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3:17 pm, Dec 18, 2007

Alameda County
Environmental Health

December 14, 2007

Mr. Steven Plunkett
Alameda County Environmental Health Services
Hazardous Materials Specialist
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

**Re: Soil and Groundwater Investigation Letter Report
 Fordham Properties, 5515 Doyle Street, Emeryville, California
 Perjury Statement**

Dear Mr. Plunkett:

Regarding the attached report, I make the following statement: I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Very truly yours,

Ronald J. Silberman
President
Fordham Properties, Inc.

Attachment



December 14, 2007

Mr. Steven Plunkett
Alameda County Environmental Health Services
Hazardous Materials Specialist
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

**Re: Soil and Groundwater Investigation Letter Report
 Fordham Properties, 5515 Doyle Street, Emeryville, California**

On behalf of Fordham Properties, ENVIRON International Corporation (ENVIRON) is pleased to present this letter report providing a summary of the soil and groundwater investigation results for the facility located at 5515 Doyle Street in Emeryville, California (the Site). The Site consists of one building and a small rear parking area (Figures 1 and 2). This investigation was conducted in response to a letter to Fordham Properties from the Alameda County Department of Environmental Health (ACDEH) dated January 18, 2007.

The sampling was conducted on November 14, 2007 in accordance with ENVIRON's *Work Plan for Soil and Groundwater Investigation, 5515 Doyle Street, Emeryville, California* dated August 10, 2007 (ENVIRON, 2007), with consideration of the comments contained in the work plan approval letter to Fordham Properties from Mr. Steven Plunkett of Alameda County Environmental Health Services (ACEHS) dated October 4, 2007.

As described in the Work Plan, one 550-gallon underground storage tank (UST) was removed from the rear parking area of the site in August, 1994 (SOMA, 1995). Approximately 90 cubic yards (yd³) were excavated from the UST pit to a depth of 9.5 feet below ground surface (bgs) in April, 1995. Confirmation soil samples were collected from the excavation sidewalls and bottom following the 1995 soil removal activities. Elevated levels of Total Petroleum Hydrocarbons (TPH) as gasoline (TPHg) and diesel (TPHd), as well as benzene, toluene, ethylbenzene, and xylenes (BTEX) compounds were detected in soil samples collected from the south excavation sidewall and bottom of the pit (Table 1). Groundwater was not encountered during the removal of the UST or during the April 1995 soil removal activities, but was present during the current investigation at a depth of approximately 10-12 feet bgs.

Based on the confirmation soil sample results, the ACDEH requested a groundwater grab sample be collected from the down gradient direction of the former UST location to assess the possible presence of petroleum hydrocarbons in groundwater. A work plan for a limited groundwater investigation was submitted to ACDEH, dated January 27, 1998 (SOMA, 1998); however, a groundwater investigation report was never submitted.

Soil Samples

Soil borings were advanced using a Geoprobe 6620 DT limited access drill rig, operated by RSI Drilling. Soil samples were collected from Geoprobe borings SGW-1 through SGW-6 on November 14, 2007. Soil sampling locations are shown on Figure 2. Boring SGW-1 was located to the northeast (upgradient) of the former UST pit, in order to assess upgradient soil and groundwater conditions. Boring SGW-2 was located at the approximate center of the former UST pit. Borings SGW-3, SGW-4, SGW-5, and SGW-6 were located to the southeast, southwest, east, and west of the former UST pit, respectively, in order to delineate any impacts to soil and groundwater from the former UST and associated piping (Figure 2). Soil samples were collected at various depths in the borings, including samples from the capillary fringe and at the total depth of all borings, and at other depths as shown on Table 2. Soil sample intervals were cut from the Geoprobe butyrate liners, capped with Teflon tape and plastic end caps, and sealed with silicone tape. Samples were placed in individual zip-lock bags and stored in a cooler with ice packs prior to transport to the laboratory.

The sampling program included collection of several quality assurance/quality control (QA/QC) samples. Duplicate soil samples were collected at a frequency of 1 per 10 samples to check for bias introduced during laboratory analyses. Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on soil samples at a frequency of 1 per 20 samples to check for bias introduced by matrix interference. An equipment blank sample was collected by pouring deionized water through the drilling shoe into sample containers to check for bias introduced by field decontamination procedures. Soil samples were accompanied to the laboratory by a trip blank sample to check for sample contamination by volatile constituents during storage and transport. Soil samples and QA/QC samples were analyzed for TPHd and TPHg by EPA Method 8015C, and for methyl tert-butyl ether (MTBE), benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method 8021B.

Soil analytical results are presented in Table 2. Soil sample results were compared to U.S. Environmental Protection Agency (USEPA) Preliminary Remediation Goals (PRGs) for residential and industrial soil and to the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for shallow soils (≤ 3 meters) in non-drinking water resource areas for residential and commercial/industrial land use scenarios. Key findings are presented in the following section.

One-Time Groundwater Samples

One-time groundwater grab samples were collected from Geoprobe borings SGW-1 through SGW-6. The groundwater sample locations are shown on Figure 2. Groundwater samples were collected using temporary PVC well casings with 0.010-inch screen intervals from 10 to 20 feet bgs in all borings, with the exception of SGW-5, which was screened from 14 to 24 feet bgs. Following boring advancement, temporary well casings were inserted and groundwater was allowed to fill the boring. Groundwater grab samples were collected using dedicated disposable ¼-inch diameter polyethylene tubing and a peristaltic pump. Samples were placed in individual zip-lock bags and stored in a cooler with ice packs prior to transport to the laboratory.

QA/QC sampling was also performed for groundwater samples. A duplicate groundwater sample was collected, and an MS/MSD analysis was performed on one of the groundwater samples. No equipment blank was collected because dedicated disposable sampling equipment was used. Groundwater samples were accompanied to the laboratory by a trip blank to check for sample contamination by volatile constituents during storage and transport. Groundwater samples and QA/QC samples were analyzed for TPHd and TPHg by EPA Method 8015C, and for methyl tert-butyl ether (MTBE), benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method 8021B.

Groundwater analytical results are presented in Table 3. To assess impact on groundwater quality, the groundwater sample results have been compared to California and USEPA Maximum Contaminant Levels (MCLs) for drinking water, and to the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for evaluation of groundwater quality in potential drinking water and non-potential drinking water scenarios. Key findings are presented in the following section.

Summary of Key Findings

The soil and groundwater investigation results have been evaluated and compared with results of previous soil and groundwater sampling conducted by SOMA in 1995 and with the various regulatory screening criteria. Previous soil sampling results are shown in Table 1, and soil and groundwater sampling results from the current investigation are shown in Tables 2 and 3, respectively.

