## REMOVAL ACTION OVERSIGHT AND DOCUMENTATION

At

Downtown Oakland CNG Station 205/209 Brush Street Oakland, CA 94607

Prepared for

Port of Oakland
Environmental Programs & Safety Department
530 Water Street
Oakland, CA 94607

Prepared by

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## **ACRONYMS**

bgs Below ground surface

BTEX Benzene, toluene, ethylbenzene, and xylenes

CNG Compressed natural gas

CUPA Certified Unified Programs Agency
ESA Environmental Site Assessment
ESL Environmental screening level
ISI Inspection Services Incorporated
MTBE Methyl tertiary-butyl ether

ND Not detected

OFD Oakland Fire Department, Hazardous Materials Unit

OFSA Oakland Fire Service Agency

pcf Pounds per cubic foot
PID Photo-ionization detector
PPE Personal protection equipment

ppm Parts per million RL Reporting Limit

R&M Environmental and Infrastructure Engineering, Inc.

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

UST Underground storage tank VOC Volatile organic compound

#### **EXECUTIVE SUMMARY**

#### S.1 PROJECT BACKGROUND AND OBJECTIVES

While excavating soil to construct a pad for a compressed natural gas (CNG) fueling station at a Port of Oakland-owned property located at 205/209 Brush Street in downtown Oakland, California, the construction contractor (Clean Energy, Seal Beach, CA) encountered soil that was darker in color and had a solvent-like odor. Based on this observation and the close proximity of the site to a location of former leaking underground storage tanks (UST; See Figure S-1), the impacted soil was considered to be possibly due a previous "unauthorized release" requiring an investigation to determine the nature and extent of contamination and, possibly, a remedial action, as required by regulations<sup>1</sup>. All excavation activities were thus halted (on April 16, 2007) pending such an investigation that consisted of collection and analysis of two soil samples from the impacted area. The analyses revealed the presence of certain volatile organic compounds (VOC), including acetone. The Port of Oakland (Port) undertook a removal action whereby the impacted soil within the footprint of the building pad was excavated to the water table. This removal action prevented further impacts to the groundwater from the contaminants in soil within the footprint of the building pad. The Confirmation soil samples were collected before the excavation was backfilled with clean imported backfill material and compacted. An estimated 200 cubic yards of impacted soil was taken to Altamont Landfill in Livermore, CA for disposal. The removal action was initiated on Wednesday, April 25, 2007 and was completed on Monday, April 30, 2007. The removal action had to be conducted very quickly to allow the construction activities to proceed as scheduled and to meet the target opening date of June 1, 2007 for the CNG Fueling Station project. Failure to meet this target opening date could have resulted in the loss of the Federal grant money for the project. The removal action was implemented by the Port's emergency response contractor, NRC Environmental Services, Inc. (NRC; Alameda, CA). Representing the Port, R&M Environmental and Infrastructure Engineering, Inc. (R&M) supported the project by providing field oversight and documentation including confirmation soil sampling and work site and perimeter air monitoring. This report, which has been prepared by

<sup>&</sup>lt;sup>1</sup> For example, California Code of Regulations, Title 23, Division 3, Chapter 16 Underground Tank Regulations, Article 5, October 13, 2005, requires the reporting and investigation of the cause, nature and extent of the "unauthorized release" and, if necessary, requires remedial action.

R&M, documents work performed and site observations made and presents and discusses the results of soil confirmation sampling and air monitoring.

# S.2 PREVIOUS SOIL AND GROUNDWATER SAMPLING IN THE GENERAL AREA

The CNG facility was constructed on a previous vacant asphalt-paved lot located in an area with many years of industrial use history. An adjacent parking lot on the north side formerly contained one 1,000-gallon capacity diesel UST and one 10,000-gallon capacity gasoline UST (See Figure S-1), which were removed by the Port in June 2003<sup>2</sup>. Soil samples collected at the time of removal showed high concentrations of petroleum hydrocarbons, benzene, toluene, ethylbenzene, and xylenes (BTEX) in some areas of the excavation. A previous subsurface investigation that had been conducted at this same general area had also indicated a high level of hydrocarbon contamination in the soil near the groundwater table and in the groundwater at one of the three locations sampled. Although no specific prior site investigation involving soil and groundwater sampling has been performed in the specific area where the CNG Fueling Station was being constructed, encountering pockets of subsurface contamination during excavation at this site would not be surprising given the historical industrial activities in the general area and the results of the above-cited soil and groundwater sampling in the adjoining area.

#### S.3 FIELD ACTIVITIES

Excavation and confirmation soil sampling were performed on April 25, 2007, the first day of field activities. An area of approximately 22 ft by 42 ft was excavated to near the groundwater table, a depth of approximately 7 ft below the ground surface (bgs). The excavated soil, representing an estimated in-place volume of about 200 yd<sup>3</sup> was temporarily stockpiled near the excavation and subsequently hauled off to Altamont Landfill in Livermore, CA.

From 2 ft. bgs to the floor of the excavation, the soil was fine grained with a grayish-black color. The especially black soil that was exposed in some areas of the excavation appeared to have heavy staining. However, upon closer inspection, little or no odor was present in most cases. Two soil samples collected from a distance of approximately 5 ft apart (See Figure S-2 for sampling locations) and placed in sealed plastic bags in the sun for approximately two hours had

headspace photoionization detector (PID) readings of 73 parts per million (ppm) and 3 ppm, respectively, indicating the wide variation in the soil VOC content for locations that were only a few feet apart.

A total of 11 confirmation samples were collected from the sidewalls and floor of the excavation before the excavation was backfilled (Figure S-2). The number of samples and the sampling locations were specified by a City of Oakland Hazardous Materials Inspector, who was present at the site to witness and direct the excavation and confirmation sampling. The samples were delivered to Curtis & Tompkins, Ltd., a State-certified analytical laboratory, for analysis for VOCs, Title 22 Metals, total petroleum hydrocarbons as diesel and as gasoline (TPH-g and TPH-d), and BTEX.

Imported Class 2 Aggregate Base material was used as the backfill material in the excavation. The emplaced material was compacted with sheep-foot compactors until field compaction tests indicated that a compaction density of close to 95% of the optimum had been achieved.

Prior to the start of field activities, and several times each day when the work was in progress, air monitoring, utilizing a PID, was done at and around the work site and site perimeter. Excavation work site breathing zone PID readings never exceeded an action level of 10 ppm for 1 minute with spikes not to exceed 25 ppm that had been called for in the site-specific health and safety plan for the project. PID readings and olfactory observations during excavation indicated odor emanating in certain locations when the soil was first exposed, but that the odor (and the PID reading) diminished quickly.

Throughout the duration of field activities, field crew exercised care to keep the work site clean and avoid allowing the material from the work area to be dragged outside the work area by the construction equipment. Areas where excavated soil or fresh backfill materials had been stockpiled were swept after the stockpiles had been removed. On Monday, April 30, the removal action crew demobilized from the site and Clean Energy resumed the CNG Fueling Station construction.

<sup>&</sup>lt;sup>2</sup> Underground Storage Tank Removal at 209 Brush Street, Oakland, CA prepared by Geomatrix Consultants, Inc., Oakland, CA, July 2003.

## S.4 ANALYTICAL RESULTS FOR CONFIRMATION SOIL SAMPLES

Analytical results indicated a non-hazardous waste classification for the soil samples with respect to metals concentrations. However, a few of the samples contained TPH-g and TPH-d and detected levels of certain VOCs as indicated in Table S-1 where the detected levels are listed and compared with environmental screening levels (ESL), where available.

The data in Table S-1 indicate high levels of xylenes (exceeding the ESL level) in at least two of the confirmation samples (RM-B4, and RM-S2); the TPH-g and TPH-d levels in these two samples and the TPH-g in sample RM-B2 also exceed the corresponding ESLs. The following observations can be made regarding the VOCs in some of the confirmation samples:

- Four of the 11 samples (i.e., 36% of the samples) were non-detect with respect to all 67 VOCs that were analyzed for via the indicated analytical method. These samples are RM-B2 and RM-B3 (two of the three soil samples collected from the excavation floor); RM-S2 (one of the three samples representing the southern excavation wall); and RM-N2 (one of the three samples collected from the northern excavation sidewall).
- Only one of the 67 VOCs was detected in four additional samples (i.e., an additional 36% of the samples). These samples are RM-N1, RM-N3, RM-E-1, and RM-W1. The one detected VOC in these samples is acetone (in samples RM-N3, RM-E1, and RM-W1) and naphthalene in RM-N1. The acetone concentrations (26 μg/kg, 31 μg/kg, and 39 μg/kg) are less than an ESL concentration of 500 μg/kg. Similarly, a naphthalene concentration of 24 μg/kg detected in RM-N1 is significantly below the ESL concentration of 1,500 μg/kg for naphthalene.
- Samples RM-S1 and RM-S3, the remaining two samples from the south sidewall, had, respectively, detectable levels of four and three of the 67 VOCs. These VOCs are acetone (140 μg/kg in RM-S1 and 70 μg/kg in RM-S3), 2-butanone (12 μg/kg in RM-S3), naphthalene (31 μg/kg in RM-S1 and 7.5 μg/kg in RM-S3), sec-butylbenzene (41 μg/kg in RM-S1), and propylbenzene (28 μg/kg in RM-S1).
- Only one of the 11 confirmation soil samples (i.e., RM-B4, one of the three samples collected from the floor of the final excavation at 7 ft bgs) contained fairly high levels of certain VOCs. These VOCs are, in addition to xylenes mentioned above, propylbenzene (13,000 μg/kg), 1,3,5-trimethylbenzene (21,000 μg/kg), and 1,2,4-trimethylbenzene (60,000 μg/kg).

This project has fully accomplished its objective of providing oversight and documentation of field activities for the removal action effort. Analytical results for the soil samples suggest a release to the soils at the approximate center of the excavation with possibly an extension of the release towards the south. The excavation, which extended to the groundwater surface, removed

a significant quantity of impacted soil, with only pockets of contamination remaining at the soil/groundwater interface. The impacted soil within the excavation area has been completely removed and replaced with clean backfill material. Because site characterization to delineate the lateral and vertical extent of contamination was not within the scope of this removal action oversight and documentation project, no such attempts involving collection and analysis of groundwater samples or soil samples at various locations and depths outside the excavation area were made. The following are recommendations for further work in concurrence with the local environmental oversight agency:

- a) Perform a Phase I Environmental Site Assessment (ESA) as an attempt to identify the historic land uses that could have contributed to a release.
- b) Perform a site investigation to fully characterize the extent of impacts to soils and the groundwater.
- c) Based on the findings from the ESA and investigation, assess the release(s) as a further threat to human health and the environment and report the findings to the local oversight agency.
- d) Perform remediation as required by the regulatory agency.

TABLE S-1

DETECTED VOLATILE ORGANIC COMPOUNDS AND COMPARISON OF DETECTED CONCENTRATIONS WITH ENVIRONMENTAL SCREENING LEVELS WHERE AVAIALBLE

See Figure 7 for sample locations

Analyte	Soil samples with detectable levels of indicated analyte									
	RM-B2	RM-B4	RM-S1	RM-S2	RM-S3		RM-N3		RM-W1	1
Petroleum hydrocarbons v	via EPA Mo	ethod 5030	)B/8015B	(mg/Kg)			•		•	
TPH-g	960	6,500		4,400						400
TPH-d		990		1,300						500
Xylenes		64,000		23,000						11,000
	Purg	eable orga	nics by G	C/MS; EP.	A Method:	5030B/826	0 (µg/Kg)			•
Acetone			140		70		39	26	31	500
Propylbenzene		13,000	28							-
1,3,5-Trimethylbenzene		21,000								-
1,2,4-Trimethylbenzene		60,000								_
Naphthalene			31		7.5	24				1,500
2-butanone			·		12					-
Sec-butylbenzene			41							_

Notes:

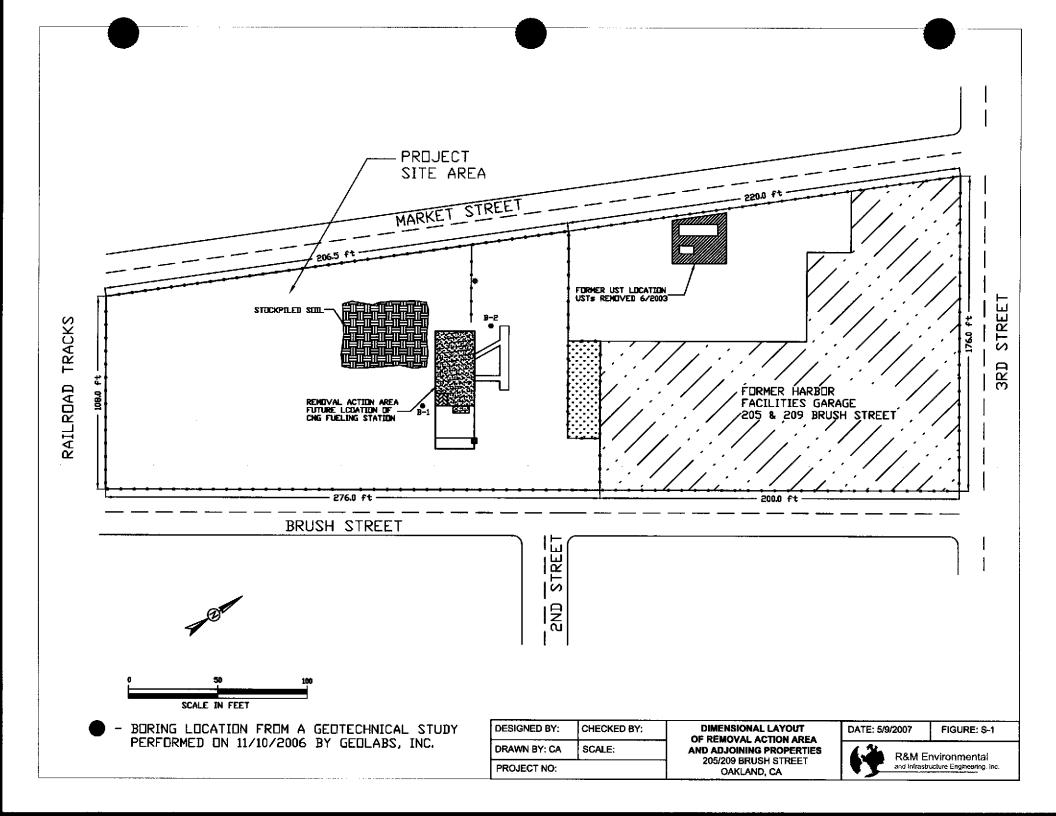
Sample designation:  $B = bottom of excavation (Sample depth <math>\sim 7$  ft below ground surface, bgs)

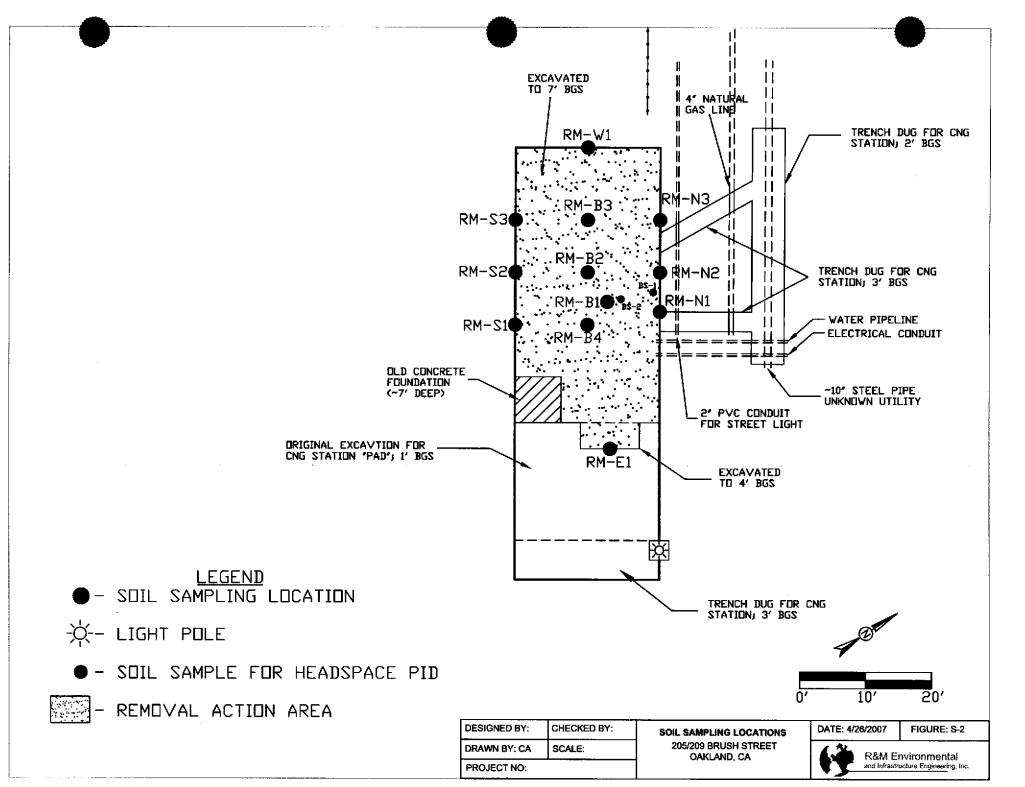
S, N, E, and W = south, north, east, and west walls of excavation (Sample depth  $\sim 3$  ft bgs)

TPH-g Total petroleum hydrocarbons as gasoline

TPH-d Total petroleum hydrocarbons as diesel

ESL = Environmental screening level; values are from Table B, 'ESLs Shallow Soils (< 3m bgs) Groundwater IS NOT a Current or Potential Source of Drinking Water' in "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater," document prepared by California Regional Water Quality Control Board, February 2005.





#### 1.0 INTRODUCTION

This report describes and documents a removal action that took place from April 25 through April 30, 2007, at a construction site located at 205/209 Brush Street, Oakland, California (See Figure 1, Location Map). An area of approximately 22 ft by 66 ft was under excavation to construct a concrete pad for a CNG fueling station. While excavating two shallow trenches through the pad for piping and conduits, the contractor noted that a segment of each trench contained soil that was darker in color and had a solvent-like odor. Based on this observation and the close proximity of the site to a location of former leaking underground storage tanks (See Figure 2), the impacted soil was considered to be possibly due a previous "unauthorized release" requiring an investigation to determine the nature and extent of contamination, as required by regulations<sup>1</sup>. All excavation activities were thus halted (on April 16, 2007) and the Port of Oakland was contacted. Photos #1 and #2 show the site as it appeared on April 20, 2007, prior to initiation of the removal action.

On April 16, 2007, Geolabs (Oakland, CA), a subcontractor, collected two samples of impacted soil from a location in one of the piping trenches. Figure 4 is a sketch showing the approximate location where the samples were collected. The samples were collected from depths of approximately 2 ft and 2.5 ft bgs. The soil samples were analyzed by Curtis & Tompkins, Ltd. (Berkeley, CA) for the following constituents via indicated methods:

Total petroleum hydrocarbons, as gasoline (TPH-g) EPA Method 8015B

Benzene, toluene, ehtylbenzene, and xylenes (BTEX) EPA Method 8021B

Total petroleum hydrocarbons, as diesel (TPH-d) EPA Method 8015B

Purgeable organics by GC/MS EPA Methods 5030B/8260B

Title 22 metals EPA Methods/6010/7000

Reports received from the laboratory are contained in Appendix B, with results summarized in Table 1. The laboratory findings indicated that VOCs, in particular acetone, may have been the causative agent for the solvent-like odor.

TABLE 1
ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED ON 4/16/07

Soil Sample	#1 mg/Kg	#2 mg/Kg	ESL <sup>1</sup>	STLC mg/L	TTLC mg/Kg
TITLE 22 METALS					
Antimony	ND<0.5	ND<0.5	40	15	500
Arsenic	1.5	1.6	5.5	5	500
Barium	73	55	1,500	100	10,000
Beryllium	0.17	0.17	8	0.75	75
Cadmium	ND<0.25	ND<0.25	7.4	1	100
Chromium	28	30.00	58	5	500*, 2500**
Cobalt	3.8	4.2	10	80	8,000
Соррег	8.3	6.1	230	25	2,500
Lead	19	1.7	750	5	1,000
Mercury	0.13	0.038	10	0.2	20
Molybdenum	ND<0.25	ND<0.25	40	350	3,500
Nickel	16	17	. 150	20	2,000
Selenium	ND<0.5	ND<0.5	10	1	100
Silver	ND<0.25	ND<0.25	40	5	500
Thallium	ND<0.5	ND<0.5	13	7	700
Vanadium	20	21	200	24	2,400
Zinc	21	14	600	250	5,000

#### Notes:

- 1) Samples collected by Geolabs on 4/16/2007 (see Figure 4 for sample location)
- 2) Sample No. 1 depth 2.0 feet bgs; Sample No. 2 depth = 2.5 feet bgs
- 3) Samples analyzed by Curtis and Tompkins, Ltd. (See Appendix B for laboratory report) ND = Not detected
- \* for Chromium (VI)
- \*\* for Chromiium (III)
- \* = ESLs from Table B, 'ESLs Shallow Soils (≤ 3m bgs) Groundwater IS NOT a Current of Potential Source of Drinking Water' in "'Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater," report prepared by California Regional Water Quality Control Board, February 2005.

# TABLE 1, Continued ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED ON 4/16/07

Soil Sample	Unit	#1	#2
<b>TPH</b> (8015B)	192 <b>8 12</b> 198	12. 14. 14. 14. 14. 14. 14. 14. 14. 14. 14	per est visite per est as well
Gasoline	mg/Kg	1.9	9.1
Diesel	mg/Kg	1,3	39
BTEX (8020)			
Benzene	μ <u>g</u> /Kg	<5.1	<5.1
Toluene	μg/Kg	7.4	<5.1
Ethylbenzene	μg/Kg	23	<5.1
Xylenes	μg/Kg	14	<5.1
Purgable Organics (8260B	3)		
Acetone	μg/Kg	54	27
2-butanone	μg/Kg	16	<9.4
Benzene	μg/Kg	5,2	<4.7
Total xylenes	μg/Kg	21.2	<4.7
Isopropylbenzene	μg/Kg	<4.7	7.4
Propylbenzene	μg/Kg	<4.7	9.2
1,3,5-trimethylybenzene	μg/Kg	8.1	5.6
1,2,4-trimethylbenzene	μg/Kg	22	7.5
Sec-butylbenzene	μg/Kg	<4.7	7.8
Para-isopropyl toluene	μg/Kg	<4.7	6
n-butylbenzene	μg/Kg	<4.7	5.1
Napthalene	μg/Kg	<4.7	14

#### Notes:

- 1) Samples collected by Geolabs on 4/16/2007 (see Figure 4 for sample location)
- 2) Sample No. 1 depth 2.0 feet bgs; Sample No. 2 depth = 2.5 feet bgs
- 3) Samples analyzed by Curtis and Tompkins, Ltd. (See Appendix B for laboratory report)

Based on field observations and soil sample analytical results, and at the direction of the City of Oakland Fire Department<sup>3</sup>, the Port directed NRC to undertake a removal action whereby the impacted soil within the footprint of the building pad was removed. Confirmation soil samples were collected by R&M from the floor and walls of the excavation before the excavation was backfilled with clean imported backfill material and compacted to the Port's specifications. The analytical results for the two soil samples collected on April 16, 2007 (Table 1) were used to profile the excavated soil as non-hazardous waste (under California and EPA standards). The

<sup>&</sup>lt;sup>3</sup> The City of Oakland Fire Department is a "Certified Unified Program Agency (CUPA)" that implements the State of California "Unified Program" on the local level. The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. The state agencies responsible for these programs set the standards for their program while local governments implement the standards. Cal/EPA oversees the implementation of the program as a whole.

excavated soil was taken to Altamont Landfill in Livermore, CA for disposal. The removal action was initiated on Wednesday, April 25, 2007, and the entire project, including excavation backfilling, compaction and disposal of the excavated materials, was completed on Monday, April 30, 2007.

Representing the Port, R&M supported the project by providing the following functions and services:

- Oversight of the removal action including documentation of field activities and observations;
- Design and enforcement of a health and safety program that included air quality monitoring in the work area and at the perimeter of the site to ensure worker safety and potential offsite migration of VOCs; and
- Preparation of this report that documents work performed, site observations, and results of soil confirmation sample analysis and of work site and perimeter air monitoring.

Table 2 lists the companies and organizations that were involved with or had input in the removal action project. The removal action had to be conducted quickly to allow the construction activities to proceed as scheduled and to meet the target opening date of June 1, 2007 for the CNG Fueling Station project. Failure to meet this target opening date could have resulted in the loss of the Federal grant money for the project.

TABLE 2

COMPANIES AND ORGANIZATIONS THAT WERE INVOLVED WITH OR HAD INPUT TO THE REMOVAL ACTION PROJECT AT 205/209 BRUSH STREET, OAKLAND, CA.

Company/Organization	Project Role and Responsibility
Port of Oakland	Site/land owner
City of Oakland, Oakland Fire Department, Hazardous Materials Unit, Fire Prevention Bureau	Inspector directing and witnessing excavation and confirmation soil sampling (See Appendix F for a copy of the inspection report)
Clean Energy (Seal Beach, CA)	Construction contractor for the CNG Fueling Station at 205/209 Brush Street
NRC Environmental Services (Alameda, CA)	Port's emergency response contractor who performed the subject removal action, including excavation, stockpiling of excavated materials, backfilling and compaction, importing clean backfill materials, and hauling off excavated materials for disposal at Altamont landfill in Livermore, CA
Geolabs, Inc. (Oakland, CA)	Subcontractor to Clean Energy performing the original soil sampling (on 04/16/07) and providing geotechnical services for compaction testing.
Inspection Services, Inc. (San Francisco, CA)	Subcontractor to Geolabs, providing field services for soil compaction testing
Dutra Materials (San Rafael, CA)	Supplying backfill materials (See Appendix E for specifications for backfill materials supplied)
Curtis & Tompkins, Ltd. (a state-certified analytical laboratory)	Soil sample analysis
R&M Environmental and Infrastructure Engineering, Inc.(Oakland, CA)	Port's contractor providing project oversight and documentation; work site and perimeter PID and odor monitoring; and preparation of this report

## 2.0 SITE DESCRIPTION AND BACKGROUND

## 2.1 PROJECT SITE LOCATION AND HISTORY

The construction site is a CNG Fueling Station in downtown Oakland. It was constructed on a previously vacant asphalt-paved lot. Figure 1 is a location map for the project site. The lot has a trapezoidal shape, with dimensions as indicated in Figure 5. The site fronts Market Street and Brush Street on two sides, with active railroad tracks on the south and a former Port maintenance

building ("Harbor Facilities Garage") and associated parking lot on the north (See Figure 5).

Although no historical documentation is available, some people have reported to the Port that this maintenance building may have previously housed a paint factory.

## 2.2 PREVIOUS ACTIVITIES AND INVESTIGATIONS

The adjacent parking lot on the north side of the project site formerly contained one 1,000-gallon capacity diesel UST and one 10,000-gallon capacity gasoline UST, which had been installed in 1987<sup>4</sup>. Their use was discontinued on April 12, 2002, and the USTs were excavated and removed by the Port in June 2003 under the oversight of the City of Oakland Certified Unified Programs Agency (CUPA).

The discontinuation of the use of USTs in 2002 and their removal in 2003 were at the direction of the Oakland Fire Service Agency (OFSA) after the USTs failed the annual tank monitoring test. Although soil samples collected at the time of the UST removal from the north and west sidewalls of the excavation contained very low or non-detect concentrations of TPH-d, TPH-g, and BTEX, these contaminants were found at higher levels in the soil samples from the east and south sidewalls. The highest concentrations found in the soil samples, were as follows:

11,000 mg/kg
620 mg/kg
57 mg/kg
880 mg/kg
270 mg/kg
1,510 mg/kg

Based on the above analytical results, additional excavation was performed along the east wall of the UST removal excavation pit. Soil samples from the east sidewall of the enlarged excavation showed significantly lower concentrations of TPH-g and TPH-d (less than 200 mg/kg) and BTEX (ranging from non-detect to 11 mg/kg). Analysis of one grab groundwater sample collected from pooled groundwater beneath the former diesel tank location detected the following concentrations:

<sup>&</sup>lt;sup>4</sup> "Underground Storage Tank Removal; 209 Brush Street, Oakland, CA", Report prepared for Port of Oakland by Geomatrix Consultants, Inc. (Oakland, CA), July 2003.

TPH-g	19,000 μg/kg
TPH-d	2,100 μg/kg
Benzene	610 μg/kg
Toluene	2,500 µg/kg
Ethylbenzene	700 μg/kg
Xylenes	3,430 µg/kg
Methyl tertiary-butyl ether	1,200 µg/kg

In November of 2006, Geolabs, Inc, under the direction of Clean Energy, performed a geotechnical study to determine the feasibility of the site for the CNG station.<sup>5</sup> Two borings were advanced at locations just northwest and southwest from the planned construction area (see Figure 5). Although the purpose of the work was geotechnical assessment, six soil samples were also collected from these borings and analyzed for petroleum hydrocarbons. The analytical results, presented in Table 3, indicated the presence of TPH-g, TPH-d, benzene, toluene and xylenes in low concentrations. These analytical results indicate minor petroleum hydrocarbon impact at locations just south and west of the excavation area (See figure 5).

TABLE 3,
ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED ON 11/10/06
(See Figure 4 for Sample Locations)

Soil Sample	(units)	1-1-3	1-2-4	1-3-3	2-2-3	2-3-4	2-4-3
TPH (8015B)							
gasoline	mg/Kg	ND<0.99	1.6 (H)(Y)	ND<0.94	ND<1.1	ND<1.0	ND<0.95
diesel	mg/Kg	1.4 (H)(Y)	15 (H)(L)(Y	ND<1.0	ND<1.0	15 (H)(Y)	ND<1.0
BTEX (8020)							
Benzene	μg/Kg	ND<5.0	ND<5.1	ND<4.7	ND<5.3	7.5	ND<4.8
Toluene	μg/Kg	ND<5.0	ND<5.1	ND<4.7	ND<5.3	7.6	ND<4.8
Ethylbenzene	μg/Kg	ND<5.0.	ND<5.1	ND<4.7	ND<5.3	ND<5.0	ND<4.8
m,p-Xylenes	μg/Kg	ND<5.0	ND<5.1	ND<4.7	ND<5.3	ND<5.0	ND<4.8
o-Xylenes	μg/Kg	ND<5.0	7.9 (C)	ND<4.7	ND<5.3	ND<5.0	ND<4.8

#### Notes:

Samples 1-1-3, 1-2-4 and 1-3-3 were taken from boring B-1, samples 2-2-3, 2-3-4 and 2-4-3 were taken from boring B-2

Samples collected by Geolabs on 11/10/2006 as part of a geotechnical study (see Figure 5 for sample location) Samples analyzed by Curtis and Tompkins, Ltd. (See Appendix B for laboratory report)

- (H) = Heavier hydrocarbons contributed to the quantitation
- (L) = Ligher hydrocarbons contributed to the quantitation
- (C) = Lighter gasoline range compounds (the most mobile fraction) are significant
- (Y) = Sample exhibits chromatographic pattern which does not resemble standard

<sup>5 &</sup>quot;Geotechnical Engineering Services Clean Energy CNG Fueling Station Second and Brush streets" Report prepared for Clean Energy by Geolabs, Inc. (Oakland, CA), December 18, 2006.

In summary, although no specific prior site investigation involving soil and groundwater sampling has been performed in the area where the CNG Fueling Station is being constructed, the historical industrial activities in the general area and the results of above-cited soil and groundwater sampling in the adjoining area support the possibility of encountering pockets of subsurface impacts.

#### 2.3 SITE GEOLOGY

Very limited site specific investigation work has been completed at the 205/209 Brush Street site. Therefore the information presented herein is a generalized discussion based upon direct observations during the removal action described in this report. The site at the beginning of construction was an unused parking lot located at the foot of Brush Street on the west side of the street and north of the Union Pacific Railroad tracks. The tracks generally demark the former Bay shoreline which may explain a thin clay layer noted in the top of the excavation which could be interpreted as Young Bay Mud. Below the clay layer, light brown clayey fine to medium-grained sands were encountered to the full depth of the removal, about 8 feet total depth. It is assumed the clayey sand material is the Merritt Sand.

Groundwater was barely encountered in the bottom of the excavation the next day following the removal action. The amount of water was too minor to sample; therefore the potential impacts are unknown. It is presumed the shallow groundwater flows to toward the Bay.

## 3.0 FIELD ACTIVITIES

The job-specific work plan and health and safety plan that had been prepared prior to start of field activities for removal action oversight and confirmation sampling are presented in Appendix H. Except for implementing a modified version of the planned air monitoring program, field activities generally followed the protocols described in these plans. The originally-proposed air quality monitoring was fairly elaborate and included air quality sampling using Summa canisters or Tedlar bags. However, initial perimeter and work site breathing zone air monitoring using a PID indicated the absence of measurable concentrations of VOCs to justify air sampling pursuant to the proposed protocol. Accordingly, only PID readings were used for air quality monitoring during field activities. Because of the short-duration of the operation, only one tailgate safety meeting was conducted (on the first day of field work on April 25, 2007); the tail gate safety

meeting form was signed by all who would be participating in field activities or present at the site to oversee the work.

Field activities for which oversight and work site and perimeter air monitoring were provided began on Wednesday, April 25, 2007, and were completed on Monday, April 30, 2007 (a total of 4 work days). Specific activities covered or performed on each day are listed in Table 4. Field activities, which are discussed below, fall into six categories: excavation and stockpiling; on-site management and off-hauling of excavated soils; confirmation sampling; backfilling and compaction (including compaction testing); air monitoring; and final site cleanup.

TABLE 4

## CHRONOLOGY OF FIELD ACTIVITIES

Date	Event
4/25/2007	Excavation and stockpiling.
	Performed 4 rounds of work site, stockpiled soil area, and excavation area odor/PID monitoring.
	Collected one soil sample from about the center of the excavation, when the excavation had reached a depth of approximately 5 ft bgs.
	Collection of 11 confirmation soil samples from the walls and floor of the 7-ft deep excavation at locations specified by the City of Oakland Hazardous Material Inspector.
	Delivered soil samples to the laboratory for analysis.
	• End-of-workday site cleanup (including covering of the soil stockpile with Visqueen® and placing barricades with caution tapes around the excavation).
4/26/2007	• Receipt of 200 yd³ (15 truckloads) of clean backfill material at the site.
	<ul> <li>Performed two rounds of work site, stockpiled soil area, and excavation area odor/PID monitoring.</li> </ul>
	Compaction of backfill material utilizing a John Deere CP-40 sheep-foot compactor.
	<ul> <li>Soil compaction tests performed at 5 ft. bgs, 4.5 bgs and 3.5 bgs.</li> <li>End-of-workday site cleanup.</li> </ul>
4/27/2007	Stockpiled soil hauled off to Altamont, CA landfill.
	Compaction of backfill material utilizing an Ingersoll-Rand SD-45 sheep-foot compactor.
	Performed one round of work site and excavation area odor/PID monitoring.
	Performed 4 rounds of stockpiled soil area odor/PID monitoring (prior and during removal of soil from site).
	Performed two soil compaction tests.
	End-of-workday site cleanup.
4/28/2007	SATURDAY: NO WORK PERFORMED
4/29/2007	SUNDAY: NO WORK PERFORMED
4/30/2007	Performed one round of work site odor/PID monitoring.
	Compaction of backfill material utilizing an Ingersoll-Rand SD-45 sheep-
	foot compactor.
	Performed three soil compaction tests.
	Unused backfill material removed from site.
	Final site cleanup and demobilization.

#### 3.1 EXCAVATION AND STOCKPILING ACTIVITIES

On Wednesday, April 25, 2007, R&M arrived at the site. The excavation area had been covered by the contractor with sheets of Visqueen® (plastic), weighed down with sandbags, and bordered with straw wattles (Photo #3). Some water from a recent rain had accumulated on the plastic cover. NRC workers removed the Visqueen® sheets and re-bordered the excavation area with straw wattles. The accumulated water was allowed to drain into the excavation and was subsequently worked into the soil that was excavated (Photo #4). The only storm drain on the site, located near an entrance gate on the Market Street side of the site, was bordered with a straw wattle weighed down with sandbags (Photo #5). NRC used a John Deere 225C excavator to perform the excavation and stockpiling (Photo #6).

Before the removal action began, R&M conducted air monitoring near the soil surface with a PID and a LEL/O<sub>2</sub>/H<sub>2</sub>S/CO meter in the excavation area in an attempt to delineate the areas of impact (Photo #7); neither instrument had any readings. Excavation began in the center of the pad area, between the two trenches. PID readings obtained near the newly exposed soil surface in this area and the odor that emanated from this area indicated the presence of VOCs in the soil.

After determining that the soil in the center of the excavation was impacted, a location further east within the excavation (Photo #8) was potholed to a depth of approximately 4 ft. bgs<sup>6</sup> in an attempt to delineate the lateral extent of soil contamination. PID readings and olfactory observations made in the hole did not indicate the presence of hydrocarbons, thus making the pothole the eastern edge of the excavation (Figures 6 and 7). Originally, the excavation was to extend to a depth of about 5 ft. bgs (Photo #6). At the direction of OFD Inspector, Mr. Keith Matthews, the area was excavated to near the depth of the groundwater table (Photo #13), or approximately 7 ft. bgs<sup>7</sup>.

The impacted soils from 2 ft. bgs to the floor of the excavation were fine grained with a grayish-black color (Photos #15). Some of the especially dark black soil that was exposed along the northeast corner of the excavation appeared to have heavy hydrocarbon staining (Photo #12). However, upon closer inspection, little or no odor was present in most cases. During the

<sup>&</sup>lt;sup>6</sup> All field measurements of excavation depths refer to depths below the original ground surface.

<sup>&</sup>lt;sup>7</sup> When the contractor returned to the site on the morning of April 26 to begin backfilling of the excavation, minor groundwater had seeped into and accumulated in the excavation (Photo #14).

excavation, two soil samples, collected from locations designated as BS-1 and BS-2 in Figure 7, were placed in plastic bags which were sealed and placed in the sun for headspace PID measurement. Headspace PID readings made after two hours for these two samples were 73 ppm and 3 ppm, respectively, indicating the wide variation in the soil VOC content for locations that were only a few feet apart.

#### 3.2 ON-SITE MANAGEMENT AND OFF-SITE HAULING OF EXCAVATED SOILS

The excavated soil was placed on a soil stockpile located west of the excavation. NRC prepared and extended the stockpile area by laying down additional Visqueen® sheets on the ground (Photo #13) and using straw wattles and sandbags on the perimeter. The dimensions of the final stockpile were approximately 36' X 47' X 8' and the stockpile was kept a minimum of 5 feet from the excavation area. After excavation activities were completed, the stockpile was covered with Visqueen® sheets (Photo #14) weighed down with sandbags.

Based on the measurements of the dimensions of the final excavation (Photo #9, Figure 6), R&M estimated an in-place excavation volume of approximately 200 yd<sup>3</sup>. On April 27, 2007, five trucks, making three trips each, were loaded with stockpiled excavation materials (Photo #15) which were hauled to Altamont Landfill (Livermore, CA). Prior to leaving the site, the trucks were covered with tarp (Photo #16).

The data from the analyses performed on the two samples collected by Geolabs, Inc. on April 16, 2007 (Table 1) were used to profile the excavated soils for disposal. The analytical results indicated a non-hazardous materials classification (according to California standards). Waste disposal manifests are located in Appendix G.

#### 3.3 CONFIRMATION SAMPLING

Confirmation samples were obtained from the sidewalls and floor of the excavation on April 25, 2007. Mr. Keith Matthews, City of Oakland Hazardous Materials Inspector, who was present at the site to witness and direct the excavation and confirmation sampling, specified the number of

samples and sampling locations. A total of 11 soil samples were collected<sup>8</sup>: 8 from the excavation walls (~3 ft bgs) and 3 were the floor of the excavation (7 ft bgs) – See Figure 7. Samples were collected from the excavator bucket<sup>9</sup> using 1.5" X 6" stainless steel tubes pushed by hand into the soil (Photo #17). The tube containing the sample was then capped with Teflon squares and plastic end caps and labeled with sample location designation, date and time of sample collection, and placed in a cooler on ice. The cooler containing the samples was delivered to Curtis & Tompkins, Ltd. (Berkeley, CA), a state-certified analytical laboratory, under chain-of-custody documentation. Field observations relating to the collected samples were documented in Excavation Sampling Logs that are presented in Appendix C.

#### 3.4 BACKFILING AND COMPACTION

The backfilling of excavation and compaction of the emplaced backfill material began on Thursday (April 26) and was completed on Monday (April 30). NRC secured the backfill material (Class 2 Aggregate Base – see Appendix E for product specifications) from Dutra Materials (San Rafael, CA), which delivered approximately 200 yd<sup>3</sup> (fifteen truck loads) of the material to the site on April 26, 2007 (Photo #18). A John Deere 544 loader was used to move the backfill material into and around the excavation (Photo #19). Water was sprayed onto the backfill material as it was placed into the excavation (Photo #20). Initially NRC used a one-ton self-propelled John Deere CP-40 sheep-foot compacter to compact the emplaced material (Photo #21). However, field compaction tests (Photo #22) performed on April 26 indicated that this compactor did not produce a compaction density of close to the desired 95% level. On April 27, NRC replaced the compactor with a 5-ton self-propelled Ingersoll-Rand SD-45 sheep-foot unit (Photo #23).

As noted in Table 2, field compaction tests were performed by Inspection Services, Inc. (ISI). ISI performed a total of seven compaction tests: three on April 26 at backfill placement depths of approximately 3.5 ft, 4.5 ft, and 5 ft.; two on April 27 at a backfill placement depth of approximately 2 ft bgs; and two on April 30 at final compacted surface of approximately 0.5 ft bgs. The latter four tests, which were performed after a significant amount of additional

<sup>&</sup>lt;sup>8</sup> Initially when an excavation depth of 5 ft bgs was being contemplated, one soil sample (RM-B1) was collected from the floor of excavation at this depth. This sample was not discarded, but rather was sent to the laboratory for analysis along with the 11 confirmation samples collected later when the excavation was extended to a depth of 7 ft. bgs

<sup>&</sup>lt;sup>9</sup> Sampling personnel did not enter the excavation per safety requirements.

compaction had been performed using the heavier, 5-ton Ingersoll-Rand SD-45 sheep foot compactor, indicated achievement of a compaction density of 93%. Photo #24 shows the site appearance on April 30, 2007, when it was handed over to the contractor to resume its CNG Fueling Station construction.

On Thursday, May 11, 2007, R&M received the final compaction testing report from Geolabs, Inc. The report, presented in Appendix E, indicates that a 95% compaction had been achieved, based on the moisture-dry density curve that was developed using an actual sample of the backfill material that had been delivered to the site (instead of the curve that had been obtained form the Duta Materials for their general Class II Aggregate Base). Table 5 summarizes the results excerpted from the report contained in Appendix E.

Only 12 of the 15 truckloads of the backfill materials delivered to the site were used in backfilling the excavation. The excess/unused clean backfill material, which had been stockpiled near the western fence, was hauled off in three truckloads by NRC to its yard in Point Molate on April 30, 2007 as part of final site cleanup and demobilization.

TABLE 5
COMPACTION TEST RESULTS
(See Appendix E for Compaction Report)

Test #	Test date	General Location	Elevation	Moisture (%)	Dry Density (pcf)	Reference Curve	Relative Compaction	Specified Compaction (%)	Probe Depth (inches)
1	4/26/07	CNG Fueling Station Lift 3	Subgrade	6.7	121.7	L-36149	89	95	8
2	4/26/07	CNG Fueling Station Lift 2	Subgrade	7.6	120.3	L-36149	89	95	8
3	4/26/07	CNG Fueling Station Lift 1	Subgrade	6.5	116.5	L-36149	85	95	8
1	4/27/07	CNG Fueling Station 6" below FSG	Subgrade	6.8	134.0	L-36149	98	95	8
2	4/27/07	CNG Fueling Station 6" below FSG	Subgrade	7.5	133.5	L-36149	97	95	8
1	4/30/07	CNG Fueling Station	Finish Subgrade	7.1	130.4	L-36149	95	95	8
2	4/30/07	CNG Fueling Station	Finish Subgrade	5.9	130.2	L-36149	95	95	8

#### 3.5 AIR MONITORING

Air monitoring, utilizing a PID, was performed by R&M at and around the work site area, including near the excavation, soil stockpile, and site perimeter. The monitoring results are presented in Table 6. During excavation activities on April 25, 2007, two PID instruments were used to continuously monitor the excavation area, freshly stockpiled soil, and the breathing zone (~5 ft above ground surface). PID readings never exceeded an action level of 10 ppm for 1 minute with spikes not to exceed 25 ppm that had been called for in the site-specific health and safety plan for the project. PID readings and olfactory observations during excavation indicated odor emanating in certain locations when the soil was first exposed, but that the odor (and the PID reading) diminished quickly.

To confirm observations made during excavation that freshly exposed impacted soils emanated odor which quickly faded away, stockpiled soil PID readings (Photo #25) were made after agitating the stockpile with a shovel or foot and then immediately placing the PID near (< 1 ft) the area of disturbance. Results from stockpiled soil monitoring spiked as high as 1,260 ppm, with readings generally in the 0-50 ppm range. During the loading of stockpiled soil into trucks on April 27, 2007 for removal to the Altamont landfill (Livermore, CA), strong hydrocarbon odors were present downwind. However, breathing zone PID readings never exceeded the action levels requiring curtailment of operation.

After the stockpiled soil was removed from the site and backfilling operations commenced, PID monitoring and olfactory observations did not indicate the presence of hydrocarbons onsite. The site is located in an industrial area containing various emission sources. For example, on the early morning of April 25 before any site work had begun, there was a strong stockyard odor in the area as a truck loaded with cattle had made a temporary stop adjacent to the site on Market Street, before heading north on Market Street (Photo #26).

TABLE 6
FIELD PID READINGS

Time	PID Reading (PPM)	Comments
,·····.		4/25/2007
7:01	0.0	Site perimeter, excavation perimeter walk.
7:45	0.0	Stockpiled soil from earlier excavation.
8:32	20.9	Reading spike during backhoe operation.
8:47	40.3	Spike during excavation near original trenches, downwind from excavation.
		Readings are fluctuating, spike lasted for only a few seconds. Reading
		taken approximately 1 foot above ground surface at excavation area.
8:49	79.8	Spike at area between original trenches, downwind from excavation.
		Readings are fluctuating, spike lasted for only a few seconds. Reading
		taken approximately 1 foot above ground surface at excavation area.
8:50	0.0	At breathing level next to excavation (5 ft above ground surface).
8:52		Pattern appears to be: when the backhoe digs/agitates soil, odor becomes
		stronger, PID readings spike. Odor fades to less strong level fairly quickly.
8:56	0-5	Reading constant at breathing level, near/downwind from excavation, strong
		odor is now continually present.
9:01	0.0	Site perimeter.
9:06	29.6, 19.8	From freshly stockpiled soil, spikes appear when you agitate soil.
9:45	0-2.2	Odor/PID site walk. Odor and PID readings generally confined to area
		downwind from excavation.
10:10	15.8	Spike, during backhoe excavation.
10:29	0-5.3	Odor/PID site walk. Odor and PID readings generally confined to area
		downwind from excavation.
10:50	73.0	Collection of soil sample for headspace PID (BS-2).
10:51	3.0	Collection of soil sample for headspace PID (BS-1).
11:31	0-21.8	Odor/PID site walk: odor and PID readings generally confined to area
		downwind (north) of excavation. Odor and PID readings are strong.
11:48	0-0.7	Stockpiled soil, readings low, didn't agitate soil, just held PID close to soil,
		as Rafael walked around.
12:06	0.0	PID reading during excavation.
12:10	0-5.7	Afternoon digging: odor present, reading made at breathing level.
12:17	19.1	Spike during excavation, downwind (north) of excavation.
12:46	0-5.0	Northwest edge of excavation area seems to be boundary of contamination
		zone, due to low average PID readings, compared to the middle of
		excavation.
12:58	0-2.0	Odor/site walk: odor and PID readings generally confined to area downwind
		(north) of excavation, odor is less strong than earlier in the day.
		4/26/2007
7:55	0.0	Before any excavation/filling activity: site walk, slight hydrocarbon odor
10.07	0.0	present downwind (north) of excavation.
10:26	0.0	Loader (John Deere 544) moving new material into excavation, slight
		hydrocarbon odor present, performed site walk, odor confined to area
10.55	0.2.0	downwind (north) of excavation.
12:55	0-3.0	Used PID on covered stockpile, lifted tarp at the edges to reach soil.
6.50	0.0	4/27/2007
6:58	0.0	PID site walk, upwind/downwind from excavation.
7:05	0.0	PID reading of stockpiled soil, agitated several areas around stockpile.

#### TABLE 6, Continued

#### FIELD PID READINGS

7:56	5-10ppm; spike of 28.2 ppm	PID reading for stockpile area where soil was removed by loader, strong hydrocarbon odor.
8:40	208	Stockpile PID check: agitated dirt with foot, did this to area newly exposed by loader.
11:45	Average ≅50ppm; spikes of 554, 756, 1260ppm	PID reading on stockpiled soil, used shovel to dig into stockpile. Strong hydrocarbon odor.
12:42	20-100ppm	Loader moving stockpiled soil around, hydrocarbon odor present. Readings taken close to stockpile (within ~1 ft).
		4/30/2007
8:50	0.0	Site odor/PID walk, no hydrocarbon odor.

Note: the LEL/O<sub>2</sub>/H<sub>2</sub>S/CO meter utilized on 4/25/2007 onsite indicated no presence of methane, carbon monoxide, or hydrogen sulfide. The atmospheric oxygen content ranged from 20.5% to 20.9%.

#### 3.6 FINAL SITE CLEANUP

Care was exercised by the field crew to keep the work area clean and prevent material from the work area being dragged by the construction equipment (Photos #27 and #28). Areas where excavated soil or fresh backfill materials had been stockpiled were swept and the sweepings placed into the final truck load that was taken offsite.

Equipment used in site work did not cause any damage to the existing paved surfaces or nearby structures (e.g., fences) outside the originally designated construction area which would have required repair or replacement. In addition to daily site cleanup, a final site cleanup was done on Monday, April 30, at the conclusion of field activities and prior to demobilization. Construction debris, small tools, left-over supplies, and construction equipment (i.e., excavator, loader, and compactor) were removed from the site.

#### 4.0 ANALYTICAL RESULTS FOR CONFIRMATION SOIL SAMPLES

The analytical results for confirmation soil samples collected on April 25, 2007 are presented in Appendix B and are summarized in Tables 7 and 8. A discussion of analytical results and their significance follows.

Table 7 presents the concentrations of Title-22 metals, TPH-g, TPH-d, and BTEX in the soil samples and compares these concentrations with applicable ESLs. High levels of xylenes (exceeding the ESL level) are present in at least two of the confirmation samples (RM-B4, and RM-S2); the TPH-g and TPH-d levels in these two samples and the TPH-g in sample RM-B2 also exceed the corresponding ESLs. These values are also significantly higher than the corresponding values shown in Table 1 for the two shallow soil samples that Geolabs had collected on April 16. In sample RM-B1, the presence of chromium (chromium III) was indicated in a concentration (57 mg/Kg) greater than 10 times the soluble threshold limits concentration (STLC) of 5 mg/Kg. A waste that contains a constituent at a concentration in mg/Kg which is less than its listed total threshold limits concentration (TTLC; chromium TTLC = 500 mg/Kg), may or may not be a California hazardous waste, depending whether or not the waste extraction test (WET) results indicates a concentration above or below the listed STLC. No further investigation was done to assess the extent of chromium impact at the site.

VOC analytical results for the confirmation soil samples collected on April 25 (see Figure 7 for sample locations) are presented in Table 8. The data indicate the following:

- Four of the 11 samples (i.e., 36% of the samples) were non-detect with respect to all 67 VOCs that were analyzed via the indicated analytical method. These samples are RM-B2 and RM-B3 (two of the three soil samples collected from the excavation floor); RM-S2 (one of the three samples representing the southern excavation wall); and RM-N2 (one of the three samples collected from the northern excavation sidewall).
- Only one of the 67 VOCs was detected in four additional samples (i.e., an additional 36% of the samples). These samples are RM-N1, RM-N3, RM-E-1, and RM-W1. The one detected VOC in these samples is acetone (in samples RM-N3, RM-E1, and RM-W1) and naphthalene in RM-N1. The acetone concentrations (26 μg/kg, 31 μg/kg, and 39 μg/kg) are less than an ESL concentration of 500 μg/kg. Similarly, a naphthalene concentration of 24 μg/kg detected in RM-N1 is significantly below the ESL concentration of 1,500 μg/kg for naphthalene.
- Samples RM-S1 and RM-S3, the remaining two samples from the south sidewall, had, respectively, detectable levels of 4 and 3 of the 67 VOCs. These VOCs are acetone (140 μg/kg in RM-S1 and 70 μg/kg in RM-S3), 2-butanone (12 μg/kg, in RM-S3), naphthalene (31 μg/kg in RM-S1 and 7.5 μg/kg in RM-S3), sec-butylbenzene (41 μg/kg in RM-S1), and propylbenzene (28 μg/kg in RM-S1).
- Only one of the 11 confirmation soil samples (i.e., RM-B4, one of the three samples collected from the floor of the final excavation at 7 ft bgs) contained fairly high levels of certain VOCs. These VOCs are, in addition to xylenes mentioned above, propylbenzene (13,000 μg/kg), 1,3,5-trimethylbenzene (21,000 μg/kg), and 1,2,4-trimethylbenzene (60,000 μg/kg).

In light of the above considerations and the field observations, the data presented in Tables 7 and 8, suggest (a) no impacted (or significantly impacted) soil remain along the four excavation sidewalls, and (b) some pockets of contamination remain at the soil/groundwater interface. The contamination remaining at or near the groundwater surface, however, exists in spots rather than extends uniformly over the base of excavation. However, all contamination previously present in the soil above the groundwater table in the project area has now been completely removed and replaced with clean backfill material.

The data for TPH-g, TPH-d and xylenes in soil at locations sampled are shown in Figures 8, 9, and 10, respectively. These figures suggest a release to the soils at the approximate center of the excavation with possibly an extension of the release towards the south. Further investigation is needed to delineate the extent of the problem. Test data for soil analyses are interpreted as identification of release of petroleum hydrocarbons as gasoline and diesel products and petroleum compounds including BTEX plus acetone and various benzene based chemicals. The data indicate a non-California hazardous waste classification for the soil samples with respect to metals concentrations.

#### 5.0 CONCLUSIONS AND RECOMMENDATIONS

This report documents the localized removal action taken by the Port to mitigate an unanticipated environmental release discovered during a construction project. Our conclusions are as follows:

- 1. Petroleum-impacted soil was removed from beneath the footprint of an equipment pad thereby mitigating a hazard to the construction crew so work could continue; and
- 2. The threat of a release of contaminants from the impacted soil to the environment was mitigated by the removal action.

The following are our recommendations for further work in concurrence with the local environmental oversight agency:

- a) Perform a Phase I Environmental Site Assessment (ESA) as an attempt to identify the historic land uses that could have contributed to a release;
- b) Perform a site investigation to fully characterize the extent of impacts to soils and the groundwater;

- c) Based on the findings from the ESA and investigation, assess the release(s) as a further threat to human health and the environment and report the findings to the local oversight agency.
- d) Perform remediation as required by the regulatory agency.

TABLE 7 SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS: TITLE 22 METALS, TPH, BTEX

(See Appendix B for analytical laboratory reports) Sampling performd on April 25, 2007

ээнринд рөгөлти он Ария 25, 2007														mits for	j
	5 ft bgs		7 ft bgs	-	3 ft bgs									dous Waste	ł
Sample	RM-B1	RM-B2	RM-B3	RMAB4	RM-S1	RM-S2	RM-53	RM-N1	RM-N2	RM-N3	RMET	RM-W1			ESLA"
Title 26 Metals (mg/Kg)														mg/Kg	
Antimony	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.6	ND<0.5	ND<0.5	1	5 500	
Arsenic	3.9	1.5	1.9	2.9	2.3	2.3	1,7	1.8	1.3	1	1.3	2.2		5 500	
Barium	26	53	51	59	58	60	75	61	45	50	59	71	10	0 10,000	15
Beryllium	0.25	0.15	0.21	0.23	0.19	0.18	0.15	0.17	0.14	0.15	0.17	0.21	0.7	5 75	
Cadmium	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25		1 100	7
Chromium	<b>10.</b>	25	33	33	35	31	26	28	24	26	25	24		5 2500	
Cobalt	5.6	3.1	3.7	6.3	4	3.7	3.2	3.3	2.9	3.2	3.2	3.8	8	8000	
Copper	20	5.9	7.9	8.2	.7.4	24	6.3	6.3	5	5.2	5.9	8.5	2		2
Lead	4.2	1,5	1.5	1.8	1.7	14	4.2	2	1.9	2	5.8	35		1,000	7:
Mercury	0.022	0.041	0.13	0.024	0.033	0.19	0.029	ND<0.02	ND<0.21	ND<0.25	0.058	0.1	0.	2 20	
Molybdenum	1.2	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	0.28	35	3500	
Nickel	37	14	23	26	21	18	15	16	14	15	12	15	2	2000	1:
Selenium	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND,0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5		1 100	
Silver	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25		5 500	
Thallium	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5		7 700	
Vanadium	47	20	26	27	24	22	19	20	18	19	18	17	2	2400	20
Zinc	42	14	18	18	17	31	18	16	14	14	16	26	25	5,000	6
TPH (mg/Kg)															mg/Kg
Gasoline (C7-C12)	4,500 Y	960 Y	ND<1.0	6,500 Y	14 H,Y	4,400 Y	4.4 Y	190 H.Y	6.4 H,Y	ND<1.0	ND<0.95	3.6 H,Y			4
Diesel (C10-C24)	800 L,Y	110 L,Y	1.2 L,Y	990 L,Y	83 H,L,Y	1,300 H,L,Y	12 H,L,Y	61 H,L,Y	5.7 L Y	ND<1.0	ND<1.0	16 H,L,Y			5
STEX (µg/Kg)															μg/Kg
Benzene	ND<500	ND<130	ND≺5.0	ND<1,000	ND<4.8	ND<500	ND<5.1	ND<130	11	ND<5.0	ND<4.8	ND<5.0			3.8
Toluene	ND<500	ND<130	ND<5.0	ND<1,000	ND<4.8	ND<500	ND<5.1	ND<130	ND<5.2	ND<5.0	ND<4.8	ND<5.0			9.3
Ethylbenzene	ND,500	ND<130	ND<5.0	ND<1,000		ND<500	ND<5.1	1.700 C	ND<5.2	ND<5.0	ND<4.8	ND<5.0			32.00
Xylenes (m,p)	8,000 C	ND<130	ND<5.0	30,000	ND<4.8	ND<500	ND<5.1	ND<130	9.4 C	ND<5.0	ND<4.8	ND<5.0			~
o-Xylene	24,000	4,400	ND<5.0	34,000	69	23,000	28	ND<130	36 C	6.1 C	ND<4.8	15			-
Xylenes (m,p,o)	32,000 C	4,400	ND<5.0	64,000	69	23,000	28	ND<130	45.4 C	6.1 C	ND<4.8	15			11,00

230

750

150

200

600 mg/Kg 400

32,000

11,000

#### Sample Designations:

RM = R&M Environmental and Infrastructure Engineering, Inc.

S = south wall of excavation, N = north wall of excavation, E = east well of excavation, W = west wall of excavation, B = bottom of excavation (See Figure 7; Sampling Locations)

TPH = Total petroleum hydrocarbons

BTEX = Benzene, toluene, ethylbenzene, and xylenes

STLC = Soluable Threshold Limits Concentrations

TTLC = Total Threshold Limits Concentrations

ESL = Environmental Screening Level

ND = Not detected

\* = ESLs from Table B., 'ESLs Shallow Soils ( < 3m bgs) Groundwater IS NOT a Current or Potential Source of Drinking Water,' in \* Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater" document prepared by California Regional Water Quality Control Board, February 2005.

- Y = Sample exhibits chromatographic pattern which does not resemble standard
- H = Heavier hydrocarbons contributed to the quantitation
- C = Presence confirmed, but RPD between columns exceeds 40%
- L = Lighter hydrocarbons contributed to the quantitation

Samples analyzed by Curtis and Tompkins

= sample exceed soluble threshold limits concentration (STLC)

TABLE 8 SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (See Appendix B for Analytical Laboratory Reports)
sampling performed on April 25, 2007

sampling performed on April 25, 2007  5 ft bgs 7 ft bgs 3 ft bgs													ı
Sample	RABI	FALEZ		RM-84	SALC+1	RM-S2	514.52			BX 615	1.0018526	RM-W	ESLs*
Purgable Organics by GC/MS (µg/Kg)	- 190 CT	159-04	Lastano	1 100-0-	- SANTER E	1 PARTIES.	: run ou	I manus I	I MMARE	(Carried	I marie	Transfer.	µg/Kg
Freon 12	ND<10,000	ND<20,000	ND<9.4	ND<20,000	ND<50	ND<10.000	ND<9.8	ND<9.3	ND<250	ND<9.3	ND<10	ND<9.6	1
Chloromethane	ND<10,000	ND<20,000	ND<9.4	ND<20,000	ND<50	ND<10,000		ND<9.3	ND<250	ND<9.3	ND<10	ND<9.6	20
Vinyl Chloride	ND<10,000	ND<20.000	ND<9.4	ND<20,000	ND<50	ND<10,000		ND<9.3	ND<250	ND<9.3	ND<10	ND<9.6	1.
Bromomethane	ND<10,000	ND<20,000	ND<9.4	ND<20,000	ND<50	ND<10,000		ND<9.3	ND<250	ND<9.3	ND<10	ND<9.6	51
Chloroethane	ND<10,000	ND<20,000	ND<9.4	ND<20,000	ND<50	ND<10,000	ND<9.6	ND<9.3	ND<250	ND<9.3	ND<10	ND<9.6	85
Trichlorofluoromethane	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	
Acetone	ND<25,000	ND<50,000	ND<24	ND<50,000	140	ND<25,000	70	ND<23	ND<630	39	26	31	50
Freen 113	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	
1. 1-Dichloroethene	ND<5,000	ND<10,000	ND<4.7	ND<10.000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	89
Methylene Chloride	ND<20,000	ND<40,000	ND<19	ND<40,000	ND<100	ND<20,000	ND<19	ND<19	ND<500	ND<19	ND<20	ND<19	1,50
Carbon Disulfide	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	
МТВЕ	ND<5.000	ND<10.000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	5,60
trans-1, 2-Dichloroethene	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.8	ND<130	ND<4.6	ND<5	ND<4.8	7,30
Vinyl Acetate	ND,50,000	ND<100,000	ND<47	ND<100,000	ND<250	ND<50,000	ND<48	ND<46	ND<1.300	ND<46	ND<50	ND<48	-,,,,
1, 1-Dichloroethane	ND<5.000	ND<10	ND<4.7	ND<10,000	ND<25	ND<5.000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	
2-Butanone	ND<10.000	ND<20.000	ND<9.4	ND<20.000	ND<50	ND<10.000	12	ND<9.3	ND<250	ND<9.3	ND<10	ND<9.6	
cis-1, 2-Dichloroethene	ND<5.000	ND<10.000	ND<4.7	ND<10.000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	3,60
2, 2-Dichloropropane	ND<5,000	ND<10,000	ND<4.7	ND<10.000	ND<25	ND<5.000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	
Chloroform	ND<5,000	ND<10.000	ND<4.7	ND<10.000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	1,90
Bromochloromethane	NO<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	
1,1,1-Trichloroethane	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5.000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	7,80
1,1-Dichloropropene	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	
Carbon Tetrachloride	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	3
1,2-Dichloroethane	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	70
Benzene	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.8	ND<5	ND<4.8	38
Trichloroethane	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.8	ND<5	ND<4.8	73
1,2Dichloropropane	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	14
Bromodichloromethane	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	3
Dibromomethane	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	2
4-Methyl-2-Pentanone	ND<10,000	ND<20,000	ND<9.4	ND<20,000	ND<50	ND<10,000	ND<9.6	ND<9.3	ND<250	ND<9.3	ND<10	ND<9.6	_
cis-1,3-Dichloropropene	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	_
Toluene	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	9,30
trans-1,3-Dichloropropene	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	9
1,1,2-Trichloroethane	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	8
2-Hexamone	ND<10,000	ND<20,000	ND<9.4	ND<20,000	ND<50	ND<10,000	ND<4.8	ND<9.3	ND<250	ND<4.6	ND<10	ND<9.6	
1,3-Dichloropropane	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<9.3	ND<5	ND<4.8	_
Tetrachloroethene	ND<5,000	ND<10,000	ND<4.7	ND<10,000	ND<25	ND<5,000	ND<4.8	ND<4.6	ND<130	ND<4.6	ND<5	ND<4.8	

Sample Designation: Example RM-S1

RM = R&M Environmental and Infrastructure Engineering, Inc.

