinuous sands, gravels, silts and clays.

On September 12, 1996, two 500-gallon USTs were removed from Fire Station No. 1. One tank contained gasoline and the other diesel fuel. According to the Fire Department's *Hazardous Materials Record of Inspection* prepared on the day of the UST removal, the diesel tank had rust, corrosion and small holes on top. The gasoline tank had no obvious holes. No detectable concentrations of petroleum hydrocarbons were detected in confirmation soil samples collected from beneath the former diesel and gasoline USTs. However, analyses of the stockpile sample found concentrations of diesel fuel and xylenes in the original backfill material at concentrations of 150 milligrams per kilogram (mg/kg) and 0.008 mg/kg, respectively, indicating that a minor release had occurred. A report dated September 20, 1996 by the UST removal contractor, W.A. Craig, includes additional detail.

On June 26, 2007, at the request of the City of Pleasanton, Kleinfelder supervised the drilling of a soil boring (boring number RR-1) at the location of the former USTs. The objective of the drilling was to assess the impact of the fuel release on soil and groundwater beneath the site, with the intention of obtaining case closure. However, due to a greater than anticipated depth to groundwater and the depth limitation of the drilling rig, the boring was terminated at a depth of 28 feet below ground surface (bgs). No indications of soil contamination were observed in the boring, however groundwater was not encountered. Samples were not collected from boring RR-1 for chemical analysis. The boring log for boring RR-1 is included in Appendix B.

### **Field Activities**

Kleinfelder completed the field portion of this investigation on April 3, 2008. Vironex of Pacheco, California, a state-licensed well drilling contractor (C57 license no. 705927) and Kleinfelder's subcontractor, advanced one soil boring under the direction of a

Kleinfelder professional geologist. Soil and groundwater samples collected during this investigation were analyzed by McCampbell Analytical, Inc. of Pittsburg, California, a state-certified chemical testing laboratory (DHS ELAP certification no. 1644).

# Soil Borings

Prior to drilling, Kleinfelder obtained a drilling permit from the Zone 7 Water Agency. A copy of the drilling permit is included in Appendix A. Kleinfelder notified Underground Service Alert at least 48 hours prior to drilling, as required by law, to notify local utilities with underground facilities in the vicinity of the investigation area (USA ticket no. 110407). Kleinfelder retained Cruz Brothers Locators to clear the boring location using geophysical equipment. The soil boring location and site features are shown on Plate 2.

Vironex provided drilling services for one boring location using a truck-mounted Geoprobe 6600 (direct-push) drill rig employing the Macro-core sampling system. The direct push rig advances a five-foot long steel tube using a hydraulic ram and hydraulic percussion hammer. The steel tube has an inside diameter of two inches and an interchangeable acrylic liner, which allows for a continuous sample through the entire depth of the borehole.

One boring was advanced to a depth of 55 feet bgs. Soil was collected in acrylic liners and inspected for indications of staining and/or odors. The continuous soil samples were logged in the field using the Unified Soil Classification System. The soil boring log is included in Appendix B.

Soil samples were collected at depth intervals of five feet and screened for organic vapors using a photo-ionization gas detector (PID). Staining and odors were not noted in the soil samples and elevated PID readings were not detected. Two soil samples, one from a depth of 10 feet and one from a depth of 30 feet were selected from the boring and sealed on both ends with Teflon sheets and rubber end caps. The soil samples were transferred on ice to McCampbell Analytical, Inc. under chain-of-custody protocol for analysis. Soil sampling equipment was decontaminated between sample intervals and locations as described below.

Groundwater was encountered at a depth of 46 feet bgs. Because the borehole collapsed when the drill-string was withdrawn, Vironex advanced 2.25-inch steel casing in the borehole in order to set temporary PVC casing within the groundwater interval. The steel casing was withdrawn to expose the PVC screen before collecting a

groundwater sample. One groundwater sample was collected using new 3/8-inch polyethylene tubing and a ball-check valve device. Groundwater samples were placed in laboratory-supplied containers, labeled, and transferred on ice to McCampbell Analytical, Inc. under chain-of-custody protocol.

After groundwater samples were collected, temporary well casing was removed and discarded, and the borehole was backfilled with neat cement and abandoned according to well permit requirements.

#### Decontamination Procedures

Non-expendable sampling equipment was decontaminated prior to use and between each borehole using an Alconox detergent and water solution and two stage rinse. New expendable equipment was used whenever possible.

# Investigation-Derived Waste Management

Waste soil cuttings and decontamination rinsates generated during this investigation were placed in a DOT 17H 55-gallon steel drum and left at the Firehouse No. 3 site pending approval of a waste profile. The drum was removed by Clearwater Environmental and transferred to Alviso Independent Oil in Alivso, California for disposal on April 24, 2008. The non-hazardous waste manifest is included in Appendix C.

# **Chemical Analysis**

Soil and groundwater samples were submitted to McCampbell Analytical, Inc., for the following analyses:

- Volatile Organic Compounds (VOCs) limited to Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX), fuel oxygenates (tertiary-Amyl Methyl Ether, tertiary-Butyl Alcohol, Diiosopropyl Ether, Ethyl tertiary-Butyl Ether and Methyl tertiary-Butyl Ether), Ethylene Dibromide, and 1, 2-Dichloroethane using EPA Method 8260B;
- Total Petroleum Hydrocarbons in the Gasoline range (TPHg) using EPA Method 8015Cm; and
- Total Petroleum Hydrocarbons in the Diesel range (TPHd) using EPA Method 8015C

Soil samples were also analyzed for total lead using EPA Method 6020A.

#### Results

The analytical results for soil samples collected on April 3, 2008, are summarized on Table 1. The results for groundwater samples collected on April 3, 2008, are summarized on Table 2. The analytical report from McCampbell Analytical, Inc. is included in Appendix D.

Analytical results are compared to Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (RWQCB). For the purposes of this investigation, the ESLs established for shallow soil in residential areas where groundwater is a current or potential source of drinking water were used. RWQCB ESLs do not represent regulatory action levels for contaminants, however they provide a guideline from which to assess risk factors associated with the presence of chemicals in soil, groundwater and soil gas.

A total of two soil samples were collected and analyzed for VOCs, TPHg, TPHd and total lead. VOCs, TPHg and TPHd were not detected at or above laboratory reporting limits in the two soil samples submitted. Total lead was detected at concentrations below its ESL.

One groundwater sample was collected and analyzed for VOCs, TPHg and TPHd. VOCs, TPHg and TPHd were not detected at or above laboratory reporting limits in the groundwater sample submitted.