- In soil, TPHg and TPHd were detected at concentrations exceeding residential and commercial/industrial ESLs in four of the six borings at depths of 9 to 10 feet bgs. TPHg was detected at concentrations ranging from 4.3 milligrams per kilogram (mg/kg) at SGW-2 (11.5 feet bgs) to 1,300 mg/kg at SGW-4 and SGW-6 (9 and 10 feet bgs, respectively). TPHd was detected at concentrations ranging from 2.8 mg/kg at SGW-2 (11.5 feet bgs) to 320 mg/kg at SGW-4 (9 feet bgs). The greatest concentrations of TPHg and TPHd were detected in soil borings SGW-4 and SGW-6, located to the west (downgradient) of the former UST pit. Ethylbenzene, toluene, and xylenes were detected at concentrations that did not exceed residential or commercial/industrial ESLs. MTBE and benzene were not detected in any of the soil samples. None of the constituents analyzed were detected in samples from the upgradient soil boring SGW-1.
- In groundwater, none of the constituents were detected at concentrations exceeding non-potential drinking water ESLs. TPHg and TPHd were detected in five of the six groundwater samples. TPHg was detected at concentrations ranging from 180 micrograms per liter ($\mu\text{g/L}$) in SGW-3 to 830 $\mu\text{g/L}$ in SGW-4. TPHd was detected at concentrations ranging from 94 $\mu\text{g/L}$ in SGW-2 to 730 $\mu\text{g/L}$ in SGW-4. The greatest concentrations of TPH were detected in SGW-4, downgradient of the former UST pit. Benzene was detected at concentrations that exceeded the California MCL in two of the six groundwater samples SGW-4 and SGW-6, located downgradient of the former UST

pit. Benzene was detected at concentrations ranging from 0.86 µg/L at SGW-3 to 24 µg/L at SGW-4. Ethylbenzene, toluene, and xylenes were detected in four of the six groundwater sample locations at concentrations that did not exceed California MCLs. MTBE was not detected in any of the groundwater samples. None of the constituents analyzed were detected in the upgradient groundwater sample collected from SGW-1.

- A comparison of current soil analytical results with historical soil analytical results from confirmation samples collected following soil excavation activities in 1995 (Table 1) indicate that maximum concentrations of TPHg, TPHd, and BTEX in soil have decreased with time indicating natural attenuation may be occurring.

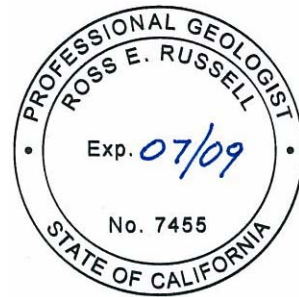
Recommendations

Based on the analytical results, impacts to soil at the site by TPHg and TPHd exceed residential and commercial/industrial ESLs, but have been significantly reduced since 1995 by continuing natural attenuation processes. Impacts to groundwater at the site are below groundwater ESLs for areas that are not currently or potentially used as drinking water resources. Although the concentration of benzene in downgradient groundwater samples exceeds California MCLs for drinking water, the lack of benzene detections in soil suggests that soil impacts may not represent a potential source of the benzene impacts to groundwater. Additional downgradient groundwater sampling may be warranted if the area is considered to be a potential future drinking water resource.

Please contact Mr. Ross Russell at 510-420-2520 should you have any questions.

<u>Signature on file</u>	December 14, 2007
Norman T. Ozaki, Ph.D., Principal	Date

<u>Signature on file</u>	December 14, 2007
Ross E. Russell, P.G., Senior Associate	Date



cc: Mr. Ron Silberman, Fordham Properties

Attachments

- A. Tables
- B. Figures
- C. Laboratory Analytical Report

References:

1. SOMA, 1995. Soil Remediation Activities: Fordham Property, 5515 Doyle Street, Emeryville, California. Prepared for Mr. Ronald Silberman, Fordham Properties.
2. SOMA, 1998. Work Plan for Limited Groundwater Investigation, 5515 Doyle Street Property, Emeryville, California. Prepared for Mr. Ronald Silberman, Fordham Properties.
3. ENVIRON, 2007. Work Plan for Soil and Groundwater Investigation, 5515 Doyle Street, Emeryville, California. Prepared for Mr. Ronald Silberman, Fordham Properties.

ATTACHMENT A
TABLES

TABLE 1. HISTORICAL SOIL DATA
5515 Doyle Street, Emeryville, California

Sample ID	Sample Date	Location	Depth (ft)	TPHg mg/kg	TPHd mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes mg/kg	Lead mg/kg
UST Removal										
Bottom	8/94	UST Bottom	--	4,200	NA	0.22	87	90	540	NA
Excavation Confirmation Samples (S-1 to S-5)										
S-1	04/03/95	North	9	ND<0.2	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	5
S-2	04/03/95	East	9	4.9	10	ND<0.005	ND<0.005	0.071	0.016	6
S-3	04/03/95	South	9	370	260	0.29	ND<0.005	0.35	0.64	7
S-4	04/03/95	West	9	ND<0.2	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	4
S-5	04/03/95	Bottom	9.5	5,200	580	24	180	120	590	11

Notes:

ID = Identification

mg/kg = milligrams per kilogram

NA = Not analyzed

ND<xx = Not detected at listed reporting limit

-- = Not available

TPHg = Total petroleum hydrocarbons as gasoline (C6-C12)

TPHd = Total petroleum hydrocarbons as diesel (C10-C23)

UST = Underground storage tank

TABLE 2. SUMMARY OF ONE-TIME SOIL SAMPLING RESULTS
5515 Doyle Street, Emeryville, California

Compounds	EQL (mg/kg)	SCREENING CRITERIA				SG1-10/ SG7-10 (dup)	SG1-19.5	SG2-11.5	SG2-19.5	SG3-9	SG3-12	SG3-19.5	SG4-9	SG4-12.5/ SG8-12.5 (dup)	SG4-19.5	SG5-3	SG5-6	SG5-9	SG5-11.5	SG5-23.5	SG6-10	SG6-19.5
		USEPA Residential PRGs	USEPA Industrial PRGs	ESL (1) Residential	ESL (2) Commercial/ Industrial	(10-10.5 ft)	(19.5-20 ft)	(11.5-12 ft)	(19.5-20 ft)	(9-9.5 ft)	(12-12.5 ft)	(19.5-20 ft)	(9-9.5 ft)	(12.5-13 ft)	(19.5-20 ft)	(3-3.5 ft)	(6-6.5 ft)	(9-9.5 ft)	(11.5-12 ft)	(23.5-24 ft)	(10-10.5 ft)	(19.5-20 ft)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Methyl-tert-Butyl Ether (MTBE)	0.05	32	70	8.4	8.4	ND/ND	ND	ND	ND	ND<1.7	ND<0.10	ND	ND<10	ND/ND	ND	ND	ND	ND<2.5	ND	ND	ND<10	ND
Benzene	0.005	0.64	1.4	0.12	0.26	ND/ND	ND	ND	ND	ND<0.17	ND<0.010	ND	ND<1.0	ND/ND	ND	ND	ND	ND<0.25	ND	ND	ND<1.0	ND
Ethylbenzene	0.005	400	400	33	33	ND/ND	ND	0.0075	ND	ND<0.17	ND<0.010	ND	14	ND/ND	ND	ND	ND	2.9	ND	ND	ND<1.0	ND
Toluene	0.005	520	520	29	29	ND/ND	ND	ND	ND	ND<0.17	ND<0.010	ND	ND<1.0	ND/ND	ND	ND	ND	0.41	ND	ND	1.1	ND
Xylenes (total)	0.005	270	420	31	100	ND/ND	ND	0.024	ND	0.68	ND<0.010	ND	9.2	ND/ND	ND	ND	ND	0.64	ND	ND	1.5	ND
TPH-gasoline (C6-C12)	1.0	--	--	100	450	ND/ND	ND	4.3	ND	440	15	ND	1,300	ND/ND	ND	ND	ND	370	ND	ND	1,300	ND
TPH-diesel (C10-C23)	1.0	--	--	100	150	ND/ND	ND	2.8	ND	110	29	ND	320	ND/ND	ND	ND	ND	190	ND	ND	180	ND