ND = Not detected

- Y = Sample exhibits chromatographic pattern which does not resemble standard
- H = Heavier hydrocarbons contributed to the quantitation
  C = Presence confirmed, but RPD between columns exceeds 40%
- L = Lighter hydrocarbons contributed to the quantitation

Samples analyzed by Curtis and Tompkins, Ltd.

S1 = Location designation/Sample number (See Figure 7)

<sup>\* =</sup> ESLs from Table B., 'ESLs Shellow Soils (< 3m bgs) Groundwater IS NOT a Current or Potential Source of Drinking Water,' in "Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater" document prepared by California Regional Water Quality Control Board, February 2005.

# TABLE 8 SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (See Appendix B for Analytical Leboratory Reports)

sampling performed on April 25, 2007 5 ft bgs 7 ft bgs 3 ft bgs RALE RM-62 RM-63 RM-84 RM-S1 RM-S2 RM-S3 RM-N1 RM-N2 RM-N3 RM-N3 RM-W1 ampie Purgable Organics by GC/MS (µg/Kg) µg/Kg Dibromochloromethane ND<5.000 ND<10,000 ND<4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.8 ND<130 ND<4.6 ND<5 ND<4.8 1.2-Dibromoethane ND<5,000 ND<10,000 ND<4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.8 ND<130 ND<4.6 ND<5 ND<4.8 Chlorobenzene ND<5,000 ND<10,000 ND<4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<5 ND<4.8 1,500 1,1,1,2-Tetrachloroethane ND<10,000 ND<10,000 ND<5,000 ND<4.7 ND<25 ND<5,000 ND<4.8 ND<4.8 ND<130 ND<4.6 ND<5 ND<4.8 6,900 Ethylbenzene ND<10,000 ND<5,000 ND<10,000 ND<4.7 ND<25 ND<130 ND<5,000 ND<4.8 ND<4.6 ND<4.6 ND<5 ND<4.8 32,000 33,000 m,p-Xylenes ND<5,000 ND<10,000 ND<4.7 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<5 ND<4.8 o-Xylenes ND<5,000 ND<10,000 ND<4.7 ND<10,000 ND<130 ND<4.8 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<4.6 ND<5 Xylenes-m,p,o 11,000 -Styrene ND<5.000 ND<10.000 ND <4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<5 ND<4.8 15,000 Bromoform ND<5,000 ND<10,000 ND<4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<5 ND<4.8 69,000 5,300 Isopropylbenzene ND<10,000 ND<4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<5 ND<4.8 1,1,2,2-Tetrachloroethane ND<5,000 ND<10,000 ND<4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<5 ND<4.8 1,2,3-Trichloropropane ND<5,000 ND<10.000 ND <4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 NIT <4.6 ND<130 ND<4.6 ND<5 ND<4.8 Propylbenzene 7,800 ND<10,000 ND<4.7 13,000 28 ND<5,000 ND<4.B ND<4.6 ND<130 ND<4.6 ND<5 ND<4.B ND<5,000 Bromobenzene ND<10,000 ND<4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<5 ND<4.8 1,3,5-Trimethylbenzene 6,300 ND<10,000 ND<4.7 21,000 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<4.B ND<5 -Chlorotoluene ND<5,000 ND<10,000 ND<4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<5 ND<4.8 l-Chlorotoluene ND<5.000 ND<4.7 ND<10,000 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<5 ND<4.8 \_ ND<10,000 ert-Butylbenzene ND<5,000 ND<10,000 ND<4.7 ND<25 ND<130 ND<5,000 ND<4.8 ND<4.6 ND<4.6 ND<5 ND<4.8 1,2,4-Trimethylbenzene 24,000 ND<10,000 ND<4.7 60,000 ND<25 ND<5.000 ND<4.8 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<5 sec-Butylbenzene ND<5,000 ND<10,000 ND<4.7 ND<10,000 41 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 NO<5 ND<4.8 para-Isopropyl Toluene ND<5.000 ND<10,000 ND<4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<5 ND<4.8 1.3-Dichlorobenzene ND<5,000 ND<10,000 ND<4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.8 ND<5 ND<4.8 7,400 1.4-Dichlorobenzene ND<5,000 ND<10,000 ND<4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<5 ND<4.8 130 n-Butylbenzene ND<5,000 ND<10,000 ND<4.7 ND<10,000 ND<130 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<4.6 ND<5 ND<4.8 1,2 Dichlorobenzene ND<5,000 ND<10,000 ND<4.7 ND<10,000 ND<25 1,600 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<5 ND<4.8 1,2-Dibromo-3-Chloropropane ND<5,000 ND<10,000 ND<4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.6 ND<5 ND<4.8 4.5 1,2,4-Trichlorobenzene ND<5,000 ND<10,000 ND<4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.8 ND<130 ND<4.6 ND<5 ND<4.8 1,000 Hexachlombutadiene ND<5,000 ND<10,000 ND<4.7 ND<10,000 ND<25 ND<5,000 ND<4.8 ND<4.6 ND<130 ND<4.8 ND<4.8 22,000 ND<5

Sample Designation: Example RM-S1

RM = R&M Environmental and Infrastructure Engineering, Inc.

S = south wall; N = north wall; E = east wall; W = west wall (See Figure 7)

ESL = Environmental Screening Level

ND = Not detected

1,2,3-Trichlorobenzene

Napthalene

\* = ESLs from Table B., 'ESLs Shallow Solls (≤ 3m bgs) Groundwater IS NOT a Current or Potential Source of Drinking Water,' in "Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater" document prepared by California Regional Water Quality Control Board, February 2005.

31

ND<25

ND<5,000

ND<5.000

7.5

24

ND<4.8 ND<4.8 ND<130 ND<4.8

ND<130

ND<4.6

ND<5

ND<5

ND<4.8

ND<4.8

1,500

ND<10,000

ND<4.7

ND<10,000 ND<4.7 ND<10,000

Y = Sample exhibits chromatographic pattern which does not resemble standard

ND<10,000

ND<5,000

ND<5,000

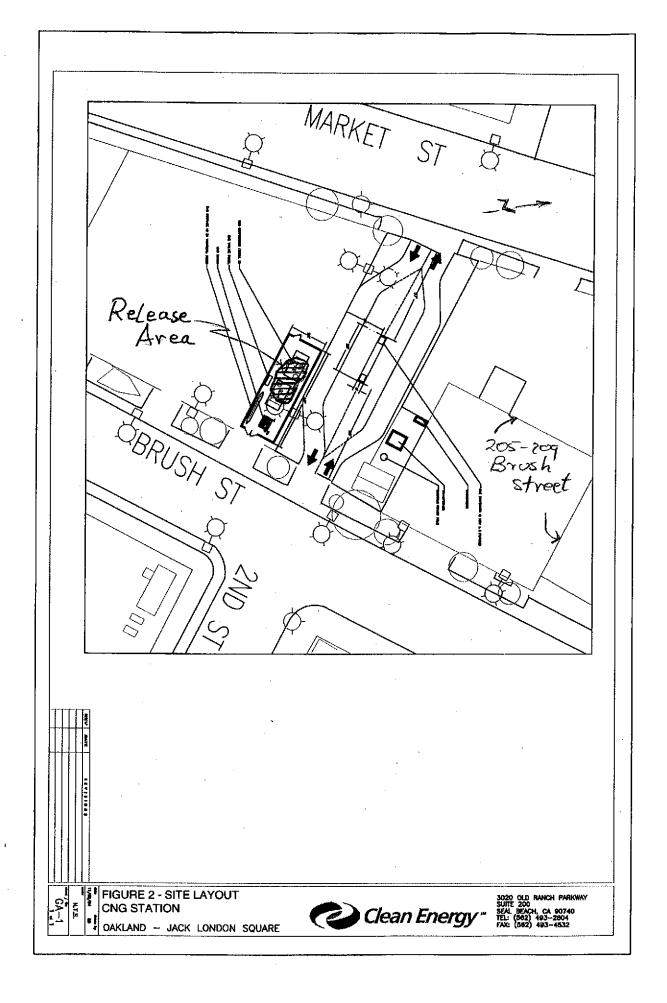
H = Heavier hydrocarbons contributed to the quantitation

C = Presence confirmed, but RPD between columns exceeds 40%

L = Lighter hydrocarbons contributed to the quantitation

Samples analyzed by Curtis and Tompkins, Ltd.





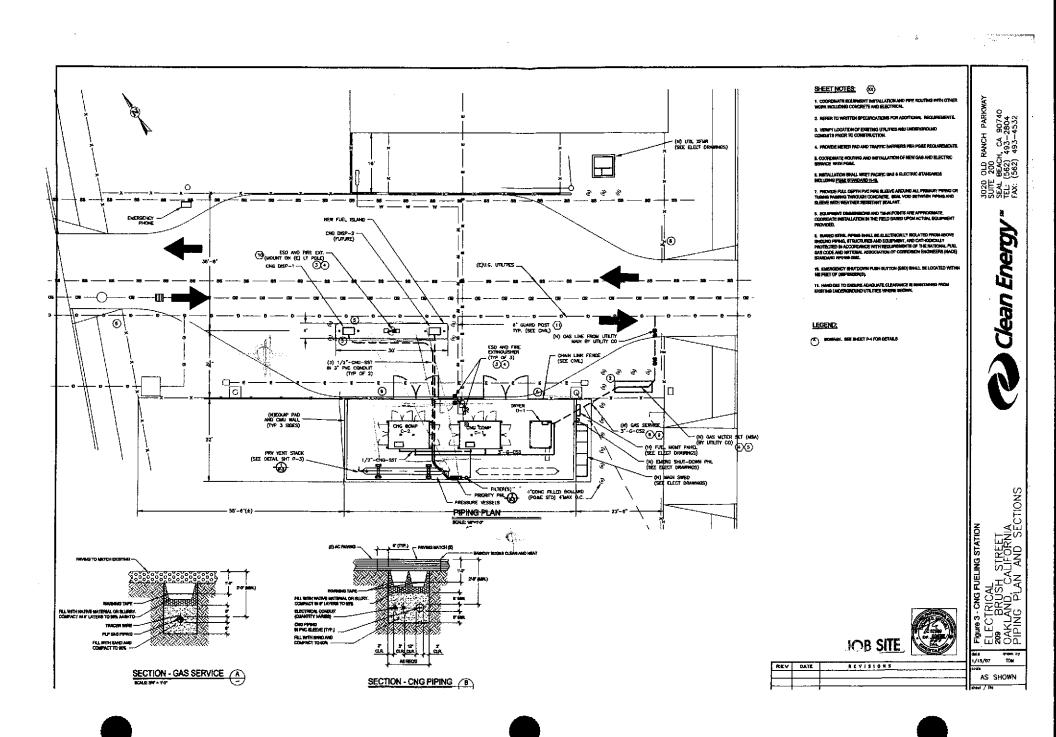
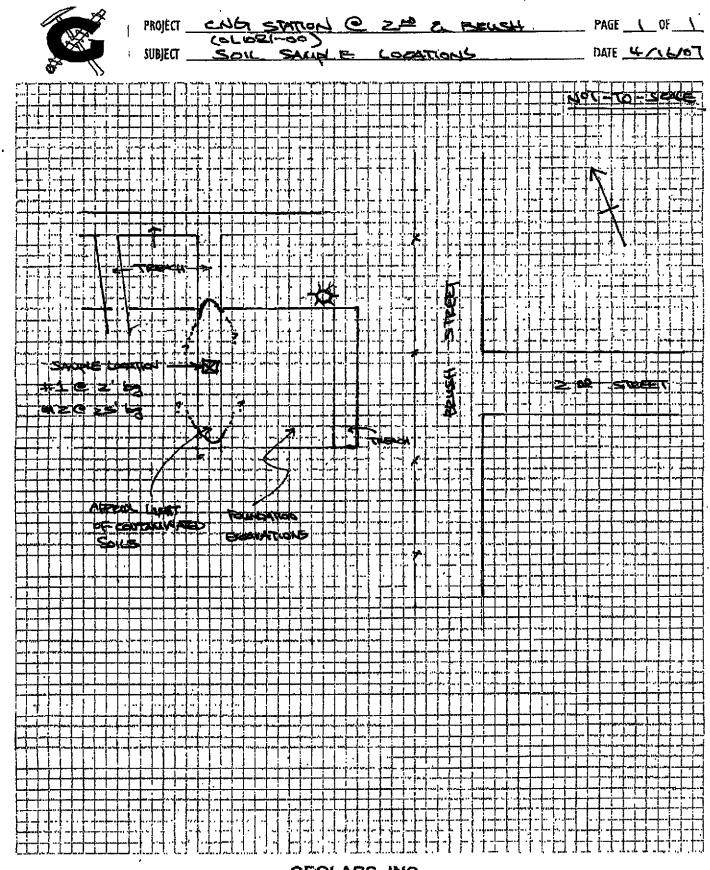
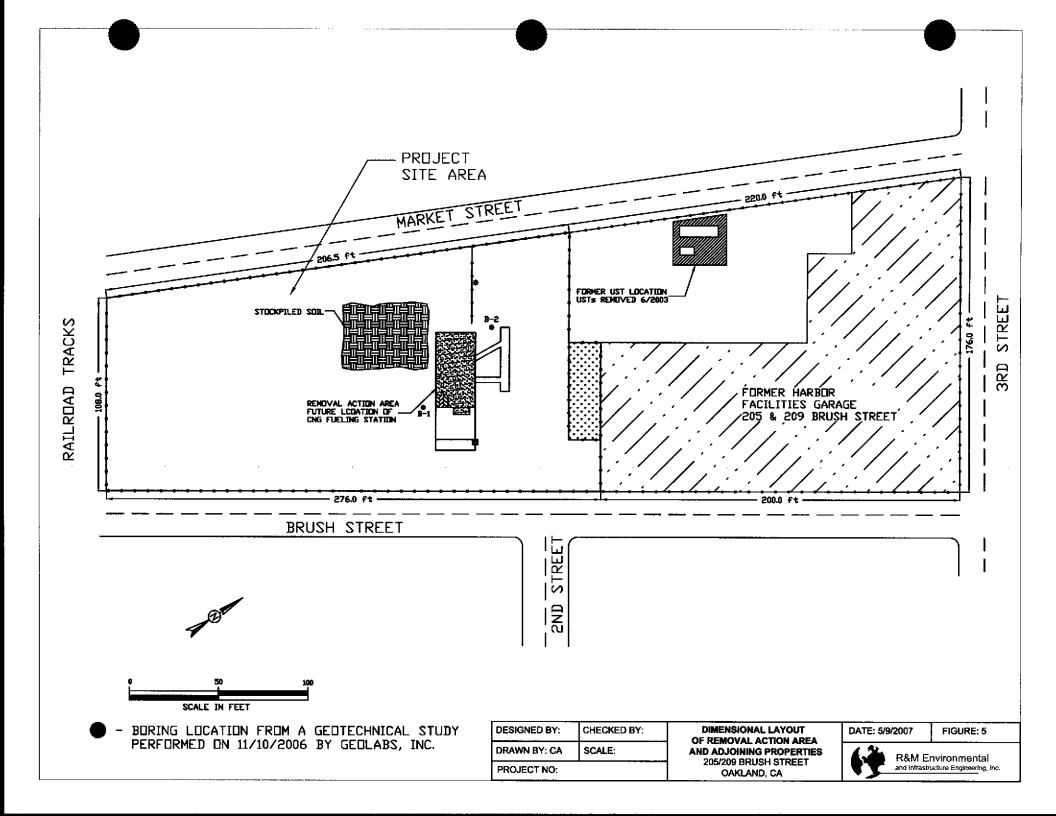
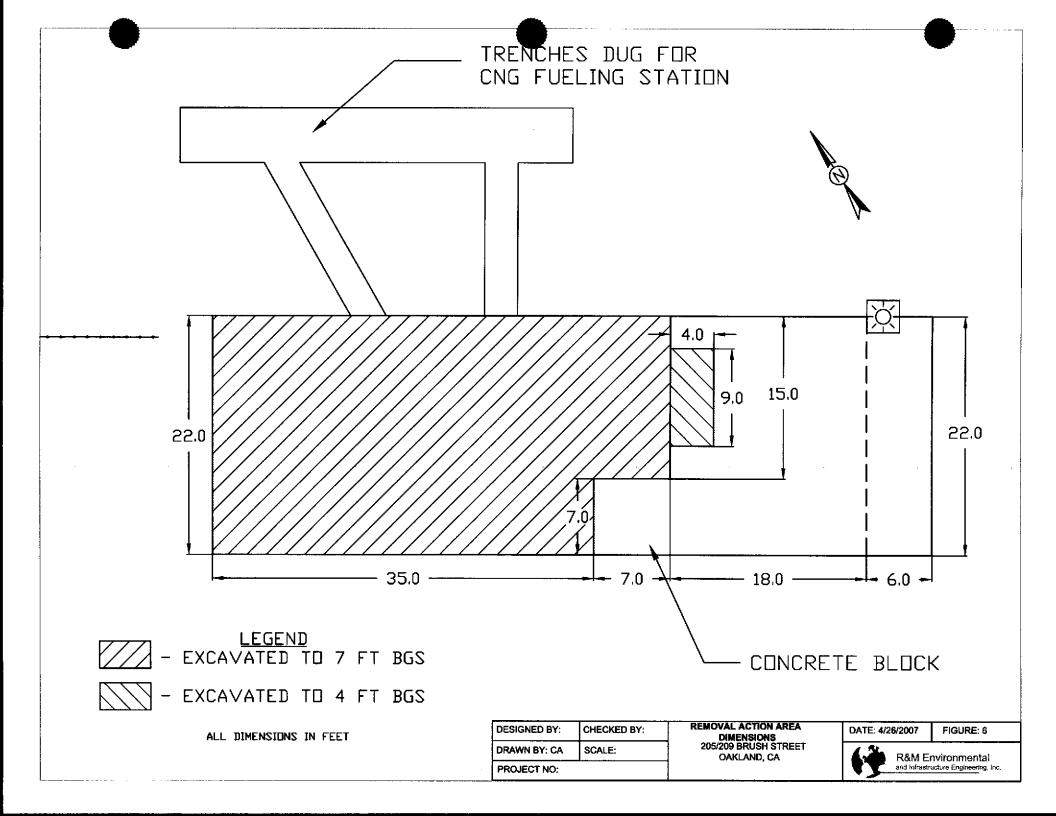


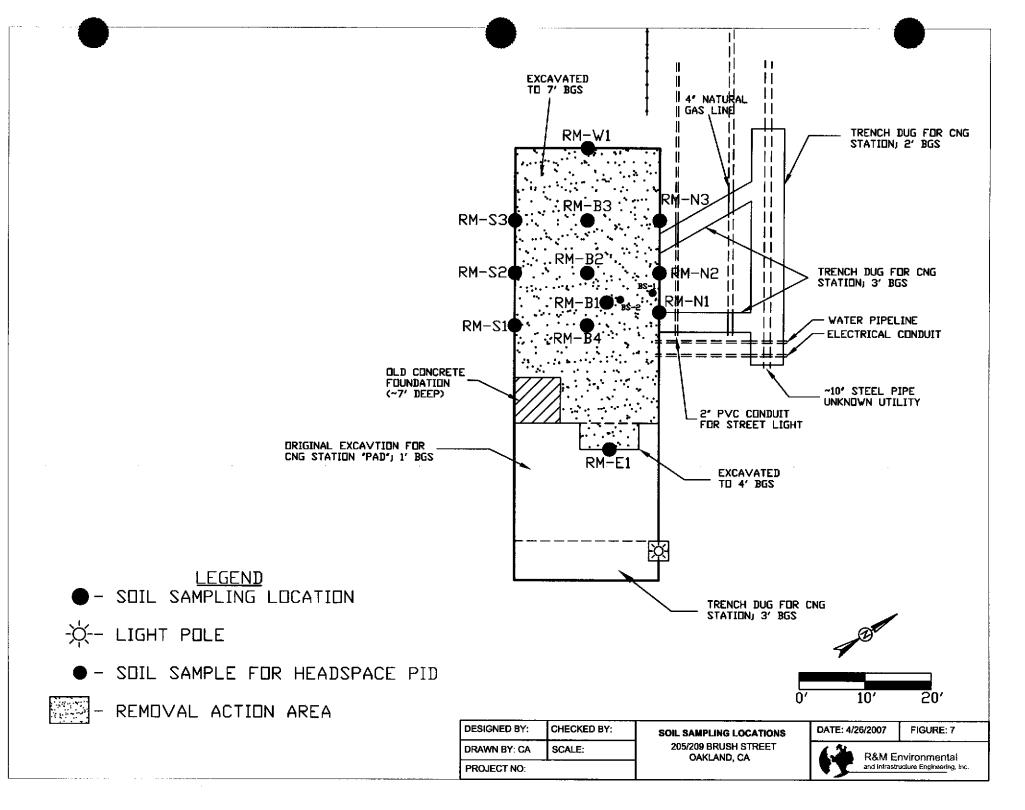
Figure 4 - Approximate Location where Soil Samples Were Collected on 04/16/07

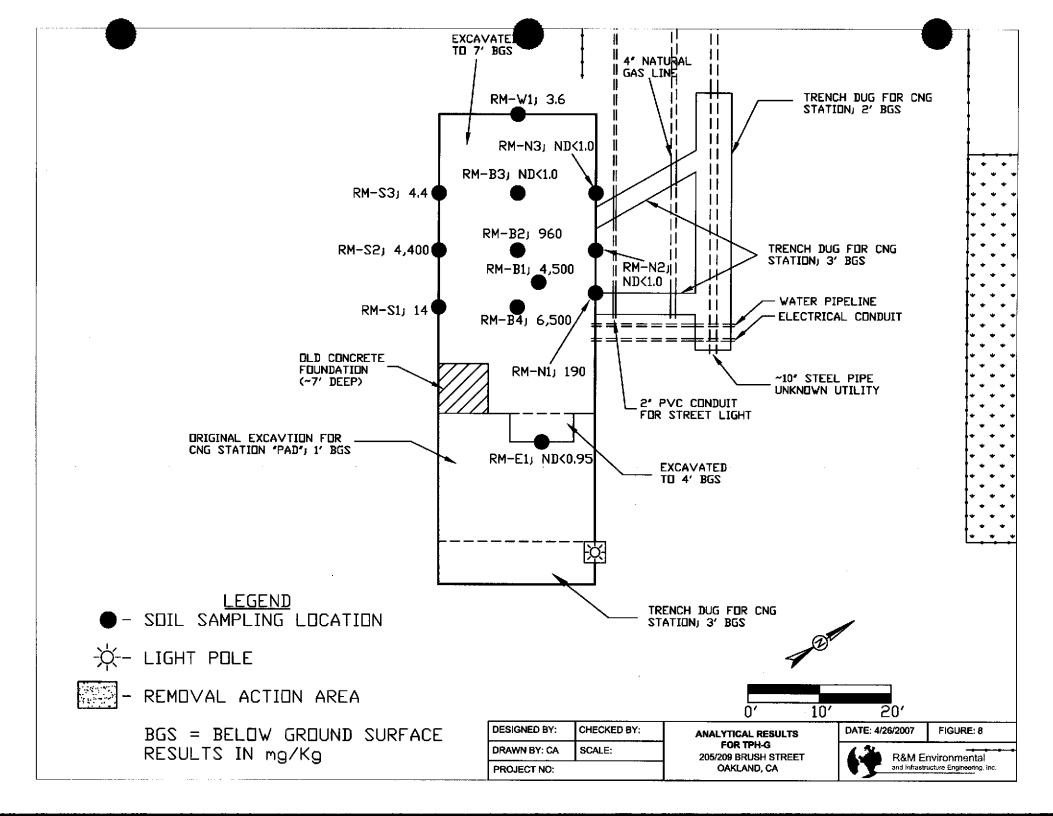


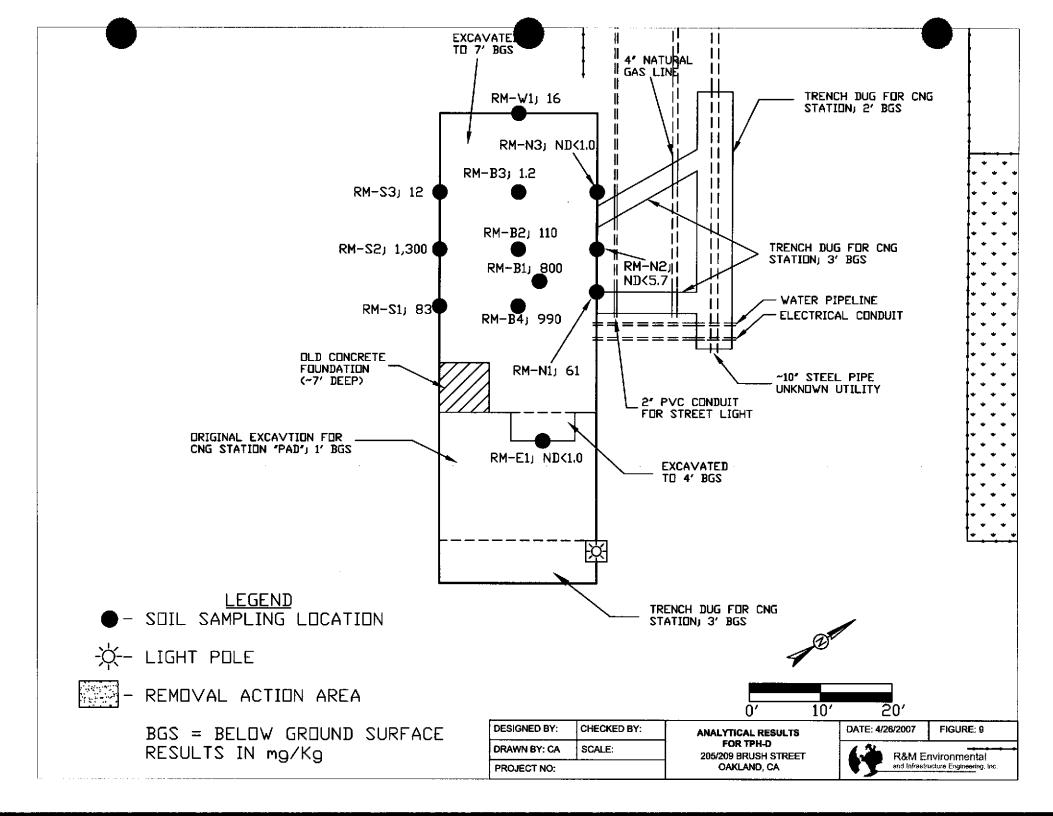
GEOLABS, INC.

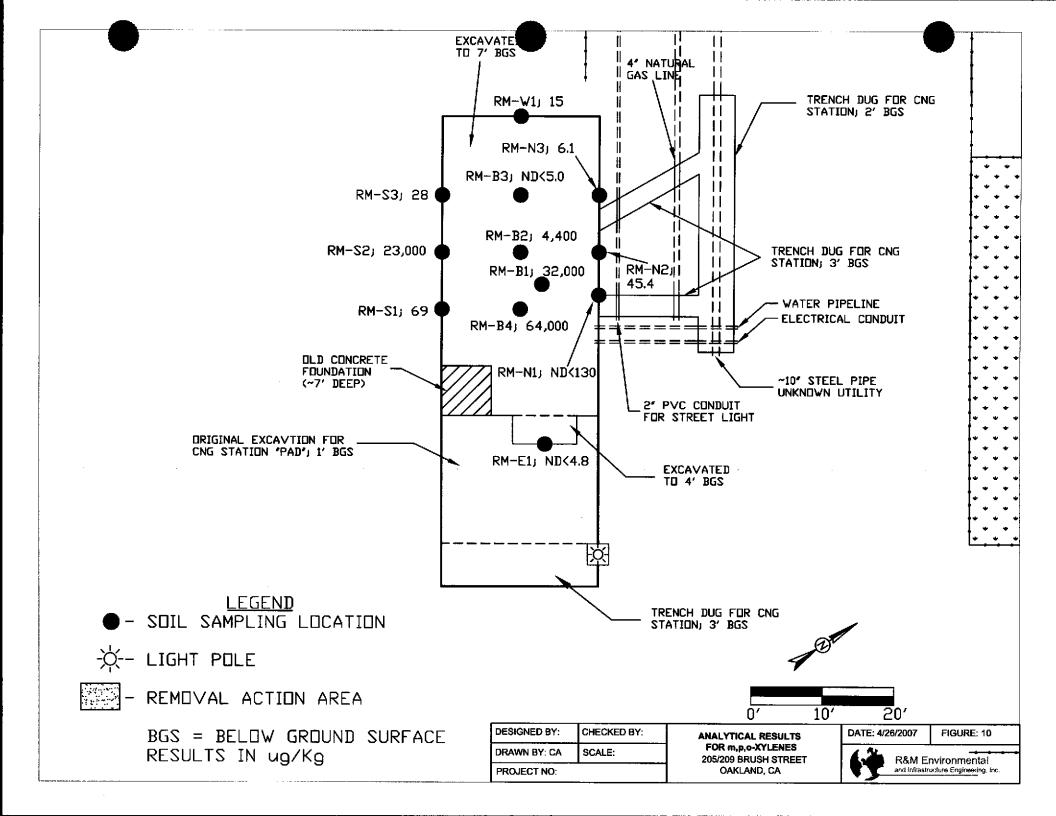












## APPENDIX A PHOTOGRAPHS OF SITE ACTIVITIES



Photo #1 – One of the two CNG compressor units for the fueling station (Facing north; 4/20/2007)

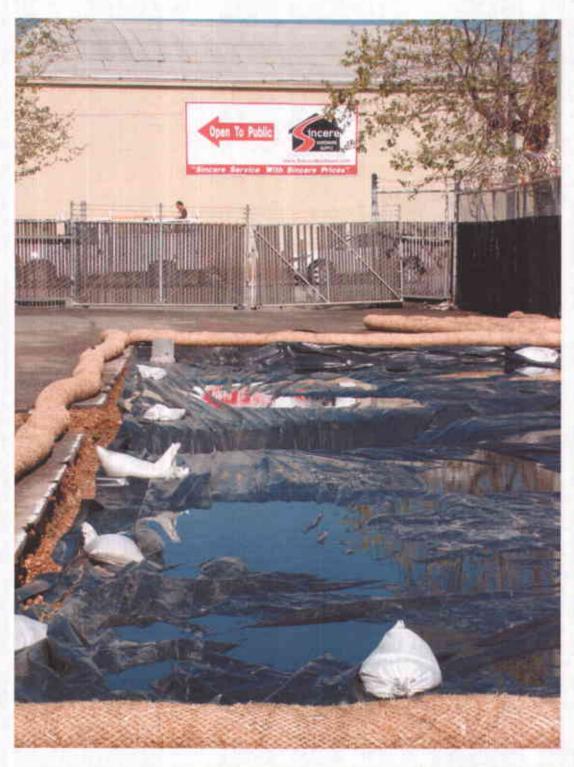
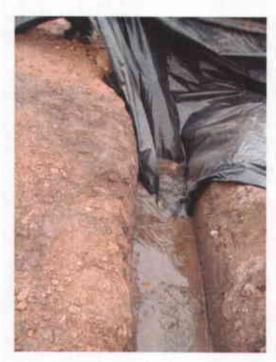


Photo #2 – Prior to the start of the removal action contractor had left site covered with plastic sheeting – note the accumulated rainwater (Looking west; 4/20/2007)



Photo #3 – Pre-excavation view of excavation upon arrival at the site on the morning of April 25, 2007 (Looking west toward Market Street)



Water on Visqueen® sheets being emptied into the trench



Accumulated rainwater drained into trenches; LEL monitoring near exposed soil surface (Facing north)



Rainwater drained into the excavation

Photo #4 - Handling the accumulated rainwater (4/25/2007)



(Up-close view of storm drain)



(Facing north-west)

Photo #5 - Storm drain, located in the northern corner of the site, bordered with straw wattles and weighed down with sandbags



Beginning of excavation near the previously trenched area



Excavation of dark-colored contaminated soil



Size/shape/depth of excavation before being instructed by the City Inspector to increase the depth of excavation (Facing northwest)



Addition of excavated soil to the stockpile

Photo #6 - John Deere 225C excavator used for soil excavation and stockpiling (4/25/2007)



Photo #7 - PID and LEL/O $_2$ /H $_2$ S/CO monitoring upon exposure of surface soil (Facing south; 4/25/2007)





Photo #8 - Potholing a location further east within the pad footprint; since soil at this location appeared to be uncontaminated this location was defined as the "benchmark" and the eastern limit of soil excavation

(Facing east; 4/25/2007)



Photo #9 - View of final excavation (~ 7 ft deep) after confirmation sampling – note the old concrete foundation under man's feet
(Looking east toward Brush Street; 4/25/2007)



Photo #10 – Condition of excavation on morning of 4/26/2007, groundwater came to the surface during the night



Freshly exposed black material



PID monitoring near the excavation surface; note the black color of the odor-causing soil (Facing east)

Photo #11 - (4/25/2007)



Black material on the north corner of the excavation wall; material had a faint odor (4/25/2007)



Close-up of black soils that appear to have heavy hydrocarbon staining; material had a faint odor (4/25/2007)

Photo #12



Photo #13 - Additional Visqueen® sheet being placed on the ground to expand the existing stockpile area
(Facing east; 4/25/2007)

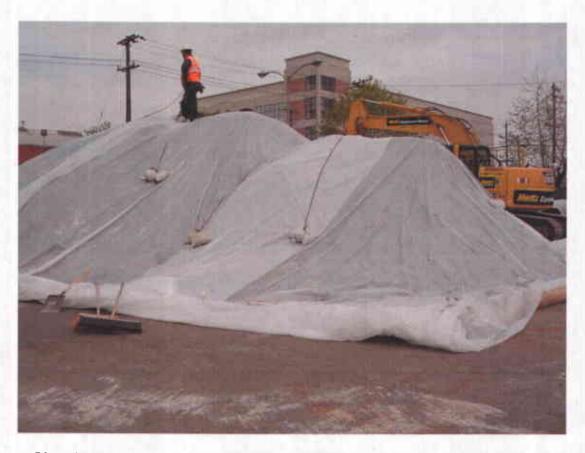


Photo #14 - Stockpile, covered with Visqueen sheets, weighed down with sandbags and bordered with straw wattles (Facing East; 4/25/2007)



Photo~#15-Off-haul~truck~being~loaded~with~load~#4~from~stockpiled~soil~(4/27/2007)



Photo #16 – Off-haul truck loaded with load #13, covered with a tarp, leaving for the Altamont Landfill
(Facing southwest corner of site; 4/27/2007)





Photo #17 - Collection of confirmation soil samples in 6" X 1.5" stainless steel tubes from the materials brought to the surface in the excavator bucket (4/25/2007)

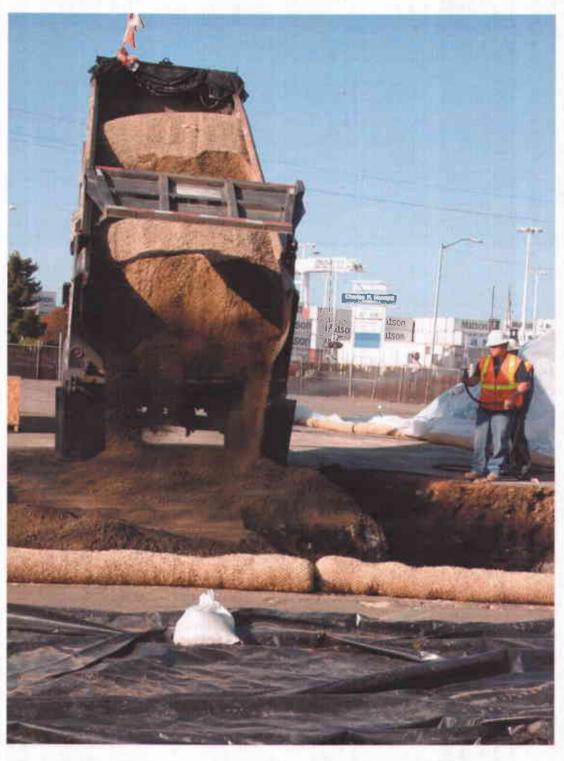
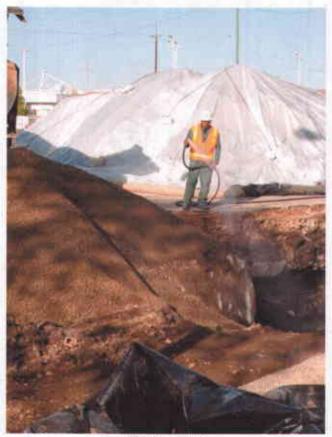


Photo #18 – Backfilling operations: the second load of backfill material being emptied into the excavation at the location of concrete foundation (Note the water being sprayed to impart moisture for compaction; 4/26/2007)



Photo #19 – Backfilling operations: John Deere 544 loader pushing backfill material into the excavation (4/26/2007)





(Facing east)

Photo #20 – Backfilling operations: adding water to the soil to insure proper moisture content for compaction (4/26/2007)

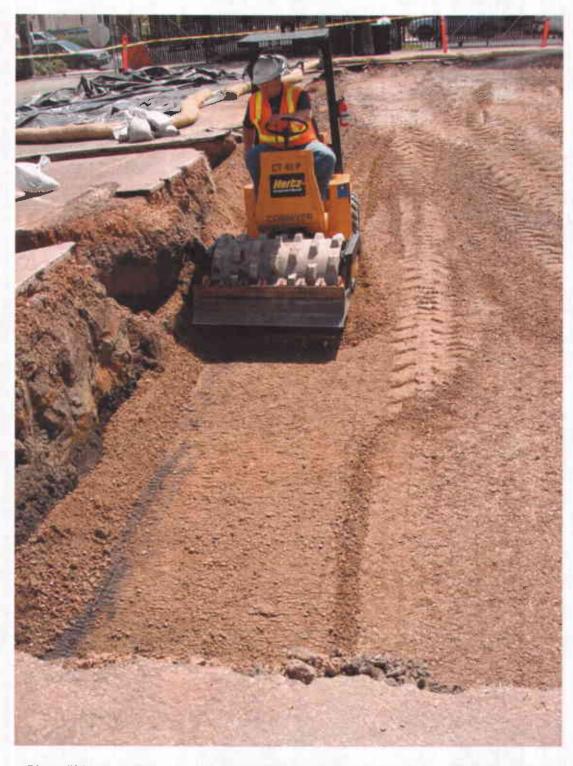


Photo #21 – Backfilling operations: Initial use of a one-ton John Deere CP-40 sheep foot compactor for backfill compaction (Facing east; 4/26/2007)





Photo #22 – Backfilling operations: Field compaction tests being conducted with a Troxler Nuclear Gauge (4/26/2007)



Photo #23 – Backfilling operations: utilizing a 5-ton Ingersoll-Rand SD-45 sheep foot compactor
(Facing north; 4/27/2007)







Facing east



Southern section of the site

Photo #24 - Completion of removal action: final condition of the site as it was turned over to Clean Energy at 11:19 a.m. on 4/30/2007



Photo #25 - PID monitoring near the surface of the stockpile (4/25/2007)



Photo #26 – A truck containing cows moving north on Market Street near the site (Note: a strong stockyard odor was noted at the site at this time and on several other occasions throughout the day; 4/25/2007)



Cleaning equipment before return to rental agency



Cleaning soil off of the excavator's treads

Photo #27: Cleaning of the equipment before removing them from the work area (4/26/07)



Photo #28 – Cleaning prior to leaving the site for the day (4/26/2007)

## APPENDIX B

## CERTIFIED ANALYTICAL REPORTS FOR SOIL/GROUNDWATER SAMPLING AND CHAIN-OFCUSTODY DOCUMENTATION

- Curtis and Tompkins, Ltd. Laboratory Report Nos. 194170 and 194289 for two soil samples collected by Geolabs, Inc. on 04/16/07
- ♦ Chain-of-custody records and Curtis and Tompkins, Ltd. Laboratory Report No. 194375 for 12 soil samples collected by R&M on 04/25/07



	California T	itle 26 Met	als
Lab #:	194289	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	METHOD
Project#:	OL1081-00	_	
Field ID:	#1	Diln Fac:	1.000
Lab ID:	194289-001	Sampled:	04/16/07
Matrix:	Soil	Received:	04/16/07
Units:	mg/Kg	Prepared:	04/23/07
Basis:	as received	Analyzed:	04/23/07

Analyte	Result		Batch#	Analysis
Antimony	ND	0.50	124423	EPA 6010B
Arsenic	1.5	0.26	124423	EPA 6010B
Barium	73	0.26	124423	EPA 6010B
Beryllium	0.17	0.10	124423	EPA 6010B
Cadmium	ND	0.26	124423	EPA 6010B
Chromium	28	0.26	124423	EPA 6010B
Cobalt	3.8	0.26	124423	EPA 6010B
Copper	8.3	0.26	124423	EPA 6010B
Lead	19	0.16	124423	EPA 6010B
Mercury	0.13	0.020	124441	EPA 7471A
Molybdenum	ND	0.26	124423	EPA 6010B
Nickel	16	0.26	124423	EPA 6010B
Selenium	ND	0.50	124423	EPA 6010B
Silver	ND	0.26	124423	EPA 6010B
Thallium	ND	0.50	124423	EPA 6010B
Vanadium	20	0.26	124423	EPA 6010B
Zinc	21	1.0	124423	EPA 6010B



	Calife	ornia Title 26 Meta	<b>1.</b>
Lab #:	194289	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	METHOD
Project#:	OL1081-00	-	
Field ID:	#2	Diln Fac:	1.000
Lab ID:	194289-002	Sampled:	04/16/07
Matrix:	Soil	Received:	04/16/07
Units:	mg/Kg	Prepared:	04/23/07
Basis:	as received	Analyzed:	04/23/07

Analyte	Result	<b>RL</b>	Batch#	Analysis
Antimony	ND	0.50	124423 EPA	6010B
Arsenic	1.6	0.25	124423 EPA	6010B
Barium	55	0.25	124423 EPA	6010B
Beryllium	0.17	0.10	124423 EPA	6010B
Cadmium	ND	0.25	124423 EPA	6010B
Chromium	30	0.25	124423 EPA	6010B
Cobalt	4.2	0.25	124423 EPA	6010B
Copper	6.1	0.25	124423 EPA	6010B
Lead	1.7	0.15	124423 EPA	6010B
Mercury	0.038	0.020	124441 EPA	7471A
Molybdenum	ND	0.25	124423 EPA	6010B
Nickel	17	0.25	124423 EPA	6010B
Selenium	ND	0.50	124423 EPA	6010B
Silver	ND	0.25	124423 EPA	6010B
Thallium	ND	0.50	124423 EPA	6010B
Vanadium	21	0.25	124423 EPA	6010B
Zinc	14	1.0	124423 EPA	6010B



	Califo	ornia Title 26 Meta	<b>1.s</b>
Lab #:	194289	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	METHOD
Project#:	OL1081-00	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC384649	Batch#:	124423
Matrix:	Soil	Prepared:	04/23/07
Units:	mg/Kg	Analyzed:	04/23/07
Basis:	as received	-	

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



	Califo	ornia Title 26 Metal	<b>!s</b>
Lab #:	194289	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	METHOD
Project#:	OL1081-00	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	124423
Units:	mg/Kg	Prepared:	04/23/07
Basis: Diln Fac:	as received 1.000	Analyzed:	04/23/07

Type:

BS

Lab ID: QC384650

	Analyte	Result	*REC	Limits
Antimony	100.0	104.3	104	80-120
Arsenic	50.00	55.00	110	80-120
Barium	100.0	108.9	109	80-120
Beryllium	2.500	2.888	116	80-120
Cadmium	10.00	11.60	116	80-120
Chromium	100.0	109.6	110	80-120
Cobalt	25.00	26.29	105	80-120
Copper	12.50	13.43	107	80-120
Lead	100.0	109.1	109	80-120 <b> </b>
Molybdenum	20.00	22.97	115	80-120 <b> </b>
Nickel	25.00	26.56	106	80-120
Selenium	50.00	54.96	110	80-120 <b> </b>
Silver	10.00	10.69	107	80-120 <b> </b>
Thallium	50.00	55.87	112	80-120
Vanadium	25.00	27.17	109	80-120
linc	25.00	26.12	. 104	80-120

Type:

BSD

Lab ID: QC384651

Analyte	Spiked	Result	FREC	Limits	RPD	Lim
Antimony	100.0	105.8	106	80-120	1	20
Arsenic	50.00	54.98	110	80-120	0	20
Barium	100.0	107.8	108	80-120	1	20
Beryllium	2.500	2.855	114	80-120	1	20
Cadmium	10.00	11.65	117	80-120	0	20
Chromium	100.0	108.4	108	80-120	1	20
Cobalt	25.00	26.08	104	80-120	1	20
Copper	12.50	13.20	106	80-120	2	20
Lead	100.0	108.8	109	80-120	0	20
Molybdenum	20.00	22.96	115	80-120	0	20
Nickel	25.00	26.51	106	80-120	0	20
Selenium	50.00	54.13	108	80-120	2	20
Silver	10.00	10.61	106	80-120	1	20
Thallium	50.00	55.07	110	80-120	1	20
Vanadium	25.00	26.88	108	80-120	1	20
Zinc	25.00	25.70	103	80-120	2	20



	Califo	ornia Title 26 Meta	
Lab #: Client: Project#: Field ID: MSS Lab ID:	194289 Geolabs, Inc. OL1081-00 #1 194289-001	Location: Prep: Analysis: Batch#: Sampled:	CNG Fueling Station METHOD EPA 6010B 124423 04/16/07
Matrix: Units: Basis: Diln Fac:	Soil mg/Kg as received 1.000	Received: Prepared: Analyzed:	04/16/07 04/23/07 04/23/07

Type:

MS

Lab ID: QC384652

Analyte	MSS Result	Spiked	Result	8RicC	Limits
Antimony	<0.09082	93.46	57.54	62	1-129
Arsenic	1.538	46.73	50.25	104	72-120
Barium	72.71	93.46	171.1	105	49-138
Beryllium	0.1748	2.336	2.808	113	80-120
Cadmium	0.06641	9.346	10.52	112	72-120
Chromium	27.54	93.46	125.7	105	63-122
Cobalt	3.812	23.36	27.29	100	61-120
Copper	8.301	11.68	20.63	106	59-137
Lead	19.19	93.46	116.8	104	55-122
Molybdenum	0.06600	18.69	19.76	105	66-120
Nickel	15.69	23.36	40.18	105	45-139
Selenium	<0.04910	46.73	48.61	104	73-120
Silver	<0.05955	9.346	9.913	106	53-120
Challium	<0.08918	46.73	48.64	104	64-120
Vanadium	20.06	23.36	44.35	104	55-139
Zinc	20.95	23.36	43.64	97	49-140

Type:

MSD

Lab ID: QC384653

	Analyte	Result	FREC	Limits	RPD	Lim
Antimony	97.09	60.62	62	1-129	1	23
Arsenic	48.54	53.40	107	72-120	2	20
Barium	97.09	173.8	104	49-138	1	23
Beryllium	2.427	2.929	113	80-120	1	20
Cadmium	9.709	11.37	116	72-120	4	20
Chromium	97.09	129.8	105	63-122	0	20
Cobalt	24.27	28.78	103	61-120	2	23
Copper	12.14	20.89	104	59-137	1	20
Lead	97.09	121.7	106	55-122	1	26
Molybdenum	19.42	20.88	107	66-120	2	20
Nickel	24.27	41.32	106	45-139	1	26
Selenium	48.54	51.47	106	73-120	2	20
Silver	9.709	10.37	107	53-120	1	22
Thallium	48.54	50.92	105	64-120	1	20
Vanadium	24.27	45.74	106	55-139	1	20
Zinc	24.27	43.97	95	49-140	1	23



	califo	ornia Title 26 Meta	<b>lls</b>
Lab #:	194289	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	METHOD
Project#:	OL1081-00	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC384727	Batch#:	124441
Matrix:	Soil	Prepared:	04/23/07
Units:	mg/Kg	Analyzed:	04/23/07

Result	Rute Company	
ND	0.020	



	Califo	ornia Title 26 Meta	11 <b>.</b>
Lab #:	194289	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	METHOD
Project#:	OL1081-00	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124441
Units:	mg/Kg	Prepared:	04/23/07
Basis:	as received	Analyzed:	04/23/07

Type	Lab ID	Spiked	Result	%REC	Limits R	IPD Lim	
BS	QC384728	0.5000	0.4620	92	80-120		$\neg$
BSD	QC384729	0.5000	0.4640	93	80-120 0	20	



	Califo	ornia Title 26 Meta	
Lab #:	194289	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	METHOD
Project#:	OL1081-00	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZ	Batch#:	124441
MSS Lab ID:	194221-004	Sampled:	04/18/07
Matrix:	Soil	Received:	04/18/07
Units:	mg/Kg	Prepared:	04/23/07
Basis:	as received	Analyzed:	04/23/07

Type		MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC384731	0.007700	0.5000	0.5410	107	67-143		
MSD	QC384732		0.5000	0.5070	100	67-143	6	23



Curtis & Tompkins Laboratories Analytical Report Lab #: 194170 CNG Fueling Station EPA 5030B Location: Client: Geolabs, Inc. OL1081-00 Prep: Project#: Matrix: Soil 04/16/07 Sampled: Basis: as received Received: 04/16/07 Diln Fac: 1.000

Field ID: Type: Lab ID:

#1

SAMPLE 194170-001 Batch#:

Analyzed:

124267 04/17/07

Analyte	Result		Units	Analysis
Gasoline C7-C12	1.9 н	1.0	mq/Kg EPA	8015B
Benzene	ND	5.1	ug/Kg EPA	
Toluene	ND	$5.\overline{1}$	ug/Kg EPA	
Ethylbenzene	7.4	5.1	ug/Kg EPA	
m,p-Xylenes	23	5.1	ug/Kg EPA	8021B
o-Xylene	14	5.1	ug/Kg EPA	

Surrogate	*REC	Limits	Salata de <b>Anglysis</b> Albanas and a company of the salata and a company of the salata and the sal	
Trifluorotoluene (FID)	102	70-132	EPA 8015B	
Bromofluorobenzene (FID)	104	66-138	EPA 8015B	
Trifluorotoluene (PID)	98	63-142	EPA 8021B	
Bromofluorobenzene (PID)	100	70-129	EPA 8021B	

eld ID: ype: Lab ID:

#2

SAMPLE 194170-002 Batch#: Analyzed: 124310 04/18/07

Analyte	Result	Se Ringer and All	Units	Analysis
Gasoline C7-C12	9.1 H Y	1.0	mg/Kg EPA	
Benzene	ИD	5.1	ug/Kg EPA	
Toluene	ND	5.1	ug/Kg EPA	
Ethylbenzene	ИD	5.1	ug/Kg EPA	
m,p-Xylenes	ND	5.1	ug/Kg EPA	
o-Xylene	36 C	5.1	ug/Kg EPA	

Surrogate	*REC	Limits	35.5	Analysis
Trifluorotoluene (FID)	116	70-132	EPA	8015B
Bromofluorobenzene (FID)	198 *	66-138	EPA	8015B
Trifluorotoluene (PID)	106	63-142	EPA	8021B
Bromofluorobenzene (PID)	145 *	70-129	EPA	8021B

<sup>\*=</sup> Value outside of QC limits; see narrative C= Presence confirmed, but RPD between columns exceeds 40% H= Heavier hydrocarbons contributed to the quantitation Y= Sample exhibits chromatographic pattern which does not resemble standard D= Not Detected

L= Reporting Limit



		ns Laboratories Anal	ytical Report
Lab #: Client: Project#:	194170 Geolabs, Inc. OL1081-00	Location: Prep:	CNG Fueling Station EPA 5030B
Matrix: Basis: Diln Fac:	Soil as received 1.000	Sampled: Received:	04/16/07 04/16/07

Type: Lab ID:

BLANK QC384047 Batch#: Analyzed: 124267 04/17/07

Analyte	Result	garage and the RM and the second	Units Analysis
Gasoline C7-C12	ND	1.0	mg/Kg EPA 8015B
Benzene	ND	5.0	ug/Kg EPA 8021B
Toluene	ND	5.0	ug/Kg EPA 8021B
Ethylbenzene	ND	5.0	ug/Kg EPA 8021B
m,p-Xylenes	ИД	5.0	ug/Kg EPA 8021B
o-Xylene	ND	5.0	ug/Kg EPA 8021B

Surrogate	*REC	Limits	Analysis
Trifluorotoluene (FID)	97	70-132	EPA 8015B
Bromofluorobenzene (FID)	83	66-138	EPA 8015B
Trifluorotoluene (PID)	96	63-142	EPA 8021B
Bromofluorobenzene (PID)	81	70-129	EPA 8021B

ib ID:

BLANK QC384220 Batch#: Analyzed:

124310 04/18/07

Analyte	Result		Units	Analysis	and grade the state of
Gasoline C7-C12	ND	0.20	mq/Kq	EPA 8015B	
Benzene	ND	1.0	uq/Kq	EPA 8021B	
Toluene	ND	1.0		EPA 8021B	
Ethylbenzene	ND	1.0	uq/Kq	EPA 8021B	
m,p-Xylenes	ND	1.0	ug/Kg	EPA 8021B	
o-Xylene	ND	1.0	ug/Kg	EPA 8021B	

Surrogate	*REC	Limits	Analysis and selection of the control of the contro
Trifluorotoluene (FID)	97	70-132	EPA 8015B
Bromofluorobenzene (FID)	102	66-138	EPA 8015B
Trifluorotoluene (PID)	94	63-142	EPA 8021B
Bromofluorobenzene (PID)	101	70-129	EPA 8021B

<sup>\*=</sup> Value outside of QC limits; see narrative C= Presence confirmed, but RPD between columns exceeds 40% H= Heavier hydrocarbons contributed to the quantitation Y= Sample exhibits chromatographic pattern which does not resemble standard D= Not Detected

L= Reporting Limit



	Curtis & Tompkins	Laboratories Anal	ytical Report
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8021B
Type:	LCS	Basis:	as received
Lab ID:	QC384048	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124267
Units:	ug/Kg	Analyzed:	04/17/07

Analyte	Spiked	Result	*REC	Limits
Benzene	100.0	86.53	87	80-120
Toluene	100.0	86.33	86	80-120
Ethylbenzene	100.0	96.47	96	80-120
m,p-Xylenes	100.0	91.76	92	80-120
o-Xylene	100.0	90.42	90	80-120

Surrogate	₹REC	Limits	A . E . S.			Olim Jasta	
Trifluorotoluene (PID)	88	63-142		· · · · · · · · · · · · · · · · · · ·			
Bromofluorobenzene (PID)	81	70-129					



	Curtis & Tompkins	Laboratories Anal	ytical Report
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC384049	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124267
Units:	mg/Kg	Analyzed:	04/17/07

Analyte	Spiked	Result	₹RE	C Limits
Gasoline C7-C12	10.00	8.886	89	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	117	70-132
Bromofluorobenzene (FID)	110	66-138



Batch QC Report

	Curtis & Tompkins	Laboratories Anal	lytical Report
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	194211-008	Batch#:	124267
Matrix:	Soil	Sampled:	04/17/07
Units:	mg/Kg	Received:	04/17/07
Basis:	as received	Analyzed:	04/17/07

Type:

MS

Lab ID:

QC384078

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.06223	9.804	6.567	66	36-120

Surrogate	*REC	
Trifluorotoluene (FID)	103	70-132
Bromofluorobenzene (FID)	103	66-138

Type:

MSD

Lab ID:

QC384079

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.10	6.925	68	36-120	2	29
The state of the s	ange Tillia					

Surrogate	* REC	Limits	
Trifluorotoluene (FID)	107	70-132	
Bromofluorobenzene (FID)	97	66-138	



	Curtis & Tompkins	Laboratories Anal	ytical Report
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8021B
Type:	LCS	Basis:	as received
Lab ID:	QC384221	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124310
Units:	ug/Kg	Analyzed:	04/18/07

Analyte	Spiked	Result	*REC	Limits
Benzene	100.0	102.8	103	80-120
Toluene	100.0	100.2	100	80-120
Ethylbenzene	100.0	103.7	104	80-120
m,p-Xylenes	100.0	111.0	111	80-120
o-Xylene	100.0	110.8	111	80-120

Surrogate	*REC	Limits
Trifluorotoluene (PID)	108	63-142
Bromofluorobenzene (PID)	122	70-129



	Curtis & Tompkins	s Laboratories Anal	(프랑토(1989년)) 12. 투하고 이 모이는 모양이 되는 이 보이다. (1982년)
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC384222	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124310
Units:	mg/Kg	Analyzed:	04/18/07

Analyte	Spiked	Result	*REC	Limits
Gasoline C7-C12	10.00	8.939	89	80-120

Surrogate	₹REC	Limits
Trifluorotoluene (FID)	110	70-132
Bromofluorobenzene (FID)	125	66-138



	Curtis & Tompkins	s Laboratories Anal	lytical Report
	호텔 보호를 된 이렇게 된 끝나요?		
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	194179-006	Batch#:	124310
Matrix:	Soil	Sampled:	04/09/07
Units:	mg/Kg	Received:	04/09/07
Basis:	as received	Analyzed:	04/18/07

Type:

MS

Lab ID:

QC384257

Analyte	MSS Result	Spiked	Result	%REC Limits
Gasoline C7-C12	0.06680	9.901	9.120	36-120

Surrogate	<b>&amp;REC</b>	Limits	
Trifluorotoluene (FID)	108	70-132	
Bromofluorobenzene (FID)	127	66-138	·

Type:

MSD

Lab ID:

QC384258

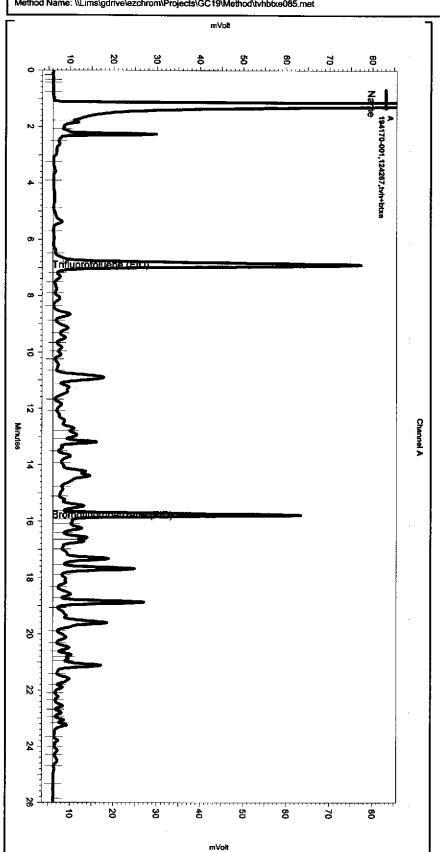
ı	Branch and the first services are the first services and the first services are the first services and the first services and the first services are the first services are the first services and the first services are the first services are the first services are the first s						
	Analyte	Spiked	Result	*REC	Limits	RPD	Lim
	Gasoline C7-C12	9.901	8.990	90	36-120	1	29

Surrogate	*REC	Limits	
Trifluorotoluene (FID)	106	70-132	
Bromofluorobenzene (FID)	123	66-138	·

Sequence File: \Lims\gdrive\ezchrom\Projects\GC19\Sequence\107.seq

Sample Name: 194170-001,124267,tvh+btxe
Data File: \\L\mathbb{L\mathridge}\text{miner}\text{-009} \\
Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2) \\
Method Name: \\L\mathridge\text{L\mathridge}\text{miner}\text{cons}\text{Vine}\text{cons}\text{C19\text{Method}\text{\text{Vhbbxe085.met}}}

Software Version 3.1.7 Run Date: 4/17/2007 5:40:20 PM Analysis Date: 4/18/2007 8:45:43 AM Sample Amount: 0.98 Multiplier: 0.98 Vial & pH or Core ID: A



< Ge	neral Method Para	meters >			
Vo item	s selected for this	section			
< A >	***************************************				
No item	s selected for this	section			
ntegraf	tion Events				
Enabl	ed Event Type	Start Stop (Minutes)	) (N	linutes)	Value
	Width Threshold	0 0	0	0.2 50	
Manuel	Integration Fixes				
Data :	File: \\Lims\qdrive\e	zchrom\Projects\G	C19	\Data\10	7_009
Enabl	ed Event Type	(Minutes)	(N	linutes)	Value
Yes Yes	Split Peak Split Peak	6.481 15.932	0	_	

Sequence File: \Lims\gdrive\ezchrom\Projects\GC05\Sequence\108.seq

Sequence File: \\Lims\garrveuzchrom\rrojects\\GC05\Data\108\_006

Sample Name: 194170-002,124310,tvh+btxe

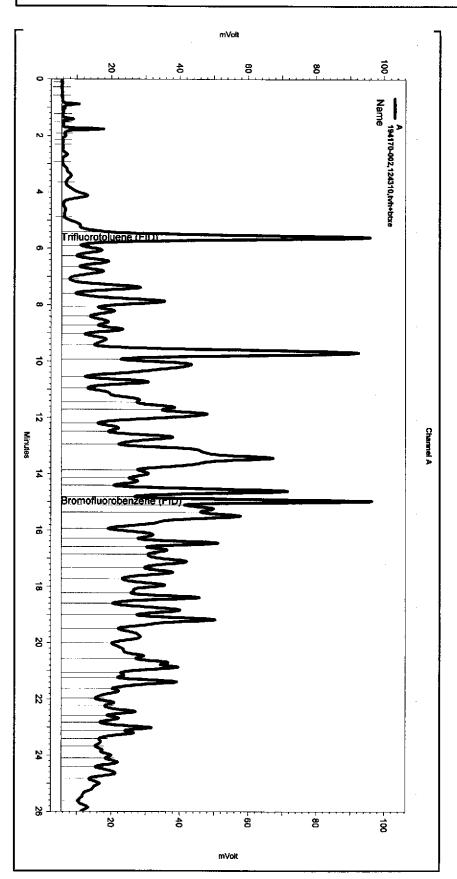
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Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)

Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe106.met

Software Version 3.1.7 Run Dete: 4/18/2007 3:32:13 PM Analysis Date: 4/19/2007 8:38:14 AM Sample Amount: 0.99 Multiplier: 0.99

Vial & pH or Core ID: A

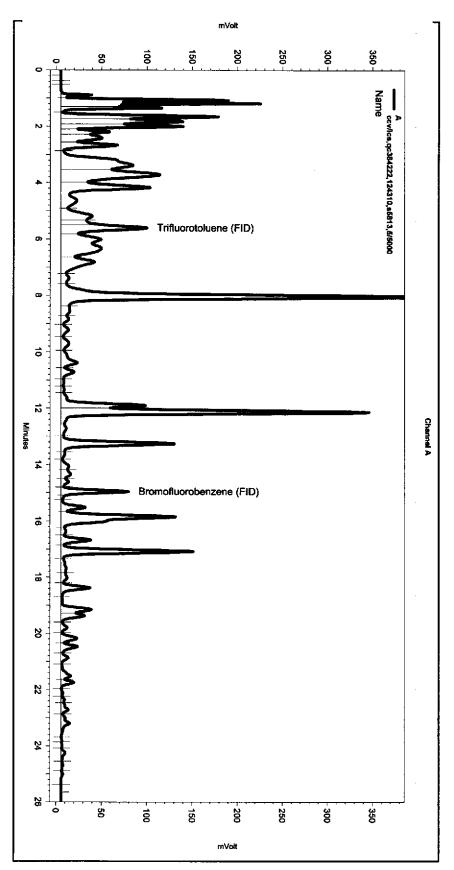


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No item	s selected for this se	ction				
Integrat	tion Events					
Enabl	ed Event Type	Start			Minutes)	Value
Yes Yes	Width Threshold		0	0	0.2 50	
Manual	Integration Fixes					
Data	File: \\Lims\gdrive\ezo		rojects Sto		5\Data\10	08_006
	led Event Type				Minutes)	Value
Enabl	eo eveni iype		Cisasion		,,,,,,,,,,,	

Page 2 of 4 (22) Curtis & Tompkins Ltd.