# **Conclusions and Recommendations**

Based on the results of this investigation, it does not appear that soil and groundwater beneath the site have been impacted by releases from the former USTs on the site. Kleinfelder recommends no further action with respect to the former underground storage tanks on the Fire Station No. 1 site.

### Limitations

Kleinfelder prepared this report in accordance with generally accepted standards of care that exist in Alameda County at this time. This report may be used only by the City of Pleasanton and only for the purposes stated, within a reasonable time from its issuance, but in no event later than one (1) year from the date of the report. All information gathered by Kleinfelder is considered confidential and will be released only upon written authorization of the City of Pleasanton or as required by law. Non-compliance with any

of these requirements by the City of Pleasanton or anyone else, unless specifically agreed to in advance by Kleinfelder in writing, will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party and the City of Pleasanton agrees to defend, indemnify, and hold harmless Kleinfelder from any claim or liability associated with such unauthorized use or non-compliance.

Kleinfelder offers various levels of investigative and engineering services to suit the varying needs of different clients. It should be recognized that definition and evaluation of geologic and environmental conditions are a difficult and inexact science. Judgments leading to conclusions and recommendations are generally made with incomplete knowledge of the subsurface conditions present. Although risk can never be eliminated, more-detailed and extensive investigations yield more information, which may help understand and manage the level of risk. Since detailed investigation and analysis involves greater expense, our clients participate in determining levels of service that provide adequate information for their purposes at acceptable levels of risk. More extensive studies, including subsurface investigations or field tests, may be performed to reduce uncertainties. Acceptance of this report will indicate that the City of Pleasanton has reviewed the document and determined that it does not need or want a greater level of service than provided.

During the course of the performance of Kleinfelder's services, hazardous materials may be discovered. Kleinfelder will assume no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury that results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials. Nothing contained in this report should be construed or interpreted as requiring Kleinfelder to assume the status of an owner, operator, generator, or person who arranges for disposal, transport, storage or treatment of hazardous materials within the meaning of any governmental statute, regulation or order. The City of Pleasanton will be solely responsible for notifying all governmental agencies, and the public at large, of the existence, release, treatment or disposal of any hazardous materials observed at the project site, either before or during performance of Kleinfelder's services. The City of Pleasanton will be responsible for all arrangements to lawfully store, treat, recycle, dispose, or otherwise handle hazardous materials, including cuttings and samples resulting from Kleinfelder's services.

Regulations and professional standards applicable to Kleinfelder's services are continually evolving. Techniques are, by necessity, often new and relatively untried. Different professionals may reasonably adopt different approaches to similar problems. As such, our services are intended to provide the City of Pleasanton with a source of professional advice, opinions and recommendations. Our professional opinions and recommendations are based on our limited number of field observations and tests, collected and performed in accordance with the generally accepted engineering practice that exists at the time and may depend on, and be qualified by, information gathered previously by others and provided to Kleinfelder by the City of Pleasanton. Consequently, no warranty or guarantee, expressed or implied, is intended or made.

# **Closing Remarks**

We appreciate the opportunity to work with you on this project. If you have any questions regarding this letter report, please call Jim Lehrman or John Williams at (925) 484-1700.

Respectfully submitted,

KLEINFELDER WEST, INC.

John L. Williams, III, PG

Staff Geologist

JLW/JAL/jmk

James A. Lehrman, PG, CHG Environmental Group Manager

Attachments: Table 1 - Summary of Soil Analytical Results, Fire Station No. 1

Table 2 – Summary of Groundwater Analytical Results, Fire Station No. 1

Plate 1 - Site Vicinity Map

Plate 2 - Site Plan

Appendix A – Drilling Permit from Zone 7 Water Agency

Appendix B - Soil Boring Logs

Appendix C – Non-Hazardous Waste Manifest

Appendix D – Laboratory Analytical Report

# **TABLES**

# TABLE 1 SUMMARY OF SOIL ANALYTICAL RESULTS FIRE STATION NO. 1 PLEASANTON, CALIFORNIA

				1	<u> </u>			
		Sample II	and Date	RWQCB - ESLs	Hazardous Waste Critera			
		RR-2-10	111111111111111111111111111111111111111		TTLC	STLC x 10		
Analyte	Method	4/3/2008	4/3/2008					
Total Lead (mg/kg)	6020A	4.0	6.7	200	1,000	50		
Petroleum Hydrocarbons (mg/kg)	8015C							
TPH (Gasoline)		ND (<1.0)	ND (<1.0)	83				
TPH (Diesel)		ND (<1.0)	ND (<1.0)	83	_			
BTEX and Oxygenates (mg/kg)	8260B							
Benzene		ND (<0.005)	ND (<0.005)	1.0				
Toluene		ND (<0.005)	ND (<0.005)	40				
Ethylbenzene		ND (<0.005)	ND (<0.005)	30				
Total Xylenes		ND (<0.005)	ND (<0.005)	20				
tert-Amyl Methyl Ehter (TAME)		ND (<0.005)	ND (<0.005)	NE				
tert-Butyl Alcohol (TBA)		ND (<0.05)	ND (<0.05)	NE				
Diisopropyl Ether (DIPE)		ND (<0.005)	ND (<0.005)	NE				
Ethyl tert-Butly Ether (ETBE)		ND (<0.005)	ND (<0.005)	NE				
Methyl tert-Butyl Ether (MTBE)		ND (<0.005)	ND (<0.005)	5.0				
Ethylene Dibromide		ND (<0.004)	ND (<0.004)	0.05				
1, 2-Dichloroethane		ND (<0.004)	ND (<0.004)	0.5				

Samples were analyzed by McCampbell Analytical, Inc of Pittsburg, California, a state-certified analytical laboratory. Laboratory data met EPA and laboratory specifications for quality assurance and quality control.

#### Acronyms/Abbreviations:

mg/kg - milligrams per kilogram

mg/L - milligrams per liter

ESLs - Environmental Screening Levels

RWQCB - Regional Water Quality Control Board (San Francisco Bay Region)

ND - Not detected at or above laboratory reporting limit

NE - Not established

<sup>&</sup>lt;sup>1</sup> California Regional Water Quality Control Board, San Francisco Bay Region. Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Lookup Tables, Shallow Soils, Groundwater is Current or Potential Source of Drinking Water, Interim Final, November 2007.