Notes:

PRGs = Preliminary Remediation Goals (PRGs), Direct Contact Exposure Pathways, Residential and Industrial Soil (Source: United States Environmental Protection Agency (USEPA), Region 9 Preliminary Remediation Goals (PRGs), San Francisco, California, October 2004).

dup = quality assurance/quality control duplicate sample

EQL = Laboratory Estimated Quantitation Limit

ESL = Environmental Screening Levels (Source: *Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater*, Volume 1: Summary Tier 1 Lookup Tables,

California Regional Water Quality Control Board, Interim Final - November 2007, Environmental Screening Levels (ESLs). (1) Table B-1: Shallow Soil Screening Levels (≤ 3 m bgs), Groundwater is not a Current

or Potential Source of Drinking Water, Residential Land Use scenario. (2) Table B-2: Shallow Soil Screening Levels (≤ 3 m bgs), Groundwater is not a Current or Potential Source of Drinking Water, Commercial/Industrial Land Use Scenario.

ft = feet

mg/kg = milligrams per kilogram

TPH = Total Petroleum Hydrocarbons

USEPA = United States Environmental Protection Agency

ND<xx = Not detected at listed reporting limit

-- = Not Available.

Results above residential ESLs for shallow soil in non-drinking water source areas are shown in bold.

**TABLE 3. SUMMARY OF ONE-TIME GROUNDWATER SAMPLING RESULTS
5515 Doyle Street, Emeryville, California**

Compounds	EQL (µg/l)	SCREENING CRITERIA				SGW-1/SGW-7 (dup)	SGW-2	SGW-3	SGW-4	SGW-5	SGW-6
		CA MCL µg/l	USEPA MCL µg/l	ESL(1) µg/l	ESL(2) µg/l	(10-20 ft)	(10-20 ft)	(10-20 ft)	(10-20 ft)	(14-24 ft)	(10-20 ft)
Methyl-tert-Butyl Ether (MTBE)	5.0	13	5	5	1,800	11/14/07	11/14/07	11/14/07	11/14/07	11/14/07	11/14/07
Benzene	0.5	1.0	5.0	1	540	ND/ND	ND	ND<25	ND	ND	ND
Ethylbenzene	0.5	300	700	30	300	ND/ND	ND	0.86	24	0.97	2.0
Toluene	0.5	150	1,000	40	400	ND/ND	12	ND<0.5	48	21	12
Xylenes (total)	0.5	1,750	10,000	20	5,300	ND/ND	0.75	ND<0.5	1.3	1.3	0.69
TPH-gasoline (C6-C12)	50	--	--	100	5,000	ND/ND	20	ND<0.5	14	2.4	14
TPH-diesel (C10-C23)	50	--	--	100	2,500	ND/ND	280	180	830	390	240
pH (pH units)		6-8	--	--	--	ND/ND	94	180	730	260	130
						7.21	7.19	7.10	7.33	7.19	7.29

Notes:

CA MCL = California Maximum Contaminant Level for drinking water

Dup = Quality assurance / quality control duplicate sample

ESL = Environmental Screening Level

[Source: Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Lookup Tables

California Regional Water Quality Control Board, San Francisco Bay Region, Interim Final - November 2007.

ESL (1) = Groundwater IS a current or potential drinking water resource (Table F-1a)

ESL (2) = Groundwater IS NOT a current or potential drinking water resource (Table F-1b)

EQL = Laboratory Estimated Quantitation Limit

TPH = Total Petroleum Hydrocarbons

µg/l = micrograms per liter

USEPA MCL = United States Environmental Protection Agency Maximum Contaminant Level for drinking water

-- = Not available

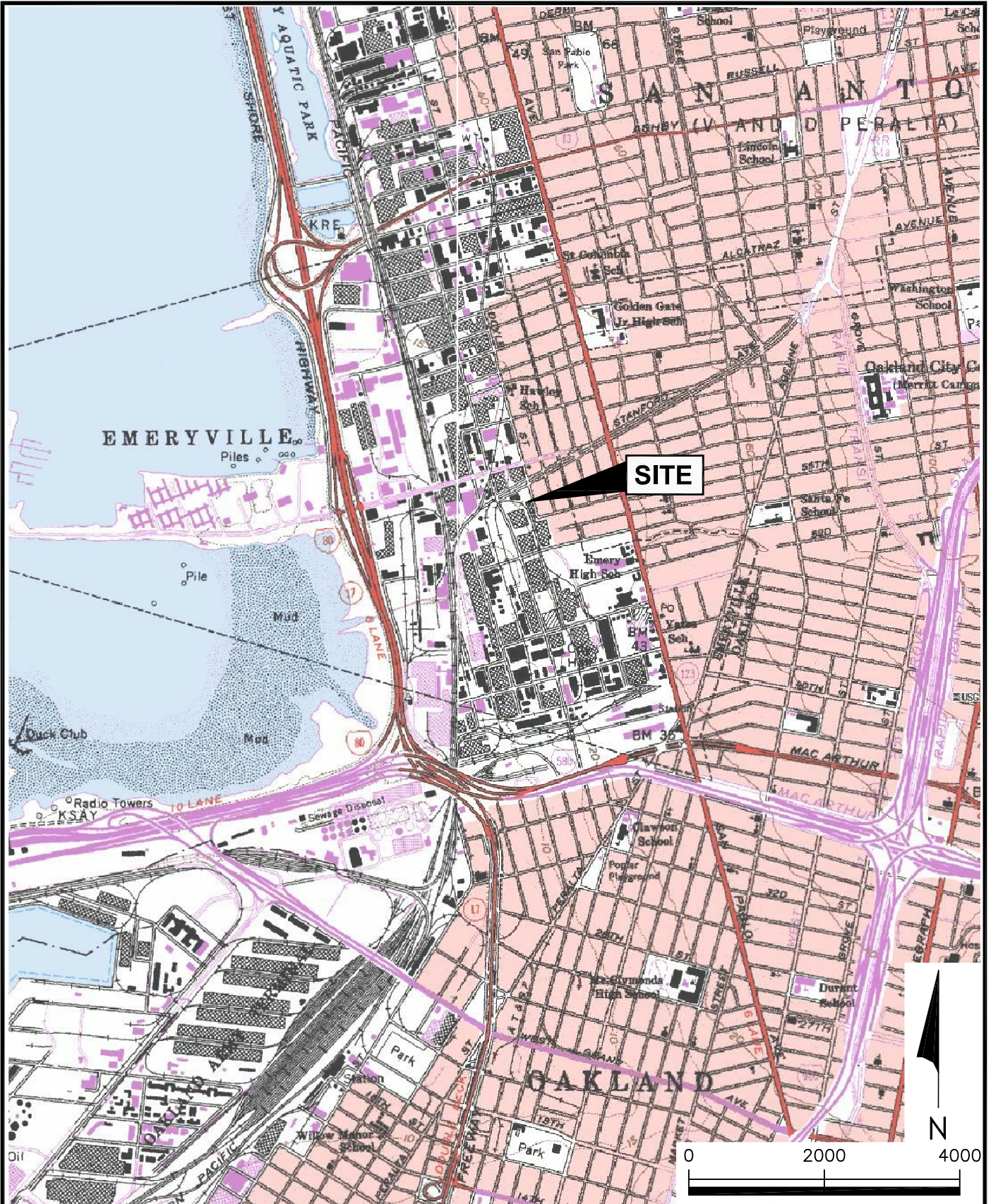
ND<xx = Not detected at listed reporting limit