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\108.seq Sample Name: ccv/lcs,qc384222,124310,s5813,5/5000
Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\108\_003
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2) Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbbe108.met

Software Version 3.1.7
Run Date: 4/18/2007 1:15:02 PM
Analysis Date: 4/19/2007 8:38:02 AM
Sample Amount: 1 Multiplier: 1
Vial & pH or Core ID: {Data Description}



< Ge	neral Method Parar	meters >
No item	s selected for this :	section
No item	s selected for this :	section
Integrat	ion Events	
Enabl	ed Event Type	Start Stop (Minutes) (Minutes) Value
	Width Threshold	0 0 0.2 0 0 50
Manual	Integration Fixes	
Data I	File: \\Lims\gdrive\e	zchrom\Projects\GC05\Data\108_003 Start Stoo
Enabl	ed Event Type	(Minutes) (Minutes) Value
Yes	Spilt Peak Spilt Peak Spilt Peak	5.498 0 0 14.823 0 0 15.095 0 0

Page 2 of 4 (10) Curtis & Tompkins Ltd.

	Total Ex	tractable Hydrocar	bons
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	SHAKER TABLE
Project#:	OL1081-00	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	124283
Units:	mg/Kg	Sampled:	04/16/07
Basis:	as received	Received:	04/16/07
Diln Fac:	1.000	Prepared:	04/18/07

Field ID:

Type:

#1

SAMPLE

Lab ID:

194170-001

Analyzed:

04/19/07

Analyte	Result		<b>RO</b> (20) 200 (20)	
Diesel C10-C24	13 H	l L Y	1.0	

Surrogate	ŧ₽.	A DIMITER			
Hexacosane	100	40-127	•	 	

ield ID:

#2

e: SAMPLE

Lab ID:

194170-002

Analyzed:

04/18/07

Analyte	Result	RL STATE	
Diesel C10-C24	39 L Y	1.0	

Surrogate	%REC	Limits	
Hexacosane	125	40-127	

Type:

BLANK

Analyzed:

04/18/07

Lab ID:

Hexacosane

QC384103

Analyte	Result	<b>RL</b>	
el C10-C24	ND	1.0	

Surrogate & REC Limits

\*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

40-127

153 \*

P= Not Detected

L= Reporting Limit

Page 1 of 1

15.0



	Total Ex	tractable Hydroca	rbons
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	SHAKER TABLE
Project#:	OL1081-00	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC384104	Batch#:	124283
Matrix:	Soil	Prepared:	04/18/07
Units:	mg/Kg	Analyzed:	04/18/07
Basis:	as received	<u>-</u>	

Cleanup Method: EPA 3630C

Analyt	e Spike	d R	sult	%REC	Limits
Diesel C10-C24	49	.96	52.46	105	58-127

Surrogate	*REC	Limits	
Hexacosane	119	40-127	



	Total E	xtractable Hydrocar	rbons
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	SHAKER TABLE
Project#:	OL1081-00	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZ	Batch#:	124283
MSS Lab ID:	194119-017	Sampled:	04/12/07
Matrix:	Soil	Received:	04/12/07
Units:	mg/Kg	Prepared:	04/18/07
Basis:	as received	Analyzed:	04/18/07
Diln Fac:	1.000		

Type:

MS

Cleanup Method: EPA 3630C

Lab ID:

QC384105

Analyte	MSS Result	Spiked	Result	*REC	Limits
Diesel C10-C24	15.72	49.92	56.39	81	29-147

Surrogate	%REC	Limits	
Hexacosane	104	40-127	

Type: Lab ID:

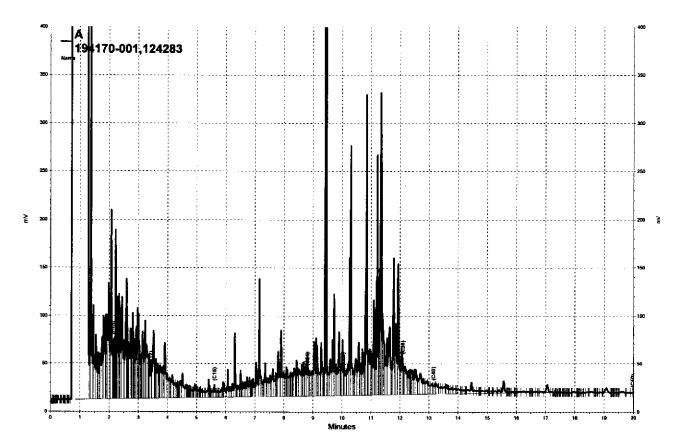
MSD

Cleanup Method: EPA 3630C

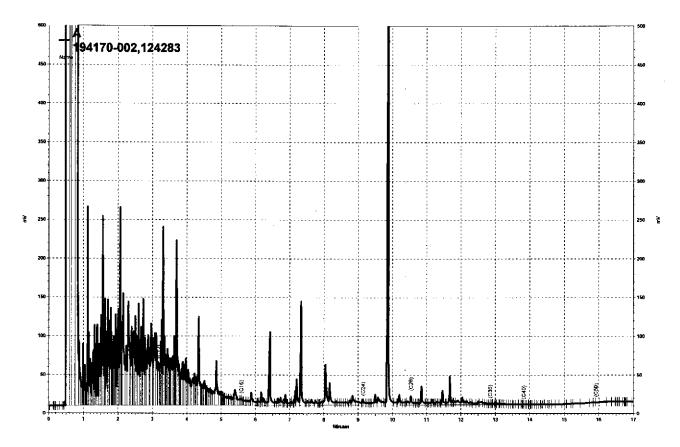
QC384106

Analyte	Spiked	Result	*REC	Limits	RPD	Lim
Diesel C10-C24	49.82	50.98	71	29-147	10	46

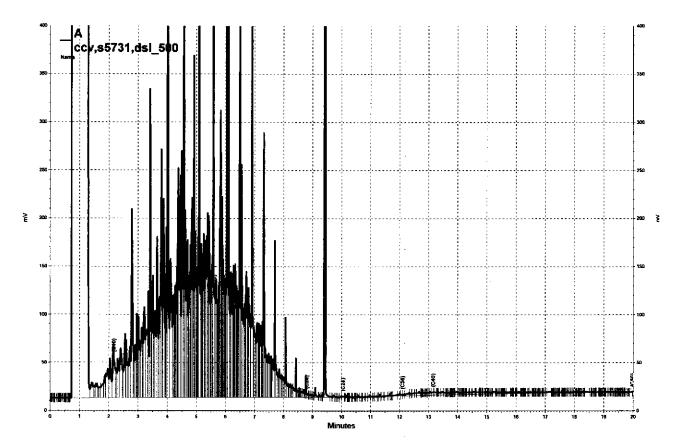
Surrogate	\$REC	Limits	
Hexacosane	94	40-127	



\Lims\gdrive\ezchrom\Projects\GC17A\Data\109a006, A



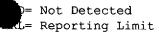
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\Lims\gdrive\ezchrom\Projects\GC17A\Data\109a003, A

	Purgeal	ole Organics by GC	/us
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Field ID:	#1	Diln Fac:	0.9434
Lab ID:	194170-001	Batch#:	124239
Matrix:	Soil	Sampled:	04/16/07
Units:	ug/Kg	Received:	04/16/07
Basis:	as received	Analyzed:	04/17/07

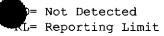
Analyte	Re	ult	
Freon 12	ND	•	9.4
Chloromethane	ND		9.4
Vinyl Chloride	ND		9.4
Bromomethane	ND		9.4
Chloroethane	ND		9.4
Trichlorofluoromethane	ND		4.7
Acetone		54	24
Freon 113	ND		4.7
1,1-Dichloroethene	ND		4.7
Methylene Chloride	ND		19
Carbon Disulfide	ND		4.7
MTBE	ND		4.7
trans-1,2-Dichloroethene	ND		4.7
Vinyl Acetate	ND		47
1,1-Dichloroethane	ND		4.7
2-Butanone		16	9.4
cis-1,2-Dichloroethene	ND		4.7
2,2-Dichloropropane	ND		4.7
Chloroform	ND		4.7
Bromochloromethane	ND		4.7
1,1,1-Trichloroethane	ND		4.7
1,1-Dichloropropene	ND		4.7
Carbon Tetrachloride	ND		4.7
1,2-Dichloroethane	ND		4.7
Benzene		5.2	4.7
Trichloroethene	ND		4.7
1,2-Dichloropropane	ND		4.7
Bromodichloromethane	ND		4.7
Dibromomethane	ND		4.7
4-Methyl-2-Pentanone	ND		9.4
cis-1,3-Dichloropropene	ND		4.7
Toluene	ND		4.7
trans-1,3-Dichloropropene	ND		4.7
1,1,2-Trichloroethane	ND		4.7
2-Hexanone	ND		9.4
1,3-Dichloropropane	ND		4.7
Tetrachloroethene	ND		4.7



	Purgeal	ole Organics by GC/	/MS
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Field ID:	#1	Diln Fac:	0.9434
Lab ID:	194170-001	Batch#:	124239
Matrix:	Soil	Sampled:	04/16/07
Units:	ug/Kg	Received:	04/16/07
Basis:	as received	Analyzed:	04/17/07

Analyte	Result	RC
Dibromochloromethane	ND	4.7
1,2-Dibromoethane	ND	4.7
Chlorobenzene	ND	4.7
1,1,1,2-Tetrachloroethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	15	4.7
o-Xylene	6.2	4.7
Styrene	ND	4.7
Bromoform	ND	4.7
Isopropylbenzene	ND	4.7
1,1,2,2-Tetrachloroethane	ND	4.7
1,2,3-Trichloropropane	ND	4.7
Propylbenzene	ND	4.7
Bromobenzene	ND	4.7
1,3,5-Trimethylbenzene	8.1	4.7
2-Chlorotoluene	ND	4.7
4-Chlorotoluene	ND	4.7
tert-Butylbenzene	ND	4.7
1,2,4-Trimethylbenzene	22	4.7
sec-Butylbenzene	ND	4.7
para-Isopropyl Toluene	ND	4.7
1,3-Dichlorobenzene	ND	4.7
1,4-Dichlorobenzene	ND	4.7
n-Butylbenzene	ND	4.7
1,2-Dichlorobenzene	ND	4.7
1,2-Dibromo-3-Chloropropane	ND	4.7
1,2,4-Trichlorobenzene	ND	4.7
Hexachlorobutadiene	ND	4.7
Naphthalene	ND	4.7
1,2,3-Trichlorobenzene	ND	4.7

Surrogate	*REC	Limits	
Dibromofluoromethane	107	78-126	
1,2-Dichloroethane-d4	105	76-135	
Toluene-d8	102	80-120	'
Bromofluorobenzene	105	80-126	





	Purgeal	ole Organics by GC/	/vs
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Field ID:	#2	Diln Fac:	0.9434
Lab ID:	194170-002	Batch#:	124239
Matrix:	Soil	Sampled:	04/16/07
Units:	ug/Kg	Received:	04/16/07
Basis:	as received	Analyzed:	04/17/07

Analyte	Result	
Freon 12	ND	9.4
Chloromethane	ND	9.4
Vinyl Chloride	ND	9.4
Bromomethane	ND	9.4
Chloroethane	ND	9.4
Trichlorofluoromethane	ND	4.7
Acetone	27	24
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.7
MTBE	ND	4.7
trans-1,2-Dichloroethene	ND	4.7
Vinyl Acetate	ND	47
1,1-Dichloroethane	ND	4.7
2-Butanone	ND	9.4
cis-1,2-Dichloroethene	ND	4.7
2,2-Dichloropropane	ND	4.7
Chloroform	ND	4.7
Bromochloromethane	ND	4.7
1,1,1-Trichloroethane	ND	4.7
1,1-Dichloropropene	ND	4.7
Carbon Tetrachloride	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Trichloroethene	ND	4.7
1,2-Dichloropropane	ND	4.7
Bromodichloromethane	ND	4.7
Dibromomethane	ND	4.7
4-Methyl-2-Pentanone	ND	9.4
cis-1,3-Dichloropropene	ИП	4.7
Toluene	ND	4.7
trans-1,3-Dichloropropene	ND	4.7
1,1,2-Trichloroethane	ND	4.7
2-Hexanone	ND	9.4
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7

D= Not Detected
KL= Reporting Limit

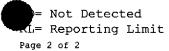
Page 1 of 2



	Purgeal	ole Organics by GC/	<b>(vs</b>
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Field ID:	#2	Diln Fac:	0.9434
Lab ID:	194170-002	Batch#:	124239
Matrix:	Soil	Sampled:	04/16/07
Units:	ug/Kg	Received:	04/16/07
Basis:	as received	Analyzed:	04/17/07

Analyte	Re	sult	
Dibromochloromethane	ND		4.7
1,2-Dibromoethane	ND		4.7
Chlorobenzene	ND		4.7
1,1,1,2-Tetrachloroethane	ND		4.7
Ethylbenzene	ND		4.7
m,p-Xylenes	ND		4.7
o-Xylene	ND		4.7
Styrene	ND		4.7
Bromoform	ND		4.7
Isopropylbenzene		7.4	4.7
1,1,2,2-Tetrachloroethane	ND		4.7
.,2,3-Trichloropropane	ND		4.7
Propylbenzene		9.2	4.7
Bromobenzene	ND		4.7
1,3,5-Trimethylbenzene		5.6	4.7
2-Chlorotoluene	ND		4.7
4-Chlorotoluene	ND		4.7
tert-Butylbenzene	ИD		4.7
1,2,4-Trimethylbenzene		7.5	4.7
sec-Butylbenzene		7.8	4.7
para-Isopropyl Toluene		6.0	4.7
1,3-Dichlorobenzene	ND		4.7
1,4-Dichlorobenzene	ND		4.7
n-Butylbenzene		5.1	4.7
1,2-Dichlorobenzene	ND		4.7
1,2-Dibromo-3-Chloropropane	ND		4.7
1,2,4-Trichlorobenzene	ND		4.7
Hexachlorobutadiene	ND		4.7
Naphthalene		14	4.7
1,2,3-Trichlorobenzene	ND		4.7

Surrogate	*REC	
Dibromofluoromethane	108	78-126
1,2-Dichloroethane-d4	98	76-135
Toluene-d8	98	80-120
Bromofluorobenzene	119_	80-126





	Purgeak	ole Organics by GC/	
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC383939	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124239
Units:	ug/Kg	Analyzed:	04/17/07

Anelyte	Spilked	Result	*REC	Limits
1,1-Dichloroethene	25.00	26.27	105	76-132
Benzene	25.00	26.28	105	80-120
Trichloroethene	25.00	26.94	108	80-120
Toluene	25.00	26.92	108	80-120
Chlorobenzene	25.00	26.96	108	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	100	78-126	
1,2-Dichloroethane-d4	95	76-135	
Toluene-d8	99	80-120	
Bromofluorobenzene	100	80-126	



	Purgeal	ole Organics by GC/	MS
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC383940	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124239
Units:	ug/Kg	Analyzed:	04/17/07

Analyte	Result	
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

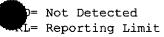
P= Not Detected L= Reporting Limit



	Purgeak	ole Organics by GC/	/MS
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC383940	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124239
Units:	ug/Kg	Analyzed:	04/17/07

Analyte	Result	
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	Limita
Dibromofluoromethane	105	78-126
1,2-Dichloroethane-d4	99	76-135
Toluene-d8	96	80-120
Bromofluorobenzene	102	80-126





	Purgeal	ole Organics by GC/	/MS
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Field ID:	22222222	Diln Fac:	0.9091
MSS Lab ID:	194169-005	Batch#:	124239
Matrix:	Soil	Sampled:	04/16/07
Units:	ug/Kg	Received:	04/16/07
Basis:	as received	Analyzed:	04/17/07

Type:

MS

Lab ID:

QC383978

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.5202	45.45	50.24	111	72-138
Benzene	<0.1253	45.45	41.68	92	61-122
Trichloroethene	<0.2974	45.45	44.21	97	62-134
Toluene	<0.5024	45.45	42.81	94	57-124
Chlorobenzene	<0.4701	45.45	42.09	93	55-120

Surrogate	%REC	Limits	
Dibromofluoromethane	92	78-126	
1,2-Dichloroethane-d4	77	76-135	
Toluene-d8	93	80-120	
Bromofluorobenzene	98	80-126	

Type:

MSD

Lab ID: QC383979

Analyte	Spiked	Result	*REC	Limits	RPD	Lim
1,1-Dichloroethene	45.45	51.06	112	72-138	2	20
Benzene	45.45	42.56	94	61-122	2	20
Trichloroethene	45.45	44.51	98	62-134	1	20
Toluene	45.45	43.13	95	57-124	1	21
Chlorobenzene	45.45	41.79	92	55-120	1	22

Surrogate	*REC	Limits	
Dibromofluoromethane	96	78-126	
1,2-Dichloroethane-d4	80	76-135	
Toluene-d8	96	80-120	
Bromofluorobenzene	97	80-126	



## R&M Environmental and Infrastructure Engineering, Inc.

7996 Capwell Drive Oakland, CA 94621-2015 (510) 553-2146 • FAX (510) 553-2145

## CHAIN OF CUSTODY RECORD

DATE	CHAIN OF CUSTODY NUMBER
4/25/07	1007
LABORATORY NUMBER	
	1 7
	PAGE OF

Removal Attion			PROJECT MANAGER M. Chascemi							REQUESTED ANALYSIS							s		
PROJECT HUMBER			TELEPHON	SS3-8	2146				/	1	/	/	3/3	1	1	1	11		
PROJECT LOCATION			DESTINATIO	N LABORATOR					/	/	/	10	10	1	/	/	/ /	/	
205/209 Brush St. 1	Daklo	sel	McCo	mobel				1	2	1	00	13	1-1	/ /	/	/		/	
R CAMPUZA C. Adam	5		2323 Fifth Street							1	5/3	1/	1	/	/	/	//	/	
SAMPLER SIGNATURE(S)			CITY	7	STATE	21P		/0	1/5	/ 3	1/5	15	1	/	/	/	//		
	7		The second second	RY TELEPHONE		710	,	1	10	1	21	26	/ /	/ /	/	/ /	/		
(510) 364-4431			(510				/	20/	5/	10/	1/	1	/	/	/	/	/		Second Control
SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO./TYPE	OF	TURN OUND TIME	/ A	1	1	1	/		$\angle$			$\angle$		REMARI B, COMPOSIT	
TB-1	239	/	water	6x40mr Va	1	4485	X	X		×	X								
RM-BI			5011	WTURE	1.5	1	X	$\times$	X	X	X								
RM-B2							1			1									
RM-83																			
RM-84																			
RM-SI							1												
RM-SZ																			
RM-53							1		-										
RM-NI							4	1		-									
RM-N2								1											
RM - N3			- AL				1	1			Į.								
							SPEC	AL INS	HUCT	UNS:									
SHIPPED VIA:	1	-	AIRBILL #:		r		- 9	-		Control	2				1000	I will be		1	Contract of the last
RELINQUISHED BY (SIGNATURE	3)	PRINT	NAME / C	OMPANY	DATE	TIME		RECEI	/ED B	Y (SIG	INATU	RE)	P	RINT	NAME	/ COM	IPANY	DATE	TIME
191	Cameron Adours / Ram 4/25/07					1550	4	aulu	al	4	L		L	iva	WW	(	urks	4/15/09	4,50
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de D on 10	E	10	DIS	TRIBUTION: W	ITE=LABOR	RATORY Y	ELLOW	-PROJ	ECT M	ANAGE	R P	NK-FI	LE		Т				



## R&M Environmental and Infrastructure Engineering, Inc.

7996 Capwell Drive Oakland, CA 94621-2015 (510) 553-2146 • FAX (510) 553-2145

## CHAIN OF CUSTODY RECORD

DAYE	CHAIN OF CUSTODY NUMBER
4/25/97	1016
LABORATORY NUMBER	
LABORATORY RUMBER	
	PAGE OF

Removal Action	4		PROJECT	M. Ghassemi						REQUESTED ANALYSIS							S		
PROJECT NUMBER	a 113		(5(0)	553-21	46				/	7	/	1	1	1	7	7	//		
205/209 Brush st	OA		DESTINATIO	ON LABORATOR	pkin	5			/	/	1	18	100	/	/	/	//	/	
C CANTAINS C AND Z3Z3 5th t							/	5/	9/	2/	1	1	/	/	/	//			
BAMPLER BIGNATURE(B)	1911	W.	Reck C	eley, c	BTATE	4710		13	/	1/6	/	/	1	/	/	/	//		
STE CONTACT/TELEPHONE NUMBER	ER	TYG	(510)4	86-69 00	NUMBER		/	1	1	1	1	9	//		/	/			
SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO./TYPE CONTAINE	OF IRS	TURN AROUND TIME	12	1	1	1/1	/	$\angle$		$\angle$	$\angle$		/ car	REMAR IAB, COMPOSI	
RM-EI	15/01	/	Soil	1.5"x4",5,	S	2440	$\times$	×	X	×	X							*	
RM-WI	1						$\times$	$\times$	×	$\times$	$\times$								
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					-							-			1				
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							ROSCI	AL INC	TRUCT	WHE.									
SHIPPED VIA:		- 4	ARBILL #:				ar Lu	/	1	iona.									
RELINQUISHED BY (SIGNATUR	RE)	PRINT	NAME / C	OMPANY	DATE	TIME		RECE	VED B	Y (SIG	MATU	RE	,	RINT	NAME	/ CO	MPANY	DATE	TIME
( Sy Comeson Adam/8+M 725/04 3559					1 359	AA	Ten	hd	1	4	4	Lo	ili	hn-	0	MS	4/25/02	350	
	7						C. C.			SVE		Series Resident				I ST			
REC DON	البالة	17	DIS	THIBUTION: WH	ITE=LAB	ORATORY Y	ELLOW	-PRO	ECT M	ANAGE	R P	NK-FI	LE						



	Curtis & Tompkins l	aboratories Anal	lytical Report
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD		
Field ID:	TB-1	Batch#:	124552
Matrix:	Water	Sampled:	04/25/07
Units:	ug/L	Received:	04/25/07
Diln Fac:	1.000	Analyzed:	04/25/07

Type: SAMPLE

Lab ID: 194375-001

Analyte	Result	<b>RL</b>	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

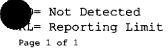
Surrogate	%REC	Limits	Analysis
[rifluorotoluene (FID)	93	72-136	EPA 8015B
Bromofluorobenzene (FID)	98	78-131	EPA 8015B
Trifluorotoluene (PID)	87	63-140	EPA 8021B
Bromofluorobenzene (PID)	95	78-121	EPA 8021B

Type: BLANK

Lab ID: QC385193

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	104	72-136	EPA 8015B
Bromofluorobenzene (FID)	113	78-131	EPA 8015B
Trifluorotoluene (PID)	98	63-140	EPA 8021B
Bromofluorobenzene (PID)	110	78-121	EPA 8021B





	Curtis & Tompkins	Laboratories Anal	ytical Report
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC385194	Batch#:	124552
Matrix:	Water	Analyzed:	04/25/07
Units:	ug/L	_	

Analyte	Spiked	Result	*REC	Limits
Benzene	20.00	19.74	99	79-120
Toluene	20.00	19.62	98	80-120
Ethylbenzene	20.00	20.34	102	80-120
m,p-Xylenes	20.00	20.96	105	80-120
o-Xylene	20.00	21.14	106	80-120

Surrogate	%REC	Limits	
Trifluorotoluene (PID)	97	63-140	
Bromofluorobenzene (PID)	108	78-121	



	Curtis & Tompkins 1	aboratories Anal	lytical Report
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC385195	Batch#:	124552
Matrix:	Water	Analyzed:	04/25/07
Units:	ug/L	<del>-</del>	

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,947	97	80-120

Surrogate	*REC	Limits
Trifluorotoluene (FID)	109	72–136
Bromofluorobenzene (FID)	128	78-131



	Curtis & Tompkins	laboratories Ana	lytical Report
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	124552
MSS Lab ID:	194373-001	Sampled:	04/25/07
Matrix:	Water	Received:	04/25/07
Units:	ug/L	Analyzed:	04/25/07
Diln Fac:	1.000	4	

Type:

MS

Lab ID:

QC385196

Analyte	MSS Result	Spiked	Result	<b>PREC</b>	Limits
Gasoline C7-C12	66.31	2,000	1,926	93	79-120

Surrogate	*REC	
Trifluorotoluene (FID)	102	72-136
Bromofluorobenzene (FID)	122	78-131

Type:

MSD

Lab ID:

QC385197

Analyte	Spiked	Result	FREC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,892	91	79-120	2	20
Surrogate	全党联门 T.imite			· (4) [1] [1] [1] [1] [1] [1] [1] [1] [1] [1]	e	24 1 1 1 1 1 1 1

Surrogate	*REC	Limits	.v.7%
Trifluorotoluene (FID)	101	72-136	
Bromofluorobenzene (FID)	120	78-131	



	Curtis & Tompkins	Laboratories Anal	ytical Report
Lab #: Client: Project#:	194375 R&M Environmental STANDARD	Location: Prep:	205/209 Brush St. Oakland EPA 5030B
Matrix: Basis: Batch#:	Soil as received 124590	Sampled: Received:	04/25/07 04/25/07

RM~B1

SAMPLE

Diln Fac: Analyzed: 100.0

Type: Lab ID:

194375-002

04/26/07

Analyte	Result		Units Analysis
Gasoline C7-C12	4,500 Y	· 100	mq/Kq EPA 8015B
Benzene	ND	500	ug/Kg EPA 8021B
Toluene	ND	500	ug/Kg EPA 8021B
Ethylbenzene	ND	500	ug/Kg EPA 8021B
m,p-Xylenes	8,000 C	500	ug/Kg EPA 8021B
o-Xylene	24,000	500	ug/Kg EPA 8021B

Surrogate	SREC	Limits	Analysis	
Trifluorotoluene (FID)	108	70-132	PA 8015B	
Bromofluorobenzene (FID)	279 * >LR h	66-138	B EPA 8015B	i
Trifluorotoluene (PID)	137	63-142	P EPA 8021B	
Bromofluorobenzene (PID)	<u>19</u> 0 *	70-129	EPA 8021B	

eld ID:

RM-B2

Diln Fac:

25.00 04/26/07

ype: Lab ID:

SAMPLE 194375-003

Analyzed:

Analyte	Result	स्य	Units Analysis
Gasoline C7-C12	960 Y	25	mg/Kg EPA 8015B
Benzene	ND	130	ug/Kg EPA 8021B
Toluene	ND	130	ug/Kg EPA 8021B
Ethylbenzene	ND	130	ug/Kg EPA 8021B
m,p-Xylenes	ND	130	ug/Kg EPA 8021B
o-Xylene	4,400	130	ug/Kg EPA 8021B

Surrogate	*REC	Limits	Analysis	Affilia, af la gli Lagott In
Trifluorotoluene (FID)	150 *	70-132 E	EPA 8015B	
Bromofluorobenzene (FID)	274 * >L	LR b 66-138 E	EPA 8015B	
Trifluorotoluene (PID)	118	63-142 E	EPA 8021B	
Bromofluorobenzene (PID)	156 *	70-129 E	EPA 8021B	

<sup>\*=</sup> Value outside of QC limits; see narrative
C= Presence confirmed, but RPD between columns exceeds 40%
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
b= See narrative
ND= Not Detected

L= Reporting Limit LR= Response exceeds instrument's linear range



	Curtis & Tompkins	Laboratories Anal	THE THE SECOND
Lab #: Client: Project#:	194375 R&M Environmental STANDARD	Location: Prep:	205/209 Brush St. Oakland EPA 5030B
Matrix: Basis: Batch#:	Soil as received 124590	Sampled: Received:	04/25/07 04/25/07

RM-B3

SAMPLE

Type: Lab ID:

194375-004

Diln Fac: Analyzed:

1.000 04/27/07

Analyte	Result	RL S	Units	Analysis
Gasoline C7-C12	ND	1.0	mq/Kq EPA	8015B
Benzene	ND	5.0	ug/Kg EPA	8021B
Toluene	ND	5.0	ug/Kg EPA	8021B
Ethylbenzene	ND	5.0	ua/Ka EPA	8021B
m,p-Xylenes	ND	5.0	ug/Kg EPA	8021B
o-Xylene	ND	5.0	ug/Kg EPA	

Surrogate	*REC	Limits	Analysis	
Trifluorotoluene (FID)	99"	70-132	EPA 8015B	
Bromofluorobenzene (FID)	114	66-138	EPA 8015B	
Trifluorotoluene (PID)	86	63-142	EPA 8021B	
Bromofluorobenzene (PID)	106	70-129	EPA 8021B	

eld ID: ype:

Lab ID:

RM-B4 SAMPLE

194375-005

Diln Fac:

200.0

Analyzed: 04/27/07

Analyte	Result		Units Analysis	/
Gasoline C7-C12	6,500 Y	200	mg/Kg EPA 8015B	
Benzene	ND	1,000	ug/Kg EPA 8021B	
Toluene	ND	1,000	ug/Kg EPA 8021B	
Ethylbenzene	ND	1,000	ug/Kg EPA 8021B	ļ
m,p-Xylenes	30,000	1,000	ug/Kg EPA 8021B	ļ
o-Xylene	34,000	1,000	ug/Kg EPA 8021B	

Surrogate	*REC	Limits	Analysis	생물을 하다면 사람들이 살아가다. 이 그는 그	Date of Dispos
Trifluorotoluene (FID)	152 *	70-132	EPA 8015B		
Bromofluorobenzene (FID)	258 * >LR b	66-138	EPA 8015B		
Trifluorotoluene (PID)	148 *	63-142	EPA 8021B		
Bromofluorobenzene (PID)	175 *	70-129	EPA 8021B		

<sup>\*=</sup> Value outside of QC limits; see narrative C= Presence confirmed, but RPD between columns exceeds 40% H= Heavier hydrocarbons contributed to the quantitation Y= Sample exhibits chromatographic pattern which does not resemble standard

b= See narrative ND= Not Detected

kL= Reporting Limit
LR= Response exceeds instrument's linear range



	Curtis & Tompkins	Laboratories Anal	ytical Report
Lab #: Client: Project#:	194375 R&M Environmental STANDARD	Location: Prep:	205/209 Brush St. Oakland EPA 5030B
Matrix: Basis: Batch#:	Soil as received 124590	Sampled: Received:	04/25/07 04/25/07

RM-S1 SAMPLE 194375-006 Diln Fac: Analyzed: 1.000 04/27/07

Type: Lab ID:

Analyte	Result		Units Analysis	
Gasoline C7-C12	14 H Y	0.96	mg/Kg EPA 8015B	
Benzene	ND	4.8	uq/Kq EPA 8021B	
Toluene	ND	4.8	ug/Kg EPA 8021B	
Ethylbenzene	ND	4.8	ug/Kg EPA 8021B	
m,p-Xylenes	ND	4.8	ug/Kg EPA 8021B	
o-Xylene	69	4.8	ug/Kg EPA 8021B	

Surrogate	*REC	Limits	Analysis	
Trifluorotoluene (FID)	126	70-132	EPA 8015B	
Bromofluorobenzene (FID)	200 *	66-138	EPA 8015B	
Trifluorotoluene (PID)	110	63-142	EPA 8021B	
Bromofluorobenzene (PID)	154 *	70-129	EPA 8021B	

eld ID: ype: Lab ID:

RM-52 SAMPLE 194375-007 Diln Fac: Analyzed: 100.0 04/26/07

Analyte	kesult :		Units	Analysis
Gasoline C7-C12	4,400 Y	100	mq/Kg EPA	8015B
Benzene	ND	500	ug/Kg EPA	8021B
Toluene	ND	500	ug/Kg EPA	8021B
Ethylbenzene	ND	500	ug/Kg EPA	8021B
m,p-Xylenes	ND	500	ug/Kg EPA	
o-Xylene	23,000	500	ug/Kg EPA	8021B

Surrogate	*REC	Limits	Analys	
Trifluorotoluene (FID)	128	70-132	EPA 8015B	
Bromofluorobenzene (FID)	355 * >LR	t b 66~138	EPA 8015B	•
Trifluorotoluene (PID)	103	63-142	EPA 8021B	
Bromofluorobenzene (PID)	174 *	70-129	EPA 8021B	

<sup>\*=</sup> Value outside of QC limits; see narrative C= Presence confirmed, but RPD between columns exceeds 40%

H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard

b= See narrative
ND= Not Detected
RL= Reporting Limit
AR= Response exceeds instrument's linear range



Curtis & Tompkins Laboratories Analytical Report Lab #: 205/209 Brush St. Oakland Location: Client: R&M Environmental EPA 5030B Prep: Project#: Matrix: STANDARD Soil 04/25/07 04/25/07 Sampled: Basis: as received Received: Batch#: 124590

Field ID:

RM-S3 SAMPLE Diln Fac: Analyzed: 1.000 04/27/07

Type: Lab ID:

194375-008

Analyte	Result	<b>RL</b> (50,000	Units	(j. 185a)	Analysis
Gasoline C7-C12	4.4 Y	1.0	mq/Kq	EPA	8015B
Benzene	ND	5.1	ua/Ka	EPA	8021B
Toluene	ND	5.1	ug/Kg	EPA	8021B
Ethylbenzene	ND	5.1	ug/Kg	EPA	8021B
m,p-Xylenes	ND	5.1	ug/Kg	EPA	8021B
o-Xylene	28	5.1	ug/Kg	EPA	8021B

Surrogate	*REC	Limits	Analys	
Trifluorotoluene (FID)	117	70-132	EPA 8015B	
Bromofluorobenzene (FID)	141 *	66-138	EPA 8015B	
Trifluorotoluene (PID)	102	63-142	EPA 8021B	
Bromofluorobenzene (PID)	128	70-129	EPA 8021B	

eld ID:

RM-N1 SAMPLE Diln Fac:

25.00 04/26/07

me: Lab ID:

194375-009

Analyzed:

Result Analyte RL Units Analysis mg/Kg EPA 8015B ug/Kg EPA 8021B Gasoline C7-C12 190 н Ү 25 130 Benzene ND Toluene ND 130 ug/Kg EPA 8021B ug/Kg EPA 8021B ug/Kg EPA 8021B ug/Kg EPA 8021B Ethylbenzene 1,700 C 130 m,p-Xylenes 130 ND o-Xvlene ND 130

Surrogate	*REC	Limits	Anelys 8
Trifluorotoluene (FID)	101	70-132	EPA 8015B
Bromofluorobenzene (FID)	142 *	66-138	EPA 8015B
Trifluorotoluene (PID)	84	63-142	EPA 8021B.
Bromofluorobenzene (PID)	126	70-129	EPA 8021B

\*= Value outside of QC limits; see narrative C= Presence confirmed, but RPD between columns exceeds 40%

H= Heavier hydrocarbons contributed to the quantitation Y= Sample exhibits chromatographic pattern which does not resemble standard

b= See narrative ND= Not Detected

RL= Reporting Limit

LR= Response exceeds instrument's linear range

Page 4 of 7



	항상 시민에 가는 사람들이 발표하지 않는데 하고 있는데	Laboratories Analy	tical Report
Lab #: Client: Project#:	194375 R&M Environmental STANDARD	Location: Prep:	205/209 Brush St. Oakland EPA 5030B
Matrix: Basis: Batch#:	Soil as received 124590	Sampled: Received:	04/25/07 04/25/07

Field ID: Type: Lab ID:

RM-N2 SAMPLE 194375-010

Diln Fac: Analyzed:

1.000 04/27/07

Units Analysis mg/Kg EPA 8015B Gasoline C7-C12 1.0 5.2 5.2 6.4 Benzene 11 ug/Kg EPA 8021B Toluene ND ug/Kg EPA 8021B 5.2 5.2 5.2 Ethylbenzene ND ug/Kg EPA 8021B m,p-Xylenes o-Xylene 9.4 C 36 C ug/Kg EPA 8021B ug/Kg EPA 8021B

Surrogate	*REC	Limits	Analysis	
Trifluorotoluene (FID)	119	70-132	EPA 8015B	
Bromofluorobenzene (FID)	163 *	66-138	EPA 8015B	
Trifluorotoluene (PID)	111	63-142	EPA 8021B	
Bromofluorobenzene (PID)	146 *	70-129	EPA 8021B	

ield ID: ype: Lab ID:

RM-N3 SAMPLE 194375-011 Diln Fac: Analyzed: 1.000 04/27/07

Analyte	Result.	Thomas All Control of Control	nits	Analysis
Gasoline C7-C12	ND	1.0 m	g/Kg EPA	8015B
Benzene	ND	5.0 u	g/Kg EPA	8021B
Toluene	ND		g/Kg EPA	
Ethylbenzene	ND	5.0 u	g/Kg EPA	8021B
m,p-Xylenes	ND		g/Kg EPA	
o-Xylene	6.1 C	5.0 u	q/Kq EPA	8021B

		V 1 1		
Surrogate	*REC	Limits	Analysis (1986)	3 4 4 6 7 7
Trifluorotoluene (FID)	104	70-132	EPA 8015B	
Bromofluorobenzene (FID)	118	66-138	EPA 8015B	
Trifluorotoluene (PID)	97	63+142	EPA 8021B	
Bromofluorobenzene (PID)	115	70-129	EPA 8021B	

\*= Value outside of QC limits; see narrative C= Presence confirmed, but RPD between columns exceeds 40% H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

b= See narrative
ND= Not Detected

RL= Reporting Limit LR= Response exceeds instrument's linear range

Page 5 of 7



Curtis & Tompkins Laboratories Analytical Report Lab #: Location: 205/209 Brush St. Oakland EPA 5030B Client: R&M Environmental Prep: Project#: Matrix: STANDARD Soil 04/25/07 04/25/07 Sampled: as received 124590 Basis: Received: Batch#:

Field ID:

RM-E1 SAMPLE Diln Fac: Analyzed:

1.000 04/27/07

Type: Lab ID:

194375-012

Analyte	Result		Units	Analysis
Gasoline C7-C12	ND	0.95	mg/Kg E	PA 8015B
Benzene	ND	4.8	ug/Kg E	PA 8021B
Toluene	ND	4.8		PA 8021B
Ethylbenzene	ND	4.8		PA 8021B
m,p-Xylenes	ND	4.8		PA 8021B
o-Xylene	ND	4.8	ug/Kg E	PA 8021B

Surrogate	FREC	Limits	Analysis
Trifluorotoluene (FID)	100	70-132	EPA 8015B
Bromofluorobenzene (FID)	110	66-138	EPA 8015B
Trifluorotoluene (PID)	97	63-142	EPA 8021B
Bromofluorobenzene (PID)	109	70-129	EPA 8021B

eld ID:

RM-W1

Diln Fac: Analyzed:

1.000 04/27/07

vpe: Lab ID:

SAMPLE 194375-013

Analyte	Result	<b>RL</b> : (*)	Units	Analysis
Gasoline C7-C12	3.6 H Y	1.0	mg/Kg EPA	8015B
Benzene	ND	5.0	ug/Kg EPA	8021B
Toluene	ND	5.0	ug/Kg EPA	
Ethylbenzene	ND	5.0	ug/Kg EPA	
m,p-Xylenes	ND	5.0	ug/Kg EPA	8021B
o-Xylene	15	5.0	ug/Kg EPA	

Surrogate	FREC	Limits	Analysis ( Analysis )	1000
Trifluorotoluene (FID)	127	70-132	EPA 8015B	
Bromofluorobenzene (FID)	157 *	66-138	EPA 8015B	
Trifluorotoluene (PID)	115	63-142	EPA 8021B	
Bromofluorobenzene (PID)	140 *	70-129	EPA 8021B	

\*= Value outside of QC limits; see narrative C= Presence confirmed, but RPD between columns exceeds 40% H= Heavier hydrocarbons contributed to the quantitation Y= Sample exhibits chromatographic pattern which does not resemble standard

b= See narrative ND= Not Detected

RL= Reporting Limit

LR= Response exceeds instrument's linear range



	Curtis & Tompkins	Laboratories Anal	ytical Report
Lab #: Client: Project#:	194375 R&M Environmental STANDARD	Location: Prep:	205/209 Brush St. Oakland EPA 5030B
Matrix: Basis: Batch#:	Soil as received 124590	Sampled: Received:	04/25/07 04/25/07

Type: Lab ID:

BLANK QC385338

Diln Fac: Analyzed:

1.000 04/26/07

Analyte	Result	rang <b>Ru</b> ng ang sa	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	EPA 8015B
Benzene	ND	5.0	ug/Kg	EPA 8021B
Toluene	ND	5.0		EPA 8021B
Ethylbenzene	ND	5.0		EPA 8021B
m,p-Xylenes	ND	5.0		EPA 8021B
o-Xylene	ND	5.0		EPA 8021B

Surrogata	*REC	Limits	
Trifluorotoluene (FID)	98	70-132	EPA 8015B
Bromofluorobenzene (FID)	105	66-138	EPA 8015B
Trifluorotoluene (PID)	89	63-142	EPA 8021B
Bromofluorobenzene (PID)	100	70-129	EPA 8021B

<sup>\*=</sup> Value outside of QC limits; see narrative
C= Presence confirmed, but RPD between columns exceeds 40%
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
b= See narrative
ND= Not Detected
ND= Perpenting Limit

L= Reporting Limit
L= Response exceeds instrument's linear range



	Curtis & Tompkins !	Laboratories Anal	ytical Report
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8021B
Type:	LCS	Basis:	as received
Lab ID:	QC385339	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124590
Units:	ug/Kg	Analyzed:	04/26/07

Analyte	Spiked	Result	₹RE(	Limits	
Benzene	100.0	98.58	99	80-120	
Toluene	100.0	95.71	96	80-120	
Ethylbenzene	100.0	100.6	101	80-120	
m,p-Xylenes	100.0	100.5	101	80-120	
o-Xylene	100.0	101.6	102	80-120	

Surrogate	*REC	Limits	
Trifluorotoluene (PID)	91	63-142	
Bromofluorobenzene (PID)	97	70-129	



	Curtis & Tompkins I	aboratories Anal	ytical Report
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC385340	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124590
Units:	mg/Kg	Analyzed:	04/26/07

Analyte	Spiked	Result	₹REC	Limits
Gasoline C7-C12	10.00	9.471	95	80-120

Surrogate	%REC	Limits	이 이번 생생님들이 나는 사람들이 함께 있을 때에 모르겠다면 다 되었다.
Trifluorotoluene (FID)	103	70-132	
Bromofluorobenzene (FID)	111	66-138	



	Curtis & Tompkins ]	Laboratories Anal	ytical Report
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	RM-B3	Diln Fac:	1.000
MSS Lab ID:	194375-004	Batch#:	124590
Matrix:	Soil	Sampled:	04/25/07
Units:	mg/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	04/26/07

Type:

MS

Lab ID:

QC385341

Analyte	Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.7299	10.31	9.602	86	36-120

Surrogate	*REC	Limits
Trifluorotoluene (FID)	103	70-132
Bromofluorobenzene (FID)	121	66-138

Type:

MSD

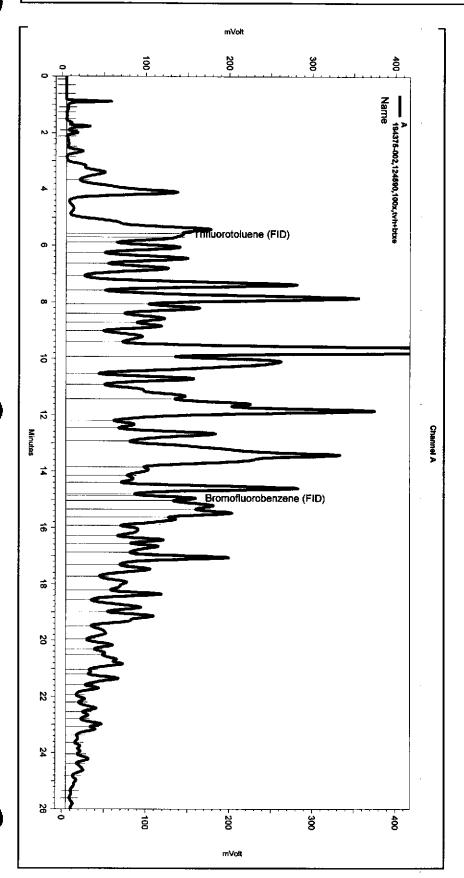
Lab ID:

QC385342

Analyte	Spiked	Result	*RE	C Limits	RPD	Lim
Gasoline C7-C12	10.10	9.757	89	36-120	4	29

Surrogate	*REC	Limits
Trifluorotoluene (FID)	101	70-132
Bromofluorobenzene (FID)	118	66-138

Sequence File: \\Lims\gdrive\exchrom\Projects\GC05\Sequence\116.seq Sample Name: 194375-002,124590,100x,tvh+btxe
Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\116\_010
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe106.met Software Version 3.1.7 Run Date: 4/26/2007 6:52:53 PM Analysis Date: 4/27/2007 10:13:12 AM Sample Amount: 1 Multiplier: 1 Vial & pH or Core ID: A



—< Ge	neral Method Parai	neters >			—
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No item	s selected for this :	section			
integrat	ion Events				
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Manual	Integration Fixes				
Data	File: \\Lims\gdrive\e	zchrom\Projects\0 Start Stop	3C05\E	Data\11	6_010
Enabl	ed Event Type	(Minute:	s) (Mir	nutes)	Value
Yes	Lowest Point Hor Split Peak Split Peak Split Peak Split Peak	izontal Baseli 5.571 5.701 14.865 15.033	0	26.017 0 0 0 0	O
		10.000	•	•	

Page 2 of 4 (38) Curtis & Tompkins Ltd.

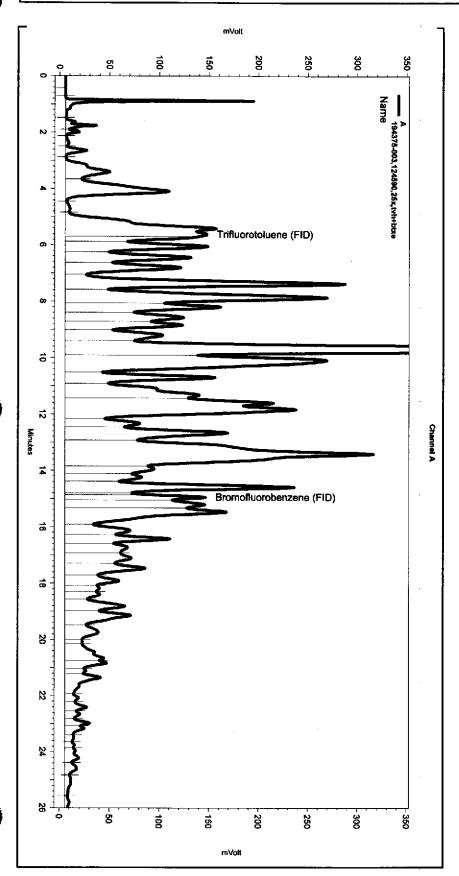
Sequence File: \\Lims\gdr\ve\ezchrom\Projects\GC05\Sequence\116.seq Sample Name: 194375-003,124590,25x,tvh+btxe

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\116\_006

Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)

Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe106.met

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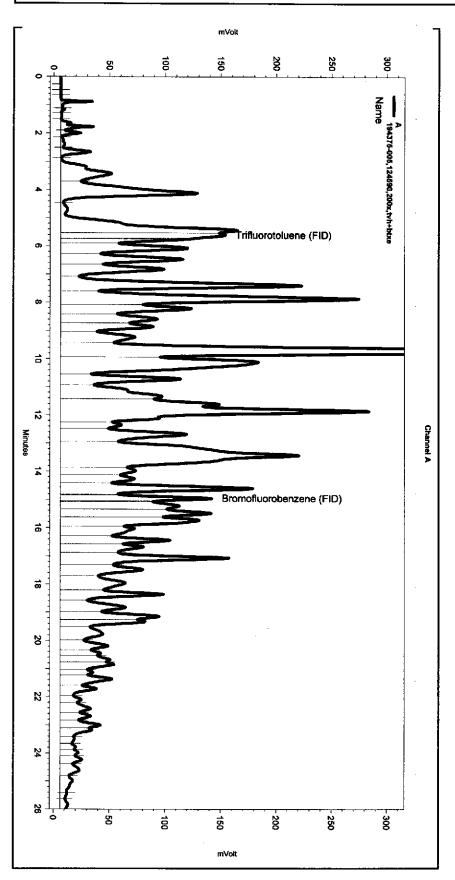
				_	
< Ge	neral Method Paramet				
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No item	s selected for this sec	tion			
Integrat	ion Events				
		Start Stor			
Enabl	ed Event Type			inutes)	Value
	Width Threshold	O	0	0.2 50	
Manual	Integration Fixes				
Data	File: \\Lims\gdrive\ezcl	hrom\Projects Start Stop		Data\11	6_006
Enabl	ed Event Type	(Minut	es) (Mi	nutes)	Value
Yes	Lowest Point Horizo	ntal Baseli	0	26.017	0
Yes	Split Peak	5.696	0	0	
Van	Collis Claude	44.004			

Page 2 of 4 (22) Curtis & Tompkins Ltd.

Sequence File: \\Lims\gdr\ve\ezchrom\\Projects\\GC05\\Sequence\116.seq \\
Sample \Name: 194375-005,124590,200x,tv\h+btxe \\
Data File: \\Lims\gdr\ve\ezchrom\\Projects\\GC05\\Data\116\_032 \\
Instrument: GC05 (Offline) \times\\Omega\rm \\NA \times\\Omega\rm \\Omega\rm \\\Omega\rm \\\Omega\rm \\\Omega\rm \\Omega\rm \\\Omega\rm \\\Omega\rm \\\Omega\rm \\\Omega\rm \\\Omega\rm \\\Omega\rm \\Omega\rm \\\Omega\rm \\\

Software Version 3.1.7 Run Date: 4/27/2007 9:03:17 AM Analysis Date: 4/27/2007 10:14:44 AM Sample Amount: 1 Multiplier: 1

Vial & pH or Core ID: A



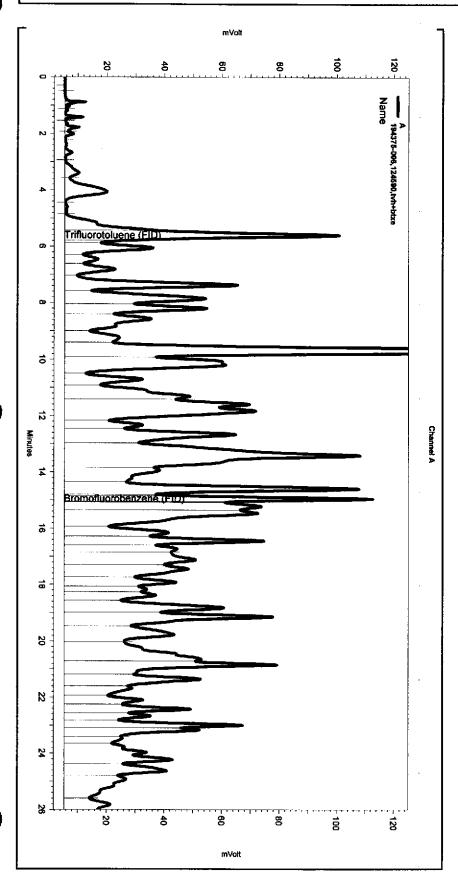
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	·				
No item	ns selected for this :	section			
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Yes	Width		0 (	0.2	
Yes	Threshold	0	0	50	
Manual	Integration Fixes				
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Enab	led Event Type	(Minute	s) (Mi	nutes)	Value
Yes	Lowest Point Hor	izontal Baseli	0	26.017	0
Yes	Split Peak	5.709	0	O	
Yes		5.742	0	0	
Yes	Split Peak	14.853	0	0	
Yes	Split Peak	15.05	0	0	

Page 2 of 4 (126)

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\116.seq Sample Name: \\194375-006,124590,tvh+btxe
Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\116\_020
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2) Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe106.met

Software Version 3.1.7 Run Date: 4/27/2007 12:47:50 AM Analysis Date: 4/27/2007 10:13:55 AM Sample Amount: 1.04 Multiplier: 1.04

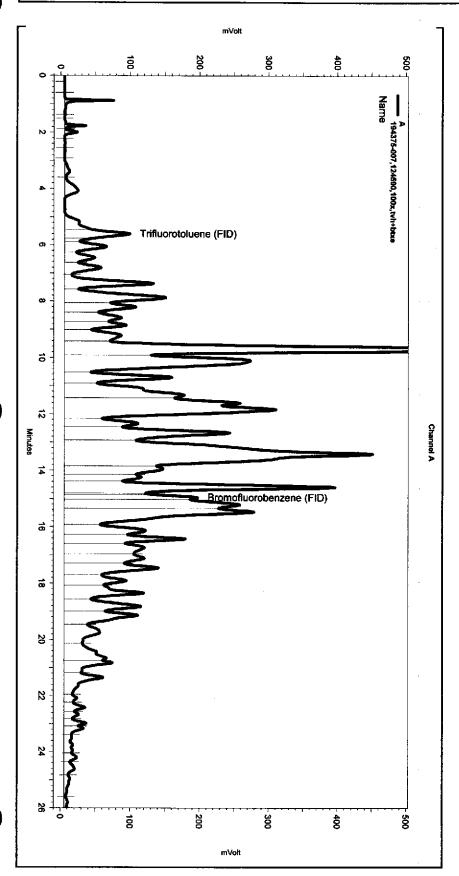
Vial & pH or Core ID: A



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Integrat	tion Events				
Enab	ed Event Type	Start Stop (Minute		nutes)	Value
Yes Yes	Width Threshold	0	0 0	.2 50	
Manual	Integration Fixes				
Data	File: \\Lims\gdrive\ez	chrom\Projects\ Start Stop		Data\110	5_020
Enab	ed Event Type	(Minute		nutes)	Value
Yes	Lowest Point Horiz	contal Baseli	0 3	26.017	0
Yes	Split Peak	5.432	0	0	
Yes	Split Peak	5.781	0	0	
Yes	Split Peak	14.85	D	0	
Vac	Solit Pook	15.05	0	n	

Page 2 of 4 (78) Curtis & Tompkins Ltd.

Sequence File: \\Lims\gdrlve\ezchrom\Projects\GC05\Sequence\116.seq  Software Version 3.1.7 Run Date: 4/26/2007 10:25:53 PM Analysis Date: 4/27/2007 10:13:39 AM Sample Amount: 1 Multiplier: 1 Vial & pH or Core ID: A



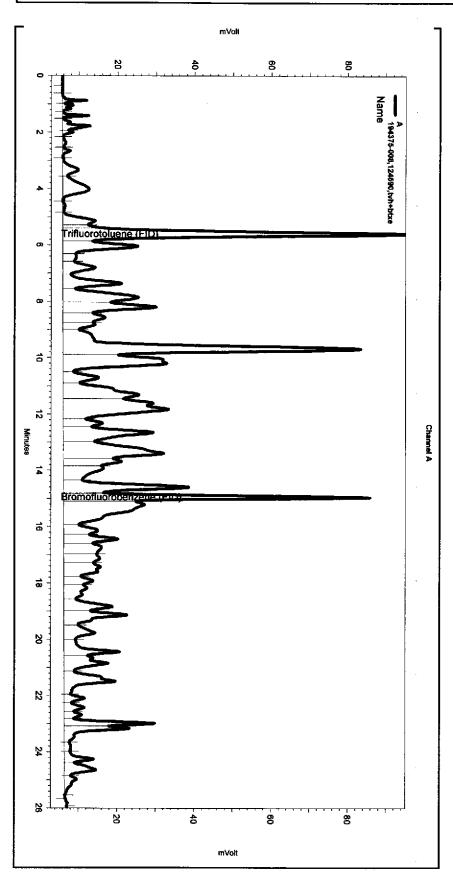
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	ion Events				
		art Stop (Minutes)	(Min	utes)	Value
Yes Yes	Width Threshold	0 0	0.	2 50	
Manual	Integration Fixes				
Data	File: \\Lims\gdrive\ezchro	m\Projects\G0 art Stop	205\D	ata\11	6_016
Enabl	ed Event Type	(Minutes)	(Min	utes)	Value
		4,434 5,453 5,761 14,864	0	0	D
Yes	Split Peak Split Peak	15.034	0	0	

Page 2 of 4 (62) Curtis & Tompkins Ltd.

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\116.seq Sample Name: 194375-008,124590,tvh+btxe
Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\116\_021
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe106.met

Software Version 3.1.7 Run Date: 4/27/2007 1:23:22 AM Analysis Date: 4/27/2007 10:13:59 AM Sample Amount: 0.99 Multiplier: 0.99

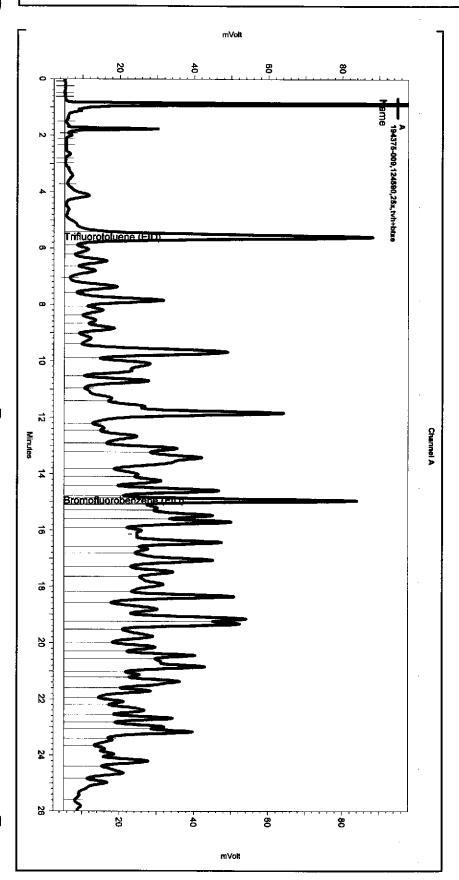
Vial & pH or Core ID: A



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	ns selected for this	section Start Stop			
	led Event Type	(Minute:			Value
Yes	Width Threshold	0	0 0		
Manual	Integration Fixes	_			
Data	File: \\Lims\gdrive	= \ezchrom\Projects\0 Start Stop	3C05\E	)ata\11	6_021
Enab	led Event Type	(Minute:	a) (Mir	nutes)	Value
Yes	Split Peak	5.403			
Yes	Split Peak	14.826	0	0	
Yes	Solit Peak	15.063	0	ο	

Sequence File: \Lims\gdrive\ezchrom\Projects\GC05\Sequence\116.seq Sample Name: 194375-009,124590,25x,tvh+btxe
Data File: \LIms\gdrive\texture\te

Software Version 3.1.7 Run Date: 4/26/2007 5:31:50 PM Analysis Date: 4/27/2007 10:13:07 AM Sample Amount: 1 Multiplier: 1 Vial & pH or Core ID: A



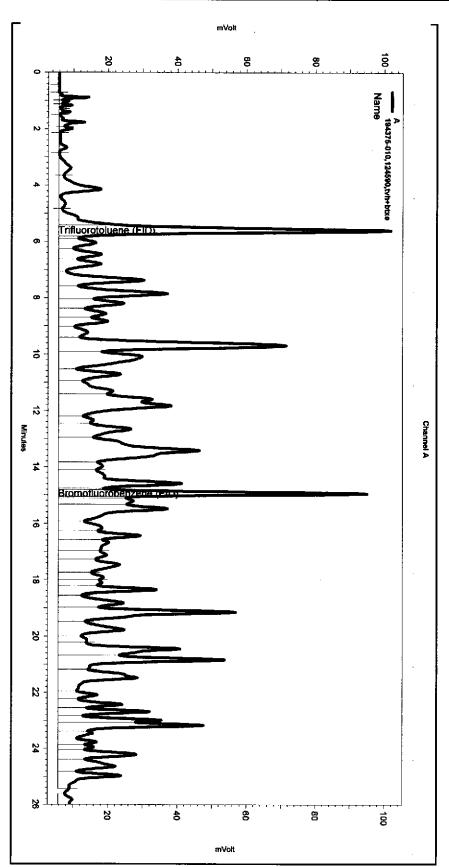
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Yes Yes Manual	Threshold Integration Fixes	o 0	0 0 0 GC05\E	.2 50 Sata\11	6_009
Yes Yes Manual	Threshold Integration Fixes File: \\Lims\gdrive\c	0 0 ezchrom\Projects\ Start Stop (Minute	D 0 0 GC05\E	.2 50 Data\11	6_009
Yes Yes Manual Data Enab	Threshold  Integration Fixes  File: \Lims\gdrive\u00e4  led Event Type  Lowest Point Hot Split Peak	0 0 0 szchrom\Projects\ Start Stop (Minute	D 0 0 GC05\E	2 50 Data\11	6_009 Value
Yes Yes Manual Data Enab Yes Yes Yes	Threshold  Integration Fixes  File: \Lims\gdrive\u00e4  led Event Type  Lowest Point Hot Spilt Peak	0 0 ezchrom\Projects\ Start Stop (Minute	GC05\E	2 50 Data\11 nutes)	6_009 Value

Page 2 of 4 (34) Curtis & Tompkins Ltd.