# TABLE 2 SUMMARY OF GROUNDWATER ANALYTICAL RESULTS FIRE STATION NO. 1 PLEASANTON, CALIFORNIA

			<u> </u>
		Sample ID and Date	RWQCB - ESLs <sup>1</sup>
		RR-2	Residential Land Use 2007
Analyte	Method	4/3/2008	
Petroleum Hydrocarbons (µg/L)	8015C		
TPH (Gasoline)		ND (<50)	83
TPH (Diesel)		ND (<50)	83
Volatile Organic Compounds (µg/L)	8260B		
Benzene		ND (<0.5)	1.0
Toluene		ND (<0.5)	40
Ethylbenzene		ND (<0.5)	30
Total Xylenes		ND (<0.5)	20
tert-Amyl Methyl Ehter (TAME)		ND (<0.5)	NE
tert-Butyl Alcohol (TBA)	. 1	ND (<2.0)	NE
Diisopropyl Ether (DIPE)		ND (<0.5)	NE
Ethyl tert-Butly Ether (ETBE)		ND (<0.5)	NE
Methyl tert-Butyl Ether (MTBE)		ND (<0.5)	5.0
Ethylene Dibromide		ND (<0.5)	0.05
1, 2-Dichloroethane		ND (<0.5)	0.5

Samples were analyzed by McCampbell Analytical, Inc of Pittsburg, California, a state-certified analytical laboratory. Laboratory data met EPA and laboratory specifications for quality assurance and quality control.

#### Acronyms/Abbreviations:

mg/kg - milligrams per kilogram

µg/L - micrograms per liter

ESLs - Environmental Screening Levels

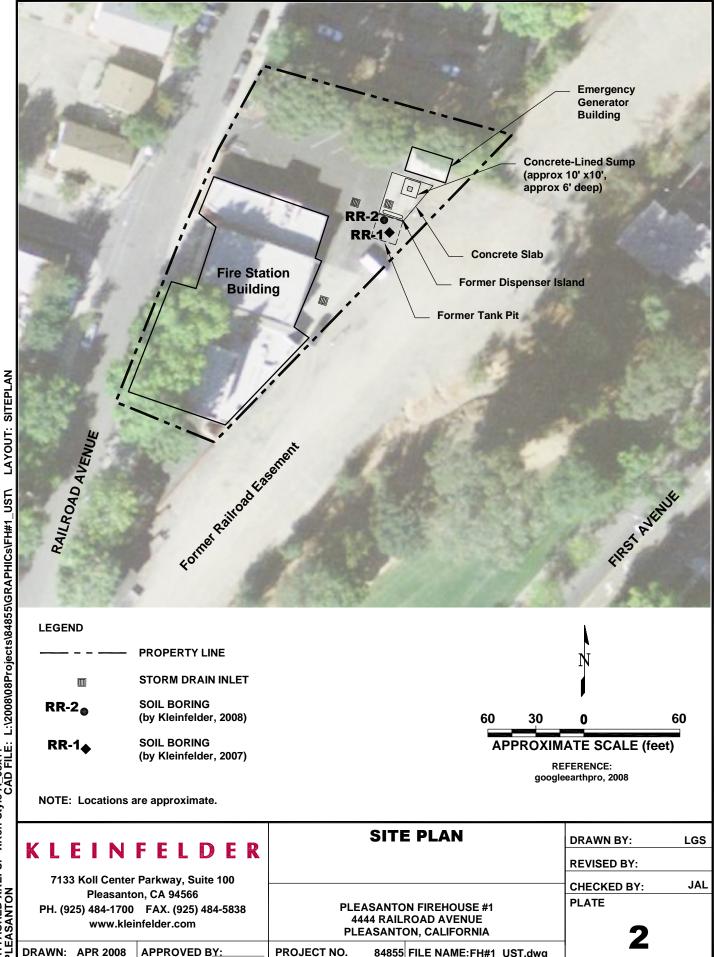
RWQCB - Regional Water Quality Control Board (San Francisco Bay Region)

ND - Not detected at or above laboratory reporting limit

NE - Not established

<sup>&</sup>lt;sup>1</sup> California Regional Water Quality Control Board, San Francisco Bay Region. Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Lookup Tables, Shallow Soils, Groundwater is Current or Potential Source of Drinking Water, Interim Final, November 2007.

# **PLATES**



84855 FILE NAME:FH#1\_UST.dwg

# **APPENDIX A**

# ZONE

# **ZONE 7 WATER AGENCY**

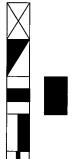
100 NORTH CANYONS PARKWAY, LIVÉRMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306 E-MAIL whong@zone7water.com

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE	FOR OFFICE USE
LOCATION OF PROJECT 444 RAILROAD AVE PLEASANTON, CA 94566	PERMIT NUMBER
California Coordinates Source ft. Accuracy. ft.  CCN ft. CCE ft.  APN 094-0106-008-08  CLIENT Name CITY OF PLEASAMO- Address 200 0-D REEMAL AVE Phone 925-931-5684	PERMIT CONDITIONS (Circled Permit Requirements Apply)  A. GENERAL  1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
APPLICANT OF WILLIAMS - KLEINFELDER  Email JLWIII; ans@ Kleinfelder.com Fax 925-484-5858  Address 7/33 Koll Center Phys Ste 100 Phone 425-484-1700	<ol> <li>Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.</li> <li>Permit is void if project not begun within 90 days of approva date.</li> </ol>
City 7 LEASAN TON Zip 945 66  TYPE OF PROJECT: Well Construction Well Destruction Cathodic Protection  PROPOSED WELL USE: Domestic Municipal Industrial  Groundwater Monitoring  Zip 945 66  Centamination Investigation Contamination Investigation Tentamination Investigation Tentamina	<ol> <li>WATER SUPPLY WELLS</li> <li>Minimum surface seal diameter is four inches greater than the well casing diameter.</li> <li>Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.</li> <li>Grout placed by tremie.</li> <li>An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.</li> <li>A sample port is required on the discharge pipe near the wellhead.</li> </ol>
DRILLING METHOD:  Mud Rotary  Cable Tool  DRILLING COMPANY  VIRONEX  Other	<ul> <li>C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS</li> <li>1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.</li> <li>2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.</li> <li>3. Grout placed by tremie.</li> </ul>
WELL SPECIFICATIONS:  Drill Hole Diameter in. Maximum  Casing Diameter in. Depth ft.  Surface Seal Depth ft. Number	D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.
SOIL BORINGS: Number of Borings Hole Diameter    Maximum 45	<ul> <li>E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.</li> <li>F. WELL DESTRUCTION. See attached.</li> <li>G. SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report including all soil and water laboratory analysis results.</li> </ul>
ATTACH SITE PLAN OR SKETCH	Approved Wyman Hong Date 3/25/08