(10-20 ft) = depth of screened interval of temporary PVC well casings used for groundwater grab sampling. Screen widths are 0.01 inches.

pH measurements collected as field parameters


Results above California MCLs (non-drinking water resource ESLs when MCLs not available) are shown in bold.

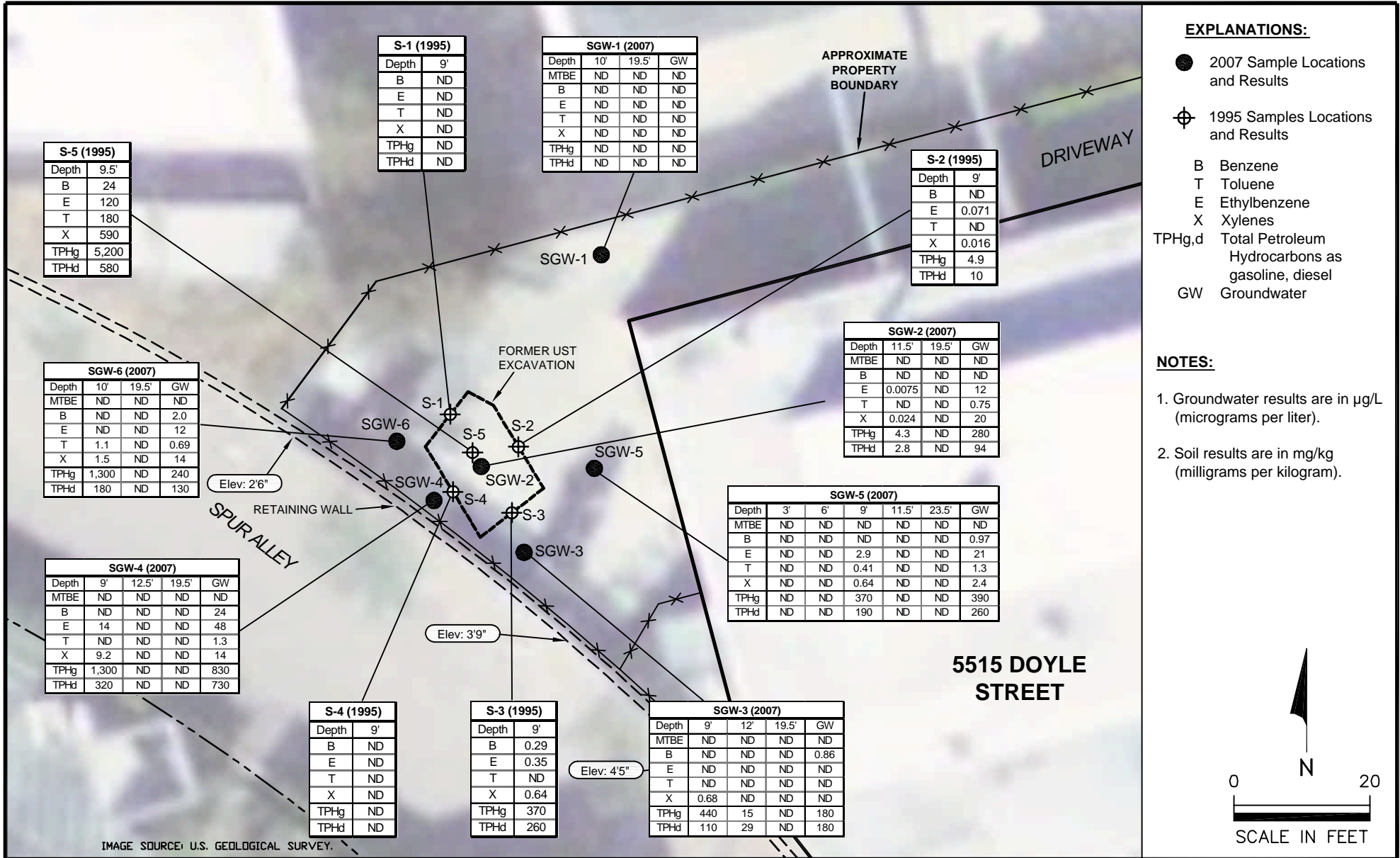
ATTACHMENT B
FIGURES



SOURCE: USGS Map 7.5 Min Series (Topographic) OAKLAND WEST QUAD, California, Terraserver.

0318392A-VCMAP.DWG

	<p>Site Location 5515 Doyle Street Emeryville, California</p>	<p>Figure 1</p>		
<p>Drafter: RS</p>	<p>Date: 12/12/07</p>	<p>Contract Number: 03-18392A</p>	<p>Approved:</p>	<p>Revised:</p>



Soil and Groundwater Sample Locations and Results
 5515 Doyle Street
 Emeryville, California

Figure

2

Drafter: RS

Date: 12/12/07

Contract Number: 03-18392A

Approved:

Revised:

ATTACHMENT C
LABORATORY ANALYTICAL REPORT



McC Campbell Analytical, Inc.

"When Quality Counts"

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

Environ 6001 Shellmound Street, Ste. 700 Emeryville, CA 94608	Client Project ID: #03-18392A; 5515 Doyle Street Soil & Groundwater I	Date Sampled: 11/14/07
		Date Received: 11/15/07
	Client Contact: Ross Russell	Date Reported: 11/21/07
	Client P.O.:	Date Completed: 11/21/07

WorkOrder: 0711401

November 21, 2007

Dear Ross:

Enclosed are:

- 1). the results of **29** analyzed samples from your **#03-18392A; 5515 Doyle Street Soil & Groundwater I project,**
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

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

If you have any questions please contact me. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

6001 Shellmound Street, Suite 700
 Emeryville, California 94608
 (510) 655-7400
 (510) 655-9517 (fax)

0711401
CHAIN-of-CUSTODY

00885

PAGE 1 of 3

PROJECT NAME / FACILITY ID: 5515 Doyle Street Soil + Groundwater Investigation FIELD PERSON: Dan Clark

PROJECT NUMBER: D3-18392A DATE: 11/14/07 PROJECT MANAGER: Ross Russell

PROJECT LOCATION: 5515 Doyle St. Emeryville, CA 94608 LABORATORY: McCampbell Analytical, Inc.

