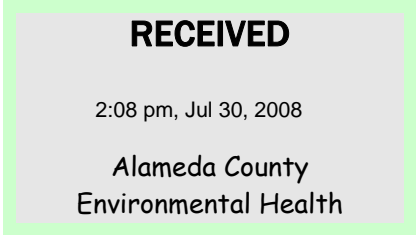


May 1, 2006  
 File: 67972/PWENV

Mr. Ignacio Dayrit  
 City of Emeryville  
 1333 Park Avenue  
 Emeryville, California 94608



**SUBJECT: Limited Environmental Site Assessment of the Alders Site, located at 5812 Hollis Street in Emeryville, California.**

Dear Mr. Dayrit:

As requested by the City of Emeryville (City), Kleinfelder performed a limited Environmental Site Assessment (ESA) of the Alders Site, located at 5812 Hollis Street in Emeryville, California (the Site). A business at the Site operates under the name of Hydraulic Electro Service Corporation. Our services were provided in accordance with our revised proposal dated April 4, 2006, to the City.

The scope of services for the limited ESA consisted of (1) performing a site reconnaissance with a City representative, (2) conducting a regulatory agency file review, and (3) limited sampling and analysis of surface soils in the public right of way along the property boundary on Hollis Street. The scope and findings of these tasks are described below. The site is shown on the attached Vicinity Map and Site Plan, Plates 1 and 2 respectively.

**Task 1 – Site Reconnaissance**

On March 7, 2006, Kleinfelder met with Peter Schultze-Allen, Environmental Analyst with the City of Emeryville, and Mr. Peter Alders, owner of the property and business, to perform a walking reconnaissance of the Site and take photographs to document Site conditions. Also present at the time were Mr. Stan Archacki, from East Bay Municipal Water District (EBMUD), and Mr. Lawrence Seto, from the Alameda County Health Agency (ACHA), who were performing inspections on behalf of the respective agencies each represents. Photographs taken during the reconnaissance are presented on Plates 3 and 4.

The site consists of an approximately 36,000 square foot triangular-shaped lot, APN 049-1328-003-02. To the west, a residential complex is being built across Hollis Street. To the east, the Site is bordered by a linear corridor approximately 25 feet wide and landscaped with grass, and a residential complex east of the grass-covered area.

Hydraulic Electro Service Corporation, a forklift repair/dismantling facility, has operated at the Site since approximately 1977. A one-story building, approximately

10,000 square feet, occupies the southern portion of the Site. The remaining 26,000 square feet are divided into a northern rectangular section of approximately 12,000 square feet, and a central section of approximately 14,000 square feet. A fence divides the northern and the central portions of the Site. The northern section of the property appeared to be vacant, except for two large storage bins. According to Mr. Alders, the northern portion of the Site is rented to the owners of the storage bins, but did not elaborate further. An aerial photograph of the Site, taken in 2006 (Plate 2) and reviewed by Kleinfelder, seemed to indicate that the northern portion of the Site has also been used as a paved parking lot. Mr. Alders mentioned that in the past, two 10,000-gallon underground storage tanks (USTs) for gasoline were located in the northern portion of the Site. According to Mr. Alders, the USTs were removed in the early 1990s. Based on the information available to us, the approximate location of the former USTs is shown on Plate 2.

The Site reconnaissance focused on the central portion of the Site and inside the building structure, the areas where business activities appeared to take place.

During the Site reconnaissance, EBMUD and ACHA representatives pointed out that relative to previous inspections, the overall conditions of the Site had improved. Kleinfelder observed a pair of brooms and shovels onsite, and it was apparent that a sweeping effort had been recently performed.

Numerous forklifts and Mercedes Benz vehicles were observed at various stages of dismantling throughout the Site. Assorted piles of dismantled parts, including steering wheels, tires, batteries, and unknown metal parts were also observed throughout the Site. The piles were not covered and were exposed to the elements. We observed rust in the vicinity of the piles of parts, suggesting exposure to the elements.

We also observed hazardous liquid materials, such as waste oil, in 55-gallon drums and smaller plastic containers. This is illustrated in Plate 3, Photo 2. These hazardous materials containers were stored within a trailer located near the center of the Site (the approximate location is shown on Plate 2). The floor of the trailer was stained with oil. Bins and drums lacked secondary containment structures, and the need to store liquid hazardous materials in structures with secondary containment was indicated by the ACHA representative.

The pavement on the central portion of the Site appeared to be stained with hydrocarbon oils. Though most of the paved area was in relatively good condition, the pavement in some areas was damaged or entirely missing. Damaged pavement was most noticeable in the southeastern area of the central portion of the Site (Plate 3, Photo 3).

Numerous batteries were observed on crates in the southeastern section of the central portion of the Site. The bulk of the batteries were not covered, and showed signs of corrosion. This is illustrated in Plate 3, Photo 1. A pH reading of 5,

measured by the EBMUD representative using litmus paper, was obtained at a puddle of water adjacent to the stacked batteries.

The building structure is used for storage of automobile parts and containers of hydrocarbon liquid wastes, and for operating machining equipment. The floor of the building structure is paved and appeared to be in relatively good condition. The floor was stained with what appeared to be hydrocarbon oil. Metal shavings were observed dispersed on the floor in the vicinity of the machining equipment. Some metal shavings were also observed immediately outside the building structure. This is illustrated in Plate 3, Photo 4.

Kleinfelder also observed conditions in the public right of way along Hollis Street in front of the Site. The site is separated from the public right of way by a chain-link fence. The sidewalk is mostly paved, though a strip of grassy areas was observed along a few sections adjacent to the chain link-fence. Rust stains were observed in some areas of the sidewalk, and some of the grass areas showed signs of distress (lack of vegetation). This is illustrated on Plate 4, Photos 7 and 8.

## **Task 2 – File Review**

On April 21, 2006, Kleinfelder reviewed available files on the Site at the ACHA offices. A summary of relevant environmental information available to us during the file review is presented below.

The Alders Family acquired the Site in 1977, and the Hydraulic Electro Service Corporation has apparently operated at the Site since then. Hazardous materials, including sulfuric acid, acetylene, hydraulic fluids, waste oil, and solvents have been handled and stored onsite. The facility operated two USTs, an 8,000-gallon tank for diesel, and a 3,000-gallon tank for gasoline. Both USTs and respective dispensing systems were removed on December 5 1989. The USTs were located on the northern portion of the Site (Plate 2). Records we reviewed indicated that during tank removal, groundwater was encountered in the excavation, and a hydrocarbon sheen on the groundwater was documented. Soil samples were collected from the excavation and analyzed for Total Petroleum Hydrocarbons as diesel (TPH-d), as gasoline (TPH-g), and benzene, toluene, ethylbenzene and xylenes (BTEX). Analysis results indicated TPH-d concentrations in the soil up to 23 milligrams per Kilogram (mg/Kg). TPH-g and BTEX concentrations were reported to be below their detection limit of 0.05 mg/Kg.

A groundwater sample was also collected and analyzed, indicating concentrations of TPH-d at 90,000 micrograms per liter ( $\mu\text{g/L}$ ); TPH-g at 2,300  $\mu\text{g/L}$ , benzene at 100  $\mu\text{g/L}$ , toluene at 200  $\mu\text{g/L}$ , ethyl-benzene at 40  $\mu\text{g/L}$ , and xylenes at 310  $\mu\text{g/L}$ . Except for the concentration of ethyl-benzene, the detected concentrations of the other constituents exceed the current environmental screening levels (ESLs) established by the Regional Water Quality Control Board (RWQCB).

On February 1993, an ACHA-Hazardous Materials Inspection was performed. The inspection report in the case file indicated the Site had several hazardous materials and housekeeping problems, including the discharge of waste oil to the Site's surface, lack of secondary containment for liquid hazardous materials storage, and lack of proper care of waste batteries observed on Site. In May 2003, the ACHA issued a Notice of Violation for the Site, and requested a work-plan to address the oil stains in the driveway and the discolored soil along the fence. No further information was found in the file regarding subsequent activities, if any, conducted in response to this Notice of Violation.

We also found records indicating that on June 24, 1993, a monitoring well was installed down gradient of the former UST location, reported to be approximately 8 ft from the southwest corner of the excavation. The well was installed to a total depth of 15 feet below ground surface. The well construction log is attached herewith as Appendix A. Soil samples collected during the installation of the well did not indicate the presence of TPH-d, TPH-g, or BTEX. Groundwater samples indicated contamination levels below their respective detection limits; it does not appear that Methyl-tertiary Butyl Ether (MtBE) was included in the list of chemical analytes tested for.

### Task 3 – Sampling

On April 7, 2006, after completing the Site reconnaissance, Kleinfelder collected four discrete soil samples from vegetated areas along Hollis Street, in the public right of way in front of the site. Plate 2 shows the approximate sampling locations. The samples were collected in stainless steel sleeves, with the aid of a sampling hammer, from areas that appeared to be likely pathways for wastewater runoff from the Site. The ends of the sampling sleeves were covered with Teflon tape and covered with plastic caps. The samples were labeled and stored in a cooler with ice pending delivery to Curtis & Tompkins, a State certified chemical testing laboratory in Berkeley, California, under chain-of-custody protocols. The laboratory was requested to composite the four samples into one, chemically analyze the composite sample, and to archive the remaining portions of the samples for potential future analysis of the discrete samples.

