RO337

May 25, 2005
Work Plan 0304.W2
RGA Job # CLR11939

ENVIRONMENTAL INC.

Mr. Barney Chan
Alameda County Environmental Health Services
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

SUBJECT: SUBSURFACE INVESTIGATION WORK PLAN (B4 to B9)
Fuel Leak Case RO0000337
California Linen Rental Company
989 41st Street
Oakland, CA

Dear Mr. Chan:

RGA Environmental, Inc. (RGA) is pleased to present this work plan for the drilling of six boreholes at the subject site, designated as B4 through B9. This work plan is prepared in accordance with a letter from the Alameda County Environmental Health Services (ACEHS) dated April 22, 2005. As requested in the ACEHS letter, the background section of this work plan also contains a brief discussion of the quality control for the soil vapor samples reported in RGA's Subsurface Investigation and Preferential Pathway Evaluation Report dated February 22, 2005 and includes a description of groundwater monitoring and sampling for well MW1 conducted on May 17, 2005. A Site Location Map (Figure 1) and Site Vicinity Map (Figure 2) are attached with this report.

The objective of the six boreholes proposed in this work plan is to define the extent of petroleum hydrocarbons in soil and groundwater in the vicinity of the former Underground Storage Tank (UST) located beneath the loading dock. Following identification of the extent of petroleum hydrocarbons, RGA will recommend collection of soil vapor samples from above the groundwater plume to evaluate risk associated with the plume.

BACKGROUND

The site is currently used as a linen rental facility. Review of available documents for the site shows that on February 6 through 8, 1989, three USTs were removed from the site by Miller Environmental Company (MEC). The tanks consisted of one 10,000 gallon tank containing gasoline, one 550 gallon tank containing gasoline, and one 2,500 gallon capacity tank containing #5 fuel oil. Each tank was in a separate pit. Petroleum hydrocarbons were detected in each of the pits at the time of tank removal. Figure 2 shows the tank locations at the site. A UST Unauthorized Release Site Report was completed by Mr. Gil Wistar of the ACEHS dated February 9, 1989. In a letter dated February 23, 1989 the ACEHS requested a preliminary assessment of the site. In a letter dated July 7, 1989 the ACEHS approved a revised work plan for subsurface investigation at the site that included installation of three groundwater monitoring wells.

Three monitoring wells, designated as MW1, MW2, and MW3 were installed at the site by MEC on September 25, 1989. One well was installed adjacent to each of the tank pits. Soil samples were collected for laboratory analysis from the boreholes for the monitoring wells at depths of 4 and 8 feet below the ground surface. The samples were analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH-G), Total Petroleum Hydrocarbons as Diesel (TPH-D), Total Petroleum Hydrocarbons as Motor Oil (TPH-MO) and for benzene, toluene, ethylbenzene, and xylenes (BTEX). All target analytes were detected in the soil sample from the borehole for MW1 at a depth of 4 feet below the ground surface. None of the analytes were detected in the other soil samples from the monitoring well boreholes, except for 190 ppm oil in the sample from MW2 collected at a depth of 4 feet.

On October 2, 1989, the three monitoring wells at the subject site were sampled by MEC personnel, and analyzed for the same compounds as the borehole soil samples. All analytes except oil were detected in the groundwater sample from MW1. None of the analytes were detected in the groundwater samples from the other two monitoring wells. Groundwater was encountered in the wells at depths ranging from 7.00 to 9.25 feet, and the groundwater flow direction at the site was calculated to be to the north-northwest. Documentation of the installation of the three monitoring wells, and soil and groundwater sample results from the well installation and subsequent well sampling is presented in MEC's Preliminary Subsurface Investigation Report dated November 3, 1989. Due to earthquake-related issues, the Regional Water Quality Control Board (RWQCB) was unavailable to comment on the report.