Sequence File: \\Lims\gdrive\azchrom\Projects\GC05\Sequence\116.seq Sample Name: 194375-010,124590,tvh+btxe

Data File: \\Lims\\gdrive\ezchrom\\Projects\\GC05\\Data\\116\_022 \\
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2) \\
Method Name: \\Lims\\gdrive\ezchrom\\Projects\\GC05\\Method\\tvhbtxe106.met

Software Version 3.1.7 Run Date: 4/27/2007 1:58:50 AM Analysis Date: 4/27/2007 10:14:03 AM Sample Amount: 0.96 Multiplier: 0.96 Vial & pH or Core ID: A



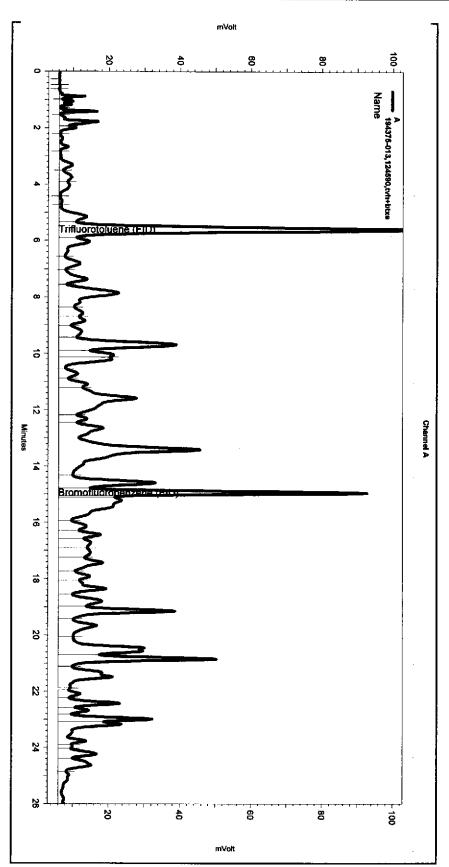
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No item	s selected for this	section			
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No item	ns selected for this	section			
Integral	tion Events				
Enabl	led Event Type		op utes) i	(Minut	es) Value
Yes Yes		0	0		
Manual	Integration Fixes	_			
Data	File; \\Lims\gdrive\		ts\GC0	05\Dat	a\116_022
Enabl	ed Event Type			(Minut	es) Value
Yes	· · · · · · · · · · · · · · · · · · ·	orizontal Baseli	O	26	- 017 0
	Lowest Point Ho				011 0
Yes	Split Peak	5.416	_	0	0
Yes Yes	Split Peak Split Peak	5.811		0 0	0
Yes Yes	Split Peak		5	0	0

Page 2 of 4 (86) Curtis & Tompkins Ltd.

Sequence File: \Lims\gdrive\ezchrom\Projects\GC05\Sequence\116.seq Sample Name: 194375-013,124590,tvh+btxe
Data File: \Lims\gdrive\ezchrom\Projects\GC05\Data\116\_025

Data File: \\Lims\gdrive\exchrom\Projects\GC05\Data\116\_025 \\
Instrument: GC05 (Offline) Vial: \\A Operator: Tvh 2. \Analyst (lims\2k3\tvh2) \\
Method \Name: \\Lims\gdrive\exchrom\Projects\GC05\Method\tvhbtxe106.met

Software Version 3.1.7 Run Date: 4/27/2007 3:45:11 AM Analysis Date: 4/27/2007 10:14:15 AM Sample Amount: 1 Multiplier: 1 Vial & pH or Core ID: A



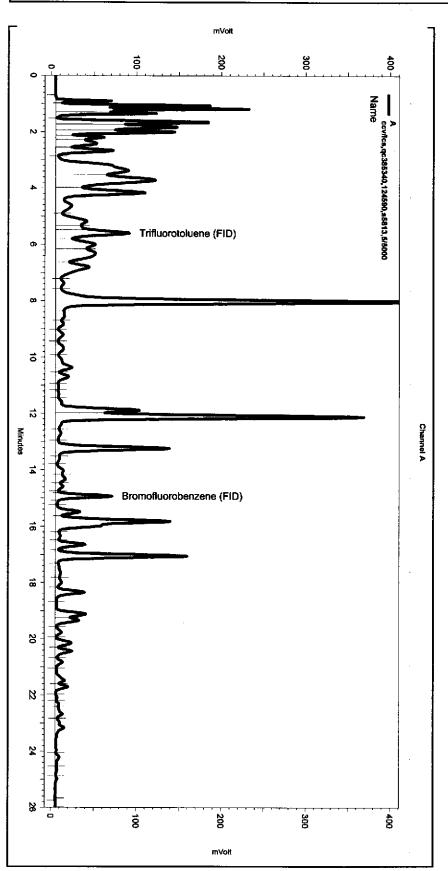
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No items select	ted for this section				
Integration Eve	ents				
Enabled Eve	Sta ent Type			Ainutes)	Value
Enabled Eve	ent Type			0.2 50	Value
Yes Width Yes Thres	ent Type shold	(Minut	es) (M 0	0.2	Value
Yes Width Yes Thres Manual Integra	ent Type shold	(Minut 0 0	0 0 0	0.2 50	
Yes Width Yes Thres Manual Integra	ent Type shold tion Fixes ims\gdrive\ezchror Stz	(Minut 0 0 0 nVProjects art Sto	0 0 0 0	0.2 50	6_025

Page 2 of 4 (98) Curtis & Tompkins Ltd.

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\116.seq Sample Name: ccv/lcs,qc385340,124590,s5813,5/5000

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\116\_003 instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2) Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbbse106.met

Software Version 3.1.7
Run Date: 4/26/2007 11:31:32 AM
Analysis Date: 4/27/2007 10:02:51 AM
Sample Amount: 1 Multiplier: 1
Vial & pH or Core ID: {Data Description}



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Integration Events			
Enabled Event Type	Start Stop (Minutes)	(Minutes)	Value
Enabled Event Type  Yes Width Yes Threshold	(Minutes) 0 0	(Minutes) 0.2 0 50	Value
Yes Width Yes Threshold	(Minutes) 0 0	0.2	Value
Yes Width Yes Threshold  Manual Integration Fixes	(Minutes) 0 0 0	0.2 0 50	
Yes Width Yes Threshold Manual Integration Fixes	(Minutes) 0 0 0 zchrom\Projects\GC Start Stop (Minutes)	0.2 0 50	6_003
Yes Width Yes Threshold  Manual Integration Fixes  Data File: \\Lims\gdrive\e	(Minutes) 0 0 0 czchrom\Projects\GC Start Stop	0.2 0 50 0 50 0.05\Deta\11	6_003

Page 2 of 4 (10) Curtis & Tompkins Ltd.

	Total Ext	ractable Hydrocar	bons
Lab #: Client: Project#:	194375 R&M Environmental STANDARD	Location: Prep: Analysis:	205/209 Brush St. Oakland SHAKER TABLE EPA 8015B
Matrix: Units: Basis: Batch#•	Soil mg/Kg as received 124601	Sampled: Received: Prepared:	04/25/07 04/25/07 04/26/07

RM-B1

Type: Lab ID:

SAMPLE 194375-002 Diln Fac:

5.000

Analyzed:

04/30/07

Amala	ra Regult		
Diesel C10-C24	800 L Y	5.0	

Surrogate AREC Limits Hexacosane 99 40-127

Field ID:

RM-B2

Type: Lab ID:

SAMPLE 194375-003 Diln Fac: Analyzed:

1.000

04/30/07

managers by the Anglista	All the second of the Result by	. The state of the large state of the	
Diesel C10-C24	110 L Y	1.0	

&REC. Limita Surrogate lexacosane 95 40-127

Field ID:

Type: Lab ID:

RM-B3 SAMPLE

194375-004

Diln Fac:

1.000

Analyzed: 04/30/07

Analyte Result RL Diesel C10-C24 1.2 L Y 1.0

Surrogate &RFC. Limita Hexacosane 93 40-127

Field ID:

Type:

Lab ID:

RM-B4

SAMPLE 194375-005 Diln Fac:

5.000

Analyzed:

04/30/07

Analyte Result Diesel C10-C24 990 L Y 5.0

Surrogate Limits %REC

Hexacosane

102 40-127

H= Heavier hydrocarbons contributed to the quantitation L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

Ç≔ Dilūted Out

Not Detected

L= Reporting Limit

Page 1 of 4

33.0

Total Extractable Hydrocarbons Lab #: 194375 Location: 205/209 Brush St. Oakland SHAKER TABLE Client: R&M Environmental Prep: EPA 8015B 04/25/07 04/25/07 Project#: STANDARD <u>Analysis:</u> Matrix: Soil Sampled: Units: mg/Kg Received: as received 124601 Basis: 04/26/07 Prepared: Batch#: Field ID: RM-S1 Diln Fac: 1.000 Type: Lab ID: SAMPLE 04/27/07 Analyzed: 194375-006 Analyte Diesel C10-C24 83 H L Y 1.0Surrogate Limits Hexacosane 40-127 121 RM-S2 Field ID: 20.00 Diln Fac: SAMPLE Type: Lab ID: 04/27/07 Analyzed: 194375-007 Result Analyte Diesel C10-C24 1,300 H L

Limits Surrogate exacosane 40-127

Field ID:

RM-S3

Type: Lab ID:

SAMPLE

194375-008

Diln Fac:

Analyzed:

1.000

04/30/07

Analyte Diesel C10-C24 Result 12 H L 1.0

Surrogate Limits Hexacosane 40-127

Field ID:

RM-N1

Type: Lab ID:

SAMPLE 194375-009 Diln Fac:

1.000

Analyzed:

04/30/07

Analyte Result Diesel C10-C24 61 H 1.0 L

Surrogate &REC Limits Hexacosane 40-127

H= Heavier hydrocarbons contributed to the quantitation L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard PO= Diluted Out

= Not Detected

L= Reporting Limit

Page 2 of 4

33.0

Lab #: Client:	194375 R&M Environmental	Location: Prep:	205/209 Brush St. Oakland SHAKER TABLE
Project#: Matrix: Units:	STANDARD Soil	Analysis: Sampled:	EPA 8015B 04/25/07
Basis: Batch#:	mg/Kg as received 124601	Received: Prepared:	04/25/07 04/26/07
ield ID: 'ype: ab ID:	RM-N2 SAMPLE 194375-010	Diln Fac: Analyzed:	1.000 04/30/07
An Diesel C10-C2	<b>alyte</b> kalanda kanada kanada <b>Re</b> 4	sult R 5.7 L Y	1.0
<b>Sur</b> Hexacosane		<b>imits</b> 0-127	Am Turk bro. Higher or his filt in the er with the
ield ID: ype: ab ID:	RM-N3 SAMPLE 194375-011	Diln Fac: Analyzed:	1.000 04/30/07
An Diesel C10-C2	Alyte Re ND	<b>TILL</b>	1.0
<b>Sur</b> Hexacosane		imits 0-127	
ield ID: ype: ab ID:	RM-E1 SAMPLE 194375-012	Diln Fac: Analyzed:	1.000 04/30/07
An Diesel C10-C2		<del>solt</del> es es es es es es es	1.0
Snr	rogate %REC L	<b>imi (Eg</b> ra) — o glas a i granda gere.	

Diln Fac: Analyzed:

1.000 04/27/07

H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
D= Diluted Out
D= Not Detected
AL= Reporting Limit

RM-W1

Surrogate

SAMPLE 194375-013

Result

\*REC Limits 111 40-127

16 H L Y

Field ID:

Hexacosane

Type: Lab ID:

Page 3 of 4

Analyte Diesel C10-C24

33.0

	Total Ext.	ractable Hydrocar	bons
Lab #: Client: Project#:	194375 R&M Environmental STANDARD	Location: Prep: Analysis:	205/209 Brush St. Oakland SHAKER TABLE EPA 8015B
Matrix: Units: Basis: Batch#:	Soil mg/Kg as received 124601	Sampled: Received: Prepared:	04/25/07 04/25/07 04/26/07

Type: Lab ID:

BLANK QC385382

Diln Fac: Analyzed:

1.000 04/27/07

Analyte C10-C24

Result

1.0

Hexacosane Surrogate **TREC Limits** 92 40-127

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

Page 4 of 4



	Total Ext.	ractable Hydroca:	bons.
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC385383	Batch#:	124601
Matrix:	Soil	Prepared:	04/26/07
Units:	mg/Kg	Analyzed:	04/27/07
Basis:	as received	_	

	Analyte	Spiked	Result	\$REC	Limits	
Diesel	C10-C24	49.88	45.10	90	58-127	

Surrogate	%REC	Limits	
Hexacosane	96	40-127	



	Total Ext.	ractable Hydrocaz	·bons
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	RM-W1	Batch#:	124601
MSS Lab ID:	194375-013	Sampled:	04/25/07
Matrix:	Soil	Received:	04/25/07
Units:	mg/Kg	Prepared:	04/26/07
Basis:	as received	Analyzed:	04/30/07
Diln Fac:	1.000		•

Type:

MS

Lab ID:

QC385384

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	15.60	49.91	67.19	103	29-147

Surrogate	%REC Limits	
Hexacosane	101 40-127	

Type:

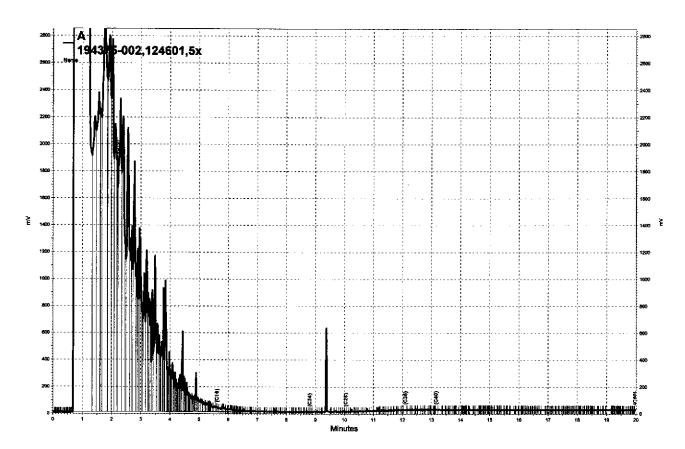
MSD

Lab ID:

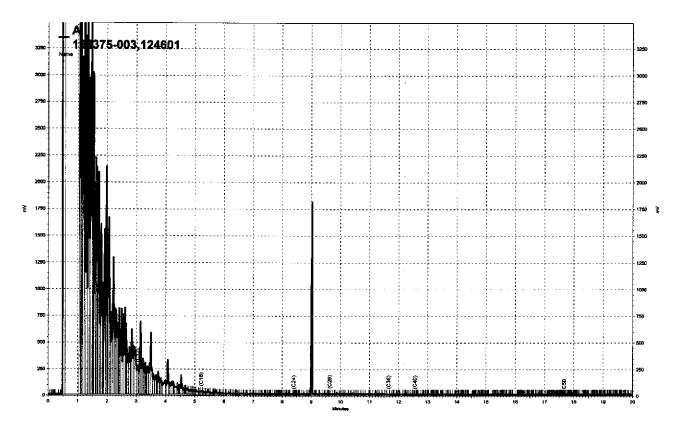
QC385385

Analyce	Spiked	Result	*REC	Limits	RPD	Lim
Diesel C10-C24	49.62	60.04	90 .	29-147	11	46

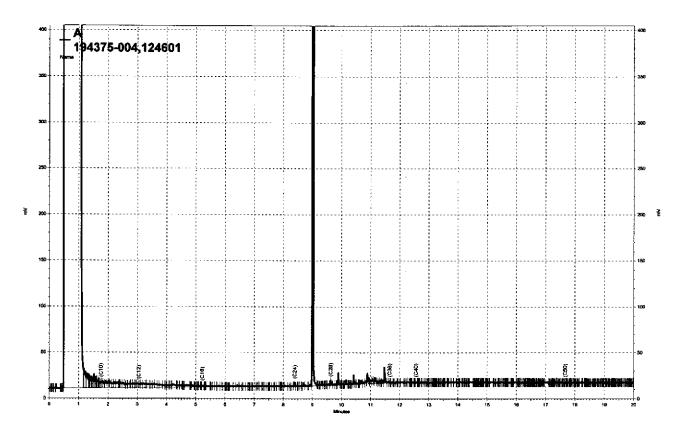
			•	
Surrogate	*REC	Limits		
Hexacosane	96			 -



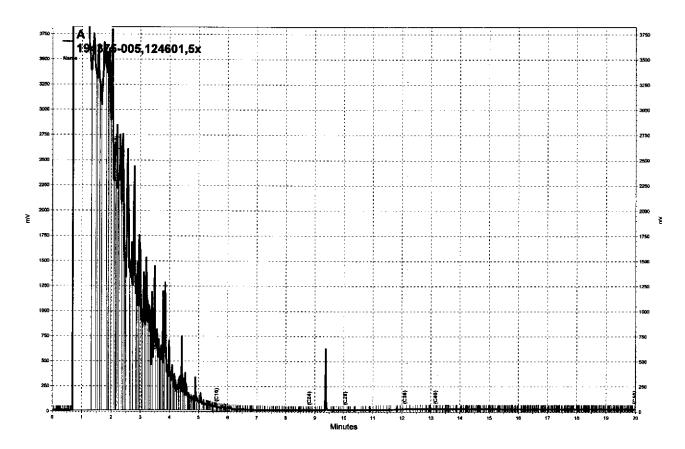
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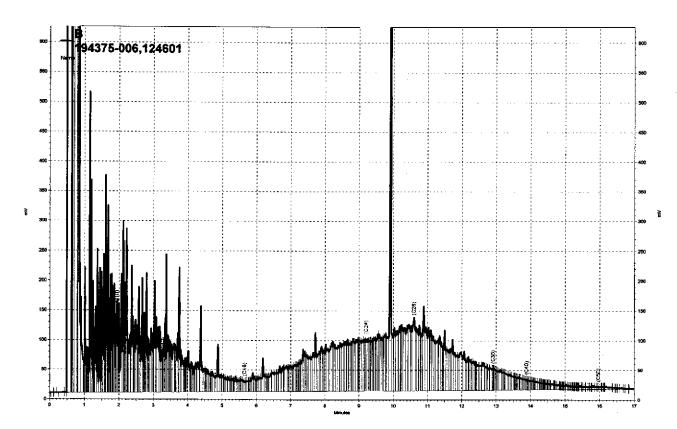
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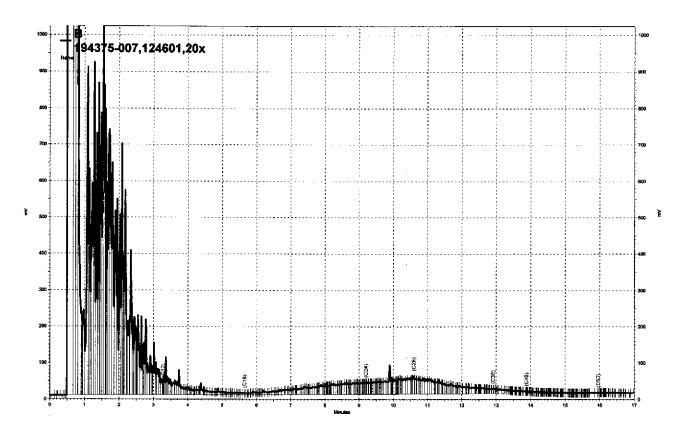
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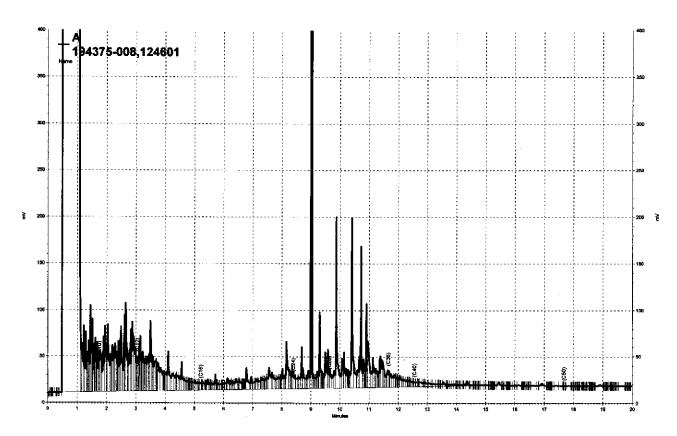
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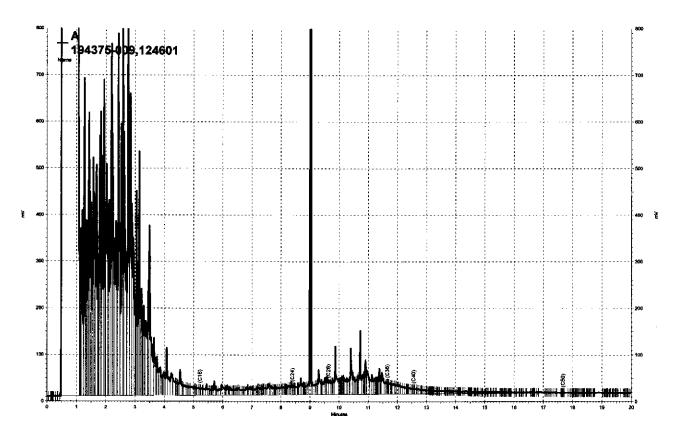
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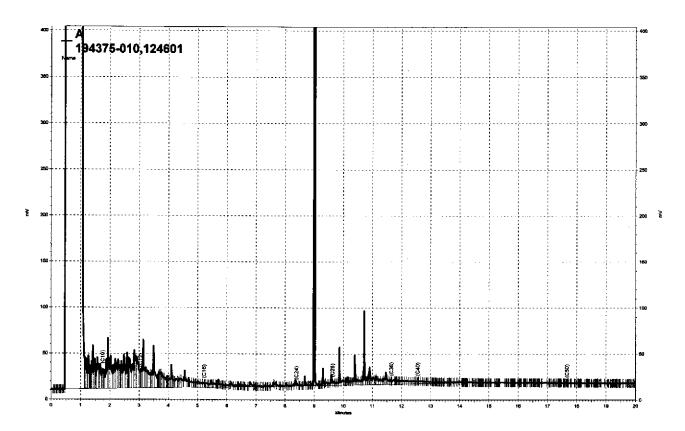
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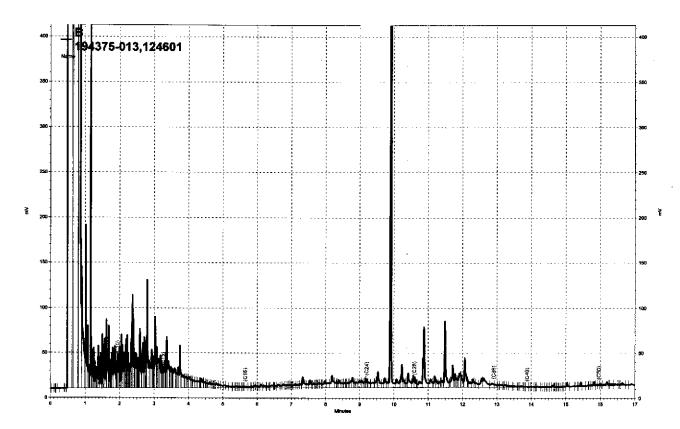
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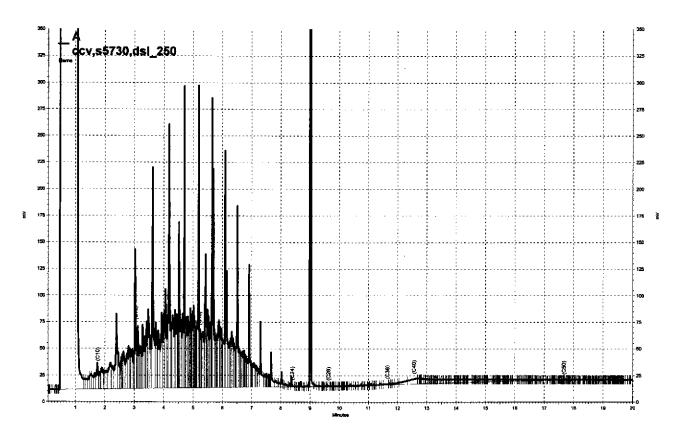
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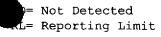
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\\Lims\gdrive\ezchrom\Projects\GC11A\Data\117a012, A

	Purgeable	a Organics by GC/	/MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	TB-1	Batch#:	124554
Lab ID:	194375-001	Sampled:	04/25/07
Matrix:	Water	Received:	04/25/07
Units:	ug/L	Analyzed:	04/26/07
Diln Fac:	1.000		

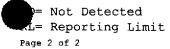
Analyte	Result	이 지대생생님은 🍽 이 사는 이 보는 가장 말았습니다. 그렇게 보시다면 다. 함께
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	<b>N</b> D	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	0.5
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	_ 10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	<b>N</b> D	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	· 10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5



	Purgeable	a Organics by GC/	/MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	TB-1	Batch#:	124554
Lab ID:	194375-001	Sampled:	04/25/07
Matrix:	Water	Received:	04/25/07
Units:	ug/L	Analyzed:	04/26/07
Diln Fac:	1.000	<del>-</del>	

Analyte	Result	
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	. 0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	*REC	Limits	
Dibromofluoromethane	96	80-123	
1,2-Dichloroethane-d4	113	79-134	
Toluene-d8	98	80-120	•
Bromofluorobenzene	106	80-122	

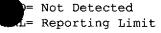


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	en en 18 - 19 1 - 19 1 1 1 1 1 1 1 1 1 1 1 1 1 1	a Organics by GC/	'MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC385206	Batch#:	124554
Matrix:	Water	Analyzed:	04/26/07
Units:	ug/L	•	

Analyte	Result	
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	0.5
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ИD	0.5
Benzene	ИD	0.5
Trichloroethene	ИD	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

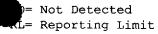




	그리는 경기에 되어 가장 아무리는 경우 나는 그들은 사람들이 다른다.	a Organics by GC/	<b>/MS</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC385206	Batch#:	124554
Matrix:	Water	Analyzed:	04/26/07
Units:	ug/L		

Analyte	Result	
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ИD	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	<b>N</b> D	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropan	ie ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	. 0.5
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	
Dibromofluoromethane	91	80-123
1,2-Dichloroethane-d4	110	79-134
Toluene-d8	97	80-120
Bromofluorobenzene	104	80-122





	어떻게 들어 그리다는 항상사 가는 날아가수요요요? 살아졌다가요요. 그	e Organics by GC/	<b>ws</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	124554
Units:	ug/L	Analyzed:	04/26/07
Diln Fac:	1.000		

Type:

BS

Lab ID: QC385207

Analyte	Spiked	Result	*REC	Limits
1,1-Dichloroethene	25.00	26.81	107	80-132
Benzene	25.00	25.41	102	80-120
Trichloroethene	25.00	27.72	111	80-120
Toluene	25.00	27.20	109	80-120
Chlorobenzene	25.00	27.94	112	80-120

Surrogate	<b>REC</b>	Ninite
Dibromofluoromethane	88	80-123
1,2-Dichloroethane-d4	104	79-134
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-122

Type:

BSD

Lab ID: QC385208

Analyte	Spiked	Result	*REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	25.50	102	80-132	5	20
Benzene	25.00	24.89	100	80-120	2	20
Trichloroethene	25.00	26.58	106	80-120	4	20
Toluene	25.00	26.60	106	80-120	2	20
Chlorobenzene	25.00	26.16	105	80-120	7	20

Surrogate	%REC	Limits	
Dibromofluoromethane	86	80-123	
1,2-Dichloroethane-d4	107	79-134	
Toluene-d8	100	80-120	
Bromofluorobenzene	102	80-122	



	Purgeable	e Organics by GC/	(MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	124554
MSS Lab ID:	194361-009	Sampled:	04/24/07
Matrix:	Water	Received:	04/25/07
Units:	ug/L	Analyzed:	04/26/07
Diln Fac:	1.000	•	

Type:

MS

Lab ID: QC385263

Analyte	MSS Result	Spiked	Result	*REC	Limits
1,1-Dichloroethene	7.787	25.00	34.16	105	80-139
Benzene	<0.1024	25.00	25.57	102	80-123
Trichloroethene	9.903	25.00	36.50	106	75-129
Toluene	<0.08530	25.00	25.80	103	80-122
Chlorobenzene	<0.09805	25.00	25.95	104	80-120

Surrogate	%REC	Limits	9
Dibromofluoromethane	99	80-123	٦
1,2-Dichloroethane-d4	118	79–134	
Toluene-d8	101	80-120	ı
Bromofluorobenzene	106	80-122	

Type:

MSD

Lab ID: QC385264

Analyte	Spiked	Result	*REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	32.64	99	80-139	5	20
Benzene	25.00	25.53	102	80-123	0	20
Trichloroethene	25.00	35.37	102	75-129	3	20
Toluene	25.00	26.76	107	80-122	4	20
Chlorobenzene	25.00	26.26	1.05	80-120	1	20

Surrogate	%REC	Limits 1 - And Baller State State Control of the State State Control of the State St
Dibromofluoromethane	97	80-123
1,2-Dichloroethane-d4	115	79-134
Toluene-d8	101	80-120
Bromofluorobenzene	106	80-122



	Purgeable	Organics by GC/	<b>ks</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-B1	Diln Fac:	1,000
Lab ID:	194375-002	Batch#:	124991
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as réceived	Analyzed:	05/09/07

Analyte	Result	
Freon 12	ND	10,000
Chloromethane	ND	10,000
Vinyl Chloride	ND	10,000
Bromomethane	ND	10,000
Chloroethane	ND	10,000
Trichlorofluoromethane	ND	5,000
Acetone	ND	25,000
Freon 113	ND	5,000
1,1-Dichloroethene	ND	5,000
Methylene Chloride	ND	20,000
Carbon Disulfide	ND	5,000
MTBE	ND	5,000
trans-1,2-Dichloroethene	ND	5,000
Vinyl Acetate	ND	50,000
1,1-Dichloroethane	ND	5,000
2-Butanone	ND	10,000
cis-1,2-Dichloroethene	ND	5,000
2,2-Dichloropropane	ND	5,000
Chloroform	ND	5,000
Bromochloromethane	ND	5,000
1,1,1-Trichloroethane	ND	5,000
1,1-Dichloropropene	ND	5,000
Carbon Tetrachloride	ND	5,000
1,2-Dichloroethane	ND	5,000
Benzene	ND	5,000
Trichloroethene	ND	5,000
1,2-Dichloropropane	ND	5,000
Bromodichloromethane	ND	5,000
Dibromomethane	ND	5,000
4-Methyl-2-Pentanone	ND	10,000
cis-1,3-Dichloropropene	ND	5,000
Toluene	ND	5,000
trans-1,3-Dichloropropene	ND	5,000
1,1,2-Trichloroethane	ND	5,000
2-Hexanone	ND	10,000
1,3-Dichloropropane	ND	5,000
Tetrachloroethene	ND	5,000
Dibromochloromethane	ND	5,000
1,2-Dibromoethane	ND ND	5,000
Chlorobenzene	ND ND	
1,1,1,2-Tetrachloroethane	ND ND	5,000 5,000
Ethylbenzene	ND ND	5,000
m,p-Xylenes	ND ND	
		5,000
o-Xylene	ND ND	5,000
Styrene   Bromoform	NĎ	5,000
	ND E 200	5,000
Isopropylbenzene	5,300	5,000
1,1,2,2-Tetrachloroethane	ND ND	5,000
1,2,3-Trichloropropane	ND	5,000
Propylbenzene	7,800	5,000
Bromobenzene	ND	5,000
1,3,5-Trimethylbenzene	6,300	5,000
2-Chlorotoluene	ND	5,000

O= Diluted Out
D= Not Detected
L= Reporting Limit
Page 1 of 2



	Purgeable	a Organics by GC/	MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analvsis:	EPA 8260B
Field ID:	RM-B1	Diln Fac:	1,000
Lab ID:	194375-002	Batch#:	124991
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/09/07

Analyte	Result	
4-Chlorotoluene	ND	5,000
tert-Butylbenzene	ND	5,000
1,2,4-Trimethylbenzene	24,000	5,000
sec-Butylbenzene	ИD	5,000
para-Isopropyl Toluene	ND	5,000
1,3-Dichlorobenzene	ND	5,000
1,4-Dichlorobenzene	ND	5,000
n-Butylbenzene	ND	5,000
1,2-Dichlorobenzene	ND	5,000
1,2-Dibromo-3-Chloropropane	ND	5,000
1,2,4-Trichlorobenzene	ND	5,000
Hexachlorobutadiene	ND	5,000
Naphthalene	ND	5,000
1,2,3-Trichlorobenzene	NDND	5,000

Surrogate	*REC	Limits	
Dibromofluoromethane	93	78-126	
1,2-Dichloroethane-d4	99	76-135	
Toluene-d8	98	80-120	
Bromofluorobenzene	115	80-126	
rifluorotoluene (MeOH)	DO	58-142	



	Purgeable	Organics by GC/	/NS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-B2	Diln Fac:	2,000
Lab ID:	194375-003	Batch#:	124991
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/09/07

Analyte	Result	
Freon 12	ND	20,000
Chloromethane	ND	20,000
Vinyl Chloride	ND	20,000
Bromomethane	ND	20,000
Chloroethane	ND	20,000
Trichlorofluoromethane	ND	10,000
Acetone	ND	50,000
Freon 113	ND	10,000
1,1-Dichloroethene	ND	10,000
Methylene Chloride	ND	40,000
Carbon Disulfide	ND	10,000
MTBE	ND	10,000
trans-1,2-Dichloroethene	ND	
Vinyl Acetate	ND	10,000
1,1-Dichloroethane	ND	100,000
2-Butanone		10,000
cis-1,2-Dichloroethene	ND	20,000
1 · · · · · · · · · · · · · · · · · · ·	ND	10,000
2,2-Dichloropropane	ND	10,000
Chloroform	ND	10,000
Bromochloromethane	ND	10,000
1,1,1-Trichloroethane	ND	10,000
1,1-Dichloropropene	ND	10,000
Carbon Tetrachloride	ND	10,000
1,2-Dichloroethane	ND	10,000
Benzene	ND	10,000
Trichloroethene	ND	10,000
1,2-Dichloropropane	ND	10,000
Bromodichloromethane	ND	10,000
Dibromomethane	ND	10,000
4-Methyl-2-Pentanone	ND	20,000
cis-1,3-Dichloropropene	ND	10,000
Toluene	ND	10,000
trans-1,3-Dichloropropene	ND	10,000
1,1,2-Trichloroethane	ND	10,000
2-Hexanone	ND	20,000
1,3-Dichloropropane	ND	10,000
Tetrachloroethene	ND	10,000
Dibromochloromethane	ND	10,000
1,2-Dibromoethane	ND	10,000
Chlorobenzene	ND	10,000
1,1,1,2-Tetrachloroethane	ND	10,000
Ethylbenzene	ND	10,000
m,p-Xylenes	ND	10,000
o-Xylene	ND	10,000
Styrene	ND	10,000
Bromoform	ND	10,000
Isopropylbenzene	ND	10,000
1,1,2,2-Tetrachloroethane	ND	10,000
1,2,3-Trichloropropane	ND	10,000
Propylbenzene	ND	10,000
Bromobenzene	ND	10,000
1,3,5-Trimethylbenzene	ND	10,000
2-Chlorotoluene	ND	10,000

O= Diluted Out
D= Not Detected
L= Reporting Limit
Page 1 of 2



	Purgeable	o Organics by GC,	(MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-B2	Diln Fac:	2,000
Lab ID:	194375-003	Batch#:	124991
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/09/07

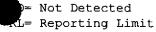
Analyte	Result	
4-Chlorotoluene	ND	10,000
tert-Butylbenzene	ND	10,000
1,2,4-Trimethylbenzene	ND	10,000
sec-Butylbenzene	ND	10,000
para-Isopropyl Toluene	ND	10,000
1,3-Dichlorobenzene	ND	10,000
1,4-Dichlorobenzene	ND	10,000
n-Butylbenzene	ND	10,000
1,2-Dichlorobenzene	ND	10,000
1,2-Dibromo-3-Chloropropane	ND	10,000
1,2,4-Trichlorobenzene	ND	10,000
Hexachlorobutadiene	ND	10,000
Naphthalene	ND	10,000
1,2,3-Trichlorobenzene	ND	10,000

%REC	Limits	er ere grecke erezonen et biske		
90	78-126		<del></del>	·
82				
93	80-120			
100	80-126			
DO	58-142			
	90 82 93 100	90 78-126 82 76-135 93 80-120 100 80-126	90 78-126 82 76-135 93 80-120 100 80-126	90 78-126 82 76-135 93 80-120 100 80-126



	Purgeable	Organics by GC/	/vs
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-B3	Diln Fac:	0.9434
Lab ID:	194375-004	Batch#:	124805
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/03/07

Analyte	Result	$\mathbf{R}_{\mathbf{b}}$
Freon 12	ND	9.4
Chloromethane	ND	9.4
Vinyl Chloride	ND	9.4
Bromomethane	ND	9.4
Chloroethane	ND	9.4
Trichlorofluoromethane	ND	4.7
Acetone	ND	24
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.7
MTBE	ND	4.7
trans-1,2-Dichloroethene	ND	4.7
Vinyl Acetate	ND	47
1,1-Dichloroethane	ND	4.7
2-Butanone	ND	9.4
cis-1,2-Dichloroethene	ND	4.7
2,2-Dichloropropane	ND	4.7
Chloroform	ND	4.7
Bromochloromethane	ND	4.7
1,1,1-Trichloroethane	ND	4.7
1,1-Dichloropropene	ND	4.7
Carbon Tetrachloride	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Trichloroethene	ND	4.7
1,2-Dichloropropane	ND	4.7
Bromodichloromethane	ND	4.7
Dibromomethane	ND	4.7
4-Methyl-2-Pentanone	ND	9.4
cis-1,3-Dichloropropene	ND	4.7
Toluene	ND	4.7
trans-1,3-Dichloropropene	ND	4.7
1,1,2-Trichloroethane	ND	4.7
2-Hexanone	ND	9.4
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7

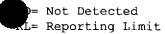




	Purgeable	e Organics by GC,	/MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-B3	Diln Fac:	0.9434
Lab ID:	194375-004	Batch#:	124805
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/03/07

Analyte	Result	<b>RL</b>	
Dibromochloromethane	ND	4.7	
1,2-Dibromoethane	ND	4.7	
Chlorobenzene	ND	4.7	
1,1,1,2-Tetrachloroethane	ND	4.7	
Ethylbenzene	ND	4.7	
m,p-Xylenes	ND	4.7	
o-Xylene	ND	4.7	
Styrene	ND	4.7	
Bromoform	ND	4.7	
Isopropylbenzene	ND	4.7	
1,1,2,2-Tetrachloroethane	ND	4.7	
1,2,3-Trichloropropane	ND	4.7	
Propylbenzene	ND	4.7	
Bromobenzene	ND	4.7	
1,3,5-Trimethylbenzene	ND	4.7	
2-Chlorotoluene	ND	4.7	
4-Chlorotoluene	ND	4.7	
tert-Butylbenzene	ND	4.7	
1,2,4-Trimethylbenzene	ND	4.7	
sec-Butylbenzene	ND	4.7	•
para-Isopropyl Toluene	ND	4.7	·
1,3-Dichlorobenzene	ND	4.7	
1,4-Dichlorobenzene	ND	4.7	
n-Butylbenzene	ND	4.7	
1,2-Dichlorobenzene	ND	4.7	
1,2-Dibromo-3-Chloropropane	ND	4.7	
1,2,4-Trichlorobenzene	ND	4.7	
Hexachlorobutadiene	ND	4.7	
Naphthalene	ND	4.7	
1,2,3-Trichlorobenzene	ND	4.7	

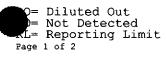
Surrogate	*REC	Limits	
Dibromofluoromethane	104	78-126	
1,2-Dichloroethane-d4	99	76-135	
Toluene-d8	105	80-120	
Bromofluorobenzene	109	80-126	





	Purgeabl	e Organics by GC/	( <b>us</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-B4	Diln Fac:	2,000
Lab ID:	194375-005	Batch#:	124903
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/07/07

Analyte	Result	
Freon 12	ND	20,000
Chloromethane	ND	20,000
Vinyl Chloride	ND	20,000
Bromomethane	ND	20,000
Chloroethane	ND ND	
Trichlorofluoromethane		20,000
[	ND	10,000
Acetone	ND	50,000
Freon 113	ND	10,000
1,1-Dichloroethene	ND	10,000
Methylene Chloride	ND	40,000
Carbon Disulfide	ND	10,000
MTBE	ND	10,000
trans-1,2-Dichloroethene	ND	10,000
Vinyl Acetate	ND	100,000
1,1-Dichloroethane	ND	10,000
2-Butanone	ND	20,000
cis-1,2-Dichloroethene	ND	10,000
2,2-Dichloropropane	ND	10,000
Chloroform	ND	10,000
Bromochloromethane	ND	10,000
1,1,1-Trichloroethane	ND	10,000
1,1-Dichloropropene	ND	10,000
Carbon Tetrachloride	ND	10,000
1,2-Dichloroethane	ND	
Benzene	ND	10,000
Trichloroethene	ND	10,000
1,2-Dichloropropane		10,000
	ND	10,000
Bromodichloromethane	ND	10,000
Dibromomethane	ND	10,000
4-Methyl-2-Pentanone	ND	20,000
cis-1,3-Dichloropropene	ND	10,000
Toluene	ND	10,000
trans-1,3-Dichloropropene	ND	10,000
1,1,2-Trichloroethane	ND	10,000
2-Hexanone	ND	20,000
1,3-Dichloropropane	ND	10,000
Tetrachloroethene	ND	10,000
Dibromochloromethane	ND	10,000
1,2-Dibromoethane	ND	10,000
Chlorobenzene	ND	10,000
1,1,1,2-Tetrachloroethane	ND	10,000
Ethylbenzene	ND	10,000
m,p-Xylenes	33,000	10,000
o-Xylene	ND ND	10,000
Styrene	ND	10,000
Bromoform	ND	10,000
Isopropylbenzene	ND	10,000
1,1,2,2-Tetrachloroethane	ND	10,000
1,2,3-Trichloropropane	ND ND	
		10,000
Propylbenzene	13,000	10,000
Bromobenzene	ND	10,000
1,3,5-Trimethylbenzene	21,000	10,000
2-Chlorotoluene	ND	10,000





	Purgeable	Organics by GC/	
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-B4	Diln Fac:	2,000
Lab ID:	194375-005	Batch#:	124903
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/07/07

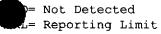
Analyte	Result	
4-Chlorotoluene	ND	10,000
tert-Butylbenzene	ND	10,000
1,2,4-Trimethylbenzene	60,000	10,000
sec-Butylbenzene	ND	10,000
para-Isopropyl Toluene	ND	10,000
1,3-Dichlorobenzene	ND	10,000
1,4-Dichlorobenzene	ND	10,000
n-Butylbenzene	ND	10,000
1,2-Dichlorobenzene	ND	10,000
1,2-Dibromo-3-Chloropropane	ND	10,000
1,2,4-Trichlorobenzene	ND	10,000
Hexachlorobutadiene	ND	10,000
Naphthalene	ND	10,000
1,2,3-Trichlorobenzene	ND	10,000

*REC		ang mang terpopalan sa
103	78-126	
113	76-135	
105	80-120	
116	80-126	
DO	58-142	
	103 113 105 116	103 78-126 113 76-135 105 80-120 116 80-126



	Purgeable	a Organics by GC/	/ <b>//S</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-S1	Diln Fac:	5.000
Lab ID:	194375-006	Batch#:	124955
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/08/07

Analyte	R	osult RL
Freon 12	ND	50
Chloromethane	ND	50
Vinyl Chloride	ND	50
Bromomethane	ND	50
Chloroethane	ND	50
Trichlorofluoromethane	ND	25
Acetone		140 130
Freon 113	ND	25
1,1-Dichloroethene	ND	25
Methylene Chloride	ND	100
Carbon Disulfide	ND	25
MTBE	ND	25
trans-1,2-Dichloroethene	ND	25
Vinyl Acetate	ND	250
1,1-Dichloroethane	ND	25
2-Butanone	ND	50
cis-1,2-Dichloroethene	ND	25
2,2-Dichloropropane	ND	25
Chloroform	ND	25
Bromochloromethane	ND	25
1,1,1-Trichloroethane	ND	25
1,1-Dichloropropene	ND	25
Carbon Tetrachloride	ND	25
1,2-Dichloroethane	ND	. 25
Benzene	ND	25
Trichloroethene	ND	25
1,2-Dichloropropane	ND	25
Bromodichloromethane	ND	25
Dibromomethane	ND	25
4-Methyl-2-Pentanone	ND	50
cis-1,3-Dichloropropene	ND	25
Toluene	ND	25
trans-1,3-Dichloropropene	ND	25
1,1,2-Trichloroethane	ND	25
2-Hexanone	ND	50
1,3-Dichloropropane	ND	25
Tetrachloroethene	ND	25

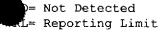




	Purgeable	e Organics by GC/	/ws
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-S1	Diln Fac:	5.000
Lab ID:	194375-006	Batch#:	124955
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/08/07

Analyte	Result	
Dibromochloromethane	ND	25
1,2-Dibromoethane	ND	25
Chlorobenzene	ND	25
1,1,1,2-Tetrachloroethane	ND	25
Ethylbenzene	ND	25
m,p-Xylenes	ND	25
o-Xylene	ND	25
Styrene	ND	25
Bromoform	ND	25
Isopropylbenzene	ND	25
1,1,2,2-Tetrachloroethane	ND	25
1,2,3-Trichloropropane	ND	25
Propylbenzene	28	25
Bromobenzene	ND	25
1,3,5-Trimethylbenzene	ND	25
2-Chlorotoluene	ND	25
4-Chlorotoluene	ND	25
tert-Butylbenzene	ND	25
1,2,4-Trimethylbenzene	ND	25
sec-Butylbenzene	41	25
para-Isopropyl Toluene	ND	25
1,3-Dichlorobenzene	ND	25
1,4-Dichlorobenzene	ND	25
n-Butylbenzene	ND	25
1,2-Dichlorobenzene	ND	25
1,2-Dibromo-3-Chloropropan	e ND	25
1,2,4-Trichlorobenzene	ND	25
Hexachlorobutadiene	ND	25
Naphthalene	31	25
1,2,3-Trichlorobenzene	ND	. 25

Surrogate	*REC	Limits	
Dibromofluoromethane	93	78-126	
1,2-Dichloroethane-d4	94	76-135	
Toluene-d8	93	80-120	
Bromofluorobenzene	118	80-126	





	Purgeable	e Organics by GC/	/MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#: Field ID:	STANDARD RM-S2	Analysis:	EPA 8260B
Lab ID:	1943 <b>7</b> 5-007	Diln Fac:	1,000
Matrix:	Soil	Batch#:	124991
Units:		Sampled:	04/25/07
	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/09/07

Analyte Analyte	Result	
Freon 12	ND	10,000
Chloromethane	ND	10,000
Vinyl Chloride	ND	10,000
Bromomethane	ND	10,000
Chloroethane	ND	10,000
Trichlorofluoromethane	ND	5,000
Acetone	ND	25,000
Freon 113	ND	5,000
1,1-Dichloroethene	ND	5,000
Methylene Chloride	ND	
Carbon Disulfide	ND	20,000
MTBE	ND	5,000
trans-1,2-Dichloroethene		5,000
Vinyl Acetate	ND	5,000
1,1-Dichloroethane	ND	50,000
2-Butanone	ND	5,000
	ND	10,000
cis-1,2-Dichloroethene	ND	5,000
2,2-Dichloropropane	ND	5,000
Chloroform	ND	5,000
Bromochloromethane	ND	5,000
1,1,1-Trichloroethane	ND	5,000
1,1-Dichloropropene	ИD	5,000
Carbon Tetrachloride	ND	5,000
1,2-Dichloroethane	ND	5,000
Benzene	ND	5,000
Trichloroethene	ND	5,000
1,2-Dichloropropane	ND	5,000
Bromodichloromethane	ND	5,000
Dibromomethane	ND	5,000
4-Methyl-2-Pentanone	ND	10,000
cis-1,3-Dichloropropene	ND	5,000
Toluene	ND	5,000
trans-1,3-Dichloropropene	ND	5,000
1,1,2-Trichloroethane	ND	5,000
2-Hexanone	ND	10,000
1,3-Dichloropropane	ND	5,000
Tetrachloroethene	ND	5,000
Dibromochloromethane	ND	5,000
1.2-Dibromoethane	ND	5,000
Chlorobenzene	ND	5,000
1,1,1,2-Tetrachloroethane	ND	5,000
Ethylbenzene	ND	5,000
m,p-Xylenes	ND	5,000
o-Xylene	ND	5,000
Styrene	ND	5,000
Bromoform	ND	5,000
Isopropylbenzene	ND	5,000
1,1,2,2-Tetrachloroethane	ND	5,000
1,2,3-Trichloropropane	ND	5,000
Propylbenzene	ND	5,000
Bromobenzene	ND	5,000
1,3,5-Trimethylbenzene	ND	5,000
2-Chlorotoluene	ND	5,000
E OUTOTOCOTACHE	ND	J, 000

O= Diluted Out
D= Not Detected
L= Reporting Limit
Page 1 of 2



	Purgeable	organics by GC/	/MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-S2	Diln Fac:	1,000
Lab ID:	194375-007	Batch#:	124991
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/09/07

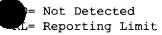
Analyte	Result	
4-Chlorotoluene	NĎ	5,000
tert-Butylbenzene	ND	5,000
1,2,4-Trimethylbenzene	ND	5,000
sec-Butylbenzene	ND	5,000
para-Isopropyl Toluene	ND	5,000
1,3-Dichlorobenzene	ND	5,000
1,4-Dichlorobenzene	ND	5,000
n-Butylbenzene	ND	5,000
1,2-Dichlorobenzene	ND	5,000
1,2-Dibromo-3-Chloropropane	ND	5,000
1,2,4-Trichlorobenzene	ND	5,000
Hexachlorobutadiene	ND	5,000
Naphthalene	ND	5,000
1,2,3-Trichlorobenzene	ND	5,000

Surrogate	*REC	Limits	
Dibromofluoromethane	87	78-126	
1,2-Dichloroethane-d4	81	76-135	
Toluene-d8	92	80-120	
Bromofluorobenzene	112	80-126	
Trifluorotoluene (MeOH)	DO	58-142	



	Purgeable	e Organics by GC,	MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-S3	Diln Fac:	0.9615
Lab ID:	194375-008	Batch#:	124955
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/08/07

Analyte	Result	
Freon 12	ND	9.6
Chloromethane	ND	9.6
Vinyl Chloride	ND	9.6
Bromomethane	ND	9.6
Chloroethane	ND	9.6
Trichlorofluoromethane	ND	4.8
Acetone	70	24
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
MTBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	12	9.6
cis-1,2-Dichloroethene	ND	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.6
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.6
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	ND	4.8

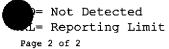




	Purgeable	a Organics by GC/	/ks
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-S3	Diln Fac:	0.9615
Lab ID:	194375-008	Batch#:	124955
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/08/07

Analyte	Result		
Dibromochloromethane	ND	4.8	
1,2-Dibromoethane	ND	4.8	
Chlorobenzene	ND	4.8	
1,1,1,2-Tetrachloroethane	ND	4.8	
Ethylbenzene	ND	4.8	
m,p-Xylenes	ND	4.8	
o-Xylene	ND	4.8	
Styrene	ND	4.8	
Bromoform	ND	4.8	
Isopropylbenzene	ИD	4.8	
1,1,2,2-Tetrachloroethane	ND	4.8	
,2,3-Trichloropropane	ND	4.8	
Propylbenzene	ND	4.8	
Bromobenzene	ND	4.8	
1,3,5-Trimethylbenzene	ND	4.8	
2-Chlorotoluene	ND	4.8	
4-Chlorotoluene	ИД	4.8	
tert-Butylbenzene	ND	4.8	
1,2,4-Trimethylbenzene	ND	4.8	
sec-Butylbenzene	ND	4.8	
para-Isopropyl Toluene	ND	4.8	
1,3-Dichlorobenzene	ND	4.8	
1,4-Dichlorobenzene	ND	4.8	
n-Butylbenzene	ND	4.8	
1,2-Dichlorobenzene	ND	4.8	
1,2-Dibromo-3-Chloropropan	ne ND	4.8	
1,2,4-Trichlorobenzene	ND	4.8	
Hexachlorobutadiene	ND	4.8	
Naphthalene	7.5	4.8	
1,2,3-Trichlorobenzene	ND	4.8	

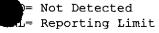
Surrogate	*REC	Limits	
Dibromofluoromethane	97	78-126	
1,2-Dichloroethane-d4	109	76-135	
Toluene-d8	99	80-120	
Bromofluorobenzene	105	80-126	





	Purgeable	e Organics by GC/	(MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-N1	Diln Fac:	0.9259
Lab ID:	194375-009	Batch#:	124803
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/03/07

Analyte	Result	
Freon 12	ND	9.3
Chloromethane	ND	9.3
Vinyl Chloride	ND	9.3
Bromomethane	ND	9.3
Chloroethane	ND	9.3
Trichlorofluoromethane	ND	4.6
Acetone	ND	23
Freon 113	ND	4.6
1,1-Dichloroethene	ND	4.6
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.6
MTBE	ND	4.6
trans-1,2-Dichloroethene	ND	4.6
Vinyl Acetate	ND	46
1,1-Dichloroethane	ND	4.6
2-Butanone	ND	9.3
cis-1,2-Dichloroethene	ND	4.6
2,2-Dichloropropane	ND	4.6
Chloroform	ND	4.6
Bromochloromethane	ND	4.6
1,1,1-Trichloroethane	ND	4.6
1,1-Dichloropropene	ND	4.6
Carbon Tetrachloride	ND	4.6
1,2-Dichloroethane	ND	4.6
Benzene	ND	4.6
Trichloroethene	ND	4.6
1,2-Dichloropropane	ND	4.6
Bromodichloromethane	ND	4.6
Dibromomethane	ND	4.6
4-Methyl-2-Pentanone	ND	9.3
cis-1,3-Dichloropropene	ND	4.6
Toluene	ND	4.6
trans-1,3-Dichloropropene	ND	4.6
1,1,2-Trichloroethane	ND	4.6
2-Hexanone	ND	9.3
1,3-Dichloropropane	ND	4.6
Tetrachloroethene	ND	4.6





	Purgeable	a Organics by GC/	(MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-N1	Diln Fac:	0.9259
Lab ID:	194375-009	Batch#:	124803
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/03/07

Analyte	Result	
Dibromochloromethane	ND	4.6
1,2-Dibromoethane	ND	4.6
Chlorobenzene	ND	4.6
1,1,1,2-Tetrachloroethane	ND	4.6
Ethylbenzene	ND	4.6
m,p-Xylenes	ND	4.6
o-Xylene	ND	4.6
Styrene	ND	4.6
Bromoform	ND	4.6
Isopropylbenzene	ND	4.6
1,1,2,2-Tetrachloroethane	ND	4.6
1,2,3-Trichloropropane	ND	4.6
Propylbenzene	ND	4.6
Bromobenzene	ND	4.6
1,3,5-Trimethylbenzene	ND	4.6
2-Chlorotoluene	ND	4.6
4-Chlorotoluene	ND	4.6
tert-Butylbenzene	ND	4.6
1,2,4-Trimethylbenzene	ND	4.6
sec-Butylbenzene	ИD	4.6
para-Isopropyl Toluene	ND	4.6
1,3-Dichlorobenzene	ND	4.6
1,4-Dichlorobenzene	ND	4.6
n-Butylbenzene	ND	4.6
1,2-Dichlorobenzene	ND	4.6
1,2-Dibromo-3-Chloropropane	ND	4.6
1,2,4-Trichlorobenzene	ND	4.6
Hexachlorobutadiene	ND	4.6
Naphthalene	24	4.6
1,2,3-Trichlorobenzene	ND	4.6

Surrogate	%REC	Limits	
Dibromofluoromethane	97	78-126	
1,2-Dichloroethane-d4	83	76-135	
Toluene-d8	99	80-120	
Bromofluorobenzene	93	80-126	



= Not Detected

L= Reporting Limit



	Purgeable	e Organics by GC/	<b>us</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-N2	Diln Fac:	25.00
Lab ID:	194375-010	Batch#:	124903
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/07/07

Analyte	Result	
Freon 12	ND	250
Chloromethane	ND	250
Vinyl Chloride	ND	250
Bromomethane	ND	250
Chloroethane	ND	250
Trichlorofluoromethane	ND	130
Acetone	ND	630
Freon 113	ND	130
1,1-Dichloroethene	ND	130
Methylene Chloride	ND	500
Carbon Disulfide	ND	130
MTBE	ND	130
trans-1,2-Dichloroethene	ИD	130
Vinyl Acetate	ND	1,300
1,1-Dichloroethane	ND	130
2-Butanone	ND	250
cis-1,2-Dichloroethene	ND	130
2,2-Dichloropropane	ND	130
Chloroform	ND	130
Bromochloromethane	ИД	130
1,1,1-Trichloroethane	ND	130
1,1-Dichloropropene	ND	130
Carbon Tetrachloride	ND	130
1,2-Dichloroethane	ND	130
Benzene	ND	130
Trichloroethene	ND	130
1,2-Dichloropropane	ND	130
Bromodichloromethane	ND	130
Dibromomethane	ND	130
4-Methyl-2-Pentanone	ND	250
cis-1,3-Dichloropropene	ND	130
Toluene	ND	130
trans-1,3-Dichloropropene	ND	130
1,1,2-Trichloroethane	ND	130
2-Hexanone	ND	250
1,3-Dichloropropane	ND	130
Tetrachloroethene	ND	130

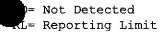
<sup>=</sup> Not Detected kL= Reporting Limit



	Purgeable	e Organics by GC/	<b>(NG</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-N2	Diln Fac:	25.00
Lab ID:	194375-010	Batch#:	124903
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/07/07

Analyte	Result	
Dibromochloromethane	ND	130
1,2-Dibromoethane	ND	130
Chlorobenzene	ND	130
1,1,1,2-Tetrachloroethane	ИД	130
Ethylbenzene	ND	130
m,p-Xylenes	ND	130
o-Xylene	ND	130
Styrene	ND	130
Bromoform	ND	130
Isopropylbenzene	ND	130
1,1,2,2-Tetrachloroethane	ND	130
1,2,3-Trichloropropane	ND	130
Propylbenzene	ND	130
Bromobenzene	ND	130
1,3,5-Trimethylbenzene	ND	130
2-Chlorotoluene	ND	130
4-Chlorotoluene	ND	130
tert-Butylbenzene	ND	130
1,2,4-Trimethylbenzene	ND	130
sec-Butylbenzene	ND	130
para-Isopropyl Toluene	ND	130
1,3-Dichlorobenzene	ND	130
1,4-Dichlorobenzene	ND	130
n-Butylbenzene	ND	130
1,2-Dichlorobenzene	ND	130
1,2-Dibromo-3-Chloropropane	ND	130
1,2,4-Trichlorobenzene	ND	130
Hexachlorobutadiene	ND	130
Naphthalene	ND	130
1,2,3-Trichlorobenzene	ND	130

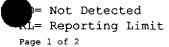
Surrogate	₹REC	Limits	
Dibromofluoromethane	101	78-126	
1,2-Dichloroethane-d4	120	76-135	
Toluene-d8	107	80-120	
Bromofluorobenzene	107	80-126	
Trifluorotoluene (MeOH)	97	58-142	





	Purgeable	organics by GC/	/MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-N3	Basis:	as received
Lab ID:	194375-011	Sampled:	04/25/07
Matrix:	Soil	Received:	04/25/07
Units:	ug/Kg		

Analyte	Result	RL	Diln Fac	Batch# Analyzed
Freon 12	ND	9.3	0.9259	124955 05/08/07
Chloromethane	ND	9.3	0.9259	124955 05/08/07
Vinyl Chloride	ND	9.3	0.9259	124955 05/08/07
Bromomethane	ND	9.3	0.9259	124955 05/08/07
Chloroethane	ND	. 9.3	0.9259	124955 05/08/07
Trichlorofluoromethane	ND	4.6	0.9259	124955 05/08/07
Acetone	39	23	0.9259	124955 05/08/07
Freon 113	ND	4.6	0.9259	124955 05/08/07
1,1-Dichloroethene	ND	4.6	0.9259	124955 05/08/07
Methylene Chloride	ND	19	0.9259	124955 05/08/07
Carbon Disulfide	ND	4.6	0.9259	124955 05/08/07
MTBE	ND	4.6	0.9259	124955 05/08/07
rans-1,2-Dichloroethene	ND	4.6	0.9259	124955 05/08/07
Vinyl Acetate	ND	46	0.9259	124955 05/08/07
1,1-Dichloroethane	ND	4.6	0.9259	124955 05/08/07
2-Butanone	ND	9.3	0.9259	124955 05/08/07
cis-1,2-Dichloroethene	ND	4.6	0.9259	124955 05/08/07
2,2-Dichloropropane	ND	4.6	0.9259	124955 05/08/07
Chloroform	ND	4.6	0.9259	124955 05/08/07
Bromochloromethane	ND	4.6	0.9259	124955 05/08/07
1,1,1-Trichloroethane	ND	4.6	0.9259	124955 05/08/07
1,1-Dichloropropene	ND	4.6	0.9259	124955 05/08/07
Carbon Tetrachloride	ND	4.6	0.9259	124955 05/08/07
1,2-Dichloroethane	ND	4.6	0.9259	124955 05/08/07
Benzene	ND	4.6	0.9259	124955 05/08/07
Trichloroethene	ND	4.6	0.9259	124955 05/08/07
1,2-Dichloropropane	ND	4.6	0.9259	124955 05/08/07
Bromodichloromethane	ND	4.6	0.9259	124955 05/08/07
Dibromomethane	ND	4.6	0.9259	124955 05/08/07
4-Methyl-2-Pentanone	ND	9.3	0.9259	124955 05/08/07
cis-1,3-Dichloropropene	ND	4.6	0.9259	124955 05/08/07
Toluene	ND	4.6	0.9259	124955 05/08/07
trans-1,3-Dichloropropene	ND	4.6	0.9259	124955 05/08/07
1,1,2-Trichloroethane	ND	4.6	0.9259	124955 05/08/07
2-Hexanone	ND	9.3	0.9259	124955 05/08/07
1,3-Dichloropropane	ND	4.6	0.9259	124955 05/08/07
Tetrachloroethene	ND	4.6	0.9259	124955 05/08/07
Dibromochloromethane	ND	4.6	0.9259	124955 05/08/07