# **APPENDIX B**

				UNIFIED SOIL C	LASSIF	<b>ICATION</b>	SYS	ST.	ΕN	
MAJO	OR DIVISIONS	LTR	QI	DESCRIPTION	MAJ	MAJOR DIVISIONS		LTR ID		DESCRIPTION
		GW		Well-graded gravels or gravel with sand, little or no fines.			ML			Inorganic sills and very fine sands, rock flour or clayey silts with slight plasticity.
	GRAVEL	GP	0 0 0 0 0 0	Poorty-graded gravels or gravel with sand, little or no fines.		SILTS AND CLAYS	CL			Inorganic lean clays of low to medium plasticity, gravelly clays, sandy clays, silty clays.
	AND GRAVELLY	GM		Silty gravels, silty gravel with sand mixture.	FINE		OL	<u>'</u>		Organic silts and organic silt-clays of low plasticity.
COARSE GRAINED	. <u> </u>	GC		Clayey gravels, clayey gravel with sand mixture.	GRAINED SOILS		мн			Inorganic elastic silts, micaceous or diatomaceous or silty soils.
SOILS		sw		Well-graded sands or gravelly sands, little or no fines.		SILTS AND	СН			Inorganic fat clays (high plasticity).
	SAND	SP		Poorly-graded sands or gravelly sands, little or no fines.		CLAYS				· · · · · · · · · · · · · · · · · · ·
	AND SANDY	SM		Silty sand.			ОН			Organic clays of medium high to high plasticity.
		sc		Clayey sand.	HIGHLY ORGANIC SOILS		Pt		<u>\'</u>	Peat and other highly organic soils.



Geoprobe, Direct Push Sample

Large Bore Discrete Soil Sampler, 1.5 in. O.D., 1.12 in. I.D.

Modified California Sampler, 2.5 in. O.D., 2 in. I.D.

California Sampler, 3.0 in. dia.

Shelby Tube 3.0 inch O.D.



Blank casing

Screened casing

Cement grout

Bentonite

Sand pack or gravel pack

OVA Organic Vapor Analyzer

PID Total organic vapors (parts per million) measured by a photo-ionization device

Total Organic vapors (parts per million) measured by a flame-ionization device

NA Not Applicable

Sharp Contact (observed)

Inferred Contact (contact not observed)

Gradational Contract (observed)



Water level observed in boring



Stabilized water level

NFWE No free water encountered

Notes:

FID

Blow counts represent the number of blows a 140-pound hammer falling 30 inches required to drive a sampler through the last 12 inches of an 18 inch penetration.

The lines separating strata on the logs represent approximate boundaries only. The actual transition may be gradual. No warranty is provided as to the continuity of soil strata between borings. Logs represent the soil section observed at the boring location on the date of drilling only.

References to plasticity of cohesive soils are based on qualitative field observations and not on quantative field or laboratory tests. Qualitative soil plasticity is noted solely to aid in stratigraphic correlation and is not intended for geotechnical characterization of soils.

# KLEINFELDER

84855

**BORING LOG LEGEND** 

PLATE

PLEASANTON FIREHOUSE #1 4444 RAILROAD AVENUE PLEASANTON, CLAIFORNIA

Date Completed: 6/26/07 Drilling me								Orilling method:						
Log	ged By:	_	J. Willia	ams				ronmentai						
Total	d Donth	,	28.0 ft				Hammer Wt: None							
1018	l Depth:	<u>-</u> -	.0.0 11				Notes:		·····					
Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	nscs	Description	Remarks	Well Construction					
		M		╁─		000	ASPHALT CONCRETE - 2 inches thick	- Tremand	vveii Collati detiori					
1 - 2 - 3 - 4 - 5 - 6 -				88	0.0	ÕA	AGGREGATE BASE - dark brown (2.5Y 4/3), dry, loose, well graded, with fines  GRAVELLY SAND with FINES (SP)- dark olive-brown (2.5Y 3/3), moist, loose, poorly graded (FILL)		- - - -					
7 - 8 - 9 -		$\left\langle \cdot \right\rangle$		75	0.0		FINE SAND with CLAY (SC)- dark yellowish-brown (10YR 3/4), moist, loose, poorly graded, with gravel 1 to 3 cm	-	- - -					
10— 11 - 12 - 13 -		$\bigvee_{M}$		100	0.0		- increasing gravel content (approximately 20%)		- - -					
14 - 15 - 16 - 17 - 18 -		$\bigvee$		100	0.6		COARSE SAND with GRAVEL and FINES (SW) - dark yellowish-brown (10YR 4/6), moist, loose, well graded (approximately 15% gravel)		- - - -					
19 - 20 21 -		$\left\langle \cdot \right\rangle$		100	0.0		SANDY CLAY (CL) - dark yellowish-brown (10YR 4/6), moist, medium stiff		<u>-</u> -					
22 - 23 - 24 - 25 -		$\bigvee_{i=1}^{N}$		100	0.4	<i>2222</i>	FINE SAND with CLAY (SP)- dark yellowish-brown (10YR 4/6), moist, loose, poorly graded		- - -					
20	RR-128	$\mathbb{A}$		100			- yellowish-brown (10YR 5/6)  Refusal at approximately 28 feet	-	- -					
29 - 30 - 31 - 32 - 33 - 34 -							below ground surface.  Boring backfilled with neat cement grout.		- - - - -					
35														
		_					LOG OF BORING NO	). RR-1	PLATE					

PLEASANTON FIREHOUSE #1 4444 RAILROAD AVENUE

PLEASANTON, CLAIFORNIA

8\08PROJECTS\84855\84855 FH1

PROJECT NO.