Following five quarterly monitoring and sampling events for the three wells, MEC recommended that well MW3 be destroyed. MEC concluded that petroleum hydrocarbons had not been detected in wells MW2 and MW3, and had only been detected in well MW1. MEC identified the petroleum hydrocarbons in well MW1 as gasoline, and stated that MW1 is downgradient of a former gasoline tank. MEC also stated that the groundwater flow direction was consistently to the north-northwest at the site, and that the three wells were located downgradient from each of the tank pits. MEC stated that well MW2 is downgradient of well MW1 and would effectively detect any migration of petroleum hydrocarbons from the vicinity of well MW1. MEC stated that the location of the former 550 gallon UST that is upgradient of well MW1 is inaccessible because the location is now located beneath a building. Documentation of the quarterly monitoring and sampling results and associated recommendations is presented in a letter report from MEC dated March 7, 1991.

In a letter dated April 15, 1991 the ACEHS approved destruction of well MW3, and required continuation of the quarterly monitoring and sampling of wells MW1 and MW2. The letter stated that the caseworker was unable to witness the removal of the 550-gallon gasoline tank, and therefore did not see the extent of soil contamination associated with the tank pit. The letter continued by stating that it is possible that residual soil contamination is acting as an ongoing source of groundwater degradation.

On July 19, 1991, well MW3 was destroyed by overdrilling. Quarterly reports documenting monitoring and sampling of the two wells were subsequently prepared by MEC.

In a November 6, 1992 letter report, MEC presented the results for quarterly monitoring and sampling through October 17, 1992. The results show that no petroleum hydrocarbons were detected in well MW2 with the exception of 0.05 mg/L TPH-D on August 15, 1991 and 1.1 ug/L toluene and 3.3 ug/L xylenes on March 18, 1992. In well MW1, TPH and BTEX concentrations appear relatively unchanged with the exception of the March 18 and October 17, 1992 sampling events, which showed increased in benzene and toluene concentrations.

Sample results for samples collected on June 10, 1993 by the Grow Group as part of a cooperative monitoring event for investigation of nearby sites showed no detectable concentrations of EPA Method 8240 compounds in well MW2, and BTEX concentrations in MW1 consistent with concentrations encountered in well MW1 prior to the March 18 and October 17, 1992 sampling events. Review of 1998 correspondence suggests that additional cooperative sampling of the wells was performed, however the sample results were not available for review.

In accordance with a letter from ACEHS dated January 2, 2003, RGA prepared an On- and Off-Site Utilities Investigation and Off-Site Groundwater Investigation Work Plan (0304.W1) dated May 1, 2003, and a Work Plan Addendum (0304.L3) dated June 9, 2003. Following ACEHS approval of the work plan and addendum, three boreholes were drilled and three soil vapor wells were installed on July 20, 2004. Groundwater samples were collected from boreholes B1 through B3 on July 21, 2004, and soil vapor samples were collected from boreholes SG1 through SG3 on July 23, 2004.

Evaluation of the groundwater grab sample results from B1 through B3 shows that petroleum hydrocarbons were not detected in B1 and B2 with the exception of 0.081 mg/L TPH-D in B1 and toluene and xylenes in B2 at concentrations of 0.00056 and 0.0006 mg/L, respectively. Comparison of the concentrations of detected petroleum hydrocarbons from all three of the boreholes with their respective Environmental Screening Levels (ESLs) developed by the San Francisco Bay Regional Water Quality Control Board (SF-RWQCB) shows that all of the detected constituents are below their respective ESL values with the exception of TPH-G and xylenes in sample B3.

Review of the soil vapor sample results shows that petroleum hydrocarbons were detected in the three soil vapor boreholes, but ESLs were only exceeded in sample SG1 for TPH-G and benzene. The distribution of petroleum hydrocarbons in soil vapor samples from SG1 through SG3 is consistent with the groundwater sample results from well MW1 and boreholes B1 through B3, and with a southwesterly groundwater flow direction. Based on discussions with Mr. Roger Brewer of the SF-RWQCB, February 2005 amendments to the soil vapor ESL guidance procedures recommended that additional soil vapor sample collection should be performed to verify that the initial sample results are accurate and representative of the risk posed. The guidance document also required that soil gas samples be collected from directly above the center of the plume in addition to in nearby areas of concern. Groundwater and soil vapor sample results, and a discussion of the probable southwesterly groundwater flow direction at the subject

site are provided in RGA's Subsurface Investigation and Preferential Pathway Evaluation Report dated February 22, 2005. At this time, the extent and center of the groundwater plume have not yet been defined.