	Purgeable	organics by GC/	(MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-N3	Basis:	as received
Lab ID:	194375-011	Sampled:	04/25/07
Matrix:	Soil	Received:	04/25/07
Units:	ug/Kg		

Analyte	Result	<b>RI</b>	Diln Fac	Batch#	Analyzed
1,2-Dibromoethane	ND	4.6	0.9259	124955	05/08/07
Chlorobenzene	ND	4.6	0.9259	124955	05/08/07
1,1,1,2-Tetrachloroethane	ND	4.6	0.9259	124955	05/08/07
Ethylbenzene	ND	4.6	0.9259	124955	05/08/07
m,p-Xylenes	ND	4.6	0.9259	124955	05/08/07
o-Xylene	ND	4.6	0.9259	124955	05/08/07
Styrene	ND	4.6	0.9259	124955	05/08/07
Bromoform	ND	4.6	0.9259	124955	05/08/07
Isopropylbenzene	ND	4.6	0.9259	124955	05/08/07
1,1,2,2-Tetrachloroethane	ND	4.6	0.9259	124955	05/08/07
1,2,3-Trichloropropane	ND	. 4.6	0.9259	124955	05/08/07
Propylbenzene	ND	4.6	0.9259	124955	05/08/07
Bromobenzene	ND	4.6	0.9259	124955	05/08/07
1,3,5-Trimethylbenzene	ND	4.6	0.9259	124955	05/08/07
2-Chlorotoluene	ND	4.6	0.9259	124955	05/08/07
4-Chlorotoluene	ND	4.6	0.9259	124955	05/08/07
tert-Butylbenzene	ND	4.6	0.9259	124955	05/08/07
1,2,4-Trimethylbenzene	ND	4.6	0.9259	124955	05/08/07
sec-Butylbenzene	ND	4.6	0.9259	124955	05/08/07
para-Isopropyl Toluene	ND	4.6	0.9259	124955	05/08/07
1,3-Dichlorobenzene	ND	4.6	0.9259	124955	05/08/07
1,4-Dichlorobenzene	ND	4.6	0.9259	124955	05/08/07
n-Butylbenzene	ND	4.6	0.9259	124955	05/08/07
1,2-Dichlorobenzene	ND	4.6	0.9259	124955	05/08/07
1,2-Dibromo-3-Chloropropane	ND	4.6	0.9259	124955	05/08/07
1,2,4-Trichlorobenzene	ND	4.6	0.9259	124955	05/08/07
Hexachlorobutadiene	ND	4.6	0.9259	124955	05/08/07
Naphthalene	ND	4.6	0.9259	124955	05/08/07
1,2,3-Trichlorobenzene	ND	4.6	0.9259	124955	05/08/07

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	92	78-126	0.9259	124955	05/08/07
1,2-Dichloroethane-d4	96	76-135	0.9259	124955	05/08/07
Toluene-d8	97	80-120	0.9259	124955	05/08/07
Bromofluorobenzene	106	80-126	0.9259	124955	05/08/07
Trifluorotoluene (MeOH)	96	58-142	25.00	124903	05/07/07

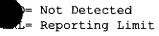


>= Not Detected L= Reporting Limit



	Purgeable	e Organics by GC/	<b>(NS</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-E1	Diln Fac:	1.000
Lab ID:	194375-012	Batch#:	124955
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/08/07

Analyte	Result	
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	26	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

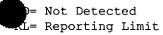




Purgeable Organics by GC/MS					
Lab #:	194375	Location:	205/209 Brush St. Oakland		
Client:	R&M Environmental	Prep:	EPA 5030B		
Project#:	STANDARD	Analysis:	EPA 8260B		
Field ID:	RM-E1	Diln Fac:	1.000		
Lab ID:	194375-012	Batch#:	124955		
Matrix:	Soil	Sampled:	04/25/07		
Units:	ug/Kg	Received:	04/25/07		
Basis:	as received	Analyzed:	05/08/07		

Analyte	Result	
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ИD	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

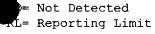
Surrogate	*REC	alinits
Dibromofluoromethane	95	78-126
1,2-Dichloroethane-d4	101	76-135
Toluene-d8	97	80-120
Bromofluorobenzene	108	80-126





	Purgeable	e Organics by GC/	<b>/MS</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-W1	Diln Fac:	0.9615
Lab ID:	194375-013	Batch#:	124955
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/08/07

Analyte	Result	
Freon 12	ND	9.6
Chloromethane	ND	9.6
Vinyl Chloride	ND	9.6
Bromomethane	ND	9.6
Chloroethane	ND	9.6
Trichlorofluoromethane	ND	4.8
Acetone	31	24
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
MTBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.6
cis-1,2-Dichloroethene	ND	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.6
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.6
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	ND	4.8

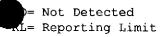




	Purgeabl	e Organics by GC,	<b>(/s</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-W1	Diln Fac:	0.9615
Lab ID:	194375-013	Batch#:	124955
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/08/07

Analyte	Result	THE SALE OF SAME AND
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8
1,2,3-Trichloropropane	ND	4.8
Propylbenzene	ND	4.8
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	ND	4.8
2-Chlorotoluene	ИD	4.8
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	ND	4.8
sec-Butylbenzene	ND	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	ND	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	*REC	Limits	
Dibromofluoromethane	99	78-126	
1,2-Dichloroethane-d4	109	76–135	
Toluene-d8	99	80-120	
Bromofluorobenzene	112	80-126	





	Purgeable	e Organics by GC/	WS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC386211	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124803
Units:	ug/Kg	Analyzed:	05/03/07

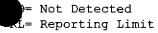
Analyte	Spiked	Result	*RE(	C Limits
1,1-Dichloroethene	25.00	24.43	98	76-132
Benzene	25.00	23.33	93	80-120
Trichloroethene	25.00	24.29	97	80-120
Toluene	25.00	23.99	96	80-120
Chlorobenzene	25.00	23.44	94	80-120

Surrogate	†REC	Limits
Dibromofluoromethane	105	78-126
1,2-Dichloroethane-d4	82	76-135
Toluene-d8	98	80-120
Bromofluorobenzene	82	80-126



	Purgeable	a Organics by GC/	<b>/\:\s</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC386212	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124803
Units:	ug/Kg	Analyzed:	05/03/07

Analyte	Result	<b>RL</b>
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

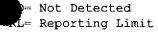




	Purgeable	a Organics by GC/	
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC386212	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124803
Units:	ug/Kg	Analyzed:	05/03/07

Analyte	Result	RI.
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
.,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	88	78-126	
1,2-Dichloroethane-d4	81	76-135	
Toluene-d8	98	80-120	
Bromofluorobenzene	89	80-126	





	Purgeable Org	anics by GC/MS	
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC386217	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124805
Units:	ug/Kg	Analyzed:	05/03/07

Analyte	Spiked	Result	*REC	Limits
1,1-Dichloroethene	25.00	28.96	116	76-132
Benzene	25.00	26.96	108	80-120
Trichloroethene	25.00	27.98	112	80-120
Toluene	25.00	28.69	115	80-120
Chlorobenzene	25.00	. 26.00	104	80-120

Surrogate	%REC	Limits of the Commence of the
Dibromofluoromethane	103	78-126
1,2-Dichloroethane-d4	98	76-135
Toluene-d8	105	80-120
Bromofluorobenzene	97	80-126



	Purgeable	a Organics by GC/	// s
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC386218	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124805
Units:	ug/Kg	Analyzed:	05/03/07

Analyte	Result	RI
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



	Purgeable	a Organics by GC/	ws
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC386218	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124805
Units:	ug/Kg	Analyzed:	05/03/07

Analyte	Result	
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	102	78-126
1,2-Dichloroethane-d4	93	76–135
Toluene-d8	102	80-120
Bromofluorobenzene	105	80-126



= Not Detected

kL= Reporting Limit



	Purgeable	a Organics by GC/	/ws
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-B3	Diln Fac:	0.9434
MSS Lab ID:	194375-004	Batch#:	124805
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/03/07

Type:

MS

Lab ID:

QC386263

Analyte	MSS Result	Spiked	Result *REC	Limits
1,1-Dichloroethene	<0.2943	47.17	56.20 119	72-138
Benzene	<0.2136	47.17	50.30 107	61-122
Trichloroethene	<0.2327	47.17	52.28 111	62-134
Toluene	<0.2392	47.17	53.92 114	57-124
Chlorobenzene	<0.2232	47.17	48.08 102	55-120

Surrogate	%REC	Limits	
Dibromofluoromethane	107	78-126	
1,2-Dichloroethane-d4	97	76-135	
Toluene-d8	106	80-120	
Bromofluorobenzene	115	80-126	

Type:

MSD

Lab ID:

QC386264

Analyte	Spiked	Result	*REC	Limits	RPD	Lim
1,1-Dichloroethene	47.17	54.49	116	72-138	3	20
Benzene	47.17	47.25	100	61-122	6	20
Trichloroethene	47.17	49.99	106	62-134	4	20
Toluene	47.17	49.38	105	57-124	9	21
Chlorobenzene	47.17	46.22	98	55-120	4	22

Surrogate	*REC	Limits
Dibromofluoromethane	108	78-126
1,2-Dichloroethane-d4	98	76-135
Toluene-d8	105	80-120
Bromofluorobenzene	116	80-126



	Purgeable	o Organics by GC/	
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC386606	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124903
Units:	ug/Kg	Analyzed:	05/07/07

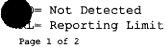
Analyte	Spiked	Result	*REC	Limits
1,1-Dichloroethene	25.00	23.45	94	76-132
Benzene	25.00	24.40	98	80~120
Trichloroethene	25.00	23.58	94	80-120
Toluene	25.00	24.45	98	80-120
Chlorobenzene	25.00	25.02	100	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	104	78-126	
1,2-Dichloroethane-d4	110	76-135	
Toluene-d8	101	80-120	
Bromofluorobenzene	103	80-126	



	Purgeable	o Organics by GC,	/MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC386607	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124903
Units:	ug/Kg	Analyzed:	05/07/07

Analyte	Result	
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





	Purgeable	Organics by GC/	
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC386607	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124903
Units:	ug/Kg	Analyzed:	05/07/07

Analyte	Result	
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	106	78-126	
1,2-Dichloroethane-d4	129	76-135	
Toluene-d8	103	80-120	
Bromofluorobenzene	116	80-126	



>= Not Detected

L= Reporting Limit



	Purgeable	e Organics by GC/	MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Туре:	LCS	Basis:	as received
Lab ID:	QC386821	Diln Fac:	1.000
Matrix:	. Soil	Batch#:	124955
Units:	ug/Kg	Analyzed:	05/08/07

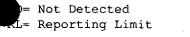
Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	26.87	107	76-132
Benzene	25.00	25.45	102	80-120
Trichloroethene	25.00	25.23	101	80-120
Toluene	25.00	25.34	101	80-120
Chlorobenzene	25.00	27.50	110	80-120

Surrogate	*REC	Mintes	X
Dibromofluoromethane	100	78-126	
1,2-Dichloroethane-d4	97	76-135	
Toluene-d8	97	80-120	
Bromofluorobenzene	104	80-126	



	<b>Purgeable</b>	Organics by GC/	<b>US</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC386822	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124955
Units:	ug/Kg	Analyzed:	05/08/07

Analyte	Result	
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





	Purgeable	a Organics by GC/	
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC386822	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124955
Units:	ug/Kg	Analyzed:	05/08/07

Analyte	Result	
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 ND	5.0

Surrogate	%REC	Limite 22
Dibromofluoromethane	96	78-126
1,2-Dichloroethane-d4	106	76-135
Toluene-d8	99	80-120
Bromofluorobenzene	111	80-126



= Not Detected

L= Reporting Limit



	Purgeable	e Organics by GC/	<b>vs</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	RM-S3	Diln Fac:	0.9615
MSS Lab ID:	194375-008	Batch#:	124955
Matrix:	Soil	Sampled:	04/25/07
Units:	ug/Kg	Received:	04/25/07
Basis:	as received	Analyzed:	05/08/07

Type:

MS

Lab ID: QC386875

Analyte	MSS Result	Spiked	Result	<b>&amp;REC</b>	Limits
1,1-Dichloroethene	<1.911	48.08	47.64	99	72-138
Benzene	<0.8492	48.08	46.23	96	61-122
Trichloroethene	<1.051	48.08	45.17	94	62-134
Toluene	<1.110	48.08	45.13	94	57-124
Chlorobenzene	<1.271	48.08	43.22	90	55-120

Surrogate	₽REC	Limits	
Dibromofluoromethane	104	78-126	
1,2-Dichloroethane-d4	108	76-135	
Toluene-d8	101	80-120	
Bromofluorobenzene	105	80-126	

Type:

MSD

Lab ID:

QC386876

Analyte	Spiked	Result	*REC	Limits	RPD	Lim
1,1-Dichloroethene	48.08	46.11	96	72-138	3	20
Benzene	48.08	40.81	85	61-122	12	20
Trichloroethene	48.08	38.75	81	62-134	15	20
Toluene	48.08	38.52	80	57-124	16	21
Chlorobenzene	48.08	40.13	83	55-120	7	22

Surrogate	%REC	Limits	
Dibromofluoromethane	93	78-126	
1,2-Dichloroethane-d4	85	76-135	
Toluene-d8	93	80-120	
Bromofluorobenzene	105	80-126	



	Purgeable	Organics by GC/	MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC386975	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124991
Units:	ug/Kg	Analyzed:	05/09/07

Analyte	Spiked	Result	*REC	Limits
1,1-Dichloroethene	25.00	27.20	109	76-132
Benzene	25.00	26.07	104	80-120
Trichloroethene	25.00	24.45	98	80-120
Toluene	25.00	24.60	98	80-120
Chlorobenzene	25.00	27.92	112	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	96	78-126	
1,2-Dichloroethane-d4	88	76-135	
Toluene-d8	92	80-120	•
Bromofluorobenzene	101	80-126	



	Purgeable	Organics by GC/	/ <b>MS</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC386976	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124991
Units:	ug/Kg	Analyzed:	05/09/07

Analyte	Result	
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

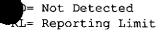
P= Not Detected L= Reporting Limit



	Purgeable	a Organics by GC/	/MS
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC386976	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124991
Units:	ug/Kg	Analyzed:	05/09/07

Analyte	Result	
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	그는 전 경영한다. 그림은 한 경험 시간 시험 경영 전 사람들은 경영 전 사람들이 되었다면 했다.
Dibromofluoromethane	95	78-126	
1,2-Dichloroethane-d4	100	76-135	
Toluene-d8	97	80-120	
Bromofluorobenzene	108	80-126	





	California T	itle 26 Metals	
Lab #:	194375	Project#:	STANDARD
Client:	R&M Environmental	Location:	205/209 Brush St. Oakland
Field ID:	RM-B1	Diln Fac:	1.000
Lab ID:	194375-002	Sampled:	04/25/07
Matrix:	Soil	Received:	04/25/07
Units:	mg/Kg	Prepared:	04/27/07
Basis:	as received		

Analyte	Result	RL .	Batch#	Analyzed	ty seltye	Prep	Analysis	1000
Antimony	ND	0.50	124646	04/30/07	EPA	3050B	EPA 6010B	
Arsenic	3.8	0.25	124646	04/30/07	EPA	3050B	EPA 6010B	į
Barium	26	0.25	124646	04/30/07	EPA	3050B	EPA 6010B	ŀ
Beryllium	0.25	0.10	124646	04/30/07	EPA	3050B	EPA 6010B	
Cadmium	ND	0.25	124646	04/30/07	EPA	3050B	EPA 6010B	
Chromium	5 <b>7</b>	0.25	124646	04/30/07	EPA	3050B	EPA 6010B	
Cobalt	5.6	0.25	124646	04/30/07	EPA	3050B	EPA 6010B	
Copper	20	0.25	124646	04/30/07	EPA	3050B	EPA 6010B	- 1
Lead	4.2	0.15	124646	04/30/07	EPA	3050B	EPA 6010B	
Mercury	0.022	0.020	124626	04/27/07	METE	HOD	EPA 7471A	
Molybdenum	1.2	0.25	124646	04/30/07	EPA	3050B	EPA 6010B	
Nickel	37	0.25	124646	04/30/07	EPA	3050B	EPA 6010B	
5elenium	ND	0.50	124646	04/30/07	EPA	3050B	EPA 6010B	
Silver	ND	0.25	124646	04/30/07	EPA	3050B	EPA 6010B	
Thallium	ND	0.50	124646	04/30/07	EPA	3050B	EPA 6010B	
Vanadium	47	0.25	124646	04/30/07	EPA	3050B	EPA 6010B	
Zinc	42	1.0	124646	04/30/07	EPA	3050B	EPA 6010B	



	Califor	nia Title 26 Meta	
Lab #:	194375	Project#:	STANDARD
Client:	R&M Environmental	Location:	205/209 Brush St. Oakland
Field ID:	RM-B2	Diln Fac:	1.000
Lab ID:	194375-003	Sampled:	04/25/07
Matrix:	Soil	Received:	04/25/07
Units:	mg/Kg	Prepared:	04/27/07
Basis:	as received	-	

Analyte	Result	RL .	Batch#	Analyzed	19 11/11/19	Prep		Analysis
Antimony	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Arsenic	1.5	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Barium	53	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Beryllium	0.15	0.10	124646	04/30/07	EPA	3050B	EPA	6010B
Cadmium	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Chromium	25	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Cobalt	3.1	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Copper	5.9	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Lead	1.5	0.15	124646	04/30/07	EPA	3050B	EPA	6010B
Mercury	0.041	0.020	124626	04/27/07	METH	OD	EPA	7471A
Molybdenum	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Nickel	14	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Selenium	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Silver	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Thallium	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Vanadium	20	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Zinc	14	1.0	124646	04/30/07	EPA	3050B	EPA	6010B



	Californ	nia Title 26 Mets	
Lab #:	194375	Project#:	STANDARD
Client:	R&M Environmental	Location:	205/209 Brush St. Oakland
Field ID:	RM-B3	Diln Fac:	1.000
Lab ID:	194375-004	Sampled:	04/25/07
Matrix:	Soil	Received:	04/25/07
Units:	mg/Kg	Prepared:	04/27/07
Basis:	as received	- ·	

Analyte	Result	RL.	Batch#	Analyzed		Prep	Į	nalysis
Antimony	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Arsenic	1.9	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Barium	51	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Beryllium	0.21	0.10	124646	04/30/07	EPA	3050B	EPA	6010B
Cadmium	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Chromium	33	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Cobalt	3.7	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Copper	7.9	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Lead	1.5	0.15	124646	04/30/07	EPA	3050B	EPA	6010B
Mercury	0.13	0.020	124626	04/27/07	MET	HOD	EPA	7471A
Molybdenum	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Nickel	23	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Selenium	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Silver	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Thallium	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Vanadium	26	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Zinc	18	1.0	124646	04/30/07	EPA	3050B	EPA	6010B



	Califor	nia Title 26 Meta	ls
Lab #:	194375	Project#:	STANDARD
Client:	R&M Environmental	Location:	205/209 Brush St. Oakland
Field ID:	RM-B4	Diln Fac:	1.000
Lab ID:	194375-005	Sampled:	04/25/07
Matrix:	Soil	Received:	04/25/07
Units:	mg/Kg	Prepared:	04/27/07
Basis:	as received	- ,	

Analyte	Result	RL	Batch#	Analyzed		Prep	2	Analysis
Antimony	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Arsenic	2.9	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Barium	59	0.25	124646	04/30/07	EPA	3050в	EPA	6010B
Beryllium	0.23	0.10	124646	04/30/07	EPA	3050B	EPA	6010B
Cadmium	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Chromium	33	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Cobalt	6.3	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Copper	8,2	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Lead	1.8	0.15	124646	04/30/07	EPA	3050B	EPA	6010B
Mercury	0.024	0.020	124626	04/27/07	METI	HOD	EPA	7471A
Molybdenum	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Nickel	26	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Selenium	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Silver	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Thallium	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Vanadium	27	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Zinc	18	1.0	124646	04/30/07	EPA	3050B	EPA	6010B



	Califor	nia Title 26 Meta	
Lab #:	194375	Project#:	STANDARD
Client:	R&M Environmental	Location:	205/209 Brush St. Oakland
Field ID:	RM-S1	Diln Fac:	1.000
Lab ID:	194375-006	Sampled:	04/25/07
Matrix:	Soil	Received:	04/25/07
Units:	mg/Kg	Prepared:	04/27/07
Basis:	as received		

Analyte	Result	RL .	Batch#	Analyzed		Prep	1	Analysis
Antimony	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Arsenic	2.3	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Barium	58	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Beryllium	0.19	0.10	124646	04/30/07	EPA	3050B	EPA	6010B
Cadmium	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Chromium	35	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Cobalt	4.0	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Copper	7.4	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Lead	1.7	0.15	124646	04/30/07	EPA	3050B	EPA	6010B
Mercury	0.033	0.020	124626	04/27/07	MET	HOD	EPA	7471A
Molybdenum	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Nickel	21	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Selenium	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Silver	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Thallium	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Vanadium	24	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Zinc	17	1.0	124646	04/30/07	EPA	3050B	EPA	6010B



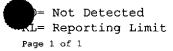
	California T	itle 26 Metals	
Lab #:	194375	Project#:	STANDARD
Client:	R&M Environmental	Location:	205/209 Brush St. Oakland
Field ID:	RM-S2	Diln Fac:	1.000
Lab ID:	194375-007	Sampled:	04/25/07
Matrix:	Soil	Received:	04/25/07
Units:	mg/Kg	Prepared:	04/27/07
Basis:	as received	- 	

Analyte	Result	RL	Batch#	Analyzed		Prep	1.12 Z	Analysis
Antimony	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Arsenic	2.3	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Barium	60	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Beryllium	0.18	0.10	124646	04/30/07	EPA	3050B	EPA	6010B
Cadmium	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Chromium	31	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Cobalt	3.7	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Copper	24	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Lead	14	0.15	124646	04/30/07	EPA	3050B	EPA	6010B
Mercury	0.19	0.020	124626	04/27/07	METI	HOD	EPA	7471A
Molybdenum	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Nickel	18	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Selenium	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Silver	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Thallium	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Vanadium	22	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Zinc	31	1.0	124646	04/30/07	EPA	3050B	EPA	6010B



	Californ	nia Title 26 Meta	
Lab #:	194375	Project#:	STANDARD
Client:	R&M Environmental	Location:	205/209 Brush St. Oakland
Field ID:	RM-S3	Diln Fac:	1.000
Lab ID:	194375-008	Sampled:	04/25/07
Matrix:	Soil	Received:	04/25/07
Units:	mg/Kg	Prepared:	04/27/07
Basis:	as received		

Analyte	Result	RL	Batch#	Analyzed		Prep	Analysis
Antimony	ND	0.50	124646	04/30/07	EPA	3050B	EPA 6010B
Arsenic	1.7	0.25	124646	04/30/07	EPA	3050B	EPA 6010B
Barium	75	0.25	124646	04/30/07	EPA	3050B	EPA 6010B
Beryllium	0.15	0.10	124646	04/30/07	EPA	3050B	EPA 6010B
Cadmium	ND	0.25	124646	04/30/07	EPA	3050B	EPA 6010B
Chromium	26	0.25	124646	04/30/07	EPA	3050B	EPA 6010B
Cobalt	3.2	0.25	124646	04/30/07	EPA	3050B	EPA 6010B
Copper	6.3	0.25	124646	04/30/07	EPA	3050B	EPA 6010B
Lead	4.2	0.15	124646	04/30/07	EPA	3050B	EPA 6010B
Mercury	0.029	0.021	124626	04/27/07	MET	IOD	EPA 7471A
Molybdenum	ND	0.25	124646	04/30/07	EPA	3050B	EPA 6010B
Nickel	15	0.25	124646	04/30/07	EPA	3050B	EPA 6010B
Selenium	ND	0.50	124646	04/30/07	EPA	3050B	EPA 6010B
Silver	ND	0.25	124646	04/30/07	EPA	3050B	EPA 6010B
Thallium	ND	0.50	124646	04/30/07	EPA	3050B	EPA 6010B
Vanadium	19	0.25	124646	04/30/07	EPA	3050B	EPA 6010B
Zinc	18	1.0	124646	04/30/07	EPA	3050B	EPA 6010B





	Califor	nia Title 26 Meta	
Lab #:	194375	Project#:	STANDARD
Client:	R&M Environmental	Location:	205/209 Brush St. Oakland
Field ID:	RM-N1	Diln Fac:	1.000
Lab ID:	194375-009	Sampled:	04/25/07
Matrix:	Soil	Received:	04/25/07
Units:	mg/Kg	Prepared:	04/27/07
Basis:	as received	-	

Analyte	Result	RL	Batch#	Analyzed	선물들	Prep		malysis
Antimony	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Arsenic	1.8	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Barium	61	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Beryllium	0.17	0.10	124646	04/30/07	EPA	3050B	EPA	6010B
Cadmium	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Chromium	28	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Cobalt	3.3	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Copper	6.3	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Lead	2.0	0.15	124646	04/30/07	EPA	3050B	EPA	6010B
Mercury	ND	0.020	124626	04/27/07	METE	HOD	EPA	7471A
Molybdenum	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Nickel	16	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Selenium	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Silver	ND	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Thallium	ND	0.50	124646	04/30/07	EPA	3050B	EPA	6010B
Vanadium	20	0.25	124646	04/30/07	EPA	3050B	EPA	6010B
Zinc	16	1.0	124646	04/30/07	EPA	3050B	EPA	6010B



	Califor	nia Title 26 Meta	
Lab #:	194375	Project#:	STANDARD
Client:	R&M Environmental	Location:	205/209 Brush St. Oakland
Field ID:	RM-N2	Basis:	as received
Lab ID:	194375-010	Diln Fac:	1.000
Matrix:	Soil	Sampled:	04/25/07
Units:	mg/Kg	Received:	04/25/07

Analyte	Result	RL,	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Arsenic	1.3	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Barium	45	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Beryllium	0.14	0.10	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Chromium	24	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Cobalt	2.9	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Copper	5.0	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Lead	1.9	0.15	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Mercury	ND	0.021	124626	04/27/07	04/27/07	METHOD	EPA 7471A
Molybdenum	ND	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Nickel	14	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Selenium	ND	0.50	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Silver	ND	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Thallium	ND	0.50	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Vanadium	18	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Zinc	14	1.0	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B





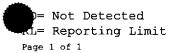
	Califor	nia Title 26 Meta	
Lab #:	194375	Project#:	STANDARD
Client:	R&M Environmental	Location:	205/209 Brush St. Oakland
Field ID:	RM-N3	Basis:	as received
Lab ID:	194375-011	Diln Fac:	1.000
Matrix:	Soil	Sampled:	04/25/07
Units:	mg/Kg	Received:	04/25/07

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.60	0.50	124690	04/30/07	05/01/07	EPA 3050	B EPA 6010B
Arsenic	1.0	0.25	124690	04/30/07	05/01/07	EPA 3050	B EPA 6010B
Barium	50	0.25	124690	04/30/07	05/01/07	EPA 3050	в ера 6010в
Beryllium	0.15	0.10	124690	04/30/07	05/01/07	EPA 3050	B EPA 6010B
Cadmium	ND	0.25	124690	04/30/07	05/01/07	EPA 3050	B EPA 6010B
Chromium	26	0.25	124690	04/30/07	05/01/07	EPA 3050	B EPA 6010B
Cobalt	3.2	0.25	124690	04/30/07	05/01/07	EPA 3050	B EPA 6010B
Copper	5.2	0.25	124690	04/30/07	05/01/07	EPA 3050	B EPA 6010B
Lead	2.0	0.15	124690	04/30/07	05/01/07	EPA 3050	в ЕРА 6010В
Mercury	ND	0.020	124626	04/27/07	04/27/07	METHOD	EPA 7471A
Molybdenum	ND	0.25	124690	04/30/07	05/01/07	EPA 3050	B EPA 6010B
Nickel	15	0.25	124690	04/30/07	05/01/07	EPA 3050	B EPA 6010B
Selenium	ND	0.50	124690	04/30/07	05/01/07	EPA 3050	B EPA 6010B
Silver	ND	0.25	124690	04/30/07	05/01/07	EPA 3050	B EPA 6010B
Thallium	ND	0.50	124690	04/30/07	05/01/07	EPA 3050	в ЕРА 6010В
Vanadium	19	0.25	124690	04/30/07	05/01/07	EPA 3050	в ЕРА 6010В
Zinc	14	1.0	124690	04/30/07	05/01/07	EPA 3050	B EPA 6010B



	California T	itle 26 Metals	
Lab #:	194375	Project#:	STANDARD
Client:	R&M Environmental	Location:	205/209 Brush St. Oakland
Field ID:	RM-E1	Basis:	as received
Lab ID:	194375-012	Diln Fac:	1.000
Matrix:	Soil	Sampled:	04/25/07
Units:	mg/Kg	Received:	04/25/07

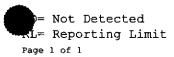
Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Arsenic	1.3	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Barium	59	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Beryllium	0.17	0.10	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Chromium	25	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Cobalt	3.2	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Copper	5.9	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Lead	5.8	0.15	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Mercury	0.058	0.020	124626	04/27/07	04/27/07	METHOD	EPA 7471A
Molybdenum	ND	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Nickel	12	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Selenium	ND	0.50	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Silver	ND	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Thallium	ND	0.50	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Vanadium	18	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Zinc	16	1.0	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B





	Califor	nia Title 26 Meta	
Lab #:	194375	Project#:	STANDARD
Client:	R&M Environmental	Location:	205/209 Brush St. Oakland
Field ID:	RM-W1	Basis:	as received
Lab ID:	194375-013	Diln Fac:	1.000
Matrix:	Soil	Sampled:	04/25/07
Units:	mg/Kg	Received:	04/25/07

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Arsenic	2.2	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Barium	71	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Beryllium	0.21	0.10	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Chromium	24	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Cobalt	3.9	0,25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Copper	8.5	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Lead	35	0.15	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Mercury	0.10	0.020	124626	04/27/07	04/27/07	METHOD	EPA 7471A
Molybdenum	0.28	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Nickel	15	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Selenium	ND	0.50	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Silver	ND	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Thallium	ND	0.50	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Vanadium	17	0.25	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B
Zinc	26	1.0	124690	04/30/07	05/01/07	EPA 3050B	EPA 6010B





	Califor	nia Title 26 Mets	
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC385488	Batch#:	124626
Matrix:	Soil	Prepared:	04/27/07
Units:	mg/Kg	Analyzed:	04/27/07

Result		
ND	0.020	



	Californ	nia Title 26 Meta	
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124626
Units:	mg/Kg	Prepared:	04/27/07
Basis:	as received	Analyzed:	04/27/07

Type	Lab ID	Splked	Result	<b>%REC</b>	Limits	RPD	Lin
BS	QC385489	0.5000	0.5510	110	80-120		
BSD	QC385490	0.5000	0.5330	107	80-120	3	20



	Califor	nia Title 26 Meta	
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZ	Batch#:	124626
MSS Lab ID:	194308-007	Sampled:	04/23/07
Matrix:	Soil	Received:	04/23/07
Units:	mg/Kg	Prepared:	04/27/07
Basis:	as received	Analyzed:	04/27/07

Type	Lab ID MSS	Result	Spiked	Result	&REC	Limits	RPD	Lim
MS	QC385491	0.06690	0.4808	0.5721	105	67-143		
MSD	QC385492		0.4902 .	0.5814	105	67-143	0	23



	Califor	nia Title 26 Meta	<b>ls</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC385576	Batch#:	124646
Matrix:	Soil	Prepared:	04/27/07
Units:	mg/Kg	Analyzed:	04/30/07
Basis:	as received	•	

Analyt	Result		
Antimony	ND	0.50	
Arsenic	ND	0.25	i
Barium	ND	0.25	İ
Beryllium	ND	0.10	
Cadmium	ND	0.25	İ
Chromium	ND	0.25	İ
Cobalt	ND	0.25	
Copper	ND	0.25	
Lead	ND	0.15	
Molybdenum	ND	0.25	
Nickel	ND	0.25	
Selenium	ND	0.50	
Silver	ND	0.25	
Thallium	ND	0.50	
Vanadium	ND	0.25	
Zinc	ND	1.0	



	Califo	rnia Title 26 Meta	1:
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	124646
Units:	mg/Kq	Prepared:	04/27/07
Basis:	as received	Analyzed:	04/30/07
Diln Fac:	1.000		. ,

Type:

BS

Lab ID:

QC385577

Analyte	Spiked	Result	*REC	Limits	s, ngayanta
Antimony	100.0	96.69	97	80-120	•••
Arsenic	50.00	48.41	97	80-120	
Barium	100.0	100.5	100	80-120	
Beryllium	2.500	2.545	102	80-120	
Cadmium	10.00	10.07	101	80-120	
Chromium	100.0	100.8	101	80-120	
Cobalt	25.00	24.35	97	80-120	
Copper	12.50	12.14	97	80-120	
Lead	100.0	96.01	96	80-120	
Molybdenum	20.00	20.47	102	80-120	
Nickel	25.00	24.13	97	80-120	
Selenium	50.00	47.75	95	80-120	
Silver	10.00	9.643	96	80-120	
Thallium	50.00	49.15	98	80-120	
Vanadium	25.00	25.03	100	80-120	
linc	25.00	25.22	101	80-120	

Type:

BSD

Lab ID: QC385578

Analyte	Spiked	Result	**************************************	Limits	RPD	Lim
Antimony	100.0	96.42	96	80-120	0	20
Arsenic	50.00	49.44	99	80-120	2	20
Barium	100.0	99.05	99	80-120	1	20
Beryllium	2.500	2.526	101	80-120	1	20
Cadmium	10.00	10.23	102	80-120	2	20
Chromium	100.0	99.81	100	80-120	1	20
Cobalt	25.00	24.39	98	80-120	Ō	20
Copper	12.50	12.03	98 96 96	80-120	1	20
Lead	100.0	96.31	96	80-120	0	20
Molybdenum	20.00	20.56	103	80-120	0	20
Nickel	25,00	24.24	97	80-120	0	20
Selenium	50.00	48.22	96	80-120	1	20
Silver	10.00	9.469	95	80-120	2	20
Thallium	50.00	48.78	98	80-120	1	20
Vanadium	25.00	24.75	99	80-120	1	20
Zinc	25.00	24.36	97	80-120	3	20



	Califor	nia Title 26 Meta	<b>í a</b>
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	124646
MSS Lab ID:	194408-004	Sampled:	04/26/07
Matrix:	Soil	Received:	04/26/07
Units:	mg/Kg	Prepared:	04/27/07
Basis:	aš rēceived	Analyzed:	04/30/07
Diln Fac:	1.000		

Type:

MS

Lab ID: QC385579

Analyte	MSS Result	Spiked	Result	FREC	Limits
Antimony	0.2474	96.15	38.84	40	1-129
Arsenic	7.296	48.08	48.17	85	72-120
Barium	394.5	96.15	475.0	84 NM	49-138
Beryllium	0.5601	2.404	2.641	87	80-120
Cadmium	<0.02303	9.615	8.257	86	72-120
Chromium	53.16	96.15	179.2	131 *	63-122
Cobalt	16.28	24.04	36.15	83	61-120
Copper	46.67	12.02	57.23	88	59-137
Lead	8.403	96.15	86.52	81	55-122
Molybdenum	0.5431	19.23	16.38	82	66-120
Nickel	82.39	24.04	113.3	128	45-139
Selenium	<0.04532	48.08	36.90	77	73-120
Silver	<0.05497	9.615	8.511	89	53-120
Thallium	<0.08232	48.08	38.02	79	64-120
Vanadium	45.58	24.04	63.75	76	55-139
Zinc	62.56	24.04	79.73	71	49-140

Type:

MSD

Lab ID:

QC385580

Analyte Land Barrier	Spiked	Result	*REC	Limits	RPD	Lim
Antimony	94.34	38.49	41	1-129	1	23
Arsenic	47.17	46.54	83	72-120	2	20
Barium	94.34	450.4	59 NM	49-138	5	23
Beryllium	2.358	2.661	89	80-120	2	20
Cadmium	9.434	8.088	86	72-120	0	20
Chromium	94.34	136.9	89	63-122	26	20
Cobalt	23.58	35.10	80	61-120	2	23
Copper	11.79	54.66	68	59-137	4	20
Lead	94.34	85.64	82	55-122	1	26
Molybdenum	18.87	15.97	82	66-120	1	20
Nickel	23.58	99.73	74	45-139	12	26
Selenium	47,17	36.07	76	73-120	0	20
Silver	9.434	8.231	87	53-120		22
Thallium	47.17	38.07	81	64-120	2	20
Vanadium	23.58	59.21	58	55-139	7	20
Zinc	23.58	82.33	84	49-140	4	23

<sup>\*=</sup> Value outside of QC limits; see narrative

IM= Not Meaningful: Sample concentration > 4X spike concentration

RPD= Relative Percent Difference



	Califor	nia Title 26 Mets	ıls
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC385763	Batch#:	124690
Matrix:	Soil	Prepared:	04/30/07
Units:	mg/Kg	Analyzed:	05/01/07
Basis:	as received	_	

Analyte	Result		. 유로 최고인 25° (C)
Antimony	ND	0.50	· · ·
Arsenic	ND	0.25	
Barium	ND	0.25	
Beryllium	ND	0.10	
Cadmium	ND	0.25	
Chromium	ND	0.25	
Cobalt	ND	0.25	
Copper	ND	0.25	
Lead	ND	0.15	
Molybdenum	ИD	0.25	
Vickel	ND	0.25	
Selenium	ND	0.50	
Silver	ND	0.25	
Thallium	ND	0.50	
Vanadium	ND	0.25	
Zinc	ND	1.0	



	Californi	a Title 26 Meta	
Lab #: Client: Project#:	194375 R&M Environmental STANDARD	Location: Prep: Analysis:	205/209 Brush St. Oakland EPA 3050B EPA 6010B
Matrix: Units: Basis: Diln Fac:	Soil mg/Kg as received 1.000	Batch#: Prepared: Analyzed:	124690 04/30/07 05/01/07

Type:

BS

Lab ID: QC385764

Analyte	Spiked	Result	*REC	Limits of the control
Antimony	100.0	97.70	98	80-120
Arsenic	50.00	50.48	101	80-120
Barium	100.0	97.66	98	80-120
Beryllium	2.500	2.660	106	80-120
Cadmium	10.00	10.24	102	80-120
Chromium	100.0	100.6	101	80-120
Cobalt	25.00	24.55	98	80-120
Copper	12.50	12.49	100	80-120
Lead	100.0	97.79	98	80-120
Molybdenum	20.00	20.19	101	80-120
Nickel	25.00	25.08	100	80-120
Selenium	50.00	49.63	99	80-120
Silver	10.00	9.381	94	80-120
Thallium	50.00	48.00	96	80-120
Vanadium	25.00	24.54	98	80-120
linc	25.00	26.03	104	80-120

Type:

BSD

Lab ID: QC385765

	Spiked	Result	*REC	Limits	RPD	Lim
Antimony	100.0	98.17	98	80-120	0	20
Arsenic	50.00	50,44	101	80-120	0	20
Barium	100.0	96.80	97	80-120	1	20
Beryllium	2.500	2.655	106	80-120	0	20
Cadmium	10.00	10.20	102	80-120	0	20
Chromium	100.0	100.6	101	80-120	0	20
Cobalt	25.00	24.45	98	80-120	0	20
Copper	12.50	12.37	99	80-120	1	20
Lead	100.0	97.13	97	80-120	1	20
Molybdenum	20.00	20.09	100	80-120	0	20
Nickel	25.00	25.01	100	80-120	0	20
Selenium	50.00	49.29	99	80-120	1	20
Silver	10.00	9.280	93	80-120	1	20
Thallium	50.00	48.15	96	80-120	0	20
Vanadium	25.00	24.42	98	80-120	1	20
Zinc	25.00	25.63	103	80-120	2	20



	Califor	nia Title 26 Meta	
Lab #:	194375	Location:	205/209 Brush St. Oakland
Client:	R&M Environmental	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	124690
MSS Lab ID:	194430-001	Sampled:	04/24/07
Matrix:	Soil	Received:	04/27/07
Units:	mg/Kg	Prepared:	04/30/07
Basis:	as received	Analyzed:	05/01/07
Diln Fac:	1.000	<u>.</u>	•

Type:

MS

Lab ID: QC385766

Analyte	MSS Result	Spiked	Result	*REC	Limits
Antimony	1.837	97.09	38.54	38	1-129
Arsenic	2.860	48.54	49.72	97	72-120
Barium	411.6	97.09	742.6 >LR	341 NM	49-138
Beryllium	0.2383	2.427	2.732	103	80-120
Cadmium	0.09256	9.709	9.046	92	72-120
Chromium	19.37	97.09	119.2	103	63-122
Cobalt	5.911	24.27	30.71	102	61-120
Copper	22.61	12.14	39.67	141 *	59-137
Lead	6.157	97.09	88.56	- 85	55-122
Molybdenum	0.5684	19.42	18.17	91	66-120
Nickel	17.50	24.27	46.86	121	45-139
Selenium	<0.07209	48.54	45.81	94	73-120
Silver	<0.01683	9.709	8.870	91	53-120
[hallium	<0.03180	48.54	38.99	80	64-120
Vanadium	27.32	24.27	61.12	139	55-139
Zinc	44.18	24.27	71.38	112	49-140

Type:

MSD

Lab ID:

QC385767

Analyte	Spiked	Result	*REC	Limits	RPD	Lim
Antimony	99.01	46.68	45	1-129	17	23
Arsenic	49.50	50.36	96	72-120	1	20
Barium	99.01	512.0 >LR	101 NM	49-138	NC	23
Beryllium	2.475	2.755	102	80-120	1	20
Cadmium	9.901	9.223	92	72-120	0	20
Chromium	99.01	113.8	95	63-122	6	20
Cobalt	24.75	28.89	93	61-120	8	23
Copper	12.38	33.67	89	59-137	17	20
Lead	99.01	90.65	85	55-122	0	26
Molybdenum	19.80	18.75	85 92	66-120	1	20
Nickel	24.75	41.99	99	45-139	12	26
Selenium	49.50	46.66	94	73-120	0	20
Silver	9.901	8.838	89	53-120	2	22
Thallium	49.50	40.69	82	64-120	2	20
Vanadium	24.75	55.55	114	55-139	10	20
Zinc	24.75	64.00	80	49-140	12	23

<sup>\*=</sup> Value outside of QC limits; see narrative
NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
R= Response exceeds instrument's linear range
RPD= Relative Percent Difference

#### APPENDIX C

#### **EXCAVATION SAMPLING LOG**

### **EXCAVATION SAMPLING LOG**



R&M EIE, Inc.

Date: 4/25/2007

SULFAISTORNATION.	CHEROLOGICAL CONTROL C
Name: Documentation and Oversight of Removal Action	Excavating Company: NRC
Location: 205/209 Brush Street, Oakland, CA	Excavater(s): Dave, Mike
Project No: 4011	Sampling Equipment: by hand or excavator bucket
Logged By: C. Adams, R. Carranza	Sampler(s): R. Carranza, C. Adams

SAMPLE AVALYSIS						
Requested Analysis	Container Type	No. of Containers				
Method 8015B for TPH-g	1.5" x 6" stainless steel tube					
Method 8021B for BTEX	1.5" x 6" stainless steel tube					
Method 8015B for TPH-d	1.5" x 6" stainless steel tube	1				
Methods 5030B/8260B for Purgeable organics by GC/MS	1.5" x 6" stainless steel tube					
Methods/6010/7000 for Title 22 metals (CAM-17 Metals)	1.5" x 6" stainless steel tube					

Sample in	FORMAT	TON			
Sample ID	Time	Depth (ft)	Water Encountered	Sampling Device	Soil Observations (color, odor, moist/dry, loose/firm, staining)
RM-B1	9:58	5	Yes □ No ■	by hand □ bucket ■	black, HC odor, moist firm
RM-W1	14:01	3	Yes □ No ■	by hand □ bucket 🔳	black, HC odor, moist firm
RM-S3	14:04	3	Yes □ No ■	by hand □ bucket ■	black, HC odor, moist firm
RM-B3	14:06	7	Yes □ No ■	by hand 🗆 bucket 📕	black, HC odor, moist firm
RM-N3	14:11	3	Yes □ No ■	by hand 🗆 bucket 🔳	black, HC odor, moist firm
RM-S2	14:13	3	Yes □ No ■	by hand 🗆 bucket 💂	black, HC odor, moist firm
RM-B2	14:15	7	Yes □ No ■	by hand 🗆 bucket 🔳	black, HC odor, moist firm
RM-N2	14:17	3	Yes □ No ■	by hand 🗆 bucket 💼	black, HC odor, moist firm
RM-S1	14:24	3	Yes □ No ■	by hand □ bucket ■	black, HC odor, moist firm
RM-B4	14:27	7	Yes □ No ■	by hand 🗆 bucket 🔳	black, heavy HC odor, moist, firm
RM-N1	14:30	3	Yes □ No ■	by hand □ bucket ■	black, HC odor, moist firm
RM-E1	14:35	3	Yes □ No ■	by hand ■ bucket □	dry, brown, no odor

NOTES
No PID readings on the perimeter at 7:00am and on Southwest stockpile at 7:46
Zero readings for %LEL,H <sub>2</sub> S, CO on the perimeter and around soil stockpile, 20.9% Oxygen on the perimeter
Can smell VOCs and HC while excavator scraps in trench area @ 8:30
Zero PID & LEL readings in trenches & excavation area @ 8:09
NRC says they will trench to measured depth of 5 ft. @ 9:01
Site excavated to 7ft. bgs
Site excavated to 7ft. bgs

#### Field Book (Cameron Adams, R&M)

Project Name: 205/209 Brush Street

Project #: 4011

Date: 4/25-27/2007, 4/30/2007

Location: 205/209 Brush Street, Oakland, CA

**Work Being Performed:** Excavation of impacted area. Collection of soil samples from excavation area. Filling of excavation and compaction of filler material.

#### Materials, supplies, equipment used:

- Excavator (John Deere 225C)(4/25-27/2007)
- Loader (John Deere 544J)(4/25-27,30/2007)
- 2 x Compactor (John Deere CP-40)(4/25-27/2007) (Ingersoll-Rand SD-45)(4/27,30/2007)
- R&M Equipment, supplies:
  - o Photoionization Detector (4/25-27,30/2007)
  - o LEL (4/25/2007)
  - o 1.5" x 6" stainless steel soil sampling tubes, Teflon covers, 1.5" plastic caps (4/25/2007)
  - Troxlor Nuclear Gauge (4/25-27,30/2007)

#### Weather Conditions:

- 4/25/2007, Wednesday: Cloudy in the morning, cleared up later in the morning, sunny during the day, wind blowing to the North
- 4/26/2007, Thursday: Cloudy in the morning, cleared up later in the morning, sunny during the day, wind blowing to the North
- 4/27/2006, Friday: Clear skies, wind blowing to the North
- 4/30/2007, Monday: Clear skies, light wind blowing to the North

#### Personnel:

- R&M: Masood Ghassemi, Cameron Adams, Rafael Carranza
- NRC: (4/25-27, 4/30/2007)
  - David Delaso, Project Manager, direct (510) 749-4137, cell (510) 385-0444, plus 2 construction workers
- Keith Matthews, City of Oakland, Fire Dept. Hazardous Materials Inspector, cell (510) 755-6898 (4/25/2007)
- Port of Oakland: Mike MacMillan(4/25/2007), John Prall(4/25-27, 30/2007), Tim Leong(4/27, 30/2007), Phil Granger(4/27/2007)
- DPR representatives (4/27/2007)
- Martin Mills, Inspection Services Inc, cell (415) 385-9783 (4/25-27, 4/30/2007)
- Clean Energy: (4/25/2007)
  - o Gilbert Lucero, Project Manager, cell (562) 335-9783, direct (562) 546-0312
- Don Fitterer and female colleague, Salesman for RSC equipment rental cell, (510) 557-0991, direct (510) 635-8485 (4/25/2007)
- Mike Henderson, President, H&K Mechanical, (Contracted by Clean Energy to install CNG station), cell (317) 250-5616, direct (317) 535-6410 plus four workers (4/30/2007)

Rodney Chew, PG&E representative, (510) 437-2079 (4/25/2007)

#### Observations:

#### 4/25/2007 Wednesday

- 6:49 Small amount of water collect on tarp covering excavation.
- 6:51 wind blowing in a Northern Direction.
- 7:01 performed site walk, perimeter walk with LEL → 20.9% oxygen, 0.0 forH<sub>2</sub>S, methane and CO<sub>2</sub>.
- 7:45 Used PID and LEL on stockpiled soil S.W. of excavation area. Both didn't pick up anything.
- 8:08 LEL used on trenches in main excavation area, no readings.
- 8:32 PID = 20.9ppm; spike while excavating with back hoe. Constant readings of 0-5ppm
- 8:27 took bag sample from area between trenches, sample called BS-1.
- 8:35 took bag sample from area between trenches, sample called BS-2.
- 8:47 PID = 40.3ppm; spike at area between original trenches.
- 8:49 PID = 79.8ppm; spike at area between original trenches.
- 8:50 PID = 0.0ppm; at breathing level (5 ft above ground surface).
- 8:52 note: The pattern appears to be this. When backhoe digs/agitates the soil, odor is present, PID spikes. The odor fades relatively quickly, and the PID readings <5.0 ppm.</li>
- 8:56 PID constant @ 0-5.0ppm at breathing level
- 9:01 Site perimeter walk; PID = 0.0ppm
- 9:06 PID = 29.6ppm; PID = 19.8ppm; from freshly stockpiled soil, spikes appear when you agitate
  the soil.
- 9:26 Sheen noticed on standing water in excavation (very small, diameter ≅ 4 inches.
- 9:45 Port of Oakland representative Mike McMillan and Fire Dept. Inspector Keith Matthews show up
- 9:45 Odor check/site walk: PID ranges from 0-2.2ppm, wind blowing North, odor present downwind from excavation.
- 9:58 soil sample RM-B1 taken by hand from area between former trenches in excavation area.
- 10:10 PID = 15.8ppm; PID spike during excavation.
- 10:29 Odor /PID site walk: PID ranged from 0 5.3ppm; wind blowing north, odor and PID readings present downwind (north) from excavation area.
- 10:37 PG&E representative shows up.
- 10:50 Bag Sample BS-2, PID reading = 73.0ppm.
- 10:51 Bag Sample BS-1, PID reading = 3.0ppm.
- 10:53 Big Rig with cattle creates smell of manure.
- 11:31 Odor/PID site walk: PID ranged from 0-21.8ppm; wind blowing north, odor and PID readings present downwind (north) from excavation area.
- 11:48 odor/PID stockpiled soil walk: PID ranged from 0-0.7ppm, odor present, did not agitate soil.
- 12:06 PID = 0.0ppm; made PID reading near excavation area, while no activity was going on in the
  excavation area.
- 12:10 Afternoon digging begins: odor present, PID ranging from 0-5.7ppm.
- 12:17 PID 19.1ppm; spike during excavation.
- 12:28 excavation depth measured to be about 7.5 feet below ground surface.
- 12:43 multiple, large pieces of wood found during excavation.
- 12:46 North-west edge of excavation area seems to be boundary of contamination, evidenced by low average PID readings (0≤PID≤5 ppm), compared to middle of the excavation area.

- 12:50 List of Personnel onsite today: Mike McMillan (Port), Keith Matthews, Fire dept. inspector (510) 755-6898, Martin Mills (ISI, inc) (415) 385-0782, Clean Energy: Gilbert Lucero, Project Manager, cell(562) 335-9783, direct (562) 548-0312, Don Fitterer and female colleague, salesman for RSC equipment rental
- 12:58 Odor/PID site walk: PID ranged from 0-2 ppm; wind blowing north, odor and PID readings generally confined to area downwind (north) of excavation area.
- 13:40 Performed soil sampling of excavation area, under the direction of Keith Matthews, collected 11 samples, S1, S2, S3, N1, N2, N3, B2, B3, B4, E1, W1.
- 14:00 cleaned up R&M equipment, left site, will return tomorrow to oversee and document filling and compaction activities.
- 15:50 Delivered soil samples to Curtis & Tompkins Laboratory (Berkeley, CA), and requested standard turn around time.

#### 4/26/2007 Thursday

- 7:45 arrived onsite
- 7:55 performed site walk: site HC odor present downwind from excavation, PID = 0.0
- 8:00 water present in bottom of excavation. Not much water, confined to a few puddles.
- 8:10 first truck load dumps fresh dirt into excavation.
- 8:50 3 truck loads completed, trucked leaving to collect fresh materials at Dutra Materials (Richmond, CA).
- 9:40 Trucks return with loads #4, 5, 6.
- 10:24 Loader (John Deere 544) moving new filler material into excavation, slight HC odor present
- 10:26 odor/PID site walk: slight odor near excavation, PID = 0.0
- 10:56 Trucks arrive with loads # 7.8.9.
- 11:58 Inspection Services Inc. (Geolabs, Inc.) representative arrives on site, named Martin Mills.
- 12:31 Trucks with loads # 10, 11, 12 arrive on site.
- 12:55 Used PID on covered, stockpiled soil, lifted tarp at the edge, readings ranged from 0-3ppm.
- 13:36 Soil compaction test being performed by Martin Mills, ISI, Inc. (at 3 ft bgs).
- 13:45 John Prall, representing Port of Oakland, EP&S arrives on site.
- 13:56 Trucks with loads # 13, 14, 15 arrive.
- 14:00 Loads # 13, 14, 15 are being dumped at the Southern end of the site. More compaction is required at excavation area before more filler material can be added.
- 14:25 Francis Chen (Geolabs, Inc.) called, ISI, Inc. representative will be onsite between 10:30-11 on Fri, 4/27/2007.
- 14:39 Excavator being used to dig lower, so Martin Mills (ISI, Inc.) can do compaction tests are at 4ft and 4.5 ft. (results for 4 ft bgs: 125 = dry density, 7.6% moisture; results for 4.5 ft bgs: 116 = dry density, 6.5% moisture).
- 15:03 Note: Excavation is currently filled to 3.5 bgs at western end (deepest section of excavation).
- 15:10 Excavator taking ~1 ft. of soil off of eastern side of the excavation and bringing to the western side. Originally, besides the trenches, the excavation was about 1 ft bgs.
- 15:50 Loader brought a few loads of filler materials (from loads left onsite) to excavation, used compactor to compact it.
- 16:30 cleanup up and packed up R&M supplies and materials, Masood and Cameron, left the site.

#### 4/27/2007 Friday

- 6:50 Cameron arrived onsite.
- 6:52 Dave from NRC tells me: 6 trucks will be doing the three hour roundtrip to the Altamont landfill today. Should be able to complete 3 trips giving us a max of 18 loads.

- 6:56 Weather: Clear skies, moderate wind blowing to the North.
- 6:58 Odor/PID site walk: upwind near excavation: PID = 0.0ppm, no odor; downwind near excavation: PID = 0.0ppm, no odor.
- 6:59 Truck #1, being loaded with load #1 from stockpiled soil pile.
- 7:05 PID reading of stockpiled soil: Agitated several areas around soil stockpile with foot. PID = 0.0ppm.
- 7:10 Truck #2 being loaded with load #2 from stockpiled soil pile.
- 7:25 Truck #3 being loaded with load #3 from stockpiled soil pile.
- 7:32 Truck #4 being loaded with load #4 from stockpiled soil pile.
- 7:45 Truck #5 being loaded with load # 5 from stockpiled soil pile.
- 7:48 Only five trucks arrived, instead of six.
- 7:50 Picture: Stockpile after removal of 5 loads.
- 7:56 PID reading for stockpile area where soil was removed by loader → fairly strong Hydrocarbon odor, PID constant between 5-10ppm with spikes up to 28.2ppm.
- 8:24 loader bringing filler material to excavation site.
- 8:30 Masood called to inform me that he heard from Martin Mills (ISI, Inc.) about the quality of our compaction, it isn't good enough. Told Mike (NRC) he called Dave (NRC).
- 8:40 Stockpile odor/PID check: agitated dirt with foot, PID = 208ppm, strong odor, did this to area of stockpile newly exposed by loader.
- 9:05 Phil Granger (Port of Oakland) arrived onsite.
- 9:08 John Prall and Tim Leung (Port of Oakland) arrived on site.
- 9:10 A large group (6-8 persons) representing DPR arrived on site.
- 9:15 Dave (NRC) arrived back onsite. He told me (C. Adams, R&M), that he ordered a compactor with 3 times the compaction capabilities of the current one. He says it will be onsite in about 1.5 hours. I called Masood and informed him of the situation.
- 9:35 Brick building to the North of site is 205 & 209 Brush street.
- 10:04 Marked locations of former borings on a drawing, will put into final figure.
- 10:05 first truck returning from Altamont landfill, and being loaded with load #6.
- 10:10 Odor was present while loader was loading truck #1, dissipated shortly after loading completed.
- 10:16 Larger compactor arrives on-site.
- 10:21 Truck #2 being filled w/ load #7.
- 10:25 Compaction begins w/ larger compactor (IR SD-45).
- 10:39 Truck #3 being filled up with load #8.
- 10:45 Truck #4 being filled with load #9. Strong hydrocarbon odor present downwind from stockpile.
- 11:45 PID readings on stockpiled soil. Rafael and I used a shovel to dig into soil, took immediate reading. Readings averaged about 50 ppm, with spikes at 554ppm, 756ppm and 1260ppm. Took readings around the entire stockpile. (Picture)
- 12:10 Martin Mills (ISI, Inc.) doing compaction testing. Conducted two tests. Compaction not enough, (@ 90%, need 95%)
- 12:24 Going to run compactor for 45 minutes and then test the compaction level again.
- 12:42 Loader moving stockpiled soil around, hydrocarbon odor present downwind, PID = 20-100ppm up close to soil.
- 12:58 Truck #1 arrive to pick up load # 11 (picture).
- 13:12 Compaction test conducted by Martin Mills (Inc.). Got 95%, OK.
- 13:15 Wind now blowing South-East.
- 13:25 Truck #2 being filled with load #12.

- 13:34 Truck #3 being filled with load #13.
- 13:41 Truck #4 being filled with load #14.
- 13:42 Picture: Load #13 covered with a tarp, leaving for the Altamont landfill.
- 13:50 Load #15 being loaded into Truck #5.
- 14:08 Picture: NRC workers shoveling last of stockpiled soil into loader before being loaded into Truck #5: load #15.
- 14:48 Load # 15: the last load, covered with a tarp and leaving the site, stockpile is gone.
- 14:50 Backfilling begins again, loader bringing filler to excavation.
- 15:10 Compactor being used on newly added filler material.
- 15:12 Loader bringing filler material located at Southern end of site, to location West of the excavation (pictures).
- 15:35 Picture: excavation, compactor running, main excavation depth is now about 1 ft bgs.
- 16:12 Left site, Picture: site as left Friday afternoon.

#### 4/30/2007 Monday

- 8:00 Arrive onsite. Compaction already underway. Mike (NRC) tells me that he began compaction at 7:30.
- 8:10 Spoke to Mike Henderson (H&K Mechanical), he said he was under the impression that our work would be done on Friday, I told him our ETA for completion was 12-12:30, depending on the results we receive from compaction testing.
- 8:45 Martin Mills arrives onsite to do soil compaction testing.
- 8:50 Site PID/odor walk: no HC odor, PID = 0.0ppm.
- 9:05 Compaction testing: 85% dry density and low 90's% dry density. (Picture of testing being conducted). Conducted on final lift, 6" bgs.
- 9:10 Tim Leung (Port of Oakland) arrives onsite.
- 9:12 Martin Mills says more compaction needed.
- 9:15 Compaction begins again.
- 9:50 Compaction stops, Martin Mills conducting compaction tests→ 93% dry density. Testing conducted on final lift, 6" bgs
- 10:10 Compaction begins again.
- 11:05 Compaction testing: 1<sup>st</sup> test = 96%, 2<sup>nd</sup> test = 93%. Martin says he is going to give the excavation a 93% compaction, and note the 96% reading. Testing conducted on final lift, 6" bgs.
- 11:07 John Prall arrives onsite.
- 11:19 H&K Mechanical begin working in excavated area. Pictures: site as left to H&K/Clean Energy.
- 11:23 Pictures: site as left to H&K Mechanical/Clean Energy.
- 12:55 NRC truck arrives to pick-up left over filler material. Picture: NRC truck being loaded with filler material. Estimate 2 loads are needed to move filler material offsite.
- 14:55 NRC truck returns to site, loaded with 2<sup>nd</sup> load. (Picture)
- $-15:01-2^{nd}$  load leaves site. A third load is needed to move the remaining filler material offsite.
- 16:06 H&K Mechanical leave site (pictures: how H&K left the site).
- 16:35 NRC truck returns to site for third and final load. Note: Leftover filler material is being taken to Point Molati, Richmond, CA to be stored by NRC).
- 16:51 Left site, pictures: site as left.