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #: T0600101903 WO#: _____

SAMPLER: <u>Dan Clark</u>	YEAR		SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH	MATRIX (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED			COMMENTS
	2007									TPH-G (8015C)	BTEX/MTBE (8021B)	TPH-D (8015C)	
SIGNATURE: <u>D. Clark</u>													
SAMPLE I.D. NUMBER	YEAR	DATE	TIME	DEPTH	MATRIX	CONTAINERS	FILTERED	PRESERVATION	TPH-G	BTEX/MTBE	TPH-D		
SG-1-10		11/14	0840	10-10.5	S	1	N/A	None	X	X	X		
SG-7-10			0845	10-10.5									
SG-1-19.5			0920	19.5-20									Extra volume collected. RWV MS/MSD on this sample.
SG-6-10			0955	10-10.5									
SG-6-19.5			1040	19.5-20									
SG-5-3			1055	3-3.5									
SG-5-6			1100	6-6.5									
SG-5-9			1130	9-9.5									
SG-5-11.5			1135	11.5-12									
SG-5-23.5			1205	23.5-24									
TOTAL									10	10	10		

RELINQUISHED BY: <u>D. Clark</u>	TIME/DATE: <u>12:45 / 11/15/07</u>	RECEIVED BY: <u>[Signature]</u>	TIME/DATE: <u>11/15/07 12:45</u>	TURNAROUND TIME (CIRCLE ONE)	SAMEDAY	72 HOURS
RELINQUISHED BY: <u>[Signature]</u>	TIME/DATE: <u>2:20 / 11/15</u>	RECEIVED BY: <u>[Signature]</u>	TIME/DATE: <u>2:20 / 11/15</u>	24 HOURS	48 HOURS	<input checked="" type="radio"/> 5 DAYS
RELINQUISHED BY: _____	TIME/DATE: _____	RECEIVED BY: _____	TIME/DATE: _____	SAMPLE INTEGRITY	IF SEALED, SEAL INTACT	
				INTACT: Y N Temp _____	INTACT: _____	

HNO3: S = H2SO4; U = UNKNOWN; N = NONE; O = OTHER

ENVIRON

6001 Shellmound Street, Suite 700
Emeryville, California 94608
(510) 655-7400
(510) 655-9517 (fax)

CHAIN-of-CUSTODY

00884

PAGE 2 of 3

PROJECT NAME / FACILITY ID: 5515 Doyle St. Soil + Groundwater Investigation FIELD PERSON: Dan Clark
 PROJECT NUMBER: 03-18392A DATE: 11/14/07 PROJECT MANAGER: Ross Russell
 PROJECT LOCATION: 5515 Doyle St, Emeryville CA 94608 LABORATORY: McCampbell Analytical Inc.
 IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #: T0600101903 WO#: _____

SAMPLER: <u>Dan Clark</u>	YEAR		SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH	MATRIX (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED			COMMENTS
	2007									TPH-G (8015C)	BTEX/MTBE (8021B)	TPH-D (8015C)	
SIGNATURE: <u>D. Clark</u>													
SAMPLE I.D. NUMBER													
SG-3-9			11/14	1235	9-9.5	S	1	N/A	None	X	X	X	
SG-3-12				1246	12-12.5								
SG-3-19.5				1300	19.5-20								
SG-4-9				1330	9-9.5								
SG-4-12.5				1340	12.5-13								
SG-8-12.5				1345	12.5-13								
SG-4-19.5				1400	19.5-20								
SG-2-11.5				1415	11.5-12								
SG-2-19.5				1430	19.5-20								
✓ TRIP BLANK-S				N/A	N/A	W		U	HCl	X	X		
TOTAL				X	X	X				10	10	9	

ICE/° S
 GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB
 PRESERVED IN LAB
 PRESERVATION: VOAS O&G METALS OTHER

RELINQUISHED BY: <u>D. Clark</u> TIME/DATE: <u>1245 11/15/07</u>	RECEIVED BY: <u>[Signature]</u> TIME/DATE: <u>11/15/07 1245</u>	TURNAROUND TIME (CIRCLE ONE) 72 HOURS <u>5 DAYS</u> 24 HOURS 48 HOURS NORMAL
RELINQUISHED BY: <u>[Signature]</u> TIME/DATE: <u>1220 11/15</u>	RECEIVED BY: <u>[Signature]</u> TIME/DATE: <u>2:20 11/15</u>	
RELINQUISHED BY: _____ TIME/DATE: _____	RECEIVED BY: _____ TIME/DATE: _____	SAMPLE INTEGRITY INTACT: Y N Temp _____
		IF SEALED, SEAL INTEGRITY INTACT: Y N

H = HCL; N = HNO3; S = H2SO4; U = UNKNOWN; NO = NONE; O = OTHER

ENVIRON

6001 Shellmound Street, Suite 700
Emeryville, California 94608
(510) 655-7400
(510) 655-9517 (fax)

CHAIN-of-CUSTODY

00880

PAGE 3 of 3

PROJECT NAME / FACILITY ID: 5515 Doyle St. Soil + Groundwater Investigation FIELD PERSON: Dan Clark

PROJECT NUMBER: 03-18392A DATE: 11/14/07 PROJECT MANAGER: Ross Russell

PROJECT LOCATION: 5515 Doyle St. Emeryville, CA 94608 LABORATORY: McCampbell Analytical, Inc.

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #: T0600101903 WO#: _____

SAMPLER: <u>Dan Clark</u>	YEAR	SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH	MATRIX (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED			COMMENTS
	2007								TPH-G (8015C)	BTEX/MTBE (8021B)	TPH-D (8015C)	
SIGNATURE: <u>D. Clark</u>												
SAMPLE I.D. NUMBER												
X5 SGW-1		11/14	1410	N/A	W	4	U	HCl in VOAs	X	X	X	
X5 SGW-7			1440			4						
X2 SGW-5			1420			10						Extra volume collected. RUN MS/MSD on this sample.
X2 SGW-3			1520			5						
X SGW-2			1530			5						
X SGW-6			1545			4						
X2 SGW-4			1620			4						
✓ EB-1			1615			4						
✓ TRIP BLANK-W			N/A			1		HCl				
TOTAL									9	9	8	

RELINQUISHED BY: <u>D. Clark</u>	TIME/DATE: <u>12:45 11/15/07</u>	RECEIVED BY: <u>[Signature]</u>	TIME/DATE: <u>12:45 11/15/07</u>	TURNAROUND TIME (CIRCLE ONE)	SAMEDAY	72 HOURS
RELINQUISHED BY: <u>[Signature]</u>	TIME/DATE: <u>2:20 11/15</u>	RECEIVED BY: <u>[Signature]</u>	TIME/DATE: <u>2:20 11/15</u>		24 HOURS	<u>5 DAYS</u>
RELINQUISHED BY: _____	TIME/DATE: _____	RECEIVED BY: _____	TIME/DATE: _____	SAMPLE INTEGRITY	IF SEALED, SEAL INTEGRITY	
				INTACT: Y N Temp _____	INTACT: Y N	