Quality Control for Soil Vapor Results

At the request of the ACEHS, a discussion of the quality control results for soil vapor sample collection documented in RGA's Subsurface Investigation and Preferential Pathway Evaluation Report dated February 22, 2005 is provided as follows. After completion of the soil vapor well purging, an isopropyl alcohol-soaked paper towel was placed around the tubing at the ground surface where the tubing entered the bentonite annular material, and a separate isopropyl alcohol-soaked paper towel was placed underneath the tee valve in the tubing system. The intent of this application was to use isopropoyl alcohol as a tracer gas to detect leaks in the system during sample collection. The sample analysis procedure recommended by the laboratory for the soil vapor samples cannot provide isopropyl alcohol results, however, and therefore no quantification is possible for the tracer gas. As a result, the concentrations detected in the soil vapor samples from SG1 through SG3 could be either diluted with clean ambient air, or contaminated with ambient air that may have contained gasoline constituents. or not altered at all if no leaks exist.

Sampling of Well MW1

As requested in a letter from ACEHS dated April 22, 2005, RGA personnel monitored wells MW1 and MW2, and then purged and sampled well MW1 on May 17, 2005. The groundwater monitoring wells were monitored for depth to water and the presence of free product or sheen. Depth to water was measured to the nearest 0.01 foot using an electric water level indicator. The presence of free product or sheen was evaluated using a transparent bailer.

Free product was not observed in either of the wells. No sheen was observed on water from either of the wells. Depth to water level measurements and calculated groundwater surface elevations are presented in Table 1.

Prior to sampling well MW1, the well was purged of a minimum of three casing volumes of water. During purging operations, the field parameters of electrical conductivity, temperature, and pH were monitored. Once a minimum of three casing volumes had been purged, or the well had been pumped dry, water samples were collected using a clean Teflon bailer. The water samples were transferred to 40-milliliter glass Volatile Organic Analysis (VOA) vials containing hydrochloric acid preservative and to one-liter amber glass bottles which were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to assure that no air bubbles were present.

The sample containers were then transferred to a cooler with ice and transported to McCampbell Analytical, Inc. in Pacheco, California. McCampbell Analytical, Inc. is a State-Certified hazardous waste testing laboratory. Chain of custody documentation accompanied the samples to the laboratory. Records of the field parameters measured during well purging are attached with this report.

The measured depth to water in the groundwater monitoring wells on May 17, 2005 was 6.91 feet in MW1 and 8.61 feet in MW2. The measured depth to water is consistent with water levels historically measured in these wells, as reported in the MEC November 6, 1992 letter report documenting historical monitoring and sampling results. It is not possible to calculate groundwater flow direction with only two wells. In addition, as listed above, a discussion of the probable southwesterly groundwater flow direction at the subject site is included in RGA's Subsurface Investigation and Preferential Pathway Evaluation Report dated February 22, 2005.

The groundwater sample collected from groundwater monitoring well MW1 was analyzed for TPH-G, BTEX, and Methyl Tert-Butyl Ether (MTBE) by EPA Method 8021B. The laboratory analytical results for the groundwater sample from well MW1 show that TPH-G and BTEX were detected, and MTBE was not detected. Comparison of the laboratory results for the groundwater sample collected from well MW1 on May 17, 2005 to the previous sampling event on April 2, 2003 shows that the concentrations of all target compounds have decreased, except for MTBE which remained not detected. The laboratory analytical results are summarized in Table 2. Copies of the laboratory analytical report and chain of custody documentation are attached with this report.