84855

Date Completed: 4/3/08					Drilling method: Direct Push - Geoprobe 6600 Vironex	
Logged By:		J. Willia	ıms			· · · · · · · · · · · · · · · · · · ·
Total Depth: _55.0 ft					Hammer Wt:         None           Notes:	
<del></del>	1					
Depth (feet) Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	တ္တင္ဆို Description Remarks	Well Construction
1 - 2 - 3 - 4 - 5 - 6			80	0.0	ASPHALT CONCRETE - 4 inches thick  AGGREGATE BASE - olive-brown (2.5Y 4/3), moist, loose, well graded  FINE SAND with CLAY (SP) - olive-brown (2.5Y 4/4), moist, loose, poorly graded	
7 - 8 - 9 - 0			70	0,0	CLAYEY SAND (SC) - dark yellowish-brown (10YR 3/4), very moist, loose, fine grained, poorly graded  SILTY SAND with CLAY and GRAVEL (SM)- yellowish-brown (10YR 5/6), slightly moist, dense, poorly graded - increasing clay content	
3 - 4 - 5 - 6 - 7 -			80	0.0	- increasing clay content	
8 - 9 - 1 0 1 2			80	0.0	SANDY CLAY (CL) - light yellowish-brown (10YR 6/4), moist, stiff	
3 - 4 - 5 - 6 - 7 -	$\bigvee$		80	0.0		
8 - 9 - RR-230 1 - 2 - 3 - 3	$\bigvee$		50	0.0	CLAYEY SAND (SC) - yellowish-brown (10YR 5/6), moist, dense, poorly graded	
5	$\mathbb{N}$				LOG OF BORING NO. RR-2	

008\08PRQJECTS\84855\84855 FH1

PROJECT NO.

84855

PLEASANTON FIREHOUSE #1 4444 RAILROAD AVENUE PLEASANTON, CLAIFORNIA

Date Complete					Viron	Push - Geoprobe 6600 ex	
.ogged By: Fotal Depth:	_J. Willia _55.0 ft	ams_			Hammer Wt: None Notes:		
	Sample Type Blows/Foot	Recovery (%)	OVA (ppm) PID/FID		Notes:		
Sample	Samp	Reco	OVA PID/F	nscs	Description	Remarks	Well Construction
6		80 40 80	0.0		COARSE SAND with CLAY (SW)- dark yellowish-brown (10YR 4/6), very moist, very dense, well graded  - increasing clay content  SANDY CLAY (CL) - dark yellowish-brown (10YR 4/6), wet, soft, coarse sand grains, expansive clay  COARSE SAND with CLAY (SW)- dark yellowish-brown (10YR 4/6), saturated, very loose, well graded  SANDY CLAY (CL) - dark yellowish-brown (10YR 4/6), wet, medium stiff  Boring terminated at approximately 55 fee below ground surface.  Boring backfilled with neat cement grout.	<u>✓</u>	
<del></del>					LOG OF BORING	NO. RR-2	PLATE
OJECT NO.	I N		E l	_ [	PLEASANTON FIREHOUSE 4444 RAILROAD AVENUE PLEASANTON, CLAIFORNIA		(cont'd)

L:\2008\08PROJECTS\84855\84855\_FH1.GPJ

# **APPENDIX C**

CES

FAX No. 9256252618

No.1612 P. 2

484-5838

NON-HAZARDOUS	1. Generator's US EPA ID	No.	2. Page 1	3. Docume	nt Number	
WASTE MANIFEST			of	-1		
	l	,	1	1.15	603,5	
4. Generator's Name and Mailing Address  CITY OF Pleasantow  SECIO NEVA LA ST  Generator's Phone (925) 625-17	Hendquater	ŗ				
SECO NEVERDAST	,	C.A.			•	1
0000	Pleasonto	ou CT				
Generalor's Phone (925) 625-17	36	94566	EXCHA.	7.200 S	rte Rita Rd	Pleasaite
5. Transporter Company Name	€.	US EPA ID Number	7. Transporte		Da Killing	1 KHOISIAN
CLEARWATER ENVIRONMENTAL		CAR000007013	(9	10) 476-1	740	1
8. Designated Facility Name and Site Address	<b>0</b> ,	US EPA ID Number	10. Facility's			
	**					
ALVISO INDEPENDENT OIL						
5002 ARCHER STREET	4	•••			•	
ALVISO, CA 95002.  11. Waste Shipping Name and Description		CAL000161743		10) 476-17	40	
The state of the s			ļ.	ontainers	13. Total Quantity	14. Unh
A		·	No	. Турв		WWol
Non-Hazardous waste - Schild			00	1 da	300	P
b.						-
			1			
15. Special Handling Instructions and Additional Inf	omation	·	1		Listed Above	
Wear PPE Emergency Contact			114	<u> </u>	116.	
(510) 476-1740	٠.		14-641	,		;
Aftr: Kirk Hayward	<b>4</b>				<del></del>	
7,441						:
			•			į
						! !
			c 4 /			1
10. GENERATOR'S CERTIFICATION: I cartily that	naterials described above on th	iis manifest are not subject to state or	faderal requiations for	reporting prop	er disposal of Hazan	ious Wasta.
Printed/Typed Name		Signature	p <sup>e</sup>			
MERLIN YEUTON					Month , I	Day Year :
17. Transporter Acknowledgement of Receipt of Me	Alalas	Marie	<del></del>			23 08
	· · · · · · · · · · · · · · · · · · ·	Signature	1,	<del></del>		
William Clark		signature			<b>M</b> 11	_
Doction		water			Month 1	S OP
18. Discrepancy Indication Space				· — · · · · · · · · · · · · · · · · · ·		1.0
•						
						:
						:
19. Facility Owner or Operator: Cortification of rece	nevco signaram etesw lo iqi		odin Item 18.			
Printed Typed Name		Signature	1			
KIRIL Norman		11/			Month (	Day Year :
The property	·	It lige	-2/		1 2	408

# **APPENDIX D**

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.inccampbell.com E-mail: main@inccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Kleinfelder, Inc.	Client Project ID: # 84855/F ##1 UST;	Date Sampled: 04/03/08
7133 Koll Center Pkwy, #100	Pleasanton Firehouse#1	Date Received: 04/03/08
Pleasanton, CA 94566	Client Contact: Jim Lehrman	Date Reported: 04/10/08
reasonini, err 71500	Client P.O.:	Date Completed: 04/10/08

WorkOrder: 0804108

April 10, 2008

Dear Jim:

### Enclosed within are:

- 1) The results of the 3 analyzed samples from your project: #84855/FS #1 UST; Pleasanton Fire
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager

McCampbell Analytical, Inc.