**Results:** The composite sample was analyzed for total petroleum hydrocarbons as gasoline (TPH-g), diesel (TPH-d), and motor oil (TPH-mo) using EPA Method 8015M, for volatile organic compounds (VOC) using EPA Method 8260, for semi-volatile organic compounds (SVOCs) and polynuclear-aromatic hydrocarbons (PAHs) using EPA Method 8270, for polychlorinated biphenyls (PCBs) using EPA 8080, and for metals (CAM 17) using EPA Method 6010/7000 series. The laboratory analysis report and chain-of-custody documentation are attached herewith as Appendix B.

A summary of the analysis results is presented in Table 1. Results were compared to Environmental Screening Levels (ESLs) developed by the California RWQCB San Francisco Bay Region for Commercial / Industrial Sites, Interim Final February 2005,



California Human Health Screening Levels (CHHSLs) established by the California Environmental Protection Agency, January 2005, and to Total Threshold Limit Concentrations (TTLCs), one of the criteria that define a hazardous wastes, established by the California Department of Health Services.

TPH-d and TPH-mo were detected at concentrations of 960 milligrams per Kilogram (mg/Kg) and 5,600 mg/Kg, respectively. Both concentrations exceed their respective ESLs of 500 mg/Kg and 1,000 mg/Kg.

No VOCs were detected, except for Methylene Chloride at 0.038 mg/Kg. Methylene Chloride is a common laboratory contaminant. The Methylene Chloride concentration detected is below the ESL of 1,500 mg/Kg for shallow soils (< 3 meters below surface) at industrial properties. As indicated in the Case Narrative of the Laboratory Report, the detected Methylene Chloride is likely to be a laboratory-introduced contaminant.

Because of the dark, viscous nature of the sample extract, as indicated in the Case Narrative of the Laboratory Report, the laboratory was required to dilute the soil sample by a factor of 50 prior to conducting the analysis for SVOCs and PAHs. It is possible that the dark viscous nature of the sample extract was associated with relatively high concentrations of hydrocarbons in the sample. The dilution resulted in elevated reporting limits for SVOCs and PAHs analysis. SVOCs and PAHs were not detected at concentrations above the elevated reporting limits; however, the reporting limits exceeded the ESLs for the respective analytes for which ESLs have been established.

Metals were detected at various concentrations in the sample. Arsenic, chromium, and lead were detected at 10 mg/Kg, 130 mg/Kg and 2,100 mg/Kg, respectively, exceeding their respective ESLs of 5.5 mg/Kg, 58 mg/Kg, and 750 mg/Kg. In addition, the concentration of lead detected in the composite soil sample exceeded both the TTLC of 1,000 mg/Kg, and the CHHSL of 150 mg/Kg. The detected concentration of arsenic (10 mg/Kg) also exceeded the CHHSL for this metal, but appears to be representative of typical background concentrations of arsenic often found in Bay Area soils.

The analysis for PCBs detected the presence of Aroclor 1260 at a concentration of 0.2 mg/Kg. This concentration is below the ESL of 0.74 for PCBs in shallow soils (< 3 meters below surface) at industrial properties, and is well below the TTLC for PCBs.

## **DISCUSSION AND RECOMMENDATIONS**

The Hydraulic Electro Service Corporation has apparently operated at the Alders property, located at 5812 Hollis Street in Emeryville, California, since approximately 1977. ACHA inspection records document historic violations for hazardous waste storage and handling at the Site. During our Site reconnaissance, we observed poor

housekeeping practices, including: (1) a generally oil-stained pavement, (2) damaged or missing pavement on the southeastern section of the property, (3) lack of secondary containment for oily liquid wastes, (4) metal shavings on the floors of work areas and immediately outside the building, (5) uncovered metal parts from the dismantling of automobiles, and (6) stacks of uncovered and corroding batteries. In addition, stressed vegetation and stained soil and pavement were observed along the sidewalk on Hollis Street, where runoff from the Site appeared to flow into the public right of way. Analysis of a composite soil sample comprised of soil taken from four locations along Hollis Street in the public right of way in front of the Site indicated detectable concentrations of contaminants, including petroleum hydrocarbons and several metals (arsenic, chromium, and lead) above current environmental screening levels. In our opinion, it appears that the detected chemical contaminants of concern may be associated with Site operations.

Two former fuel USTs were located in the northern portion of the property, and were apparently removed in 1989. It does not appear that groundwater samples from the former UST site were analyzed for MtBE. Based on the available information we reviewed, it is unclear whether the responsible party for the USTs has received case closure, and whether the groundwater-monitoring well is still present on the property.

To further evaluate whether Site operations have resulted in impacts to soil or groundwater beneath the Site, Kleinfelder recommends that a soil and groundwater investigation be conducted at the property.

## LIMITATIONS

The scope of services described here is not intended to be inclusive, to identify all potential concerns, or to eliminate the possibility of environmental problems. Within current technology, no level of assessment can show conclusively that a property or its structures are completely free of contaminated and/or hazardous substances. Therefore, Kleinfelder cannot offer a certification that the recommendations made in this report will clear the property of environmental liability.

During the course of the performance of Kleinfelder's services, contaminated and/or hazardous materials were discovered. Our client is solely responsible for notifying all governmental agencies, and the public at large, of the existence, release, treatment or disposal of any contaminated and/or hazardous materials observed at the project site, either before or during performance of Kleinfelder's services. Kleinfelder will assume no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury which results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials.

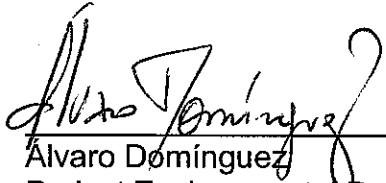
Kleinfelder performed the investigative activities and evaluations in accordance with generally accepted standards of care that existed in Northern California at the time the work was performed. No warranty, expressed or implied, is made.

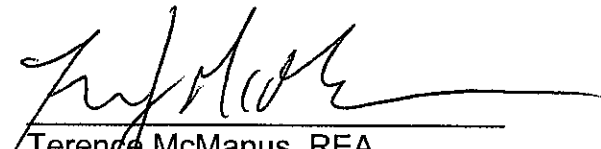
**CLOSING**

We appreciate the opportunity to be of service to the City of Emeryville. Should you have any questions concerning this work, please do not hesitate to call us.

Sincerely,

**KLEINFELDER INC.**

  
\_\_\_\_\_  
Alvaro Dominguez  
Project Environmental Professional

  
\_\_\_\_\_  
Terence McManus, REA  
Bay Area Environmental Manager

AD/TJM/es

**Plates**

Plate 1: Site Vicinity Map

Plate 2: Site Plan

Plate 3 and 4: Site Reconnaissance Photographs (April 7, 2006)

**Table**

Table 1: Soil Analysis Results

**Appendix A**

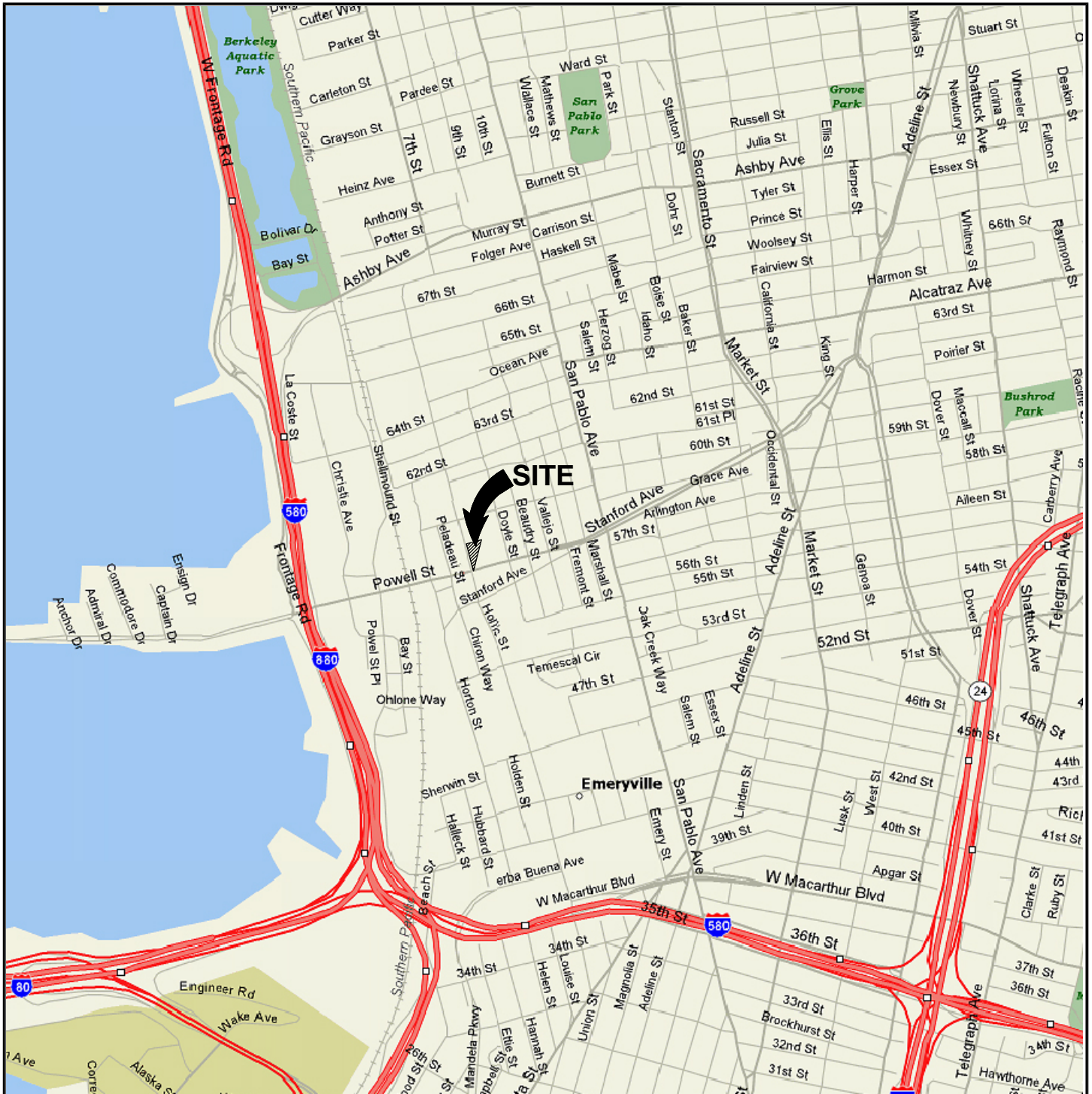
Monitoring Well Log

**Appendix B**

Laboratory Report

## PLATES

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2000 1000 0 2000

APPROXIMATE SCALE (feet)