SCOPE OF WORK

In response to the April 22, 2005 ACEHS letter requesting additional investigation to define the extent of soil and groundwater contamination in the vicinity of a former 550 gallon gasoline tank at the subject site, RGA will perform the following tasks.

- Obtain permits.
- Prepare a health and safety plan.
- Drill three boreholes in the sidewalk to the west of the site building.
- Drill three boreholes in the building interior.
- Arrange for all samples to be analyzed for TPH-G, BTEX, and MTBE.
- Prepare a report.

Each of these is discussed below.

Obtain Permits

Permits will be obtained for the installation of the soil borings and for access to the public right-of-way.

Health and Safety Plan Preparation

A health and safety plan, and if required pedestrian access plan and traffic plans, will be prepared for the scope of work identified in this work plan.

Soil Boring Oversight and Sample Collection

The soil borings will be completed in two phases. In the first phase a total of three boreholes designated as B4 through B6 will be drilled to characterize subsurface conditions beneath the sidewalk along Linden Street adjacent to the building at the subject site. Following receipt of results for B4 through B6 a second phase of three boreholes designated as B7 through B9 will be drilled to characterize subsurface conditions beneath the building in the vicinity of the former 550 gallon gasoline tank at the subject site. The proposed locations of the soil borings are shown on the attached Site Vicinity Map, Figure 2.

In both phases, boreholes will be drilled to two feet below first encountered groundwater, or to 28 feet if no groundwater is encountered during drilling. During drilling activities in July 2004, groundwater was not initially encountered in any of the boreholes drilled to 28 feet, but was measured by RGA the following day at depths ranging from 16.6 to 12.3 feet below the ground surface.

Each borehole will be drilled using GeoProbe technology. All boreholes will be continuously cored for borehole logging purposes. The soil from all of the borings will be logged in the field in accordance with standard geologic field techniques and the Unified Soil Classification System. All soil samples from the boreholes will be evaluated with a Photoionization Detector (PID). The PID will be calibrated using a 100 ppm isobutylene gas standard prior to use.

Soil samples from depths of 5, 10, and 20 feet below the ground surface in each borehole will be retained for laboratory analysis in the following manner. A six-inch long soil sample from the continuous core will be retained in the cellulose acetate tube by cutting the core barrel sample liner at the depth corresponding to the desired sample interval. The ends of the selected portion of tube will be sequentially covered with aluminum foil and plastic endcaps, and the tube will then be labeled and stored in a cooler with ice pending delivery to the laboratory.

One groundwater grab sample will be collected from each borehole. The groundwater grab sample will be collected using polyethylene tubing with a stainless steel foot valve placed into a ¾-inch diameter slotted PVC pipe. The samples will be collected into 40-milliliter VOAs and stored in a cooler with ice pending delivery to the laboratory. Chain of custody procedures will be observed for all sample handling.

All drilling and sampling equipment will be cleaned with an Alconox solution followed by a clean water rinse prior to use in each borehole. Following completion of sample collection activities, the boreholes will be filled with neat cement grout. Any soil or water generated during drilling will be stored in drums at the site pending characterization and disposal.

Arrange for Sample Analysis

The soil and groundwater samples from the boreholes will be analyzed on a normal (five working day) turn around basis at a State-Approved hazardous waste testing laboratory. The samples will

be analyzed for Total Petroleum Hydrocarbons as Gasoline, as well as BTEX and MTBE using EPA Method 8021B.

Report Preparation

Upon receipt of the laboratory analytical results, a report will be prepared. The report will document soil and groundwater sample collection activities and sample results. The report will include a site vicinity map showing the drilling locations, tables summarizing the sample results, recommendations based on the sample results, and the stamp of an appropriately registered professional.

Should you have any questions or comments, please do not hesitate to contact us at (510) 547-7771.