H = HCL; N = HNO3; S = H2SO4; U = UNKNOWN; NO = NONE; O = OTHER

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0711401

ClientID: ENVE

EDF Excel Fax Email HardCopy ThirdParty

Report to:	Bill to:	Requested TAT: 5 days
Ross Russell	Glenn Chickering	
Environ	Environ	
6001 Shellmound Street, Ste. 700	6001 Shellmound Street, Ste. 700	<i>Date Received: 11/15/2007</i>
Emeryville, CA 94608	Emeryville, CA 94608	<i>Date Printed: 11/21/2007</i>
Email: russell@environcorp.com	gchickering@environcorp.com	
TEL: (510) 420-2520 FAX: (510) 655-9517		
ProjectNo: #03-18392A; 5515 Doyle Street Soil & PO:		

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0711401-001	SG1-10	Soil	11/14/07 8:40:00	<input type="checkbox"/>	A					A						
0711401-002	SG7-10	Soil	11/14/07 8:45:00	<input type="checkbox"/>	A					A						
0711401-003	SG1-19.5	Soil	11/14/07 9:20:00	<input type="checkbox"/>	A		A	A	A							
0711401-004	SG6-10	Soil	11/14/07 9:55:00	<input type="checkbox"/>	A				A							
0711401-005	SG6-19.5	Soil	11/14/07 10:40:00	<input type="checkbox"/>	A				A							
0711401-006	SG5-3	Soil	11/14/07 10:55:00	<input type="checkbox"/>	A				A							
0711401-007	SG5-6	Soil	11/14/07 11:00:00	<input type="checkbox"/>	A				A							
0711401-008	SG5-9	Soil	11/14/07 11:30:00	<input type="checkbox"/>	A				A							
0711401-009	SG5-11.5	Soil	11/14/07 11:35:00	<input type="checkbox"/>	A				A							
0711401-010	SG5-23.5	Soil	11/14/07 12:05:00	<input type="checkbox"/>	A				A							
0711401-011	SG3-9	Soil	11/14/07 12:35:00	<input type="checkbox"/>	A				A							
0711401-012	SG3-12	Soil	11/14/07 12:46:00	<input type="checkbox"/>	A				A							
0711401-013	SG3-19.5	Soil	11/14/07 1:00:00	<input type="checkbox"/>	A				A							
0711401-014	SG4-9	Soil	11/14/07 1:30:00	<input type="checkbox"/>	A				A							
0711401-015	SG4-12.5	Soil	11/14/07 1:40:00	<input type="checkbox"/>	A				A							

Test Legend:

1	G-MBTEX_S	2	G-MBTEX_W	3	PREFD REPORT	4	PRQCDIESEL	5	PRQCGMBTEX
6	TPH(D)_S	7	TPH(D)_W	8		9		10	
11		12							

Prepared by: Elisa Venegas

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.



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Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0711401

ClientID: ENVE

EDF Excel Fax Email HardCopy ThirdParty

Report to:	Bill to:	Requested TAT: 5 days
Ross Russell	Glenn Chickering	
Environ	Environ	
6001 Shellmound Street, Ste. 700	6001 Shellmound Street, Ste. 700	<i>Date Received: 11/15/2007</i>
Emeryville, CA 94608	Emeryville, CA 94608	<i>Date Printed: 11/21/2007</i>
Email: russell@environcorp.com	gchickering@environcorp.com	
TEL: (510) 420-2520 FAX: (510) 655-9517		
ProjectNo: #03-18392A; 5515 Doyle Street Soil & PO:		

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0711401-016	SG8-12.5	Soil	11/14/07 1:45:00	<input type="checkbox"/>	A					A						
0711401-017	SG4-19.5	Soil	11/14/07 2:00:00	<input type="checkbox"/>	A					A						
0711401-018	SG2-11.5	Soil	11/14/07 2:15:00	<input type="checkbox"/>	A					A						
0711401-019	SG2-19.5	Soil	11/14/07 2:30:00	<input type="checkbox"/>	A					A						
0711401-020	TRIP BLANK-S	Water	11/14/07	<input type="checkbox"/>		A										
0711401-021	SGW-1	Water	11/14/07 2:10:00	<input type="checkbox"/>		A					B					
0711401-022	SGW-7	Water	11/14/07 2:40:00	<input type="checkbox"/>		A					B					
0711401-023	SGW-5	Water	11/14/07 2:20:00	<input type="checkbox"/>		A	B	A			B					
0711401-024	SGW-3	Water	11/14/07 3:20:00	<input type="checkbox"/>		A					B					
0711401-025	SGW-2	Water	11/14/07 3:30:00	<input type="checkbox"/>		A	B				B					
0711401-026	SGW-6	Water	11/14/07 3:45:00	<input type="checkbox"/>		A					B					
0711401-027	SGW-4	Water	11/14/07 4:20:00	<input type="checkbox"/>		A					B					
0711401-028	EB-1	Water	11/14/07 4:15:00	<input type="checkbox"/>		A					B					
0711401-029	TRIP BLANK-W	Water	11/14/07	<input type="checkbox"/>		A										

Test Legend:

1	G-MBTEX_S	2	G-MBTEX_W	3	PREFD REPORT	4	PRQCDIESEL	5	PRQCGMBTEX
6	TPH(D)_S	7	TPH(D)_W	8		9		10	
11		12							

Prepared by: Elisa Venegas

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Environ** Date and Time Received: **11/15/2007 3:33:54 PM**
Project Name: **#03-18392A; 5515 Doyle Street Soil & Groundwater** Checklist completed and reviewed by: **Elisa Venegas**
WorkOrder N°: **0711401** Matrix Soil/Water Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present? Yes No
Chain of custody signed when relinquished and received? Yes No
Chain of custody agrees with sample labels? Yes No
Sample IDs noted by Client on COC? Yes No
Date and Time of collection noted by Client on COC? Yes No
Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
Shipping container/cooler in good condition? Yes No
Samples in proper containers/bottles? Yes No
Sample containers intact? Yes No
Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
Container/Temp Blank temperature Cooler Temp: 5°C NA
Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
Sample labels checked for correct preservation? Yes No
TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA

Client contacted: Date contacted: Contacted by:

Comments:



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"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
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Telephone: 877-252-9262 Fax: 925-252-9269

Environ 6001 Shellmound Street, Ste. 700 Emeryville, CA 94608	Client Project ID: #03-18392A; 5515 Doyle Street Soil & Groundwater I	Date Sampled: 11/14/07
	Client Contact: Ross Russell	Date Received: 11/15/07
	Client P.O.:	Date Reported: 11/21/07
		Date Completed: 11/28/07

Work Order: 0711401

November 28, 2007

RE: MTBE Reporting Limit for Lab ID# 0711401-024A.

MTBE reporting limit was raised due to a coelution of sample peak with MTBE peak.