REFERENCE:  
www.mapquest.com, 2006

XRef: TB\_A-port  
 ATTACHED IMAGES: Images: SITE-VIC.jpg Images: SITEPLAN.jpg

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1970 Broadway, Suite 710  
 Oakland, CA 94612-2212  
 PH: (510) 628-9000 FAX: (510) 628-9009

**SITE VICINITY MAP**

ALDERS PROPERTY – CITY OF EMERYVILLE  
 5812 HOLLIS STREET  
 EMERYVILLE, CALIFORNIA  
 PROJECT NO. 67972-PWENV

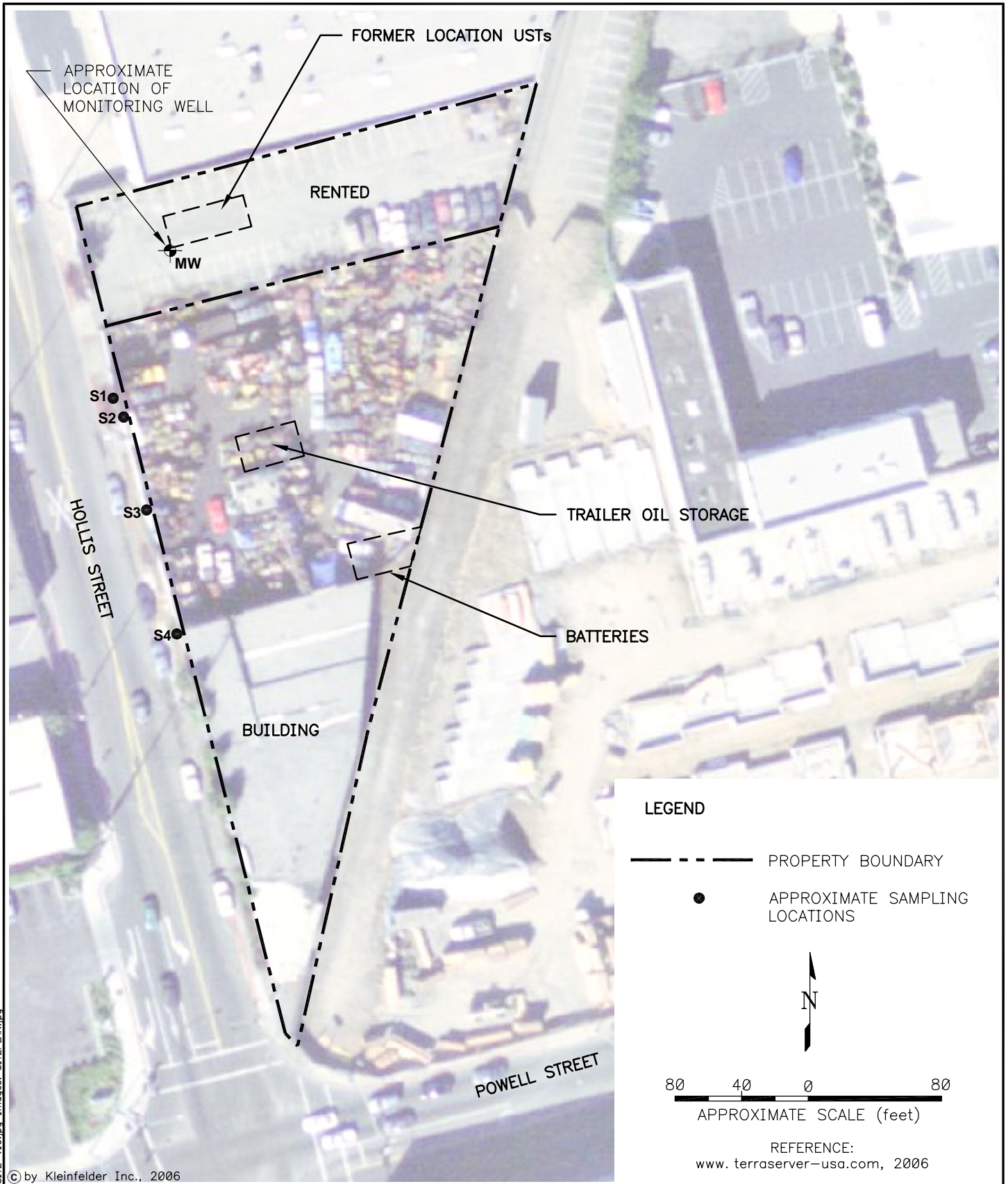
PLATE

**1**


DRAFTED BY: L. Sue  
 DATE: 04/17/06

CHECKED BY: A. Dominguez  
 REVISION DATE:





ATTACHED XREFS: XRef: TB\_A-port  
 ATTACHED IMAGES: Images: SITE-VIC.jpg, Images: SITEPLAN.jpg

 <p>1970 Broadway, Suite 710 Oakland, CA 94612-2212 PH: (510) 628-9000 FAX: (510) 628-9009</p>		<p><b>SITE PLAN</b></p> <p>ALDERS PROPERTY – CITY OF EMERYVILLE 5812 HOLLIS STREET EMERYVILLE, CALIFORNIA</p>	<p>PLATE</p> <p><b>2</b></p>
<p>DRAFTED BY: L. Sue/J. Sala</p> <p>DATE: 04/27/06</p>	<p>CHECKED BY: A. Dominguez</p> <p>REVISION DATE:</p>	<p>PROJECT NO. 67972-PWENV</p>	





**PHOTO 1.** Battery Acid: Batteries observed on crates in the southeastern section of the Site. Note that the batteries are uncovered and show signs of corrosion.



**PHOTO 2.** Hazardous Waste Oil: Inside view of trailer used to store waste oil onsite.



**PHOTO 3.** Broken Pavement: Some paved areas are deteriorated or missing.



**PHOTO 4.** Oily metal shavings: Metal shavings, some apparently mixed with waste oil, were observed scattered on the Site's floor.

ATTACHED XREFS: XRef: TB\_A-port  
 ATTACHED IMAGES: PHOTOS: PHOTO-01.JPG Images: PHOTO-01.JPG Images: PHOTO-02.JPG Images: PHOTO-02.JPG Images: PHOTO-03.JPG Images: PHOTO-03.JPG Images: PHOTO-04.JPG Images: PHOTO-04.JPG Images: PHOTO-05.JPG Images: PHOTO-05.JPG Images: PHOTO-06.JPG Images: PHOTO-06.JPG Images: PHOTO-07.JPG Images: PHOTO-07.JPG Images: PHOTO-08.JPG

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 PH: (510) 628-9000 FAX: (510) 628-9009

**SITE RECONNAISSANCE PHOTOGRAPHS:  
 APRIL 7, 2006**

PLATE

ALDERS PROPERTY – CITY OF EMERYVILLE  
 5812 HOLLIS STREET  
 EMERYVILLE, CALIFORNIA

**3**

DRAFTED BY: L. Sue

CHECKED BY: A. Dominguez

DATE: 04/14/06

REVISION DATE:

PROJECT NO. 67972-PWENV





**PHOTO 5.** Housekeeping: View of parts and oil storage outside the building structure.



**PHOTO 6.** Housekeeping inside: View of parts and oil storage inside the building structure.



**PHOTO 7.** Negatively-impacted vegetation, from apparent site runoff, observed in the public right-of-way along Hollis Street.