Sincerely,

RGA Environmental

Wilhelm Welzenbach

Karin Schroeter
Project Manager

Paul H. King

Paul H. King
Professional Geologist #5901
Expires: 12/31/05

Attachments: Site Location Map (Figure 1)
Site Vicinity Map (Figure 2)
Field Parameter Forms
Laboratory Analytical Report
Chain of Custody Documentation

PHK/wrw/efo
0304.W2

May 25, 2005
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TABLE 1
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW1	05/17/05	53.89	6.91	46.98
	04/02/03		7.00	46.89
MW2	05/17/05	54.06	8.61	45.45
	04/02/03		9.09	44.97

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TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
GROUNDWATER MONITORING WELLS

Well No.	Date Sampled	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes	Fuel Oxygenates and Lead Scavengers
MW1	05/17/05	13	2.4	0.23	0.49	0.24	NA, except MTBE = ND<0.12
	04/02/05	24	4.0	1.6	2.0	1.4	ND<0.05, except TBA = ND<0.5
MW2	05/17/05	Not sampled.					
	04/02/05	ND<0.05	ND<0.0005	ND<0.0005	ND<0.0005	0.00074	ND<0.0005, except TBA = ND<0.005

Notes:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
MTBE = Methyl Tert-Butyl Ether.
ND = Not Detected.
NA = Not Analyzed.
Results in milligrams per Liter (mg/L), unless otherwise indicated.

FIGURE 1
SITE LOCATION MAP
California Linen Rental Company
989 41st Street
Oakland, California

N

Base Map From:
U.S. Geological Survey
Oakland - West, California
7.5 Minute Quadrangle
Photorevised 1980