0504108 KLEINFELDER 84855/FS# | UST PLEASANTEN FIRE HOUSE # McCANTBELL SQ. Q# QF. >. WILLIAMS CON STANDARD TAT OALE SAMPLE LD TAINERS TAINERS BME SAMPLE OF MATERIA MASSOCIAS HH NA SO 5 136 アルーレーフラ į 4/3/08 0726 JAIL RR-2-30 0808 = H/3/08 1310 R2-2 W GOOD CONDITION APPROPRIATE
HEAD SPACE ABSENT CONTAINERS
DECHLORINATED IN LAB PRESERVED IN LAB OR BY METALS COME PRESERVATION a countries as Februaries Servi Results To: EnowatechIL EMAIL RESULTS TO: SLEHRMING Kleinfelden.com SLW: 11:ams@Kleinfelden.com -SEPARATE WORK OFFERS-KLEINFELDER 7133 KOLL CENTER PARKWAY SUITE 100 PLEASANTON, CA 94566 /925) 484-1700 LEHEZ MAN FSesk - Lab Cukey

CHAIN OF CUSTODY

Νº

4726



Kleinfelder, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

# **CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

WorkOrder: 0804108 ClientCode: KFP

Email EDF Excel Fax HardCopy ThirdParty ☐ J-flag Bill to: Requested TAT: 5 days

Report to: Jim Lehrman

7133 Koll Center Pkwy, #100

Pleasanton, CA 94566

Email; TEL:

PO:

jlehrman@kleinfelder.com (925) 484-1700

ProjectNo: #84855/FS #1 UST; Pleasanton

Firehouse#1

WriteOn

FAX: (925) 484-5838

Accounts Payable Kleinfelder Inc.

7133 Koll Center Pkwy, #100 Pleasanton, CA 94566

Date Received: 04/03/2008 Date Printed: 04/07/2008

SEND HARDCOPY

								Req	uested	Tests	See le	gend b	elow)			
Lab ID	Client ID	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0804108-001	RR-2-10	Soil	4/3/2008 7:26		Α		Α		Α					1		
0804108-002	RR-2-30	Soil	4/3/2008 8:08		Α		Α		А							
0804108-003	RR-2	Water	4/3/2008 13:10			Α		В								

#### Test Legend:

1 G-MBTEX_S	2 G-MBTEX_W	3 MBTEXOXY-8260B_S	4 MBTEXOXY-8260B_W	5 PBMS_S
6	7	8	9	10
11	12			

The following SampIDs: 001A, 002A, 003A contain testgroup.

Prepared by: Kimberly Burks

#### **Comments:**

Comments:

1534 Willow Pass Road. Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

# Sample Receipt Checklist

Client Name: Kleinfelder, Inc.			Date and Time Received: 4/3/2008 8:39:58 PM					
Project Name: # 84855/FS #1 UST; Pleasanton Firehouse#1			se#1	Checklist completed and reviewed by: Kimberly Burks				
WorkOrder N°:	0804108 Matrix	Soil/Water			Carrie	er: <u>Michael Herna</u>	ndez (MAI Co	urier)
		Chain	of Cu	stody (C	OC) Informa	ation		
Chain of custody	present?		Yes	V	No 🗆			
Chain of custody	signed when relinquished a	nd received?	Yes	V	No 🗆			
Chain of custody	agrees with sample labels?		Yes	<b>✓</b>	No 🗌			
Sample IDs noted	by Client on COC?		Yes	<b>V</b>	No 🗆			
Date and Time of	collection noted by Client on	COC?	Yes	<b>V</b>	No 🗆			
Sampler's name r	noted on COC?		Yes	<b>✓</b>	No 🗆			
		<u>Sa</u>	mple	Receipt	Information	)		
Custody seals int	act on shipping container/co	oler?	Yes		№ □		NA 🗹	
Shipping containe	er/cooler in good condition?		Yes	V	No 🗆			
Samples in prope	er containers/bottles?		Yes	V	No 🗆			
Sample container	rs intact?		Yes	V	No 🗆			
Sufficient sample	volume for indicated test?		Yes	V	No 🗌			
	<u>s</u>	ample Preserv	vatior	and Ho	old Time (HT	) Information		
All samples recei	ved within holding time?		Yes	<b>✓</b>	No 🗌			
Container/Temp E	Blank temperature		Coole	r Temp:	9.6°C		NA 🗆	
Water - VOA vial	s have zero headspace / no	bubbles?	Yes	V	No 🗆	No VOA vials submi	tted 🗆	
Sample labels ch	ecked for correct preservation	on?	Yes	✓	No 🗌			
TTLC Metal - pH	acceptable upon receipt (pH<	:2)?	Yes		No 🗆		NA 🗹	
			===				====	======
Client contacted:		Date contacte	d:			Contacted I	by:	

Ţ

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

Kleinfelder, Inc.	1 ' 1	Date Sampled: 04/03/08
7133 Koll Center Pkwy, #100	Pleasanton Firehouse#1	Date Received: 04/03/08
Pleasanton, CA 94566	Client Contact: Jim Lehrman	Date Extracted: 04/03/08-04/04/08
	Client P.O.:	Date Analyzed 04/04/08

	Client P.O.:	Date Analyze	d 04/04/08		
Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*					
30B	Analytical method	s SW8015Cm	Work Order: 08	04108	
Client ID	Matrix	TPH(g)	DF	% S	
RR-2-10	S	ND	1	92	
RR-2-30	S	ND	1	91	
RR-2	W	ND,i	1	92	
				_	
				<u> </u>	
g Limit for DF =1;	W	50	με	ı/L	
	Client ID  RR-2-10  RR-2-30  RR-2	Gasoline Range (C6-C12) Volatile F Analytical method Client ID Matrix  RR-2-10 S RR-2-30 S RR-2 W	Client ID   Matrix   TPH(g)	Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*   Sob   Analytical methods   SW8015Cm   Work Order:   08	

Reporting Limit for DF =1;	W	50	μg/L
ND means not detected at or above the reporting limit	S	1.0	mg/Kg

<sup>\*</sup> water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

<sup>+</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas), m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

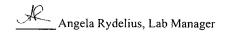


"When Quality Counts"