**PHOTO 8.** Sidewalk stained with rust on Hollis Street in front of the site.

© by Kleinfelder Inc., 2006

ATTACHED XREFS: XRef: TB\_A-port  
 ATTACHED IMAGES: PHOTOS: PHOTO-01.JPG Images: PHOTO-02.JPG Images: PHOTO-03.JPG Images: PHOTO-04.JPG Images: PHOTO-05.JPG Images: PHOTO-06.JPG Images: PHOTO-07.JPG Images: PHOTO-08.JPG



1970 Broadway, Suite 710  
 Oakland, CA 94612-2212  
 PH: (510) 628-9000 FAX: (510) 628-9009

**SITE RECONNAISSANCE PHOTOGRAPHS:  
 APRIL 7, 2006**

ALDERS PROPERTY – CITY OF EMERYVILLE  
 5812 HOLLIS STREET  
 EMERYVILLE, CALIFORNIA  
 PROJECT NO. 67972-PWENV

PLATE

**4**

DRAFTED BY: L. Sue  
 CHECKED BY: A. Dominguez  
 DATE: 04/24/06  
 REVISION DATE:



## TABLES

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**Table 1. Soil Analysis Results**  
Alders Property - 5812 Hollis Street, Emeryville, CA

Soil Sample Depth	Composite (4 to 1)	RWQCB	DTSC	Hazardous Waste Criteria
TPH - EPA 8015M	mg/Kg	Soil ESL (mg/Kg)	Soil CHHSL (mg/Kg)	TTLc (mg/Kg)
TPH-g	< 1.1	400	ne	ne
TPH-d	960	500	ne	ne
TPH-mo	5,600	1,000	ne	ne
VOCs - EPA 8260B	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Methylene Chloride	0.038	1,500	ne	ne
SVOCs - EPA 8270C	<i>ND (See note below)</i>			
PCBs - EPA 8082	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Aroclor 1260	0.2	0.74	0.3	50
Metals - EPA 6010B	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Antimony	10	40	380	500
Arsenic	10.0	5.5	0.24	500
Barium	140.0	1,500	63,000	10,000
Beryllium	0.2	8	1,700	75
Cadmium	3.6	7.4	7.5	100
Chromium	130.0	58	100,000	2,500
Cobalt	7.6	10	3,200	8,000
Copper	150.0	230	38,000	2,500
Lead	2100.0	750	150	1,000
Mercury*	0.63	10	180	20
Molybdenum	14	40	4,800	3,500
Nickel	55	150	16,000	2,000
Selenium	0.53	10	4,800	100
Silver	<0.19	40	4,800	500
Thallium	0.24	13	63	700
Vanadium	42	200	6,700	2,400
Zinc	500	600	100,000	5,000

**Notes:**

Soil samples collected by Kleinfelder on April 7, 2006.

This table presents the analysis results of detected analytes only.

Listed ESLs are for commercial/industrial land use.

SVOCs: A dilution factor of 50 was required for performing the SVOC analysis. Such dilution factor resulted in higher reporting limits ranging from 6.7 mg/kg to 170 mg/Kg. The reporting limit for each analyte exceeded their respective ESL.

Mercury\* was analyzed by EPA Method 7471A

**Acronyms:**

ND: Not Detected above the methods reporting limits

TTLc: Total Threshold Limit Concentration - STLC = Soluble Threshold Limit Concentration

ESL: Environmental Screening Levels taken from *Screening For Environmental Concerns at Sites With Contaminated Soil and Ground Water*, Volume 1: Summary Tier 1 Lookup Tables: Table B: ESL for Shallow Soils (≤ 3 m bgs) Groundwater IS NOT a Current or Potential Source of Drinking Water. California Regional Water Quality Control Board San Francisco Bay Region, Interim Final, February 2005.

CHHSL: California Human Health Screening Levels, taken from Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties California Environmental Protection Agency, January 2005

mg/Kg: micrograms per kilogram

TPH-mo: Total Petroleum Hydrocarbon as motor oil

TPH-g: Total Petroleum Hydrocarbon as gasoline

TPH-d: Total Petroleum Hydrocarbon as diesel

VOC: Volatile Organic Compounds

SVOC: Semi-Volatile Organic Compounds

PCBs: Polychlorinated Biphenyls  
67972/PWENV (OAK6R041)/es

ne: not established

**APPENDIX A**  
**MONITORING WELL LOG**

---

No.: E930701

BORING No.: B-1

DATE: 6/17/93

NAME: Monitoring Well at Hydraulic Electro S.

page 1 of 1

LOCATION: 5812 Hollis Street, Emeryville

GWL DEPTH: 12' ATD

METHOD: 8 - in Auger, 140-lb Hammer




HOLE DIAMETER: 8.5 in

CONTRACTOR: Holt Drilling Co.

DRILLER: Rick

DEPTH (ft)	SAMPLE TYPE & NUMBER	BLOW/FT.	SPT	MATERIAL DESCRIPTION	USCS SYMBOL	OVA. READING (ppm)	WELL CONSTRUCTION
0				4" asphalt pavement over 2" of base material (gravel)		1.5 at 6"	<p>CEMENT GROUT BENTONITE SEAL</p> <p>5' 48Hr</p> <p>#3 MONTEREY SAND</p> <p>0.02" SCREEN</p> <p>ATD</p> <p>20' BOTTOM OF WELL</p>
2						0 at 3'	
4		3		Clay fill, light to dk brown some gray-green soil also stiff, moist	CL	0 at 5'	
6	S-1	8	10			0 at 8'	
8		10				2.3 at 10'	
10	S-2	5	15	Same fill as before, more gravel, stiff to v. stiff	GC	0 at 13'	
12						0 at 15'	
14							
16	S-3	14	9	Stiff, light brown to grayish-brown, silty clay	CL		
18		7					
20	S-4	28	26	V. Stiff clay, light brown to grayish-brown, silty clay.	CL	0 at 20'	
22		24					
24		17					
				BOH = 21.5 feet			

NOTES :

-  2.5" x 6" brass tube sample
-  SPT sample
-  Grab sample

SUMMIT ENGINEERING

6045 Shirley Drive  
Oakland, CA 94611

**APPENDIX B**  
**LABORATORY REPORT**

---



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710. Phone (510) 486-0900

A N A L Y T I C A L   R E P O R T

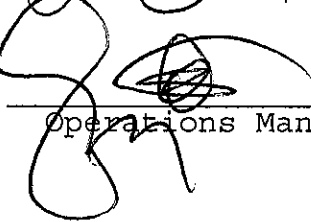
Prepared for:

Kleinfelder  
1970 Broadway  
Suite 710  
Oakland, CA 94612

Date: 24-APR-06  
Lab Job Number: 186045  
Project ID: STANDARD  
Location: Alders' Emeryville

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by:   
Project Manager

Reviewed by:   
Operations Manager

This package may be reproduced only in its entirety.

### CASE NARRATIVE

Laboratory number: 186045  
Client: Kleinfelder  
Location: Alders' Emeryville  
Request Date: 04/07/06  
Samples Received: 04/07/06

This hardcopy data package contains sample and QC results for one four-point soil composite, requested for the above referenced project on 04/07/06. The samples were received intact at ambient temperature.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):

No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):

No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

Methylene chloride was detected above the RL in COMPOSITE (lab # 186045-005); this analyte is a common laboratory contaminant. No other analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):

High recovery was observed for 2,4-dinitrotoluene in the LCS for batch 112203; this analyte was not detected at or above the RL in the associated sample. High recoveries were observed for pentachlorophenol in the MS/MSD for batch 112203; the parent sample was not a project sample, the LCS was within limits, the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated sample. COMPOSITE (lab # 186045-005) was diluted due to the dark, viscous nature of the sample extract. The sample would not concentrate down to one mL. No other analytical problems were encountered.

Polychlorinated Biphenyls (PCBs) (EPA 8082):

No analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):

Low recoveries were observed for thallium in the MS/MSD for batch 112230; the parent sample was not a project sample, the BS/BSD were within limits, and the associated RPD was within limits. High recoveries were observed for zinc; the BS/BSD were within limits, and the associated RPD was within limits. No other analytical problems were encountered.

PROJECT NO.		PROJECT NAME		NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS										RECEIVING LAB:			
L.P. NO. (P.O. NO.)		SAMPLERS: (Signature/Number)				TPH3 VOL - EPA 8016 VOL - EPA 8260 PCBs EPA 8270 CAMH EPA 8080 6816/2002										Curtis & Tompkins			
DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE ID.	MATRIX														INSTRUCTIONS/REMARKS		
4/7/06		S-1	Soil	1	steel can	X	X	X	X	X								Composite 4 to Hold for potential Discrete Analysis	
4/2/06		S-2	↓	1	↓	X	X	X	X	X									
4/7/06		S-3	↓	1	↓	X	X	X	X	X									
4/2/06		S-4	↓	1	↓	X	X	X	X	X									
<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.5;">                         4/7/06 AD                     </div>																			

Relinquished by: (Signature) <i>Alvaro Dominguez</i>	Date/Time 4/7/06 12:10	Received by: (Signature) <i>Paul [unclear]</i>	Instructions/Remarks:	Send Results To: 1970 Besonway KLEINFELDER OAKLAND CA 7133 KOLL CENTER PARKWAY SUITE 100 PLEASANTON, CA 94500 94612 925) 484-1700
Relinquished by: (Signature)	Date/Time	Received by: (Signature)		
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)		

Received  
 On Ice  
 Cold  Ambient  Intact



**Total Volatile Hydrocarbons**

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	COMPOSITE	Batch#:	112122
Matrix:	Soil	Sampled:	04/07/06
Units:	mg/Kg	Received:	04/07/06
Basis:	as received	Analyzed:	04/07/06
Diln Fac:	1.000		

Type:                   SAMPLE   Lab ID:                   186045-005

Analyte	Result	RL
Gasoline C7-C12	ND	1.1

Surrogate	%REC	Limits
Trifluorotoluene (FID)	91	62-137
Bromofluorobenzene (FID)	82	60-148

Type:                   BLANK   Lab ID:                   QC334760

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	104	62-137
Bromofluorobenzene (FID)	100	60-148

## Batch QC Report

**Total Volatile Hydrocarbons**

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC334762	Diln Fac:	1.000
Matrix:	Soil	Batch#:	112122
Units:	mg/Kg	Analyzed:	04/07/06

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	9.856	99	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	124	62-137
Bromofluorobenzene (FID)	111	60-148

## Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	186036-007	Batch#:	112122
Matrix:	Soil	Sampled:	04/06/06
Units:	mg/Kg	Received:	04/07/06
Basis:	as received	Analyzed:	04/07/06

Type: MS Lab ID: QC334874

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<0.1287	10.99	10.16	92	38-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	128	62-137
Bromofluorobenzene (FID)	110	60-148

Type: MSD Lab ID: QC334875

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.99	9.757	89	38-120	4	26

Surrogate	%REC	Limits
Trifluorotoluene (FID)	126	62-137
Bromofluorobenzene (FID)	114	60-148