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Environ 6001 Shellmound Street, Ste. 700 Emeryville, CA 94608	Client Project ID: #03-18392A; 5515 Doyle Street Soil & Groundwater I	Date Sampled: 11/14/07
	Client Contact: Ross Russell	Date Received: 11/15/07
	Client P.O.:	Date Extracted: 11/15/07-11/20/07
		Date Analyzed: 11/16/07-11/20/07

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0711401

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	SG1-10	S	ND	ND	ND	ND	ND	ND	1	89
002A	SG7-10	S	ND	ND	ND	ND	ND	ND	1	87
003A	SG1-19.5	S	ND	ND	ND	ND	ND	ND	1	89
004A	SG6-10	S	1300,g,m	ND<10	ND<1.0	1.1	ND<1.0	1.5	200	---#
005A	SG6-19.5	S	ND	ND	ND	ND	ND	ND	1	90
006A	SG5-3	S	ND	ND	ND	ND	ND	ND	1	91
007A	SG5-6	S	ND	ND	ND	ND	ND	ND	1	89
008A	SG5-9	S	370,g,m	ND<2.5	ND<0.25	0.41	2.9	0.64	50	126
009A	SG5-11.5	S	ND	ND	ND	ND	ND	ND	1	98
010A	SG5-23.5	S	ND	ND	ND	ND	ND	ND	1	90
011A	SG3-9	S	440,g,m	ND<1.7	ND<0.17	ND<0.17	ND<0.17	0.68	33	107
012A	SG3-12	S	15,g	ND<0.10	ND<0.010	ND<0.010	ND<0.010	ND<0.010	2	76
013A	SG3-19.5	S	ND	ND	ND	ND	ND	ND	1	87
014A	SG4-9	S	1300,g,m	ND<10	ND<1.0	ND<1.0	14	9.2	200	---#
015A	SG4-12.5	S	ND	ND	ND	ND	ND	ND	1	84
016A	SG8-12.5	S	ND	ND	ND	ND	ND	ND	1	75

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	1	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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



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	Client Contact: Ross Russell	Date Received: 11/15/07
	Client P.O.:	Date Extracted: 11/15/07-11/20/07
		Date Analyzed: 11/16/07-11/20/07

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0711401

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
017A	SG4-19.5	S	ND	ND	ND	ND	ND	ND	1	81
018A	SG2-11.5	S	4.3,g	ND	ND	ND	0.0075	0.024	1	78
019A	SG2-19.5	S	ND	ND	ND	ND	ND	ND	1	83
020A	TRIP BLANK-S	W	ND	ND	ND	ND	ND	ND	1	101
021A	SGW-1	W	ND	ND	ND	ND	ND	ND	1	102
022A	SGW-7	W	ND	ND	ND	ND	ND	ND	1	91
023A	SGW-5	W	390,b,m	ND	0.97	1.3	21	2.4	1	106
024A	SGW-3	W	180,b,m	ND<25,p	0.86	ND	ND	ND	1	117
025A	SGW-2	W	280,b,m	ND	ND	0.75	12	20	1	113
026A	SGW-6	W	240,a	ND	2.0	0.69	12	1.2	1	103
027A	SGW-4	W	830,a	ND	24	1.3	48	14	1	113
028A	EB-1	W	ND	ND	ND	ND	ND	ND	1	100
029A	TRIP BLANK-W	W	ND	ND	ND	ND	ND	ND	1	94

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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



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Environ 6001 Shellmound Street, Ste. 700 Emeryville, CA 94608	Client Project ID: #03-18392A; 5515 Doyle Street Soil & Groundwater I	Date Sampled: 11/14/07
	Client Contact: Ross Russell	Date Received: 11/15/07
	Client P.O.:	Date Analyzed: 11/16/07-11/20/07
		Date Extracted: 11/15/07

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method SW3510C/SW3550C

Analytical methods SW8015C

Work Order: 0711401

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0711401-001A	SG1-10	S	ND	1	108
0711401-002A	SG7-10	S	ND	1	108
0711401-003A	SG1-19.5	S	ND	1	99
0711401-004A	SG6-10	S	180,d,b	1	98
0711401-005A	SG6-19.5	S	ND	1	106
0711401-006A	SG5-3	S	ND	1	108
0711401-007A	SG5-6	S	ND	1	108
0711401-008A	SG5-9	S	190,d,b	1	101
0711401-009A	SG5-11.5	S	ND	1	108
0711401-010A	SG5-23.5	S	ND	1	108
0711401-011A	SG3-9	S	110,n,b,g	1	114
0711401-012A	SG3-12	S	29,n,k,g	1	100
0711401-013A	SG3-19.5	S	ND	1	98
0711401-014A	SG4-9	S	320,d,b	1	100
0711401-015A	SG4-12.5	S	ND	1	99
0711401-016A	SG8-12.5	S	ND	1	100

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

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

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

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



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Environ 6001 Shellmound Street, Ste. 700 Emeryville, CA 94608	Client Project ID: #03-18392A; 5515 Doyle Street Soil & Groundwater I	Date Sampled: 11/14/07
	Client Contact: Ross Russell	Date Received: 11/15/07
	Client P.O.:	Date Analyzed: 11/16/07-11/20/07
		Date Extracted: 11/15/07

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method SW3510C/SW3550C

Analytical methods SW8015C

Work Order: 0711401

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0711401-017A	SG4-19.5	S	ND	1	98
0711401-018A	SG2-11.5	S	2.8,g,n	1	99
0711401-019A	SG2-19.5	S	ND	1	98
0711401-021B	SGW-1	W	ND	1	100
0711401-022B	SGW-7	W	ND	1	98
0711401-023B	SGW-5	W	260,d,b	1	100
0711401-024B	SGW-3	W	180,d,b	1	99
0711401-025B	SGW-2	W	94,d,b,f	1	100
0711401-026B	SGW-6	W	130,d	1	99
0711401-027B	SGW-4	W	730,d,b	1	102
0711401-028B	EB-1	W	ND	1	100

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

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

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

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



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0711401

EPA Method SW8021B/8015Cm	Extraction SW5030B			BatchID: 31938					Spiked Sample ID: 0711401-003A				
	Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
		mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	0.60	94.5	103	8.35	80.3	83.6	4.14	70 - 130	30	70 - 130	30	
MTBE	ND	0.10	77	76	1.33	82.9	82.1	0.978	70 - 130	30	70 - 130	30	
Benzene	ND	0.10	75.2	83.5	10.5	86.2	85	1.39	70 - 130	30	70 - 130	30	
Toluene	ND	0.10	74.5	82.9	9.95	84.6	83.6	1.16	70 - 130	30	70 - 130	30	
Ethylbenzene	ND	0.10	90.3	101	10.7	89.6	89.4	0.271	70 - 130	30	70 - 130	30	
Xylenes	ND	0.30	87.3	96.7	10.1	100	100	0	70 - 130	30	70 - 130	30	
%SS:	89	0.10	81	89	9.21	98	89	9.34	70 - 130	30	70 - 130	30	