RGA Environmental, Inc.
1466 66th Street
Emeryville, CA 94608

0 1,000 2,000
SCALE IN FEET

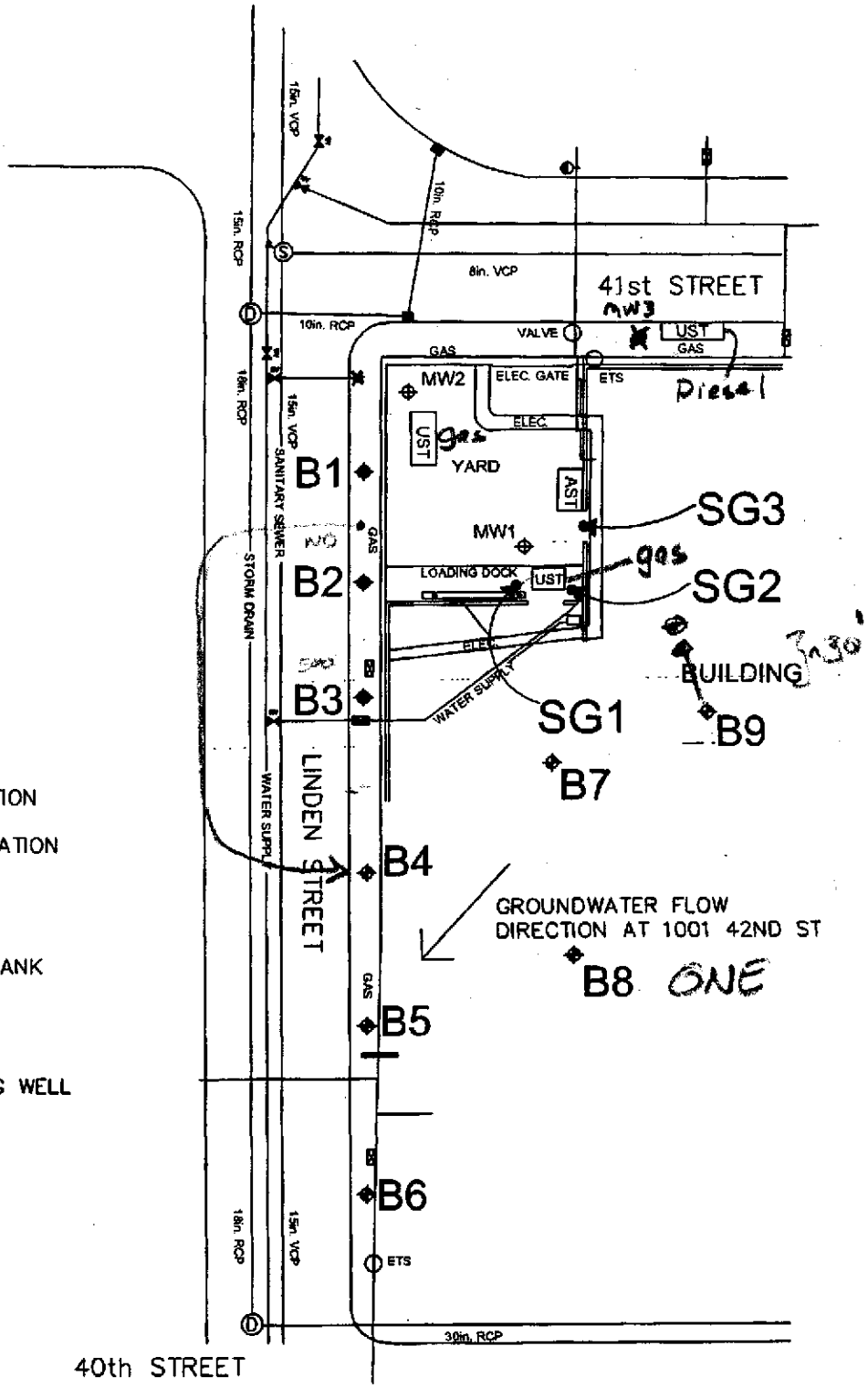

Figure 2
Site Vicinity Map
California Linen Rental Company
989 41st. Street
Oakland, California

N

Based Map From California Utility Survey Utility Sketch Plan Feb. 14, 2005	RGA Environmental, Inc. 1466 66th St. Emeryville, CA 94608	0 10 20 30 40 50 Scale in Feet

RGA ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name: California Linen, Oakland
Well No.: MW1
Job No.: CLR
Date: 5/17/05
TOC to Water (ft.): 6.91
Sheen: None
Well Depth (ft.): 22.3
Free Product Thickness: Ø
Well Diameter: 4in.
Sample Collection Method: Teflon bailer
Gal./Casing Vol.: 9.9
E = 29.7

TIME	GAL. PURGED	pH	TEMPERATURE (of)	ELECTRICAL CONDUCTIVITY (mS/cm)
3:22	5	7.70	64.1	6.34
3:35	10	7.52	63.3	4.22
3:38	15	7.39	63.2	4.14
3:31	20	7.33	63.5	4.15
3.35	25	7.44	64.4	4.86
3:38	30	7.48	65.1	4.91
3:40	32	7.53	66.2	5.55
3:41	33	7.58	66.7	5.75
3:42	34	7.57	66.9	5.82
3:50	Sampling time			

NOTES: Strong PHC odor (aged gasoline), but no sheen on purge water

PURGE07.00

RGA ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name ~~CLK~~ California Linen Oakland

Job No. CLK

Well No. ~~MW1~~

Date 5/17/05

TOC to Water (ft.) _____

Well Depth (ft.) _____

Well Diameter _____

Gal./Casing Vol. _____

Sheen _____

Free Product Thickness _____

Sample Collection Method _____

TIME	~~GAL. PURGED~~ Well #	~~pH~~ depth to water (ft.)	TEMPERATURE	ELECTRICAL CONDUCTIVITY
~~2:38~~	MW1	~~7.96~~ 6.96		
3:05	"	6.91		
3:12	"	6.91		
~~MW2~~				
2:34	MW2	8.51		
3:07		8.59		
3:15		8.61		

NOTES:

PURGE07.00

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

RGA Environmental	Client Project ID: #CLR 11939; California Linen, Oakland	Date Sampled: 05/17/05
1466 66th Street		Date Received: 05/18/05
Emeryville, CA 94608	Client Contact: Wilhelm Welzenbach	Date Extracted: 05/19/05
	Client P.O.:	Date Analyzed: 05/19/05

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0505273

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	%SS
001A	MW1	W	13,000,a	ND<120	2400	230	490	240	10	102
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	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