RPD= Relative Percent Difference

**Total Extractable Hydrocarbons**

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	COMPOSITE	Sampled:	04/07/06
Matrix:	Soil	Received:	04/07/06
Units:	mg/Kg	Prepared:	04/12/06
Basis:	as received	Analyzed:	04/14/06
Batch#:	112312		

Type: SAMPLE Diln Fac: 50.00  
 Lab ID: 186045-005

Analyte	Result	RL
Diesel C10-C24	960 H Y	50
Motor Oil C24-C36	5,600	250

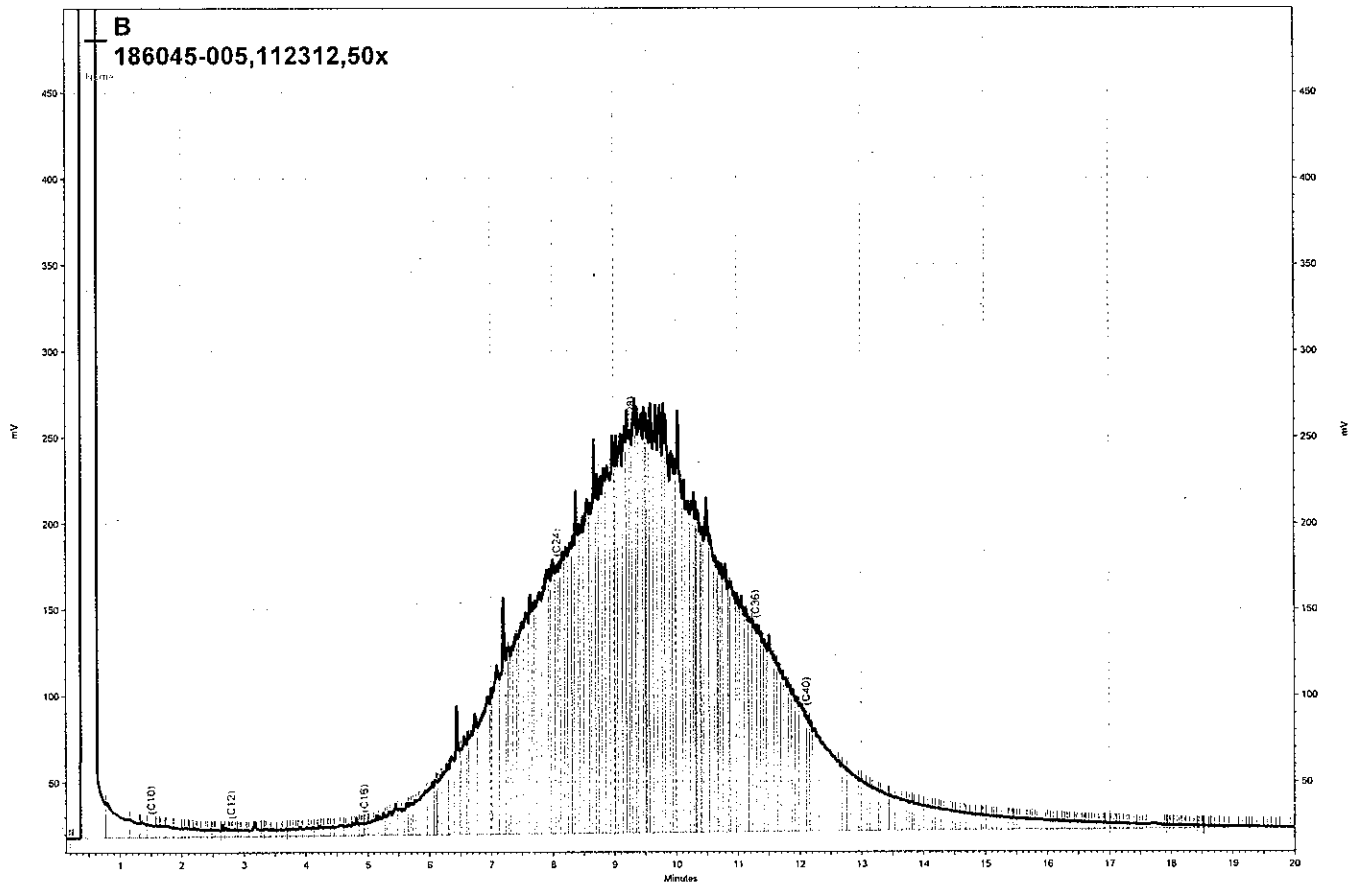
Surrogate	%REC	Limits
Hexacosane	DO	48-130

Type: BLANK Diln Fac: 1.000  
 Lab ID: QC335508 Cleanup Method: EPA 3630C

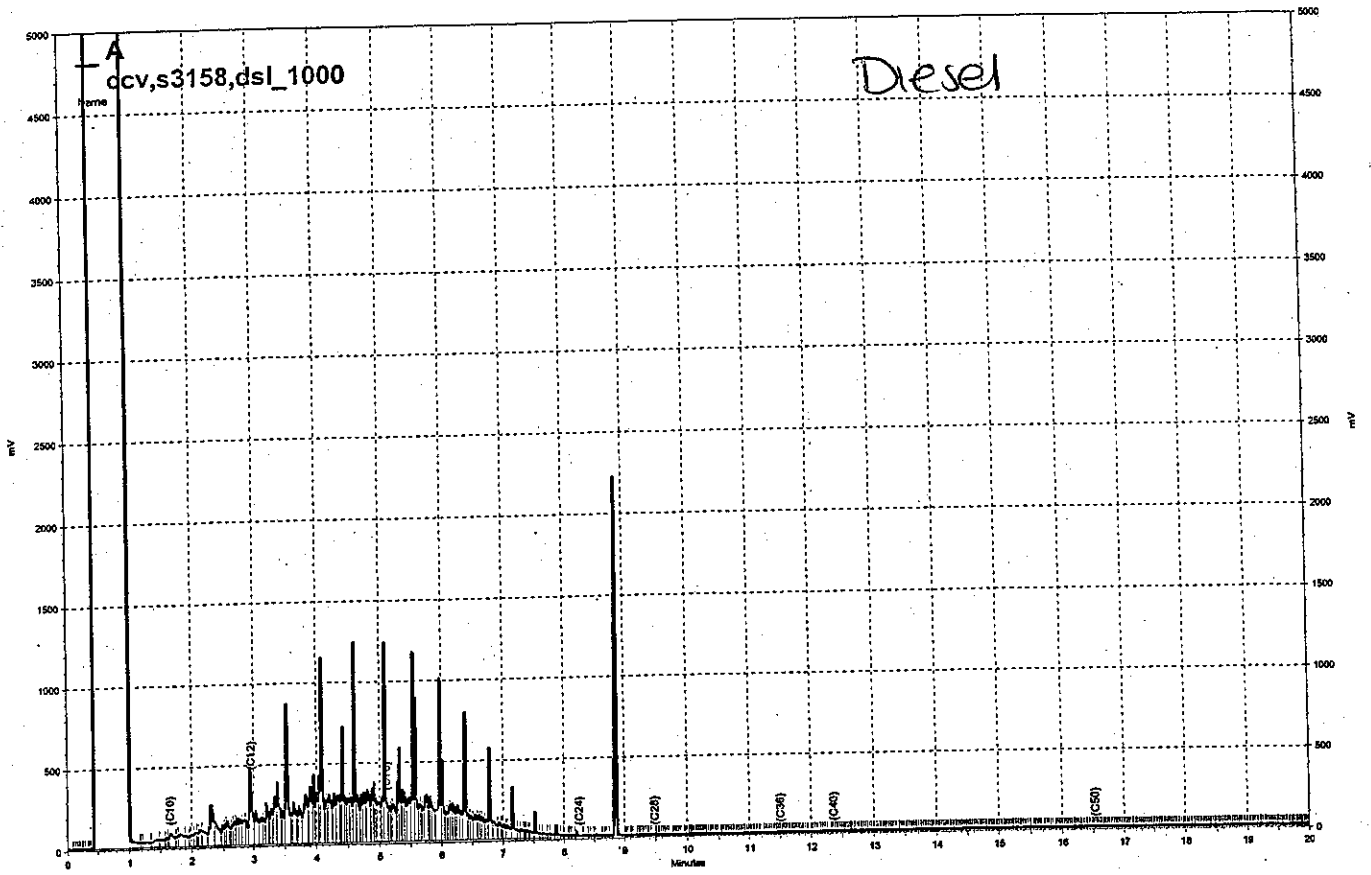
Analyte	Result	RL
Diesel C10-C24	ND	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
Hexacosane	83	48-130