#### APPENDIX E

## COMPACTION SPECIFICATIONS, BACKFILL MATERIALS SPECIFICATIONS, AND COMPACTION TEST RESULTS



#### Inspection Services, Inc. Pier 26, The Embarcadero San Francisco, CA 94105

**NUCLEAR GAUGE FIELD DENSITY TEST** 

San Francisco, CA 94105 Phone: 415-243-3265 / Fax:415-243-3266

Inspec		Sile: 410-240-5200 / 11		Martin Mills				ISI Project No.:		2209-023		1
Date:			_	4-26-07				ISI Project Name:		SNG Station		
Day (c	ircle one):		_	Mon Tue Wed Thu	Fri Sat Sun		<del></del>	Address:				
Time a	rrived at IS	I lab for pick-up		11:00 a.m.		AM / PM		Met with:		Mossud		•
Time a	rrived at jo	bsite:	_	11:30 a.m.		AM/PM		of:		NRC Environmental		
Time d	leparted job	osite:	_	4:00 p.m.		AM/PM		Parking:				
Time d	leparted IS	l lab after drop-off		4:30 p.m.		AM/PM		Tolls:		4		
Hours	Worked:			5 ST OT	DT	NS	NSOT	Noon Break (hrs):				
Work S	Shift (circle	one):	-	Day Swing Grav	eyard		_	Service Code (s):		2701 (Soils/Aggr.) 20	B01 (AC)	
Travel	Time:		Mileage:	20				Re-inspection (h	rs):		· · · · · · · · · · · · · · · · · · ·	
BF-Bai	TION KEY ckfill ilding Pad lectrical	ST-Station EXC-Excavation FTG-Footing		wer Line WL-Wall wm Drain WTL-Wall ench RT-Retes		ELEVATIO SG-Subgra FG-Finish C AB-Aggregi	de Grade	TOPC-Top of I TOP-Top of I FSG-Finish S	Pip <del>e</del> .	FAB-Finish Aggrega BTM-Bottom BTP-Below Top of I		ľ
Test#			Genera	al Location		Elevation	Moisture	Dry Density	Reference	Rel. Compaction	Specified	Probe Depth
	Date				į		[%]	[pcf]	Curve	[%]	Comp. [%]	[in.]
1	4-26			ng Station lift 3		SG	6.7	121.7	<u>}₩₩</u>	₩ <del>/</del> ~ <b>8</b> 气	95	8
2	4-26		CNG Fuelin	ng Station lift 2		SG	7.6	120.3	1-26149	WA 89	95	8
3	4-26	CNG Fueling Station lift t				SG	6.5	116.5	L- 36149	N/A 85	95	8
1	4-27	CNG Fueling Station 6" below FSG				SG	6.8	134.0	CL-H-AB	25. dk	95	8
2	4-27	CN	G Fueling St	ation 6" below FSG		SG	7.5	133.5	L-34169	<del>**</del> 97	95	8
<del></del>		Ad. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				· · · · · · · · · · · · · · · · · · ·						
		<b>.</b>										
[ 1 h	Anietura de	etermined by burn-back	r mathod:		TECTO	EET OB EYO	EEN TUC CO	ECIFIED COMPAC	TION DECUMPEN	ENTS EXCEPT AS NOT		
		es corrected according			12013 M			) MEET SPECIFIE(			EU	
Labora	tory Standa	ard: D-1557		Reference Curve	#		Soil Des			Max. Dry Density	[pcf] Opt	Moisture [%]
Field T	est Method	t: <b>D-2922</b> /	D-3017	-OL-II-AB-		G	Grey Gravel w	Clay & Sand		440.5-		-5.5
Standard Density Count:2018_					- u		0.721		7.0			
		e Count:645 I S/N, underline one:		MC-1 DR-P: MD10	eneana		10 1 00 D. 11	DD0004474		1404 00 0 11500	VOCA	
-	er 14650	Inspector Signature		ı			IC-1 DR-P: M		D-d	MC-1 DR-P; MD909	<del>1</del> U03U2	ko
Repo		eviewed by client/co	ntractor	Person notified	or inspection re	suits:Pfi		ı_ by of hand-writte		d by ISI Supervisor:_ jobsite Yes 🗆	No 🗆	



# Inspection Services, Inc. Pier 26, The Embarcadero San Francisco, CA 94105 Phone: 415-243-3265 / Fay: 415-243-3266

### **NUCLEAR GAUGE FIELD DENSITY TEST**

Inspect		one: 4 15-243-3263 / F	ax.413-243	Martin Mills				ISI Project No.:		2209-023		
Date:				4-30-07	4-30-07			ISI Project Name: CNG Station				
Day (ci	rcle one):			Mon Tue	Wed Thu Fri Sat	Sun		Address:				
Time ar	rived at IS	SI lab for pick-up				AM / PM		Met with:		Mossud		
Time ar	rived at jo	obsite:		9:00 a.m.		AM / PM		of:		NRC Environmental		
Time de	eparted joi	bsite:		11:30 a.m.		AM / PM		Parking:				
Time de	eparted IS	il lab after drop-off				AM/PM		Tolls:		54		., ,
Hours V	Vorked:			2.5 ST	OT DT	NS	NSOT	Noon Break (hrs):				
Nork S	hift (circle	one);		Day Swi	ing Graveyard			Service Code (s):		2701 (Soils/Aggr.) 28	01 (AC)	
Fravel 1	Time:	1	Mileage:	30				Re-inspection (h	rs):			
LOCATION KEY  BF-Backfill ST-Station SW-Sewe			WL-Wall WTL-Water Line RT-Retest	ELEVATIO SG-Subgra FG-Finish of AB-Aggreg	ade Grade	TOPC-Top of I TOP-Top of I FSG-Finish S	Pipe .	FAB-Finish Aggregate Base BTM-Bottom BTP-Below Top of Pipe				
Test#	Test Date		Gene	ral Location		Elevation	Moisture [%]	Dry Density [pcf]	Reference Curve	Rel. Compaction [%]	Specified Comp. [%]	Probe Depti (in.)
1	4-30			eling Station >		FSG	7.1	130.4	CD-11-AB 1 - 3 - 1 - 1	<del>93.</del> 95	95	4
2	4-30		CNG Fu	eling Station₽		FSG	5.9	130.2	C-36149	9 95 9	95	4
					. "							
			······································			.						ļ
				-								ļ
		  etermined by burn-bac  es corrected according			TES			ECIFIED COMPAC MEET SPECIFIEI		 ENTS EXCEPT AS NOT REQUIREMENTS	ED	<u> </u>
	tory Stand		?' <i>!</i>	Refere	nce Curve #	DENOTE	Soil Des		- TOM ACTION	Max. Dry Density	[pcf] Opt	. Moisture [%]
	est Method		/ D-3017	0	L-II-A8		Grey Gravel w			-140-5	'	<del>5.5</del> -
tanda	rd Density	Count:2012		<u> </u>	36149		<del> </del>		· · · · · · · · · · · · · · · · · · ·	137.0		7.0
	rd Moistur											
_		d S/N, underline one:		MC-1 D	R-P: MD10606202	1	VIC-1 DR-P: M	D80804474		MC-1 DR-P: MD909	05302	
		Inspector Signature		Persor	n notified of inspecti	on results: _Fra				ed by ISI Supervisor:		
(epor	t/times r	reviewed by client/co	ontractor				Cor	ov of hand-writte	n results left at	iobsite Yes □	No 🗆	

#### Compaction Test (Moisture-Density), ASTM D698 / D1557

### 2nd and Bush St, Berkeley-

GEOLABS, attn.: Francis Chan, P.E., G.E.

Sample No.:

1237

oject Name: ient Name:

Rammer (manual / mechanical):

Effort (standard / modified):

pe of Material:

ocation:

at. Water Content [%]:

7.0 Procedure (A, B, or C): Preparation (dry / moist): Dry

Sampling Date 4/26/07 manual

mod. (D1557)

Silty soil with AB

Jobsite

Test Date: 5/1/07 Run By: DS Checked By: SS

Bulk Sp. Gr.  $G_M$  (C127) [-] =

ISI File No.:

ISI Lab No.:

2209-023.0

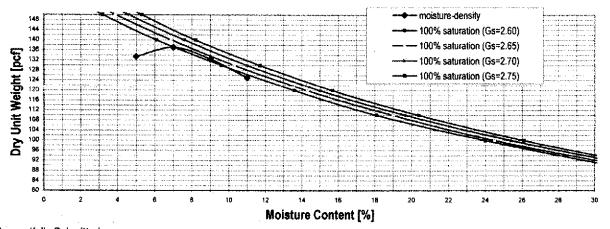
L-36149

Weight (SSD) [g] = Weight under water [g] =

Dry weight [g] = Absorption [%] =

Opt. Water Content [%] =	7.0	•		Max. Dry Unit Weight [pcf	] = 137.0
dry soil [g]	6000	6000	6000	6000	1
water added [g]	300	420	540	660	
pan + wet soil [g]	6300	6420	6540	6660	
mold + wet soil [lb]	24.50	24.99	24.82	24.40	
mold: 9.38 or 13.99 [lb]	13.99	13.99	13.99	13.99	
wet soil [lb]	10.51	11.00	10.83	10.41	Ì
volume: 0.0334 or 0.075 [ft <sup>3</sup> ]	0.075	0.075	0.075	0.075	
wet density [pcf]	140.1	146.7	144.4	138.8	
pan + wet soil [g] pan + dry soil [g] tare [g] moisture (D2216 / D4643) [g] moisture [%] dry density [pcf]	5.0 133.5	7.0 137.1	9.0 132.5	11.0 125.0	

Oversize correction (D4718)	Moist mass [g]	Water cont. [%]	Dry mass [g]	Percentage	by dry weight	
Fine fraction						•
Oversize (coarse) fraction						
Corr. water content C <sub>w</sub> [%]						
Corr. dry unit weight C <sub>dD</sub> [pcf]						



Respectfully Submitted INSPECTION SERVICES, Inc.

Dr. Sven van der Sluis, P.E. Senior Civil Engineer

### D DUTRA MATERIALS

1900 Point san Pedro Road San Rafael, California 94901

Date:

4/26/2007 10:34:31 AM

Plant: To: Attn:

Richmond Port of Oakland Michael Rojas

Project Name: Project Location: Project Number:

Fax Number:

510 553 2145

### To Whom it May Concern:

The Class 2 Aggregate Base, which Dutra Materials proposes to supply to the project referenced above, will meet all specifications of Section 26 of the 2002 California Department of Transportation Standard Specifications. As required by Section 26-1,02A the material shall be free from organic matter and other deleterious substances. This material is 100% crushed virgin rock, and contains no recycled material. The following is a representative gradation of the material:

Sieve Size	,					
		Percent Passing	<b>Specification</b>			
1"	(25 mm)	100	100			
3/4"	(19 mm)	97				
1/2"	(12.5 mm)	79	90-100			
3/8"	(9.5 mm)	66				
No. 4	(4.75 mm)	50				
No. 8	(2.36 mm)	34	<b>35-60</b>			
No. 30	(600 um)	22	45.55			
No. 200	(75 um)		10-30			
	(10 0111)	8	2- <del>9</del>			
Sand Equivalent	(CTM 217)	00				
Durability	(CTM 217)	29	22 minimum			
R-Value	(CTM 229)	42	35 minimum			
W-Agine	(CTM 301)	83	78 minimum			
	,	-	/ V simusifilitatii			

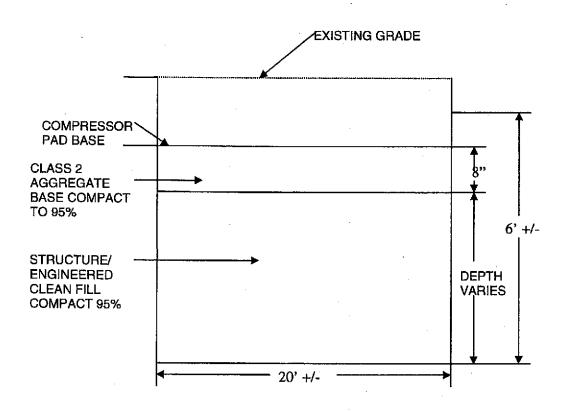
NOTE: All third-party sampling of aggregate for the purpose of specification compliance shall be performed in accordance with California Test Method 125. Testing of these materials for compliance purposes shall be done in accordance with applicable California Department of Transportation test methods and practices.

Please call me at (415) 459-7740 if you need any additional information.

Respectfully,

Aaron Johnson Sales Manager Dutra Materials Backfill Detail for CNG Station Pad at Brush Street
4/24/07

4/24/07 J. Brown



Sketch N.T.S.

ECTION 19



approved for backfilling. No backfill material shall be deposited against the back of concrete abutments, concrete retaining walls, or the outside walls of cast-in-place. concrete structures until the concrete has developed a strength of not less than 17 MPa {2,500 pounds per square inch} in compression, or until the concrete has been in place for 28 days, whichever occurs first.

N19 CALTRANS

- Backfill at the inside of bridge wingwalls and abutments shall be placed before curbs or sidewalks are constructed over the backfill and before railings on the wingwalls are constructed.
- Compaction of structure backfill by ponding and jetting will be permitted when, as determined by the Engineer, the backfill material is of such character that it will be self-draining when compacted and that foundation materials will not soften or be otherwise damaged by the applied water and no damage from hydrostatic pressure will result to the structure. Ponding and jetting of the upper 1.2 m {4 feet} below finished grade will not be permitted. The work shall be performed without damage to the structure and embankment, and in such a manner that water will not be impounded. Ponding and jetting methods shall be supplemented by the use of vibratory or other compaction equipment when necessary to obtain the required compaction.
- Unless otherwise shown on the plans or specified in these specifications or the special provisions, structure backfill shall be compacted to a relative compaction of not less than 95 percent.
- Structure backfill placed at the following locations shall be compacted to a relative compaction of not less than 90 percent:
  - Overside drains.
  - Footings for slope protection, slope paving, and aprons.
  - 3. All headwalls, endwalls, and culvert wingwalls.
  - Retaining walls, except for portions under any surfacing.
  - Inlets in median areas or in traffic interchange loops.
  - Footings and pumping plants not beneath any surfacing.
- Unless otherwise shown on the plans or specified in these specifications or the special provisions, material for structure backfill to be compacted to a relative compaction of not less than 95 percent and material to be placed behind retaining walls shall have a Sand Equivalent value of not less than 20 and shall conform to the following grading:

Sieve Sizes	Percentage Passing
75-mm {3"}	100
4.75-mm {No. 4}	- 35 - 100
600-μm {No. 30}	20 - 100

- Unless otherwise shown on the plans or specified in these specifications or the special provisions, material for structure backfill to be compacted to a relative compaction of not less than 90 percent, except material to be placed behind retaining walls, shall consist of material free of stones or lumps exceeding 75 mm {3 inches} in greatest dimension, organic or other unsatisfactory material.
- At locations where directed by the Engineer, the material used to backfill the outer 0.6-m {2-foot} portion of structure backfill adjacent to pipe and culvert inlets

outlets, and structure backfill placed within 0.6-m {2 feet} of finished grade abutments, abutment wingwalls, retaining walls, and other portions of actures shall be a compacted impervious material. The impervious backfill shall an earthy material, as determined by the Engineer to be suitable for such expose. The Sand Equivalent requirement shall not apply to the impervious erial used for structure backfill.

The cells formed by the crib members of crib walls and the space between the wall and the limits designated for structure excavation, as shown on the plans specified, including any space due to material being removed outside those specifies, shall be backfilled with material conforming to the following grading, wality, placement and compaction requirements:

Structure backfill placed for crib walls shall be of such character that it will not sift or flow through the openings in the wall and shall conform to the type or types listed below for the height of wall.

Backfilling shall progress simultaneously with the erection of the crib wall. Backfill material shall be so placed as to not disturb or damage the crib members, shall be placed in uniform layers before compaction not exceeding the thickness listed in the following table, and shall be compacted by hand tamping, mechanical compaction or other means approved by the Engineer.

Wall Height	Backfill Material Type	Loose Thickness of each Layer of Backfill Material Before Compaction
Under 3 m {10 feet}	C, D or E	0.3-m {1 foot}
3 m to 8 m {10-26 feet}	D or E	0.6-m {2 feet}
Over 8 m {26 feet}	E	1.2 m {4 feet}

Backfill	Gradin	g		
Material Type	Sieve Size	Percentage Passing	Sand Equivalent	Relative Compaction
С	75-mm {3"}	100	None	90% Min.
D	75-mm {3"}	100	30 Min.	90% Min.
	4.75-mm {No. 4}	35 - 100		
E	75-mm {3"}	100	None	90% Min.
	4.75-mm {No. 4}	25 - 70		}
	300-μm {No. 50}	5 - 20		
	75-µm {No. 200}	0 - 5		]

Structure backfill placed at bridge supports in waterways and water channels, a not beneath any embankment, pavement or slope protection, need not be empacted, shall consist of soil which is free of organic matter, trash or other statisfactory material, and shall be placed to the level of the original ground or asshed grade.

Where structure excavation is performed and material is removed outside the by limits designated for structure excavation, as shown on the plans or specified in were specifications or the special provisions, backfill material placed in those acavation areas shall conform to the material and compaction requirements of the anacent structure backfill.

#### APPENDIX F

#### CITY OF OAKLAND HAZARDOUS MATERIALS INSPECTION REPORT

### OAKLAND FIRE DEPARTMENT/FIRE PREVENTION BUREAU HAZARDOUS MATERIALS UNIT

250 FRANK OGAWA PLAZA, SUITE 3341, OAKLAND, CA 94612-2032 • (510) 238-3927

### **HAZARDOUS MATERIALS INSPECTION REPORT**

Site Number	Facility Name	Facility Address	Zip Code
	Port City CNG Project	209 Briwh St.	07
	inspect	lon Report	
0955 -10	PERMISSION TO	INSPECT GRANTED 13:40 - 14:5	6
Site A		- of contaminated soil	
	to tollowe	d by continuition > 6m	Duger
7	in Sourcefol	C.N.G. Frederic Facility Proj	
	Se of Site Visit	continuation Action Action	SHICK
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	- Co	Come , Mint-Pretty County to	
		3170	
Your !	Project: My JPMI	657-1373	
Veret	"stack Million	(3 = 1 3 ( 3 )	Street, Street
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REM	will Drovide, OF	D The Own Co. D.	Fo-iron NA
			reaux
a IXII (x	- coult the Dre	VEC & VENDOY V	
A THE REAL PROPERTY.	Facility Contact/Driet No.	Inspected By: Insp. Griffin	238-7759
44.5	Facility Contact/Print Name:	Insp. Kupers	238-7054

Insp. Matthews 238-2396 Facility Contact/Signature: Insp. Gomez 238-7253 510-553-2146 Date: 538-156 (05/05)

#### APPENDIX G

#### **EXCAVATED MATERIAL DISPOSAL MANIFESTS**



WEIGHMASTER-Altamont Landfill &Resource Recovery

Container

license# Billing #

Gen EPA ID

BIJLEVELD 1WT

10840 Altamont Pass Road 🔔 Livermore, CA, 94651

Ph: (925)455-7300

Customer Name NrcEnvironmen Nrc Environment Carrier GEN Altamont Generic

Vehicle# 6M49733WT

0038257

Volume

Ticket# 743314

Payment Type Credit Account

04/27/2007

Manual Ticket#

Hauling Ticket#

Route

State Waste Code 28270-11 Manifest

Destination

Ticket Date

PO

Profile

55423000 ("\*Class II Cover Soil-NRC Environmental\*")

Scalel Inboun RR0JAS1841

Generator

Time 04/27/2007 14:35:02 Scale

Deputy WeighmasterInbound

Grose Tare

68900 29800 īþ

ľn Out 04/27/2007 14:35:02

RROJASIB41

Net

39100 ŀb

Tons

Amount

19.55

Comments

Product

LDX üty MOU

Rate

Tax

Origin

C2 Cover: RGC-Tons- 100 1

19.55 Tons 1

Load

Oakland

2 EVL-Env Fee Lg. 100 FUEL-Fuel Surcharg 100

Dakland Dakland:

Total Tax Total Ticket

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose name appears on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with)section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Dept. of Food and Agriculture.

DRIVER

A		NON-HAZARDOUS	Generator ID Number		- 1	3. Emergency Response	Phone	4. Waste Trac		10 //	
		WASTE MANIFEST	CAD 9:8:1:	4 3 0 4 8 5	1	NRCRES 510	749-1390	越北	2827	11-11	
		Generator's Name and Matin		At JE	FRUSIN	Generator's Site Address	(il different than	mailing address	5)		
	Ger	PORT OF OAKL 530 WATER STR OAKLAND CA	REET # 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Life Edward Co.	209 BRUSH ST	REET				
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	a r	Designated Facility Name and	d Cite Address					U.S. EPA ID No			
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	-	3.									
		4.									
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WEIGHMASTER-Altamontal and fill Exesource Recovery 10840 Altamont Pass Rg

Container

License#

Billing #

Gen EPA ID

0038257

S&S TRK 64

Livermore, CA, 94651

Original Ticket# 743317

Volume

Ph: (925)455-7300

Customer Name NrcEnvironmen Nrc Environment Carrier 🦠 GEN Altamont Generic Vehicle# 9090755WT

Ticket Date 04/27/2007

Payment Type Credit Account

28270-13

Manual Ticket# Hauling Ticket#

Route

State Waste Code

Manifest

Destination

Pΰ

Profile

55423000 ("\*Class II Cover Soil-NRC Environmental\*")

Generator

Time Scale Deputy WeighmasterInbound Gross. 73680 ĮЬ 30760 04/27/2007 15:02:12 Scale1 Inboun RROJAS1841 Tare 1.b. In 42920 Out 04/27/2007 15:02:12 RROJAS1841 Net 1þ

Tons

21.46

Comments

Pr	roduct	LD*	Qty	UOM	Rate	Tax	Amount	Origin
1	C2 Cover RGC-Tons- EVL-Env Fee Lq.	100	21.46	Tons Load			1	Oakland Oakland
3	FUEL-fuel Surcharg	,-		*				Oakland

Total Tax Total Ticket

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose name appears on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Dept. of Food and Agriculture.

DRIVER:				
		,		
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ŀ	t	7b. Altern	ate Facility (or Gen	nerator)				Mar	nifest Reference	Number:	U.S. EPA ID	Number		
FACILITY	F	acility's P	hone:								ĺ			
	_		ture of Alternate Fa	actify (or Ge	nerator)	<del></del>	1				<u> </u>		Month	Day Year
DESIGNATED	11.5		- 	= 4 · 5								All The Control		
Î														
	_		ated Facility Owner red Name	r or Operato	r: Certification of rece	opt of hazardous materials		anifest exc Signature	ept as noted in the	tem 17a			Month,	Day Year
¥			6 10402			- M			Kg,	1	ESIGNATI		141	17107

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MIGHMASTER-Altament/Alendfill EResource Recovery Original 10840 Altemont Page Appendente, CA. 1948 Phi: (926)466-7300

Ticket# 749322

GEN Altemont Generic Customer Name ArcEnvironmen Arc Environment Canrier

@038267

Volume Vehicle# 9049451 Ticket Date 04/27/2007

Container Payment Type Credit Account

CIA TUCKING 786WT Manual Ticket# Licenset Hauling Ticket#

Billing # Route Gen EPA 10 State Waste Code

Manifest 28270-14

Destination

PO

Profile

55423000 (FMClass II Cover Soil-NRC Environmental\* )

Benerator

68740 Deputy Weighmaster Inbound Time 29780 15. Tare 04/27/2007 15:21:26 | Spale1 Imboun RROJAS1841

38960 15 Net RRDJAS1841 Out 04/27/2007 15:21:26 19.48 Tons

Comments

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Total Tax Total Ticket

THIS IS TO CERTIFY that the following described commodity was weighted, measured or counted by a weighnaster. whose name appears on this cartificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with section 12700) of Division 5 of the California Business and Professions Calle, administered by the Division of Meastrament Standards of the California Dept. of Food and Agriculture.

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A		ON-HAZARDOUS ASTE MANIFEST	1. Generator	ID Number D 9 8 1	4 3 0	4 6 5	2. Pege 1 of		gency Response		4. Waste To	racking Nu	2827	0-1	4
		PORT OF OAKL 530 WATER STR	AND REET	*		ALJE	FF RUBI	POF 209	O'N SHO Address RT OF OAK BRUSH ST LAND CA	CAND. REET		96S)			
	Gene	rator's Phone: 5 1	0	627-1	134			UAR		. 10046	U.S. EPA ID	Monther			
				KING		78b	4	<u>C7</u>	~~					,	
	7. 1ra	insporfer 2 Company Nafin	"THE	KING	M						U.S. EPA ID	Number			
		sonated Facility Name an VVaste Managerri 10840 Altament F		mont .	•						U.S. EPA ID	Number			
		Livermore CA 9 bys Prione: 925 4	4550	lwest territoria					ganta jaga kangga Y	brigarija (hiji s	. CAI	D :: 8 :: 8 :: 6	1.3.8.2	7:3a	2
	9a.	9b. U.S. DOT Descriptio	n (including P						10. Conta	iners	11. Total	12, Unit			
	HIM	and Packing Group (if ar	DOUS V	VASTE SOI	LD (SOIL	WITH		:	No.	Type	Quantity	WLVol			
GENERATOR		HYDROCAR	BÓNS)	% 1				٠,	0.0:1:	DT:	00018	Υ			
GENE		2.							<u> </u>	A- 3 A	<u>مداور د</u>	10522			
					· .										
		3.													
		4.													
										:					
		Special Handling Instruction WEAR APPROP	RIATE	PERSONAL	L PROTE	CTIVE E	QUI PME	NT							
		PROFILE# 55 JOB#/PO#:28	423000 270		TO#	:07-E	resp-1	3	. <b>₩O#</b> #∈.02	26815	i.				
	14. G	ENERATOR'S CERTIFIC	ATION: I cert	ify the materials d	lescriped above	on this manifes	are not subje	ct to feder	al regulations fo	reforting pla	oper disposal of f	fazardous V	Vaste.		
V	Gen	calgris/Offeror's Printed/Ty	yned Marine	UBIA.	AGE OF	NTORT	OFO	W.	25	W,	n C d	$\angle$	Month 941	Day Z74	Year ンデ
INT'L		nternational Shipmepts sporter Signature (for expo		port to U.S.			Export from	U.S.	Poste les	piry/extr					
	16. T	sporter Signature (for expo ransporter Adknowledgme sporter 1 Printed/Typed No	ent of Receipt	of Materials				gnature	A)	/14			Month_	Day	Year
TRANSPORTER		TAOMAS	E <	SPRV.	NER	>			the	_(//_	Jh_		14	271	07
TRAN	Trans	sporter 2 Printed/Typed N	ame				 	gitalure	<u>.</u>		1		Manth	LIZY	160
1		Discrepancy Discrepancy Indication Sp	ace [1	A		Туре	-	Г	Residue		Partial Re		Π-	uli Rejectio	
			نا	Quantity		іі гуре		L.	residue allest Reference	<b>N</b> leanshaum	L→ Pastai ne	<b>эр</b> эсих 1	٠.	ин гифолии	JP0.1
È	17b.	Alternate Facility (or Gene	erator)	·				WRS	Hest helefelice	numoer.	U.S. EPA ID	Number	· · · · · · · · · · · · · · · · · · ·		
DESIGNATED FACILITY		ity's Phone:			·· · · · · · · · · · · · · · · · · · ·						]				14
NATEC	17c.	Signature of Alternate Fac	ality (or Gener	rator)			j		,				Month	Day	Year
DESIG															
Ī										170		N. A.			
11		Designated Facility Owner red/Typed Name	or Uperator: (	vertexcettion of rec	equ of hazardo	us materials cov		initest ext	sept as noted in I	e#π 1/8. ▲			Month	Day	/ <sup>82</sup> 2
I L							t t	111	_				17.41	1 /11	11.0



WEIGHMASTER-Altamontal addill &Resource Recovery Original
10840 Altamont Pags Road Ticket# 743324

License# Billing #

Gen EPA IU

Livermore, CA, 94551

Ph: (925)455-7300

Customer Name NrcEnvironmen Nrc Environment Carrier GEN Altamont Generic

Ticket Date 04/27/2007 Vehic

Vehicle# 9038293 Volume

ØØ38257

Deputy Weighmasterinbound

Payment Type Credit Account . Container

Manual Ticket# BANWAIT TRK 8296

Hauling Ticket#

Route State Waste Code

Manifest 28270-15

Destination

PO

Profile

î îme

55423000 ("\*Class II Cover Soil-NRC Environmental\*")

Generator

Scale

in 04/27/2007 16:07:02

Scalel Inboun RROJAS1841

6ross 63260 lb

Out 04/27/2007 16:07:02

RRÖJAS1841

Net 31680 10

15.84

ions

Comments

	Product	L0%	Qty	MOU	Rate	Tax	Amount	Origin
1 2 3	C2 Cover RGC-Tons- EVL-Env fee Lg. FUEL-Fuel Surcharg	100	15.84 1	Tons Load %	:			Oakland Oakland Oakland

Total Tax Total Ticket

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose name appears on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with section 12709) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Dept. of Food and Agriculture.

DRIVER:					
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404WMCA

**4** 

<b>1</b>		ON-HAZARDOUS ASTE MANIFEST	1. Generator ID Number CAND 8 8 7 1	4 ·3 »0 »4 »8 ·5 :::		3. Emergency Response NRCRES-510			aciding Num	8270-	-15	-
	Y 498 Gene	DAU WATER(STE OAKLAND CA rator's Phone: 5 (1	0 Address AND: 8EET: 94607:	The Conjunct Att views	FF RUBIN	Generator's Site Address PORT, OF, OAK 2019 BRUSH S	(if different the CAND	m mailing addre		· • · ·		
	6. Tra	Insporter 1 Company Nem	PADAM	/ PD/	,		<del></del>	U.S. EPA ID I	Number			
	7. Tre	reporter Company Nam	STOR P	Me TORI	2	<u> </u>		U.S. EPA ID I	Number			
		stoneted Facility Name and Westle Marrametra 10849 Adjuntation Sector 10849 Adjuntation CA 9 Va Priorie: \$25.4	( <b>460</b> ) ***	Simula attividudud i mak	\$ 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	रा सन्दर्भ सार्वे वेश्वेत्रक	d in winner	U.S. EPA ID I		1-3-8-2	<b>7 - 3</b> *	2.
	,92. HM	9b. U.S. DOT Description and Packing Group (if an	n (including Proper Shipping Na ny))	me, Hazard Class, iD Number.		10. Conta	tiners Type	11. Total Quantity	12. Unit Wt./Vol.			
GENERATOR -	4	1 NON HAZAR HYDROCARI 2	DOUS WASTE SOIL BONS)	D (SOIL WITH				00018	Y			1
5												
		3.										
				-								
	T 1996	FROM 14467 55	ns and Additional Information RIATE PERSONAL 423000 270				CONF					S. Marie V.
	. '		market males of the first firs	10-14-04-14-04			X0089					
	14. G	ENERATOR'S CERTIFICA	ATION: I certify the materials de	scriber above on this manifest	t are not subject i	o lederal recutations for	reposting prope	r disposal of Ha	zardous Was	ste.	Day	Year
<b>\</b>		EAFOLY ternational Shipments	L. Kurin	DE PORTO	EOA	Lawy)		L		P4	27	07
A INTL	Trans	porter Signature (for exper ansporter Acknowledgmer			L Export from U.	B. Perivoi en Date leavi	-,				,	
ORTE		porter 1 Printed Types Va		MM_TT	₹V Signe	dure D				Month	Day	Year
TRANSPORTER		porter 2 Printed/Typed Na	me	-04 11	Signs	kture Zi	<u> </u>	<u> </u>		Month	Day	Year
		screpancy Discrepancy Indication Spa	ace Quantity	Туре		Residue	[	Partial Reje	edion	□n	il Rejection	ОП
  ≿	17b. /	Alternate Facility (or Gener	rator)		<del>.</del>	Manifest Reference N	lumber:	U.S. EPA ID N	lumber			
FACILI		y's Phone:					I					
DESIGNATED FACILITY		ignature of Alternate Facil	lity (or Generator)	,	1				-	Month	Day	Year
DISSIC THE												
¥		osignated Facility Owner o d/Typed Name	r Operator: Certification of recei	nt of hazardous materials cove	red by the manife		em 17a			NG P	Day 7	07



10840 Altamont Pass Road Livermore, CA, 945 Ph: (925)455-7300 🖟

GEN Altamont Generic Customer Name NrcEnvironmen Nrc Environment Carrier

9073930 WT Vehicle# Ticket Date 04/27/2001

Volum€

Payment Type Credit Account

Container

Manual Ticket#

State Waste Code

AJ TRK 99WT

Li.cense# ØØ38257 Billing #

Hauling Ticket# Route

Gen EPA ID

Manifest

Destination

28270-12

PO

Profile

55423000 ("\*Class II Cover Soil-NRC Environmental\*")

Generator .

Time

Deputy WeighmasterInbound

76800 ), b

04/27/2007 15:23:37 ľη

Scalet Inboun RROJAS1841

Gross 33780 1b Tare lb.

04/27/2007 15:23:37 Out

RROJAS1841

Net Tons

43020 21,51

Comments

Pr	oduct	L0*	Qty	, UOM .	Rate	Гах	Amount	Origin
1 2 3	C2 Cover RGC-Tons- EVL-Env Fee Lg. FUEL-Fuel Surcharg	100	21.51	Tons Load *				Oakland Oakland Oakland

Total lax Total Ticket

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose name appears on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Dept. of Food and Agriculture.

DRIVER:		1	1
Ø / <b>=</b>			

							1	-11		
-	ION-HAZARDOUS VASTE MANIFEST	1. Generator ID Number CAPD 9 8 1	4-3-0-4-6-5%	s alex		749-139	<b>d</b> st.		9270	B
	enerator's Name and Mailin PORT OF OAK 530 WATER STR OAKLAND CA 1	<del>146</del> 07		FF RUBIN G	PORT OF OAK ORT OF OAK OS BRUSH S OAKLAND CA	S (If different the CLAND) TREET 94607	en mailing addre	65)		
i. Tr	erator's Phone: 5 1 ansporter 1 Company Nam	14		<u>t</u>			U.S. EPA ID I	Number		
Ti	rensporter 2 Company Nam	AT · C· H	UCKING	1	<u> </u>		U.S. EPA ID I	<b>Yumber</b>		<u> </u>
	Vizited Facility Name an Vizited M analgorii 10840 Albamont F Livermore CA 9	Road				-1.1.	U.S. EPA ID		-1.2.7.T	3.2
aci	+"+ ", ."			·=					Marko Lear	J: 'E
le. HM			ame, Hazard Class, ID Number	i.	No.	Type	11. Total Quantity	12. Unit WL/Vol.		
	1. NON HAZAR HYDROCAR	DOUS WASTE SOI BONS)	LD (SOIL WITH		0.01	DT	00018	Y :		
_	2.				Sec. 35.574 2		<u> </u>			
	3.		<u></u>	<del></del>						
	4.									
	<i>- पण्डत   इप्त</i> ६८ घ	e FV .	то#: 07-ш							
14.	GENERATOR'S CERTIFIC	ATION: I certify the materials	described above on this manife	st are not subject to	rederal regulations to	or reporting proj	per disposatiof I	lazardous Wast	e.	
Ge	pecales's/Offeror's Printed/T JEFF-CLY Intermedional Shipments		ASSOTO	- Zi .		entry/ext	12		Month D	ay Yo
	nsporter Signature (for exp	orts only):				aving U.S.:	<u> </u>			
	Transporter Acknowledgm naporter 1 Printed/Typed N		1 R .10	Signat	ino A A	W.A	Λb			ay Y
Tra	nsporter 2 Printed/Typed N		J. SINGI	Signal	one True		<u> </u>		04 9   Month D	7   0 ay Y
	Discrepancy									
178	n. Discrepancy Indication S	pace Quantity	Туре		Residue  Manifest Reference	e Number:	Partial Re	ejection	☐ Full f	lejection
	o. Alternate Facility (or Gen	erator)					U.S. EPA ID	Number		
	olity's Phone: c. Signature of Alternate Fa	collity (or Generator)							Month C	ay Y
	Designated Facility Owner Inted/Typed Name	r or Operator: Certification of re	ceipt of hazardous materials co	vered by the manife Signs		item 17a			MorghC	Pay A
1-15	пьы гуреч гаше		119		1/2 /	u			172	<u> 10</u>
اط	I C O E 10409			U	12		ESIGNAT	ED FACIL	JITY TO GEN	<b>IERAT</b>



WEIGHMASTER-Altamont tandfill &Resource Recovery

Vehicle#

Container

License#

Billing #

Gen EPA ID

BIJLEVELD 1WT

10840 Altamont Pass Road

Livermore, CA, 94551 Ph: (925)455-7300

GEN Altamont Generic Customer Name NrcEnvironmen Nrc Environment Carrier Volume 6M49733WT

04/27/2007 Ticket Date

28270 6

Payment Type Credit Account

Manual Ticket# Hauling Ticket#

Route

State Waste Code

Manitest

Destination

PO

Profile

55423000 ("\*Class II Cover Soil-NRC Environmental\*")

Generator

line" @4/27/2007 11:25:57 Ιn

Scale Scale1 Inboun johns

Deputy WeighmasterInbound

0038257

Gross

Original Ticket# 743288

> 82340 IЬ

Out 64/27/2007 11:25:57

johns

Tare Net

29800 , "1b 52540 ГÞ

Tons

26.27

Comments

Product	LO*	Qty	MOU	Rate	Tax	Amount	Origin
1 C2 Cover RGC-Tons- 2 EVL-Env Fee Lg. 3 FUEL-Fuel Surcharg	100	26.27 1	Tons Load %				Oakland Oakland Oakland

Total [ax Total Ticket

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DRIVER

A	N	ION-HAZARDOUS	1. Generator 10 Number		2	Page 1 of	3. Emerge	ency Response	Phone	4. Waste Ti	moking Nu	mber	- ^	,
		VASTE MANIFEST	C/A/D/9 8	1 4 3 0 4	6 5	1	NRC	RES:510	749-1390	g g		<b>ታ</b> ልን.	tu-	6
	5. Ge	PORT OF OAKL	ng Address		Att JEFF	RUBIN			s (if different that	n mailing addn	888)			
		<b>630 WATER STR</b>	PET.			-	209 B	T OF CAM RUSH \$1	CAND TREET					
		OAKLAND CA	94607				OAKL	AND CA	94607					
		erator's Phone: 5 1 agest@ler / Gompany Nar		1134						U.C. CDA ID				
		ZNAV	Je Joseph	اسران ک				,	1	U.S. EPA ID	MURROEF			
	7. Tr	ersportes 2 Company Nam	X PYLLA	meg-				· ·		U.S. EPA ID	Number			
			•	U					1		TWEE PER C			
	8. De	signated Facility Name an	d Site Address						·	U.S. EPA ID	Number			
		Waste Managem 19840 Altamont F Livermore CA 9	ent - Alternont Road											
11		ity's Phone: 925 4		greene a company	, .			18 mg	por to dies	CAE	) i <b>9</b> #8 :	√1.5 <b>3</b> 88÷ i	2::7::3	<i>3</i> 25 €
	9a.	96. U.S. DOT Description	n (including Proper Shipping	Name, Hazard Class,	ID Number,			10. Conta	ainers	11. Total	12. Unit			
	HM	and Packing Group (if ar	***					No.	Туре	Quantity	MrVor	Section and the section of		
동		1. NON HAZAR	DOUS WASTE SO	DITD (SOIF M.	TH									
GENERATOR		HYDROCAR	DUNS)					0-0-1	DT	00018	Υ.			
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	<del> </del>	3.				• • • • • • • • • • • • • • • • • • • •								
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		4.				····					-			
LI:	13.	Special Handling Instruction	ns and Additional Information				_							-
7		PROFILE# 55	RIATE PERSON 423000	AL PROTECT	IVE EQU	JI PME N	rr							
		JOB#/PO#:28	270	TO#:	07-EMRE	SP-13	l,	<b>₩0#:</b> ≥02	26815					
					•									
											_			
	14.0	SEMEDITORIS CURTURA	ATION: I certify the material				A - 2 - 2 1		10			·		
		andor's/Offeror's Printed/1)		AGE~7	No markrest ere	not subject	IO IGOGRA	regulations for	reporting proper	r disposal or in	azaroous w	raste. Month	Day.	Year
V	J	1800011 /	Lue 3	PPOR				6 14		[ /e		104		07
	15. lr	nternational Shipments		Fug							<u></u>		<u> </u>	1 - <i>7</i> : _
F		sporter Signature (for expo	import to U.S.		LIB	oport from U.	.s.	Post of eq Date leav						
		ransporter Acknowledgme		*** *	<del>.</del>			United Receiv	ng 0.3.					
TRANSPORTER		sporter 1 Printed/Typed His		$\overline{\Lambda}$		Sign	ature					Month	Day	Year
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¥	Trace	porter Printed/Typed Na	1 4 CM	00		Sign	ature		· · · · · · · · · · · · · · · · · · ·			Month	Day	Year
Æ		Visana	Deileere			1								
A	17/12	iscrepancy												
	17a.	Discrepancy indication Sp.	ace Quantity		Туре			Residue		Partial Rej	iection		Full Rejec	tion
		•		<del></del>	1760			1100.000	_		,			
Ľ	4	Allement Property A.		***	<del></del>		Manife	est Reference l	Number:		* I ! -			
Ě	1/b.	Alternate Facility (or Gene	raiof)							U.S. EPA ID	Number			
Ş		m.							ı					
DESIGNATED FACILITY		ity's Phone: Signature of Alternate Fac	illy (or Generalist				-					Month	Day	Year
A		Shawara at Lucilians Lan	and for consequent			1						I I I I I I I I I I I I I I I I I I I		1
Š					387398, 267 <del>2</del>		18 JULY 18				ng g			
	Ů.											1.0 <u>2</u> -78-71.0%	4.2	
L.							10.6					History &		
	18. D	Designated Facility Owner of	or Operator: Certification of n	eceipi of hazardous ma	sterials covered	by the mani	est excen	t as noted in It	em 17a	A Transfer of the San San San San San San San San San San	ami ati Melai M	11.600 CH-016 T1600	<u> </u>	apply to the first
		ed/Typed Name	V =				eiture	// 1	<u> </u>	<del></del>		Month	Day	Year
*								///				14	27 27	<i>D7</i>



WEIGHMASTER-Altamont talefill &Resource Recovery

10840 Altamont Pass Road

Livermore, CA, 94551

licket# 743294

Original

Ph: (925)455-7300

GEN Altamont Generic Customer Name NrcEnvironmen Nrc Environment Carrier

Ticket Date 04/27/2007 Vehicle#

Volume

Credit Account Payment Type

Container

CIA TUCKING 786WY

9049451

0038257

License#

Billing #

State Waste Code

Manual Ticket#

Hauling Ticket#

Gen EPA ID

28270-9

Manifest Destination

20

Route

Profile

55423000 ("\*Class II Cover Soil-NRC Environmental\*")

Generator

Time Scale Scalel Inboun rrojas1841 04/27/2007 11:54:52 111

73380 3.b Gross Deputy WeighmasterInbound 29780 16 Tare rrojas1841

Out 04/27/2007 11:54:52

Net

43600 j.b.

Tons :

21.80

Comments

Product		LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 2	C2 Cover RGC-Tons- EVL-Env Fee Lg.	100	21.60	Tons Load	•		÷	Oakland Oakland
3	FUEL-fuel Surcharg			*			-	Dakland

Yotal Tax Total Ticket

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose name appears on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Dept. of Food and Agriculture.

**DRIVER** 

Α		NON-HAZARDOUS	1. Generator ID Number			2. Page 1 of	3. Eme	rgency Response	Phone	4. Waste Tr	ncking Nur	mber	,
		WASTE MANIFEST	CAD 9 8 1	4 3 0 4 6	5 5	1	NRO	<b>RES 510</b>	749-13	90	. 3	8270-9	1_
	1	Generator's Name and Male PORT OF OAKA 530 WATER STI OAKLAND CA enerator's Phone: 5-2	ing Address AND REET 94607		It Jef	F RUBIN	209	ors Sie Address RT OF OAK BRUSH ST (LAND CA	Land, Reet	: 	(88)		
	Generator's Phone: 5-4-0 - 6-2-7 - 1 1 3 4 .  6. Transporter 1 Company Name  U.S. EPA ID Number												
	7. Transporter 2 Company Name U.S. EPA ID No. S.S. TRUCKUNG											<del></del>	
	8.	s. Designation Facinity Name and Site Address  Visited Management Atternort.											
	E	19848 Alternont	Road	gagar sekir saya sa	, .i.,		1 24	a markitaat	- SA - 250 - 1	ol Car	):: <b>9</b> :8:	4-3-8-2-7	3.2
	94		on (including Proper Shipping Na		10. Conta		11. Total Quantity	12. Unit	. Unit				
<u> </u>	ľ.	1. NON HAZAF	RDOUS WASTE SOI	LD (SOIL WIT	H.			, , , , ,	13 (1) (1)				
GENERATOR		- HYDROCAR	(OUNS)	or runnen og statte. En og sekterer En og sekterer				0.0:1	DT	00018	Υ.		
SE.		2					_ <b></b>	<del></del>					
	L	3.											
						•							
	H	4.	<u> </u>		—								
	L												
	l:	13. Special Handling Instructions and Additional Information  SEAR. APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT  PROFILE # (55.423.00.0)  TO 4. 0.7 PROFILE 12. 0.2.594.5											
	JOB#/PO#:28270 TO#: 07-EMESP-13 WO#: 026815												
	14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Wasta.  Generator's Printed/Typer/Name  Month Day Year												
¥	JEHORA L. JUB D BEHALOF POPET ) Y/X C/ PY ZFOF												
FF	Ţ	ransporter Signature (for exp	orts only):			Export from	16//	Port of en Date leav		· · · · · ·		· · ·	
RIER		6. Transporter Adionowledgm ransporter 1 Printed Typed N		<i></i>	٠ , .	*	Makere		7	<u> </u>		Month D	ay Year
TRANSPORTER	ī	ransporter 2 Printed/Typed N	MAS E	Sper	<b>~</b> €€		Listore_	JL		- 01		- 14 S	y Year
Ě	L									V			
1	_	7. Discrepancy 7a. Discrepancy Indication S	pace Quantity		Туре	<u></u>		Residue		Partial Re	ection	☐ Full F	Rejection
							Ma	nifest Reference !	Number:				
Ş	1	7b. Alternate Facility (or Gen	perator)		•					U.S. EPA ID	Number		
D FAC		acility's Phone: 7c. Signature of Alternate Fa	willty for Consension							<u> </u>		Month D	ay Year
DESIGNATED FACILITY	ľ	.e. columna or unacidis Ls	ment for mountains						4 1 2 - 4 <del>- 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 </del>		on service and the		
DESK													
	1	8. Designated Facility Owner	r or Operator: Certification of rec	eiot of hazardous mat	orials cove	ered by the ma	niljeet eva	ept as notad in 1	em 17a				AMERICAN
↓	$\mathbf{r}$	vinted/Typed Name		<b>7</b> 3_			pnature	1				Mornit 7	
161	⊥ 9-6	BLC-O 6 10498				L		5		DESIGNATI	ED FAC	ILITY TO GEN	IERATOR



WEIGHMASTER-Altamont and fill & Resource Recovery 10840 Altamont Pass Road Livermore, CA, 94551

Original Ticket# /43298

Ph: (925)455-7300

Customer Name NrcEnvironmen Nrc Environment Carrier GEN Altamont Generic

Ticket Date 64/27/2007

Vehicle# 9D73930 WT

Volume

Payment Type Credit Account

28270 7

Container

Manual Ticket# Hauling Ticket# AJ TRK 99WT License#

Route

Billing # 0038257

State Waste Code

Gen EPA ID

Manifest Destination

0.62

PO Profile •

Generator

56423000 ("\*Class II Cover Soil-NRC Environmental\*")

Gross 74580

Time

Scale Deputy WeighmasterInbound Scale1 Inboun JOHNS

Tare 33780

In 04/27/2007 12:09:22 Out 04/27/2007 12:09:22

JOHNS

Net

40800 15

Tons

20.40

16

16

Comments .

Pr	oduct	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	C2 Cover RGC-Tons-		20.40	Tons				Oakland
2 3	EVL-Env fee Lg. FUEL-Fuel Surcharg	100	1	Load ≉	•			Oakland Oakland
	· · · · · · · · · · · · · · · · · · ·							

Total Tax
Total Ticket

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose name appears on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Dept. of Food and Agriculture.

DRIVER:				
:	1	- }		
404WMCA	•			•

				•				. 5 -
			•					
NON-HAZARDOUS WASTE MANIFEST	1. Generator to Number  CZAID 49:8:1:4	3.0.4.8.5	2. Page 1 of 3. E	mergancy Respons RCRES 510	e Phone 749-13	4. Weste T	racking Num	Der 2 8270
Generator's Name and Mid PORT OF OAK 530 WATER ST OAKLAND CA	LÁND	and the second section of the second	.a. P(	oracy's Sile Address DIRT OF QAI 19 BRUSH & AKLAND CA	CLAND (		968)	
Transporter 1 Company Na	A. J. TR	UCKING	<u> </u>			U.S. EPA ED	Number	
Transporter 2 Company Na		,				U.S. EPA ID	Number	
19848 Alternont Livermore CA	nent - Altamont 🥳 Road :					U.S. EPA ID		
. 9b. U.S. DOT Descripti	on (including Proper Shipping Name	, Hazard Class, ID Number,	in a man we was the	10. Conta		11. Total	7 29 8 3 12 Unit	3-8-2-7-3
A and Packing Group (if a	any))			No.	Туре	Quantity	WL/VoL	10.1 May 2
PROGAR	RDOUS WASTE SOILD			0.01	DT	00018	Y	
2.				1 1 1 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1	P = ***	The state of the s		
3.								
4.								
PROFÎLE# 55 JOB#/PO#:28		/ a <b>to#</b> e#07 <b>-em</b> r			26815			
•		ibed above on this manifest an	not subject to fed	eral regulations for	reporting prop	er disposed of He	zardous Wast	<b>e</b> .
GENERATOR'S CERTIFIC	ATION: I certify the materials descri	_ <i></i>						
nerator's/Offeror's Printed/T	yped Name	OF PORTOF		0)	< (	<u>K</u>		Month Day
nerators/Offeror's Printed/T    L	yped Name    L.   CUB, ]    Import to U.S.	OF PORTOF	xport from U.S.	Sport of ent		<u> </u>		
nerators/Offeror's Printed/T JEJECE International Shipments naporter Signature (for expo Transporter Acknowledgme	yped Name	DF PORTOF	xport from U.S.	2///		<u>K</u>		0427
nerators/Offeror's Printed/T SEFE SE International Shipments / nsporter Signature (for exporter Signature (for exporter Acknowledgmensporter 1 Printed/Typed No.	yped Name    COBID    Import to U.S.  pris only): ark of Receipt of Materials  arms   MAR	OF PORTOF		Sport of ent		K.		Month Day   04   27   0
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International Shipments / International Ship	yped Name    Joseph Same   Import to U.S. orts only): ant of Receipt of Materials   Am A.R.   J.	SINGH	Signature	Date leave	ng U.S.	,	_	Month Day    04   27   0    Month Day    Full Rejection
International Shipments / International Ship	yped Name    Joseph Same   Import to U.S. orts only): ant of Receipt of Materials   Am A.R.   J.	SINGH	Signature	Date leave	ng U.S.	,	_	Month Day    04   27   0    Month Day    Full Rejection
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WEIGHMASTER-Altamont Editili &Resource Recovery 10840 Altamont Pass Road

Livermore, CA, 94551

Ph: (925)455-7300

Customer Name NrcEnvironmen Nrc Environment Carrier GEN Altamont Generic

Ticket Date 04/27/2007

28270 8

Vehicle# 9090755WT

Payment Type Cradit Account Manual Ticket#

Container

Hauling Ticket#

S&S TRK 64

License#

Route

Billing # 0038257

State Waste Code Manifest

Gen EPA ID

Destination

20

Profile

55423000 ("\*Class II Cover Soil-NRC Environmental\*")

Generator

lime Scale Deputy WeighmasterInbound 73120 Gross 1b ſ'n 04/27/2007 12:12:10 Scalel Inboun JOHNS 30760 Tare 16

Out 04/27/2007 12:12:10

JOHNS

Net 42360 16

Original

Vo.Lume

Ticket# 743299

Tons

21.18

Comments

	Product	LD*	Qty	MOU	Rate	fax	Amount	Origin
1 2 3	C2 Cover RGC-Tons EVL-Env fee tg. FUEL-Fuel Surchar	1.00	21.18	ions Load		no ngun manakatan (mang alam horas Johan-Aous Abha	TOTAL TO THE TOTAL THE TOT	Oakland Oakland Oakland

Total Tax Total Ticket

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose name appears on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Dept. of Food and Agriculture.

DRIVER:		 <u> </u>	
404WMCA			(★)

Ā		ION-HAZARDOUS VASTE MANIFEST	1. Generator 10 Nun C. A. D. 9	nber 8 1.4 3 (	0 4 8 5	1 - 1	Emergency Respons		4. Waste T	racking Nu	alga7	0-9	3
		PORT OF OAKL	tg Address			FF RUBIN G	nerator's Site Addre	sa (if clifferent t		1858)			·
		530 WATER STR OAKLAND CA ( erator's Phone: 5 1	REET 94607				PORT OF OA 2019 BRUSH S DAKLAND C	TREET					٠
11.	6. Tr	ansporter 1 Company Nam	-	7 - 1 1 3 4					U.S. EPA ID	Number			
Ш	<u>/_</u>	- ansporter 2 Company Nam	Jzs.	freeze	ich			_	<u></u>				
									U.S. EPA ID	Number		٠	
		signated Facility Name and Waste Managem 19849 Alternont F Livermore CA 9	ent - Altamont toad 4650						U.S. EPA ID				
Н	Pace.	ty's Phone: 925 4					10. Con				1.3.8	2 1 3	<i>∞</i> <b>∠</b> \$k.∴
		9b. U.S. DOT Description and Packing Group (if an	<u>1y))</u>				No.	Туре	11. Total Quantity	12. Unit Wt./Vol.			
GENERATOR		1. NON HAZAR HYDROCARI	DOUS WASTI BONS)	E SOILD (SOI	LWITH	e de la companya de l	0.0.1	DT:	00018	Υ.			
GEN		2.						, , , , , , ,	<del> </del>				
		3.											
		4.						-					
N		Special Handling Instruction						.][		1	10 pt 10 pt	AMADIĞEK	
	***	WEAR APPROPI PROFILE# 55 JOB#/PO#:282	423000 270	TC			<b>₩0#:</b> 0	26815	;				
		ENERATOR'S CERTIFICA						or reporting prop	er disposal el H	azardous W	aste.		
<b>\</b>		rater's/Offeror's Printeci/Ty  SHFIZE / Committee of the committee of the	ped Nathe	NOFE	ITONB WOFOE	HELKOL	13/4	LC)	<u>Z</u>		Month 94	Day 27	Vear OF
INTL		sporter Signature (for expor	import to U. ds only):	.8.	L	Export from U.S.	/ - /	intry/Edit sving U.S.:					
	16. To	ransporter Acknowledgmer	nt of Receipt of Materi	als			VOLUM PRE						
팅	Trans	porter 1 Printed/Typed Na	_			Signat	m 1				Month	Day	Year
TRANSPORTER	Trans	porter 2 Printed/Typed Na	<u>95 # 1/49</u> me			Signat	ITE UV.	4	·		Month	1 <u>0.2</u>	ح Year
TRA							<u> </u>					, 	
lacksquare		iscrepancy Discrepancy Indication Sca		<del></del>									
	1786. 1	ломоринсу п <b>лисию</b> т Spa	Cuentity		Туре		Residue	blumb	Partial Rej	ection		Full Reject	ion
<u>, T</u>	17b. /	Alternate Facility (or Gener	ator)				Manifest Reference	NUTROST;	U.S. EPA ID	Number			
띭	Facili	ly's Phone:					•	•	1				
DESIGNATED FACILITY		Signature of Alternate Facil	ity (or Generator)						I		Morath	Day	Year
E DESIG													
1		esignated Facility Owner o	r Operator: Certification	on of receipt of hezero	lous meterials cover	red by the manifes	t except as noted in t	tern 17a		er van 1946.			
¥	Printe	d/Typed Name				Signat	1/18				Month	27	O'C



WEIGHMASTER-Altamont Till SResource Recovery 10840 Altamont Pass Road

Livermore, CA, 94551 Ph: (925)455-7300

Customer Name NrcEnvironmen Nrc Environment Carrier GEN Altamont Generic

Ticket Date 04/27/2007 Vehicle# 9038906 Volume

Original

Ticket# 743300

Payment Type Credit Account

Container

Manual Ticket#

PARAM TRK. 491

Hausing Ticket#

License#

Route

0038257 Billing #

State Waste Code

Gen EPA IÜ

Manifest

28270 10

Destination

PO

Profile

55423000 ("\*Class II Cover Soil-NRC Environmental\*")

Generator

Time Scale Deputy WeighmasterInbound

75720

04/27/2007 12:16:02 Ιn

Scale1 Inboun JOHNS

Tare

30260 1b

Out 04/27/2007 12:16:02

JOHNS

Net

16 45460

Tons

Gross

22.73

Comments

p	roduct	LD%	Qty	. UOM	Rate	Tax	Amount	Origin
1	C2 Cover RGC-Tons-	100	22.73	Tons				Oakland
2	EVL-Env Fee Lg.	100	1	Load				Oakland :
3	FUEL-Fuel Surcharg	100		*		."		Oakland

Total Tax Total Ticket

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose name appears on this conflicate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with section 12760) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Dept. of Food and Agriculture.

DRIVER:

404WMCA

➂

A		ON-HAZARDOUS	1. Generator ID Number		2. Page 1 of	3. Emerge	ency Response	Phone	4. Waste Tr				
		ASTE MANIFEST	CAD-9-8-1-4	3 0 4 6 5	_ 1	NRC	RES 510	749-139	<b>d</b> a -	{	24270	- 10	
	5. Ge	merator's Name and Mailir	ng Address	Att.JE	F RUBIN	Generator	's Sile Address	(if different that	n mailing addre	ess)			
		PORT OF OAKL				PUR	I OF OAR						
		OAKLAND CA :	94607		_	OVICE TOTAL	RUSH ST AND CA	RACOT					
	i _			3 4		On the		i∷a-tou≀,					
Ш	6. Tr	ensporter CompanyAvan	110000	45 1					U.S. EPA ID	Number	,		
Ш	7	V ~~ \	I de la colonia	- IKIC									
	7. fm	ansporter 2 Collipany Nam	<b>16</b>						U.S. EPA ID	Number			
	A D:	almost of Provide Advanced	107.11										
	8. DE	eignated Facility Name an <b>Waste Mana</b> gern	d 519 Address went - Alterna <del>nt</del>						U.S. EPA ID I	Number		*	
		10840 Alternont F	Road										
Ш		Livermore CA.3											_
Ш			55-7300								<u>1-:3×8+2</u>		FE POST
Ш	9a. HM		n (including Proper Shipping Name, H	lezard Class, ID Number,		-	10. Conta		11. Total	12. Unit	Ì		٠.
	П			· · · · · · - · - · - · - · - ·		_	No.	Туре	Quantity	Wt./Vol.		egy non ger	
똣		NON HAZAR	DOUS WASTE SOILD (	SOIL WITH 🐰 🔻				- A	10000	72. 6			
I		HYDROCAR	BONS)					122 34	1.10	in mark			
GENERATOR		2	·		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		0 0 1	DT	00018	. A 4		المقيد العقب	
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1													
		3.		·	-			<del>  -</del>					
		<b>a.</b>											
		4.											
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	10 (	Special Mandling butputte	ns and Additional Information					LL.					
			RIATE PERSONAL P	DAMECHITAE E	ሊዘተ ተልሙነ	urm							
		PROFILE# 55	423000	KOIECITAE E	Sor Live	M.T. '	•						
		JOB#/PO#:28	423000 270	TO#: 07-EM	RESP-13	<b>3</b>	<b>WO#</b> : √02	26815					
		٠.											
	14.0	EMEDATION CENTRAL	APPENDING The manufacture of a second	nd American	Ann mai ar 41	4a fad '		A	···-	namedo 1	lado		
	Gone	unior's/Offeror's Printeck[1]	ATION: Certify the materials describe	FOENTON			INSTANTONS 10	Ashorand buobe	URDOSE OF H	aza uous V	vaste.	Day	Year
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▙	15. Ir	nternational Shippients		- INCO OF	1		411		_دڪر		<u> </u>	1	-7
Ē			Ll import to U.S.	- ∟	Export from (	\ <sup>8</sup> /	A contoi en		·			-	
		sporter Signature (for exporance) ransporter Acknowledgme					Date leav	ang ∪.S.′					
E		poster 1 Printed/Typed Na	<u> </u>	<b>6</b> 10	Sire	najura		S. 18			Month	Day	Year
Ž	7	X V	P. Jon.	TKK	`	7	1	na/			IИ	971	$\checkmark$
8	Trans	sporter 2 Printed/Typed Na			Sin	nature /	1/4	<del>~y</del>			Month	Day	Year
TRANSPORTER		, , , , , , , , , , ,			ا		~>	*					
F	17 D	Iscrepancy											
ł		Discrepancy Indication Sp.	ace [7]							<del> </del>			
			Cuartity	☐ Type		L	Residue	l	Partial Rej	ection	الا	Full Rejection	Or .
							D						
<u>'</u>	170	Alternate Facility (or Gene	raiori		•	Manife	est Reference I	NUMBE:	U.S. EPA ID	Number			, -
5		Turny for chaire	·,						3145 M ( ) ( )				
Ş		itr'e Dhane:						1					
DESIGNATED FACILITY	_	ity's Phone: Signature of Alternate Fac	lity for Generators				<del></del>				Month	Day	Year
¥	51 W.	-g.amio or Pholistic I (0)	and for consensed		1							, 	
중					] [269.80±980.0±1	9615 <u>3</u> 3 5		/1040.000	en en en en			S. P. 400 S.	
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G	ic te											estra u	
	10 0	esimpated Earth, Out-	or Operator Confidential of search of	hezardous materials	and but the mine	Mari erre	l oe ooted by	om 170	<u> </u>		48.000 ATM		
		esignated Facility Owner of	or Operator: Certification of receipt of	nazziroous matenais cove			t as noted style			•	Month	Don	Year .
J	r ITIK	our i ylasu Paziliid			ı sığı	nature	V	~	<u>/</u>		- Month	ロックレ	111



WEIGHMASTER-Altamost andfill &Resource Recovery Original 10840 Altamont Pass Road Livermore, CA, 94551

Ticket# 743248

Ph: (925)455-7300

Customer Name NrcEnvironmen Nrc Environment Carrier

GEN Altamont Generic

04/27/2007

Scale

Vehicle# 9D73930 WT

Deputy WeighmasterInbound

Volume

Ticket Date

Payment Type Credit Account

28270~1

Container

Manual Ticket# Hauling Ticket# AJ TRK 99WT License#

Route

Billing # 0038257

State Waste Code

Manifest

Gen EPA ID

Destination

ρo

Profile

55423000 ("\*Class II Cover Soil-NRC Environmental\*")

Generator

lime

Gross Tare

79920 16 33780 16

In 04/27/2007 08:29:18 Out 04/27/2007 08:29:18 Scale: Inboun rrojas1841

Net

46140 ΪÞ

rrojas1841

Tons

23.07

Comments

۴ı	roduct	rD#	Qty	UOM	Rate	Tax	Amount	Origin
1 2 3	C2 Cover RGC-Tons- EVL-Env Fee Lg. FUEL-Fuel Surcharg	100	23 <b>.07</b>	Tons Load %				Oakland Oakland Oakland

Total Tax Total Ticket

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose name appears on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Dept. of Food and Agriculture.