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

BATCH 31938 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0711401-001A	11/14/07 8:40 AM	11/15/07	11/16/07 5:01 AM	0711401-002A	11/14/07 8:45 AM	11/15/07	11/16/07 5:31 AM
0711401-003A	11/14/07 9:20 AM	11/15/07	11/16/07 6:32 AM	0711401-004A	11/14/07 9:55 AM	11/15/07	11/16/07 4:30 AM
0711401-005A	11/14/07 10:40 AM	11/15/07	11/16/07 7:03 AM	0711401-006A	11/14/07 10:55 AM	11/15/07	11/16/07 7:33 AM
0711401-007A	11/14/07 11:00 AM	11/15/07	11/16/07 8:04 AM	0711401-008A	11/14/07 11:30 AM	11/15/07	11/16/07 6:02 AM
0711401-009A	11/14/07 11:35 AM	11/15/07	11/17/07 1:20 AM	0711401-010A	11/14/07 12:05 PM	11/15/07	11/16/07 9:05 AM
0711401-011A	11/14/07 12:35 PM	11/15/07	11/19/07 8:47 PM	0711401-012A	11/14/07 12:46 PM	11/15/07	11/20/07 12:23 AM
0711401-013A	11/14/07 1:00 PM	11/15/07	11/16/07 10:47 PM	0711401-014A	11/14/07 1:30 PM	11/15/07	11/16/07 11:18 PM
0711401-015A	11/14/07 1:40 PM	11/15/07	11/17/07 12:19 AM	0711401-016A	11/14/07 1:45 PM	11/15/07	11/16/07 4:16 PM
0711401-017A	11/14/07 2:00 PM	11/15/07	11/16/07 4:50 PM	0711401-018A	11/14/07 2:15 PM	11/15/07	11/16/07 5:58 PM
0711401-019A	11/14/07 2:30 PM	11/15/07	11/16/07 6:31 PM				

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0711401

EPA Method SW8021B/8015Cm	Extraction SW5030B			BatchID: 31931			Spiked Sample ID: 0711401-023A						
	Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
		µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	42	60	70.9	75.8	3.43	95.8	95.8	0	70 - 130	30	70 - 130	30	
MTBE	ND	10	90.8	91.9	1.22	86.9	81.7	6.12	70 - 130	30	70 - 130	30	
Benzene	0.97	10	114	98	13.6	85.7	84.3	1.57	70 - 130	30	70 - 130	30	
Toluene	1.3	10	95.9	92.5	3.14	85.5	83.3	2.65	70 - 130	30	70 - 130	30	
Ethylbenzene	21	10	NR	136, F1	NR	89.3	87.3	2.28	70 - 130	30	70 - 130	30	
Xylenes	2.4	30	95.2	91.9	3.28	100	95.7	4.43	70 - 130	30	70 - 130	30	
%SS:	106	10	112	107	5.12	92	96	3.58	70 - 130	30	70 - 130	30	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

F1 = MS / MSD outside of acceptance criteria. LCS - LCSD validate prep batch.

BATCH 31931 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0711401-020A	11/14/07	11/16/07	11/16/07 8:24 PM	0711401-021A	11/14/07 2:10 PM	11/16/07	11/16/07 8:54 PM
0711401-022A	11/14/07 2:40 PM	11/17/07	11/17/07 2:29 AM	0711401-023A	11/14/07 2:20 PM	11/17/07	11/17/07 2:59 AM
0711401-024A	11/14/07 3:20 PM	11/17/07	11/17/07 3:30 AM	0711401-025A	11/14/07 3:30 PM	11/17/07	11/17/07 4:00 AM
0711401-026A	11/14/07 3:45 PM	11/19/07	11/19/07 6:18 PM	0711401-027A	11/14/07 4:20 PM	11/19/07	11/19/07 7:19 PM
0711401-028A	11/14/07 4:15 PM	11/17/07	11/17/07 5:32 AM	0711401-029A	11/14/07	11/17/07	11/17/07 10:33 AM

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.



QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0711401

EPA Method: SW8015C		Extraction: SW3550C			BatchID: 31939			Spiked Sample ID: 0711401-003A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	ND	20	94.3	89	5.77	87	88.8	2.08	70 - 130	30	70 - 130	30
%SS:	99	50	97	98	1.16	101	100	1.04	70 - 130	30	70 - 130	30

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

BATCH 31939 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0711401-001A	11/14/07 8:40 AM	11/15/07	11/16/07 7:05 PM	0711401-002A	11/14/07 8:45 AM	11/15/07	11/16/07 8:13 PM
0711401-003A	11/14/07 9:20 AM	11/15/07	11/16/07 4:37 PM	0711401-004A	11/14/07 9:55 AM	11/15/07	11/16/07 9:21 PM
0711401-005A	11/14/07 10:40 AM	11/15/07	11/16/07 10:30 PM	0711401-006A	11/14/07 10:55 AM	11/15/07	11/16/07 11:38 PM
0711401-007A	11/14/07 11:00 AM	11/15/07	11/17/07 1:55 AM	0711401-008A	11/14/07 11:30 AM	11/15/07	11/17/07 3:03 AM
0711401-009A	11/14/07 11:35 AM	11/15/07	11/17/07 4:11 AM	0711401-010A	11/14/07 12:05 PM	11/15/07	11/17/07 5:20 AM
0711401-011A	11/14/07 12:35 PM	11/15/07	11/17/07 11:35 AM	0711401-012A	11/14/07 12:46 PM	11/15/07	11/17/07 7:08 AM
0711401-013A	11/14/07 1:00 PM	11/15/07	11/17/07 8:15 AM	0711401-014A	11/14/07 1:30 PM	11/15/07	11/17/07 10:29 AM
0711401-015A	11/14/07 1:40 PM	11/15/07	11/17/07 11:35 AM	0711401-016A	11/14/07 1:45 PM	11/15/07	11/17/07 12:42 PM
0711401-017A	11/14/07 2:00 PM	11/15/07	11/17/07 2:56 PM	0711401-018A	11/14/07 2:15 PM	11/15/07	11/17/07 1:49 PM
0711401-019A	11/14/07 2:30 PM	11/15/07	11/17/07 1:49 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0711401

EPA Method: SW8015C		Extraction: SW3510C			BatchID: 31912			Spiked Sample ID: 0711401-023B				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	260	1000	89.9	89.8	0.0255	114	115	0.646	70 - 130	30	70 - 130	30
%SS:	100	2500	95	95	0	103	103	0	70 - 130	30	70 - 130	30

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

BATCH 31912 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0711401-021B	11/14/07 2:10 PM	11/15/07	11/17/07 12:28 AM	0711401-022B	11/14/07 2:40 PM	11/15/07	11/17/07 1:35 AM
0711401-023B	11/14/07 2:20 PM	11/15/07	11/17/07 2:41 AM	0711401-024B	11/14/07 3:20 PM	11/15/07	11/17/07 3:48 AM
0711401-025B	11/14/07 3:30 PM	11/15/07	11/20/07 6:10 AM	0711401-026B	11/14/07 3:45 PM	11/15/07	11/17/07 8:15 AM
0711401-027B	11/14/07 4:20 PM	11/15/07	11/17/07 9:22 AM	0711401-028B	11/14/07 4:15 PM	11/15/07	11/19/07 11:10 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.