1534 Willow Pass Road. Pittsburg. CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

"When Quality Counts"			Telephone:	877-252-9262 Fax: 92	5-252-9269		
Kleinfelder, Inc.		roject ID: #8485	5/FS #1 UST;	Date Sampled:	04/03/08	-	
7133 Koll Center Pkwy, #100				Date Received:	04/03/08		
Pleasanton, CA 94566	Client C	ontact: Jim Lehr	man	Date Extracted:	04/07/08		
	Client P.	O.:		Date Analyzed:	04/09/08		
Oxygenates and BTEX by GC/MS*							
Extraction Method: SW5030B	Ana	lytical Method: SW820	50B		Work Order:	0804108	
Lab ID	0804108-001A	0804108-002A					
Client ID	RR-2-10	RR-2-30			Reporting	Limit for	
Matrix	S	S				-1	
DF	1	1			S	W	
Compound	Concentration mg/				mg/kg	ug/L	
tert-Amyl methyl ether (TAME)	ND	ND			0.005	NA	
Benzene	ND	ND			0.005	NA	
t-Butyl alcohol (TBA)	ND	ND			0.05	NA	
1,2-Dibromoethane (EDB)	ND	ND			0.004	NA	
1,2-Dichloroethane (1,2-DCA)	ND	ND			0.004	NA	
Diisopropyl ether (DIPE)	ND	ND			0.005	NA	
Ethylbenzene	ND	ND			0.005	NA	
Ethyl tert-butyl ether (ETBE)	ND	ND			0.005	NA	
Methyl-t-butyl ether (MTBE)	ND	ND			0.005	NA	
Toluene	ND	ND			0.005	NA	
Xylenes	ND	ND			0.005	NA	
	Surr	ogate Recoverie	s (%)				
%SS1:	92	94					
%SS2:	96	96				•	
%SS3:	94	94	1	_			
Comments							

<sup>\*</sup> water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.



ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

<sup>#</sup> surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.



"When Quality Counts

1534 Willow Pass Road. Pittsburg. CA 94565-1701
Web: www.inccampbell.com E-mail: main@inccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Kleinfelder, Inc.			oject ID: # 8485	5/FS #1 UST;	Date Sampled:	04/03/08	
7133 Koll Center Pkwy, #100		Pleasant	on Firehouse#1		Date Received:	04/03/08	
Pleasanton, CA 94566		Client C	ontact: Jim Lehr	man	Date Extracted:	04/09/08	
1 icasamon, CA 94300		Client P.	O.:		Date Analyzed:	04/09/08	
Oxygenates and BTEX by GC/MS*							
Extraction Method: SW5030B Analytical Method: SW8260B					<del></del>	Work Order:	0804108
Lab ID	08041	08-003B					
Client ID	R	kR-2				, ,	Limit for
Matrix		W				DF	=1
DF		1				s	W
Compound			Conce	entration		ug/kg	μg/L
tert-Amyl methyl ether (TAME)	]	ND				NA	0.5
Benzene	]	ND				NA	0.5
t-Butyl alcohol (TBA)	]	ND				NA	2.0
1,2-Dibromoethane (EDB)	1	ND				NA	0.5
1,2-Dichloroethane (1,2-DCA)	1	ND				NA	0.5
Diisopropyl ether (DIPE)	]	ND				NA	0.5
Ethylbenzene	]	ND				NA	0.5
Ethyl tert-butyl ether (ETBE)	1	ND				NA	0.5
Methyl-t-butyl ether (MTBE)	1	ND				NA	0.5
Toluene	ſ	ND			·	NA	0.5
Xylenes	1	ND				NA	0.5
Surrogate Recoveries (%)							
%SS1:	1	100	·				
%SS2:		95					
%SS3:		93	<u> </u>				
Comments		i					

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

<sup>\*</sup> water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

<sup>#</sup> surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

	- 43	т.
_	-/X	72
٤.,	- 7.75 PM	₩.
V	We s	
		-

1534 Willow Pass Road, Pittsburg. CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

Kleinfelder, Inc.	Client Project ID: #84855/FS #1 UST; Pleasanton Firehouse#1	Date Sampled: 04/03/08		
7133 Koll Center Pkwy, #100	rieasanton Firenouse#1	Date Received: 04/03/08		
Pleasanton, CA 94566	Client Contact: Jim Lehrman	Date Extracted: 04/03/08		
1100001110111	Client P.O.:	Date Analyzed 04/04/08		
Lead by ICP-MS*				

Extraction method SW30501	В	Analytical methods 6020A			Work Order: 0804108		
Lab ID	Client ID	Matrix	Extraction Type	Lead	DF	% SS	
0804108-001A	RR-2-10	S	TOTAL	4.0	1	119	
0804108-002A	RR-2-30	S	TOTAL	6.7	1	121	
	······································						
				<del></del>			
						<u> </u>	

Reporting Limit for DF = 1;	w	TOTAL	NA	μg/L
ND means not detected at or above the reporting limit	S	TOTAL	0.5	mg/Kg
above the reporting ininit			ł	

<sup>\*</sup>water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in μg/wipe, filter samples in μg/filter.

TOTAL = acid digestion.

WET = Waste Extraction Test (STLC).

DI WET = Waste Extraction Test using de-ionized water.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TOTAL metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

Angela Rydelius, Lab Manager

<sup>#</sup> means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.



# McCampbell Analytical, Inc. "When Quality Counts"

1534 Willow Pass Road. Pittsburg, CA 94565-1701 Web: www.inccampbell.com E-mail: main@inccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

Kleinfelder, Inc.	Client Project ID: #84855/FS #1 UST;	Date Sampled: 04/03/08				
7133 Koll Center Pkwy, #100	Pleasanton Firehouse#1	Date Received: 04/03/08				
Placement CA 04566	Client Contact: Jim Lehrman	Date Extracted: 04/03/08				
Pleasanton, CA 94566	Client P.O.:	Date Analyzed 04/04/08-04/05/08				
Total Extractable Petroleum Hydrocarbons*						

Extraction method SW35	10C/SW3550C	Analytical m	nethods SW8015C	Work Order: 080410		
Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS	
0804108-001A	RR-2-10	S	ND	1	118	
0804108-002A	RR-2-30	S	ND	1	118	
0804108-003A	RR-2	W	ND,i	1	114	
			<u> </u>			
				<u> </u>	-	

Reporting Limit for DF = 1;	w	50	μg/L
ND means not detected at or above the reporting limit	S	1.0	mg/Kg

<sup>\*</sup> water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

<sup>#</sup> cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

<sup>+</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel is significant; d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; o) results are reported on a dry weight basis.