D	W		

404WMCA

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	NON-HAZARDOUS	1. Generator ID Number		2. Page 1 of	· '	gency Response		4. Waste Tr	acking Num	2927	0-/
5	WASTE MANIFEST  i. Generator's Name and Ma	CAD9814		1_1_	O-comb	RES 510.	749-13 (if different	90 kg. then making addre			- •
G	PORT OF OAK 531 WATER ST CARLAND SA Senerator's Phone: 5	SLAND 1785 1 1 0 6 2 7 - 1		FF RUBIN	POR	TOF OAK PUSH ST LAND CA	LAND				·.
6	6. Transporter 1 Company N	A.J. TR	UCKIN (	, J		·		U.S. EPA ID I	Number		
7	7. Transporter 2 Company N			<b>-</b>				U.S. EPA ID I	Number		
8	3. Designated Facility Name Waste Manage	and Site Address						U.S. EPA ID I	Number		
	10840 Altamon	t Road	4	٠	a de v	on Mark Mark	n ste en sille	ACAE	9.8	1:3:8:2	.7·3·2
9		otion (including Proper Shipping Name				10. Conta	iners Type	11, Total Quantity	12. Unit WL/Vol.		. ***
F	1. NON HAZA	RDOUS WASTE SOILD RBONS)	TSOILWITH	* 1 * *	,	0 0 1	DT	00018	Y		
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1	13. <b>SECULPANCE DES</b>	PRIATEWREIRE ON L	PROTECTIVE T	EOUT PME	MIT	·		<u> </u>			
17	14. GENERATOR'S CERTI	FICATION: I certify the materials descriptive of the property	nived above on this manifes			al regulations for	reporting pr	. ()		Month	Day Year
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	Transporter 2 Printed/Typed	AR -J. 3	in GH		gnature	HMON	**	<u> </u>	<u> </u>	04 Month	27 07 Day Year
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	17b. Alternate Facility (or G	enerator)			me	IREAL PRINCES	TOUR DOOR	U.S. EPA 10	Number		***
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ı ⊢	18. Designated Facility Own Printed/Typed Name	ner or Operator: Certification of receipt	of hazardous materials cov		ovo taelina ignature	apt as noted in it	em 17a			Month	Day Year
	· · · · · · · · · · · · · · · · · · ·					E/C				4	27107
69-	BLC-O 6 10498				· — (			DESIGNAT	ED FAC	ILITY TO G	ENERATOR



WEIGHMASTER-Altamont and till & Resource Recovery Original

10840 Altamont Pass Road Livermore, CA, 94551

Ph: (925)455-7300

GEN Altamont Generic Customer Name NrcEnvironmen Nrc Environment Carrier

Vehicle# 6M49733WT

Container

Payment Type Credit Account Manual Ticket# BIJLEVELD IWT

Hauling Ticket# License#

04/27/2007

0038257 Billing # Route Gen EPA ID State Waste Code

28270-2 Manifest

Destination PO

Ticket Date

Profile

55423000 ("\*Class II Cover Soil-NRC Environmental\*")

Generator

72100 ТÞ Gross Scale Deputy WeighmasterInbound Time 29800 16 Tare Scalel Inboun rrojasi841 04/27/2007 08:33:33 Net 42300 16 rrojas1841 Out 04/27/2007 08:33:33 l'ons 21.15

Comments

Pr	oduct	LD%	Qty	MOU	Rate	Tax	Amount	Origin
1 2 3	C2 Cover RGC-Tons- EVL-Env Fee Lg. FUEL-Fuel Surcharg	100	21.15 1	Tons Load %				Oakland Oakland Oakland

Total Tax Total licket

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose name appears on this certificate who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Dept. of Food and Agriculture.

DRIVER:

404WMCA

Ticketh 743249

Volume

A		NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Numbe	r 8 1 4 3 0 4				ency Response RES 510		4. Weste Tr	acidng Nur	Taber マタス	70-2
		Senerator's Name and Mallin	ng Address	9 31 14 3 U 14						<b>VU</b> <i>in</i> , han mailing addre	:ss)	4~ 8 A	/ · · · · · ·
	Gen	PORT OF OAKL 530 WATER STF OAKLAND CA nerator's Phone: 5 1	REET 94607	- 1 1 3 4	AL GE		POR 209 B	TOFOAK RUSH ST AND CA	LAND REET		·		
		Transporter   Company Nam	DVRIZL	in /	<b>√</b> 4	. <			•	U.S. EPA IO	Number		
	7. 1	ransporter 2 Company Nam	10	700	$\mathcal{L}$			······································		U.S. EPA ID	Number	· • • • •	
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		GENERATOR'S CERTIFIC						regulations for	porting pro	per disposal of H	azardyus Y		
¥	,	peretore/Offeror's Printed/T JEFFREY	yped Name Pus		NIC	DAY S	_	AKAR		4/2	<u>/</u>	Month 104	Day Year
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A		Discrepancy											
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ATED	_	c. Signature of Alternate Fac	sility (or Generator)	· · · · · · · · · · · · · · · · · · ·		· I						Month	Day Year
DESIGNATED FACILITY						    	7 ( N ) V			•5::-::::::::::::::::::::::::::::::::::			
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		Designated Facility Owner mted/Typed Name	or Operator: Certification	of receipt of hazzerdous m	aterials cov		nifest excep	pt as noted in th	ern 178			Month	/ Đạy — Year
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WEIGHMASTER-Altamont Landfill &Resource Recovery

10840 Altamont Pass Road

Livermore, CA, 94551 Ph: (925)455-7300

Original

Ticket# 743250

GEN Altamont Generic Customer Name NrcEnvironmen Nrc Environment Carrier

Ticket Date 04/27/2007

9090755WT Vehicle#

Volume

Payment Type Credit Account Manual Ticket#

Container S&S TRK 64 License#

Hauling Ticket#

0038257 Billing #

Route State Waste Code

Gen EPA IO

Manifest

28270-3

Destination

PO

Profile

55423000 ("\*Class II Cover Soil-NRC Environmental\*")

Generator

Gross 72320 Deputy WeighmasterInbound fime Scale Tare 30760 Lb Scalel Inboun rrojas1841 @4/27/2007 Ø8:35:29

rrojas1841 Net Out 04/27/2007 08:35:29

41560 16 20.78 Tons

Comments

Pr	oduct	L0%	Qty.	MOU	Rate	Tax	Amount	Origin
1 2 3	C2 Cover RGC-Tons- EVL-Env Fee Lg. FUEL-Fuel Surcharg	100	20.78 1	Tons Load				Oakland Oakland Oakland

Total Tax Total Ticket

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose name appears on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Dept. of Food and Agriculture.

DRIVER:			1,
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404WMCA	•	•	<b>a</b>

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4		ION-HAZARDOUS	1. Generator ID Number		12.1	Page 1 of [ 5	. Emergency Respon	ee Phone	4. Waste T	melina No	mher		
1	٧	VASTE MANIFEST	CAD98	1-4-3-0-4			NRCRES 51			R	8270	-3	
ŀ	5. G	enerator's Name and Mail	ng Address		Att JEFF	RUBIN 9	enerator's Site Addre	ss (if different l			<b>y y</b> ,		
1	445	530 WATER ST	AND. REET	erri Arabi Arabi	\$10 miles 10 miles	1.300	PORT OF CA 209 BRUSH S	KLAND.					
	W 15	OAKLAND CA	94607	4			OAKLAND C						
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l	7. Tr	ansporter 2 Company Nan	N9	J	<del></del>				U.S. EPA ID	Number			
	e De	signated Facility Name an	od Cilo Address			_							
		Waste Managerr 19849 Alternont i Livermore CA 9	<b>16ht - Alternont</b> Road						U.S. EPA ID	Number			
l			155-7800 F	the state of the state of					I C A	9.8.	1 3 8 2	7.3.	2
	9á.	9b. U.S. DOT Descriptio	n (including Proper Shipping				10. Con	tainers	11. Total	12 Unit			=
1	НМ	and Packing Group (if a	ny))				No.	Туре	Quantity	Wt_Vol			
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			ATION: I certify the material		this manifest are n	w eugov w	federa requisitors to	r reporting prop	er disposal of Ha	azardous W	aste.		
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¥		porter Signature (for expor	lmport to U.S. rts only):		L Exp /	oft from U.S.	Port of e	ntry/exit: ving U.S.:	<del></del>				
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		signated Facility Owner or 1/Typed Name	r Operator: Certification of re	celpt of hazardous ma	mentals covered by	the manifes Signate		em 17a			Month	Day	Year_
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WEIGHMASTER-Altamont Manufill &Resource Recovery Ticket# 743254 10840 Altamont Pass Road

> Container PARAM TRK. 491

License#

Billing #

Gen EPA IU

Livermore, CA, 94651 Ph: (925)455-7300

GEN Altamont Generic Customer Name NrcEnvironmen Nrc Environment Carrier

Ticket Date 04/27/2007 Vehicle#

9038906 Volume

@038257

Deputy WeighmasterInbound

Payment Type Credit Account

Manual Ticket#

Hauling Ticket#

Route

State Waste Code Manifest 28270-5

Time

Destination

PΟ

Profile

55423000 ("\*Class II Cover Soil-NRC Environmental\*")

Generator

Scale

In A 04/27/2007 08:55:44 Out 04/27/2007 08:55:44 Scalel Inboun projas1841 rrojas1841 Gross Tare Net.

30260 1b 41240

71500

Tons

J. b 20.62

16

Comments

	Product	LD%	Qty	МОП	Rate	Tax	Amount	Origin
1	C2 Cover RGC-Tons-	100	20.62	Tons				0akland
2	EVL-Env fee Lg.	100	:1	Load		•	¥	Oak Land
3	FUEL-Fuel Burcharg	100	V .	*			F	Oakland

Total Tax Total Ticket

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose name appears on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Dept. of Food and Agriculture.

DRIVER:

404WMCA

③

A	Γ	NON-HAZARDOUS	1. Generator ID Number		2. Page 1 of 3. 6	mergency Response	e Phone	4. Wasto Ti	racking Nu	mber	
î		WASTE MANIFEST	CADO	1.4.3.0.4.6.5	1 T	RCRES 510				29270	-5]
	5.	. Generator's Name and Maili	ing Address		Cor	erator's Site Address	s (if different the	n mailing addre	:ss)		
	1	FORT OF OAKL	AND	AIL JE	FF RUBIN	ORT OF OAK	•		•		
	1	530 WATER STE	REET	•		39 BRUSH S	REEL				
	Ġ	OAKLAND CA	84607			AKLAND CA					ļ
П	6.	. Transporter 1 Company Nat	6.27	-1 /1:3 /4 <sub>3/</sub>				U.S. EPA ID	Number		
11.	L	~ SSS	TIRO	M-TB	<b>₩</b>						
	7.	Transporter 2 Company Nen	TRO TO		-6/			U.S. EPA ID 1	Number		
	1		+=			•					
	8.	. Designated Facility Name an	nd Site Address	···				U.S. EPA ID	Number		
П		Waste Managerr	nent - Alternont								
		19846 Alternant F	Rosd								
	F	active Phone: 995	4550 at				1			- سیسیان می	_
	9	Bo US DOT Description	155-7900	g Name, Hazard Class, ID Number	<del>- 14 - 6 - 3 - 13 - 1</del>	10. Conta	iners	_ , ,	12 B = 8	138273	2
		M and Packing Group (if a	nyi) nyi)	y realite, marano Cassa, (1) <b>reamber</b>	•	No.	Type	11. Total Quantity	12. Unit Wt./Vol.		
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	18	<ol> <li>Special Handling Instruction</li> </ol>									
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1.				A							
1	14	L GENERATOR'S CERTIFIC	ATION: I certify the materia	s despribed above on this manifest	are not subject to fe	deral regulations for	reporting proper	disposal of Ha	zardous W	aste.	
	Ģ	onegator's/Offeror's Printed/Ty	ped Name	AKENIONE			. \		<del>/                                    </del>	Month Day	Year
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زج	15	i. International Shipments		TO TO TO TO TO TO TO TO TO TO TO TO TO T	1	<i>-41//</i>			پ		-7
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	17	a. Discrepancy Indication Spa	ace Quantity	Туре		Residue		Partial Reja	ection	Full Reject	ion
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륈											
DESIGNATED FACILITY	Fa	citity's Phone:					- 1				
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	_	1000				<u>~</u> /				/_/_/	7
	_	LC-O 6 10498	<del>-</del> -				DE	RIGNATE	D EVUI	LITY TO GENER	ATOR



WEIGHMASTER-Altamont landfill Mesource Recovery 10840 Altamont Pass Road Ticket# 743258

Livermore, CA, 94551

Ph: (925)455-7300 .

Customer Name NrcEnvironmen Nrc Environment Carrier GEN Altamont Generic

Ticket Date 04/27/2007 Vehicle# 9049451

Volume

Payment Type Credit Account

Container

Manual Ticket#

CIA TUCKING 786WT

Hauling Ticket#

License#

Route

Billing # 0038257

State Waste Code Manifest

Gen EPA IU

28270-4

Destination

PO

Profile

55423000 (~\*Class II Cover Soul-NRC Environmental\*~)

Generator

Time In 04/27/2007 09:04:04 Scale :

Deputy WeighmasterInbound

Gross

70920

Scale1 Inboun rrojas1841

Tare

J.b 29/80 16

04/27/2007 09:04:04

Net:

41140 16

rrojas1841

Tons

20.57

Comments

	Product	LD#	qty	UOM	Rate	Гах	Amount	Origin
1	C2 Cover RGC-Tons-	100	20.57	Tons				Oakland
2	EVL-Env Fee Lg.	100	1	Load	•			Oakland
3	FUEL-Fuel Surcharg	100	1	*			•	0akland

Total Tax Total Ticket

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose name appears on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with section (2700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Dept. of Food and Agriculture.

DRIVER:

404WMCA

❽

1		WASTE MANIFEST		4 3 0 4 8 5	2. Page 1 of 3. E	RCRES 510	748-139			28270-	-4
		Generato's Name and Mailing PORT OF OAKLA 530 WATER STRI OAKLAND CA B enerato's Phone: 5 1	ND BET 4607			NEEDY'S SIED AUDITIONS DET OF OAK SIERUSH ST AKLAND CA	機	n mailing addre	68)		
		Transporter 1 Company Name		CIA -	70v.1	- مــاه ا	<u> </u>	U.S. EPA ID	Number		
	7.	Transporter 2 Company Name	,		recycl	~ <u>~</u>		U.S. EPA ID	Number		
	8.	Designated Facility Name and Wasice Marriageme	TRULKIN Sile Addigess	- G				U.S. EPA ID	Number		
		10840 Altamont R Livermore CA 94 city's Phone: 926 46	<b>080</b> 550		a di di daga daga daga daga daga daga da	i. Protect	Section States	CAE	) <b>≈9</b> ∞8×1	-3-8-2-7-3	<b>~2</b> , 6.
	98	L 9b. U.S. DOT Description	(including Proper Shipping Na	rme, Hazard Class, ID Number,		10. Conte		11. Total	12. Unit		
	Н	M and Packing Group (If any	()) DOUS WASTE SOIL	D (SOIL MATE)		No.	Туре	Quantity	Wt_/Vol.		(SIEVS
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		N. Special Handling Instruction WEAR APPROPR PROFILE# 554 JOB#/PO#:282	NATE PERSONAI 123000	TO#: 07-EN			26815 -				
	_	I. GENERATOR'S CERTIFICA enerator's/Offeror's Printed/Typ		escribed above on this manifes		eral regulations for	reporting prope	disposal of H	azardous West	e. Month Day	Year
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		. Transporter Admowledgmen	t of Receipt of Materials							há de Bar	Vene
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DESIGNATED FACILITY		c. Signature of Alternate Facili	ity (or Generator)		l					Month Day	Year
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	_	B. Designated Facility Owner or	Operator: Certification of rece	ipt of hezerdous materials cov			em 17a				
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# APPENDIX H

# WORKPLAN, HEATH & SAFETY PLAN AND R&M, NRC 40 HOUR HAZWOPER TRAINING CERTIFICATES

# WORK PLAN AND HEALTH AND SAFETY PLAN For DOCUMENTATION AND OVERSIGHT OF REMOVAL ACTION

At
Downtown Oakland CNG Station
205/209 Brush Street
Oakland, CA 94607

# Prepared for

Environmental Programs & Safety Department
Port of Oakland
530 Water Street
Oakland, CA 94607

Under Contract/Resolution No. 5135
ON-CALL ENVIRONMENTAL COMPLIANCE CONSULTING SERVICES

Prepared by

R&M Environmental and Infrastructure Engineering, Inc. 7996 Capwell Drive Oakland, CA 94621

April 24, 2007

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- Site Layout
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Summary of Soil Sample Analytical Results 1.

#### 1.0 INTRODUCTION

Under a joint effort with the City of Oakland, the Port of Oakland is undertaking a project to construct a compressed natural gas (CNG) fueling station at 205/209 Brush Street<sup>1</sup> in Oakland, California (See Figure 1, Location Map; and Figure 2, Site Layout). The CNG station is being constructed by Clean Energy. The major components of the station are shown in Figure 3. Following a drying step, the natural gas is compressed in on-site compressors and sent to dispensers via underground piping. The 205/209 Brush Street is currently an asphalt-paved vacant site. An area of approximately 22ft by 66ft is being excavated to construct the pad on which the equipment will be located. While excavating shallow trenches for CNG piping and electrical conduits within the planned pad area, it was noted that a segment of each trench contained soil that was darker in color and had a solvent-like odor and that the color and odor faded upon exposure to air. Based on this observation, excavation activities were halted pending investigation of the cause of the soil coloration and odor. Some photographs of the site as it exists at this time and showing the site excavation, covered soil stockpiles, CNG equipment that will be installed, etc. follow the Figures in this section.

Upon halting of excavation activities, on April 16, 2007, Geolabs, Inc., a subcontractor to Clean Energy, collected two samples of impacted soil from a location in one of the two piping trenches. Figure 4 is a sketch showing the approximate location where the two samples were collected. The samples were collected from depths of 2 ft and 2.5 ft below ground surface. Soil samples were analyzed by Curtis & Tompkins Analytical Laboratories (Berkeley, California) for the following via indicated methods:

Total petroleum hydrocarbons, as gasoline (TPH-g)
Benzene, Toluene, ehtylbenzene, and xylenes (BTEX)
Total petroleum hydrocarbons, as diesel (TPH-d)
Purgeable organics by GC/MS
Title 22 metals (CAM-17 Metals)

EPA Method 8015B EPA Method 8021B EPA Method 8015B EPA Methods 5030B/8260B EPA Methods/6010/7000

Reports received from the laboratory are contained in Appendix A, with results summarized in Table 1. Based on the results, it appears that acetone may have been the main causative agent for the solvent odor of the darker-color soil that was encountered during trench excavation.

Based on recent field observations and soil sample analytical results, a removal action is planned whereby the impacted soil within the footprint of the building pad will be excavated to a maximum depth of close to the water table, if deemed necessary based on field observations and screening. The excavation will then be backfilled with clean imported soil and compacted to Port's specifications. The excavated soil will be profiled and hauled offsite for proper disposal. Representing the Port, R&M Environmental and Infrastructure Engineering, Inc. (R&M) will support the project by providing the following functions and services:

- Oversight of the removal action including documentation of field activities and observations.
- Design and enforcement of a health and safety program that includes air quality monitoring in the work area to ensure worker safety and proactively minimize chemical releases to the environment using screening action levels and perimeter air quality sampling for screening level risk evaluation to off-site receptors.

<sup>&</sup>lt;sup>1</sup> In some documents, the street address for this site is given as 205 or 209 Brush Street.

Prepare a report documenting the work performed.

This work plan, which includes a site health and safety plan as an appendix (Appendix B), describes how R&M will carry out the above functions. NRC Environmental Services (Alameda, CA) will perform the removal action under a separate contract with the Port.

#### 2.0 OVERSIGHT OF REMOVAL ACTION

Tasks and activities for which oversight will be provided and their compliance with pertinent requirements will be documented consist of the following:

- Task 1 Preparatory activities
- Task 2 Excavation and stockpiling of excavated materials
- Task 3 Confirmation sampling and sample analysis
- Task 4 Backfilling and compaction
- Task 5 Management of excavated materials
- Task 6 Environmental protection
- Task 7 Site restoration
- Task 8 Work area and perimeter air quality monitoring

The health and safety requirements and the monitoring and oversight to ensure compliance with requirements are described in the Health and Safety Plan presented in Appendix B and in Section 2.8 of this work plan. During the performance of field activities, full compliance with the requirements specified in the health and safety plan will be required and strictly enforced. In addition, good housekeeping and keeping disturbances to the site and interference with the normal day-to-day activities of the neighboring residences and businesses to an absolute minimum will be strongly emphasized throughout the duration of field work. Brief descriptions of the activities involved in the above-tasks follow. As noted previously, R&M's function here is to ensure that these tasks are performed and to document that they have been performed. Except for some tasks, such as confirmation soil sampling and air monitoring in support of health and safety program, which will be performed by R&M, the tasks will be performed by others.

## 2.1 TASK 1 – PREPARATORY ACTIVITIES

This task involves the following activities:

- Preparation of (this) work plan and health and safety plan (Appendix B) and coordination with Port's Project Engineer for this work.
- Coordination with regulatory agencies (e.g., City of Oakland, Alameda County Health Care Services Agency, and Bay Area Air Quality Management District) and securing required permits and approvals.
- Delineating and preparing the work areas (e.g., for staging equipment and supplies on site and for stockpiling excavated soil).
- Performing subsurface utility clearance and marking.
- Finalizing arrangements with various vendors and suppliers for timely delivery of required equipment, field personnel, and supplies and services. This effort to include a

determination that the removal action contractor has prepared and will have available on site various planning documents, such as site health and safety plan and storm water pollution prevention plan, and that personnel assigned to field activities have the required training and certifications, including the 40-hour OSHA health and safety training.

#### 2.2 TASK 2 – EXCAVATION AND STOCKPILING OF EXCAVATED MATERIALS

Excavation or the removal action will occur only within the frontprint of the 22' X 66' building pad. Separation and separate stockpiling of the contaminated soil that must be hauled offsite for disposal from the relatively clean soil that can be reused on site as backfill material is essential to reducing disposal costs. Visual and olfactory observations and field monitoring instruments such as the photoionization detector will be relied upon to identify the contaminated soil for separate stockpiling. Such screening method will also be used as the guide in directing field excavation activities and the extent of over-excavation in specific areas. Large buried objects, such as concrete structures and metals pipes that may be encountered and are removed during excavation, will also be separately stockpiled on plastic sheeting (as necessary).

## 2.3 TASK 3 - CONFIRMATION SAMPLING AND SAMPLE ANALYSIS

The adequacy of excavation in areas appearing to contain impacted soil (based on field screening) will be confirmed by collecting and analyzing soil samples from the walls and sides of excavation. The total number of samples will depend on the size of the excavation and should consist of each sidewall and floor of the final excavation. Soil samples will be collected by driving a stainless steel sample tube into the sidewall or bottom of excavation and retrieving the tube containing the sample. Depending on accessibility and type of soil encountered, a slide hammer may be used to drive the sampling tube into the soil. Alternatively, the soil samples may be collected from the excavator bucket. Upon retrieval, the sampling tube will be capped with a Teflon square and plastic end cap and then sealed with non-adhesive rubberized tape. Each sample will be labeled with sample location, date, and time and placed in a cooler with ice and delivered to the laboratory (Curtis & Tompkins, Berkeley, CA) under chain of custody protocol. The laboratory will be requested to analyze the sample on the quick-turn-around basis so that results will be available within 24 hours.

Unless field observations and screening indicate a need for analysis of samples for additional analytes, the soil samples will be analyzed for the constituent and constituent categories used in the previous round of sampling, as discussed in Section 1.0

# 2.4 TASK 4 – BACKFILLING AND COMPACTION

Following the excavation of impacted soils within the footprint of the building pad excavation, the excavation will be backfilled. Depending on the depth of the excavation and the groundwater elevation at the site at the time of excavation, some groundwater accumulation in the excavations is anticipated. This water and any rainwater that may accumulate in the excavation pit will be pumped out just prior to fill material placement. The water removed from the excavation will be contained, profiled, and, depending on its characteristics, either hauled offsite for disposal or discharged into sanitary sewer after securing a discharge permit from the East Bay Municipal District.

Fill material placed in the excavations will be from a virgin quarry (no recycled asphalt or concrete will be used). Soil previously excavated from the excavation and stockpiled on site can also be used as fill material, if test results indicate suitability for return to the excavation.

Backfill material placement and compaction will follow the Port of Oakland's specifications.

# 2.5 TASK 5 - MANAGEMENT OF EXCAVATED MATERIALS

Field screening methods will be used as the basis for segregation and separate stockpiling of heavily impacted soil that may require hauling for offsite disposal from clean soil that may be reused on-site for backfilling. Also, if significant quantities of recyclable materials are encountered and removed from the excavation area they will be placed in separate stockpiles. The stockpiles will be placed on plastic sheeting and covered with plastic sheeting when materials are not being added or removed from them.

Soil stockpiles that may require offsite disposal will be profiled, with the number of samples to be collected and the required analyses determined by the volume of soil in the stockpile and waste disposal facility profiling requirements. All manifests will be signed by a Port authorized person. Care will be exercised during onsite loading and unloading of trucks to minimize spillage or dust generation. All loaded trucks will be covered with tarp prior to being permitted to depart from the site.

#### 2.6 TASK 6 – ENVIRONMENTAL PROTECTION

This task consists of efforts aimed at minimizing impacts of construction activities on the immediate site area and surroundings. Examples include measures that will prevent (a) entry or discharge of contaminated surface runoff, rainwater, or groundwater accumulated in and removed from the excavation pit, or wastewater generated from equipment washing and cleaning operations into storm drains; (b) debris and dusts being blown or carried offsite by wind or vehicles; and (c) damage to trees and vegetation on site or in adjacent streets by the work vehicles. Straw wattles will be placed and storm drains. These requirements will be reviewed with field personnel at the daily tailgate safety meetings.

## 2.7 TASK 7 – SITE RESTORATION

This task will involve (a) resurfacing, repairing, orreplacing surfaces and structures (e.g., fences) outside the originally designated construction area impacted by construction activities; (b) general site cleanup (removal of construction debris, small tools, left-over supplies, etc.); and (c) demobilization and removal construction equipment

## 2.8 TASK 8 – WORK AREA AND PERIMETER AIR QUALITY MONITORING

#### 2.8.1 General Considerations and Objectives

In addition to providing oversight and documentation of field activities, R&M is responsible for designing and enforcing a health and safety program that should be protective of the environment and of the health and safety of site workers and the residents and tenants in the general area. This program is described in a site-specific health and plan, prepared in accordance with the standard format for such plans, is presented in Appendix B. A Key element of the health and safety program is the air monitoring that can be broken down into two main categories as follows:

Air quality monitoring in the work area to ensure worker safety and proactively minimize
chemical releases to the atmosphere using screening action levels. This effort can involve use
of real-time VOC monitor(s) to continuously monitor and establish an action level with
corresponding criteria if that level is exceeded.

Perimeter air quality sampling for screening level risk evaluation to off-site receptors. This could be accomplished using evacuated Summa canisters or Tedlar bags with a vacuum pump. These samples could be collected at upwind and downwind locations during the entire workday (or when excavation/construction activities are performed). The samples would then be submitted to a laboratory for analysis, with expedited analysis if trigger is exceeded. EPA reference method TO-14A for VOC analysis and additional GC analysis for acetone and/or other ambient air oxygenated hydrocarbons (OHCs) will be used. The following is a list of analytes that would be detectable via EPA Method TO-14A, which include some of the compounds detected in the site soil samples (Table 1):

Dichlorodifluoromethane (Freon 12) Trichloroethene Chloromethane cis-1,3-Dichloropropene 1,2-Dichloro-1,1,2,2trans-1,3-Dichloropropene tetrafluoroethane (Freon 114) 1.1.2-Trichloroethane Vinyl Chloride Toluene Bromomethane 1.2-Dibromoethane Chloroethane Tetrachloroethylene Trichlorofluoromethane (Freon 11) Chlorobenzene 1,1-Dichloroethene Ethylbenzene Methylene Chloride m-Xylene trans-1,2-Dichloroethene p-Xylene Trichlorotrifluoroethane (Freon 113) Styrene 1,1-Dichloroethane 1.1.2.2-Tetrachloroethane cis-1,2-Dichloroethene o-Xvlene Chloroform 1,3,5-Trimethylbenzene 1,2-Dichloroethane 1,2,4-Trimethylbenzene 1,1,1-Trichloroethane 1,3-Dichlorobenzene Benzene 1.2-Dichlorobenzene Carbon Tetrachloride 1.4-Dichlorobenzene 1,2-Dichloropropane 1.2.4-Trichlorobenzene Hexachloro-1,3-Butadiene

# 2.8.2 Regulations and Advisories

Federal and state health and safety regulatory agencies have developed regulatory standards or published advisories on safe exposure limits for many chemicals encountered in the work environment. These action or advisory limits will be used, as trigger levels during site monitoring to implement corrective actions or to stop work, as deemed appropriate.

As noted in Table 1, acetone and trimethylbenzene isomers appear to represent the type of organic solvents likely to be encountered in the impacted site soil. However, these chemicals in general, and acetone, in particular, originate from both natural and anthropogenic (man-made) sources and are present in the urban air typically at low concentrations. For example, natural sources of emission for acetone include plants and trees, volcanic eruptions, forest fires, and insects and microbes<sup>2</sup>. Acetone is also produced endogenously and expired in human breath. Some important anthropogenic sources of acetone in the air include vehicular exhaust, chemical

<sup>&</sup>lt;sup>2</sup> U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, "Toxicological Profile for Acetone", May 1994.

manufacturing, tobacco smoke, wood burning and pulping, refuse and polyethylene combustion, petroleum production, certain landfill sites, and solvent use.

The Occupational Safety and Health Administration (OSHA) has set a maximum concentration limit in workplace air of 1,000 parts of acetone per million parts of air (1,000 ppm) for an 8-hour workday over a 40-hour week to protect workers. The National Institute for Occupational Safety and Health (NIOSH) recommends an acetone exposure limit of 250 ppm in workplace air for up to a 10-hour workday over a 40-hour workweek. NIOSH recommended exposure limit for 1,2,4-trimethylbenzene and 1,3,5-trimethybenzene is a is time-weighted average of 25 ppm (125 mg/m³).

## 2.8.3 Air Monitoring, Sampling Equipment, and VOC Trigger Level

Multi-sensor air monitoring equipment (e.g., the SentryRAE or MultiRAE) will be used for real-time on-site air monitoring. The unit will be equipped with photoionization detector for total VOC measurement and other sensors (e.g., for measuring percent lower explosive limit or percent oxygen), as appropriate. The data from all the instruments will be downloaded to a personal computer on a daily basis and all data will be available on-site. In addition to automatic data logging, readings will be recorded onto the field forms every fifteen minutes during duration of monitoring.

An on-site monitoring breath zone action level of 10 ppm for a 1 minute basis with spikes not to exceed 25ppm and a soil action level of 20 ppm, which are significantly less than the regulatory requirement and recommended exposure levels for acetone, has been selected as the trigger level for initiating sampling to investigate source of possible chemical releases. Such sampling and analysis may include use of colorimetric chemical-specific gas detection tubes (Drager tubes) for on-site gas analysis or collection of gas samples in Summa canisters or Tedlar bags that will be sent to an offsite laboratory for quick (24-hour) turn-around analysis. Confirmation of high concentrations of specific chemicals of concern would require modification to operational procedures, use of engineering controls, and ultimately work stoppage.

#### 3.0 DOCUMENTATION AND REPORTING

R&M's oversight function includes documentation of field activities, events, air monitoring, and observations and of circumstances surrounding them. In addition, throughout the course of the project R&M will keep the Port's Project Manager abreast of activities and findings, and will present recommendations as deemed appropriate. The methods described below will be used to accurately document field activities and events and to communicate with the Port's Project Manager.

#### 3.1 FIELD LOGBOOKS

Bound books will be used as field logbooks. The pages of the logbook will be numbered consecutively and pages will not be removed for any reason. Entries will be made in indelible ink.

Logbooks will be used to document field activities. Because the logbook is a documentation of field activities, it will contain only facts and observations. Each field person will keep a personal logbook of events. Should a page include entries by anyone besides the owner, the page will be signed by all personnel making entries on that page and entries initialized. Field logbooks will be

identified by a project-specific number and stored in a project file while not in use. At the completion of the project, the logbooks will be stored in the permanent project file.

Entries in the logbook for sampling events will include, but not necessarily be limited to, the following:

- Project name and number
- ★ Date and time of observations
- Work location
- Nature of work being performed (excavation, backfilling, compaction, etc.)
- Materials, supplies, and equipment being used (backhoe, fill material, hand tools, monitoring equipment, etc.).
- \* Weather conditions (general)
- Sketches showing the locations where specific observations are made
- Name and affiliation of persons visiting the work site
- General observations pertinent to the project
- Monitoring event data
- Reference to photographs taken
- ♦ Problems encountered and corrective actions taken

#### 3.2 PHOTOGRAPHS

A digital camera will be used to obtain color photographs of key events and observations. The date, time, location, and description of the activity photographed will be recorded in the field logbook.

#### 3.3 USE OF SPECIAL FORMS

In addition to the information recorded in the field logbook, specially prepared forms will be completed by the R&M field representatives to document specific activities (e.g., tailgate safety meetings) or in support of certain functions (e.g., use of chain-of-custody forms that accompany samples that are delivered to laboratory for analysis, or documentation of calibration of monitoring devices).

#### 3.4 DAILY ACTIVITY REPORTS

R&M will communicate with the Port's Project Manager and keep him abreast of the work progress via regular telephone calls and electronic mails. In addition, R&M will submit formal daily activity reports that summarize daily accomplishments, problems encountered and how resolved, and activities planned for the next reporting period.

#### 3.4 FINAL OVERSIGHT REPORT

Following completion of the field activities, an oversight report will be drafted and submitted to the Port for review and approval. The comments received from the Port will be incorporated into a revised report that will be submitted to the Port.

The oversight report will present documentation of field activities for which oversight was provided, describe how assessment and confirmation sampling were carried out and the results obtained, and discuss rationale for assessing the adequacy of removal action. Included as appendices to the report will be support documentation, including the following:

- \* Copies of Daily Activity Reports
- Chain of custody records
- Copies of signed laboratory reports and data validation reports
- Copies of "TSDF to Generator" Manifests for all hazardous wastes (if any) hauled offsite
- Documentation of the volume disposed and final destination of all non-manifested contaminated soil disposed offsite.
- \* Logs of work site and perimeter air monitoring
- Photographs with annotations

TABLE 1
ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED ON 4/16/07

Soil Sample:	#1	#2	ESL <sup>1</sup>	SILE	TILE
	.mg/Kg	mg/Kg		mg/L	mpKg
TITLE 22 MET	'ALS				
Antimony	ND<0.5	ND<0.5	40	15	500
Arsenic	1.5	1.6	5.5	5	500
Barium	73	55	1,500	100	10,000
Beryllium	0.17	0.17	8	0.75	75
Cadmium	ND<0.25	ND<0.25	7.4	1	100
Chromium	28	30.00	58	5	500*, 2500**
Cobalt	3.8	4.2	10	80	8,000
Copper	8.3	6.1	230	25	2,500
Lead	19	1.7	750	5	1,000
Mercury	0.13	0.038	10	0.2	20
Molybdenum	ND<0.25	ND<0.25	40	350	3,500
Nickel	16	17	150	20	2,000
Selenium	ND<0.5	ND<0.5	10	1	100
Silver	ND<0.25	ND<0.25	40	5	500
Thallium	ND<0.5	ND<0.5	13	7	700
Vanadium	20	21	200	24	2,400
Zinc	21	14	600	250	5,000

- 1) Samples collected by Geolabs on 4/16/2007 (see Figure 4 for sample location)
- 2) Sample No. 1 depth 2.0 feet bgs; Sample No. 2 depth = 2.5 feet bgs
- 3) Samples analyzed by Curtis and Tompkins, Ltd. (See Appendix B for laboratory report) ND = Not detected
- \* for Chromium (VI)
- \*\* for Chromiium (III)
- \* = ESLs from Table B, 'ESLs Shallow Soils (≤ 3m bgs)
  Groundwater IS NOT a Current of Potential Source of Drinking Water' in
  "'Screening for Environmental Concerns at Sites with Contaminated Soil
  and Groundwater," report prepared by California Regional Water Quality

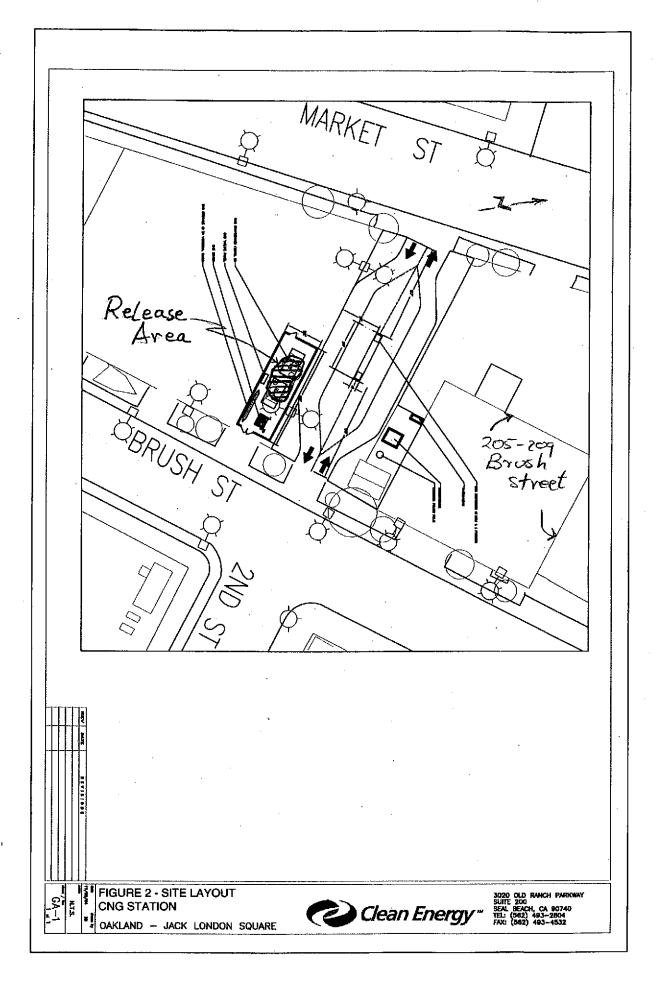
TABLE 1, Continued ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED ON 4/16/07

Soil Sample	Unit	#1	#2
<b>TPH</b> (8015B)			
Gasoline	mg/Kg	1.9	9.1
Diesel	mg/Kg	13	39
BTEX (8020)			
Benzene	μg/Kg	<5.1	<5.1
Toluene	μg/Kg	7.4	<5.1
Ethylbenzene	μg/Kg	23	<5.1
Xylenes	μg/Kg	14	<5.1
Purgable Organics (8260	0B)		
Acetone	μg/Kg	54	27
2-butanone	μg/Kg	16	<9.4
Benzene	μg/Kg	5.2	<4.7
Total xylenes	μg/Kg	21.2	<4.7
Isopropylbenzene	μg/Kg	<4.7	7.4
Propylbenzene	μg/Kg	<4.7	9.2
1,3,5-trimethylybenzene	μg/Kg	8.1	5.6
1,2,4-trimethylbenzene	μg/Kg	22	7.5
Sec-butylbenzene	μg/Kg	<4.7	7.8
Para-isopropyl toluene	μg/Kg	<4.7	6
n-butylbenzene	μg/Kg	<4.7	5.1
Napthalene	μg/Kg	<4.7	14

#### Notes:

- 1) Samples collected by Geolabs on 4/16/2007 (see Figure 4 for sample location)
- 2) Sample No. 1 depth 2.0 feet bgs; Sample No. 2 depth = 2.5 feet bgs
- 3) Samples analyzed by Curtis and Tompkins, Ltd. (See Appendix B for laboratory report)





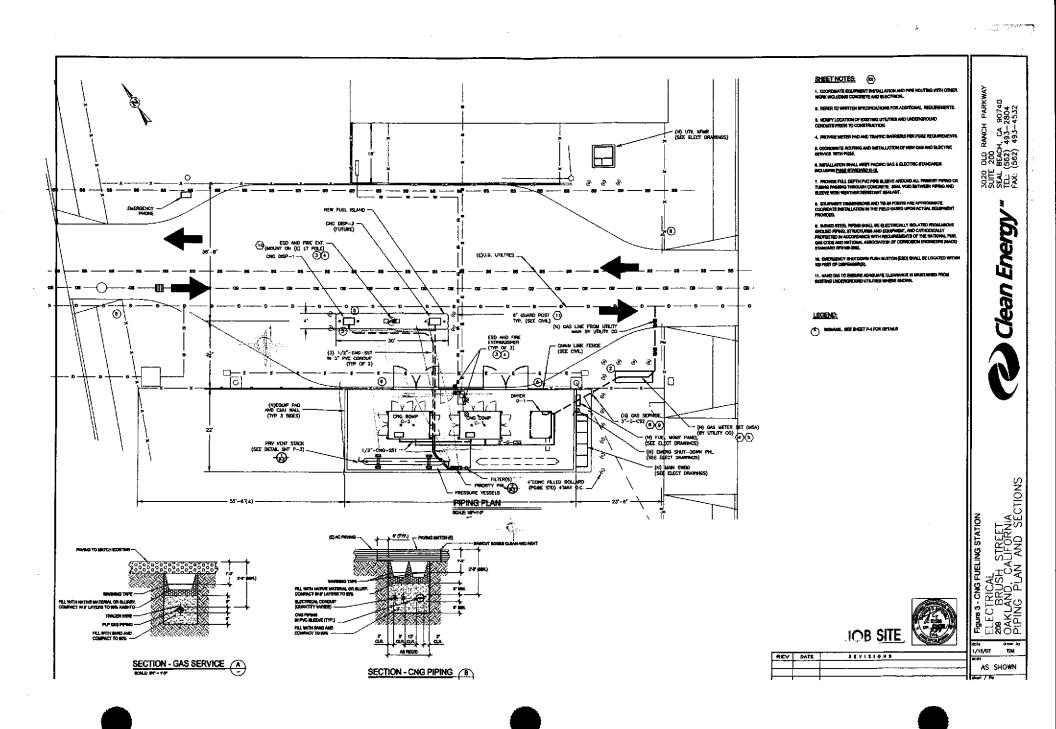
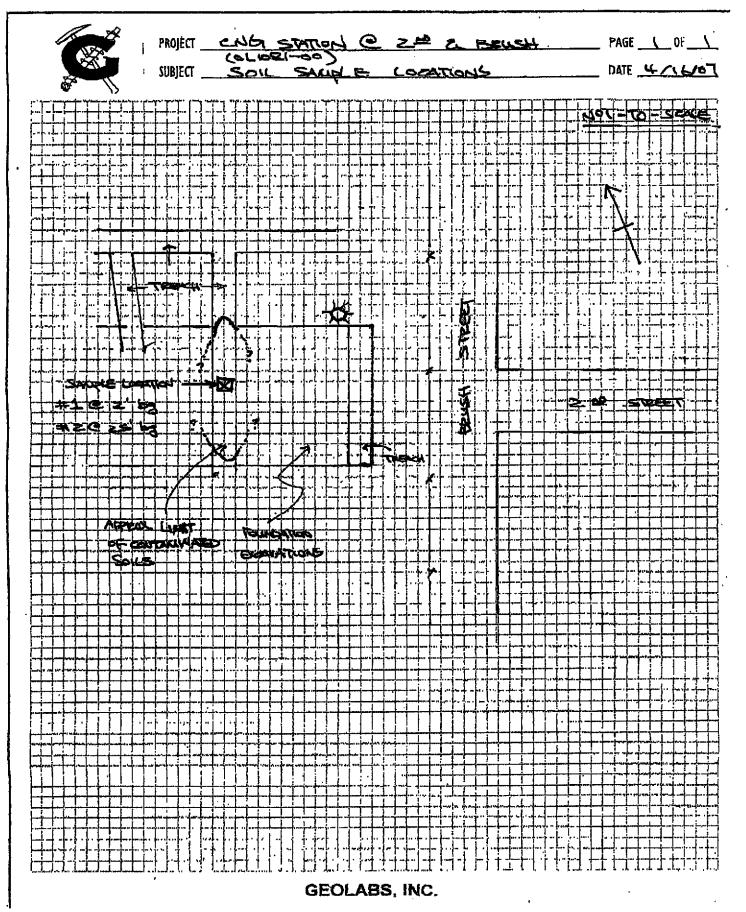


Figure 4 - Approximate Location where Soil Samples Were Collected on 04/16/07



# "Downtown Oakland CNG Station Project"



Photo #1 (4/20/2007)— One of the two CNG Compressor Units for the Fueling Station. Equipment pad is located immediately behind the compressor unit. View towards the northwest.

# "Downtown Oakland CNG Station Project"

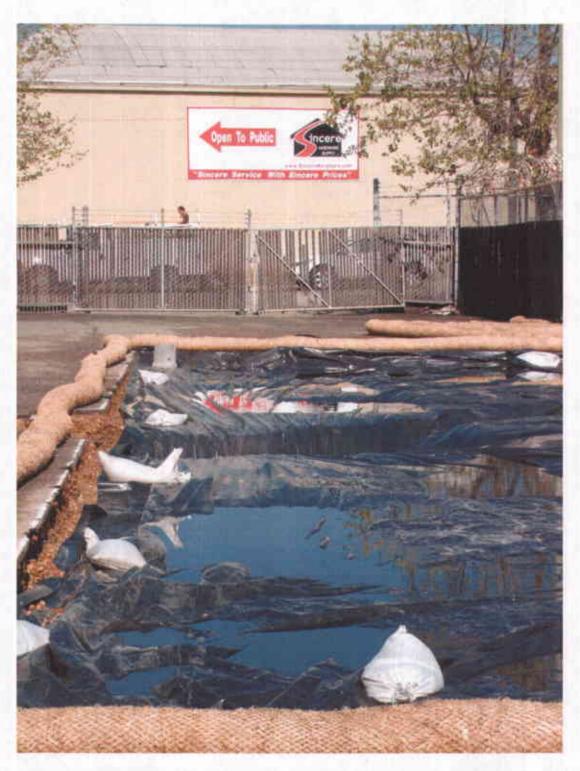


Photo #2 (4/20/2007)— A view of the area being excavated for building pad construction, note the accumulated rainwater on the plastic sheeting covering the equipment pad excavation.

(Looking west from the adjacent sidewalk on Brush Street)

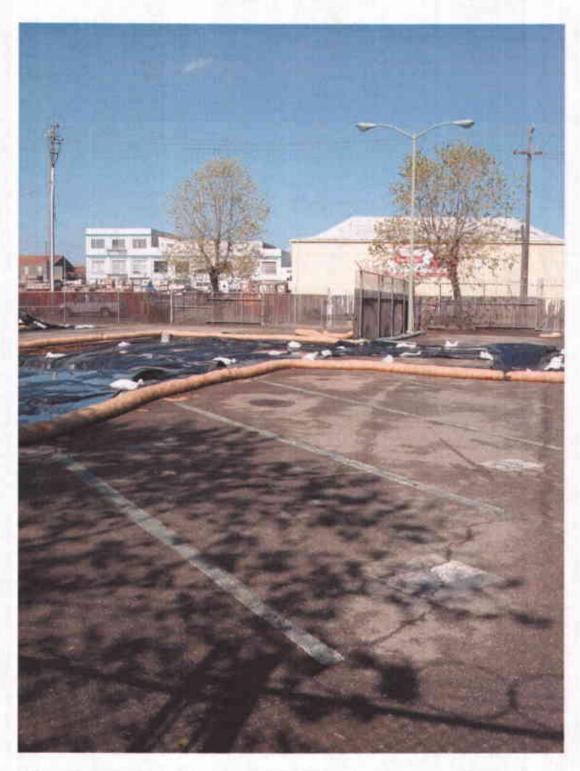


Photo #3 (4/20/2007) – Another view of the building pad excavation area. Equipment pad excavation is on the left side and the dispenser excavation is on the far right side of the photograph.



Photo #4 (4/20/2007) - Pile of excavated soil on and under protective plastic cover

# "Downtown Oakland CNG Station Project"





Photo #5 (4/20/2007) - Two of the three saltwater intrusion monitoring wells located outside but adjacent to the site at the terminus of Brush Street

(Note: The numbers indicated the depth of each well; the third well, not shown here, is 100 ft deep)

### APPENDIX A

# CERTIFIED ANALYTICAL REPORT FOR SOIL/GROUNDWATER SAMPLING AND CHAIN-OFCUSTODY DOCUMENTATION

Curtis and Tompkins, Ltd. Laboratory Report Nos. 194170 and 194289 for two soil samples collected by Geolabs, Inc. on 04/16/07



	California	Title 26 Meta	
Lab #:	194289	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	METHOD
Project#:	OL1081-00	<del>-</del>	
Field ID:	#1	Diln Fac:	1.000
Lab ID:	194289-001	Sampled:	04/16/07
Matrix:	Soil	Received:	04/16/07
Units:	mg/Kg	Prepared:	04/23/07
Basis:	as received	Analyzed:	04/23/07

Analyte	Result	RL.	Batch#	Analysis
Antimony	ND	0.50	124423 EPA	6010B
Arsenic	1.5	0.26	124423 EPA	6010B
Barium	73	0.26	124423 EPA	6010B
Beryllium	0.17	0.10	124423 EPA	6010B
Cadmium	ND	0.26	124423 EPA	6010B
Chromium	28	0.26	124423 EPA	6010B
Cobalt	3.8	0.26	124423 EPA	6010B
Copper	8.3	0.26	124423 EPA	6010B
Lead	19	0.16	124423 EPA	6010B
Mercury	0.13	0.020	124441 EPA	7471A
Molybdenum	ND	0.26	124423 EPA	6010B
Vickel	16	0.26	124423 EPA	6010B
Selenium	ND	0.50	124423 EPA	6010B
Silver	ND	0.26	124423 EPA	6010B
Thallium	ND	0.50	124423 EPA	6010B
Vanadium	20	0.26	12 <b>44</b> 23 EPA	6010B
Zinc	21	1.0	124423 EPA	6010B



	Calif	ornia Title 26 Meta	
Lab #:	194289	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	METHOD
Project#:	OL1081-00		
Field ID:	#2	Diln Fac:	1.000
Lab ID:	194289-002	Sampled:	04/16/07
Matrix:	Soil	Received:	04/16/07
Units:	mg/Kg	Prepared:	04/23/07
Basis:	as received	Analyzed:	04/23/07

Analyte	Result	<b>RL</b>	Batch#	Analysis
Antimony	ND	0.50	124423 EPA	6010B
Arsenic	1.6	0.25	124423 EPA	6010B
Barium	55	0.25	124423 EPA	6010B
Beryllium	0.17	0.10	124423 EPA	6010B
Cadmium	ND	0.25	124423 EPA	6010B
Chromium	30	0.25	124423 EPA	6010B
Cobalt	4.2	0.25	124423 EPA	6010B
Copper	6.1	0.25	124423 EPA	6010B
Lead	1.7	0.15	124423 EPA	6010B
Mercury	0.038	0.020	124441 EPA	7471A
Molybdenum	ND	0.25	124423 EPA	6010B
Vickel	17	0.25	124423 EPA	6010B
Selenium	ND	0.50	124423 EPA	6010B
Silver	ND	0.25	124423 EPA	6010B
Thallium	ND	0.50	124423 EPA	6010B
Vanadium	21	0.25	124423 EPA	6010B
Zinc	14	1.0	124423 EPA	6010B



	Califo	rnia Title 26 Meta	ıls
Lab #:	194289	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	METHOD
Project#:	OL1081-00	Analysis:	EPA 6010B
Туре:	BLANK	Diln Fac:	1.000
Lab ID:	QC384649	Batch#:	124423
Matrix:	Soil	Prepared:	04/23/07
Units:	mg/Kg	Analyzed:	04/23/07
Basis:	as received	-	

Analyte	Result	
Antimony	ND	0.50
Arsenic	ND	0.25
Barium	ND	0.25
Beryllium	ND	0.10
Cadmium	ND	0.25
Chromium	ND	0.25
Cobalt	ND	0.25
Copper	ND	0.25
Lead	ND	0.15
Molybdenum	ND	0.25
Nickel	ND	0.25
Selenium	ND	0.50
Silver	ND	0,25
Thallium	ND	0.50
Vanadium	ND	0.25
Zinc	ND	1.0



Date Con QO IN	CPCIC		
	Cali	fornia Title 26 Metal	
Lab #:	194289	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	METHOD
Project#:	OL1081-00	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	124423
Units:	mg/Kg	Prepared:	04/23/07
Basis:	as réceived	Analyzed:	04/23/07
Diln Fac:	1.000		

Type:

BS

Lab ID:

QC384650

	Analyte	Result	%REC	Limits
Antimony	100.0	104.3	104	80-120
Arsenic	50.00	55.00	110	80-120
Barium	100.0	108.9	109	80-120
Beryllium	2.500	2.888	116	80-120
Cadmium	10.00	11.60	116	80-120
Chromium	100.0	109.6	110	80-120
Cobalt	25,00	26.29	105	80-120
Copper	12.50	13.43	107	80-120
Lead	100.0	109.1	109	80-120
Molybdenum	20.00	22.97	115	80-120
Nickel	25.00	26.56	106	80-120
Selenium	50.00	54.96	110	80-120
Silver	10.00	10.69	107	80-120
Thallium	50.00	55.87	112	80-120
Vanadium	25,00	27,17	109	80-120
linc	25.00	26.12	104	80-120

Type:

BSD

Lab ID: QC384651

	malyte Spiked	Result	&REC	Limits	RPD	Lim
Antimony	100.0	105.8	106	80-120	1	20
Arsenic	50.00	54.98	110	80-120	0	20
Barium	100.0	107.8	108	80-120	1	20
Beryllium	2,500	2.855	114	80-120	1	20
Cadmium	10.00	11.65	117	80-120	0	20
Chromium	100.0	108.4	108	80-120	1	20
Cobalt	25.00	26.08	104	80-120	1	20
Copper	12.50	13.20	106	80-120	2	20
Lead	100.0	108.8	109	80-120	0	20
Molybdenum	20.00	22.96	115	80-120	0	20
Nickel	25.00	26.51	106	80-120	0	20
Selenium	50.00	54.13	108	80-120	2	20
Silver	10.00	10.61	106	80-120	1	20
Thallium	50.00	55.07	110	80-120	1	20
Vanadium	25,00	26.88	108	80-120	1	20
Zinc	25.00	25.70	103	80-120	2	20



	Calife	ornia Title 26 Meta	
Lab #: Client: Project#:	194289 Geolabs, Inc. OL1081~00	Location: Prep: Analysis:	CNG Fueling Station METHOD EPA 6010B
Field ID: MSS Lab ID: Matrix: Units: Basis: Diln Fac:	#1 194289-001 Soil mg/Kg as received 1.000	Batch#: Sampled: Received: Prepared: Analyzed:	124423 04/16/07 04/16/07 04/23/07 04/23/07

Type:

MS

Lab ID: QC384652

Analyte	MSS Result	Spiked	Result	*REC	Limits
Antimony	<0.09082	93.46	57.54	62	1-129
Arsenic	1.538	46.73	50.25	104	72-120
Barium	72.71	93.46	171.1	105	49-138
Beryllium	0.1748	2.336	2.808	113	80-120
Cadmium	0.06641	9.346	10.52	112	72-120
Chromium	27.54	93.46	125.7	105	63-122
Cobalt	3.812	23.36	27.29	100	61-120
Copper	8.301	11.68	20.63	106	59-137
Lead	19.19	93.46	116.8	104	55~122
Molybdenum	0.06600	18.69	19.76	105	66-120
Nickel	15.69	23,36	40.18	105	45-139
Selenium	<0.04910	46.73	48.61	104	73-120
Silver	<0.05955	9.346	9.913	106	53-120
Challium	<0.08918	46.73	48.64	104	64-120
Vanadium	20.06	23.36	44.35	104	55-139
Zinc	20.95	23.36	43.64	97	49-140

Type:

MSD

Lab ID: QC384653

Analy e	Spiked	Result	FREC	Limits	RPD	Lim
Antimony	97.09	60.62	62	1-129	1	23
Arsenic	48.54	53.40	107	72-120	2	20
Barium	97.09	173.8	104	49-138	1	23
Beryllium	2.427	2.929	113	80-120	1	20
Cadmium	9.709	11.37	116	72-120	4	20
Chromium	97.09	129.8	105	63-122	0	20
Cobalt	24.27	28.78	103	61-120	2	23
Copper	12.14	20.89	104	59-137	1	20
Lead	97.09	121.7	106	55-122	1	26
Molybdenum	19.42	20.88	107	66-120	2	20
Nickel	24.27	41.32	106	45-139	1	26
Selenium	48.54	51.47	106	73-120	2	20
Silver	9.709	10.37	107	53-120	1	22
Thallium	48.54	50.92	105	64-120	1	20
Vanadium	24.27	45.74	106	55-139	1	20
Zinc	24.27	43.97	95	49-140	1	23



	Califo	ornia Title 26 Meta	<b>1.8</b>
Lab #:	194289	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	METHOD
Project#:	OL1081-00	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC384727	Batch#:	124441
Matrix:	Soil	Prepared:	04/23/07
Units:	mg/Kg	Analyzed:	04/23/07

Result		2.4 (201 <u>/</u> max)
ND	0.020	



	Cali	fornia Title 26 Meta	의 시작 전 전 전 경험 경험 경험 유명하는 그 학생과 유명한 가능 경우 전 보고 있는 사람들이 보고 있다. [1]
Lab #:	194289	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	METHOD
Project#:	OL1081-00	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124441
Units:	mg/Kg	Prepared:	04/23/07
Basis:	as received	Analyzed:	04/23/07

Type	Lab ID	Spiked	Result	*REC	Limits	RPD L	im
BS	QC384728	0.5000	0.4620	92	80-120		
BSD	QC384729	0.5000	0.4640	93	80-120	0 2	0



	Calif	ornia Title 26 Meta	1.
Lab #:	194289	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	METHOD
Project#:	OL1081-00	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZ	Batch#:	124441
MSS Lab ID:	194221-004	Sampled:	04/18/07
Matrix:	Soil	Received:	04/18/07
Units:	mg/Kg	Prepared:	04/23/07
Basis:	as received	Analyzed:	04/23/07

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC384731	0.007700	0.5000	0.5410	107	67-143		
MSD	QC384732		0.5000	0.5070	100	67-143	6	23



	[ ] 조사의 역 회사 (역 경임 : HOLD : 1 및 1 및 1 및 1 및 1 및 1	ns Laboratories Analy	tical Report
Lab #: Client: Project#:	194170 Geolabs, Inc. OL1081-00	Location: Prep:	CNG Fueling Station EPA 5030B
Matrix: Basis: Diln Fac:	Soil as received 1.000	Sampled: Received:	04/16/07 04/16/07

Field ID:

#1

194170-001

Batch#:

Type: Lab ID:

SAMPLE

Analyzed:

124267 04/17/07

Analyte	Rosult	V	Unita	Analysis
Gasoline C7-C12	1.9 н	1.0	mg/Kg	EPA 8015B
Benzene	ND	5.1	ug/Kg	EPA 8021B
Toluene	ND	5.1	ug/Kg	EPA 8021B
Ethylbenzene	7.4	5.1	ug/Kg	EPA 8021B
m,p-Xylenes	23	5.1	ug/Kg	EPA 8021B
o-Xylene	14	5.1		EPA 8021B

Surrogate	FREC	Limits	de.	Analysis of the body and the body and the body and the
Trifluorotoluene (FID)	102	70-132	EPA	8015B
Bromofluorobenzene (FID)	104	66-138	EPA	8015B.
Trifluorotoluene (PID)	98	63-142	EPA	8021B
Bromofluorobenzene (PID)	100	70-129	EPA	8021B

eld ID: ype: Lab ID:

#2 SAMPLE

194170-002

Batch#:

124310 04/18/07

Analyzed:

Analyte	Result	TO RIL VIOLEN	Units Analysis
Gasoline C7-C12	9.1 н ү	1.0	mg/Kg EPA 8015B
Benzene	ND	5.1	ug/Kg EPA 8021B
Toluene	ND	5.1	ug/Kg EPA 8021B
Ethylbenzene	ND	5.1	ug/Kg EPA 8021B
m,p-Xylenes	ND	5.1	ug/Kg EPA 8021B
o-Xylene	36 C	5.1	ug/Kg EPA 8021B

Surrogate	*REC	Limita	Analysis ( )
Trifluorotoluene (FID)	116	70-132	EPA 8015B
Bromofluorobenzene (FID)	198 *	66-138	EPA 8015B
Trifluorotoluene (PID)	106	63-142	EPA 8021B
Bromofluorobenzene (PID)	145 *	70-129	EPA 8021B

<sup>\*=</sup> Value outside of QC limits; see narrative C= Presence confirmed, but RPD between columns exceeds 40% H= Heavier hydrocarbons contributed to the quantitation Y= Sample exhibits chromatographic pattern which does not resemble standard D= Not Detected AL= Reporting Limit



Curtis & Tompkins Laboratories Analytical Report 194170 Lab #: CNG Fueling Station EPA 5030B Location: Geolabs, Inc. OL1081-00 Client: Prep: Project#: Matrix: Šoil 04/16/07 Sampled: as received 1.000 Basis: Received: 04/16/07 Diln Fac:

Type: Lab ID:

BLANK QC384047 Batch#: Analyzed: 124267 04/17/07

Analyte	Result	RL System	Units	Analysis	
Gasoline C7-C12	ND	1.0	mq/Kg	EPA 8015B	
Benzene	ND	5.0	ug/Kg	EPA 8021B	
Toluene	ND	. 5.0	ua/Ka	EPA 8021B	
Ethylbenzene	ND	5.0		EPA 8021B	
m,p-Xylenes	ND	5.0	ug/Kg	EPA 8021B	
o-Xylene	ND	5.0		EPA 8021B	

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	97	70-132	EPA 8015B
Bromofluorobenzene (FID)	83	66-138	EPA 8015B
Trifluorotoluene (PID)	96	63-142	EPA 8021B
Bromofluorobenzene (PID)	81	70-129	EPA 8021B

ype: δ ID: BLANK QC384220

Batch#: Analyzed: 124310 04/18/07

Analyte	Result		Units Analysis	J. Mag.
Gasoline C7-C12	ND	0.20	mg/Kg EPA 8015B	
Benzene	ND	1.0	ug/Kg EPA 8021B	
Toluene	ND	1.0	ug/Kg EPA 8021B	
Ethylbenzene	ND	1.0	ug/Kg EPA 8021B	
m,p-Xylenes	ИД	1.0	ug/Kg EPA 8021B	
o-Xylene	ND	1.0	ug/Kg EPA 8021B	

Surrogate	8REC	Limits	March Analysis (March Spinson) 200 Physics (March Spinson)
Trifluorotoluene (FID)	97	70-132	EPA 8015B
Bromofluorobenzene (FID)	102	66-138	EPA 8015B
Trifluorotoluene (PID)	94	63-142	EPA 8021B
Bromofluorobenzene (PID)	101	70-129	EPA 8021B

L= Reporting Limit

<sup>\*=</sup> Value outside of QC limits; see narrative C= Presence confirmed, but RPD between columns exceeds 40% H= Heavier hydrocarbons contributed to the quantitation Y= Sample exhibits chromatographic pattern which does not resemble standard >= Not Detected



	Curtis & Tompkins	Laboratories Anal	ytical Report
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.		EPA 5030B
Project#:	OL1081-00	Prep: Analysis:	EPA 8021B
Type:	LCS	Basis:	as received
Lab ID:	QC384048	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124267
Units:	ug/Kg	Analyzed:	04/17/07

Analyte	Spiked	Result	<b>PREC</b>	Limits	
Benzene	100.0	86.53	87	80-120	
Toluene	100.0	86.33	86	80-120	
Ethylbenzene	100.0	96.47	96	80-120	
m,p-Xylenes	100.0	91.76	92	80-120	
o-Xylene	100.0	90.42	90	80-120	

Surrogate	*REC	Limits	
Trifluorotoluene (PID)	88	63-142	
Bromofluorobenzene (PID)	81	70-129	



	Curtis & Tompkins	Laboratories Anal	ytical Report
		<u> 4. 2명 하다 하라마다 하나 중국</u>	
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC384049	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124267
Units:	mg/Kg	Analyzed:	04/17/07

Analyte	Spiked	Result	*REC	Limits
Gasoline C7-C12	10.00	8.886	89	80-120

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	117	70-132	
Bromofluorobenzene (FID)	110	66-138	



	Curtis & Tompkins	Laboratories Anal	lytical Report
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	194211-008	Batch#:	124267
Matrix:	Soil	Sampled:	04/17/07
Units:	mg/Kg	Received:	04/17/07
Basis:	as received	Analyzed:	04/17/07

Type:

MS

Lab ID:

QC384078

The state of the s	(SS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.06223	9.804	6.567	66	36-120

Surrogate	*REC	Limits	
Trifluorotoluene (FID)	103	70-132	
Bromofluorobenzene (FID)	103	66-138	

Type:

MSD

Lab ID:

QC384079

Analyte	Spiked	Result	†REC	Limits	RPD Lim
Gasoline C7-C12	10.10	6.925	68	36-120	2 29
	· · · · · · · · · · · · · · · · · · ·				

	9.080	
Surrogate	%REC	Limits
Trifluorotoluene (FID)	107	70-132
Bromofluorobenzene (FID)	97	66-138



	Curtis & Tompkins	Laboratories Anal	ytical Report
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8021B
Type:	LCS	Basis:	as received
Lab ID:	QC384221	Diln Fac:	1.000
Matrix:	Soi1	Batch#:	124310
Units:	ug/Kg	Analyzed:	04/18/07

	Analyte	Spiked	Result	%REC	Limits
Benzene		100.0	102.8	103	80-120
Toluene		100.0	100.2	100	80-120
Ethylbenzer	ne	100.0	103.7	104	80-120
m,p-Xylene	S	100.0	111.0	111	80-120
o-Xylene		100.0	110.8	111	80-120

Surrogate	*REC	Limits	
Trifluorotoluene (PID)	108	63-142	
Bromofluorobenzene (PID)	122	70-129	



	Curtis & Tompkins	Laboratories Anal	ytical Report
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC384222	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124310
Units:	mg/Kg	Analyzed:	04/18/07

Analyte	Spiked	Result	€R	EC Limits	
Gasoline C7-C12	10.00	8.93		80-120	

Surrogate	*REC	Limits	
Trifluorotoluene (FID)	110	70-132	
Bromofluorobenzene (FID)	125	66-138	



	Curtis & Tompkins	Laboratories Anal	lytical Report
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	194179-006	Batch#:	124310
Matrix:	Soil	Sampled:	04/09/07
Units:	mg/Kg	Received:	04/09/07
Basis:	as received	Analyzed:	04/18/07

Type:

MS

Lab ID:

QC384257

Analyte	MSS Result	Spiked	Result	*REC	Limits
Gasoline C7-C12	0.06680	9.901	9.120	91	36-120

Surrogate	%REC	Limits	1
Trifluorotoluene (FID)	108	70-132	7
Bromofluorobenzene (FID)	127	66-138	ļ

Type:

MSD

Lab ID:

QC384258

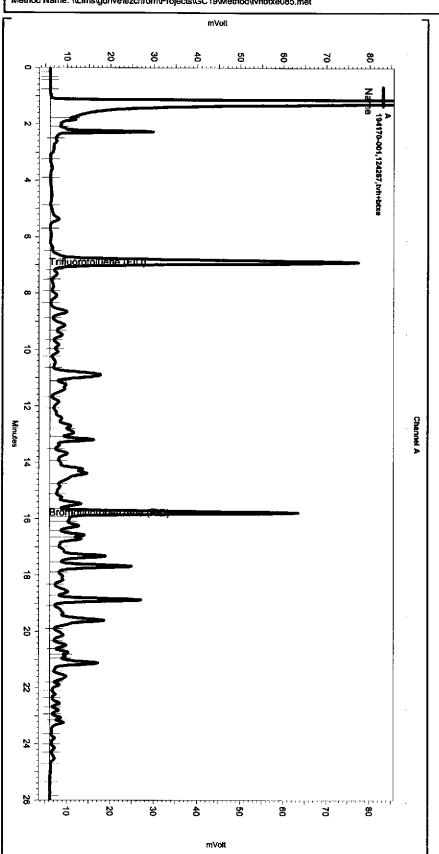
Analyte	Spiked	Result	€RE		RPI	Lim
Gasoline C7-C12	9.901	8.990	90	36-120	1	29

Surrogate	*REC	Limits	
Trifluorotoluene (FID)	106	70-132	
Bromofluorobenzene (FID)	123	66-138	

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Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2) \\
Method Name: \\Lims\gdrive\exchrom\\Projects\GC19\Method\tvhbtxe085.met

Software Version 3.1.7 Run Date: 4/17/2007 5:40:20 PM Analysis Date: 4/18/2007 8:45:43 AM Sample Amount: 0.98 Multiplier: 0.98 Vial & pH or Core ID: A



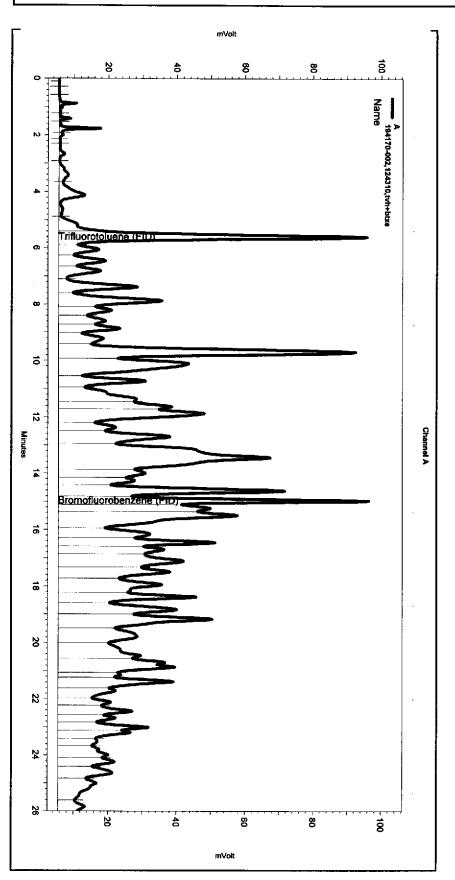
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integral	ion Events				
Enabi	ed Event Type	Start Stop (Minute	o es) (Mir	nutes)	Value
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Yes Yes	Width	(Minute	es) (Mir 0 0	.2	Value
Yes Yes Yes Manual	Width Threshold	(Minute 0 0	98) (Mir 0 0 0	.2 50	
Yes Yes Manual	Width Threshold Integration Fixes	(Minute 0 0 : ezchrom\Projects\ Start Stop	98) (Mir 0 0 0	.2 50 Sata\10	7_009
Yes Yes Manual Data	Width Threshold Integration Fixes File: \Lims\gdrive\ ed Event Type Split Peak	(Minute 0 0 : ezchrom\Projects\ Start Stop	0 0 0 0 0 GC19\L 0 98) (Mir	.2 50 Data\10	7_009

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\108.seq

Sample Name: 19470-002,124310,tvh+btxe
Data File: \Lims\gdrive\exchrom\Projects\GC05\Data\108\_006
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims\2k3\tvh2)
Method Name: \Lims\gdrive\exchrom\Projects\GC05\Method\tvhbtxe106.met

Software Version 3.1.7 Run Date: 4/18/2007 3:32:13 PM Analysis Date: 4/19/2007 8:38:14 AM Sample Amount: 0.99 Multiplier: 0.99

Vial & pH or Core ID: A



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Manual Integration Fixes				
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Enabled Event Type			Minutes)	Value
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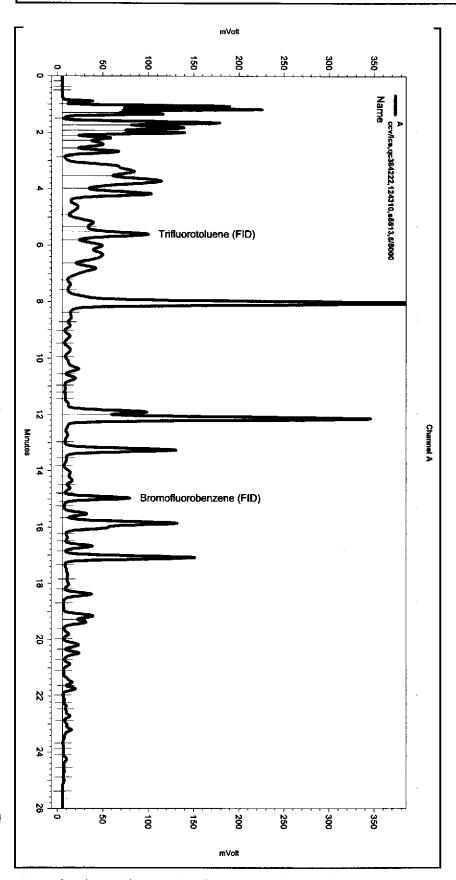
Page 2 of 4 (22) Curtis & Tompkins Ltd.