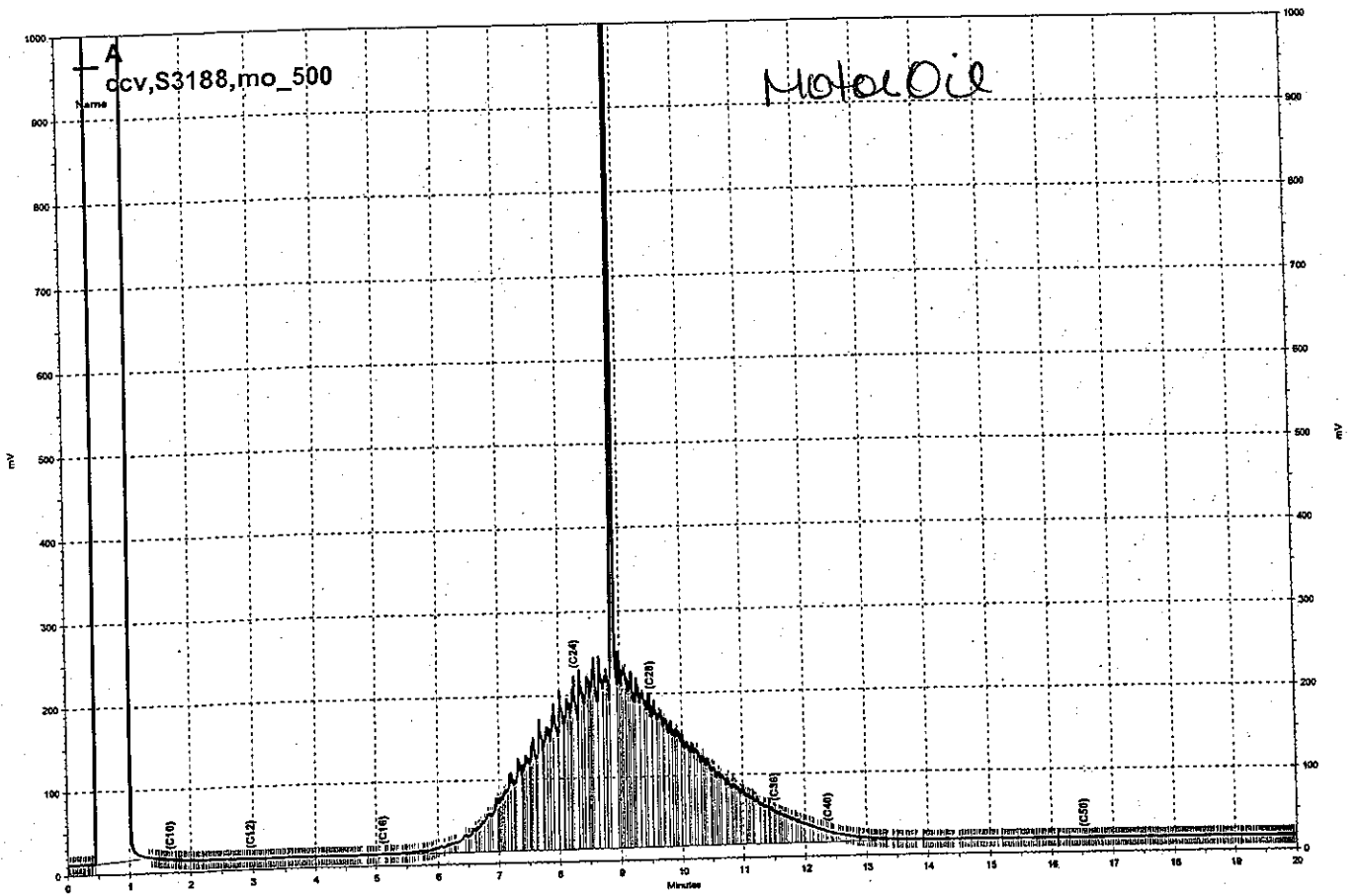
H= Heavier hydrocarbons contributed to the quantitation  
 Y= Sample exhibits chromatographic pattern which does not resemble standard  
 DO= Diluted Out  
 ND= Not Detected  
 RL= Reporting Limit



— \\Lims\gdrive\ezchrom\Projects\GC13B\Data\104b006, B



\\Lims\gdrive\ezchrom\Projects\GC17A\Data\104a004, A



\\Lims\gdrive\ezchrom\Projects\GC17A\Data\104a006, A

## Batch QC Report

## Total Extractable Hydrocarbons

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC335509	Batch#:	112312
Matrix:	Soil	Prepared:	04/12/06
Units:	mg/Kg	Analyzed:	04/14/06
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.97	37.99	76	59-133

Surrogate	%REC	Limits
Hexacosane	84	48-130



## Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	112312
MSS Lab ID:	185948-008	Sampled:	03/31/06
Matrix:	Soil	Received:	04/03/06
Units:	mg/Kg	Prepared:	04/12/06
Basis:	as received	Analyzed:	04/14/06
Diln Fac:	1.000		

Type: MS  
Lab ID: QC335510

Cleanup Method: EPA 3630C

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	18.10	49.92	51.39	67	37-153

Surrogate	%REC	Limits
Hexacosane	94	48-130

Type: MSD  
Lab ID: QC335511

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.81	48.11	60	37-153	6	43

Surrogate	%REC	Limits
Hexacosane	86	48-130

## Purgeable Organics by GC/MS

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	COMPOSITE	Diln Fac:	1.000
Lab ID:	186045-005	Batch#:	112394
Matrix:	Soil	Sampled:	04/07/06
Units:	ug/Kg	Received:	04/07/06
Basis:	as received	Analyzed:	04/14/06

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	25
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	38	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	COMPOSITE	Diln Fac:	1.000
Lab ID:	186045-005	Batch#:	112394
Matrix:	Soil	Sampled:	04/07/06
Units:	ug/Kg	Received:	04/07/06
Basis:	as received	Analyzed:	04/14/06

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	108	79-120
1,2-Dichloroethane-d4	117	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	119	80-126

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC335794	Diln Fac:	1.000
Matrix:	Soil	Batch#:	112394
Units:	ug/Kg	Analyzed:	04/14/06

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	25
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC335794	Diln Fac:	1.000
Matrix:	Soil	Batch#:	112394
Units:	ug/Kg	Analyzed:	04/14/06

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	105	79-120
1,2-Dichloroethane-d4	110	76-130
Toluene-d8	101	80-120
Bromofluorobenzene	113	80-126

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC335793	Diln Fac:	1.000
Matrix:	Soil	Batch#:	112394
Units:	ug/Kg	Analyzed:	04/14/06

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.86	99	79-132
Benzene	25.00	24.41	98	80-120
Trichloroethene	25.00	25.65	103	80-121
Toluene	25.00	24.67	99	80-120
Chlorobenzene	25.00	24.83	99	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	104	79-120
1,2-Dichloroethane-d4	103	76-130
Toluene-d8	96	80-120
Bromofluorobenzene	100	80-126

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	112394
MSS Lab ID:	186159-001	Sampled:	04/10/06
Matrix:	Soil	Received:	04/13/06
Units:	ug/Kg	Analyzed:	04/14/06
Basis:	as received		

Type: MS Diln Fac: 0.8929  
 Lab ID: QC335835

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.8077	22.32	17.10	77	72-135
Benzene	<0.2201	22.32	18.28	82	67-120
Trichloroethene	<0.2387	22.32	19.02	85	65-131
Toluene	0.5025	22.32	18.24	79	62-120
Chlorobenzene	<0.3429	22.32	18.79	84	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	89	79-120
1,2-Dichloroethane-d4	80	76-130
Toluene-d8	94	80-120
Bromofluorobenzene	99	80-126

Type: MSD Diln Fac: 0.8772  
 Lab ID: QC335836

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	21.93	17.71	81	72-135	5	22
Benzene	21.93	17.70	81	67-120	1	20
Trichloroethene	21.93	18.98	87	65-131	2	20
Toluene	21.93	18.00	80	62-120	0	20
Chlorobenzene	21.93	17.06	78	59-120	8	21

Surrogate	%REC	Limits
Dibromofluoromethane	90	79-120
1,2-Dichloroethane-d4	80	76-130
Toluene-d8	94	80-120
Bromofluorobenzene	96	80-126

RPD= Relative Percent Difference

## Semivolatile Organics by GC/MS

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	COMPOSITE	Batch#:	112203
Lab ID:	186045-005	Sampled:	04/07/06
Matrix:	Soil	Received:	04/07/06
Units:	ug/Kg	Prepared:	04/10/06
Basis:	as received	Analyzed:	04/13/06
Diln Fac:	50.00		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	34,000
Phenol	ND	34,000
bis(2-Chloroethyl) ether	ND	34,000
2-Chlorophenol	ND	34,000
1,3-Dichlorobenzene	ND	34,000
1,4-Dichlorobenzene	ND	34,000
Benzyl alcohol	ND	34,000
1,2-Dichlorobenzene	ND	34,000
2-Methylphenol	ND	34,000
bis(2-Chloroisopropyl) ether	ND	34,000
4-Methylphenol	ND	34,000
N-Nitroso-di-n-propylamine	ND	34,000
Hexachloroethane	ND	34,000
Nitrobenzene	ND	34,000
Isophorone	ND	34,000
2-Nitrophenol	ND	67,000
2,4-Dimethylphenol	ND	34,000
Benzoic acid	ND	170,000
bis(2-Chloroethoxy)methane	ND	34,000
2,4-Dichlorophenol	ND	34,000
1,2,4-Trichlorobenzene	ND	34,000
Naphthalene	ND	6,700
4-Chloroaniline	ND	34,000
Hexachlorobutadiene	ND	34,000
4-Chloro-3-methylphenol	ND	34,000
2-Methylnaphthalene	ND	6,700
Hexachlorocyclopentadiene	ND	67,000
2,4,6-Trichlorophenol	ND	34,000
2,4,5-Trichlorophenol	ND	34,000
2-Chloronaphthalene	ND	34,000
2-Nitroaniline	ND	67,000
Dimethylphthalate	ND	34,000
Acenaphthylene	ND	6,700
2,6-Dinitrotoluene	ND	34,000
3-Nitroaniline	ND	67,000
Acenaphthene	ND	6,700
2,4-Dinitrophenol	ND	67,000
4-Nitrophenol	ND	67,000
Dibenzofuran	ND	34,000
2,4-Dinitrotoluene	ND	34,000
Diethylphthalate	ND	34,000
Fluorene	ND	6,700
4-Chlorophenyl-phenylether	ND	34,000
4-Nitroaniline	ND	67,000
4,6-Dinitro-2-methylphenol	ND	67,000
N-Nitrosodiphenylamine	ND	34,000
Azobenzene	ND	34,000
4-Bromophenyl-phenylether	ND	34,000
Hexachlorobenzene	ND	34,000
Pentachlorophenol	ND	67,000
Phenanthrene	ND	6,700
Anthracene	ND	6,700