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.nccampbell.com E-mail: main@mccampbell.com

Web: www.inccampbell.com E-mail: main@inccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0804108

EPA Method SW8015C Extraction SW3550C					BatchID: 34745			Spiked Sample ID: 0804017-001A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	15	20	119	104	8.01	118	118	0	70 - 130	30	70 - 130	30
%SS:	99	50	105	102	3.55	107	105	2.15	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

#### BATCH 34745 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0804108-001A	04/03/08 7:26 AM	04/03/08	04/05/08 7:18 AM	0804108-002A	04/03/08 8:08 AM	04/03/08	04/04/08 7:50 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

A QA/QC Officer

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@inccampbell.com

eb: www.mccampbell.com E-mail: main@inccampbell.co Telephone: 877-252-9262 Fax: 925-252-9269

### QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0804108

EPA Method SW8015Cm	Extra	Extraction SW5030B				BatchID: 34794			Spiked Sample ID: 0804076-005A			
Analyte	Sample	Sample Spiked MS		MSD	MSD MS-MSD		LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)	ND	0.60	108	114	5.96	103	105	1.72	70 - 130	20	70 - 130	20
МТВЕ	ND	0.10	105	117	11.5	113	116	2.64	70 - 130	20	70 - 130	20
Benzene	ND	0.10	94.8	111	15.3	96.6	101	3.96	70 - 130	20	70 - 130	20
Toluene	ND	0.10	88.9	103	14.6	92.2	94	1.90	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	98.4	107	8.51	100	102	1.70	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	93.3	102	8.86	96.1	96.6	0.475	70 - 130	20	70 - 130	20
%SS:	91	0.10	87	95	8.33	93	95	2.33	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

#### BATCH 34794 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0804108-001A	04/03/08 7:26 AM	1 04/03/08	04/04/08 3:17 PM	0804108-002A	04/03/08 8:08 AM	04/03/08	04/04/08 3:48 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

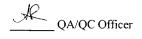
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



1534 Willow Pass Road. Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0804108

EPA Method SW8015C Extraction SW3510C					BatchID: 34807 Spiked Sample ID: N/A					N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acc	eptance	Criteria (%)	)
	µg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	109	110	1.00	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	115	117	1.82	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

#### BATCH 34807 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0804108-003A	04/03/08 1:10 PM	04/03/08	04/05/08 3:53 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = <math>100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content

QA/QC Officer

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

### QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0804108

EPA Method SW8015Cm	Extra	Extraction SW5030B				BatchID: 34816			Spiked Sample ID: 0804111-001A				
Analyte	Sample	Sample Spiked MS		MSD	MSD MS-MSD		LCSD	LCS-LCSD	Acceptance Criteria (%)				
7 dialy to	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH(btexf	ND	60	104	103	1.28	83.1	81.5	1.91	70 - 130	20	70 - 130	20	
МТВЕ	ND	10	72.3	70.1	2.17	94.5	97.6	3.30	70 - 130	20	70 - 130	20	
Benzene	ND	10	103	95.5	7.63	95.9	102	6.03	70 - 130	20	70 - 130	20	
Toluene	ND	10	99.4	93	6.65	93.7	99.6	6.12	70 - 130	20	70 - 130	20	
Ethylbenzene	ND	10	103	97.1	6.05	94.8	99	4.30	70 - 130	20	70 - 130	20	
Xylenes	ND	30	97.7	93.4	4.48	87.7	90.4	2.97	70 - 130	20	70 - 130	20	
%SS:	88	10	116	113	2.09	108	112	2.95	70 - 130	20	70 - 130	20	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

#### BATCH 34816 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0804108-003A	04/03/08 I:10 PM	1 04/04/08	04/04/08 4:02 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

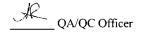
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



1534 Willow Pass Road, Pittsburg. CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0804108

EPA Method SW8260B	Extra	ction SW	/5030B		Bat	tchID: 34	782	Sp	iked Samp	ole ID:	0804063-00	7A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	) .
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	91.8	91.2	0.584	91	93.7	2.97	60 - 130	30	60 - 130	30
Benzene	ND	0.050	93.2	96.9	3.90	93	89.7	3.65	60 - 130	30	60 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	120	98.8	19.2	114	125	9.41	60 - 130	30	60 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	115	117	1.67	117	112	3.93	60 - 130	30	60 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	110	114	3.99	108	106	2.08	60 - 130	30	60 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	96.6	98.8	2.26	93.5	94.8	1.37	60 - 130	30	60 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	111	95.7	15.1	103	101	1.61	60 - 130	30	60 - 130	30
Toluene	ND	0.050	90.1	94.7	4.98	88.8	86.1	3.08	60 - 130	30	60 - 130	30
%SS1:	95	0.050	100	100	0	113	111	1.53	70 - 130	30	70 - 130	30
%SS2:	100	0.050	99	100	0.802	99	101	1.41	70 - 130	30	70 - 130	30.
%SS3:	97	0.050	104	104	0	105	105	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

#### BATCH 34782 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0804108-001A	04/03/08 7:26 AM	04/07/08	04/09/08 5:17 PM	0804108-002A	04/03/08 8:08 AM	04/07/08	04/09/08 5:59 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

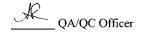
% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels



1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: inain@inccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0804108

EPA Method SW8260B	Extraction SW5030B BatchID: 34812 Spiked Sample ID: 0804122-006E						6B					
Analyte	Sample	Sample Spiked MS		MSD	MS-MSD LCS		LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	92.2	95.4	3.42	86.9	85.9	1.09	70 - 130	30	70 - 130	30
Benzene	ND	10	99.1	103	3.82	96.3	96.1	0.191	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	96.2	113	15.7	104	87.6	17.4	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	114	120	4.88	123	121	1.85	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	116	120	3.92	118	110	6.22	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	101	102	1.72	91.1	90.6	0.587	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	96.1	102	5.74	91.3	89.2	2.31	70 - 130	30	70 - 130	30
Toluene	ND	10	98.9	101	2.06	93.2	96.8	3.78	70 - 130	30	70 - 130	30
%SS1:	103	10	98	97	0.414	107	110	2.86	70 - 130	30	70 - 130	30
%SS2:	102	10	102	101	1.12	101	102	1.16	70 - 130	30	70 - 130	30
%SS3:	94	10	106	106	0	106	105	0.935	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

#### BATCH 34812 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0804108-003B	04/03/08 1:10 PM	1 04/09/08	04/09/08 5:45 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

QA/QC Officer

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.inccampbell.com E-mail: main@inccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

# QC SUMMARY REPORT FOR 6020A

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0804108

EPA Method 6020A Extraction SW3050B					BatchID: 34784 Spiked Sample ID 0804063-008A								
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			o)
7	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	mg/Kg	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Lead	15	50	98	106	5.73	10	102	100	1.68	70 - 130	20	80 - 120	20
%SS:	117	250	121	130	6.67	250	118	116	1.81	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

#### BATCH 34784 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0804108-001A	04/03/08 7:26 AM	1 04/03/08 )4	/04/08 10:18 PM	0804108-002A	04/03/08 8:08 AM	M 04/03/08 )4	/04/08 10:26 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