Angela Rydelius, Lab Manager

May 24 2005 10:37AM McCampbell Analytical In 1-925-798-1620 p.4

McCampbell Analytical, Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0505273

EPA Method: SW8021B/8015Cm **Extraction: SW5030B** **BatchID: 16274** **Spiked Sample ID: 0505264-007A**

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	LCS / LCSD
TPH(btex)£	ND	60	97.9	95.7	2.19	91	93.4	2.55	70 - 130	70 - 130
MTBE	ND	10	84.9	81.8	3.70	85.8	89.5	4.30	70 - 130	70 - 130
Benzene	ND	10	101	102	0.880	94.3	98.7	4.65	70 - 130	70 - 130
Toluene	ND	10	109	103	5.18	96	100	4.33	70 - 130	70 - 130
Ethylbenzene	ND	10	102	103	1.49	97.9	101	3.26	70 - 130	70 - 130
Xylenes	ND	30	90.3	91	0.735	86.3	90.3	4.53	70 - 130	70 - 130
%SS:	97	10	116	107	8.46	100	103	3.09	70 - 130	70 - 130

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

NONE

BATCH 16274 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0505273-001A	5/17/05	5/19/05	5/19/05 10:04 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.

N/A = not applicable or 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.

DHS Certification No. 1644

QA/QC Officer

May 24 2005 10:40AM McCampbell Analytical, In 1-925-798-1620 P.6

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0505273

EPA Method: SW8015C **Extraction: SW3510C** **BatchID: 16279** **Spiked Sample ID: N/A**

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	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	99.4	98.9	0.467	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	108	107	0.752	N/A	70 - 130

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

NONE

BATCH 16279 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0505273-001B	5/17/05	5/18/05	5/19/05 1:53 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.

DHS Certification No. 1644

QA/QC Officer

May 24 2005 10:40AM McCampbell Analytical, In 1-925-798-1620 p.7

May 24 2005 10:36AM McCampbell Analytical, In 1-925-798-1620 p.3

McCampbell Analytical, Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0505273 **ClientID: RGAE**

Report to:		Bill to:	Requested TAT: 5 days
Wilhelm Welzenbach	TEL: (510) 547-7771	Accounts Payable	
RGA Environmental	FAX: (510) 547-1983	RGA Environmental	
1466 66th Street	ProjectNo: #CLR 11939; California Linen, Oakland	1466 66th Street	*Date Received:* 05/18/2005
Emeryville, CA 94608	PO:	Emeryville, CA 94608	*Date Printed:* 05/18/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0505273-001	MW1	Water	5/17/05	☐	A	B													

Test Legend:

1 G-MBTEX_W	2 TPH(D)_W	3	4	5
6	7	8	9	10
11	12	13	14	15

Prepared by: Melissa Valles

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.

1466 66th Street
Emeryville, CA 94608
510-547-7771
510-547-1983 fax
www.rgaenv.com

0505273

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
CLR 11939	California Linen, Oakland

SAMPLED BY: (PRINTED AND SIGNATURE)
Wilhelm Welzenbach Wilhelm Welzenbach

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-D	TPH-G, MTBE & BTEX by 8021	PRESERVATIVE	REMARKS
MW1	5/17/05		water	SW corner of loading yard	7	X	X	ICE	Normal Turnaround

TEMP ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB
PRESERVATION ✓ HCl

APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB
HCl | HNO3 | H2SO4 | NaOH | OTHER

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Wilhelm Welzenbach	5/18/05		
RELINQUISHED BY: (SIGNATURE)	DATE 5/18/05	TIME 900	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)

TOTAL NO. OF SAMPLES (THIS SHIPMENT): 1
TOTAL NO. OF CONTAINERS (THIS SHIPMENT): 7

LABORATORY: McCampbell Analytical
LABORATORY CONTACT: Angela Rydelius
LABORATORY PHONE NUMBER: (925) 798-1620

SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO

REMARKS:

May 24 2005 10:36AM McCampbell Analytical, In 1-925-798-1620 P.2