DO= Diluted Out  
 ND= Not Detected  
 RL= Reporting Limit



## Semivolatile Organics by GC/MS

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	COMPOSITE	Batch#:	112203
Lab ID:	186045-005	Sampled:	04/07/06
Matrix:	Soil	Received:	04/07/06
Units:	ug/Kg	Prepared:	04/10/06
Basis:	as received	Analyzed:	04/13/06
Diln Fac:	50.00		

Analyte	Result	RL
Di-n-butylphthalate	ND	34,000
Fluoranthene	ND	6,700
Pyrene	ND	6,700
Butylbenzylphthalate	ND	34,000
3,3'-Dichlorobenzidine	ND	67,000
Benzo(a)anthracene	ND	6,700
Chrysene	ND	6,700
bis(2-Ethylhexyl)phthalate	ND	34,000
Di-n-octylphthalate	ND	34,000
Benzo(b)fluoranthene	ND	6,700
Benzo(k)fluoranthene	ND	6,700
Benzo(a)pyrene	ND	6,700
Indeno(1,2,3-cd)pyrene	ND	6,700
Dibenz(a,h)anthracene	ND	6,700
Benzo(g,h,i)perylene	ND	6,700

Surrogate	%REC	Limits
2-Fluorophenol	DO	38-120
Phenol-d5	DO	36-120
2,4,6-Tribromophenol	DO	30-120
Nitrobenzene-d5	DO	46-120
2-Fluorobiphenyl	DO	49-120
Terphenyl-d14	DO	36-120

DO= Diluted Out  
 ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Semivolatile Organics by GC/MS			
Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC335094	Batch#:	112203
Matrix:	Soil	Prepared:	04/10/06
Units:	ug/Kg	Analyzed:	04/12/06
Basis:	as received		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	340
Phenol	ND	340
bis(2-Chloroethyl) ether	ND	340
2-Chlorophenol	ND	340
1,3-Dichlorobenzene	ND	340
1,4-Dichlorobenzene	ND	340
Benzyl alcohol	ND	340
1,2-Dichlorobenzene	ND	340
2-Methylphenol	ND	340
bis(2-Chloroisopropyl) ether	ND	340
4-Methylphenol	ND	340
N-Nitroso-di-n-propylamine	ND	340
Hexachloroethane	ND	340
Nitrobenzene	ND	340
Isophorone	ND	340
2-Nitrophenol	ND	670
2,4-Dimethylphenol	ND	340
Benzoic acid	ND	1,700
bis(2-Chloroethoxy) methane	ND	340
2,4-Dichlorophenol	ND	340
1,2,4-Trichlorobenzene	ND	340
Naphthalene	ND	67
4-Chloroaniline	ND	340
Hexachlorobutadiene	ND	340
4-Chloro-3-methylphenol	ND	340
2-Methylnaphthalene	ND	67
Hexachlorocyclopentadiene	ND	670
2,4,6-Trichlorophenol	ND	340
2,4,5-Trichlorophenol	ND	340
2-Chloronaphthalene	ND	340
2-Nitroaniline	ND	670
Dimethylphthalate	ND	340
Acenaphthylene	ND	67
2,6-Dinitrotoluene	ND	340
3-Nitroaniline	ND	670
Acenaphthene	ND	67
2,4-Dinitrophenol	ND	670
4-Nitrophenol	ND	670
Dibenzofuran	ND	340
2,4-Dinitrotoluene	ND	340
Diethylphthalate	ND	340
Fluorene	ND	67
4-Chlorophenyl-phenylether	ND	340
4-Nitroaniline	ND	670
4,6-Dinitro-2-methylphenol	ND	670
N-Nitrosodiphenylamine	ND	340
Azobenzene	ND	340
4-Bromophenyl-phenylether	ND	340
Hexachlorobenzene	ND	340
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	340

ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Semivolatile Organics by GC/MS			
Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC335094	Batch#:	112203
Matrix:	Soil	Prepared:	04/10/06
Units:	ug/Kg	Analyzed:	04/12/06
Basis:	as received		

Analyte	Result	RL
Fluoranthene	ND	67
Pyrene	ND	67
Butylbenzylphthalate	ND	340
3,3'-Dichlorobenzidine	ND	670
Benzo(a)anthracene	ND	67
Chrysene	ND	67
bis(2-Ethylhexyl)phthalate	ND	340
Di-n-octylphthalate	ND	340
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%REC	Limits
2-Fluorophenol	75	38-120
Phenol-d5	78	36-120
2,4,6-Tribromophenol	60	30-120
Nitrobenzene-d5	99	46-120
2-Fluorobiphenyl	83	49-120
Terphenyl-d14	94	36-120

## Batch QC Report

Semivolatile Organics by GC/MS			
Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC335095	Batch#:	112203
Matrix:	Soil	Prepared:	04/10/06
Units:	ug/Kg	Analyzed:	04/14/06
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Phenol	3,350	2,896	86	40-120
2-Chlorophenol	3,350	3,107	93	47-120
1,4-Dichlorobenzene	1,675	1,728	103	49-120
N-Nitroso-di-n-propylamine	1,675	1,567	94	40-120
1,2,4-Trichlorobenzene	1,675	1,741	104	50-120
4-Chloro-3-methylphenol	3,350	3,031	90	49-120
Acenaphthene	1,675	1,924	115	50-120
4-Nitrophenol	3,350	3,960	118	31-120
2,4-Dinitrotoluene	1,675	2,510	150 *	47-120
Pentachlorophenol	3,350	3,393	101	23-120
Pyrene	1,675	1,916	114	48-120

Surrogate	%REC	Limits
2-Fluorophenol	89	38-120
Phenol-d5	86	36-120
2,4,6-Tribromophenol	119	30-120
Nitrobenzene-d5	117	46-120
2-Fluorobiphenyl	110	49-120
Terphenyl-d14	102	36-120

\*= Value outside of QC limits; see narrative

## Batch QC Report

Semivolatile Organics by GC/MS			
Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	ZZZZZZZZZZ	Batch#:	112203
MSS Lab ID:	185924-001	Sampled:	03/30/06
Matrix:	Soil	Received:	03/31/06
Units:	ug/Kg	Prepared:	04/10/06
Basis:	as received	Analyzed:	04/13/06
Diln Fac:	10.00		

Type: MS Lab ID: QC335096

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	<441.0	3,323	2,437	73	39-120
2-Chlorophenol	<696.0	3,323	2,801	84	45-120
1,4-Dichlorobenzene	<193.3	1,662	1,449	87	47-120
N-Nitroso-di-n-propylamine	<160.5	1,662	1,361	82	37-120
1,2,4-Trichlorobenzene	<205.1	1,662	1,352	81	45-120
4-Chloro-3-methylphenol	<780.9	3,323	2,868	86	46-120
Acenaphthene	<162.3	1,662	1,384	83	47-120
4-Nitrophenol	<237.1	3,323	2,269	68	30-120
2,4-Dinitrotoluene	<140.7	1,662	1,188	72	41-120
Pentachlorophenol	<467.5	3,323	6,625	199 *	22-120
Pyrene	<125.6	1,662	1,584	95	41-126

Surrogate	%REC	Limits
2-Fluorophenol	68	38-120
Phenol-d5	66	36-120
2,4,6-Tribromophenol	81	30-120
Nitrobenzene-d5	90	46-120
2-Fluorobiphenyl	88	49-120
Terphenyl-d14	83	36-120

Type: MSD Lab ID: QC335097

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	3,301	2,334	71	39-120	4	23
2-Chlorophenol	3,301	2,567	78	45-120	8	24
1,4-Dichlorobenzene	1,651	1,332	81	47-120	8	25
N-Nitroso-di-n-propylamine	1,651	1,220	74	37-120	10	27
1,2,4-Trichlorobenzene	1,651	1,334	81	45-120	1	23
4-Chloro-3-methylphenol	3,301	2,757	84	46-120	3	24
Acenaphthene	1,651	1,277	77	47-120	7	26
4-Nitrophenol	3,301	2,062	62	30-120	9	28
2,4-Dinitrotoluene	1,651	1,007	61	41-120	16	24
Pentachlorophenol	3,301	6,484	196 *	22-120	1	44
Pyrene	1,651	1,443	87	41-126	9	33

Surrogate	%REC	Limits
2-Fluorophenol	63	38-120
Phenol-d5	63	36-120
2,4,6-Tribromophenol	82	30-120
Nitrobenzene-d5	79	46-120
2-Fluorobiphenyl	84	49-120
Terphenyl-d14	82	36-120

\*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

**Polychlorinated Biphenyls (PCBs)**

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 3545
Project#:	STANDARD	Analysis:	EPA 8082
Field ID:	COMPOSITE	Batch#:	112223
Matrix:	Soil	Sampled:	04/07/06
Units:	ug/Kg	Received:	04/07/06
Basis:	as received	Prepared:	04/10/06
Diln Fac:	1.000		

Type:	SAMPLE	Analyzed:	04/15/06
Lab ID:	186045-005	Cleanup Method:	EPA 3665A

Analyte	Result	RL
Aroclor-1016	ND	9.5
Aroclor-1221	ND	19
Aroclor-1232	ND	9.5
Aroclor-1242	ND	9.5
Aroclor-1248	ND	9.5
Aroclor-1254	ND	9.5
Aroclor-1260	200	9.5