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Data File: \Lims\gdrive\ezchrom\Projects\GC05\Data\108\_003

Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2) Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe106.met

Software Version 3.1.7
Run Date: 4/18/2007 1:15:02 PM
Analysis Date: 4/19/2007 8:38:02 AM
Sample Amount: 1 Multiplier: 1
Vial & pH or Core ID: {Data Description}



< General Method Parameters >	<b>&gt;</b>
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Integration Events	
Star	rt Stop (Minutes) (Minutes) Value
Enabled Event Type	(Military) (Military) 46100
Yes Width	0 0 0.2
<del></del>	
Yes Width	0 0 0.2
Yes Width Yes Threshold	0 0 0.2 0 0 50 n\Projects\GC05\Data\108_003

5.498 14.823 15.095

Yes Yes Yes Split Peak Split Peak Split Peak

Page 2 of 4 (10) Curtis & Tompkins Ltd.

	Total E	ktractable Hydrocar	bons
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	SHAKER TABLE
Project#:	OL1081-00	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	124283
Units:	mg/Kg	Sampled:	04/16/07
Basis:	as received	Received:	04/16/07
Diln Fac:	1.000	Prepared:	04/18/07

Field ID:

#1

Lab ID:

194170-001

Type:

SAMPLE

Analyzed:

04/19/07

Analyte	Result	
Diesel C10-C24	13 н ц ү	1.0

Park and the second of the sec			The second secon	
Surrogate	*REC	Limits		
Hexacosane	100	40-127		

eld ID:

#2

Lab ID:

194170-002

pe:

SAMPLE

Analyzed:

04/18/07

Analyte		RI (1986)	
Diesel C10-C24	39 L Y	1.0	

Surrogate	%REC	Limits	
Hexacosane	125	40-127	

Type:

BLANK

Analyzed:

04/18/07

Lab ID:

QC384103

Analyte	Result	RL

Diesel C10-C24 ND

Surrogate %REC Limits Hexacosane 153 \* 40-127

\*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

= Not Detected

L= Reporting Limit

Page 1 of 1

15.0



	Total Ex	tractable Hydroca:	rbons
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	SHAKER TABLE
Project#:	OL1081-00	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC384104	Batch#:	124283
Matrix:	Soil	Prepared:	04/18/07
Units:	mg/Kg	Analyzed:	04/18/07
Basis:	as received	-	

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	*REC	Limits
Diesel C10-C24	49.96	52.46	105	58-127

Surrogate	*REC	Limits
Hexacosane	119	40-127



	Total E	xtractable Hydrocaz	bons
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	SHAKER TABLE
Project#:	OL1081-00	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZ	Batch#:	124283
MSS Lab ID:	194119-017	Sampled:	04/12/07
Matrix:	Soil	Received:	04/12/07
Units:	mg/Kg	Prepared:	04/18/07
Basis:	as received	Analyzed:	04/18/07
Diln Fac:	1.000	_	

Type: Lab ID:

QC384105

Cleanup Method: EPA 3630C

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	15.72	49.92	56.39	81	29-147

Surrog	ate PREC Limi	ts	
Hexacosane	104 40-1	27	

Type:

MSD

Analyte

Cleanup Method: EPA 3630C

REC Limits RPD Lim

Lab ID:

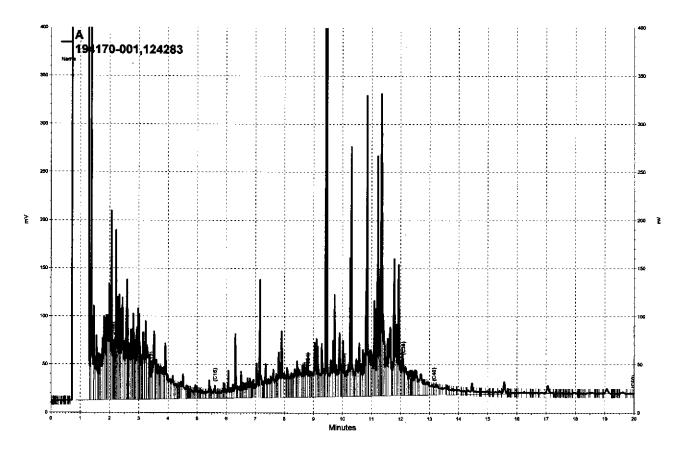
QC384106

Result

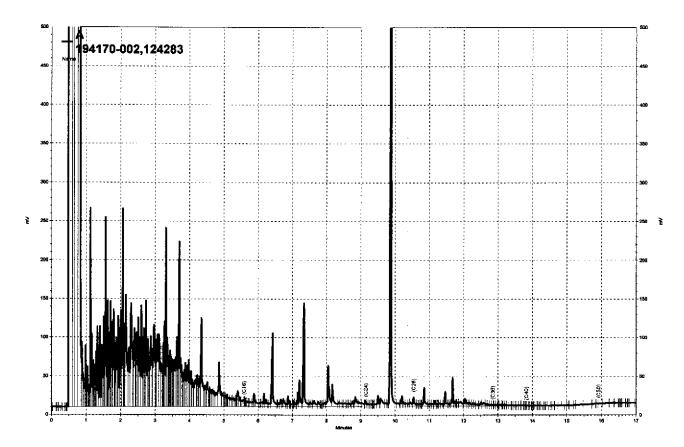
Diesel C10-C24	49.82	50.98	71	29-147 10 46

Spiked

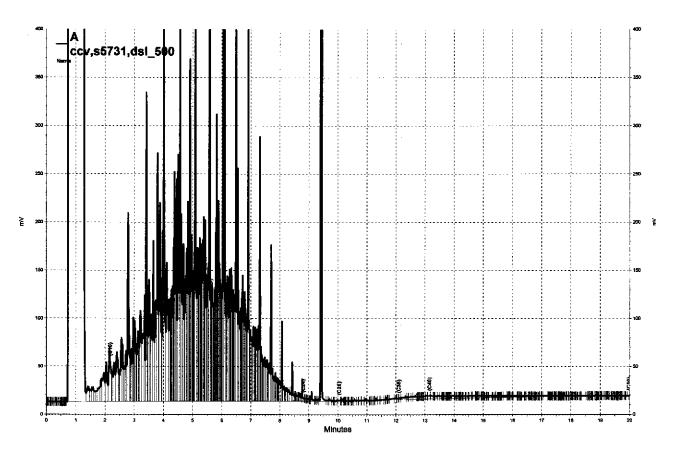
Surrogate	%REC	
Hexacosane	94	40-127



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\Lims\gdrive\ezchrom\Projects\GC26\Data\108a023, A



\Lims\gdrive\ezchrom\Projects\GC17A\Data\109a003, A

	Purgeal	ole Organics by GC/	(MS
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Field ID:	#1	Diln Fac:	0.9434
Lab ID:	194170-001	Batch#:	124239
Matrix:	Soil	Sampled:	04/16/07
Units:	ug/Kg	Received:	04/16/07
Basis:	as received	Analyzed:	04/17/07

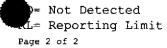
Analyte	Result	
Freon 12	ND	9.4
Chloromethane	ND	9.4
Vinyl Chloride	ND	9.4
Bromomethane	ND	9.4
Chloroethane	ND	9.4
Trichlorofluoromethane	ND	4.7
Acetone	54	24
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.7
ATBE	ND	4.7
crans-1,2-Dichloroethene	ND	4.7
Vinyl Acetate	ND	47
1,1-Dichloroethane	ND	4.7
2-Butanone	16	9.4
cis-1,2-Dichloroethene	ND	4.7
2,2-Dichloropropane	ND	4.7
Chloroform	ND	4.7
Bromochloromethane	ND	4.7
1,1,1-Trichloroethane	ND	4.7
1,1-Dichloropropene	ND	4.7
Carbon Tetrachloride	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	5.2	4.7
Trichloroethene	ND	4.7
1,2-Dichloropropane	ND	4.7
Bromodichloromethane	ND	4.7
Dibromomethane	ND	4.7
4-Methyl-2-Pentanone	ND	9.4
cis-1,3-Dichloropropene	ND	4.7
Toluene	ND	4.7
trans-1,3-Dichloropropene	ND	. 4.7
1,1,2-Trichloroethane	ND	4.7
2-Hexanone	ND	9.4
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7

<sup>=</sup> Not Detected L= Reporting Limit

	그러면 가게 되었다.	ole Organics by GC/	/ <b>MS</b>
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Field ID:	#1	Diln Fac:	0.9434
Lab ID:	194170-001	Batch#:	124239
Matrix:	Soil	Sampled:	04/16/07
Units:	ug/Kg	Received:	04/16/07
Basis:	as received	Analyzed:	04/17/07

Analyte	Result	
Dibromochloromethane	ND	4.7
1,2-Dibromoethane	ND	. 4.7
Chlorobenzene	ND	4.7
1,1,1,2-Tetrachloroethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	15	4.7
o-Xylene	6.2	4.7
Styrene	ND	4.7
Bromoform	ND	4.7
Isopropylbenzene	ND	4.7
1,1,2,2-Tetrachloroethane	ND	4.7
1,2,3-Trichloropropane	ND	4.7
Propylbenzene	ND	4.7
Bromobenzene	ND	4.7
1,3,5-Trimethylbenzene	8.1	4.7
2-Chlorotoluene	ND	4.7
4-Chlorotoluene	ND	4.7
tert-Butylbenzene	ND	4.7
1,2,4-Trimethylbenzene	22	4.7
sec-Butylbenzene	ND	4.7
para-Isopropyl Toluene	ND	4.7
1,3-Dichlorobenzene	ND	4.7
1,4-Dichlorobenzene	ND	4.7
n-Butylbenzene	ND	4.7
1,2-Dichlorobenzene	ND	4.7
1,2-Dibromo-3-Chloropropane	ND	4.7
1,2,4-Trichlorobenzene	ND	4.7
Hexachlorobutadiene	ND	4.7
Naphthalene	ND	4.7
1,2,3-Trichlorobenzene	ND	4.7

Surrogate	*REC	Limits	
Dibromofluoromethane	107	78-126	
1,2-Dichloroethane-d4	105	76-135	
Toluene-d8	102	80-120	
Bromofluorobenzene	105	80-126	





	Purgeal	ole Organics by GC/	(MS
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Field ID:	#2	Diln Fac:	0.9434
Lab ID:	194170-002	Batch#:	124239
Matrix:	Soil	Sampled:	04/16/07
Units:	ug/Kg	Received:	04/16/07
Basis:	as received	Analyzed:	04/17/07

Analyte	Result	
Freon 12	ND	9.4
Chloromethane	ND	9.4
Vinyl Chloride	ND	9.4
Bromomethane	ND	9.4
Chloroethane	ND	9.4
Trichlorofluoromethane	ND	4.7
Acetone	27	24
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.7
MTBE	ND	4.7
trans-1,2-Dichloroethene	ND	4.7
Vinyl Acetate	ND	47
1,1-Dichloroethane	ND	4.7
2-Butanone	ND	9.4
cis-1,2-Dichloroethene	ND	4.7
2,2-Dichloropropane	ND	4.7
Chloroform	ND	4.7
Bromochloromethane	ND	4.7
1,1,1-Trichloroethane	ND	4.7
1,1-Dichloropropene	ND	4.7
Carbon Tetrachloride	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Trichloroethene	ND	4.7
1,2-Dichloropropane	ND	4.7
Bromodichloromethane	ND	4.7
Dibromomethane	ND	4.7
4-Methyl-2-Pentanone	ND	9.4
cis-1,3-Dichloropropene	ND	4.7
Toluene	ND	4.7
trans-1,3-Dichloropropene	ND	4.7
1,1,2-Trichloroethane	ND	4.7
2-Hexanone	ND	9.4
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7

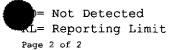
)= Not Detected KL= Reporting Limit



	Purgeal	le Organics by GC/	<b>MS</b>
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Field ID:	#2	Diln Fac:	0.9434
Lab ID:	194170-002	Batch#:	124239
Matrix:	Soil	Sampled:	04/16/07
Units:	ug/Kg	Received:	04/16/07
Basis:	as received	Analyzed:	04/17/07

Analyte	Re	sult	The State of the Control of the Cont	
Dibromochloromethane	ND		4.7	
1,2-Dibromoethane	ND		4.7	
Chlorobenzene	ND		4.7	
1,1,1,2-Tetrachloroethane	ND		4.7	
Ethylbenzene	ND		4.7	
m,p-Xylenes	ND		4.7	
o-Xylene	ND		4.7	
Styrene	ND		4.7	
Bromoform	ND		4.7	
Isopropylbenzene		7.4	4.7	
1,1,2,2-Tetrachloroethane	ND		4.7	
1,2,3-Trichloropropane	ND		4.7	
Propylbenzene		9.2	4.7	
Bromobenzene	ND		4.7	
1,3,5-Trimethylbenzene		5.6	4.7	
2-Chlorotoluene	ND		4.7	
4-Chlorotoluene	ND		4.7	
tert-Butylbenzene	ND		4.7	
1,2,4-Trimethylbenzene		7.5	4.7	
sec-Butylbenzene		7.8	4.7	
para-Isopropyl Toluene		6.0	4.7	
1,3-Dichlorobenzene	ND		4.7	
1,4-Dichlorobenzene	ND		4.7	
n-Butylbenzene		5.1	4.7	
1,2-Dichlorobenzene	ND		4.7	
1,2-Dibromo-3-Chloropropane	ND		4.7	
1,2,4-Trichlorobenzene	ND		4.7	
Hexachlorobutadiene	ND		4.7	
Naphthalene		14	4.7	
1,2,3-Trichlorobenzene	ND		4.7	

Surrogate	*REC	Limits
Dibromofluoromethane	108	78-126
1,2-Dichloroethane-d4	98	76-135
Toluene-d8	98	80-120
Bromofluorobenzene	119	80-126





	Purgeal	ole Organics by GC/	<b>) (8</b>
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC383939	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124239
Units:	ug/Kg	Analyzed:	04/17/07

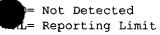
Analyte	Spiked	Result	<b>&amp;REC</b>	Limits
1,1-Dichloroethene	25.00	26.27	105	76-132
Benzene	25.00	26.28	105	80-120
Trichloroethene	25.00	26.94	108	80-120
Toluene	25.00	26.92	108	80~120
Chlorobenzene	25.00	26.96	108	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	100	78-126	
1,2-Dichloroethane-d4	95	76-135	
Toluene-d8	99	80-120	
Bromofluorobenzene	100	80-126	



	Purgeal	ole Organics by GC/	(MS
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC383940	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124239
Units:	ug/Kg	Analyzed:	04/17/07

Analyte	Result	
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	ИD	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ИD	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	ИD	5.0
trans-1,3-Dichloropropene	ИD	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

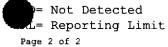




	Purgea	ble Organics by GC/I	
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC383940	Diln Fac:	1.000
Matrix:	Soil	Batch#:	124239
Units:	ug/Kg	Analyzed:	04/17/07

Analyte	Result	
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
.,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	Linits   The Control of the Control
Dibromofluoromethane	105	78-126
1,2-Dichloroethane-d4	99	76-135
Toluene-d8	96	80-120
Bromofluorobenzene	102	80-126





	Rungeal	ole Organics by GC/	<b>ks</b>
Lab #:	194170	Location:	CNG Fueling Station
Client:	Geolabs, Inc.	Prep:	EPA 5030B
Project#:	OL1081-00	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZ	Diln Fac:	0.9091
MSS Lab ID:	194169-005	Batch#:	124239
Matrix:	Soil	Sampled:	04/16/07
Units:	ug/Kg	Received:	04/16/07
Basis:	as received	Analyzed:	04/17/07

Type:

MS

Lab ID:

QC383978

Analyte	MSS Result	Spiked	Result	*REC	Limits
1,1-Dichloroethene	<0.5202	45.45	50.24	111	72-138
Benzene	<0.1253	45.45	41.68	92	61-122
Trichloroethene	<0.2974	45.45	44.21	97	62-134
Toluene	<0.5024	45.45	42.81	94	57-124
Chlorobenzene	<0.4701	45.45	42.09	93	55-120

Surrogate	%REC	Limits	
Dibromofluoromethane	92	78-126	
1,2-Dichloroethane-d4	77	76-135	
Toluene-d8	93	80-120	
Bromofluorobenzene	98	80-126	

Type:

MSD

Lab ID:

QC383979

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	45.45	51.06	112	72-138	2	20
Benzene	45.45	42.56	94	61-122	2	20
Trichloroethene	45.45	44.51	98	62-134	1	20
Toluene	45.45	43.13	95	57-124	1	21
Chlorobenzene	45.45	41.79	92	55-120	1	22

Surrogate	%REC	Limits
Dibromofluoromethane	96	78-126
1,2-Dichloroethane-d4	80	76-135
Toluene-d8	96	80-120
Bromofluorobenzene	97	80-126

## HEALTH AND SAFETY PLAN for REMOVAL ACTION

At
Downtown Oakland CNG Station
205/209 Brush Street
Oakland, CA 94607

### Prepared for

Environmental Programs & Safety Department
Port of Oakland
530 Water Street
Oakland, CA 94607

Under Contract/Resolution No. 5135
ON-CALL ENVIRONMENTAL COMPLIANCE CONSULTING SERVICES

Prepared by

R&M Environmental and Infrastructure Engineering, Inc. 7996 Capwell Drive Oakland, CA 94621

April 23, 2007

#### SIGNATURE SHEET

#### REMOVAL ACTION AT 209 BRUSH STREET OAKLAND, CALIFORNIA

#### **R&M** Environmental and Infrastructure Engineering, Inc. Approvals

Rafael Carranza R&M Site Health and Safety Officer	Date
Recht Site Health and Salety Officer	
M. Idl. D. D. D.	<del></del>
Masood Ghassemi, Ph.D., P.E. R&M Project Manager	Date

#### ACKNOWLEDGEMENT AND COMPLIANCE COMMITMENT

I have read and understood this Health and Safety Plan for field activities at 205/209 Brush Street, Oakland, California.

I will comply with the requirements stipulated in this document.

I agree to notify the responsible employee of R&M Environmental and Infrastructure Engineering, Inc. (R&M) should any unsafe act be witnessed by me while I am on this site.

Name (Print) Organization Signature Date

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#### ABBREVIATIONS AND ACRONYMS

CFR Code of federal regulations
EM Engineering Manual
HSB Hashbard as feteral large

HSP Health and safety plan IDW Investigation-derived waste

NIOSH National Institute of Occupational Safety and Health

NMCRC Navy and Marine Corps Reserve Center

OSHA Occupational Safety and Health Administration

OVA Organic vapor analyzer
PCB Polychlorinated biphenyl
PPE Personal protective equipment

R&M Environmental and Infrastructure Engineering, Inc.

SHSO Site health and safety officer
TPH Total petroleum hydrocarbons
UST Underground storage tank

#### 1.0 INTRODUCTION

This health and safety plan (HSP) covers work to be performed by R&M Environmental and Infrastructure Engineering, Inc. (R&M) under contract/resolution no. 5135, On-call Environmental Compliance Consulting Services with the Port of Oakland. The work involves oversight and documentation of field activities associated with a removal action involving excavation of potentially contaminated soil, assessment and confirmation soil sampling, placement and compaction of backfill material, and management of materials and wastes resulting from site activities.

All field activities must be performed in compliance with the requirements stipulated in R&M's Corporate Health and Safety Program (included as attachment to this plan), and any additional requirements identified and presented in this job-specific HSP.

#### 2.0 BACKGROUND

While excavating an area of approximately 22 ft by 66 ft to construct a pad and two shallow conduit trenches for a compressed natural gas (CNG) fueling station at 205/209 Brush Street in Oakland, California, it was noted that a segment of each trench contained soil that was darker in color and had a solvent-like odor and that the color and odor faded on exposure to air. Upon this observation, excavation activities were halted pending investigation of the cause of the soil coloration and odor. Analytical results for two samples of soil taken from depths of 2.0 ft and 2.5 ft below the ground surface have indicated the presence of certain volatile organic compounds, particularly acetone, which was detected at a concentration of 27 µg/kg and 54 µg/kg in the two samples (See Table 1). Based on field observations and soil sample analytical results, a removal action is planned whereby the impacted soil within the footprint of the equipment pad will be excavated to a maximum depth of close to the water table, if deemed necessary based on field observations and screening. The excavation will then be backfilled and compacted and the facility construction re-started. The excavated soil will be profiled and hauled offsite for proper disposal. Representing the Port, R&M Environmental and Infrastructure Engineering, Inc. (R&M) will support the project providing removal action oversight and documentation of field activities and a health and safety program (including on-site air monitoring) that should be protective of the environment and of the health and safety of site workers and the residents and tenants in the general area.

This health and safety plan (HSP) covers the following field activities:

- Preliminary and preparatory work including subsurface utility clearance, agency notifications, and work area delineation
- \* Excavation and stockpiling of excavated materials
- to Confirmation sampling and sample analysis
- \* Backfilling and compaction
- Management of excavated materials
- \* Environmental protection
- Site restoration

<sup>&</sup>lt;sup>1</sup> In some documents, the street address for this site is given as 205/209 Brush Street.

#### Health and safety monitoring

Table 1: Summary of Soil Sample Analytical Results

209 Brush Street, Oakland, CA

Soil Sampling Anlytical Results; Sampling performed April 16, 2007

Soil Sample	#1 vs		Units		
TPH					
Gasoline (C7-C12)	1,900 (H)	,100 (H)(Y)	μg/kg		
Diesel (C10-C24)	0 (H)(L)(Y)	39 (L)(Y)	μg/kg		
<u>BTEX</u>					
Benzene	ND<5.1	ND<5.1	μg/kg		
Toluene	ND<5.1	ND<5.1	μg/kg		
Ethylbenzene	7.4	ND<5.1	μg/kg		
m,p - Xylenes	23	ND<5.1	μg/kg		
o - Xylenes	14	36 (C)	μg/kg		
PURGEABLE ORGAN	ICS*				
Acetone	54	27	μg/kg		
2-Butanone	16	ND<9.4	μg/kg		
Isopropylbenzene	ND<4.7	7.4	μg/kg		
Propylbenzene	ND<4.7	9.2	μg/kg		
1,3,5-Trimethylbenzene	8.1	5.6	μg/kg		
1,2,4-Trimethylbenzene	22	7.5	μg/kg		
sec-Butylbenzene	ND<4.7	7.8	μg/kg		
para-Isopropyl Toluene					
	ND<4.7	6	μg/kg		
n-Butylbenzene	ND<4.7	5.1	μg/kg		
Naphthalene	ND<4.7	14	μg/kg		

<sup>\*</sup> Only analytes that were detected above the detection limits in one or both soil samples are listed here. See the laboratory reports provided in the Appendix

TPH-g = Total petroleum hydrocarbons as gasoline

TPH-d = Total petroleum hydrocarbon as diesel

BTEX = Benzene, toluene, ethylbenzene, and xylenes

ND = Not detected

H = Heavier hydrocarbons contribued to the quantitation

L = Lighter hydrocarbons contribued to the quantitation

Y = Sample exhibits chromatographic pattern which does not resemble standard

C = Presence confirmed, but RPD between columns exceeds 40%

TABLE 1
ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED ON 4/16/07

Soil Sample	#1	#42	ESL	STLC	TILE
	mp/kg	mg/Kg		mg/L	mg/Kg
TITLE 22 METALS					
Antimony	ND<0.5	ND<0.5	40	15	500
Arsenic	1.5	1.6	5.5	5	500
Barium	73	55	1,500	100	10,000
Beryllium	0.17	0.17	. 8	0.75	75
Cadmium	ND<0.25	ND<0.25	7.4	1	100
Chromium	28	30.00	58	5	500*, 2500**
Cobalt	3.8	4.2	10	80	8,000
Copper	8.3	6.1	230	25	2,500
Lead	19	1.7	750	5	1,000
Mercury	0.13	0.038	10	0.2	20
Molybdenum	ND<0.25	ND<0.25	40	350	3,500
Nickel	16	17	150	20	2,000
Selenium	ND<0.5	ND<0.5	10	1	100
Silver	ND<0.25	ND<0.25	40	5	500
Thallium	ND<0.5	ND<0.5	13	7	700
Vanadium	20	21	200	24	2,400
Zinc	21	14	600	250	5,000

<sup>1)</sup> Samples collected by Geolabs on 4/16/2007 (see Figure 4 for sample location)

#### 3.0 HEALTH AND SAFETY REQUIREMENTS AND RESPONSIBILITIES

This section outlines the minimum requirements of this HSP and the responsibilities of the site health and safety officer (SHSO).

#### 3.1 REGULATORY REQUIREMENTS

Work performed under this contract will comply with U. S. Army Corps of Engineers Safety Manual EM 385-1-1 (2003) and applicable Federal, State of California, and local safety and occupational health laws and regulations. Applicable regulations include, but are not limited to

<sup>2)</sup> Sample No. 1 depth - 2.0 feet bgs; Sample No. 2 depth = 2.5 feet bgs

<sup>3)</sup> Samples analyzed by Curtis and Tompkins, Ltd. (See Appendix B for laboratory report)

ND = Not detected

<sup>\*</sup> for Chromium (VI)

<sup>\*\*</sup> for Chromiium (III)

<sup>\* =</sup> ESLs from Table B, 'ESLs Shallow Soils (≤ 3m bgs) Groundwater IS NOT a Current of Potential Source of Drinking Water' in "'Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater," report prepared by California R

Occupational Safety and Health Administration (OSHA) Standards 29 CFR, Part 1910, specifically Section 120, "Hazardous Waste Site Operations and Emergency Response" and CCR 5192 "Hazwoper" Section 6. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations and referenced documents vary, the most stringent will apply.

#### 2.2 GENERAL REQUIREMENTS

R&M is committed to performing all field activities in a safe and environmentally sound manner. We commit to comply with the guidelines provided in the following documents:

- Engineer Manual (EM) 385-1-1, US Army Corps of Engineers, "Safety and Health Requirements Manual" 3 November 2003
- Code of Federal Regulations (CFR) 29.1910.120
- State OSHA Regulations (CCR 5192 Section 6)

This HSP presents baseline health and safety requirements for establishing and maintaining a safe working environment during the course of the specific work described herein. If the work requirements or site conditions change from those that are presented in this HSP, the Site Health and Safety Officer (SHSO) shall be informed immediately and appropriate changes shall be made to this HSP.

A copy of this HSP shall be kept on site, easily accessible to all site workers and authorized inspectors. Another copy of this HSP shall be placed in the R&M's files for the project.

R&M and all subcontractors' field personnel who are on site during field activities will be required to remain in full compliance with the applicable requirements of this project-specific HSP. It is expected that subcontractors' personnel and other contractors that work directly for the Port will also observe strict compliance with their own corporate health and safety plans. At a minimum, all field personnel working onsite must:

- Have read and understood this HSP.
- Have completed all training requirements specified in the Code of Federal Regulations (CFR) 29 1910.120.

#### 3.3 SITE HEALTH AND SAFETY OFFICER AND HIS RESPONSIBILITIES

Mr. Rafael Carranza will act as the R&M site health and safety officer (SHSO). Mr. Carranza meets the requirements of Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response Standard 29 CFR 1910.120. He has completed 40-hour OSHA Hazardous Material Training.

The following are the health and safety project responsibilities of Mr. Carranza:

- Ensure that all personnel engaged in the removal action are fully qualified with the appropriate training and updates.
- Ensure that all personnel engaging in fieldwork at the site comply fully with this HSP.
- Keep R&M's Project Manager informed on project developments, including: (1) injuries, exposures, or illnesses and (2) proposed changes in work scope and procedures requiring adjustment to the health and safety plan.
- Ensure that resources are available to provide a safe and healthy environment for site workers.
- Conduct daily safety tailgate meetings to ensure that onsite personnel receive proper training and are informed of potential hazards anticipated at the site, precautions to be taken, and procedures to be implemented on the job.
- Assess the potential health and safety hazards at the site and their potential impacts on site personnel.
- Implement appropriate safeguards and procedures.
- Modify this HSP, as necessary.
- Approve changes in safeguards used or operating procedures employed by R&M and subcontractors' personnel working at the site.

The SHSO or his designated person will be present on site during all filed operation.

#### 4.0 POTENTIAL HAZARDS AND CONTROL REQUIREMENTS

Potential chemical, physical, and general safety hazards anticipated during the activities at the site are listed in the Job Hazard Analysis (JHA) presented in Tables 1 and 2. The hazards and the protection measures that will be used to guard against them are discussed in the following sections.

#### 4.1 CHEMICAL HAZARDS AND CONTROLS

Contaminants of concern are listed in Table 1 and 2. Among these are petroleum products, such as gasoline- and diesel-range hydrocarbons, benzene, toluene, ethylbenzene, and xylenes (BTEX); and certain volatile organic compounds, such as acetone and trimethylbenzenes which may be found at low concentrations in the soil and groundwater and metals. Potential physical contact with chemicals of concern that may require implementation of certain site control measures and use of appropriate personal protective equipment (PPE) is possible during field activities including sampling. It is anticipated that the work will generally require Level D PPE. At the 209 Brush Street project site, the minimum requirements for PPE for all field personnel engaged in any type of field activity include the following:

- Hard hat
- Safety glasses
- ♦ Steel toed/steel-shank boots
- ➡ Bright orange or yellow safety vest
- \* Hearing protection

In addition, all personnel will wear disposable gloves when collecting and handling samples. Higher levels of protection, which may include use of chemical-resistance clothing and half-mask respirators, may become necessary, depending on ambient and breathing zone air monitoring data, and additional knowledge of contaminant levels. Personnel will leave the area if serious hazards exceeding the effective limits of protection afforded by Level C PPE are detected by the organic vapor monitor or if personnel show signs or symptoms of exposure.

No eating, smoking, or drinking will be permitted in the work area.

#### 4.2 PHYSICAL HAZARDS AND CONTROLS

Physical hazards associated with field activities planned during this task will be primarily of the following nature:

- The general hazards from being or working in areas where heavy construction equipment are operating.
- Slip, trip, and fall hazards

Heat stress (during hot days)

The SHSO will take special care to emphasize these hazards in daily tailgate meetings, and field personnel will be briefed on any changes in site conditions. While in the field, the work areas shall be maintained in a neat and orderly state to minimize the possibility of slips, trips, and falls. Materials shall not be stored on the ground in areas where there is foot traffic. Tools and materials shall not be left lying haphazardly on the ground.

When working near equipment, field personnel will remain alert of activities around them and keep a safe distance from the equipment. Additionally, they will abide by any specific safety guidelines issued by site supervisor and equipment operator.

#### 5.0 WORK ZONES AND DECONTAMINATION PROCEDURES

A site must be controlled to reduce the possibility of exposure to site contaminants and to limit transport of contaminants away from the site by personnel or equipment.

#### 5.1 CONTROLS

A control system is required to ensure that personnel and equipment working on hazardous waste sites are subjected to appropriate health and safety surveillance and site access control.

The possibility of exposure or translocation of contaminants can be reduced or eliminated in a number of ways, including:

- Setting security or physical barriers at control points to regulate access to and/or exclude unnecessary personnel from the general area. The exclusion area will be cordoned off with caution tape and barricades. Personnel uninvolved with construction activities will remain outside of the cordoned-off area.
- Minimizing the number of personnel and equipment on site consistent with effective operations.
- Establishing work zones within the site.
- Conducting operations in a manner which will reduce the exposure of personnel and equipment.
- Minimizing the airborne dispersion of contaminants (utilizing dust control procedures).
- Implementing appropriate decontamination procedures for both equipment and personnel.

#### 5.2 SITE CONTROL MEASURES

Where a potential for worker exposure to hazardous substances or unsafe conditions exists, the work zone(s) will be established and the flow of personnel and equipment will be controlled. The establishment of the work zone will ensure that personnel are properly protected against hazards present in the work area, work activities and contamination are confined to the appropriate areas, and personnel can be located and evacuated in an emergency.

Prior to the commencement of field activities, work zones will be established by the SHSO as necessary to meet operational and safety objectives. The work zones will be identified with signs indicating that all visitors are required to stop and inform site personnel of their presence on site. Entrance(s) to the work zone will be conspicuously marked with signs as needed stating the following:

CONSTRUCTION AREA
AUTHORIZED PERSONNEL ONLY
NO SMOKING BEYOND THIS POINT
HARD HAT AREA

#### 5.3 PERSONNEL AND EQUIPMENT DECONTAMINATION PROCEDURES

Decontamination is the process of removing (or neutralizing) contaminants from personnel or equipment. When done properly, decontamination procedures protect the worker from contaminants that may have accumulated on PPE, tools, and other equipment. Proper decontamination also prevents transport of potentially harmful materials to unaffected areas. General guidelines on decontamination can be found in the Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (NIOSH et. al., 1985).

The following personnel and equipment decontamination procedures will be followed.

#### 5.3.1 Personnel Decontamination

Decontamination (decon) station will be established in the contamination reduction zone.

Brushes and water will be available in the decontamination zone to dislodge soil and mud from shoes and clothing so that they will not be dragged out to the outside areas. All contaminated or potentially contaminated disposable clothing will be placed into labeled 6-mil plastic bags and

left on site for disposal as IDW. Water, towels, and soap will be available on site. Personnel will shower completely at home at the end of each day.

If necessary, personnel and PPE will be decontaminated with potable water and a mixture of detergent and water. Liquid and solid waste produced during decontamination will be collected, drummed, and disposed of as IDW. When decontamination is required, specific decontamination procedure will be as follows:

- Wash neoprene boots (or disposable booties) with an Alconox<sup>@</sup> solution, and rinse them
  with water. Remove and retain neoprene boots for reuse, if possible. Place disposable
  booties in plastic bags for disposal.
- Wash outer gloves in an Alconox <sup>@</sup> solution and rinse them with water. Remove outer gloves and place them in a plastic bag for disposal.
- Remove the Tyvek body suit, and place it in a plastic bag for disposal.
- Remove the air-purifying respirator (if used) and place the spent filter in a plastic bag for disposal. The filter may be changed daily or at longer intervals, depending on the use and application. Clean and disinfect the respirator with towelettes or a non-phosphate cleaning solution. Place it in a plastic bag for storage.
- Remove inner gloves and place them in a plastic bag for disposal.
- Thoroughly wash hands and face with water and soap.

#### 5.3.2 Equipment Decontamination

Decontamination of all sampling, field monitoring, and other equipment used during site activities will be required. The equipment decontamination procedures will be consistent with guidelines for low-level contamination, which are anticipated for the planned activities. All equipment/tools used will be inspected prior to removal from the site. Dirt or mud adhered to the equipment will be dislodged using a brush or water from a hose. When appropriate, Alconox<sup>®</sup> cleaning solutions and a deionized water rinse will be used to decontaminate equipment. Wastewater from equipment decontamination will be collected in 55-gallon drums or similar suitable containers.

#### 6.0 EMERGENCY PROCEDURES

The following sections describe general injury, specific treatments, emergency phone numbers, hospital route map and directions, and accident reporting procedures.

#### 6.1 GENERAL INJURY

- Step 1: When applicable, use first-aid kit on site
- Step 2: When applicable, use off-site help and/or assistance
- Step 3: Notify the SHSO and R&M Project Manager

#### 6.2 SPECIFIC TREATMENTS

- Eye Exposure: Flush eye with eyewash, call ambulance, if necessary
- Skin Exposure: Wash immediately with soap and water; call ambulance, if necessary
- Fire (localized): Use fire extinguisher and activate alarm system, if necessary
- Fire (uncontrolled): Call Fire Department whenever uncontrolled open flames occur at the site
- Chemical Spill: Call Fire Department and National Response Center for Toxic Chemical and Oil Spills, as apprpriate
- Explosion: Call Fire Department if potential for additional explosions or fire danger exists
- Inhalation: Move affected person(s) to fresh air and cover source of vapors, if appropriate. Call the Fire Department.
- Ingestion: Call ambulance and poison control center.

#### 6.3 EMERGENCY PHONE NUMBERS

- Fire Department (City of Oakland)
  - Emergency: 911
  - Non-Emergency: (510) 238-3856
- Ambulance: 911
- Police Department (City of Oakland)
- ➤ Emergency: 911 (from land line only)
- Emergency, from cellular phone: (510) 777-3211
- Non-Emergency: (510) 777-3333

The following telephone numbers are in addition to 911:

• Hospital (Alta Bates Summit Medical Center)

Emergency Room (510) 869-6600

➤ Information (510) 655-4000

• Regional Poison Control (800) 523-2222

• National Emergency Response Center (800) 424-8802

• California State Office of Emergency Services (800) 852-7550

• U.S. Coast Guard (510) 437-3700

#### 6.4 KEY PROJECT MANAGEMENT PERSONNEL

R&M Project Manager Masood Ghassemi: (510) 553-2146;

cell phone: (510) 364-4429

R&M Site Superintendent: Rafael Carranza (510) 553-2149;

cell phone: (510) 364-4431

R&M Site Health and Safety Officer Rafael Carranza (510) 553-2149;

cell phone: (510) 364-4431

Port's Project Manager John Prall (510) 627-1373

#### 6.5 HOSPITAL ROUTE MAP AND DIRECTIONS

Figure 1 is a map to Alta Bates Summit Medical Center, which is located at 350 Hawthorne Avenue, Oakland, CA 94609. To reach the hospital:

From work site: Start out going northeast on Brush St. toward 3rd St.

Turn right onto 5th St.

Turn left onto Broadway.

Turn left onto 29th St.

Turn right onto Webster St.

#### End at 350 Hawthorne Ave.

The approximate distance from the work site to Alta Bates Medical Center is 2 miles.

#### 6.6 ACCIDENT REPORTING PROCEDURE

All accidents, illnesses, and injuries should be reported immediately to the SHSO. Also, contact the following in the event of an emergency:

Masood Ghassemi, R&M (510) 553-2146; Cell phone: (510) 364-4429

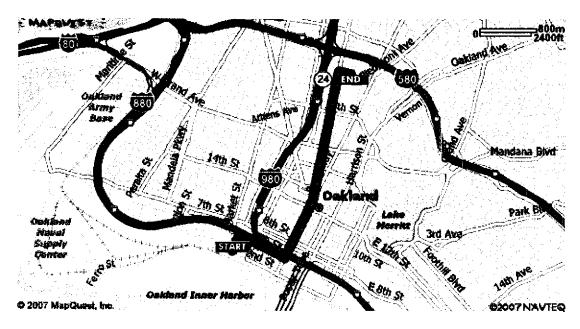
If an exposure or injury occurs, work may be temporary halted until the SHSO, in consultation with the Port's Project Manager, decides it is safe to continue work.

All injuries, accidents, and near misses will be reported to R&M Management within 24 hours of occurrence.

#### 7.0 DOCUMENTATION

The SHSO will record field observations of health and safety procedures by workers conducting the planned activities, including deviations from the recommended health and safety procedures.





Map Source: http://www.yahoo.com

1: Start out going NORTHEAST on BRUSH ST toward 3RD ST. 0.1 miles

2: Turn RIGHT onto 5TH ST. 0.4 miles

3: Turn LEFT onto BROADWAY. 1,4 miles

4: Turn LEFT onto 29TH ST. <0.1 miles

5: Turn RIGHT onto WEBSTER ST. 0.2 miles

6: End at 350 Hawthorne Ave

#### TABLE 1

#### TOXICOLOGICAL PROPERTIES OF REPRESENTATIVE SUSPECT CONTAMINANTS OR CONTAMINAT CATEGORIES

Project Location: 209 Brush Street, Oakland, CA 94607

Contract/Resolution No.5135

Project Title: Documentation and Oversight of Removal Action at 209 Bush Street, Oakland, CA 94607

Activities: Excavation to remove impacted soil, temporary on-site stockpiling of excavated materials, confirmation soil sampling,

backfilling and compaction, removal and offsite disposal of excavated materials (if required), and site restoration

Prime Oversight Contractor: R&M Environmental and Infrastructure Engineering, Inc.

Port's Removal Action Contractor: NRC Environmental Services (Alameda, CA)

Compound/Class	Principal Routes of Entry	Acute Exposure Effects/Symptoms	Chronic Exposure Effects/Symptoms
Petroleum products such as unleaded gasoline, kerosene, naphthalene, xylenes, toluene, ethylbenzene, benzene, methyl tert-butyl ether (MTBE), diesel fuel, petroleum distillates, and motor oil	Inhalation, ingestion, and absorption	Depending on the compound and exposure level, symptoms/effects can include irritation of body tissues (particularly, eye, skin, and respiratory system) and disturbance of the central nervous system	Depending on the compound, concentration, and duration of exposure, symptoms/effects can include the following: blood disorders ranging from anemia to leukemia; redness and irritation of the eyes; blurred vision; irritation, defatting and dermatitis of skin; nasal/respiratory gastrointestinal irritation; nausea, vomiting, and diarrhea if inhaled; and liver, kidney, and cardiac disorder. Some compounds or compound classes are listed carcinogens (e.g., unleaded gasoline) or classified as a suspected human carcinogen (e.g., benzene). Others have been proven to produce cancer and developmental and systemic toxicity in laboratory animals with no significance yet determined in relation to human exposures (e.g., MTBE).
Lead (example of heavy metals)	Inhalation and ingestion	Gastrointestinal distress, kidney failure	Memory and concentration problems, nerve disorders, sleep disturbances, mood changes, muscle or joint pain, high blood pressure, difficulties during pregnancy, and other reproductive problems (in both men and women).

**TABLE 1, Continued** 

#### TOXICOLOGICAL PROPERTIES OF REPRESENTATIVE SUSPECT CONTAMINANTS OR CONTAMINANT CATEGORIES

Compound/Class	Principal Routes of Entry	Acute Exposure Effects/Symptoms	Chronic Exposure Effects/Symptoms
Chromium (example of heavy metals)	Inhalation, ingestion, and absorption	Local irritation and skin lesion (direct contact); pulmonary edema or circulatory or respiratory failure; gastrointestinal symptoms	Pneumoconiosis, liver damage, gastrointestinal ulcers, heart disease
Acetone	Inhalation and ingestion	Effect depends on exposure level; effects at low concentrations include irritation of nose, throat, lungs, and eyes; effects at higher concentrations can include headache, lightheadedness, dizziness, unsteadiness, and confusion, depending on exposure duration	Effects similar to chronic exposure and dependent on exposure and route of entry. Tests in animal has shown skin damage and kidney disease
1,2,4- Trimethylbenzene	Inhalation and absorption	Irritant to skin, the eyes, and respiratory tract. If swallowed, aspiration into the lung may result in chemical pneumonitis; may cause effects on central nervous system.	Chronic bronchitis; defating of skin; possible effect on central nervous system
1,3,5- Trimethylbenzene	Inhalation and absorption	Same as for 1,2,4- Triethylbenzene	Same as for 1,2,4-Triethylbenzene

Trichloroethene (example of chlorinated hydrocarbons))	Inhalation and absorption	Irritation of eyes and skin, vertigo, visual disturbance, fatigue, sleepiness, giddiness or light-headedness, tremors, nausea and vomiting, cardiac arrhythmia	Carcinogen: shown to cause liver and kidney cancer in animals, liver damage, damage to central nervous system, heart failure
Polychlorinated biphenyls (PCBs)	Absorption, ingestion, and inhalation	Chloracne	Liver effect, suspected carcinogen
Dioxins	Absorption, ingestion, and inhalation	Irritation of eyes and skin, throat irritation, vertigo, visual disturbance, fatigue, sleepiness, tremors, nausea and vomiting, cardiac arrhythmia	Liver damage and kidney failure, carcinogen: shown to cause liver, lung and nasal tumors. Flammable when wet

#### TABLE 2 JOB HAZARD ANALYSIS

Project Location: 209 Brush Street, Oakland, CA 94607

Contract/Resolution No.5135

Project Title: Documentation and Oversight of Removal Action at 209 Bush Street,

Oakland, CA 94607

Activities: Excavation to remove impacted soil, temporary on-site stockpiling of excavated materials, confirmation soil sampling, backfilling and compaction, removal and offsite disposal of excavated materials (if required), and site restoration

<u>Prime Oversight Contractor:</u> R&M Environmental and Infrastructure Engineering, Inc. <u>Port's Removal Action Contractor:</u> NRC Environmental Services (Alameda, CA)

Analysis By: Rafael Carranza and Cameron Adams

Reviewed By: Masood Ghassemi, P.E.

Principal Step	Potential Safety/Health Hazards	Recommended Controls
1. General hazards and safety considerations (applied to all steps)	Exposure to site contaminants via absorption; inhalation and ingestion of contaminants through breathing, dermal contact, smoking and eating	Use personal protection equipment (PPE). Prohibit eating, drinking, smoking, or chewing. Wear work gloves. Wash hands after work or when taking breaks away from the work site for refreshment. Monitor the air in the excavation area and at breathing zone to ensure regulatory limits are not exceeded.
	Injuries, mishaps, and trips, slips, and fall hazards when using or carrying tools and equipment to different locations	Use proper body mechanics when lifting or carrying tools. Obey sensible lifting limits (60 lb. maximum per person manual lifting). Use mechanical lifting equipment (hand carts, trucks) to move large, awkward loads. Obtain help when lifting heavy or bulky items. Avoid carrying heavy objects above shoulder level. Keep walkways clear of all obstacles and non-essential items that can pose trip and fall hazards. Use proper/safe tools (e.g., wire dykes instead of razors for cutting wire, tape, rope, etc.). Use appropriate PPEs
	Working with and around heavy equipment	Make sure all equipment is in good working condition and operated by trained personnel and in accordance with the manufacturers' specifications. A competent mechanic will go over equipment to certify that it is in good and safe operating condition prior to being delivered to job site. Operator will inspect equipment before each day's use. Equipment

		must be shut/turned off when not attended or during service. Heavy equipment must be equipped with backup alarm. Always maintain eye and verbal contact with operator before approaching equipment; understand and review hand signals. All equipment should have backup alarms. Use hearing protection when exposed to excessive noise levels (greater than 85 dBA over an 8-hour work period). All heavy equipment operations shall require use of hearing protection.
	Injuries and accidents related to traffic control	Be very careful about traffic entering or leaving the site from Brush Street. Must have personnel with vest and safety flag to direct traffic.
	High/low ambient temperature (heat/cold stress	Monitor for heat/cold stress. Drink fluid to prevent dehydration. Limit work duration and take frequent breaks
2. Subsurface utility location	Trip and fall	Same as for Step 1
iocation	Vehicle and pedestrian traffic	Wear bright orange safety vest; remain cognizant of traffic and cone the area if warranted.
3. Mobilize to and receiving equipment at work site	Tipping or "run away" of heavy equipment when downloading from low- bed trucks	Slowly unfasten the equipment; Have emergency break on or in neutral position. Look for traffic or cone off the area if warranted. Remain alert and maintain visual/verbal contact with operator. Make sure heavy equipment are equipped with backup alarm
	Hazards associated with working with and near heavy equipment	Same as for Step 1 (use of proper PPE, remain aware and maintain eye/visual contact with equipment operator, etc.)
4.Soil Excavation & Stockpiling, Loading and unloading of trucks	Striking underground utilities	Identify all underground utilities around the excavation site before work commences. USA notification required. Cease work immediately if unknown utility markers are uncovered. Hand excavate around live utilities or utilities that remain in place
	Excavation wall collapse	Provide good drainage of area adjacent to excavation and construct diversion ditches or dikes to prevent surface water from entering excavation, if such a possibility exists.

	<del>,                                     </del>	
		Remove groundwater/rainwater from excavation and dispose of it properly. Store excavated material at least 2 feet away from the edge of excavation, prevent excessive loading of the excavation face. If deep excavation become necessary, provide sufficient stairs, ladders, or ramps when workers are to enter an excavation over 4 feet in depth. Place ladders no more than 25 feet apart laterally. Treat excavations over 4 feet deep as confined spaces. Complete and post confined space permit entry permit. Monitor atmosphere for flammable/toxic vapors, and oxygen deficiency. Slope, bench, shore, or sheet excavation over 5 feet deep if worker entry is required. Use a "spotter" during construction activities. Assign a competent person to inspect, determine soil classification, and decide as to the sloping, shoring, or sheeting requirements. A competent person shall perform daily inspections of excavations and at any time when field conditions change if personnel entry is required. Provide at lest two means of exit for personnel working in excavations. Mark, identify, or barricade excavations.
	Inhalation of dust	Dampen soil using high water spray and cover stockpiled soil with plastic sheeting to prevent fugitive dust emissions. Use proper PPE.
		Same as for Steps 1 and 3
	Fire and explosion due to presence of pockets of accumulated flammable gases	Use of LEL meter to check for explosive gases
5. Backfilling and Compaction	Hazards associated with working with and near heavy equipment	Use of proper PPEs (gloves, eye glasses/face shield, etc.)
	Excavation wall collapse	Same as Step 1
	Inhalation of dust	
6. Collecting,	Inhalation, ingestion,	Same as Step 1 plus the following additional

packaging and shipping samples of soil, water, and other excavated materials for analysis

absorption, and injection of contaminants; injuries while cutting tubing or bailer cord; Injuries, mishaps, and trips and fall hazards when moving coolers containing samples; chemical burns from preservatives in sample bottles and when using field test kits.

controls: monitor air in the breathing zones for organic vapors; use shears when cutting tubing or bailer cord (do not use open-blade knives). Train personnel in proper handling of sampling containers and field test kits. Keep MSDS sheets onsite. Keep deionized water on site to flush skin/eyes in the event of contact with chemicals. Clean up any spilled ice or water immediately, keep work space clear and organized, and obtain assistance when moving heavy coolers.

EQUIPMENT TO BE USED: Heavy equipment (backhoe, excavator, loader, hauling trucks, compactor, vacuum trucks);small tools, pumps, drum dolly, gasoline-powered generator, and field vehicles

INSPECTION REQUIREMENTS: Inspecting all heavy equipment to ensure good operating condition prior to admitting them on to the site and on a daily basis.

TRAINING REQUIREMENTS: 40-hour training, health and safety kickoff meeting, daily safety tailgate meeting











ABAG Training Center www.hazmatschool.com

# CERTIFICATE OF COMPLETION

### Masood Ghassemi

has successfully completed the course titled

# **OSHA 8-hr Annual HAZWOPER Refresher**

Satisfies 29 CFR 1910.120(e)(8)

on

February 5, 2007

and has earned

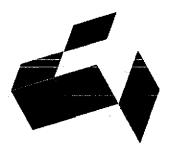
IACET authorized 0.8 CEUs (Continuing Education Units) from the program

Certificate No 54784 (verify at www.hazmatschool.com)

Brian Kirking, Training Director Sharon McCreadie, Training Coordinator www.abag.ca.gov; (510) 464-7964

Paul W. Gantt, REA

Safety Compliance Management, Inc.



# THE INDUSTRIAL SAFETY & HAZMAT TRAINING GROUP

presents

## Cameron Adams

with certification for the successful completion of

# 40 Hour Hazardous Waste Operations

per 29 CFR 1910.120(e) and 8 CCR 5192(e)

attending

February 5-8, 2007

in

Oakland, California

Certificate# 02050807-1

Issued by:

Robert Wasley, Instructor- (408) 242-2418



This is to certify that

## **Michael Lucas**

Has successfully completed 40 Initial Training in Hazardous Waste Operations and Emergency Response In accordance with 29 CFR 1910.120 and CCR 5192

On

Training Includes:

Laws & Regulations, Hazard ID, Physical Properties of HazMats, Emergency Response Reference, HAZCOM, PPE, Respirators, Air Monitoring/Gas Testing, Decontamination, Health and Safety Plans, Blood Bourne Pathogens, Excavation Safety, Confined Space Entry, Incident Investigation, Hazardous Waste Management, Drum and Tank Handling, Heat and Cold Stress.

September 15, 2006

Joe Mooring - CHMM

Regional Health and Safety Manager

Northern California

NRC Environmental Services





This is to certify that

# Michael Markovich

successfully completed the <u>8 Hour Annual Refresher</u> requirements listed under OSHA Regulation 29 CFR 1910.120 and Title 8 GISO 5192 on

Training Includes:

Laws & Regulations, Hazard ID, Physical Properties of HazMats, Emergency Response Reference, HAZCOM, PPE, Respirators, Air Monitoring/Gas Testing, Decontamination, Health and Safety Plans, Blood Bourne Pathogens, Excavation Safety, Confined Space Entry, Incident Investigation, Hazardous Waste Management, Drum and Tank Handling, Heat and Cold Stress.

November 1, 2006

Joe Mooring - CHMM

Regional Health and Safety Officer

Northern California

**NRC Environmental Services** 



Association of Bay Area Governments



ABAG Training Center www.hazmatschool.com

# CERTIFICATE OF COMPLETION

### Rafael Carranza

has successfully completed the course titled

# **OSHA 8-hr Annual HAZWOPER Refresher**

Satisfies 29 CFR 1910.120(e)(8)

on

August 18, 2006

and has eamed

IACET authorized 0.8 CEUs (Continuing Education Units) from the program

Certificate No 51361 (verify at www.hazmatschool.com)

Brian Kirking, Training Director Sharon McCreadie, Training Coordinator www.abag.ca.gov; (510) 464-7964

Paul W. Gantt, REA

Safety Compliance Management, Inc.



## **CERTIFICATE OF COMPLETION**

**8 HOUR REFRESHER** 

**HEALTH & SAFETY TRAINING** 

# Jesus Nuno

has successfully completed the 8-Hour Refresher Health and Safety Training course, satisfying the OSHA Hazardous Waste Operators and Emergency Response Standard [29 CFR 1910.120(e)(8),(q)(8) and 8 CCR 5192 (e)(q)].

Class Date: June 10, 2006 Expiration Date: June 10, 2007

Aimee Wilson, Regional Health & Safety Manager

Amee Wilson

Pier D, Berth D47 \* Long Beach, CA 90802 \* Phone: 562-432-1304