Surrogate	%REC	Limits
TCMX	100	61-140
Decachlorobiphenyl	63	50-155

Type:	BLANK	Analyzed:	04/13/06
Lab ID:	QC335169	Cleanup Method:	EPA 3665A

Analyte	Result	RL
Aroclor-1016	ND	9.6
Aroclor-1221	ND	19
Aroclor-1232	ND	9.6
Aroclor-1242	ND	9.6
Aroclor-1248	ND	9.6
Aroclor-1254	ND	9.6
Aroclor-1260	ND	9.6

Surrogate	%REC	Limits
TCMX	107	61-140
Decachlorobiphenyl	108	50-155

ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

## Polychlorinated Biphenyls (PCBs)

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 3545
Project#:	STANDARD	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC335170	Batch#:	112223
Matrix:	Soil	Prepared:	04/10/06
Units:	ug/Kg	Analyzed:	04/13/06
Basis:	as received		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1221	333.3	279.1	84	60-140

Surrogate	%REC	Limits
TCMX	96	61-140
Decachlorobiphenyl	98	50-155

## Batch QC Report

Polychlorinated Biphenyls (PCBs)			
Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 3545
Project#:	STANDARD	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Batch#:	112223
MSS Lab ID:	186062-002	Sampled:	04/07/06
Matrix:	Soil	Received:	04/07/06
Units:	ug/Kg	Prepared:	04/10/06
Basis:	as received	Analyzed:	04/13/06
Diln Fac:	1.000		

Type: MS  
Lab ID: QC335171

Cleanup Method: EPA 3665A

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1221	<3.994	328.9	263.3	80	53-162

Surrogate	%REC	Limits
TCMX	81	61-140
Decachlorobiphenyl	87	50-155

Type: MSD  
Lab ID: QC335172

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1221	332.7	279.1	84	53-162	5	30

Surrogate	%REC	Limits
TCMX	83	61-140
Decachlorobiphenyl	81	50-155

RPD= Relative Percent Difference



## California Title 26 Metals

Lab #:	186045	Project#:	STANDARD
Client:	Kleinfelder	Location:	Alders' Emeryville
Field ID:	COMPOSITE	Basis:	as received
Lab ID:	186045-005	Sampled:	04/07/06
Matrix:	Soil	Received:	04/07/06
Units:	mg/Kg		

Analyte	Result	RL	Diln	Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	10	2.2	1.000		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Arsenic	10	0.19	1.000		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Barium	140	0.37	1.000		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Beryllium	0.22	0.075	1.000		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Cadmium	3.6	0.19	1.000		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Chromium	130	0.37	1.000		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Cobalt	7.6	0.75	1.000		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Copper	150	0.37	1.000		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Lead	2,100	1.1	10.00		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Mercury	0.63	0.019	1.000		112292	04/12/06	04/12/06	METHOD	EPA 7471A
Molybdenum	14	0.75	1.000		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Nickel	55	0.75	1.000		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Selenium	0.53	0.19	1.000		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Silver	ND	0.19	1.000		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Thallium	0.24	0.19	1.000		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Vanadium	42	0.37	1.000		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B
Zinc	500	7.5	10.00		112230	04/11/06	04/11/06	EPA 3050B	EPA 6010B

## Batch QC Report

## California Title 26 Metals

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC335208	Batch#:	112230
Matrix:	Soil	Prepared:	04/11/06
Units:	mg/Kg	Analyzed:	04/11/06
Basis:	as received		

Analyte	Result	RL
Antimony	ND	3.0
Arsenic	ND	0.25
Barium	ND	0.50
Beryllium	ND	0.10
Cadmium	ND	0.25
Chromium	ND	0.50
Cobalt	ND	1.0
Copper	ND	0.50
Lead	ND	0.15
Molybdenum	ND	1.0
Nickel	ND	1.0
Selenium	ND	0.25
Silver	ND	0.25
Thallium	ND	0.25
Vanadium	ND	0.50
Zinc	ND	1.0

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## California Title 26 Metals

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC335439	Batch#:	112292
Matrix:	Soil	Prepared:	04/12/06
Units:	mg/Kg	Analyzed:	04/12/06

Result

RL

ND

0.020

## Batch QC Report

California Title 26 Metals			
Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	112230
Units:	mg/Kg	Prepared:	04/11/06
Basis:	as received	Analyzed:	04/11/06
Diln Fac:	1.000		

Type: BS Lab ID: QC335209

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	102.7	103	80-120
Arsenic	50.00	54.61	109	80-120
Barium	100.0	103.6	104	80-120
Beryllium	2.500	2.733	109	80-120
Cadmium	10.00	10.71	107	80-120
Chromium	100.0	105.6	106	80-120
Cobalt	25.00	25.39	102	80-120
Copper	12.50	12.70	102	80-120
Lead	100.0	102.3	102	80-120
Molybdenum	20.00	20.89	104	80-120
Nickel	25.00	25.80	103	80-120
Selenium	50.00	53.38	107	80-120
Silver	10.00	9.878	99	80-120
Thallium	50.00	50.45	101	80-120
Vanadium	25.00	26.25	105	80-120
Zinc	25.00	26.63	107	80-120

Type: BSD Lab ID: QC335210

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	106.6	107	80-120	4	20
Arsenic	50.00	55.74	111	80-120	2	20
Barium	100.0	103.7	104	80-120	0	20
Beryllium	2.500	2.731	109	80-120	0	20
Cadmium	10.00	10.84	108	80-120	1	20
Chromium	100.0	105.6	106	80-120	0	20
Cobalt	25.00	25.70	103	80-120	1	20
Copper	12.50	12.68	101	80-120	0	20
Lead	100.0	103.7	104	80-120	1	20
Molybdenum	20.00	21.13	106	80-120	1	20
Nickel	25.00	26.10	104	80-120	1	20
Selenium	50.00	54.22	108	80-120	2	20
Silver	10.00	9.997	100	80-120	1	20
Thallium	50.00	50.86	102	80-120	1	20
Vanadium	25.00	26.58	106	80-120	1	20
Zinc	25.00	26.95	108	80-120	1	20

RPD= Relative Percent Difference

## Batch QC Report

## California Title 26 Metals

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	112230
MSS Lab ID:	186035-004	Sampled:	04/06/06
Matrix:	Soil	Received:	04/06/06
Units:	mg/Kg	Prepared:	04/11/06
Basis:	as received	Analyzed:	04/11/06
Diln Fac:	1.000		

Type: MS Lab ID: QC335211

Analyte	MSS Result	Spiked	Result	%REC	Limite
Antimony	1.533	107.5	32.61	29	1-126
Arsenic	1.000	53.76	53.12	97	74-120
Barium	45.98	107.5	126.9	75	53-134
Beryllium	0.1447	2.688	2.660	94	78-120
Cadmium	0.1710	10.75	9.923	91	71-120
Chromium	9.720	107.5	107.4	91	64-120
Cobalt	1.176	26.88	25.12	89	64-120
Copper	140.3	13.44	185.0	333	NM 56-139
Lead	28.71	107.5	126.5	91	57-120
Molybdenum	0.4937	21.51	15.97	72	68-120
Nickel	10.16	26.88	35.89	96	48-132
Selenium	0.1391	53.76	50.89	94	72-120
Silver	<0.04284	10.75	8.714	81	67-120
Thallium	0.04619	53.76	24.21	45 *	69-120
Vanadium	4.774	26.88	28.95	90	55-134
Zinc	93.77	26.88	137.7	163 *	46-133

Type: MSD Lab ID: QC335212

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	98.04	25.80	25	1-126	14	21
Arsenic	49.02	47.09	94	74-120	3	20
Barium	98.04	118.2	74	53-134	1	20
Beryllium	2.451	2.472	95	78-120	1	20
Cadmium	9.804	9.032	90	71-120	0	20
Chromium	98.04	98.09	90	64-120	1	20
Cobalt	24.51	23.14	90	64-120	1	20
Copper	12.25	170.4	246	NM 56-139	7	20
Lead	98.04	114.1	87	57-120	3	20
Molybdenum	19.61	13.87	68	68-120	5	20
Nickel	24.51	33.54	95	48-132	0	20
Selenium	49.02	46.25	94	72-120	0	20
Silver	9.804	7.938	81	67-120	0	20
Thallium	49.02	19.48	40 *	69-120	12	20
Vanadium	24.51	26.48	89	55-134	1	20
Zinc	24.51	132.9	160 *	46-133	2	20

\*= Value outside of QC limits; see narrative  
 NM= Not Meaningful: Sample concentration > 4X spike concentration  
 RPD= Relative Percent Difference

## Batch QC Report

## California Title 26 Metals

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	112292
Units:	mg/Kg	Prepared:	04/12/06
Basis:	as received	Analyzed:	04/12/06

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC335440	0.5000	0.5250	105	80-120		
BSD	QC335441	0.5000	0.5290	106	80-120	1	20

RPD= Relative Percent Difference

## Batch QC Report

## California Title 26 Metals

Lab #:	186045	Location:	Alders' Emeryville
Client:	Kleinfelder	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	112292
MSS Lab ID:	186017-004	Sampled:	04/04/06
Matrix:	Soil	Received:	04/06/06
Units:	mg/Kg	Prepared:	04/12/06
Basis:	as received	Analyzed:	04/12/06

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC335442	0.006696	0.4545	0.5118	111	54-154		
MSD	QC335443		0.4630	0.4917	105	54-154	6	28